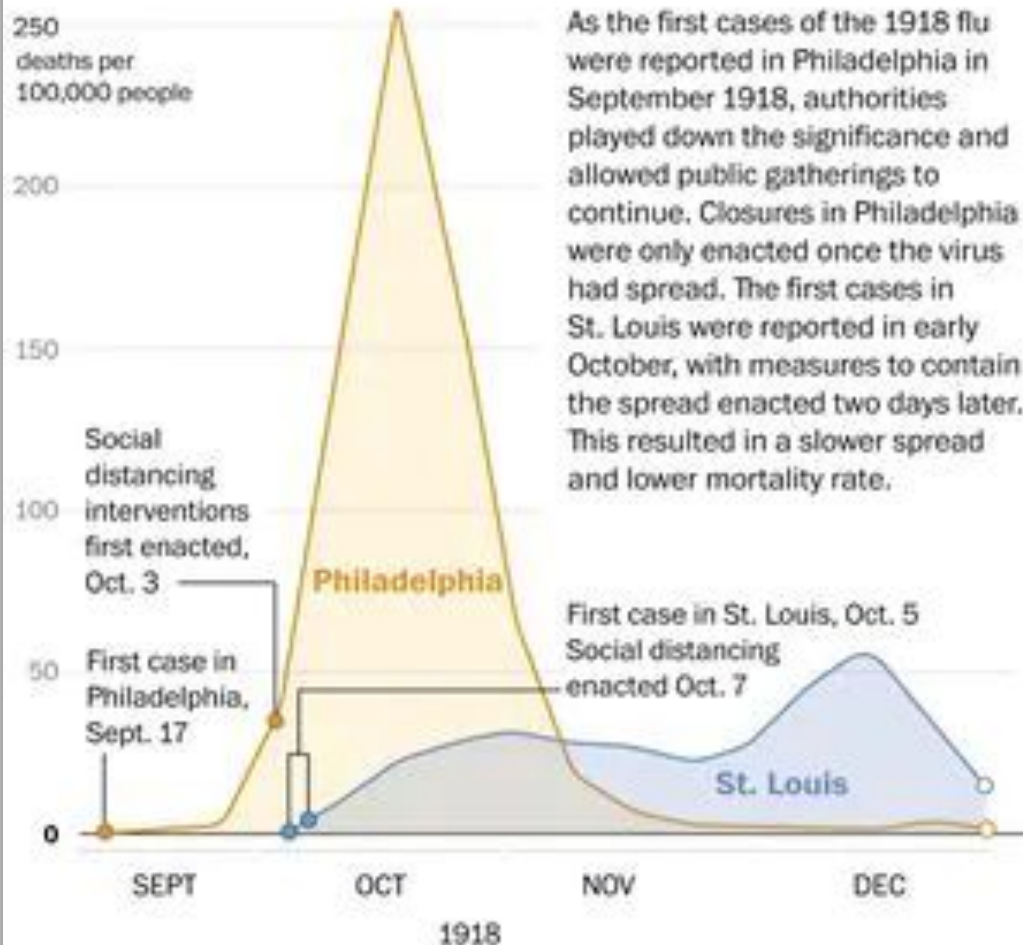




Strategic Planning in Uncertainty©

Alexander Garza MD, MPH
Chief Community Health Officer
SSM Health

Effects of social distancing on 1918 flu deaths



As the first cases of the 1918 flu were reported in Philadelphia in September 1918, authorities played down the significance and allowed public gatherings to continue. Closures in Philadelphia were only enacted once the virus had spread. The first cases in St. Louis were reported in early October, with measures to contain the spread enacted two days later. This resulted in a slower spread and lower mortality rate.

Sources: "Public health interventions and epidemic intensity during the 1918 influenza pandemic" by Richard J. Hatchett, Carter E. Mecher, Marc Lipsitch, Proceedings of the National Academy of Sciences May, 2007. Data derived from "Public health interventions and epidemic intensity during the 1918 influenza pandemic" by Richard J. Hatchett, Carter E. Mecher, Marc Lipsitch, Proceedings of the National Academy of Sciences May, 2007.

TIM MEKO/THE WASHINGTON POST

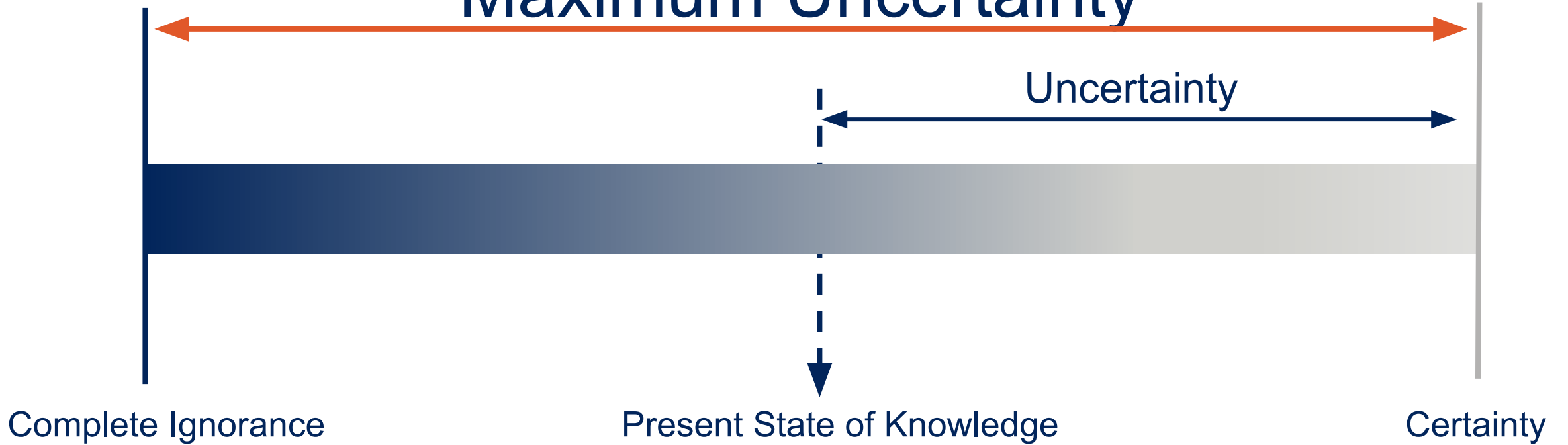
Uncertainty

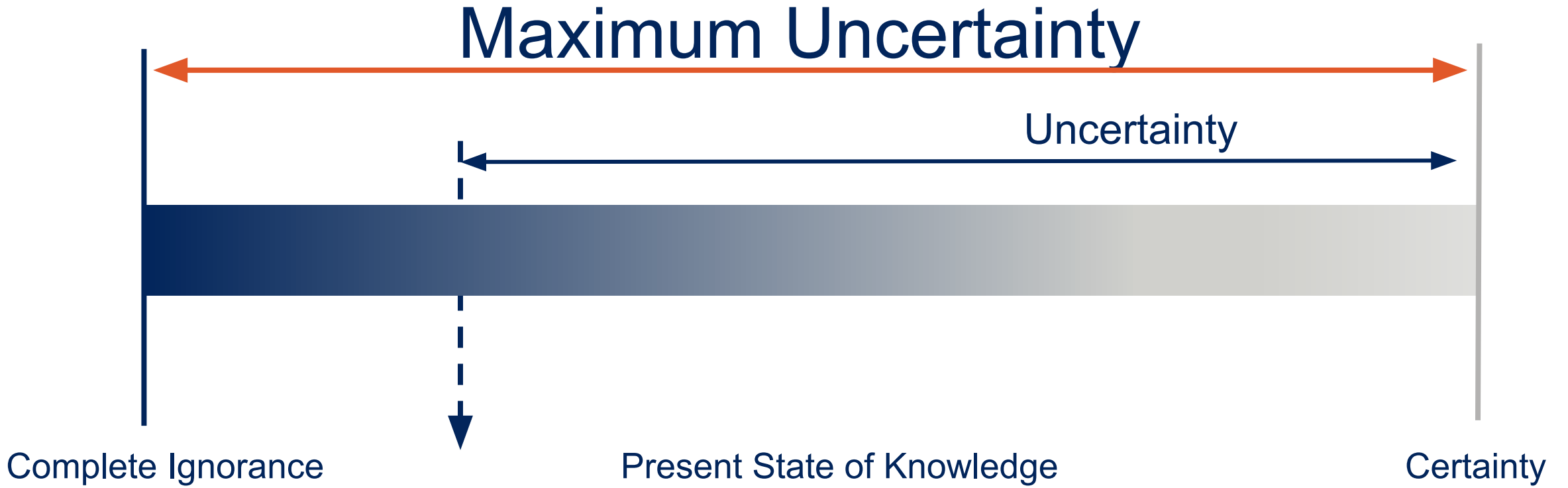
Not known beyond doubt

Not having certain knowledge

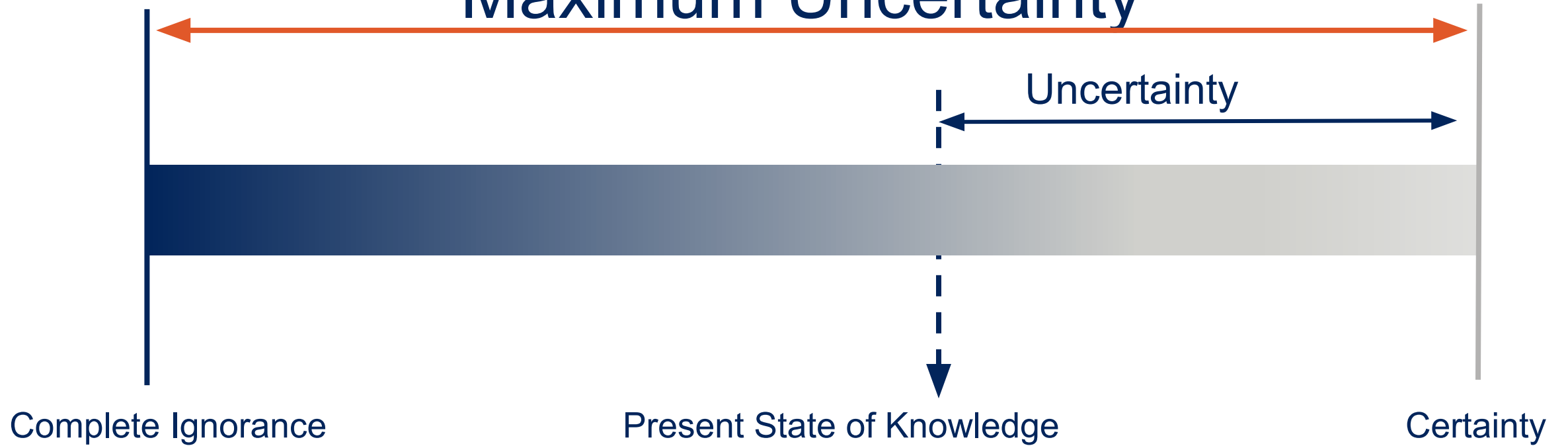
Not clearly identified or defined

Maximum Uncertainty





Maximum Uncertainty



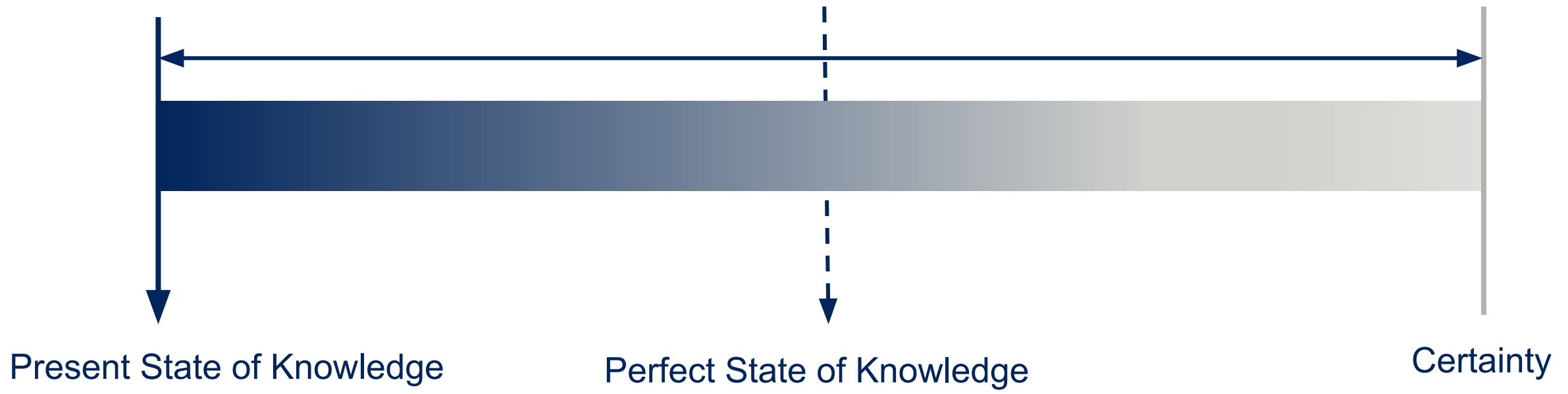
Uncertainty



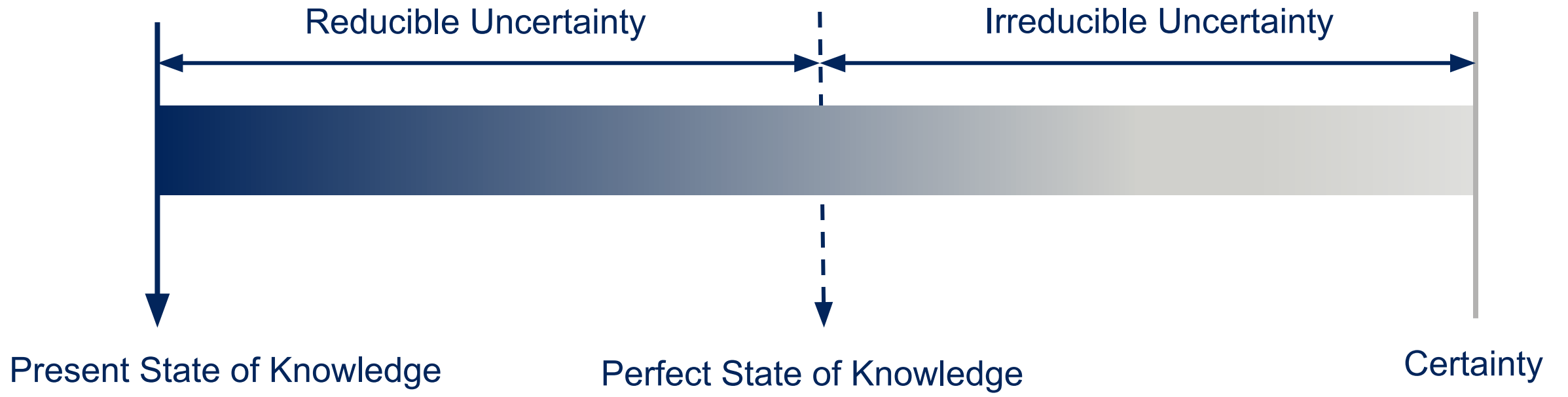
Present State of Knowledge

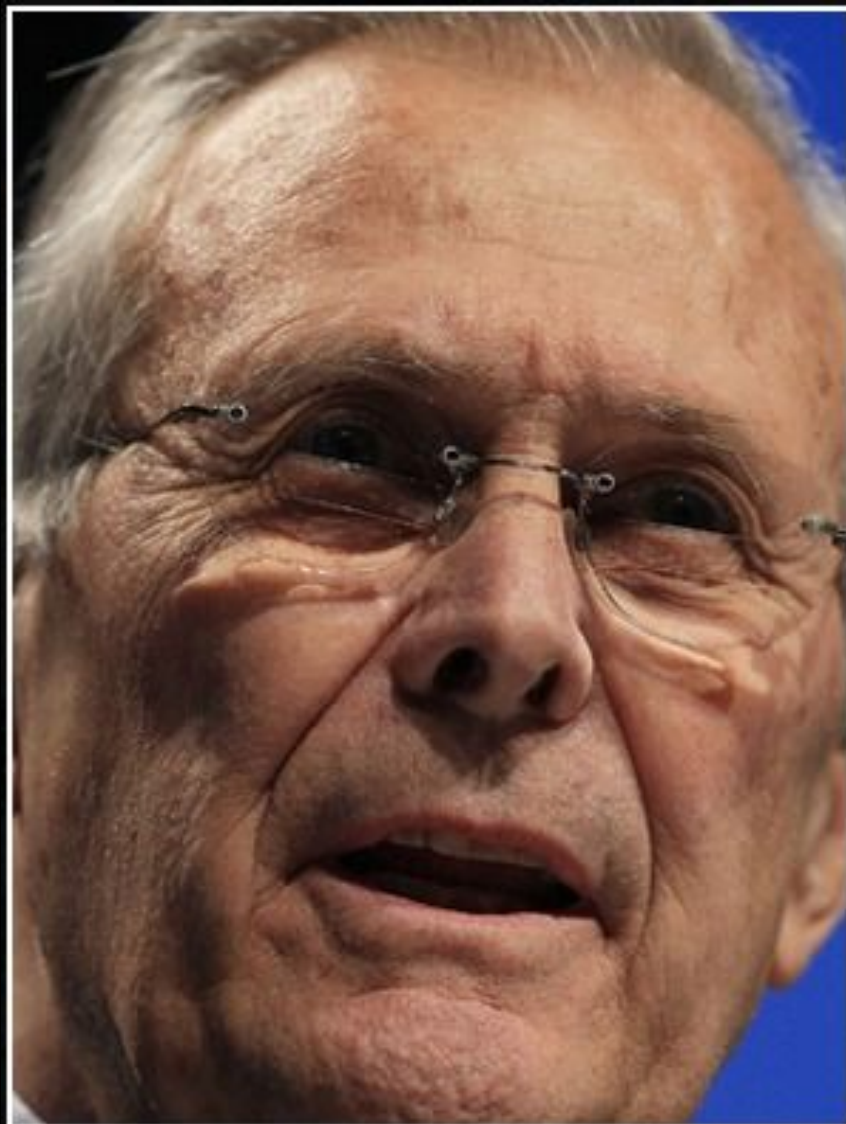
Certainty

Uncertainty



Uncertainty





There are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns - the ones we don't know we don't know.

— *Donald Rumsfeld* —

AZ QUOTES

December 2019



"All the News
That's Fit to Print"

The New York Times

Late Edition

Today, cloudy early, afternoon sunshine, high 49. Tonight, clearing, low 34. Tomorrow, clouds and sunshine, high 43. Tomorrow night, clear, low 32. Weather map is on Page A16.

VOL. CLXIX . . . No. 58,558

© 2019 The New York Times Company

NEW YORK, TUESDAY, DECEMBER 31, 2019

\$3.00



HUSSEIN FALEH/AGENCE FRANCE-PRESSE — GETTY IMAGES

Iraqis in Basra held a demonstration on Monday to denounce U.S. airstrikes on an Iranian-backed militia's base in Iraq on Sunday.

Suspect Wrote About Hitler and Nazis in Journal

By MICHAEL GOLD
and BENJAMIN WEISER

In his journal, prosecutors said,

**Charges of Hate Crimes
Filed After Stabbings**

Jewish population. The authorities have boosted police patrols in ultra-Orthodox neighborhoods and bolstered security at area synagogues and yeshivas.

Strikes by U.S. Renew Anger Among Iraqis

One consequence is that the federal government may collect hundreds of billions of dollars less over the coming decade than previously projected. The budget deficit has jumped more than 50 percent since Mr. Trump took of-

Business Got Big Tax Cut; Lobbyists Made It Bigger

**Campaign to Add Loopholes to the Law —
Deficit, Up 50%, Nears \$1 Trillion**

By JESSE DRUCKER and JIM TANKERSLEY

The overhaul of the federal tax law in 2017 was the signature legislative achievement of Donald J. Trump's presidency.

The biggest change to the tax code in three decades, the law slashed taxes for big companies, part of an effort to coax them to invest more in the United States and to discourage them from stashing profits in overseas tax havens.

Corporate executives, major investors and the wealthiest Americans hailed the tax cuts as a once-in-a-generation boon not only to their own fortunes but also to the United States economy.

But big companies wanted more — and, not long after the bill became law in December 2017, the Trump administration began transforming the tax package into a greater windfall for the world's largest corporations and their shareholders. The tax bills of many big companies have ended up even smaller than what was anticipated when the president signed the bill.

loses.

Starting in early 2018, senior officials in President Trump's Treasury Department were swarmed by lobbyists seeking to insulate companies from the few parts of the tax law that would have required them to pay more. The crush of meetings was so intense that some top Treasury officials had little time to do their jobs, according to two people familiar with the process.

The lobbyists targeted a pair of major new taxes that were supposed to raise hundreds of billions of dollars from companies that had been avoiding taxes in part by claiming their profits were earned outside the United States.

The blitz was led by a cross section of the world's largest companies, including Anheuser-Busch, Credit Suisse, General Electric, United Technologies, Barclays, Coca-Cola, Bank of America, UBS, IBM, Kraft Heinz, Kimberly-Clark, News Corporation, Chubb, ConocoPhillips, HSBC and the American International Group.

Thanks in part to the chaotic manner in which the bill was rushed through Congress — a situation that gave the Treasury Department extra latitude to interpret a law that was, by all ac-

HEALTHCARE & PHARMA DECEMBER 31, 2019 / 1:55 AM / UPDATED 2 YEARS AGO

Chinese officials investigate cause of pneumonia outbreak in Wuhan

By Reuters Staff

2 MIN READ



BEIJING (Reuters) - Chinese health authorities said they are investigating 27 cases of viral pneumonia in the central city of Wuhan, after rumors on social media suggested the outbreak could be linked to Severe Acute Respiratory Syndrome (SARS).

"All the News That's Fit to Print"

The New York Times

Late Edition

Today, cloudy early, afternoon sunshine, high 49. Tonight, clearing, low 34. Tomorrow, clouds and sunshine, high 43. Tomorrow night, clear, low 32. Weather map is on Page A16.

VOL. CLXIX ... No. 58,558

© 2019 The New York Times Company

NEW YORK, TUESDAY, DECEMBER 31, 2019

\$3.00



Iraqis in Basra held a demonstration on Monday to denounce U.S. airstrikes on an Iranian-backed militia's base in Iraq on Sunday.

HUSSEIN FALDI/AGENCE FRANCE PRESSE — GETTY IMAGES

Suspect Wrote About Hitler and Nazis in Journal

By MICHAEL GOLD and BENJAMIN WEISER
In his journal, prosecutors said,

Charges of Hate Crimes Filed After Stabbings

Jewish population. The authorities have boosted police patrols in ultra-Orthodox neighborhoods and bolstered security at area synagogues and yeshivas.

Strikes by U.S. Renew Anger Among Iraqis

Business Got Big Tax Cut; Lobbyists Made It Bigger

Campaign to Add Loopholes to the Law — Deficit, Up 50%, Nears \$1 Trillion

By JESSE DRUCKER and JIM TANKERSLEY

The overhaul of the federal tax law in 2017 was the signature legislative achievement of Donald J. Trump's presidency.

The biggest change to the tax code in three decades, the law slashed taxes for big companies, part of an effort to coax them to invest more in the United States and to discourage them from stashing profits in overseas tax havens.

Corporate executives, major investors and the wealthiest Americans hailed the tax cuts as a once-in-a-generation boon not only to their own fortunes but also to the United States economy.

But big companies wanted more — and, not long after the bill became law in December 2017, the Trump administration began transforming the tax package into a greater windfall for the world's largest corporations and their shareholders. The tax bills of many big companies have ended up even smaller than what was anticipated when the president signed the bill.

One consequence is that the federal government may collect hundreds of billions of dollars less over the coming decade than previously projected. The budget deficit has jumped more than 50 percent since Mr. Trump took office.

loses.

Starting in early 2018, senior officials in President Trump's Treasury Department were swarmed by lobbyists seeking to insulate companies from the few parts of the tax law that would have required them to pay more. The crush of meetings was so intense that some top Treasury officials had little time to do their jobs, according to two people familiar with the process.

The lobbyists targeted a pair of major new taxes that were supposed to raise hundreds of billions of dollars from companies that had been avoiding taxes in part by claiming their profits were earned outside the United States.

The blitz was led by a cross section of the world's largest companies, including Anheuser-Busch, Credit Suisse, General Electric, United Technologies, Barclays, Coca-Cola, Bank of America, UBS, IBM, Kraft Heinz, Kimberly-Clark, News Corporation, Chubb, ConocoPhillips, HSBC and the American International Group.

Thanks in part to the chaotic manner in which the bill was rushed through Congress — a situation that gave the Treasury Department extra latitude to interpret a law that was, by all ac-

- Twitter icon
- # Explore
- Settings icon

← Thread

 World Health Organization (WHO) @WHO

#China has reported to WHO a cluster of #pneumonia cases —with no deaths— in Wuhan, Hubei Province  . Investigations are underway to identify the cause of this illness.

12:13 PM · Jan 4, 2020 · Twitter for iPhone

640 Retweets 813 Quote Tweets 1,545 Likes

 World Health Organization (WHO) @WHO · Jan 4, 2020

Replying to @WHO

WHO is closely monitoring this event and will share more details as we have them.



World Business Markets Breakingviews Video More

HEALTHCARE & PHARMA DECEMBER 31, 2019 / 1:55 AM / UPDATED 2 YEARS AGO

Chinese officials investigate cause of pneumonia outbreak in Wuhan

By Reuters Staff

2 MIN READ



BEIJING (Reuters) - Chinese health authorities said they are investigating 27 cases of viral pneumonia in the central city of Wuhan, after rumors on social media suggested the outbreak could be linked to Severe Acute Respiratory Syndrome (SARS).

The New York Times

Late Today, cloudy ea shine, high 49. To 34. Tomorrow, cl high 43. Tomorr 32. Weather ma

© 2019 The New York Times Company

NEW YORK, TUESDAY, DECEMBER 31, 2019



HUSSEIN FALEH/AGENCE FRANCE-PRESSE — GETTY IMAGES

Monday to denounce U.S. airstrikes on an Iranian-backed militia's base in Iraq on Sunday.

at Hitler and Nazis in Journal
ges of Hate Crimes
ed After Stabbings

Jewish population. The authorities have boosted police patrols in ultra-Orthodox neighborhoods and bolstered security at area synagogues and yeshivas.

Strikes by U.S.
Renew Anger
Among Iraqis

Business Got Big Tax Lobbyists Made It

Campaign to Add Loopholes to
Deficit, Up 50%, Nears \$17

By JESSE DRUCKER and JIM TANKERS

The overhaul of the federal tax law in 2017 was the signature legislative achievement of Donald J. Trump's presidency.

The biggest change to the tax code in three decades, the law slashed taxes for big companies, part of an effort to coax them to invest more in the United States and to discourage them from stashing profits in overseas tax havens.

Corporate executives, major investors and the wealthiest Americans hailed the tax cuts as a once-in-a-generation boon not only to their own fortunes but also to the United States economy.

But big companies wanted more — and, not long after the bill became law in December 2017, the Trump administration began transforming the tax package into a greater windfall for the world's largest corporations and their shareholders. The tax bills of many big companies have ended up even smaller than what was anticipated when the president signed the bill.

One consequence is that the federal government may collect hundreds of billions of dollars less over the coming decade than previously projected. The budget deficit has jumped more than 50 percent since Mr. Trump took of-

loses.

Starting in early 2018, officials in the Treasury Department by lobbyists seeking to change the tax law that required them to meet with some top officials had little time to record to the process.

The lobbyists major new tax posed to raise hundreds of dollars from had been avoided claiming their p outside the Unit

The blitz was tion of the world nies, including Credit Suisse, United Techno Coca-Cola, Bank IBM, Kraft F Clark, News Co ConocoPhillips, American Inter

Thanks in part manner in wh rushed through uation that gave partment extra pret a law tha

World Health Organization (WHO) @WHO

#China has reported to WHO a cluster of #npneum

case of th

12:13 P

640 R



Short on Tools, Central Banks Face Outbreak

By JEANNA SMIALEK and JACK EWING

Federal Reserve officials and their global counterparts are staving down an economic threat unlike any they have ever faced, as markets look to them to contain the fallout from a rapidly spreading virus with limited ammunition and tools ill suited to deal with broken supply chains and quarantined consumers.

No playbook exists for dealing with the economic threat posed by the coronavirus, which has already shuttered factories and impaired companies across the globe.

The outbreak has sickened more than 86,000 people and has been spreading rapidly outside of China, where it first surfaced. Japan, South Korea, Iran and Italy are all battling major outbreaks, in many cases imposing quarantines to contain the spread. That has disrupted supply chains, forcing companies like Apple and Toyota to idle factories in China and grounding airlines as consumers

of viral pneumonia in the central city of Wuhan, after rumors on social media suggested the outbreak could be linked to Severe Acute Respiratory Syndrome (SARS).

"All the News That's Fit to Print"

The New York Times

Late Edition
Today, mostly clear, with a cold, high 45. Tonight, cloudy after, low 33. Tomorrow, cloudy, high 55. Wind south around 10 mph per hour. Details, Sports, Sunday, Page 4.

VOL. CLXXIX -- No. 58,619 © 2020 The New York Times Company NEW YORK, SUNDAY, MARCH 1, 2020 \$6.00

Readiness of U.S. for an Epidemic Raises Fears About Shortages

By ANDREW JACOBS and SHERI FUNK

In 2005, the federal government sought to assess how a respiratory-related pandemic might play out in the United States. Its report estimated that a severe influenza pandemic would require mechanical ventilators for 740,000 critically ill people.

Today, as the country faces the possibility of a widespread outbreak of a new respiratory infection caused by the coronavirus, there are nowhere near that many ventilators, and most are already in use. Only about 62,000 full-sized ventilators were in hospitals across the country, a 2005 study found. More than 10,000 others are stored in the Strategic National Stockpile, a federal cache of supplies and medicines held in case of emergencies, according to Dr. Thomas R. Frieden, a former director of the Centers for Disease Control and Prevention.

Tens of thousands of other respiratory devices could be repurposed in an emergency, experts say, but the shortfall could be stark, potentially forcing doctors



A patient at a nursing home on Saturday in Kirkland, Wash. The facility has two cases of the virus.

to make excruciating life-or-death decisions about who would get such help should hospitals become flooded with the desperately sick.

reach severe proportions in the United States or affect many regions at once. With its trip-notch scientists, modern hospitals and sprawling public health infra-

structure such an epidemic. But the coronavirus, which appeared in China in December and has stricken more than 86,000 people around the world, killing

... supply chains and quarantined consumers. No playbook exists for dealing with the economic threat posed by the coronavirus, which has already shuttered factories and impaired companies across the globe. The outbreak has sickened more than 86,000 people and has been spreading rapidly outside of China, where it first surfaced. Japan, South Korea, Iran and Italy are all battling major outbreaks, in many cases imposing quarantines to contain the spread. That has disrupted supply chains, forcing companies like Apple and Toyota to idle factories in China and grounding airlines as consumers

ventilators, and most are already in use. Only about 62,000 full-sized ventilators were in hospitals across the country, a 2005 study found. More than 10,000 others are stored in the Strategic National Stockpile, a federal cache of supplies and medicines held in case of emergencies, according to Dr. Thomas R. Frieden, a former director of the Centers for Disease Control and Prevention. Tens of thousands of other respiratory devices could be repurposed in an emergency, experts say, but the shortfall could be stark, potentially forcing doctors

to make excruciating life-or-death decisions about who would get such help should hospitals become flooded with the desperately sick. reach severe proportions in the United States or affect many regions at once. With its trip-notch scientists, modern hospitals and sprawling public health infrastructure such an epidemic. But the coronavirus, which appeared in China in December and has stricken more than 86,000 people around the world, killing

The New York Times

Late E
Today, cloudy after, high 45. Tonight, cloudy after, low 33. Tomorrow, cloudy, high 45. Wind south around 10 mph per hour. Details, Sports, Sunday, Page 4.

© 2020 The New York Times Company NEW YORK, TUESDAY, DECEMBER 31, 2019

Socialists Bring Tea Party Anger To 'Dirtbag Left'

By NELLIE BOWLES

IOWA CITY — The people in the crowd were angry, and "Chapo Trap House" wanted them to stay that way. The five hosts of the popular socialist podcast wanted everyone to know they had all been lied to. About everything.

The media they consumed was fake news aimed to distract them from the only war worth fighting: the class war. Politics, civility, even pleasure — those were tools of the neoliberal oppressor. The right answer is rage. "That joy," the Chapo co-host Will Meraker said to the crowd gathered in Iowa City on the eve of the Iowa caucus. "That's good but it's not as good a motivator when you're really going to war as spite."

"Let the hate feed you," the co-host Archer A'Lee Frost added as the audience roared. And it does. Especially toward other Democrats.

Supporters of former Vice President Joseph R. Biden Jr. are "patriotic 100-year-olds."



Health officials last week at Hong Kong International Airport awaited travelers to scan, in response to a mysterious infectious disease outbreak in central China. Andy Wong/Associated Press

By Sui-Lee Wee and Donald G. McNeil Jr.

Got Big Taxists Made It

Add Loopholes to Tax Up 50%, Nears \$1 Tr

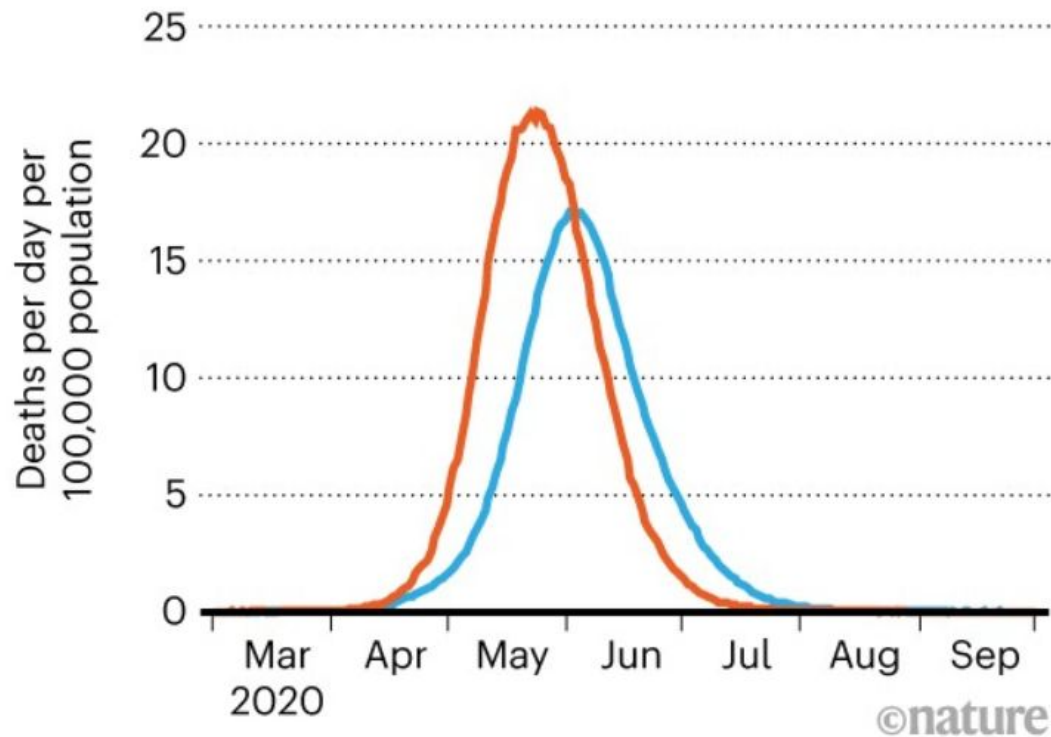
By DRUCKER and JIM TANKERSLEY
Starting in court, the tax law that the President signed in December is the law of the land. It adds 50% to the tax rate on capital gains and other income, and it adds 50% to the tax rate on dividends. It also adds 50% to the tax rate on interest income. The law is a major new tax package that will raise hundreds of billions of dollars from 2018 to 2025. The law is a major new tax package that will raise hundreds of billions of dollars from 2018 to 2025. The law is a major new tax package that will raise hundreds of billions of dollars from 2018 to 2025.

few ss

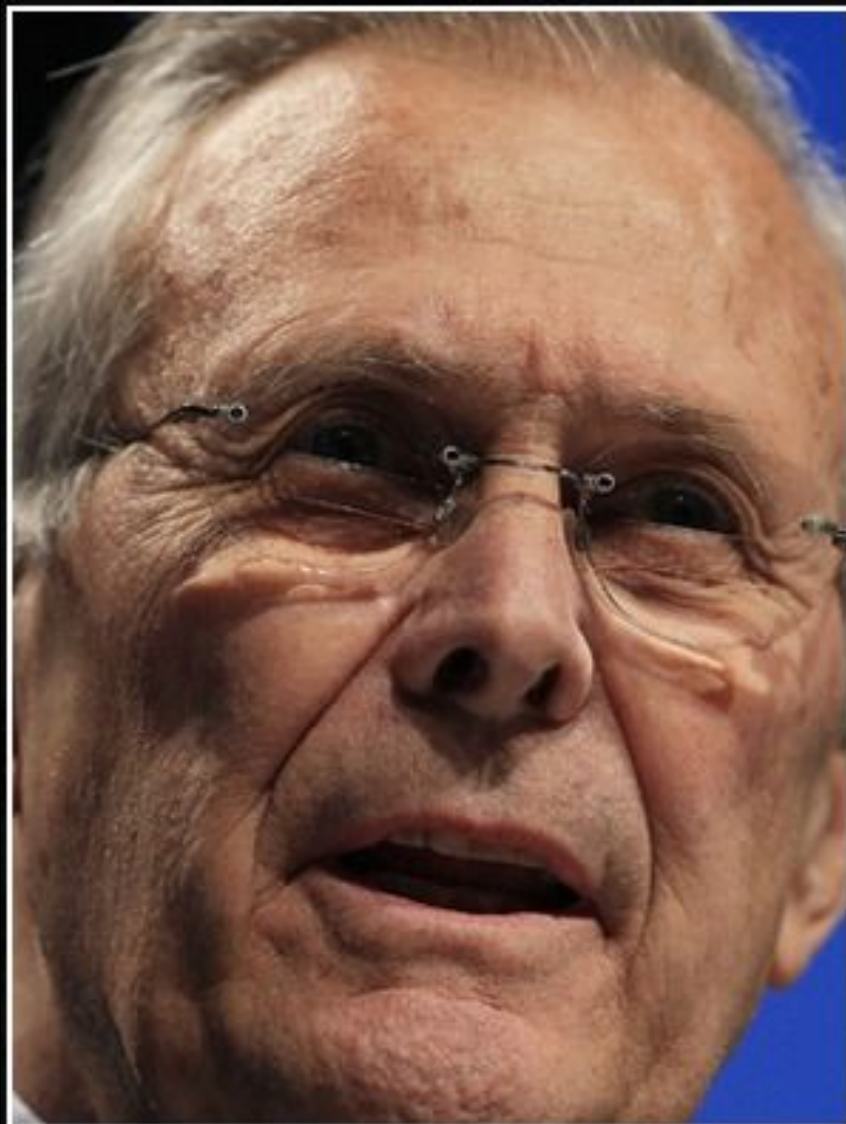
SIMULATION SHOCK

A model by Imperial College London in mid-March predicted a total of more than 500,000 UK deaths from COVID-19, and more than 2.2 million in the United States if no action was taken to stop the virus spreading in those countries.

— United Kingdom — United States



Source: Ref. 1

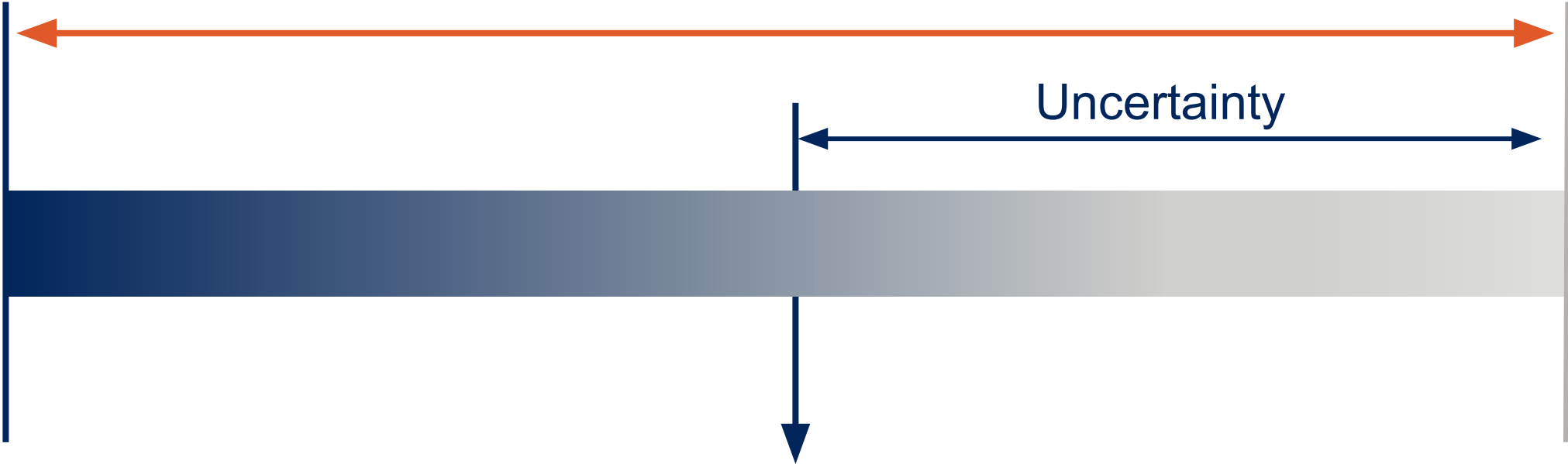


There are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns - the ones we don't know we don't know.

— *Donald Rumsfeld* —

AZ QUOTES

Maximum Uncertainty

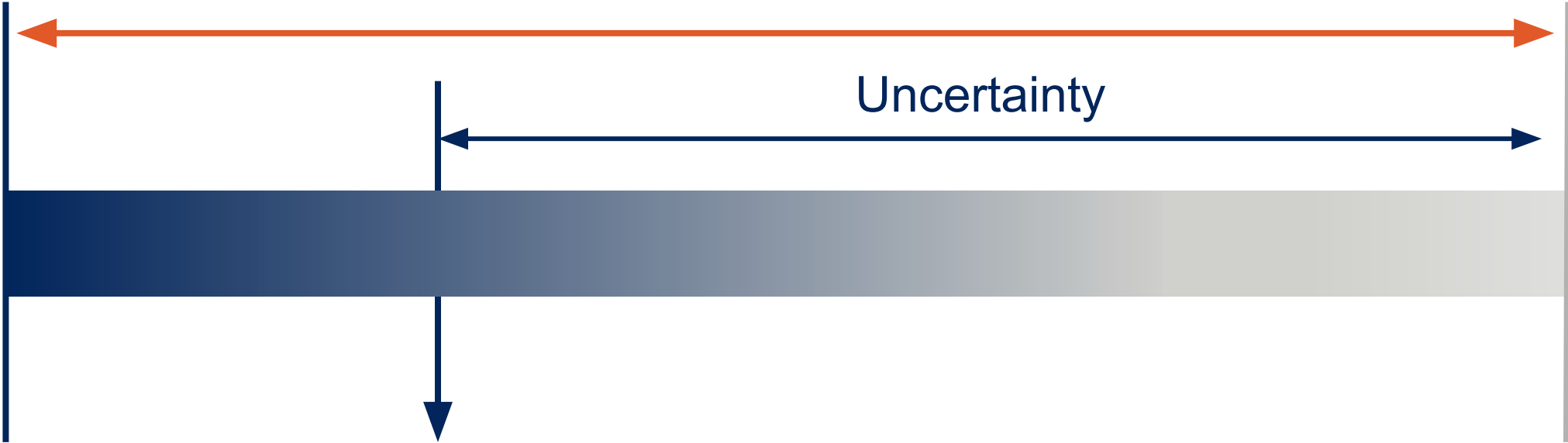


Complete Ignorance

Present State of Knowledge

Certainty

Maximum Uncertainty

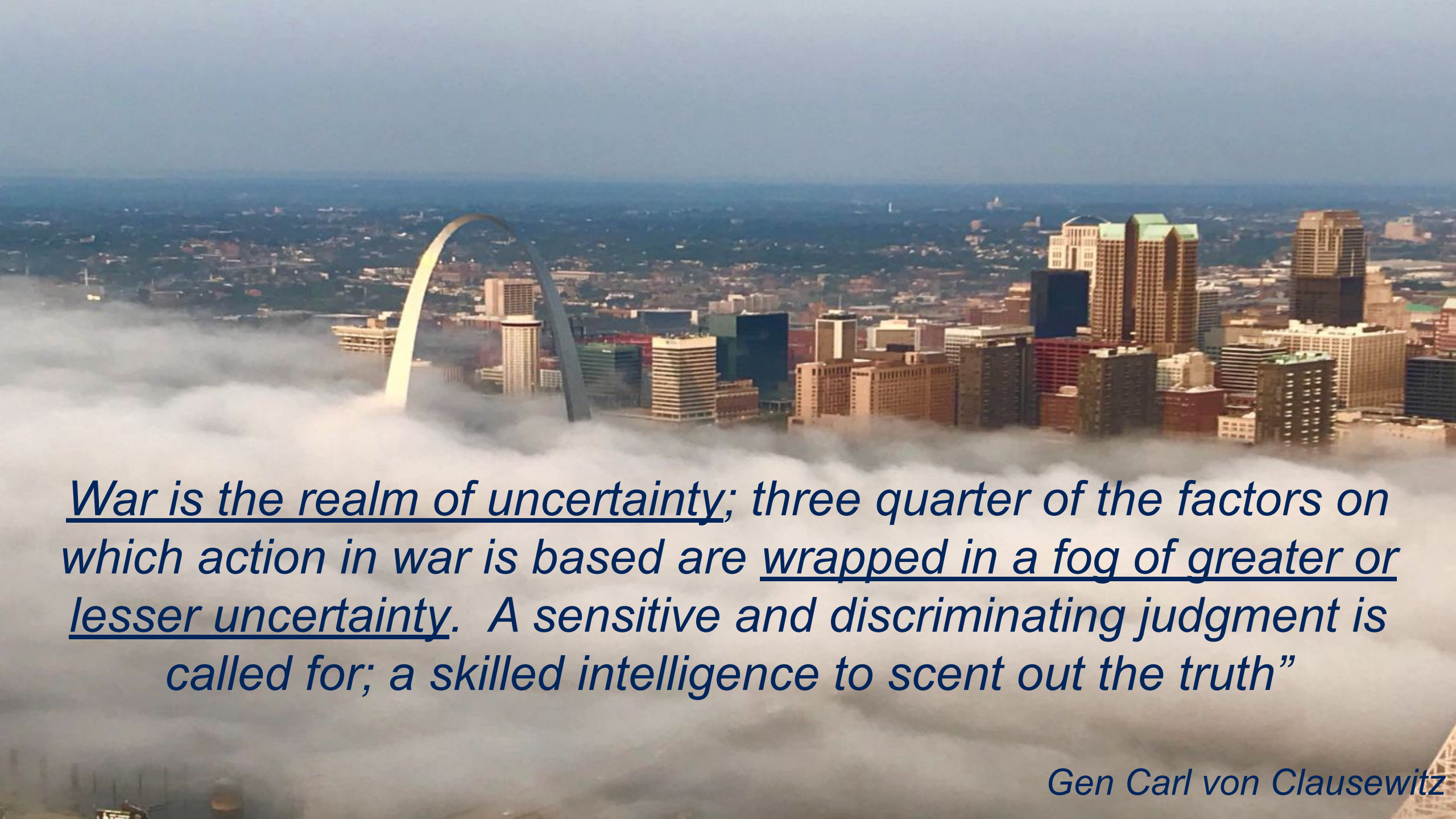


Complete Ignorance

Present State of Knowledge

Certainty





War is the realm of uncertainty; three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty. A sensitive and discriminating judgment is called for; a skilled intelligence to scent out the truth”

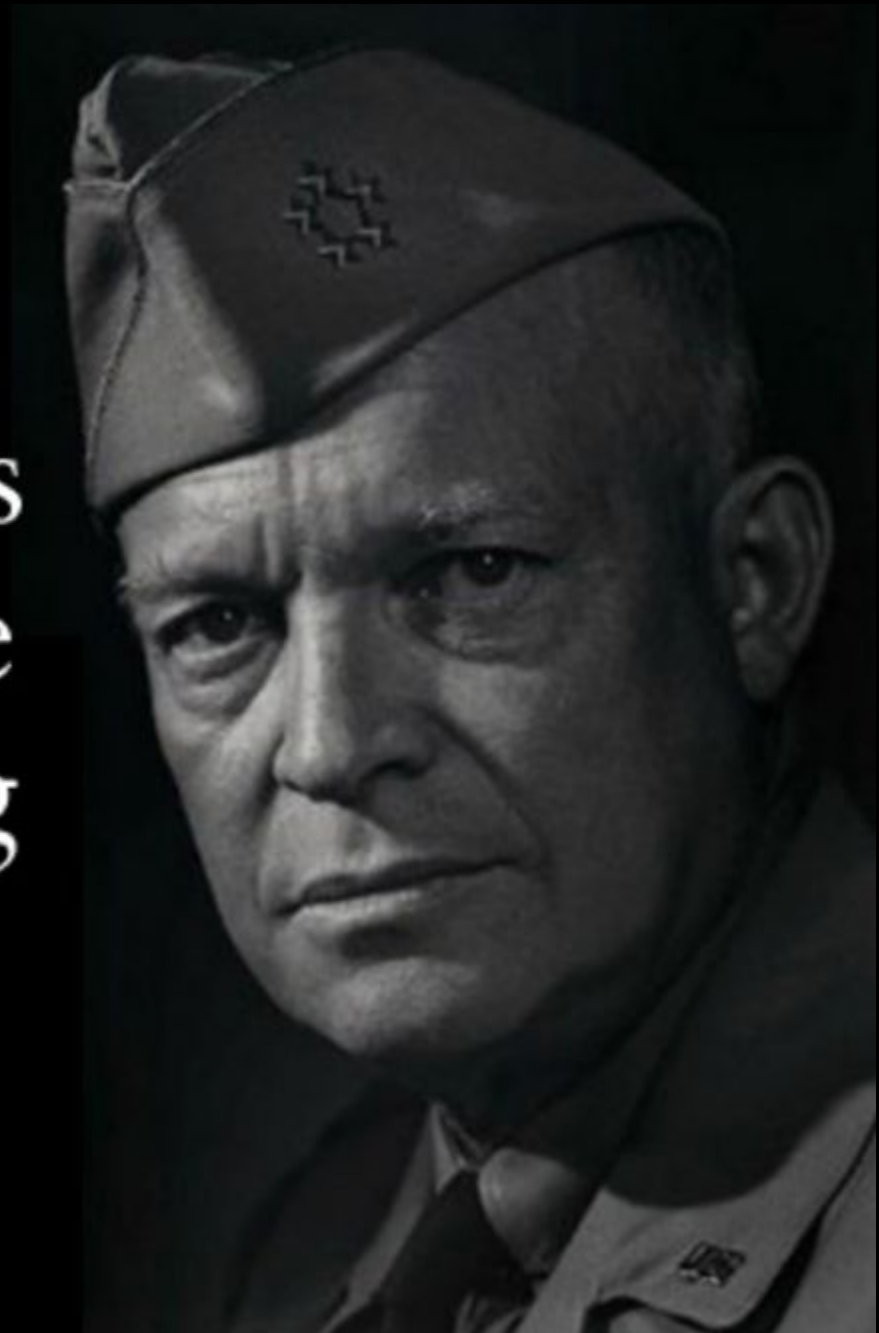
Gen Carl von Clausewitz

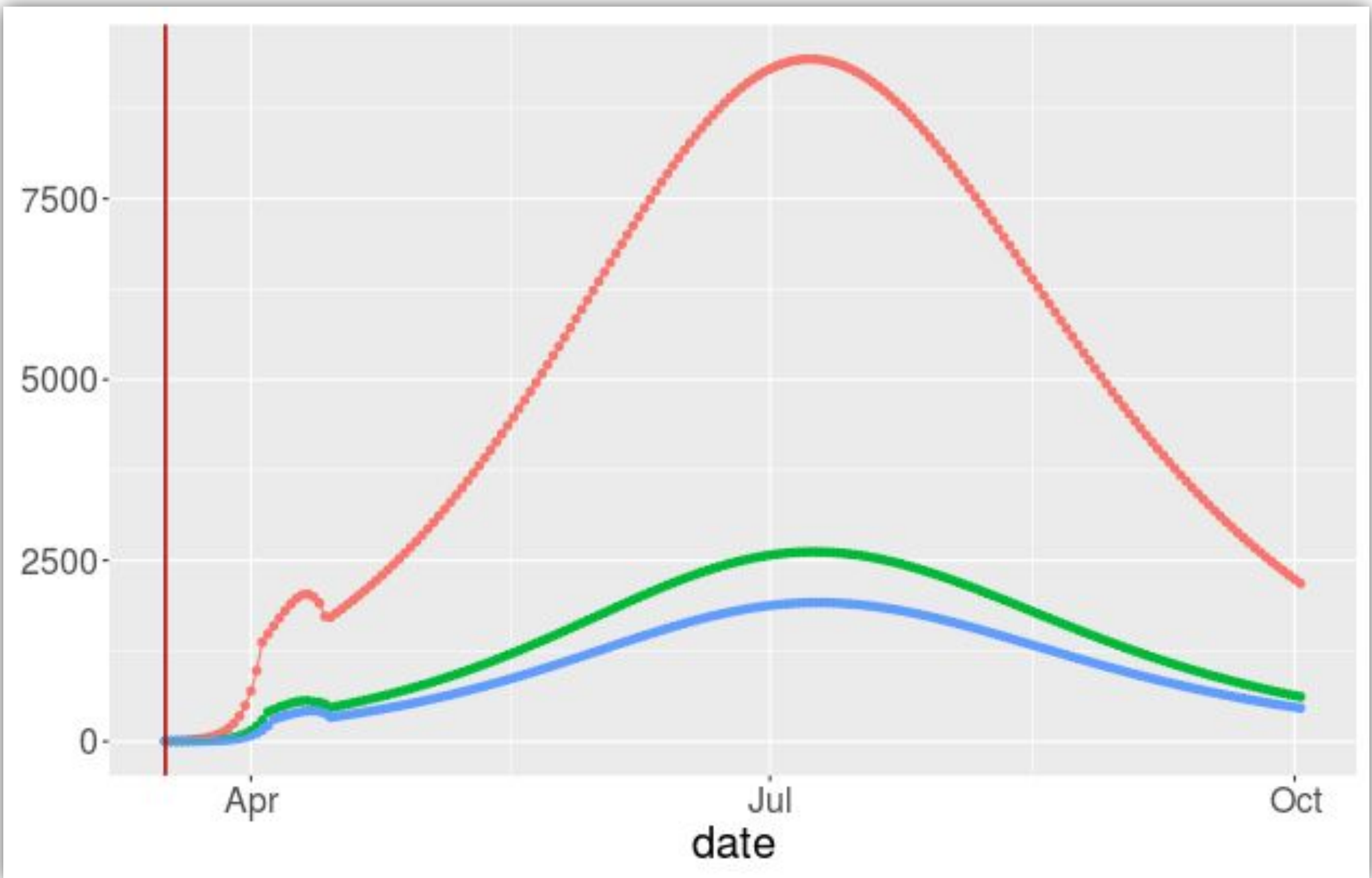
Learning Objectives

- How to use a deliberate planning process in periods of uncertainty
- Adapting to changes on the ground
- Leveraging communication to advance and influence your strategic plans

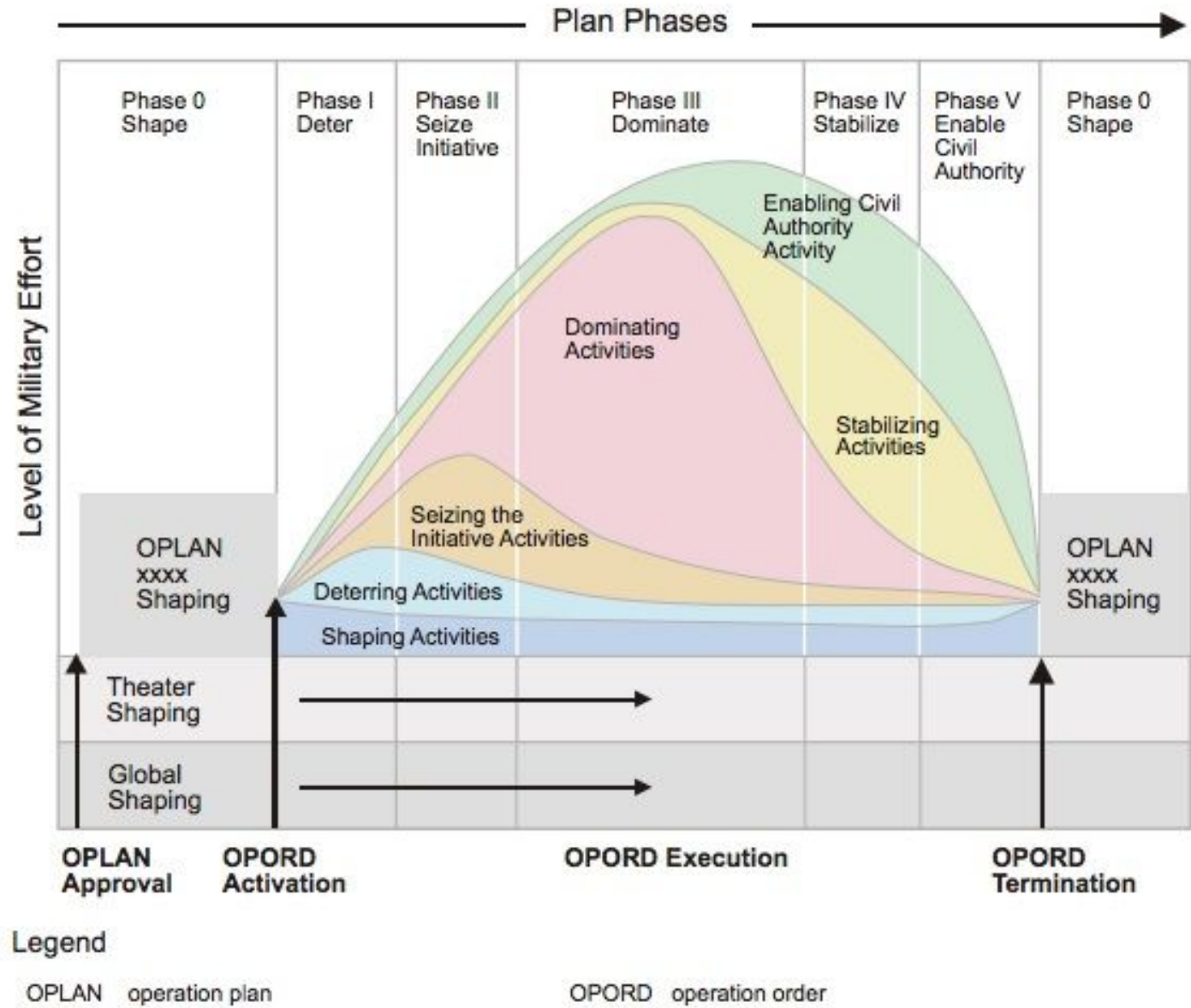
In preparing for
battle, I have always
found that plans are
useless but planning
is indispensable.

– Dwight D. Eisenhower





Notional Operation Plan Phases versus Level of Military Effort



MDMP

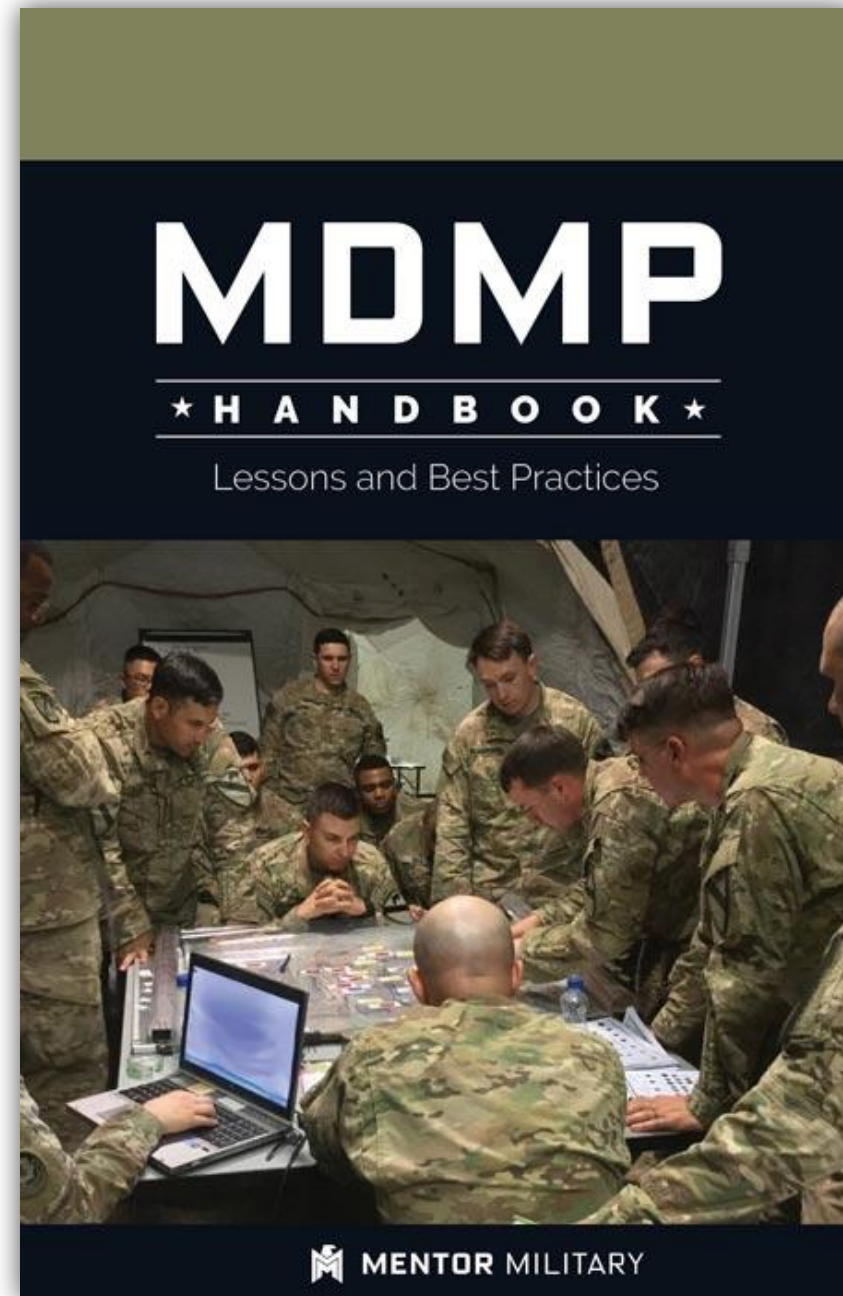
★ H A N D B O O K ★

Lessons and Best Practices



 MENTOR MILITARY

Military Decision Making Process (MDMP)



Planning & Decision Making Process

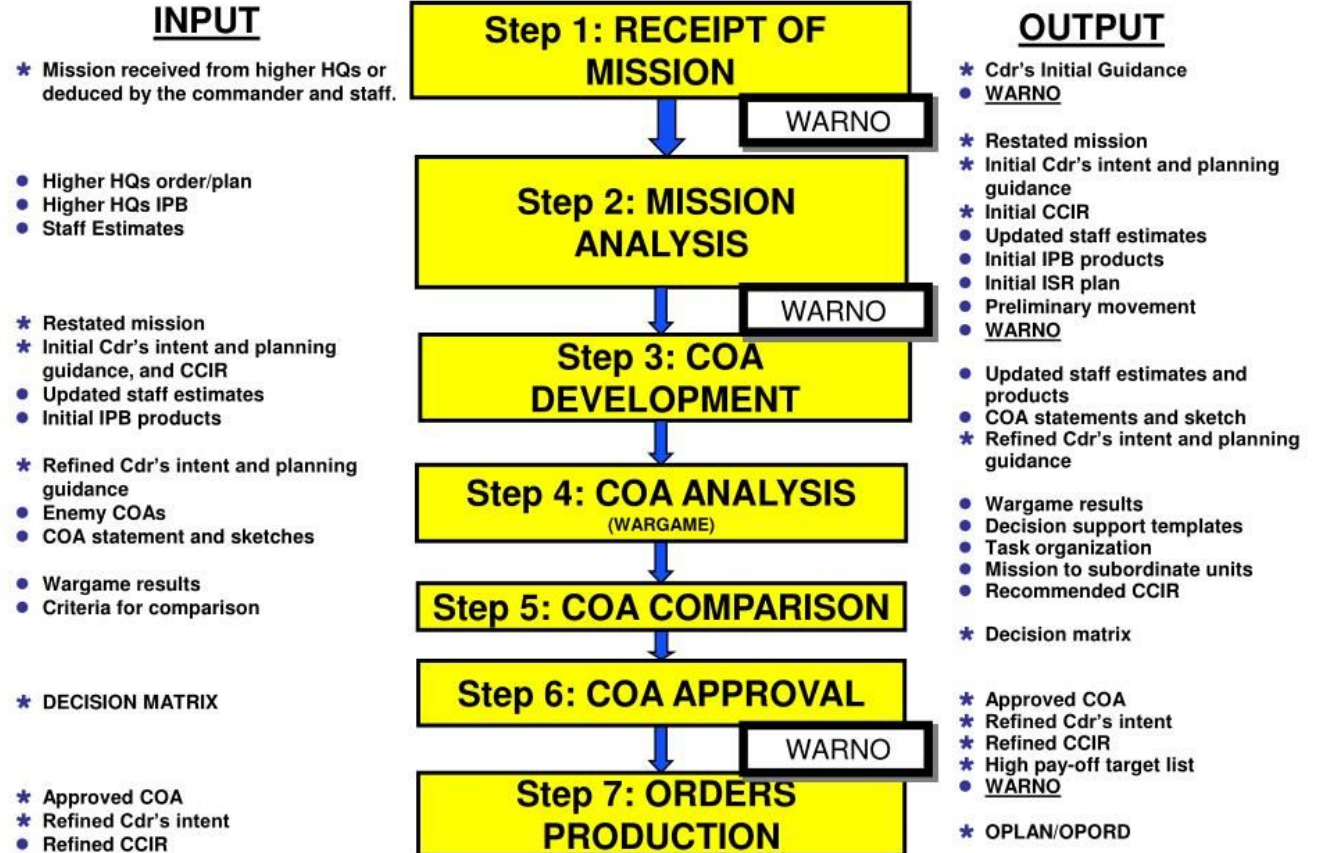
- Planning is the art and science of understanding a situation, envisioning a desired future and laying out effective ways of bringing that future about.
- All planning is based on imperfect knowledge and assumptions about the future.
- Planning cannot predict exactly what the effects of the operation will be, how things will behave, or how people will respond.
- The understanding and learning that occur during the planning process have great value.

Planning & Decision Making Process

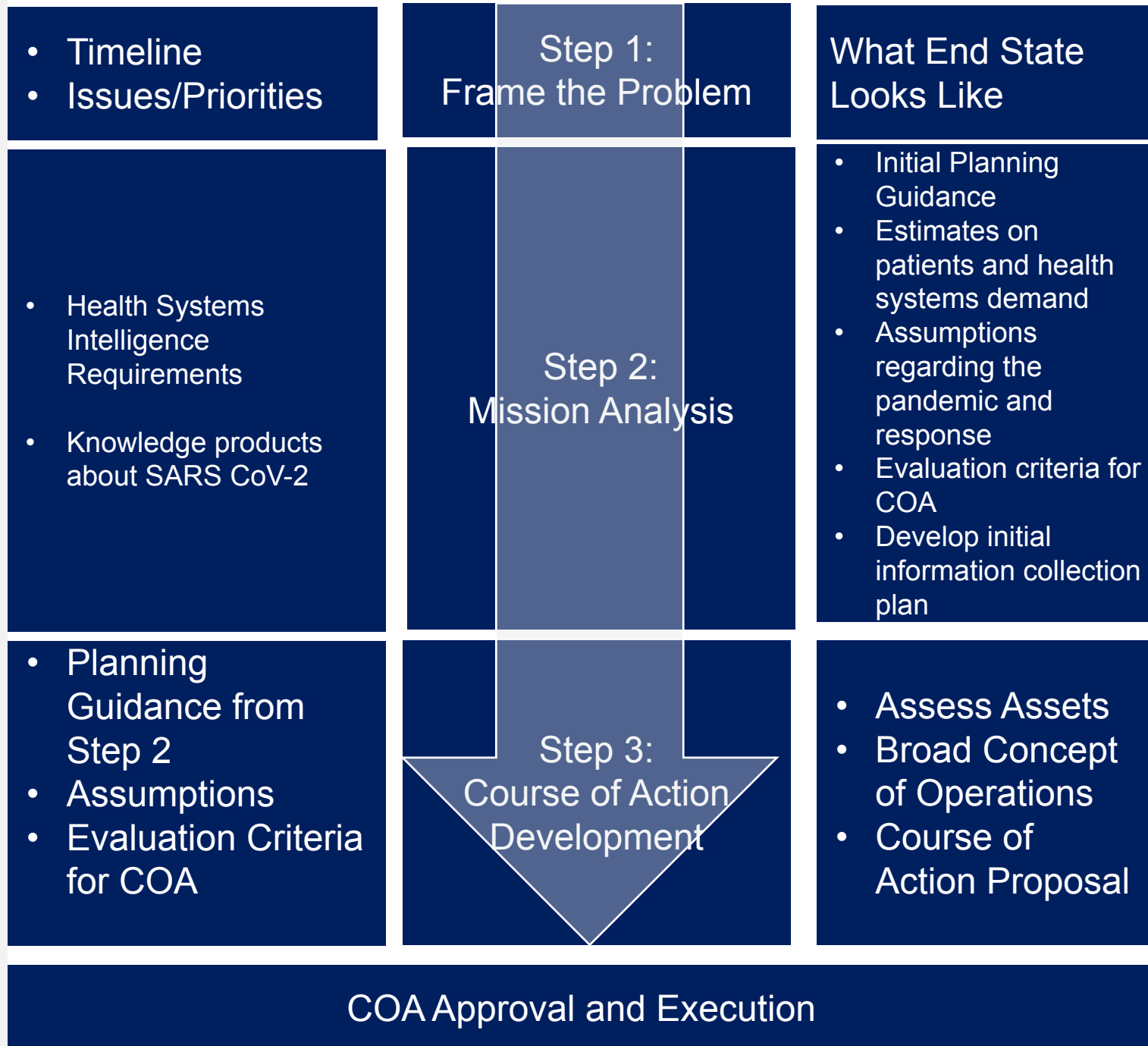
- Planning is the art and science of **understanding a situation, envisioning a desired future** and laying out **effective ways of bringing that future about**.
- All planning is based on **imperfect knowledge and assumptions** about the future.
- **Planning cannot predict** exactly what the effects of the operation will be, **how things will behave, or how people will respond**.
- The understanding and learning that occur **during the planning process** have great value.

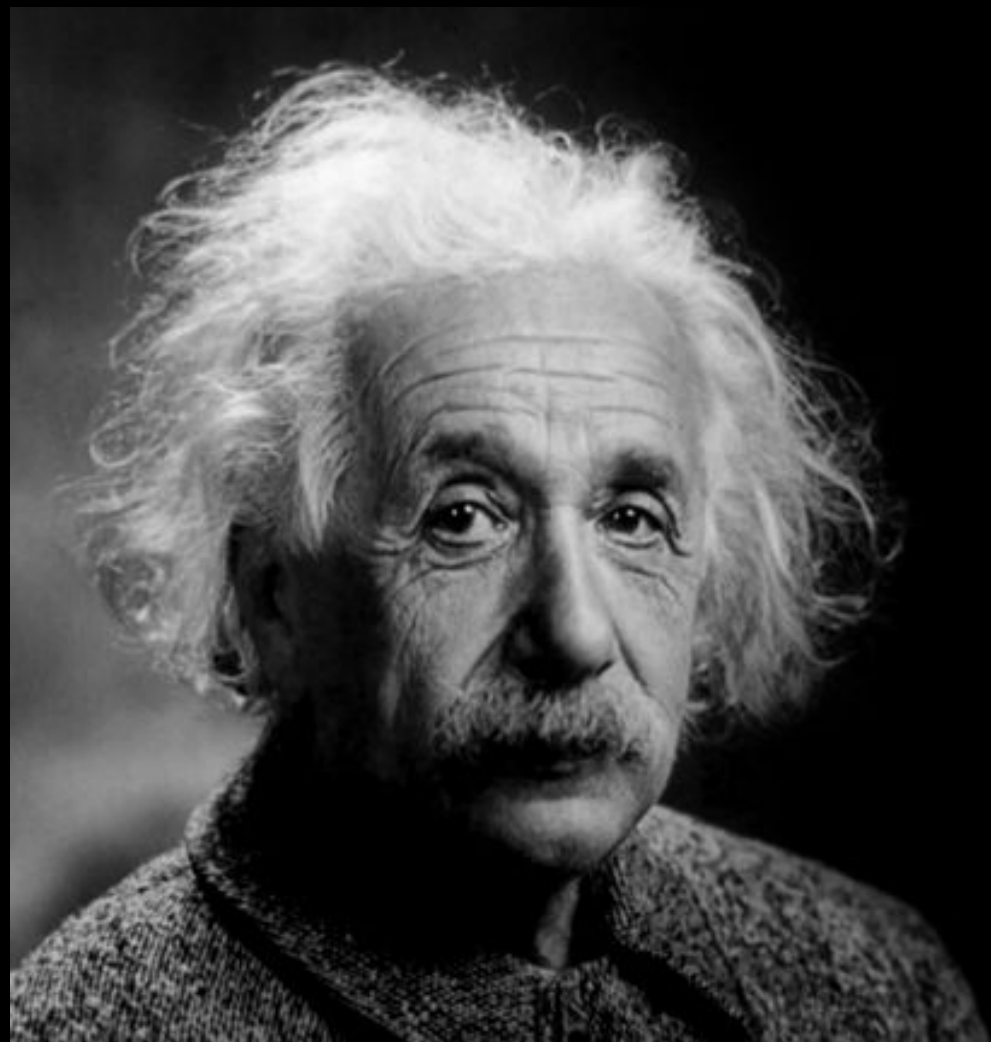
Planning & Decision Making Process

MDMP Steps



Planning & Decision Making Process





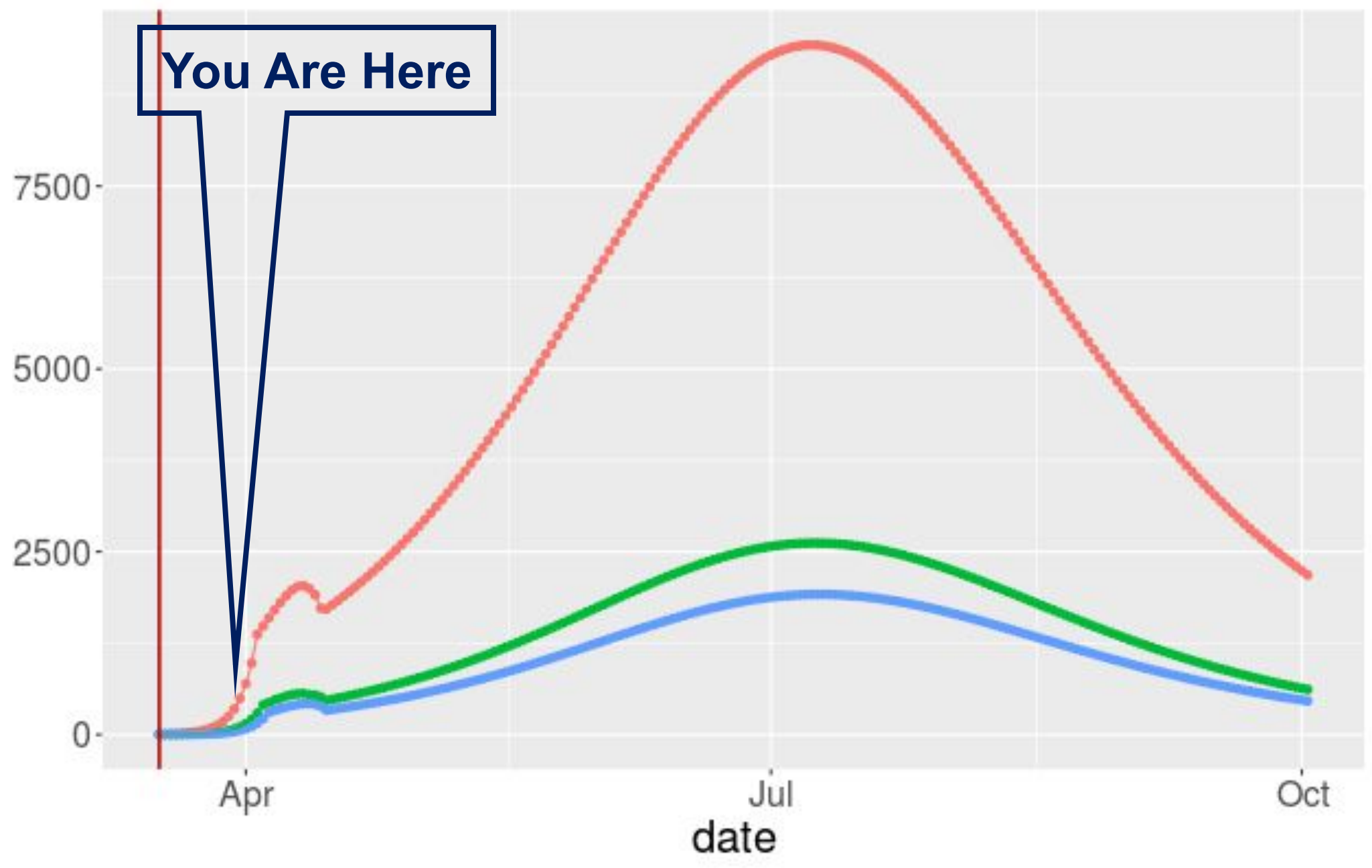
"If I were given one hour to save the world, I would spend 59 minutes defining the problem and one minute solving it."

Albert Einstein

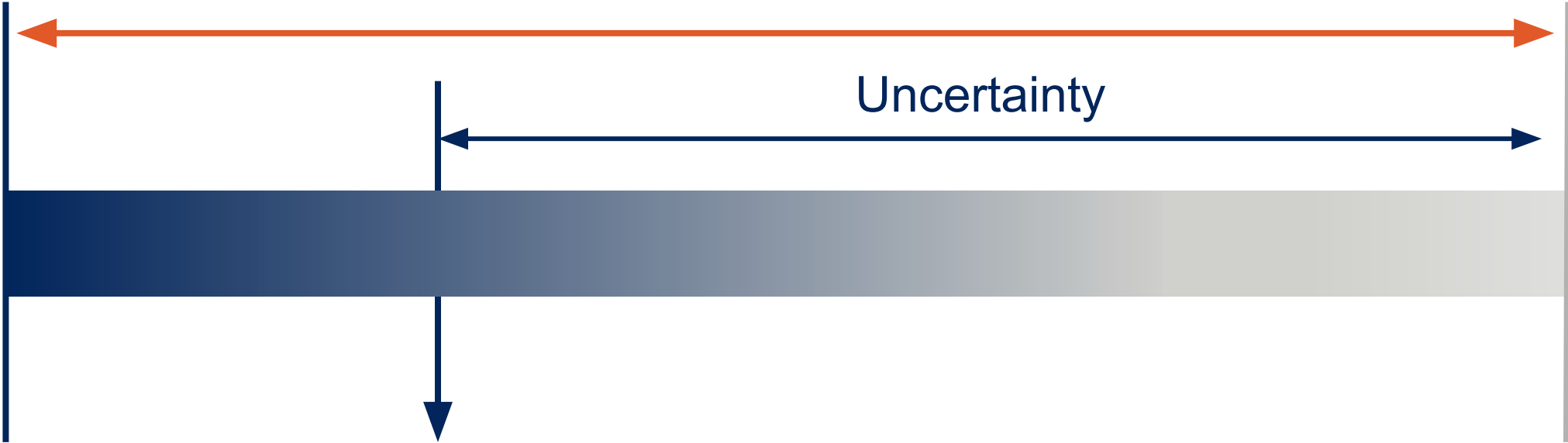
Desired End State

1. **Frame the environment**
2. **Frame the problem**
3. **Envision the “Endstate”**

You Are Here



Maximum Uncertainty



Complete Ignorance

Present State of Knowledge

Certainty

Desired End State

Re-establishing the vitality and vibrancy of the Greater St. Louis region, Characterized by:

1. **Overall health and well-being – with a substantial decrease in new transmissions**
2. **Elimination of shelter-in-place orders**
3. **Re-activation of local economy**

Organized Approach to Planning

Analysis

- Initial Intelligence – What do I know?
- Review Assets – What do I have?
- Determine Constraints – What are my limits?
- Critical Facts and Assumptions – What can I assume?
- Risk Management – What are the risks?
- Developing Themes and Messaging – What do I want people to know/understand

Potential Solution - Course of Action (COA)

COVID: Initial Intelligence Preparation

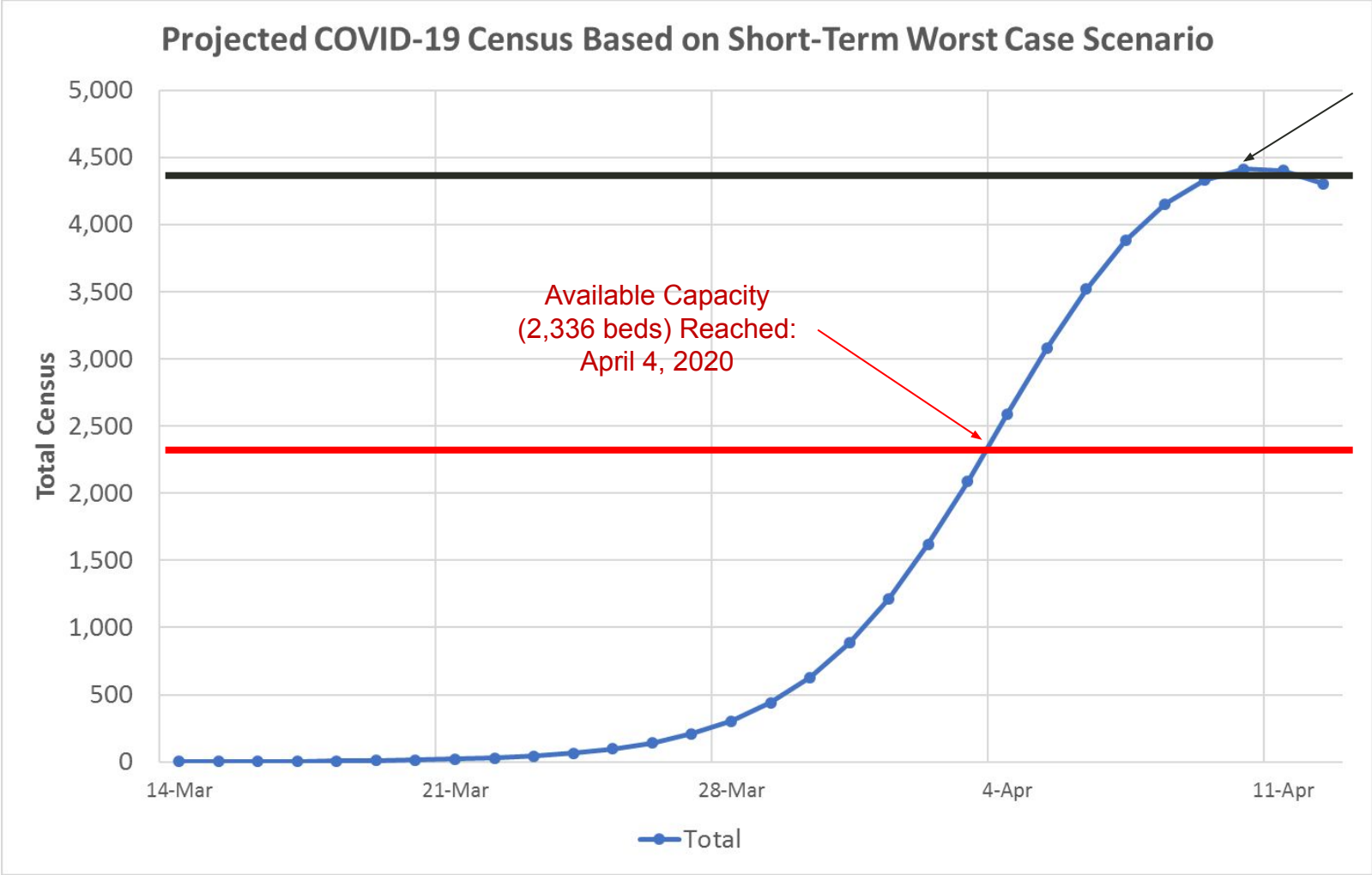
Analyzing variables to determine effects on operations

“The general who wins the battle makes many calculations in his temple before the battle is fought. The general who loses makes but few calculations beforehand.”

Consensus Model Characteristics

Main assumptions of the model	Value	Definition
Day 0	3/17/2020	Date when known inpatients COVID-19 at BJC, Mercy, and SSM Health >2
Estimate of current inpatients with COVID-19 (diagnosed or not) on Day 0	4	Known number of COVID-19 inpatients at BJC, Mercy, and SSM Health
Number of people in region	2,800,000	St. Louis MSA population
Doubling time	2.1	Number of days it takes to double the number of cases. Based on BJC, Mercy, SSM Health hospitalization between 3/17-3/26
Date of intervention	7 days after day 0	“Stay at Home” order issued for St. Louis City and County on 3/23/2020
Doubling time after intervention	11.7 days	Number of days to double the number of cases after “Stay at Home” order
Clinical assumptions of COVID-19 patients		
Average days of length of illness	14	Based on scientific literature and expert opinions of BJC, Mercy, SSM Health, Washington University infectious disease physicians and epidemiologists
% hospitalized patients among all COVID-19 infections	6	
% ICU patients among hospitalized patients	30	
% ventilated patients among ICU patients	75	
Average days from infection to hospitalization	10	
Average days from hospitalization to ICU	1	
Average days from ICU to ventilation	1	
Average days of hospitalization	11	
Average days ICU stay	8	
Average days on ventilation	10	

STL MSA Hospitalized Census: Short Term Worst Case



**Crisis Capacity
(4,403 beds) Reached:
April 10, 2020**

**Projected Worst Case
Short Term
Hospitalization Peak:
April 10th
Would Hit ICU & Vent
Capacity Sooner**

(Logistic model initially based on Italian experience; subsequently adjusted with US experience data)

COVID: Available Assets

Space, Staff, and Stuff

Space: Hospital Beds

	BJC	Mercy	SSM	TOTAL
Hospital Beds “Normal Operations”				
ICU Beds “Normal Operations”				
Current Census				
Open Capacity for COVID patients				
<i>Open Capacity + Crisis Interventions</i>	<i>XXXX</i>	<i>XXXX</i>	<i>XXXX</i>	<i>XXXX</i>

Staff: Physicians, Nurses, and Other Staff

	BJC	Mercy	SSM	TOTAL
Physicians				
Critical Care Physicians				
Advanced Practice Providers				
Registered Nurses				
ICU Registered Nurses				
Crisis Capacity Top-of-license, MAs, LPNs, recruiting, locums, retired, travel, increased care ratios, etc.	X	X	X	X

Stuff: Ventilators

	BJC	Mercy	SSM	TOTAL
Ventilators				
BiPAPs				
Anesthesia Machines				
Crisis Capacity Dual patient ventilators, additional supply, etc.	X	X	X	X

Stuff: Personal Protective Equipment (PPE)

	BJC	Mercy	SSM	TOTAL
PPE: Days on Hand				
Anticipated Burn Rate				
Crisis Capacity Adjustments to protocols, additional supply, etc.	X	X	X	X

Partners Outside Healthcare

Community Resources

- Other **medical assets**
- Other **abilities** to care for patients
- Other methods/locations to care for **low-acuity** patients

COVID: Constraints

Restrictions placed on the system

Restrictions on the System

- **EMTALA**
- **Standards of Care**
 - At what point do these change?
- **Resupply of PPE**

COVID: Critical Facts & Assumptions

What we know and what we believe

Facts

Statements of *truth* or statements considered to be true at the time

1. We have **limited capacity** to care for COVID patients
2. We have **limited ventilators**
3. We have **limited staff**

Assumptions

Suppositions on current situation or presuppositions on future course of events, assumed to be true in the *absence of positive proof*

1. We will have more **patients** than we can care for
2. We will run out of **ICU capacity, ventilators, and PPE**
3. We will need to manage **public misinformation** and **negative sentiment**
4. Our **workforce** will degrade over time
 - Exhaustion
 - Infection
 - Non-infectious loss

COVID: Risk Management

Implementing threat mitigation strategies

Risks

- What are we willing to do to save the **highest number** of lives?
- What are our **triage guidelines**?
- **Legal risk**
- How do we minimize **risk to workforce**?
 - PPE
 - Housing for exposed / infected workforce

COVID: Communication Strategy

Appropriate and timely messaging to stakeholders

Theme & Message

- What is our **unifying or dominant idea** to express our purpose for action?
- What is our message to **support our theme**?

COVID: Course of Action

Feasible, Acceptable, and Suitable

Requirements

- **Feasible** – will this plan accomplish what we intend within established time, space and resource limitations?
- **Acceptable** – does this plan balance risk with action? Is it acceptable to the public?
- **Suitable** – Can the COA accomplish the mission within the planning guidance?

Requirements (cont.)

- How does this lead to accomplishing our **mission**?
- How do we **prepare** for success (shaping) now?
- How do we **sustain** for success?
- What are the **tasks** performed and **conditions** achieved for success?

Steps

- Assess our **assets**
 - Space, Staff, Stuff
- How is it **organized** across the space?
- Where are we **vulnerable**?
- What **additional resources** do we need?
- How do we **allocate** resources?

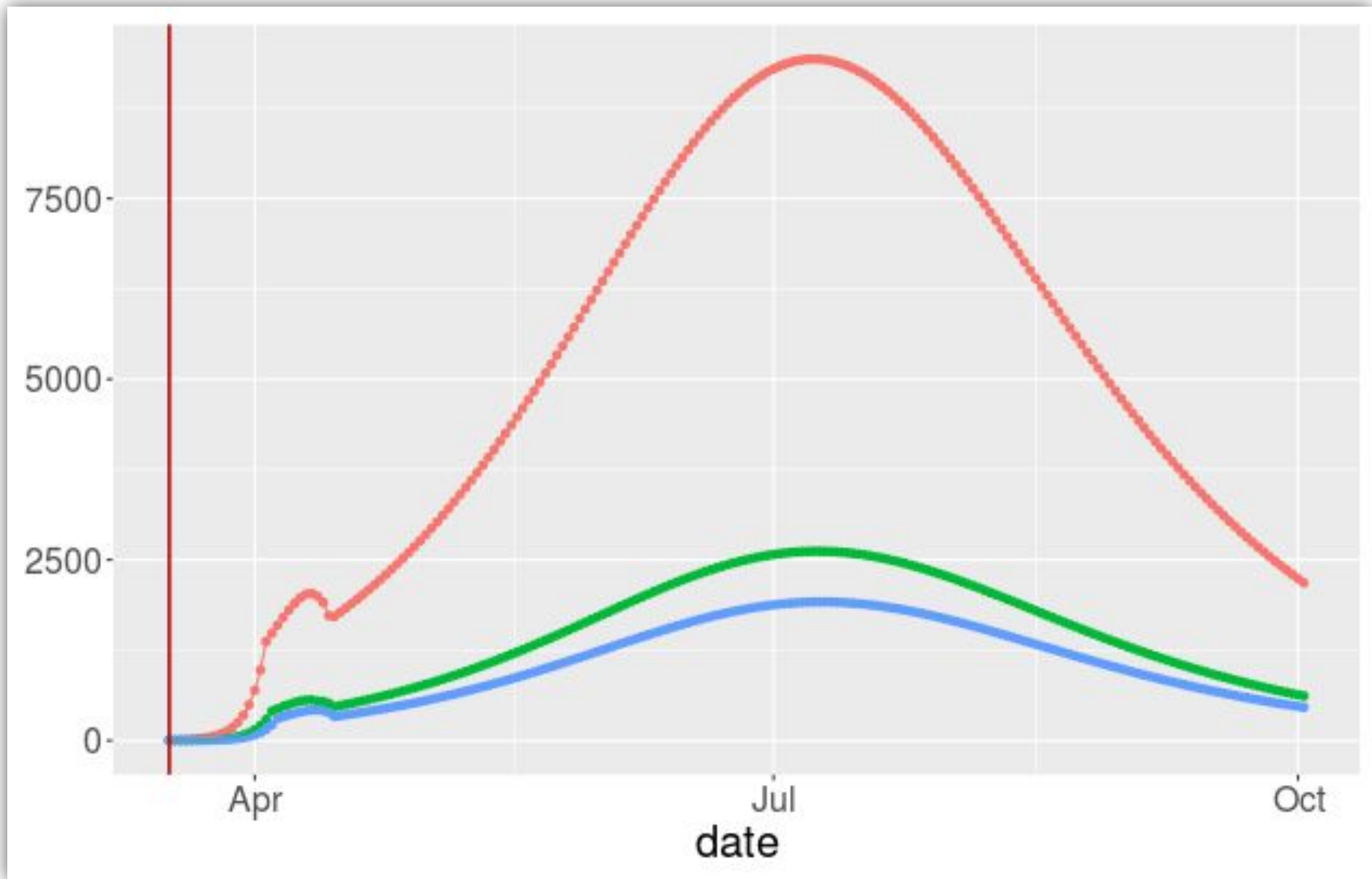
Broad Concept

- What are the **critical events**?
- What **risks** are we willing to accept?
- **Lines of Effort**
 - General, lack specifics
 - Rely on units to develop and refine tasks

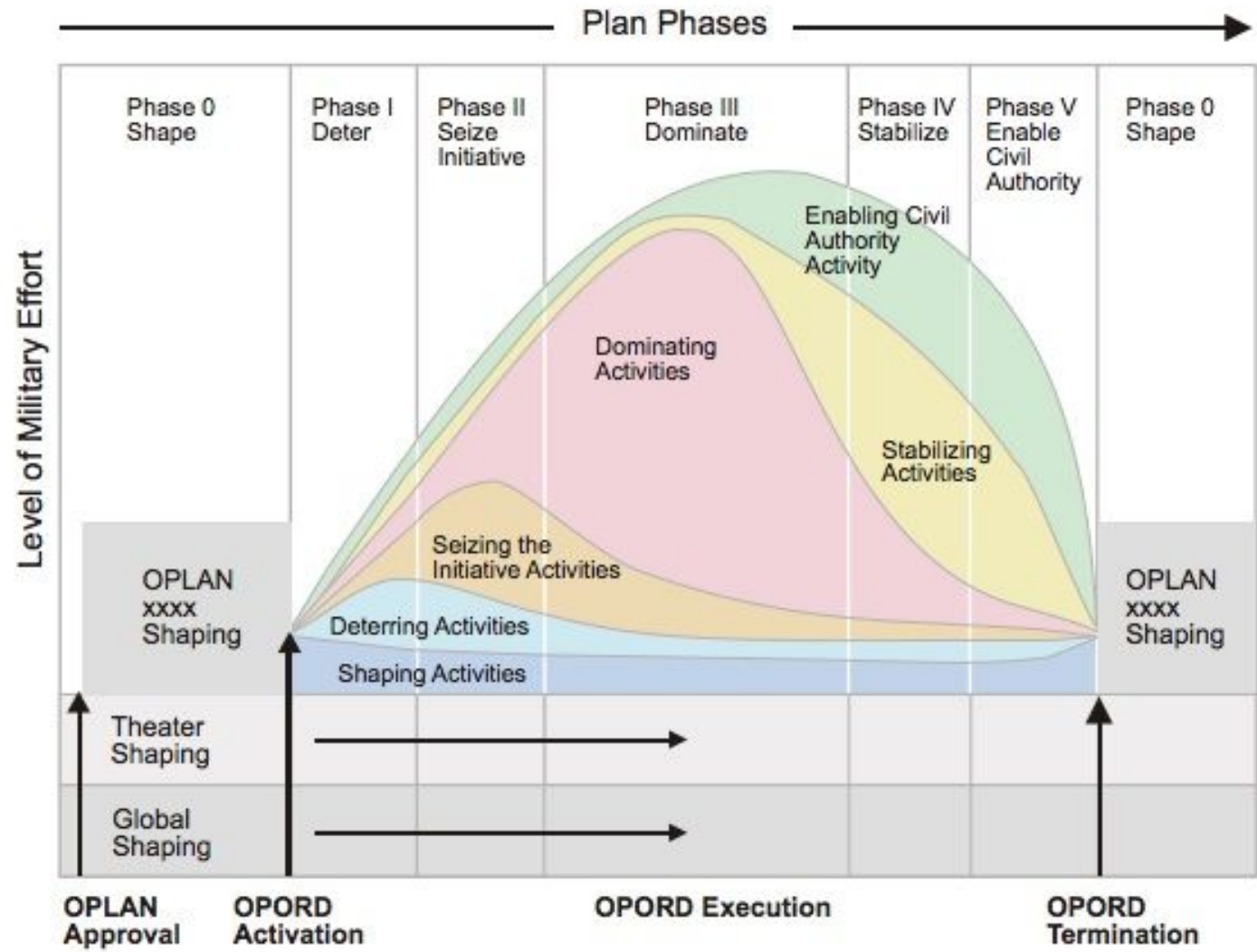
Broad Concept (cont.)

Healthcare systems will focus on Acute Care

- Specifically on maximizing intensive care resources
- **Lines of Effort** (Dependent on Phase of Operations)
 - **Supplies** – PPE and ventilators
 - **Space** – Maximize hospital capacity
 - **Staff** – Consolidate staff and redeploy to meet demand
 - **Medical Care** – Develop clinical pathways and protocols to maximize care and survivability
 - **Standards of Care** – Triage resources and patients
 - **Community Assets** – What do they bring to the effort? Alternative care sites?



Notional Operation Plan Phases versus Level of Military Effort



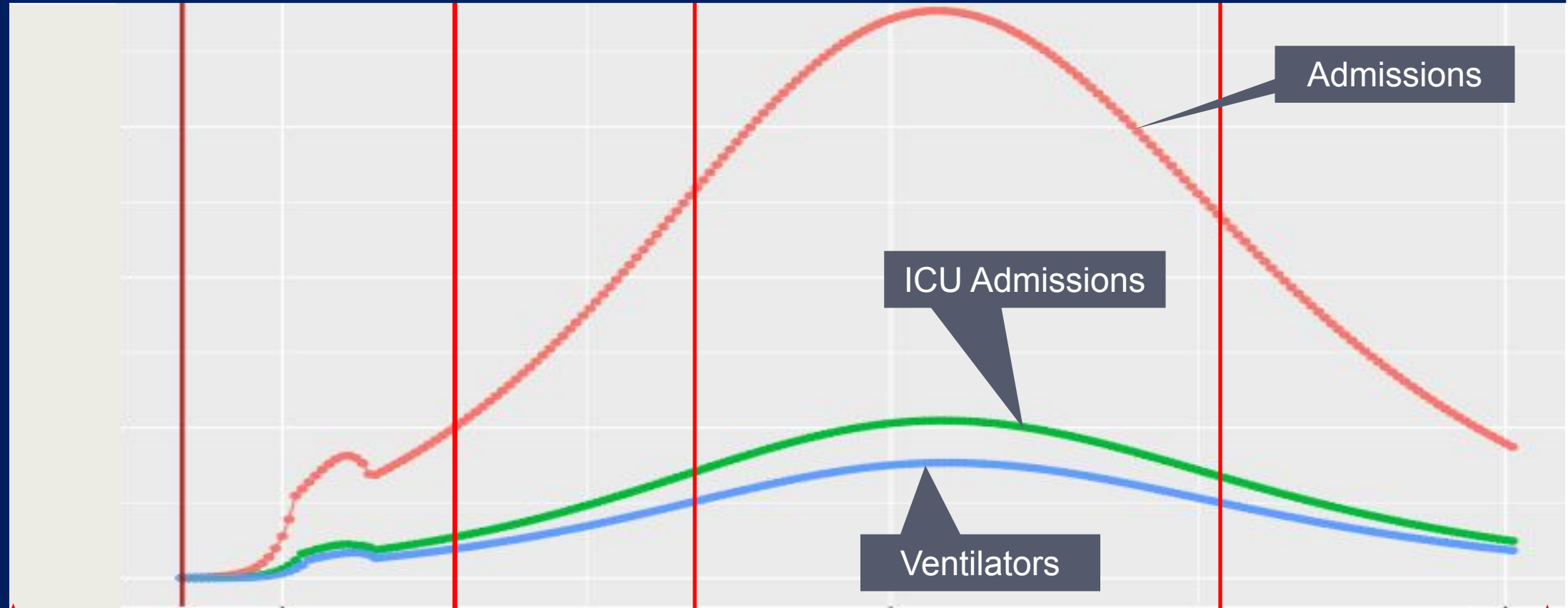
Legend

OPLAN operation plan

OPORD operation order

Notional Operation Plan Phases

Level of Health system Effort
COVID Admissions



Admissions

ICU Admissions

Ventilators

Shaping Activities - Federal/State/Local

Shape Phase 0

Initial Surge Phase I

Critical Mass Phase II

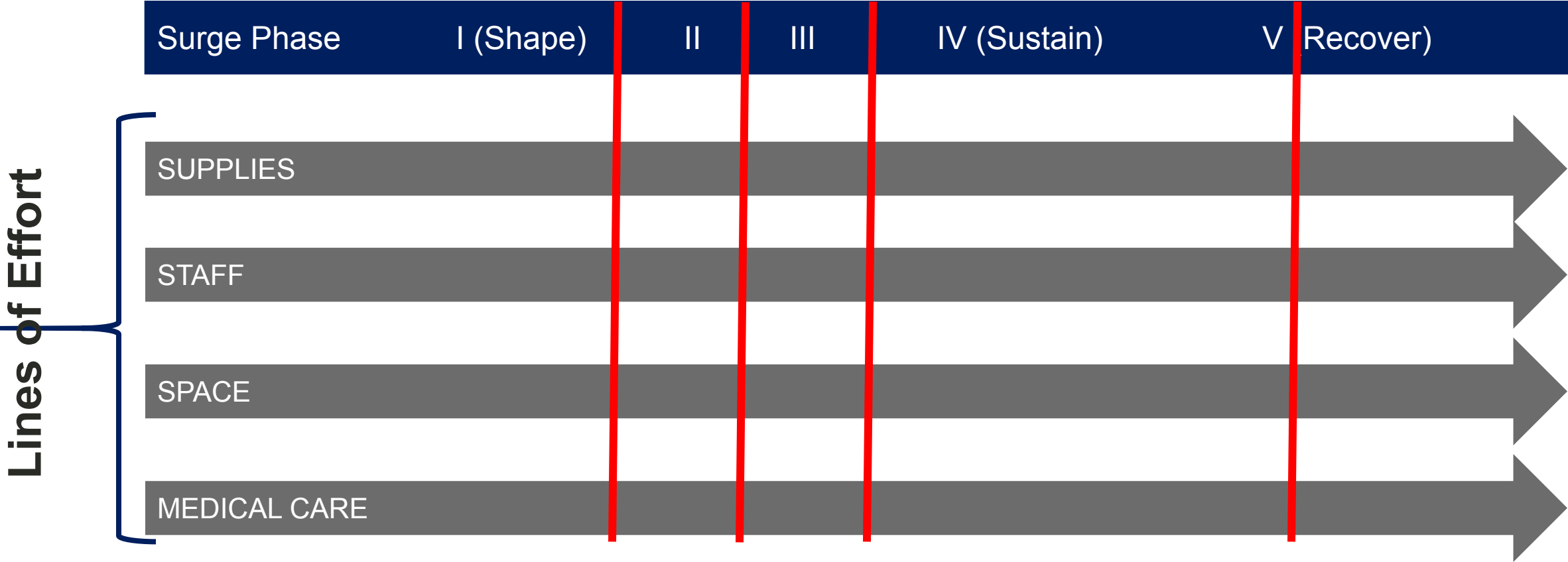
Prevent Failure/Stabilize Operations Phase III

Stability/Reopen Phase IV

Plan Begins

Plan Termination

Collective Response Will Require a Phased Approach



Examples: Lines of Effort

SUPPLIES

- PPE **substitutions/alternatives** for those in contact with asymptomatic patients that may be positive

STAFF

- Adjust **care ratios** (e.g., from 1:2 to 1:3) to increase labor capacity

SPACE

- Move to **double occupancy** (known positives/known negatives)

MEDICAL CARE

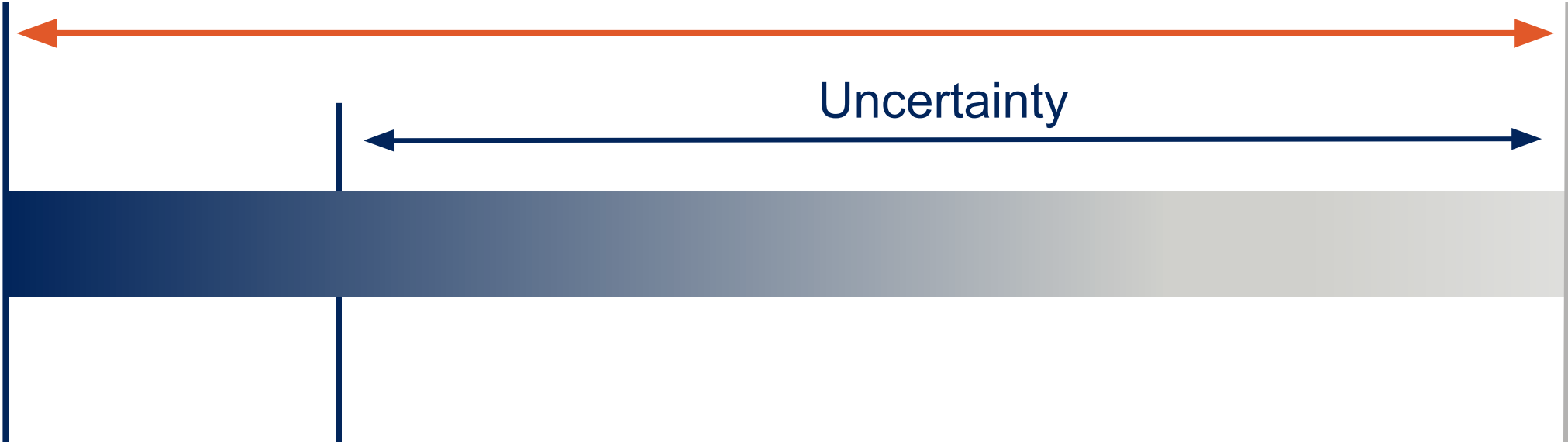
- Advance discharge protocols to **alternative sites** for recovering patients to open beds faster



ST. LOUIS METROPOLITAN **PANDEMIC TASK FORCE**



Maximum Uncertainty

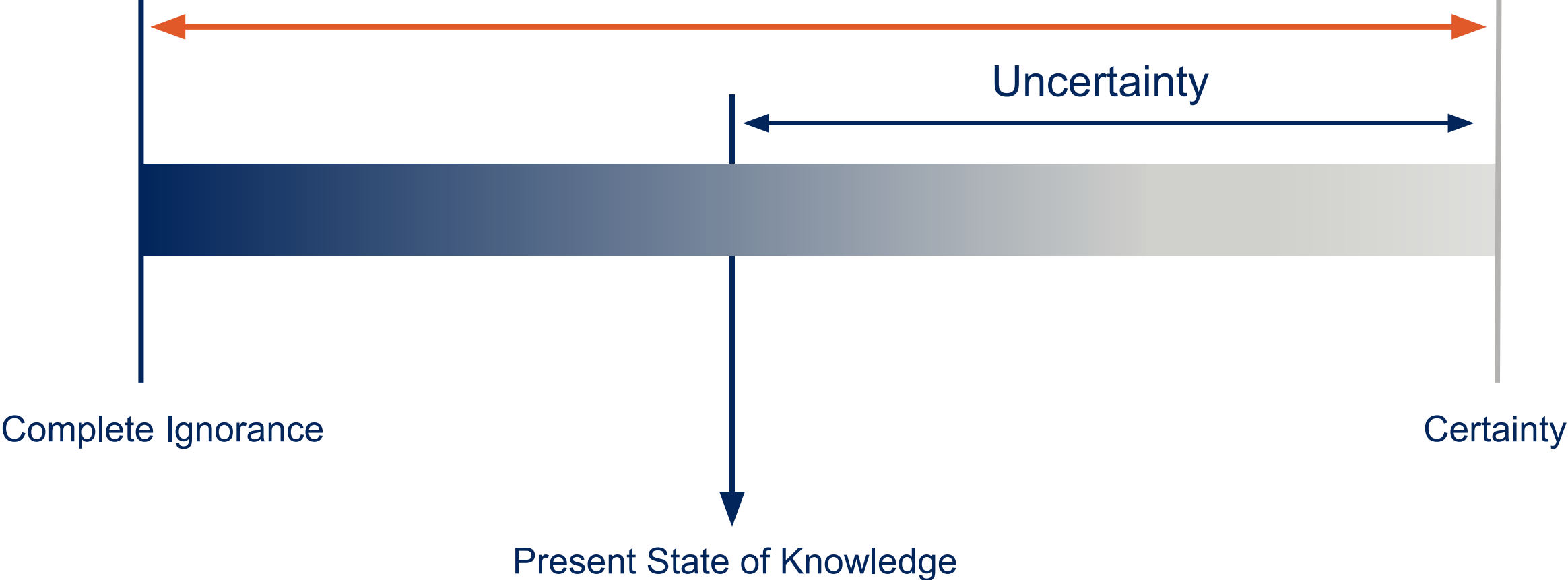


Complete Ignorance

Certainty

Present State of Knowledge

Maximum Uncertainty





COMMENTARY

The Covid-19 War: Military Lessons Applied to a Public Health Campaign

Leaders of major health care systems in St. Louis, Missouri, joined forces to form a pandemic task force grounded in military planning and decision-making protocols and processes to address needs and concerns related to the coronavirus.

By Alexander Gerard Garza, MD, MPH, Wm. Claiborne Dunagan, MD, MS & Keith Starke, MD

February 9, 2021

Learning Objectives

- How to use a deliberate planning process in periods of uncertainty
- Adapting to changes on the ground
- Leveraging communication to advance and influence your strategic plans

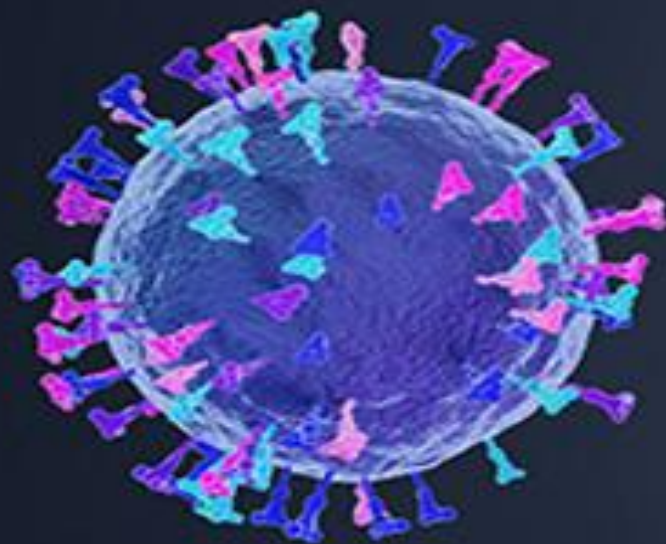
Learning Objectives

- How to use a deliberate planning process in periods of uncertainty
- **Adapting to changes on the ground**
- Leveraging communication to advance and influence your strategic plans

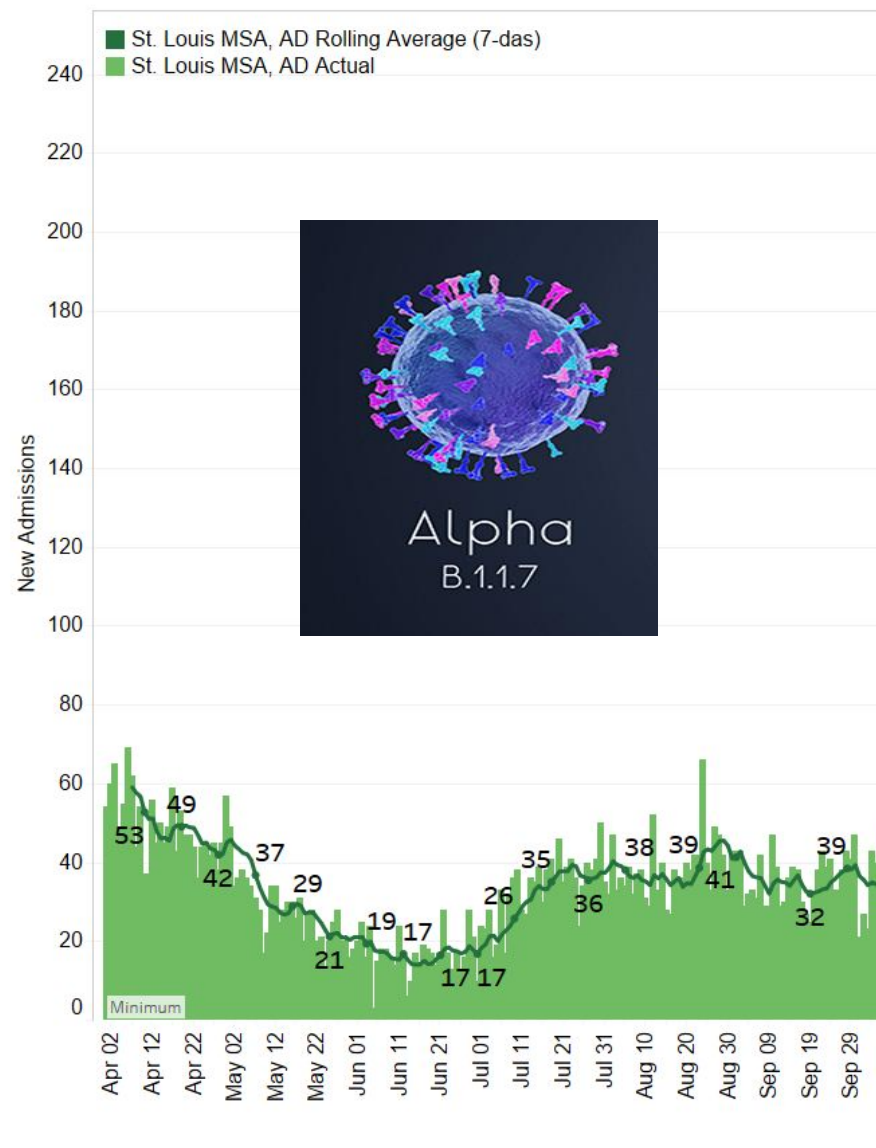


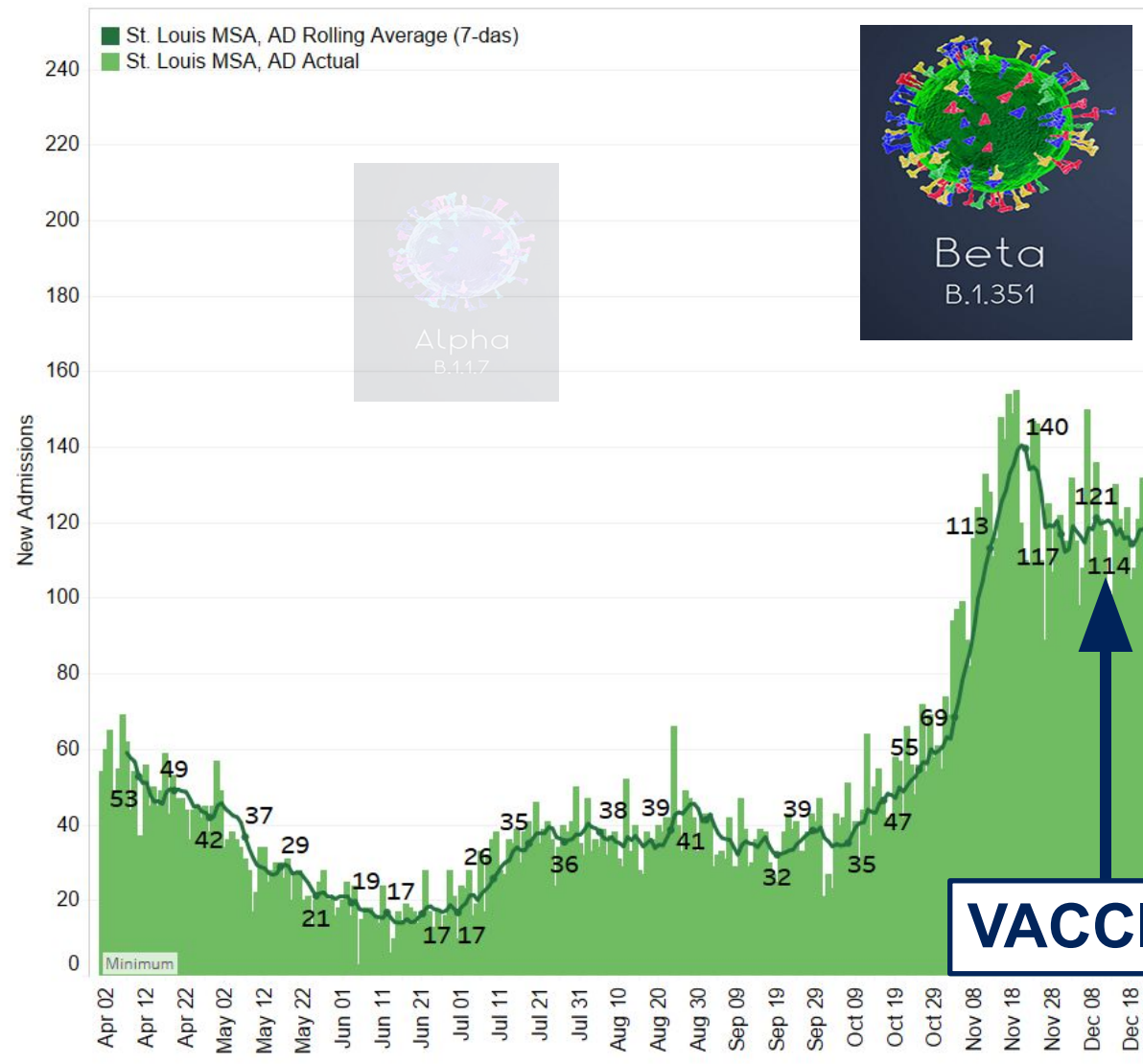
No plan of operations extends with any certainty beyond the first contact with the main hostile force.

~ Helmuth von Moltke the Elder

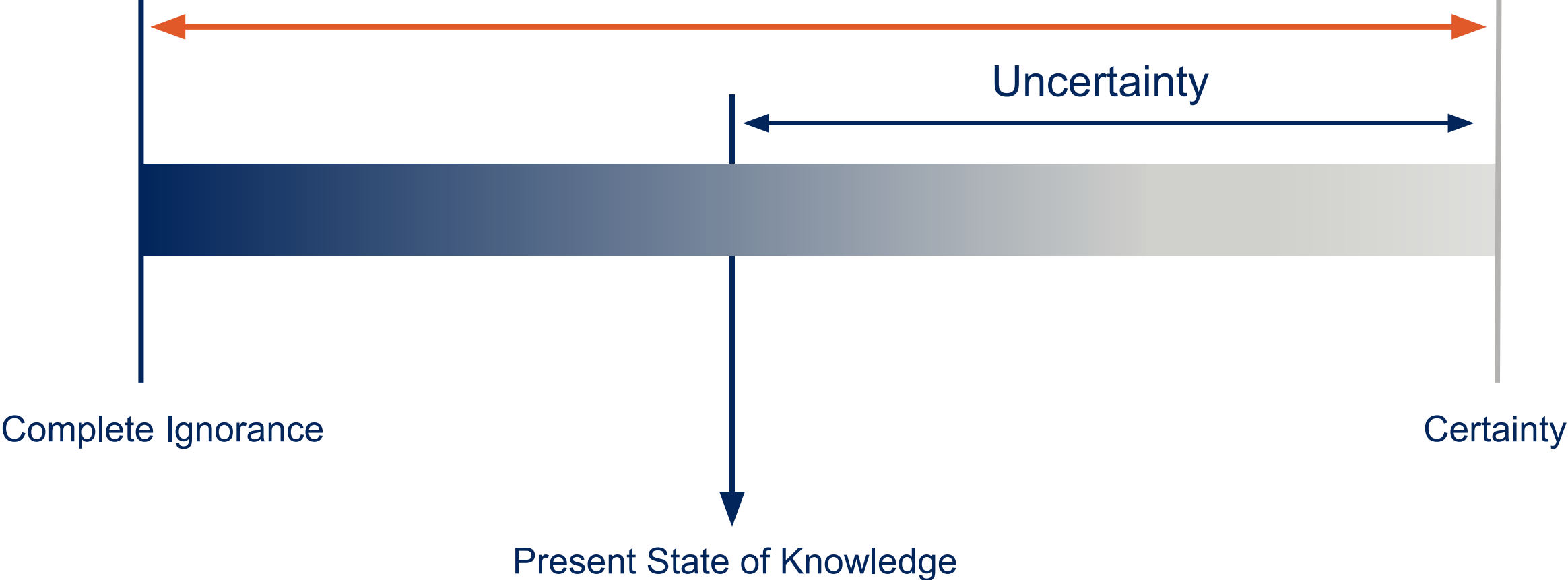


Alpha
B.1.1.7

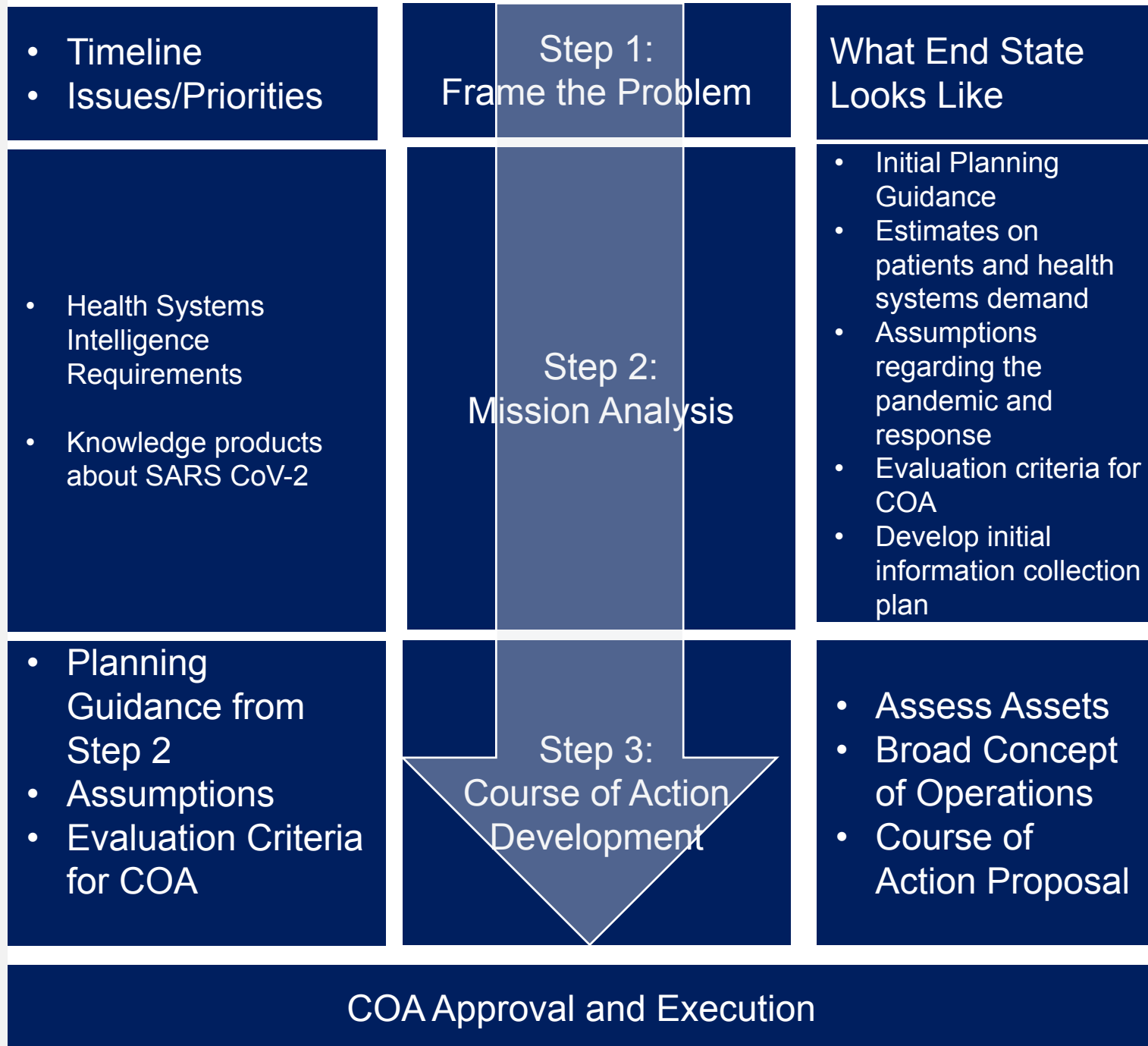


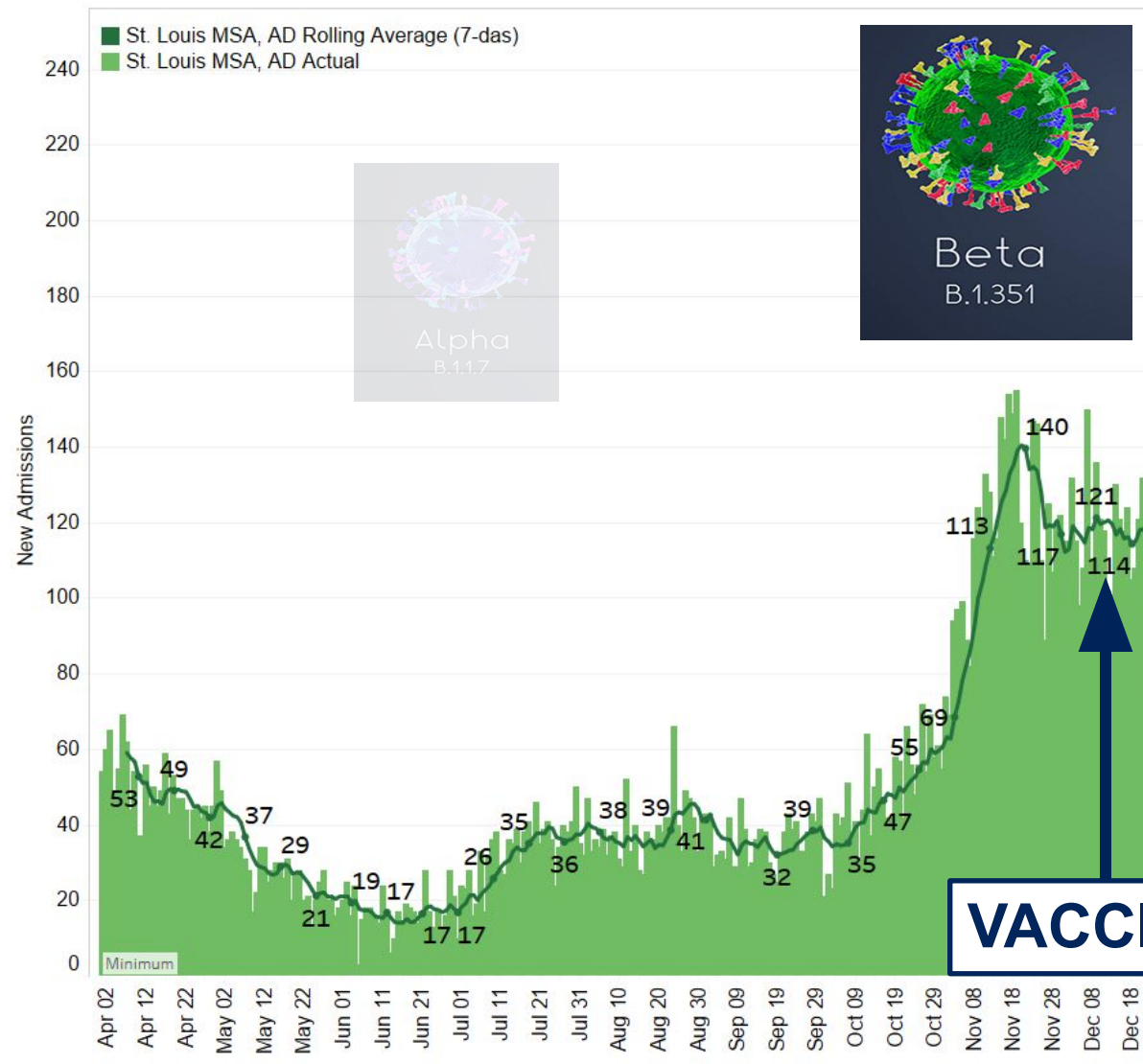


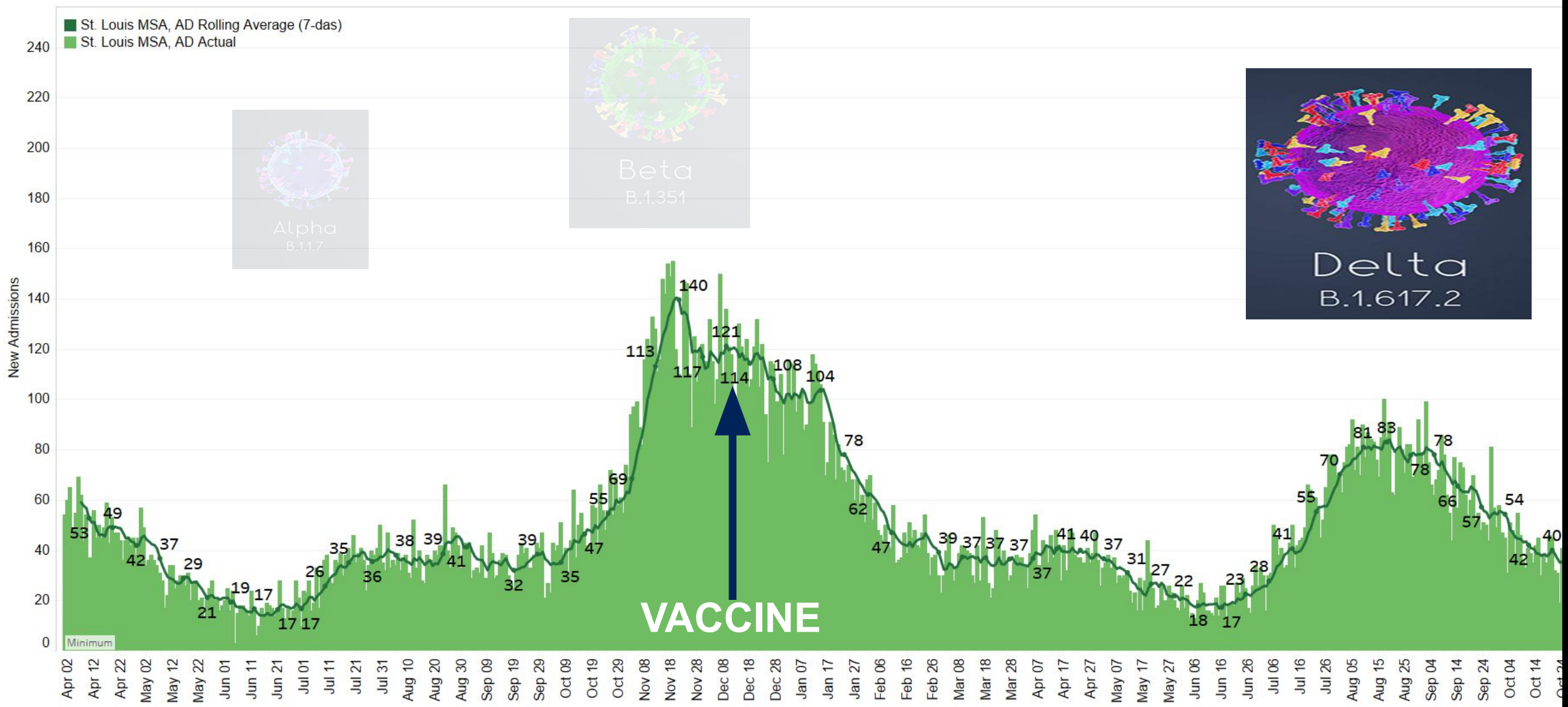
Maximum Uncertainty

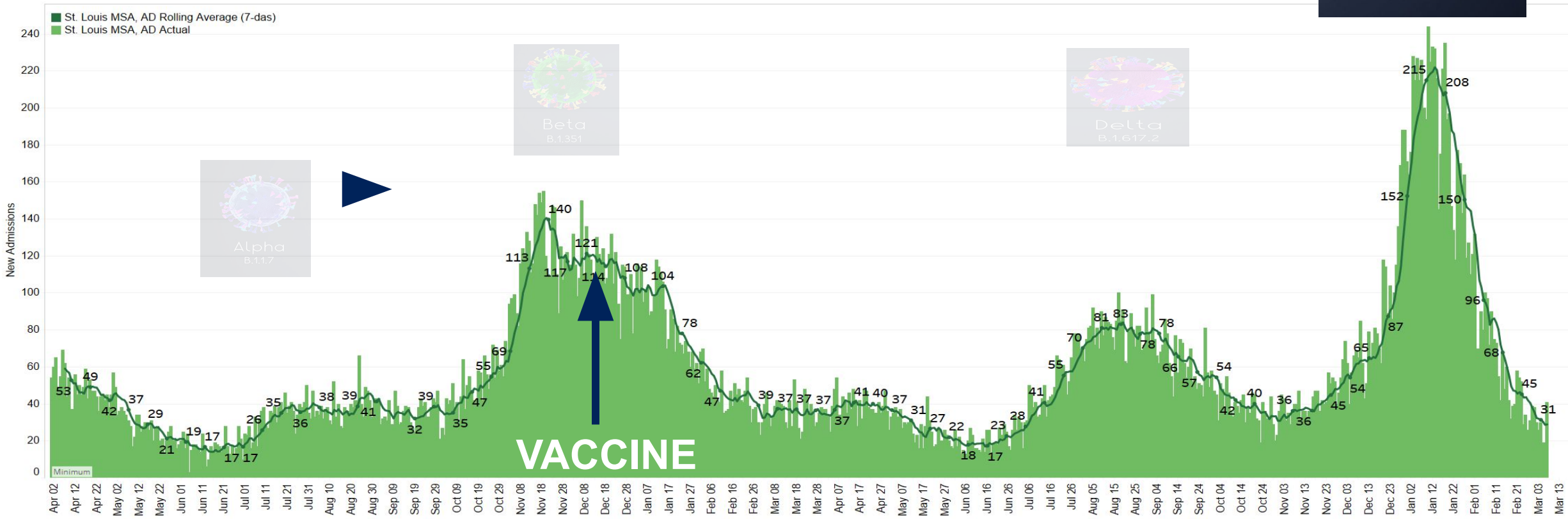


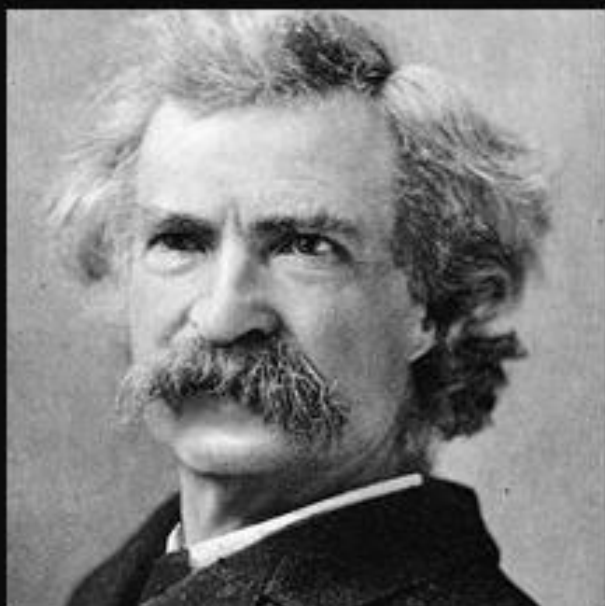
Planning & Decision Making Process











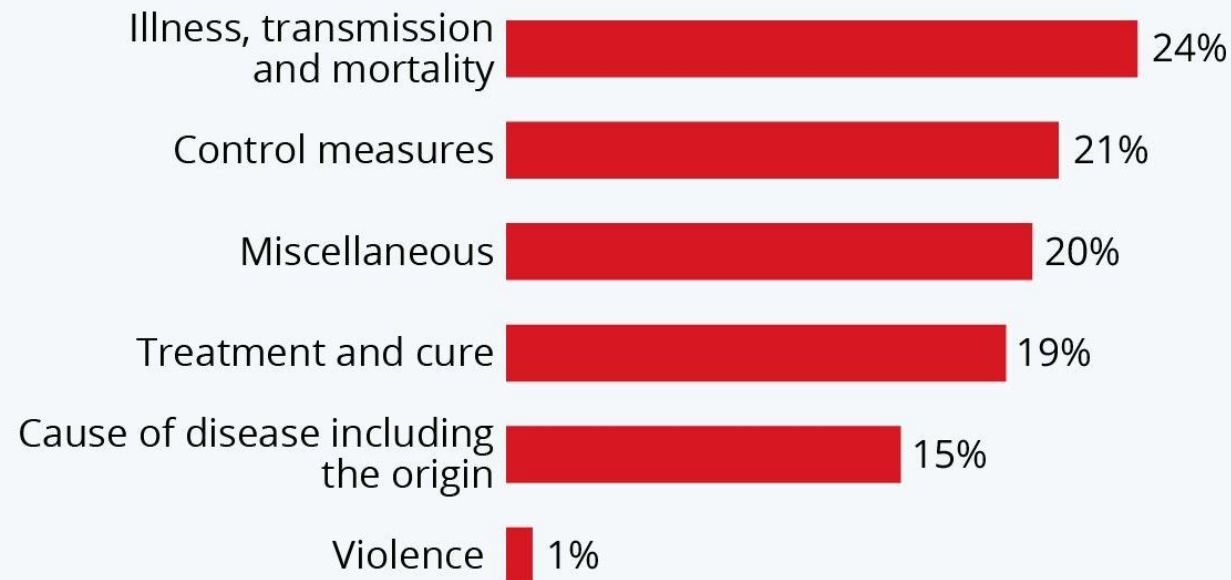
A lie can make it half way around
the world before the truth has
time to put its boots on.

~ Mark Twain



The Composition Of Coronavirus Misinformation

Composition of Covid-19 rumors, stigma and conspiracy theories circulating on social media/online news platforms*



* Based on 2,311 reports in 25 languages from 87 countries between Dec 31, 2019 and Apr 15, 2020.

Source: American Journal of Tropical Medicine and Hygiene

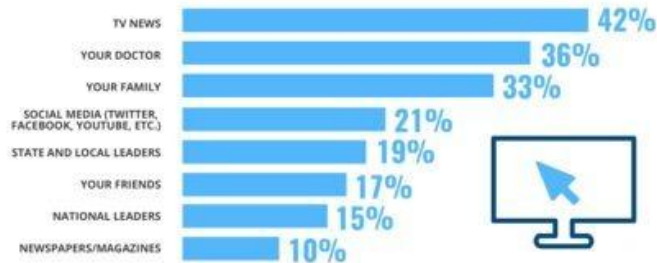


THE DANGEROUS LINK BETWEEN SOCIAL MEDIA, MISINFORMATION, AND VACCINATION RATES

A new study provides irrefutable evidence that people who rely on social media for information about COVID-19 are much more likely to believe misinformation about the virus, and much less likely to be vaccinated.



What sources of information most influence you when it comes to COVID-19, masking, social distancing, and the vaccines? (percentage choosing source as one of two most influential)



Do you agree or disagree with the following statements? (percentage who said "agree" by primary source of information)

	The COVID-19 vaccine could make people infertile and unable to have kids.	These new mRNA vaccines could alter your DNA. Nobody really knows.	COVID-19 is only as serious as the common flu.	COVID-19 was released with the aim of destroying some of the world's economies.	The true number of people infected with coronavirus is deliberately hidden from the public.
ALL RESPONDENTS	24	30	31	43	54
SOCIAL MEDIA	41	44	52	58	65
NEWSPAPERS/TV	21	26	28	39	51
DOCTORS	15	26	24	37	50
STATE, LOCAL, OR NATIONAL LEADERS	19	24	23	35	46



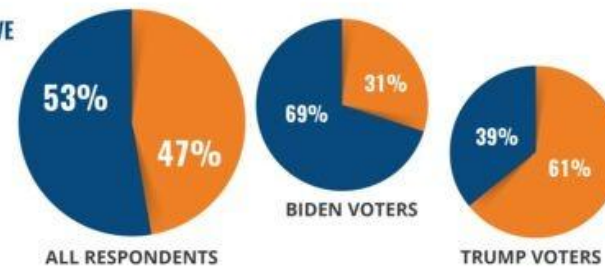
Have you received at least one dose of a COVID-19 vaccine? (percentage saying yes)



Based on what you know, do you think social media companies should....?

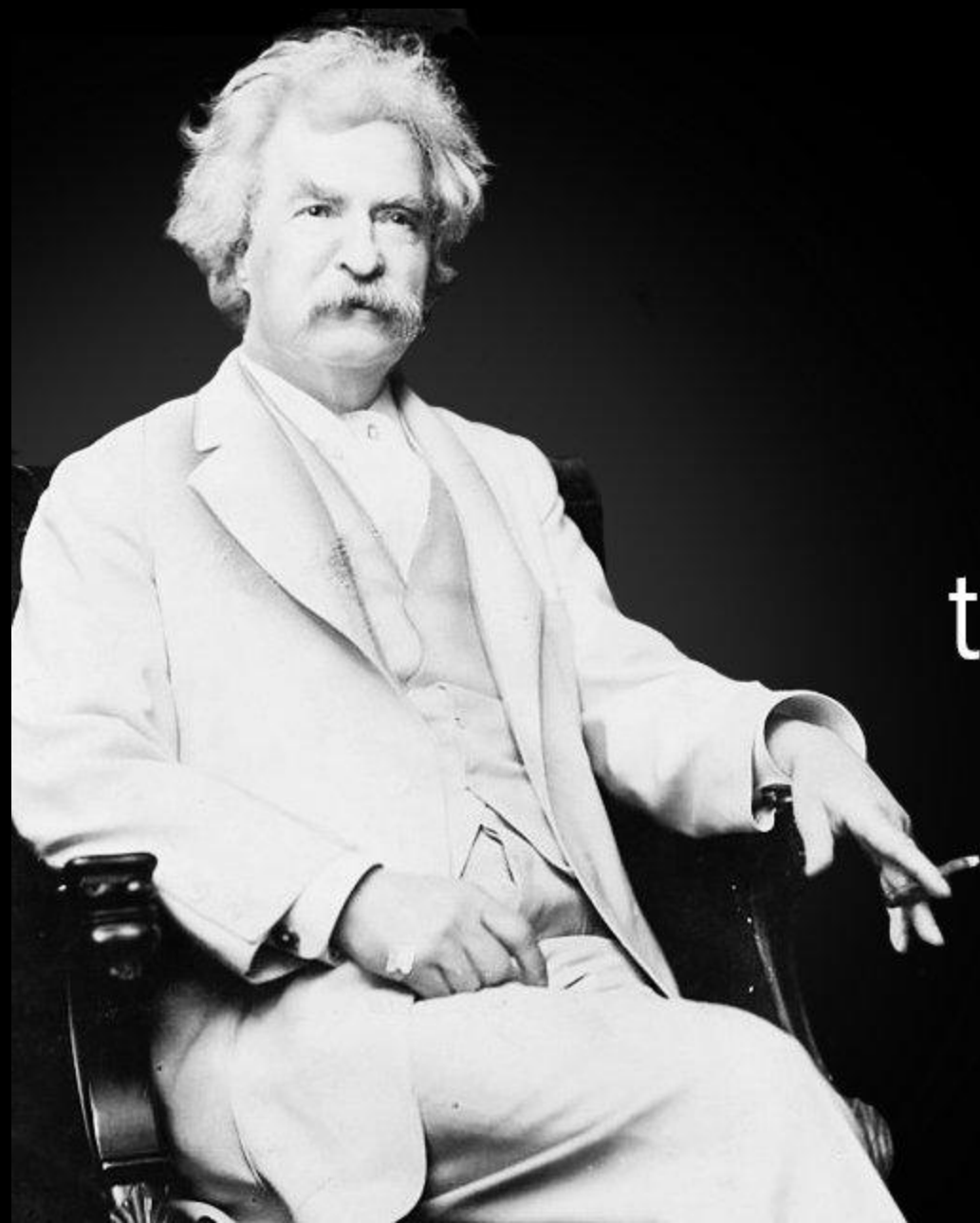
RESTRICT AND/OR REMOVE what they determine to be misinformation or disinformation about COVID-19 and the vaccines

LEAVE THE CONTENT about COVID-19 and the vaccines alone and let the reader/viewer decide for themselves



SOURCE: Poll among a sample of 3,000 adults, conducted September 20-22, 2021 by Morning Consult on behalf of the de Beaumont Foundation and Dr. Frank Luntz. The interviews were conducted online and the data were weighted to approximate a target sample of adults based on gender, educational attainment, age, race, and region. Results from the full survey have a margin of error of plus or minus 2 percentage points. changingthecovidconversation.org

de Beaumont
BOLD SOLUTIONS FOR HEALTHIER COMMUNITIES



It's easier **to fool** people
than to convince them
that they **have been fooled.**

– *Mark Twain*

AZ QUOTES

Learning Objectives

- How to use a deliberate planning process in periods of uncertainty
- **Adapting to changes on the ground**
- Leveraging communication to advance and influence your strategic plans

Learning Objectives

- How to use a deliberate planning process in periods of uncertainty
- Adapting to changes on the ground
- **Leveraging communication to advance and influence your strategic plans**



COVID: Communication Strategy

Appropriate and timely messaging to stakeholders

What is our unifying or dominant idea to express our purpose for action?



Theme & Message

- What is our **unifying or dominant idea** to express our purpose for action?
- What is our message to **support our theme**?

Communications

Home Posts Reviews Videos Photos

 **St. Louis Metropolitan Pandemic Task Force** was live. ⋮

1d · 🌐

St. Louis Metropolitan Pandemic Task Force
August 10, 2020 - Daily Briefing



Watch together with friends or with a group Start

  81 27 Comments 24 Shares 7.7K Views

 Like  Comment  Share

 Message ⋮

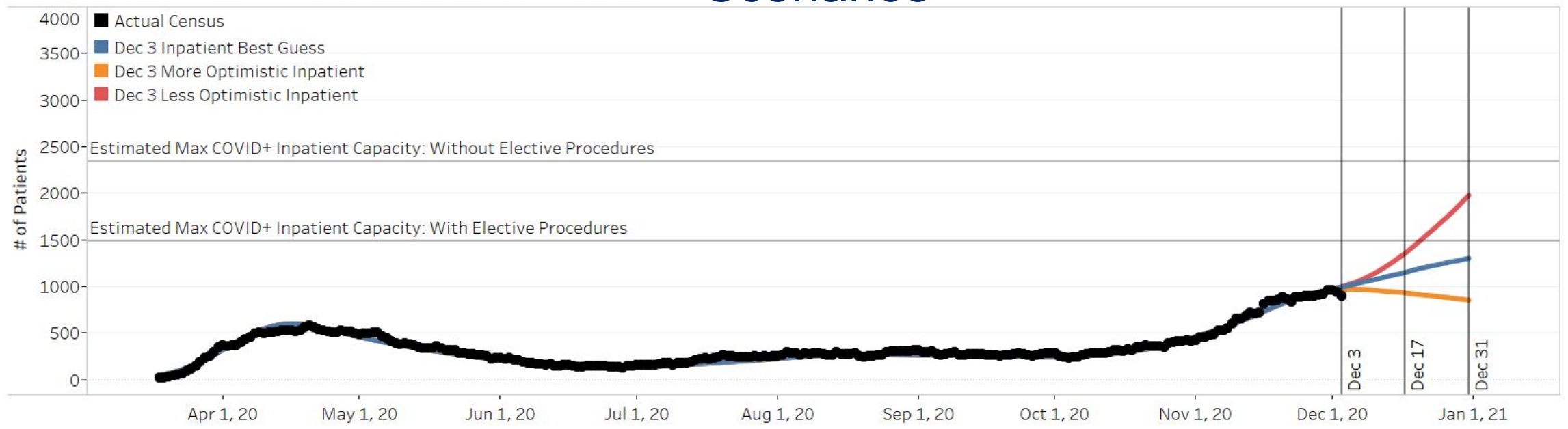
Communications

- **Be Consistent**
- **Be Clear**
- **Be Fact Based**
- **Be Available**
- **Argue on Logic, Not Emotion**



Alternate Models: More Optimistic and Less Optimistic Scenarios

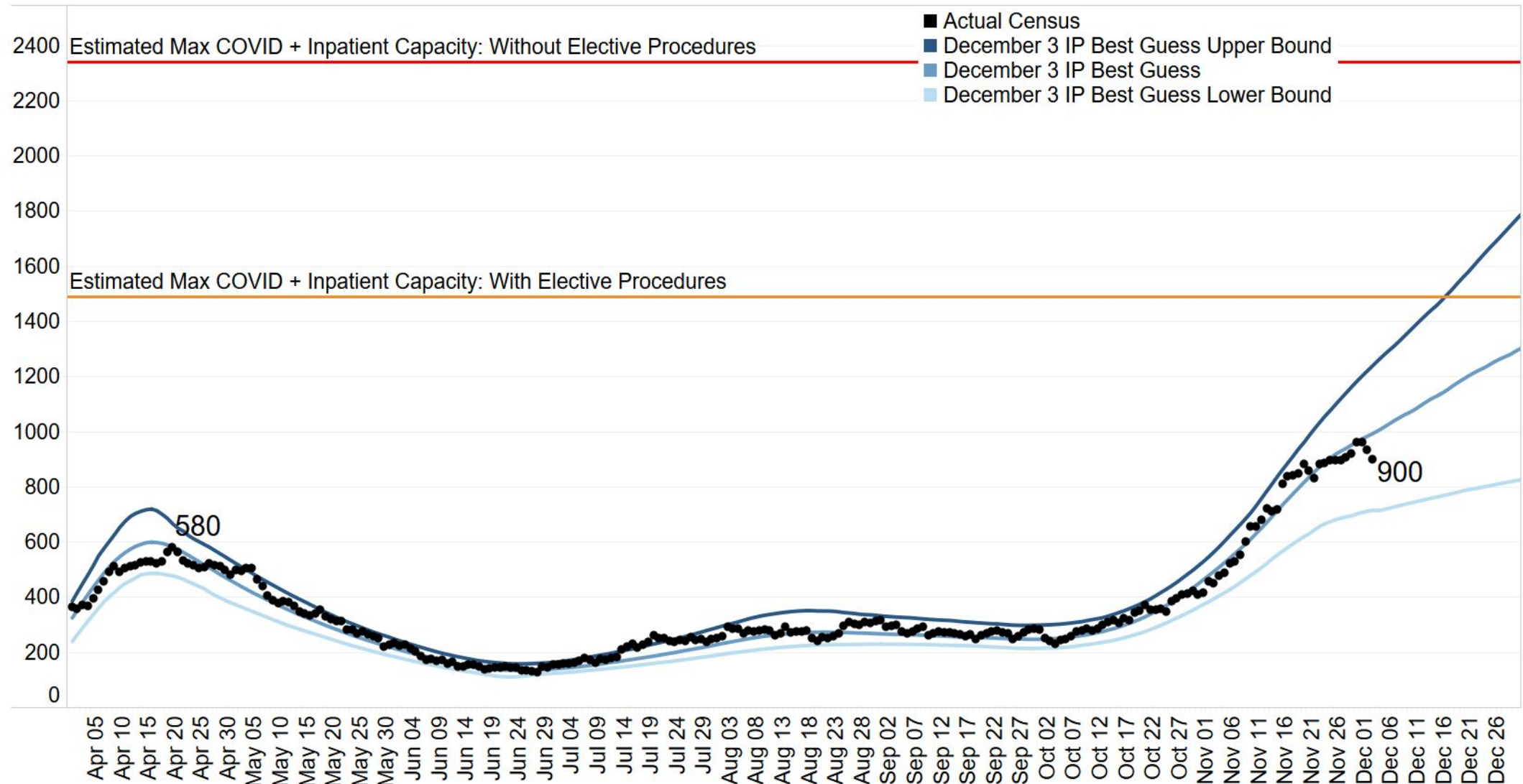
Projected and Actual IP Census for St. Louis MSA Based on SEIR Model



Trending of Reproduction Number (Re) Over Time



Projections vs. Actuals: COVID-19 Inpatient Census for St. Louis MSA Hospitals



BE A TEAM PLAYER. WEAR A MASK

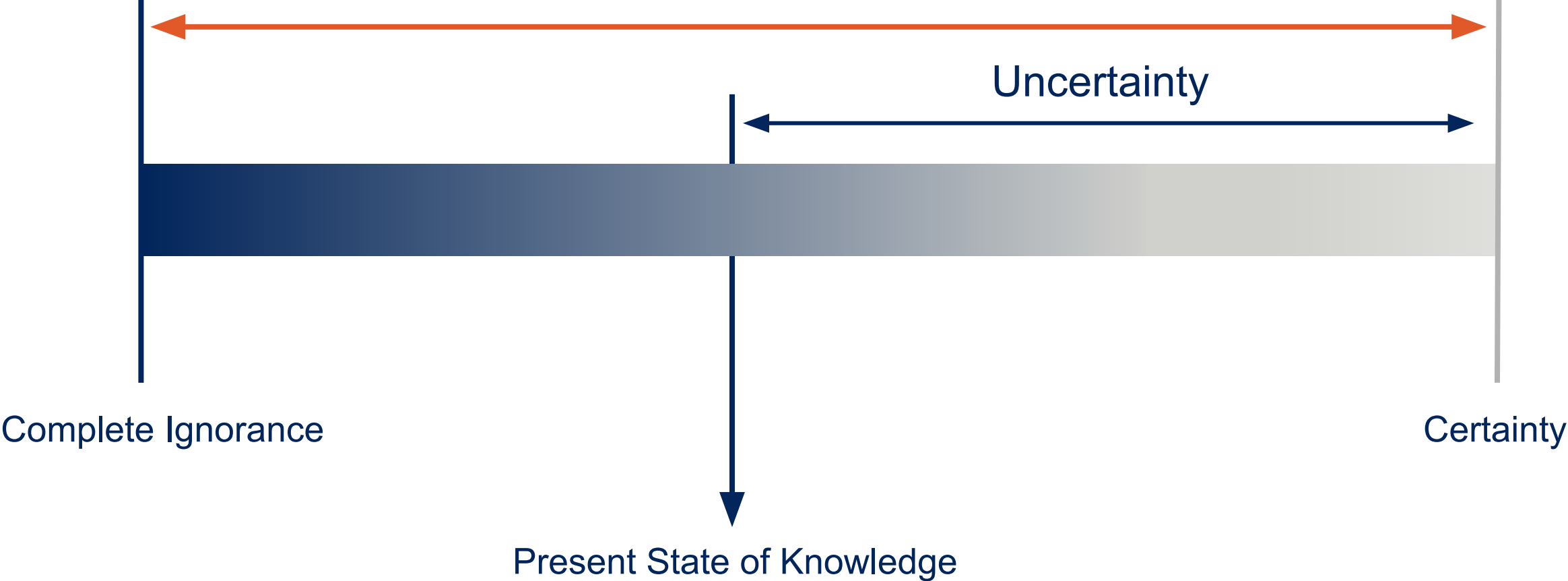


ST. LOUIS METROPOLITAN
PANDEMIC TASK FORCE

#STLMADE

YADIER MOLINA
ST. LOUIS CARDINALS

Maximum Uncertainty



Maximum Uncertainty



Complete Ignorance

Certainty

Present State of Knowledge

Sun Tzu



It is said that if you know your enemies and know yourself, you will not be imperiled in a hundred battles; if you do not know your enemies but do know yourself, you will win one and lose one; if you do not know your enemies nor yourself, you will be imperiled in every single battle.

AZ QUOTES



ST. LOUIS METROPOLITAN PANDEMIC TASK FORCE



U.S. Department
of Veterans Affairs