# Tragic Choices: The Allocation and Distribution of Scarce Resources During a Pandemic

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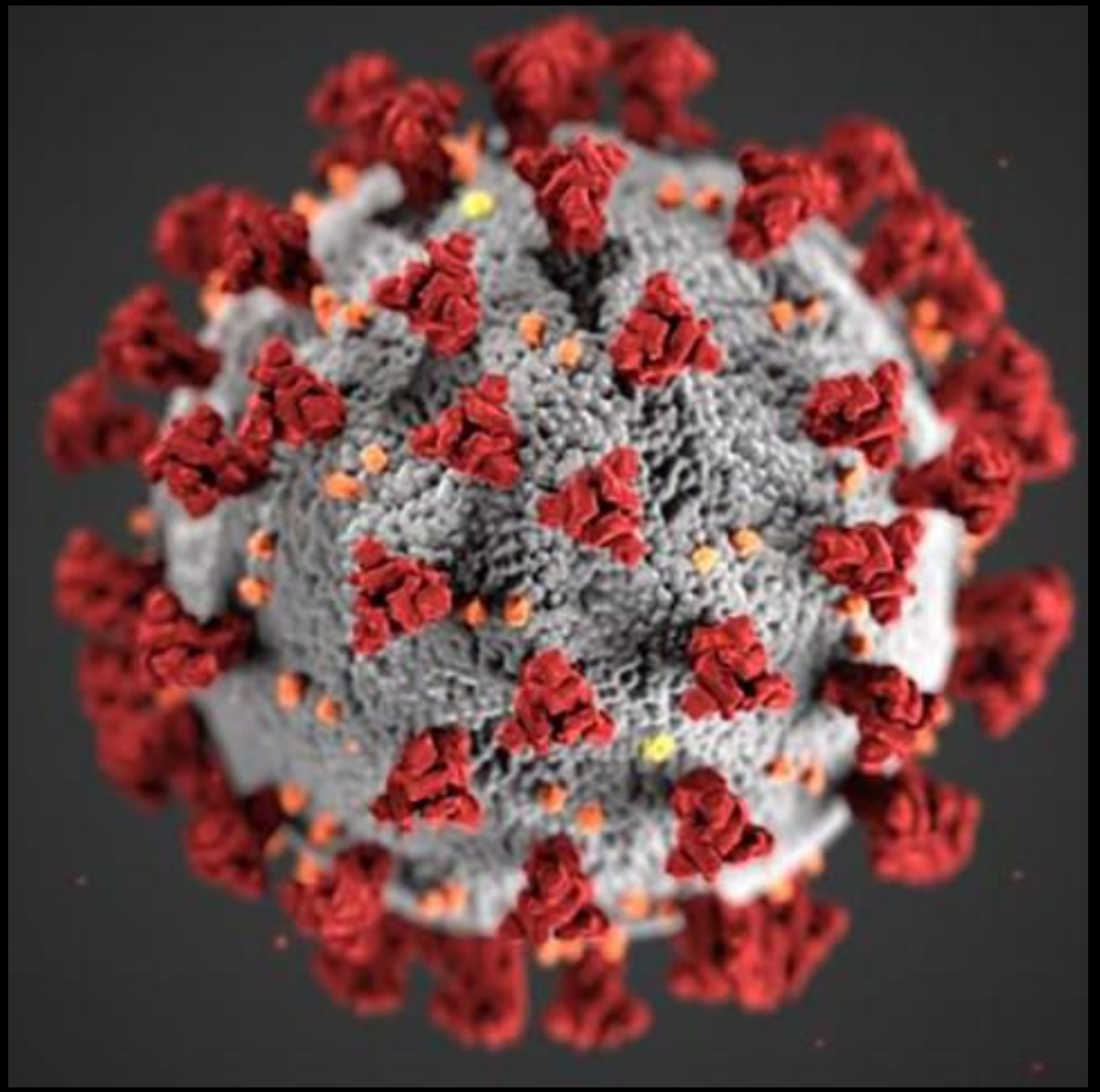


Image: CDC/Alissa Eckert, MS; Dan Higgins, MAMS

# Disclosure

**Neither I nor any member of my immediate family has a financial relationship or interest with any proprietary entity producing health care goods or services related to the content of this CME activity.**

Image: On a Walk/Douglas Diekema MD, MPH

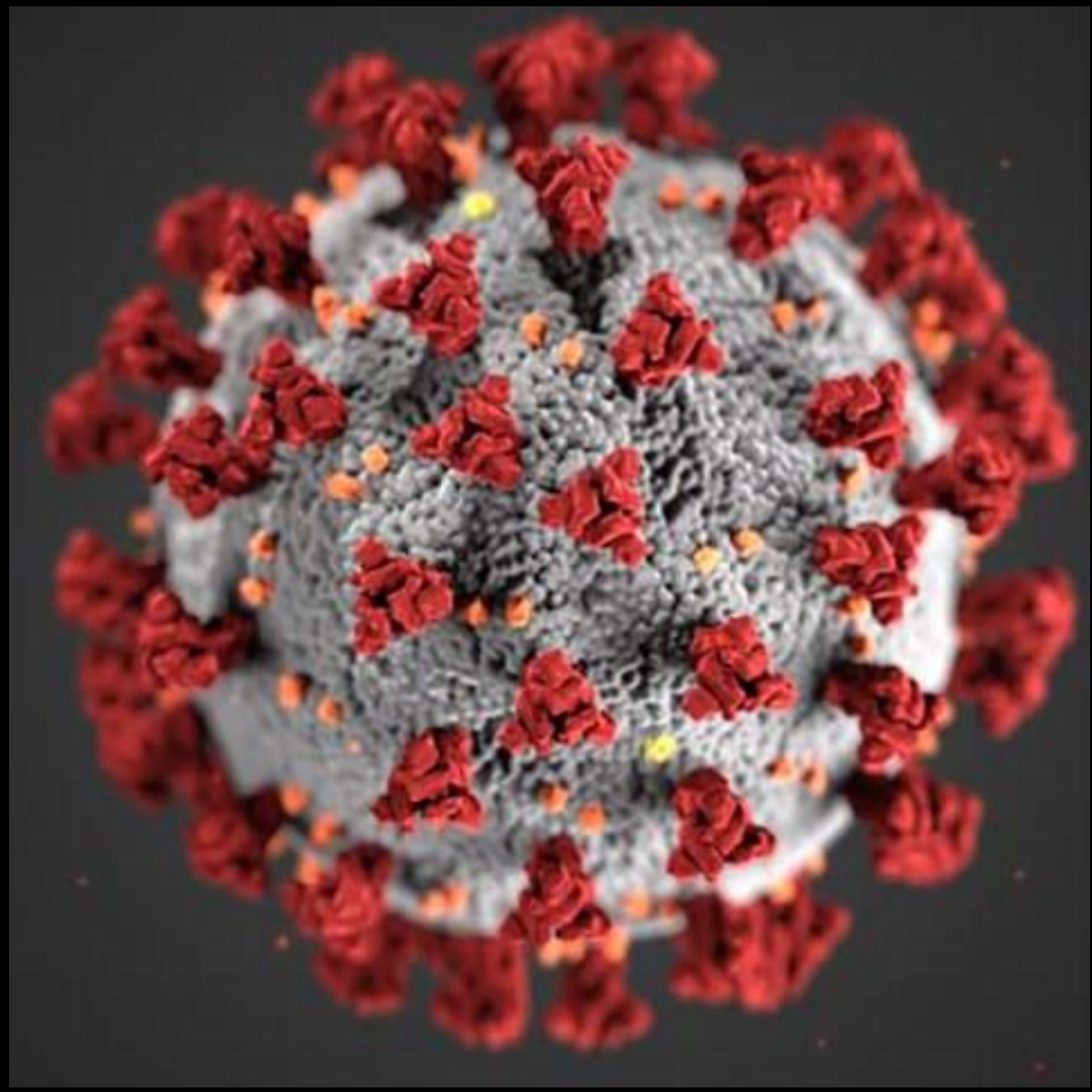


Image: CDC/Alissa Eckert, MS; Dan Higgins, MAMS

# January 2020


## Outbreak of Pneumonia of Unknown Etiology (PUE) in Wuhan, China

HAN HEALTH ALERT NETWORK

NVH This is an official CDC HEALTH ADVISORY

Distributed via the CDC Health Alert Network
January 8, 2020, 1615 ET (04:15 PM ET)
CDCHAN-00424

January 21, 2020

# Snohomish County man has the United States' first known case of the new coronavirus

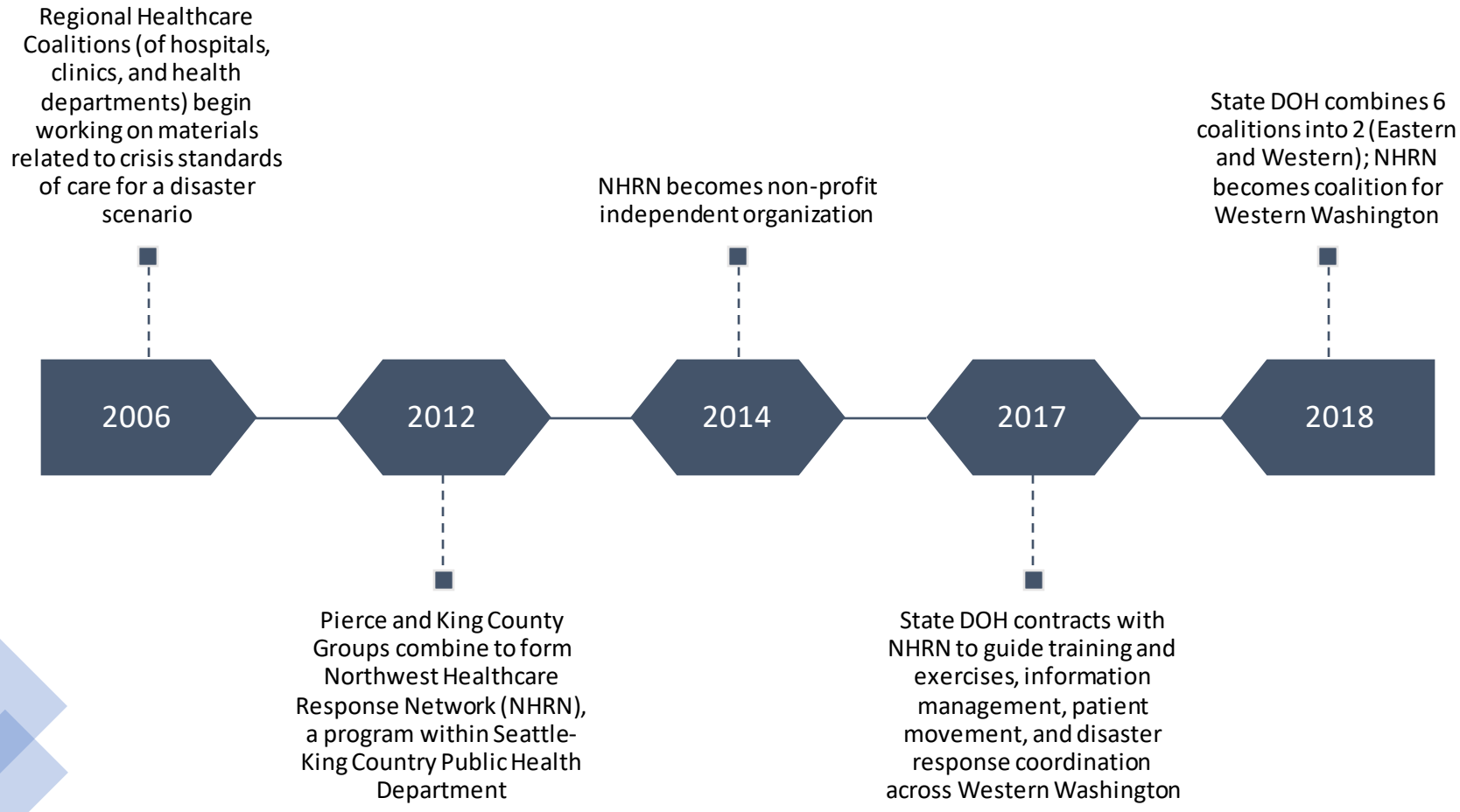
Jan. 21, 2020 at 10:58 am | *Updated March 11, 2020 at 1:08 pm*


1 of 3 | *At a news conference at the Washington state Department of Health's Public Health Laboratories on Tuesday, Dr. Satish Pillai of... (Greg Gilbert / The Seattle Times)* **More**

# Washington State Preparations

- Surveillance-Seattle Flu Study
- Disaster Preparedness
- Crisis Standards of Care

# Disaster Preparedness in Washington



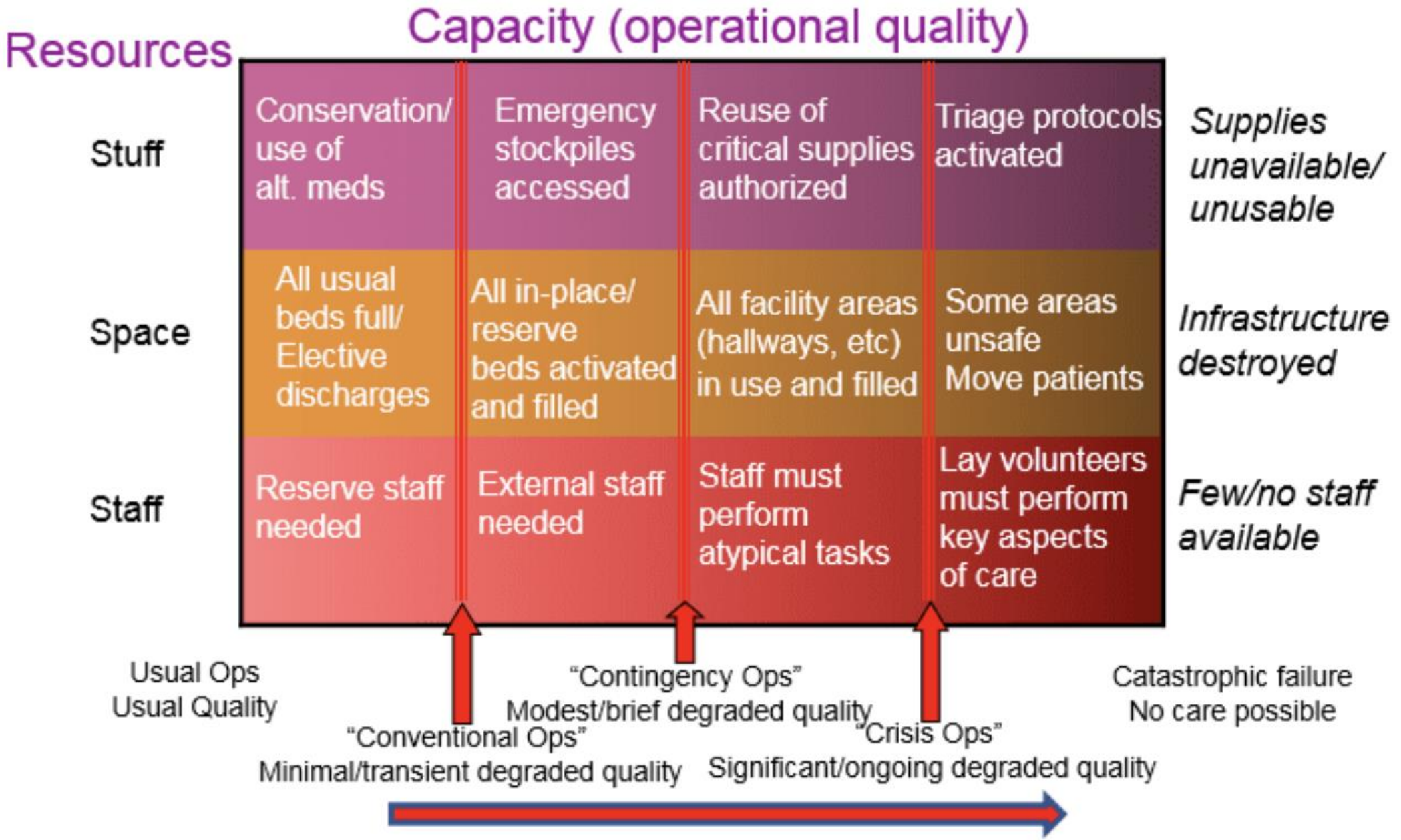

Washington State Department of Health

NORTHWEST HEALTHCARE Response Network


# Northwest Healthcare Response Network

- 70% of Washington State's Hospitals
- 3000 healthcare organizations
- 178,000 healthcare workers

- Disaster Clinical Advisory Committee
- Acute Infection Disease Advisory Group

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# Scarce Resource Management & Crisis Standards of Care

## Overview & Materials

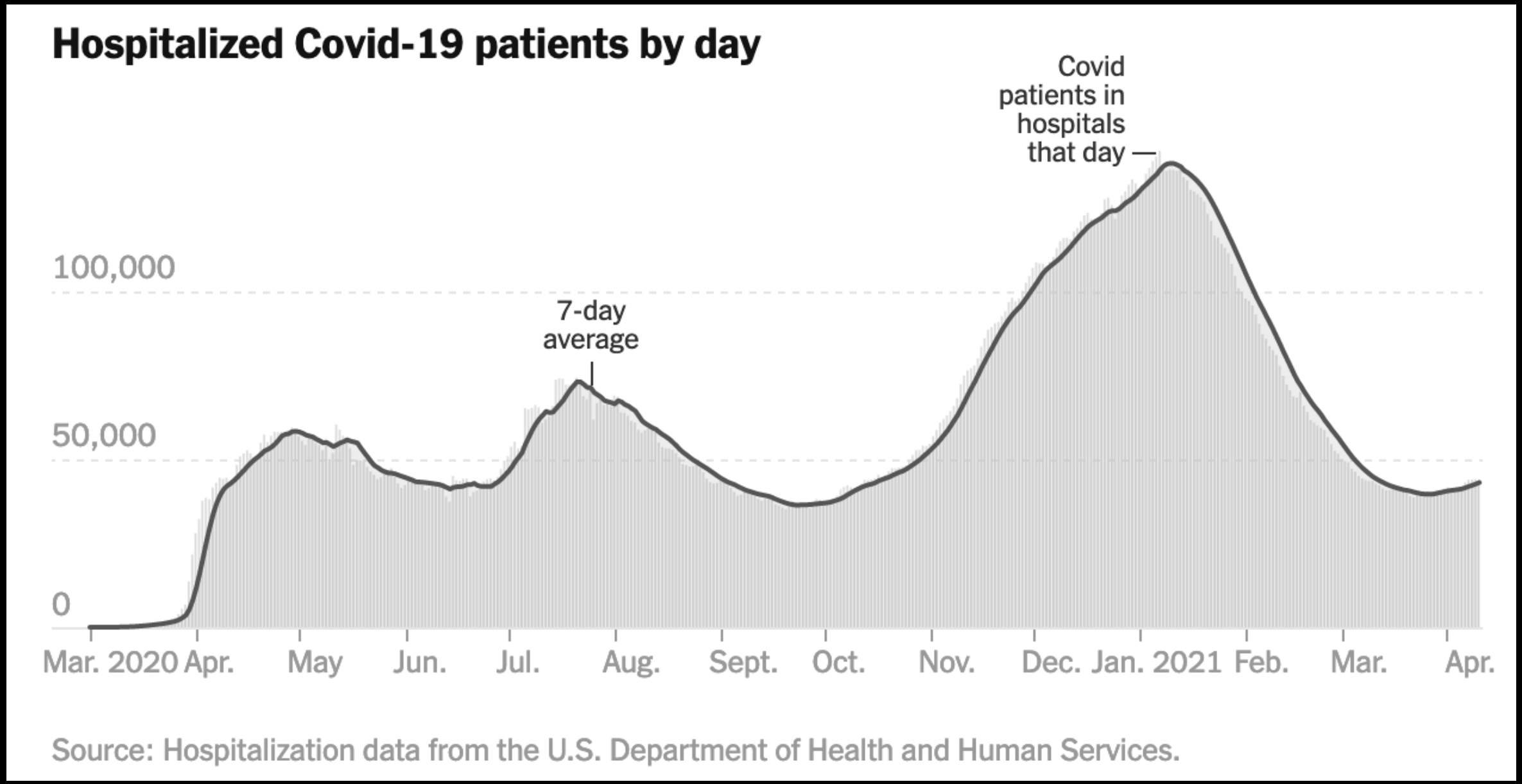
Critical Care Algorithms | Scarce Resource Cards | Triage Team Guidelines & Worksheets

# Scarce resource cards for potentially limited resources:

- Behavioral Health
- Blood products
- Burn
- Hemodynamic support and IV fluids
- Mechanical ventilation
- Medication administration
- Nutritional support
- Oxygen
- Renal replacement therapy
- Respirator and General PPE
- Staffing

NORTHWEST HEALTHCARE Response Network®

https://nwhrn.org/wp-content/uploads/2021/04/Scarce-Resource-Management-and-Crisis-Standards-of-Care-December-2020.pdf




New York Times, April 11, 2021

The Coronavirus Outbreak | LIVE Latest Updates | Maps | How It Spread | U.S. Impact | Common Questions | Newsletter

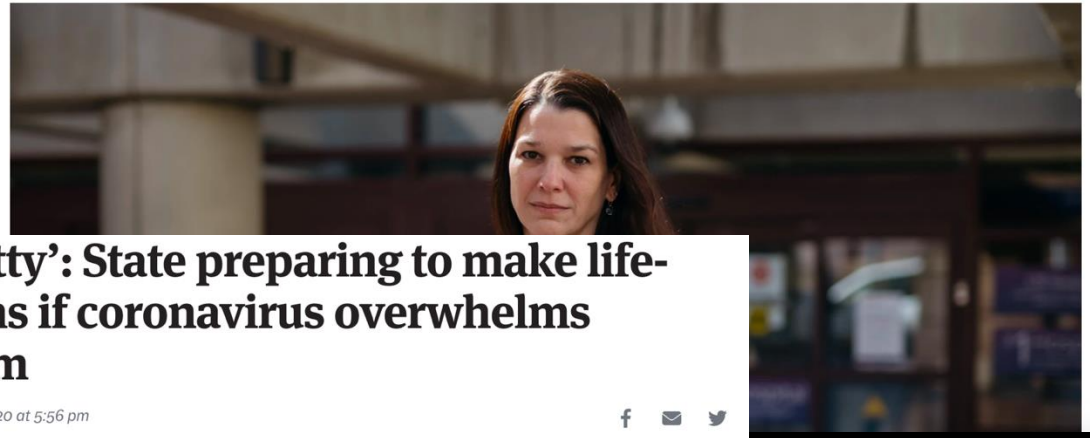
# *'Chilling' Plans: Who Gets Care as Washington State Hospitals Fill Up?*

Fearing a critical shortage of lifesaving resources as the coronavirus spreads, Washington State is engaged in grim discussions to determine which dying patients would get priority.


Seattle Children's Hospital has begun admitting people up to 21 years old to free up more b region's adult hospitals. Elaine Thompson/Associated Press

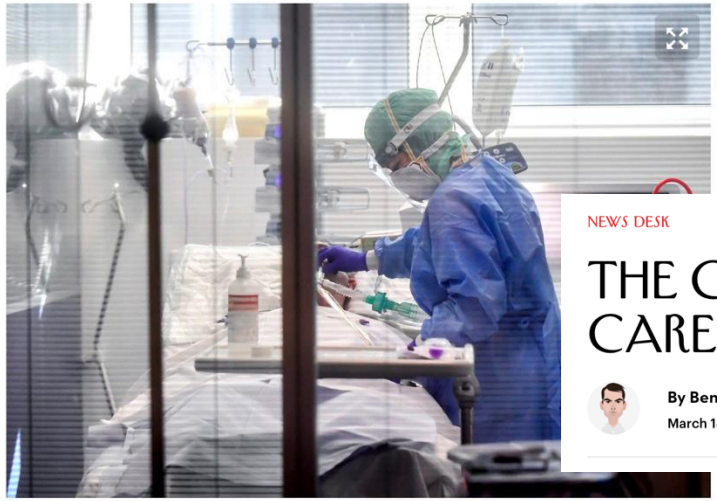
# The Hardest Questions Doctors May Face: Who Will Be Saved? Who Won't?

As coronavirus infections explode in the U.S., hospitals could be forced to make harrowing choices if pushed to the brink. Planning is already underway.



# 'It will not be pretty': State preparing to make life-or-death decisions if coronavirus overwhelms health care system

March 20, 2020 at 8:04 pm | *Updated March 21, 2020 at 5:56 pm*



*A staff member of a hospital in Brescia, Italy, tends to a patient in the intensive care unit. Italy's health care system is crumbling under... (Claudio Furlan / The Associated Press)* **More**

By Mike Carter
*Seattle Times staff reporter*

NEWS DESK

# THE COMING CORONAVIRUS CRITICAL-CARE EMERGENCY

By Benjamin Wallace-Wells
March 18, 2020

The NEW ENGLAND JOURNAL of MEDICINE

SOUNDING BOARD

# Fair Allocation of Scarce Medical Resources in the Time of Covid-19

Ezekiel J. Emanuel, M.D., Ph.D., Govind Persad, J.D., Ph.D., Ross Upshur, M.D., Beatriz Thome, M.D., M.P.H., Ph.D., Michael Parker, Ph.D., Aaron Glickman, B.A., Cathy Zhang, B.A., Connor Boyle, B.A., Maxwell Smith, Ph.D., and James P. Phillips, M.D.

Covid-19 is officially a pandemic. It is a
tion with serious clinical manifestation
death, and it has reached at least 12

Annals of Internal Medicine

ORIGINAL RESEARCH

# Ventilator Triage Policies During the COVID-19 Pandemic at U.S. Hospitals Associated With Members of the Association of Bioethics Program Directors

Armand H. Matheny Antommaria, MD, PhD; Tyler S. Gibb, JD, PhD; Amy L. McGuire, JD, PhD; Paul Root Wolpe, PhD; Matthew K. Wynia, MD, MPH; Megan K. Applewhite, MD, MA; Arthur Caplan, PhD; Douglas S. Diekema, MD, MPH; D. Micah Hester, PhD; Lisa Soleymani Lehmann, MD, PhD; Renee McLeod-Sordjan, DNP; Tamar Schiff, MD; Holly K. Tabor, PhD; Sarah E. Wieten, PhD; and Jason T. Eberl, PhD; for a Task Force of the Association of Bioethics Program Directors*

# The Ethics of Creating a Resource Allocation Strategy During the COVID-19 Pandemic

Naomi Laventhal, MD, MA, FAAP, Ratna Basak, FRCPCH, FAAP, Mary Lynn Dell, MD, DMin, Douglas Diekema, MD, MPH, FAAP, Nanette Elster JD, MPH, Gina Geis, MD, MS, FAAP, Mark Mercurio, MD, MA, FAAP, Douglas Opel, MD, MPH, FAAP, David Shalowitz, MD, MSHP, Mindy Statter, MD, MBE, FACS, FAAP, and Robert Macauley, MD, FAAP

**DOI:** 10.1542/peds.2020-1243

**Journal:** *Pediatrics*

# PROVIDING ETHICAL CARE IN A PUBLIC HEALTH EMERGENCY: THE SHIFT FROM BENEFICENCE TO JUSTICE

**Clinicians, such as physicians and nurses, are trained to care for individuals.**

**Public health emergencies require clinicians to change their practice to respond to the care needs of populations.**

**In a public health emergency, the fair allocation of scarce resources requires clinicians to prioritize the community.**

**The shift from patient-centered practice to patient care guided by public health duties creates great tension for clinicians, including clinical ethics consultants.**

The Hastings Center

# Principle of Disaster Triage

The goal is saving as many people as possible, by treating those who are likely to get the **greatest benefit** from care while using the **fewest resources**.

Justice requires that everyone be treated similarly unless there is a good (relevant and justifiable) reason to treat some people differently

# Formal Principle of Justice (Aristotle)

# What Features are Relevant?

- Merit/Dessert/Effort (promotion, pay)
- Reciprocity (Markets/Investments)
- Equality (Application of Laws/Rules)
- Need (Health Care/disaster triage)

# What Features are Relevant in a public health emergency?

~~Merit/Dessert/Effort (promotion, pay)~~

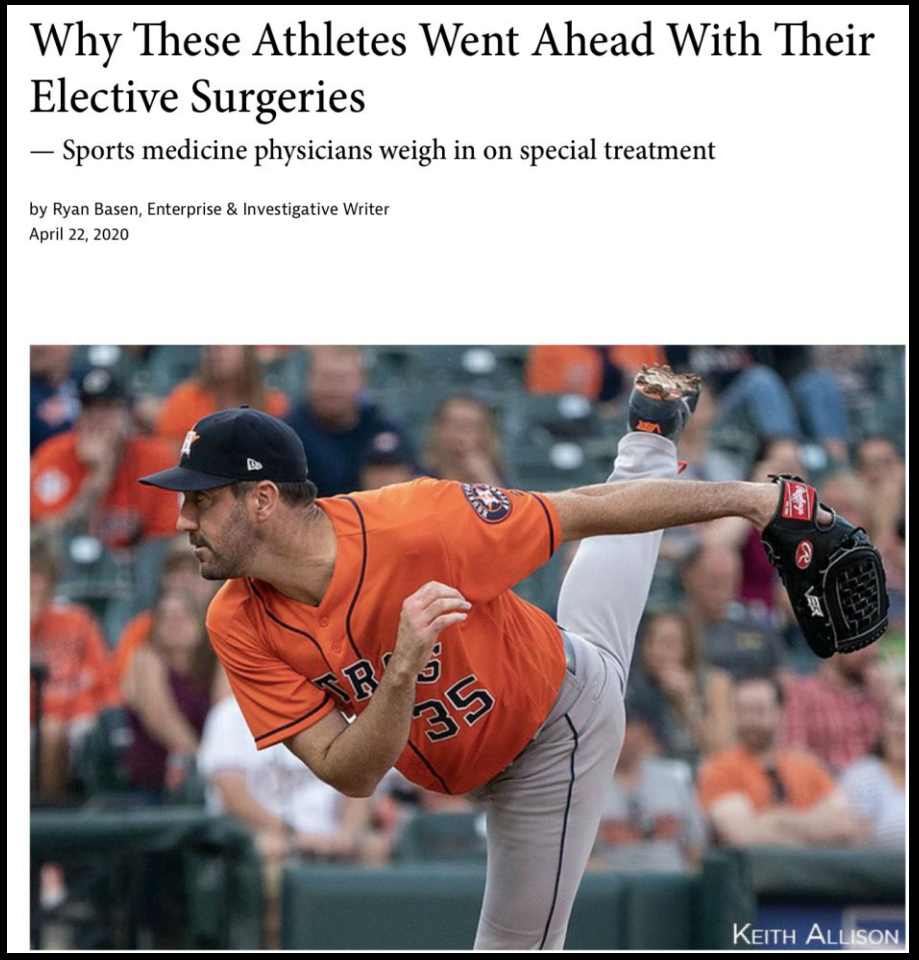
~~Reciprocity (Markets/Investments)~~

~~Equality (Application of Laws/Rules)~~

**Need (Health Care/disaster triage)**

# What Factors are Not Relevant?

- VIP, status, political power, social “worth”
- Race
- Disability
- Ethnicity
- Ability to Pay
- SES
- Past use of resources
- Perceived obstacles to treatment
- Age?



Why These Athletes Went Ahead With Their Elective Surgeries

— Sports medicine physicians weigh in on special treatment

by Ryan Basen, Enterprise & Investigative Writer
April 22, 2020

***Eligibility***

Potential for Benefit

Willing to Accept Treatment

***First in Line***

Likelihood of Benefit

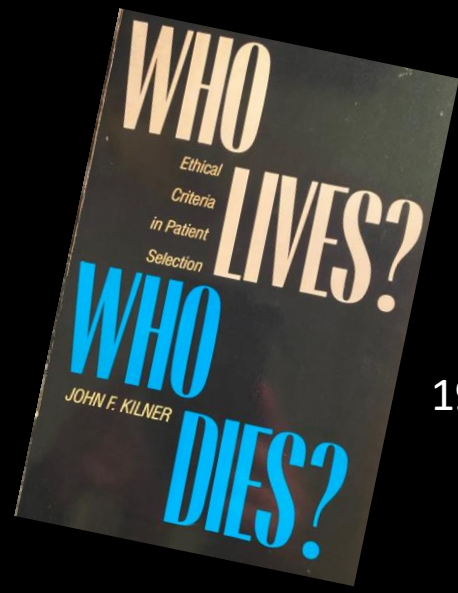
Degree of Need

Less Resource Required

***Tie-breakers***

Random Allocation

First in Line

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# Basic Triage: Allocation of Scarce Treatment Resources

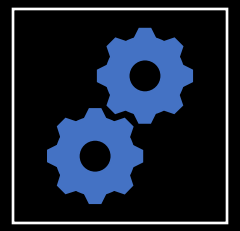
***General Order of Priority***

1) *Likely to survive only with treatment*
2) *Likely to survive without treatment*
3) *Likely to die regardless*

# How to Define Benefit

- Life-years?
- QALY adjusted life-years?
- Long-term survival?
- 5-year survival?
- Survival to discharge
  - Are SOFA scores adequate and fair?

# Should younger age groups be prioritized?: Yes



Utility:

Optimizes “life-years” saved

Fair Innings Argument

# Should younger age groups be prioritized?: No

- Ageist: Devalues older individuals (form of social value)
- Covid-19 already prioritizes the young (less likely to get ill and more likely to survive)
- Would prioritize a child over their parent (who cares for them)
- How do you mark the “innings”?

# Should Health Care Workers be Prioritized?

## Yes

- Utilitarian or “Multiplier Effect”
  - Maintain Healthcare Workforce
  - Minimize spread from HCPs to Patients
- Social Contract
- Reciprocity

THE AMERICAN JOURNAL OF BIOETHICS
https://doi.org/10.1080/15265161.2020.1764140

OPEN PEER COMMENTARIES

**Prioritizing Frontline Workers during the COVID-19 Pandemic**

Nancy S. Jecker[a], Aaron G. Wightman[a], and Douglas S. Diekema[a,b]

[a]University of Washington School of Medicine; [b]Seattle Children’s Hospital

# Should Health Care Workers be Prioritized?

No

Utilitarian or “Multiplier Effect”: Questionable with COVID-19

Social Contract: Exists for PPE (and maybe vaccine), but there is no promise to be first in line for treatment

Reciprocity: Added risk is part of the professional role

Looks bad: Favoritism from those who control resources

Exacerbates societal disparities

Where do you draw the line? Why HCPs?, Why just HCWs?

***Eligibility***

Potential for Benefit

Willing to Accept Treatment

***First in Line***

Likelihood of Benefit: Survival to Discharge

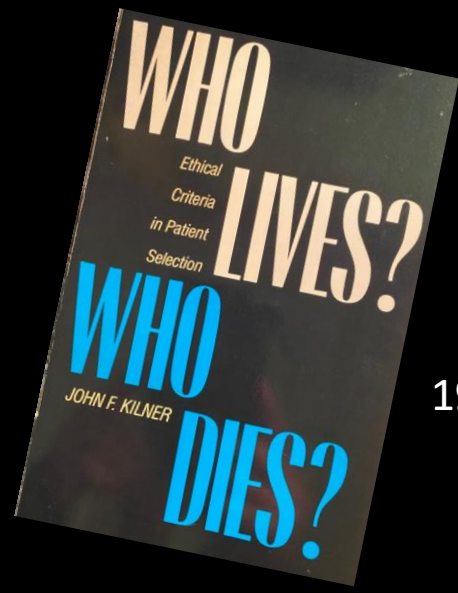
~~Degree of Need~~

~~Less Resource Required~~

***Tie-breakers***

Random Allocation

~~First in Line~~

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# Ventilator Triage in Seattle

***General Order of Priority***

1) *Likely to survive only with treatment*
2) ~~*Likely to survive without treatment*~~
3) *Likely to die regardless*

*No preference for Health Care Workers*

# Other Therapeutics (Remdesivir, antibody therapies, etc)

- Ability to do clinical trials must be preserved
- Those most likely to benefit based on best available evidence and among those, those with greatest need
  - Prioritized population will differ depending on agent (Anti-viral vs. Anti-inflammatory)
- Random process among those eligible

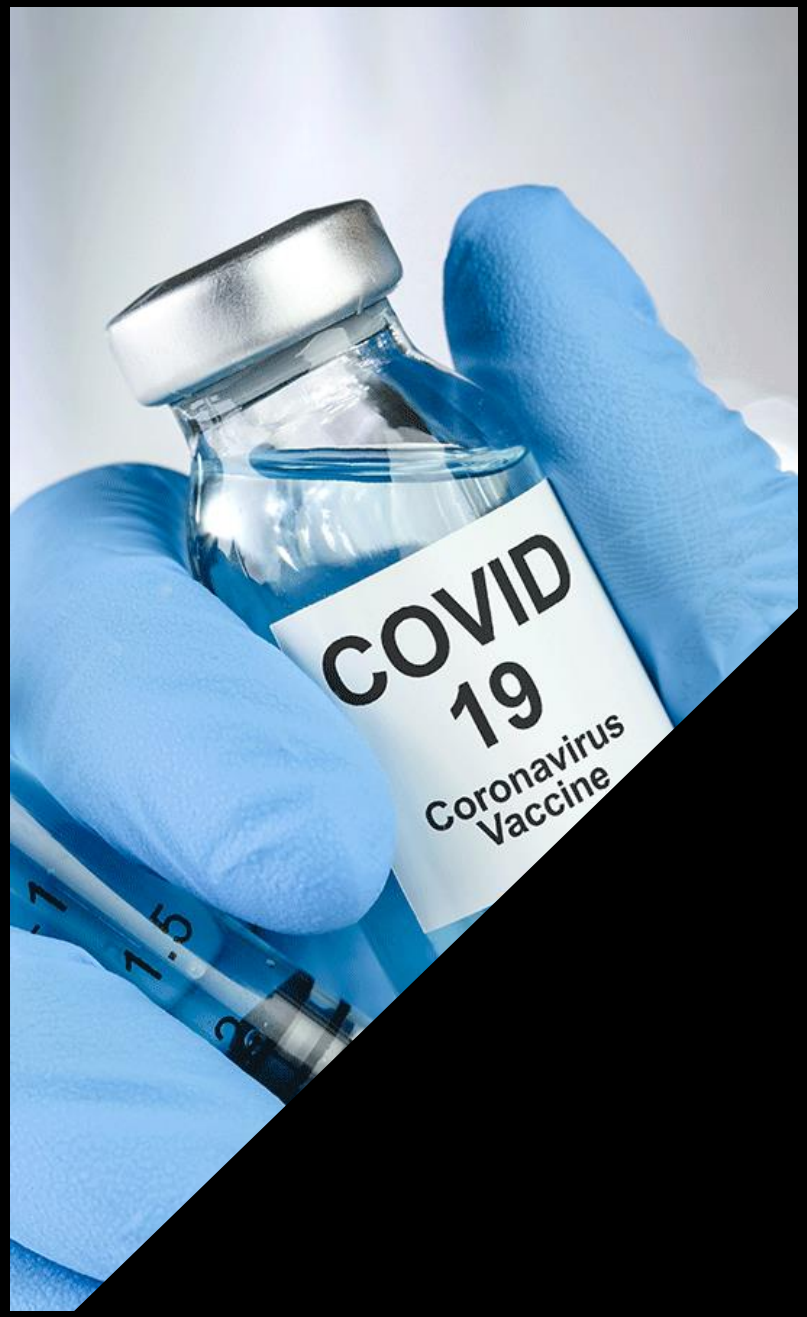
DeJong et al. Ethical Framework for Allocating Scarce Inpatient Medications. JAMA, May 15, 2020

# What about *Preventive Measures* (PPE, Vaccine)?

- **Narrow Social Worth** and **Reciprocity** become more important
  - Healthcare workers (those caring for high risk patients)
  - First-responders placed in at risk situations (EMS)
  - Essential workers in at risk jobs ( where physical distancing cannot be reliably maintained)
- **Need** and **Likelihood of benefit** still prevail, but manifest differently:
  - High Risk groups based on confined living or working space (homeless shelters, prisons, nursing homes and retirement communities, dense populations)
  - High Risk groups based on co-morbidities
  - In identifying these individuals, poor and marginalized populations would require active outreach for priority

# Fair Distribution of SARS-CoV-2 Vaccines

| Focus on Need (protection of high-risk individuals) | Focus on community welfare and decreasing spread (utilitarian) |
| --- | --- |
| • High-risk health conditions or age<br>• Congregate Living<br>• High-risk jobs | • Essential health care workers and first responders<br>• Those in congregate living and high-risk jobs |



# Ventilators versus Vaccines

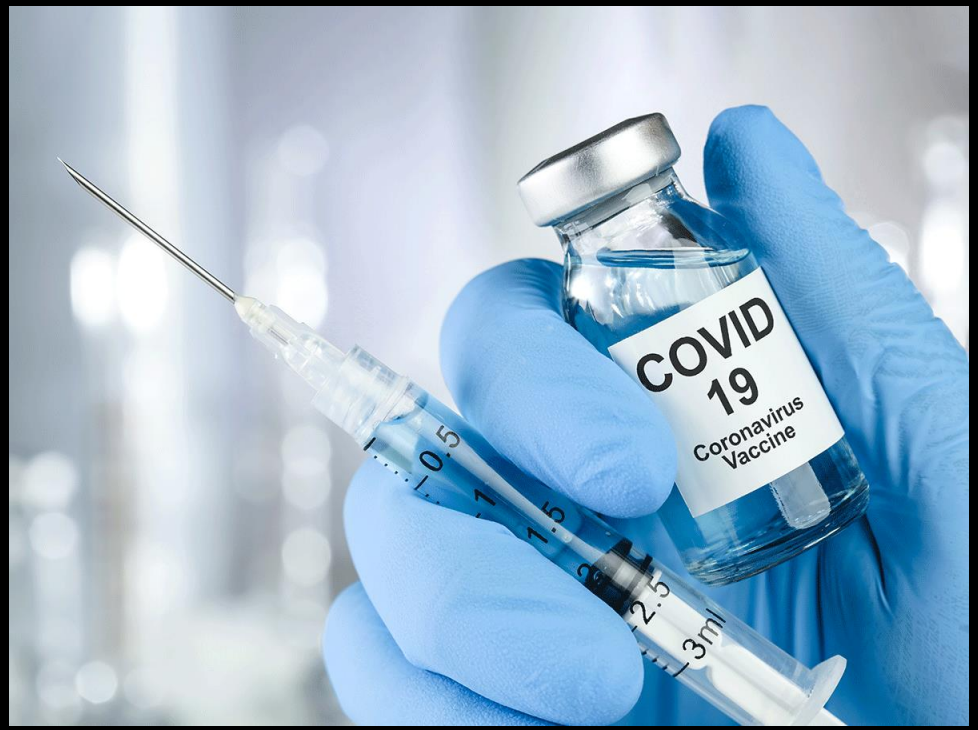
- For ventilators (& other lifesaving resources), saving the most lives favors those ***most likely to survive***
- For vaccines (& other preventive resources), saving the most lives favors those ***most likely to die and those most likely to contract and spread disease***
- ***Equity*** and ***Access***

# Vaccine Priorities

frontline and essential workers

people at high risk of severe disease or death

people at high risk of infection and/or spreading infection



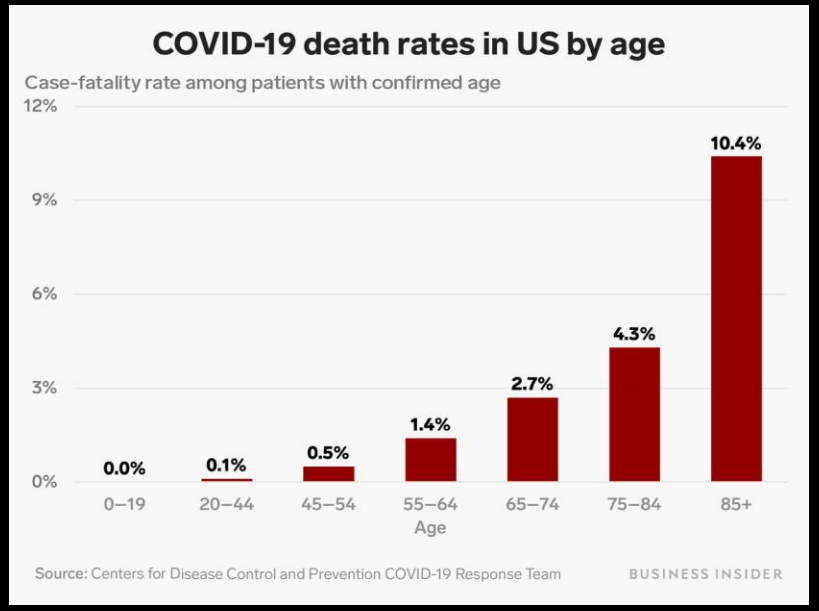
# Risk of Death Determines Priority
## Age as an example

1918 Pandemic: younger people at highest risk

**1918**

**2019**

2019 Pandemic: older people at highest risk



# On the Ground as the Pandemic Begins

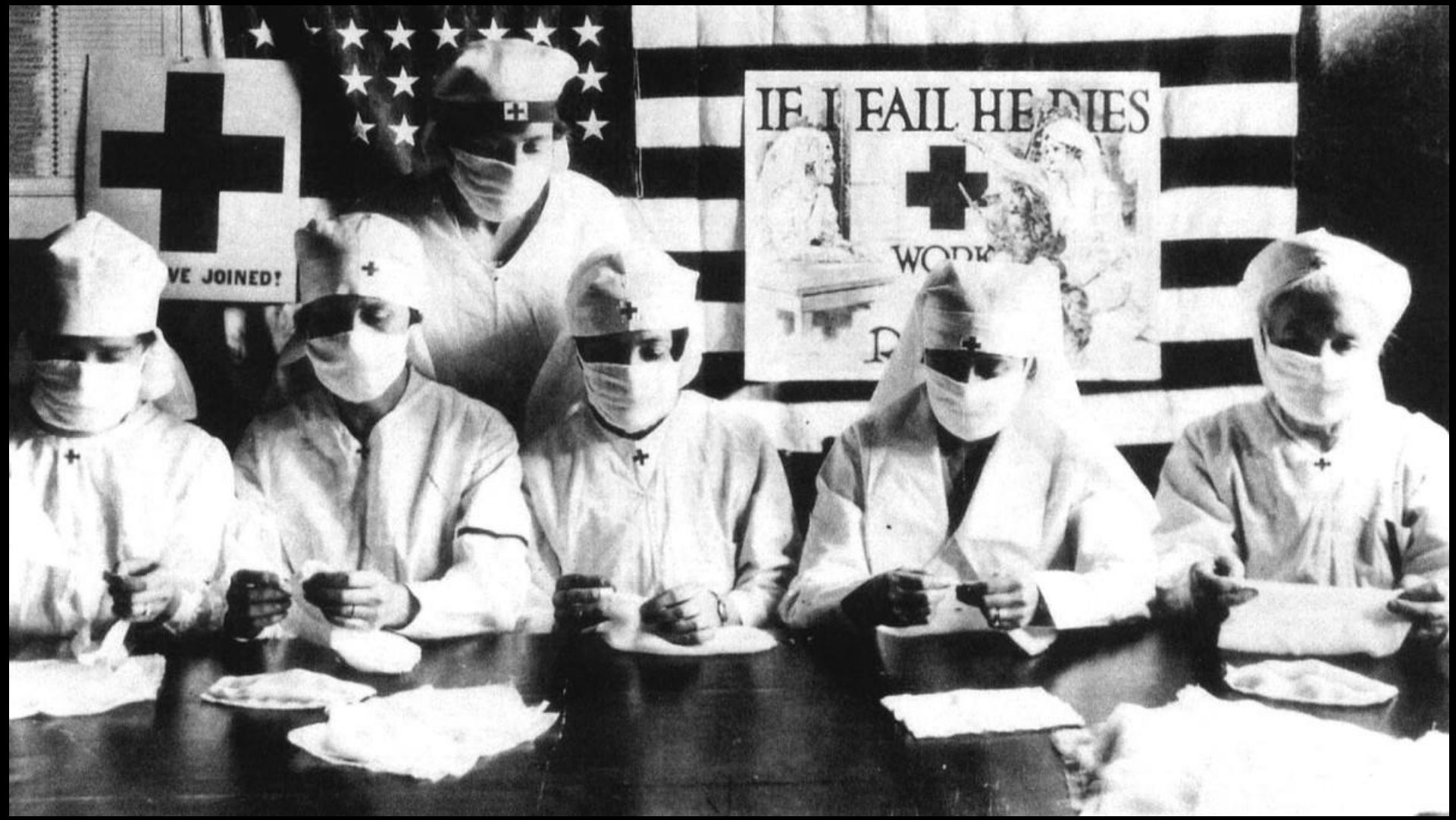
- Weekly meetings early on
  - NHRN committee members
  - Hospital Representatives
  - State and Local DOH representatives
  - Governor (twice)
- Subgroups (including ethics group) met multiple times a week to revise materials to match unique characteristics of SARS-CoV-2 and pandemic dynamics
- Input from Stakeholders concerned about triage materials
- Individual Hospitals focused on implementation

# Core Principles

Governor expected sharing of resources across state

No hospital would declare crisis standards of care until all were ready to do so

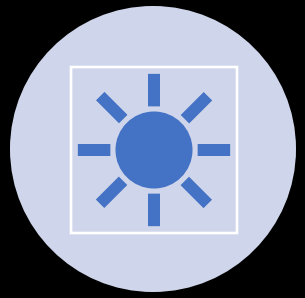
# Triage Teams: Local and Regional



# Why a Triage Team?

Remove some of the burden from bedside providers

Provide an objective, evidence-based assessment of medical factors



Blinding of irrelevant factors to greatest degree possible

Situational Awareness of Regional Needs

# Four Phases

- Pre-pandemic: 10 years of meetings, discussions, collaborations, materials development, and regional simulations

- Early Pandemic:
  - Implementation and revisiting of developed guidelines and materials
  - Coordination of response (PPE, Patient redistributions, Ventilators)

- Mid Pandemic:
  - Working with stakeholders (Groups representing persons with disabilities and people of color) to reconsider triage guidelines for ventilators and vaccines
  - Revisit triage guidelines for Remdesivir

- Current Phase: Subsequent Waves and Vaccine distribution

# Lessons Learned

- Principles of a fair distribution hold from resource to resource
- Allocation priorities (who gets the resource) differ depending on the resource in question
- Re-assessment and Refinement of process essential (we won’t get it right the first time)
- A centralized process for sharing resources is better than every hospital and clinic fighting for resources
- Equity requires attention to access

# Tragedy

The demands of living morally are hard….We do not wish to face the truth that we live in a world where honesty and faithfulness do not always lead to good results and consequences, but sometimes to tragic choices.

--Stanley Hauerwas, Truthfulness and Tragedy