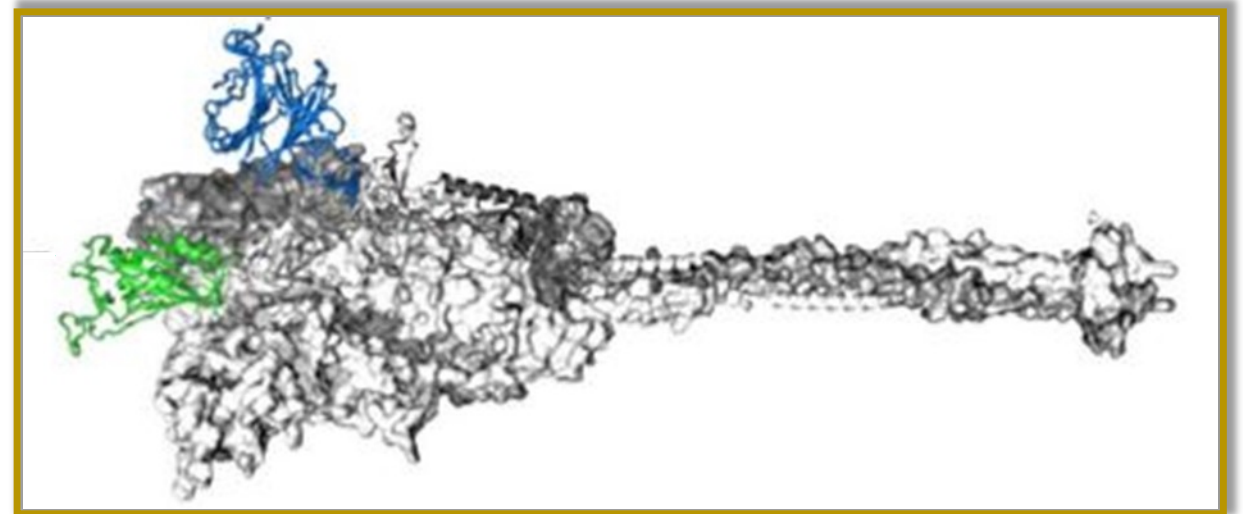


# Dealing with Delta: The Critical FAQs



# Welcome

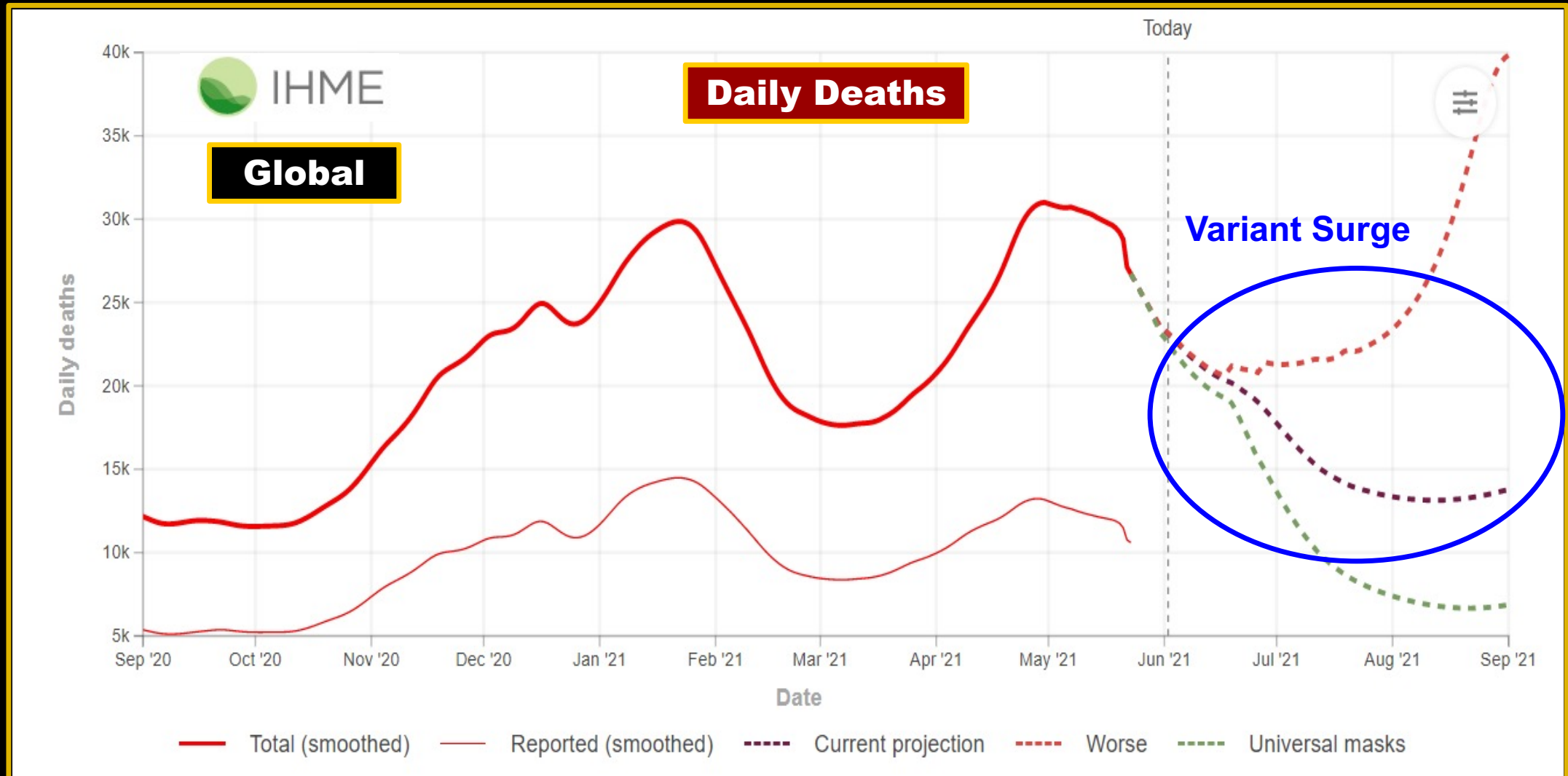


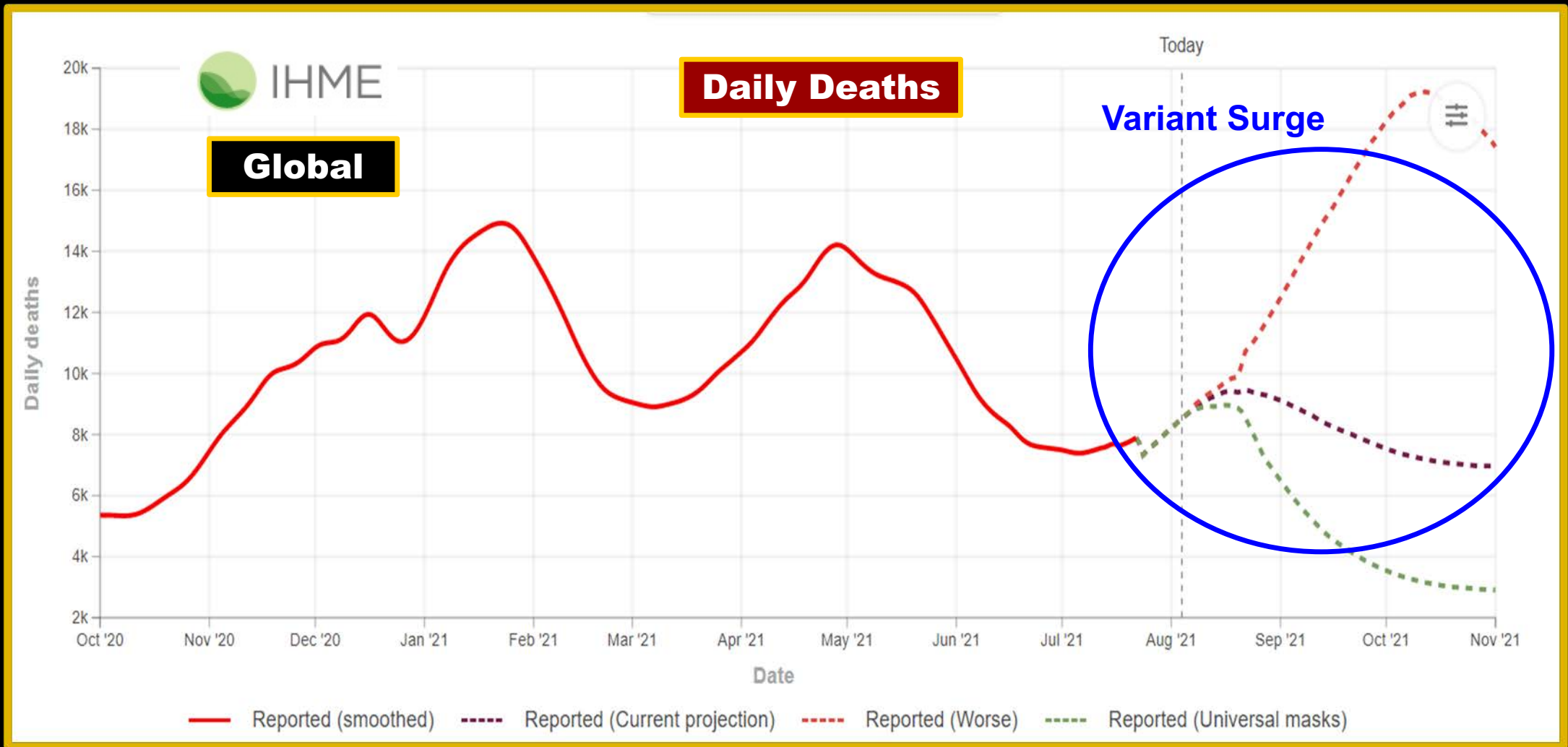
## **Charles Denham, MD**

Chairman, TMIT Global  
Founder Med Tac Bystander Rescue Care

**Med Tac Bystander Rescue Care  
August 5, 2021**

***CareUniversity Webinar 167***











## Our Purpose, Mission, and Values



### Our Purpose:

We will measure our success by how **we protect and enrich the lives of families...patients AND caregivers.**

EMERGING THREATS  
COMMUNITY OF PRACTICE

### Our Mission:

To accelerate performance solutions that **save lives, save money, and create value** in the communities we serve and ventures we undertake.

**CAREUNIVERSITY®**

### Our **ICARE** Values:

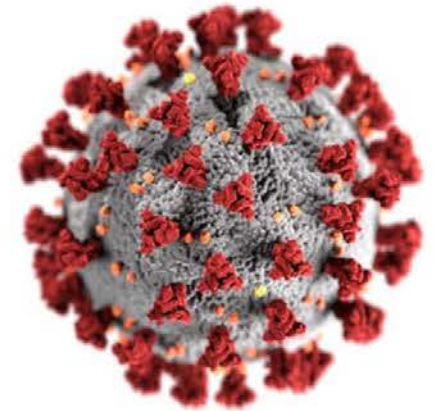
**Integrity, Compassion, Accountability, Reliability, and Entrepreneurship.**

## ***Voice of the Patient***



### **Jennifer Dingman**

**Founder, Persons United Limiting  
Substandard and Errors in Healthcare  
(PULSE), Colorado Division  
Co-founder, PULSE American Division  
TMIT Patient Advocate Team Member  
Pueblo, CO**





## Disclosure Statement

The following panelists certify that unless otherwise noted below, each presenter provided full disclosure information; does not intend to discuss an unapproved/investigative use of a commercial product/device; and has no significant financial relationship(s) to disclose. If unapproved uses of products are discussed, presenters are expected to disclose this to participants. None of the participants have any relationship pharmaceutical or device companies discussed in their presentations. The funding of the program is from the Denham Family fund of TMIT Global, a 501c3 Medical Research Organization

- John Christian Fox MD has nothing to disclose.
- Christopher Peabody MD has nothing to disclose.
- Gregory H. Botz, MD, FCCM, has nothing to disclose.
- William Adcox has nothing to disclose.
- Jennifer Dingman has nothing to disclose.
- Heather Foster has nothing to disclose.
- Danny Policicchio has nothing to disclose.
- Jaime Yrastorza has nothing to disclose.
- Randy Styner has nothing to disclose.
- Heather Foster has nothing to disclose.
- David Beshk has nothing to disclose.
- Paul Bhatia has nothing to disclose.
- David Grinsfelder has nothing to disclose.

Charles Denham, MD, is the Chairman of TMIT Global; a former TMIT education grantee of CareFusion and AORN with co-production by Discovery Channel for *Chasing Zero* documentary and Toolbox including models; and an education grantee of GE with co-production by Discovery Channel for *Surfing the Healthcare Tsunami* documentary and Toolbox, including models. HCC is a former contractor for GE and CareFusion, and a former contractor with Siemens and Nanosonics, which produces a sterilization device, Trophon. HCC is a former contractor with Senior Care Centers. HCC is a former contractor for ByoPlanet, a producer of sanitation devices for multiple industries. He does not currently work with any pharmaceutical or device company. His current area of research is in threat management to institutions including conflict of interest, healthcare fraud, and continuing professional education and consumer education including bystander care. Dr. Denham is the developer and producer of CareUniversity™, the learning management system providing continuing education materials for TMIT Global.

## Speakers & Reactors



Jennifer Dingman



Dr. Mansfield



Dr Chris Fox



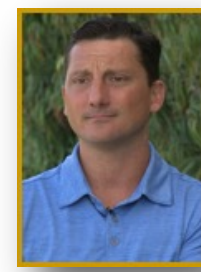
Heather Foster RN



William Adcox



Randy Styner



David Beshk



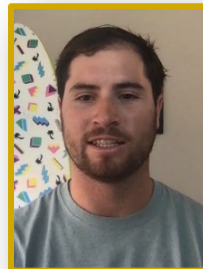
Dr. B Barto Owens



Dr. C Peabody



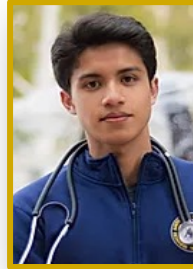
Dr. Gregory Botz



Nick Scheel



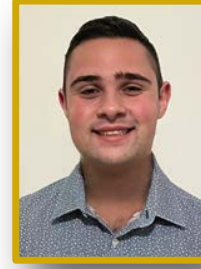
Jaime Yrastorza



Paul Bhatia EMT



Charlie Denham III



D Policicchio



David Grinsfelder





## Episode 63: Ebbs and Flows

Filed Under: **COVID-19**  
Aug 05, 2021

### **Osterholm Update: COVID-19** **Episode 63: Ebbs and Flows** **August 5, 2021**

In this episode, Dr. Osterholm and host Chris Dall discuss the ebbs and flows of this pandemic, the latest Delta-driven activity, breakthrough cases, and considerations for effective respiratory protection.

Email us your questions: [OsterholmUpdate@umn.edu](mailto:OsterholmUpdate@umn.edu)



Browse the podcast and CIDRAP **merchandise store!**

### **COVID-19 CONTENT**

► [COVID-19 Home](#)

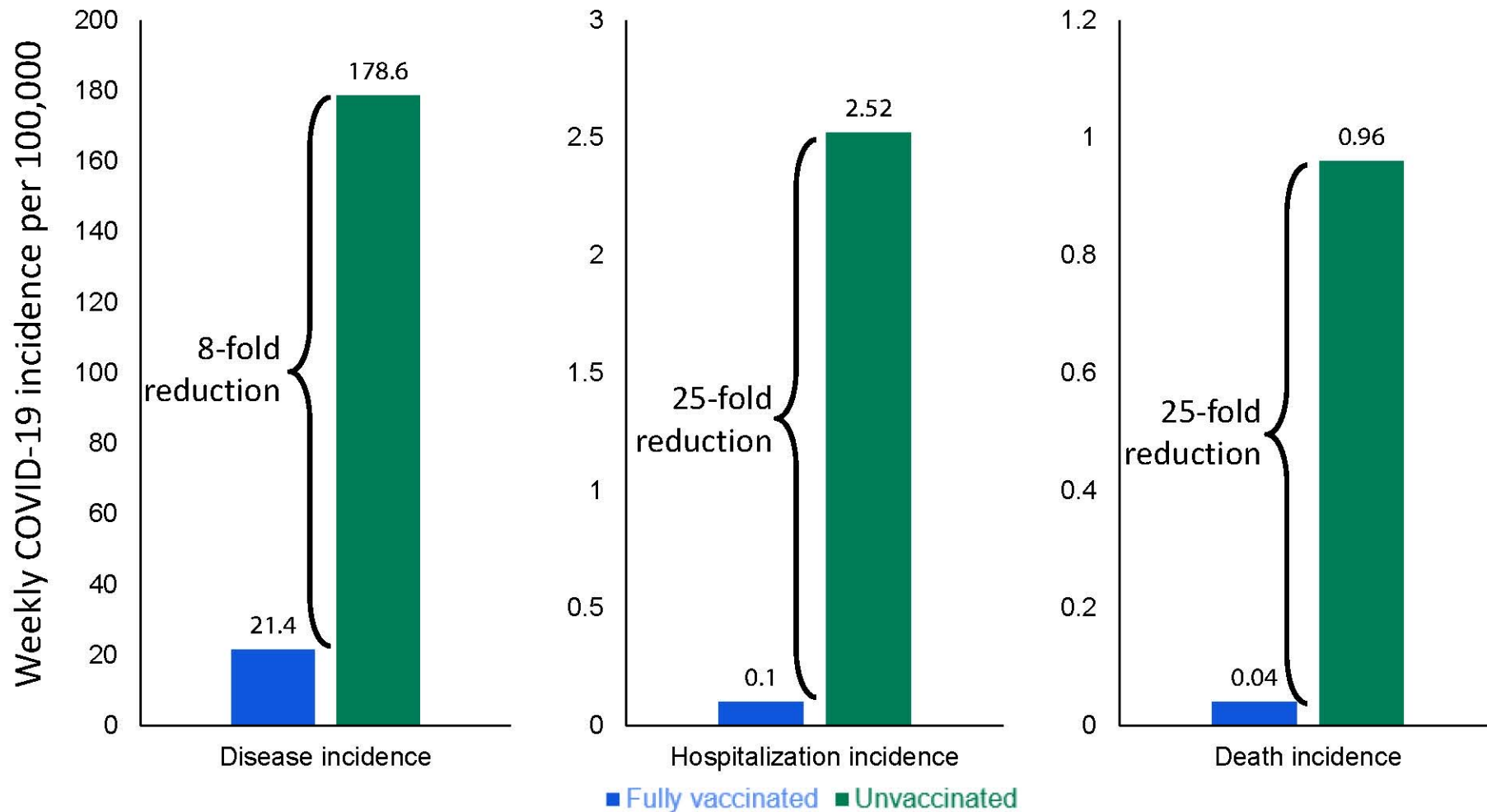




## Can I: Catch it...Spread it...Get Sick...Get Long Haul?

Vaccination Status	Can I CATCH it?	Can I SPREAD It	Can I GET SICK?	Can I Get LONG HAUL?
Unvaccinated	Yes VERY HIGH RISK	Yes VERY HIGH RISK	Yes VERY HIGH RISK May Get Sicker than Vac.	Yes HIGHER RISK
Vaccinated	Yes but LOWER RISK 3.5 X Reduced Risk	Yes but LOWER RISK	Yes but LOWER RISK 8 X Risk of Symptoms 25 x Risk Hospitalization 25 x Risk of Death	Under Study
Youth 12-17	More than Alpha (UK virus)	More than Alpha Half Adult Spread	More than Alpha	More than Alpha
Children Ages 2-12	Yes LOWER RISK	Yes Under Study	Yes LOW RISK	Yes LOW RISK 8%

# Greater risk of disease, hospitalization and death among unvaccinated vs. vaccinated people: National estimates



**At current incidence,  
35,000 symptomatic  
infections per week  
among 162 million  
vaccinated Americans**

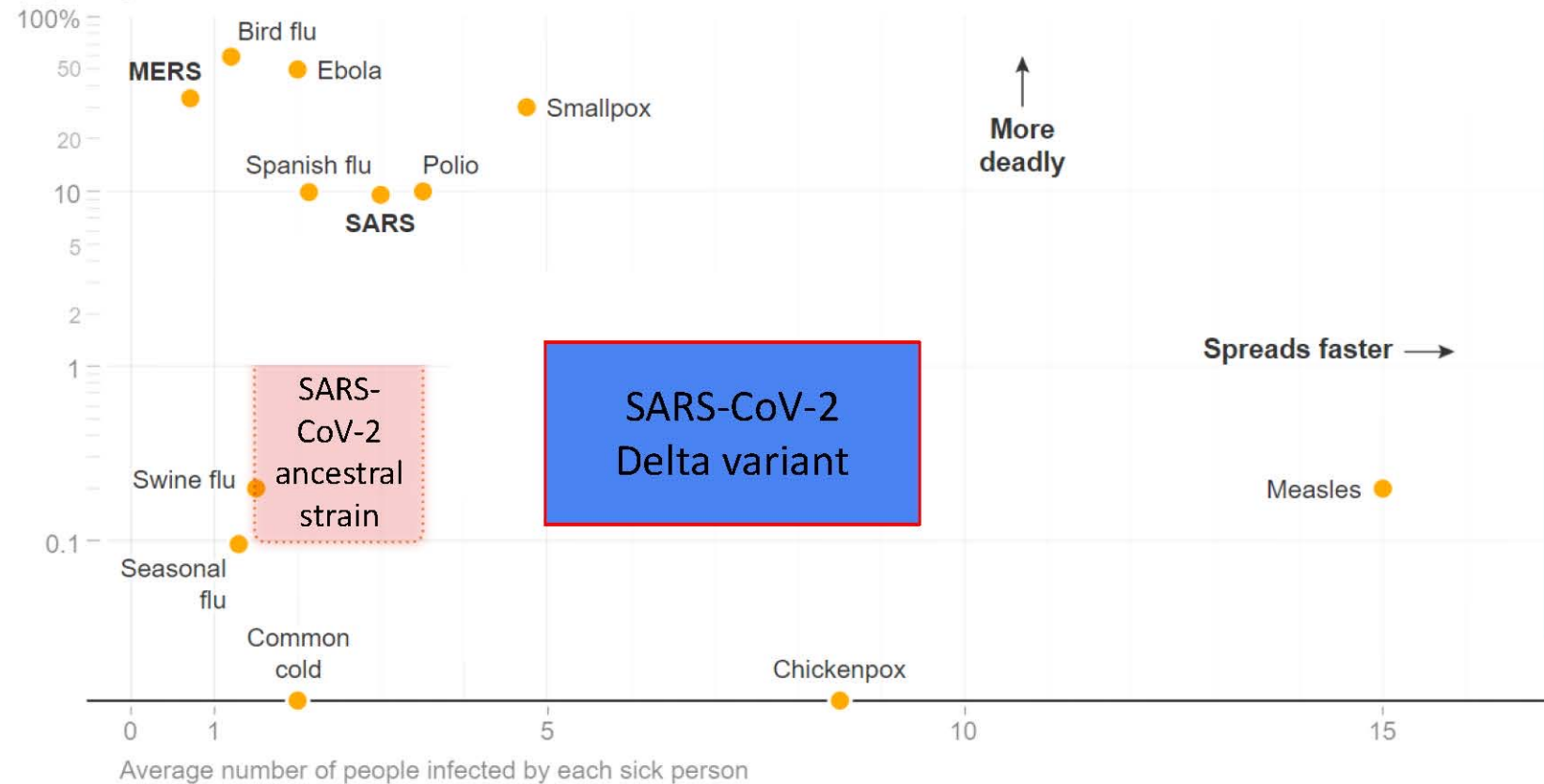
Data from COVID Tracker as of July 24, 2021. Average incidence 100 cases per 100,000 persons per week. Vaccine effectiveness against symptomatic illness = 88% (Lopez Bernal et al. [NEJM 2021](#)), where risk is  $[1 - VE]$  or 12%. Vaccine effectiveness hospitalization (or death) = 96% (Stowe et al. [PHE preprint](#)), where risk is  $[1 - VE]$  or 4%. Rate in unvaccinated = Community rate /  $((1 - \text{fully vaccinated coverage}) + (1 - VE) * \text{fully vaccinated coverage})$ . Rate in fully vaccinated =  $(1 - VE) * \text{Rate in unvaccinated}$ . Fully vaccinated coverage proportions were from COVID Data Tracker as of July 24, 2021 (50% for US,).

# Transmission of Delta variant vs. ancestral strain and other infectious diseases

Fatality rate  
(log scale)

The New York Times

Original graph from 2/28/2020.



Delta variant is **more** transmissible than:

- MERS & SARS
- Ebola
- Common cold
- Seasonal flu & 1918 ("Spanish") flu
- Smallpox

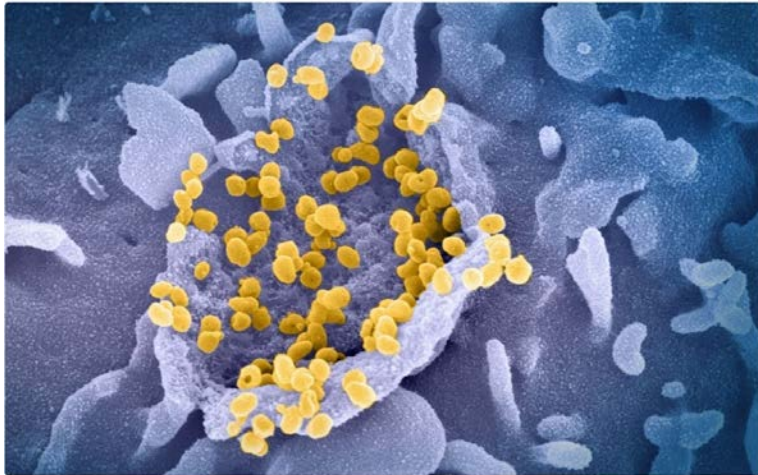
Delta variant is **as** transmissible as:

- Chicken Pox

Note: Average case-fatality rates and transmission numbers are shown. Estimates of case-fatality rates can vary, and numbers for the new coronavirus are preliminary estimates.

08-03-21

## Lambda COVID Variant, Behind 1,000 Cases in U.S., Shows Vaccine Resistance



Study: First identification of SARS-CoV-2 Lambda (C.37) variant in Southern Brazil. Image Credit: NIAID

The variant was first **identified in Peru** in August, 2020, where it has now become the dominant strain of the virus, and it has been reported in 29 countries including the U.S. Researchers at the University of Tokyo published their paper at bioRxiv, a "preprint server for biology," last Wednesday ahead of the paper's peer review.

In lab experiments, they **identified three mutations** in the Lambda variant's spike protein—called RSYLTPGD246-253N, 260 L452Q and F490S—that **make it more resistant to neutralization by antibodies** that are induced through vaccination. This makes the strain more resistant to vaccines than the original COVID-19 strain first identified in Wuhan, China.

Source: <https://www.newsweek.com/lambda-covid-variant-1000-cases-us-shows-vaccine-resistance-1615668>



08-04-21

## A Doomsday COVID Variant Worse Than Delta and Lambda May Be Coming, Scientists Say



“Scientists keep underestimating the coronavirus. In the beginning of the pandemic, they said mutated versions of the virus wouldn’t be much of a problem—until the more-infectious Alpha caused a spike in cases last fall. Then Beta made young people sicker and Gamma reinfected those who’d already recovered from COVID-19.”

"The next variant," says Osterholm, "could be Delta on steroids."

The Med Tac Team recommends you read this article to understand the routes the viruses can take to become more contagious and evade immunity.

Source: [https://www.newsweek.com/2021/08/13/doomsday-covid-variant-worse-delta-lambda-may-coming-scientists-say-](https://www.newsweek.com/2021/08/13/doomsday-covid-variant-worse-delta-lambda-may-coming-scientists-say-1615874.html)

[1615874.html](https://www.newsweek.com/2021/08/13/doomsday-covid-variant-worse-delta-lambda-may-coming-scientists-say-1615874.html)



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## Florida Battles Record Covid-19 Hospitalizations, as Delta Variant Surges

“This is putting 25-year-olds in the hospital, in intensive care and on ventilators,”



The Wall Street Journal video describes the reasons why the Delta virus is such a serious health concern.

Source: [www.wsj.com/articles/florida-battles-record-covid-19-hospitalizations-as-delta-variant-surges-11628027994](https://www.wsj.com/articles/florida-battles-record-covid-19-hospitalizations-as-delta-variant-surges-11628027994)



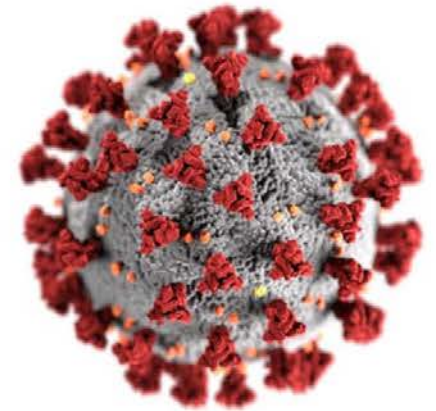
# Dealing with Delta: Critical FAQs

## *A Survive & Thrive Guide™*



**Omayra Mansfield, MD, MHA, FACEP**

**Vice President &  
Chief Medical Officer  
AdventHealth Apopka and  
AdventHealth Winter Garden.**



08-04-21

# The Science Behind Why the Delta Variant Is Spreading Covid-19 Faster

WSJ

SPIKE PROTEIN



0:03 / 5:34

Source: [www.wsj.com/articles/florida-battles-record-covid-19-hospitalizations-as-delta-variant-surges-11628027994](https://www.wsj.com/articles/florida-battles-record-covid-19-hospitalizations-as-delta-variant-surges-11628027994)

# High Impact Care Hazards to Patients, Students, and Employees



AboutValues & TeamCoronavirus ResponseRecorded BroadcastsSpecialty ProgramsR&D Surveys & InnovationsCARE UNIVERSITY

## Med Tac Bystander Rescue Care

Med Tac is short for "Medical Tactical" and is an advanced first aid platform to battle failure to rescue. The mission is to teach anyone the critical bystander care skills that can save lives during the most common life threatening emergencies. Our focus is to train all ages to provide the greatest help in the first 10 minutes before professional first responders arrive and then assist them when they do. The training includes how to work with professional first responders and how to help families as they proceed through hospital emergency care.

### Video Library

Med Tac Story

Med Tac Leadership Team

Adopt a Cove Program

5 Rights of Emergency Care

College and Youth Program

Surf & Lifeguard Program

3 Minutes & Counting Trailer

Opioid Overdose Briefing



### The Battle Against Failure to Rescue

The Med Tac Program was developed by a team originally focused on active shooter events. When they found that there at least 8 leading causes of preventable death including severe bleeding and that there was no integrated program to teach the public what they can do to save lives and prevent "failure to rescue" before EMS arrives, Med Tac was born. In many cases bystander rescue care can triple survival if the public knows what to do. The program was funded through 2019 by philanthropy through TMT Global, a 501(c)(3) medical research organization that leads a global patient safety community of practice found at [www.SafetyLeaders.org](http://www.SafetyLeaders.org). With the development of the Coronavirus crisis, our rapid response team has prioritized Infection Care as one of our major focus areas. As of January 1st, 2020 the team has published four articles and has developed pilot programs in five states. [Click here](#) to download a PDF of the four articles.



Cardiac Arrest

Choking & Drowning

Opioid Overdose

Anaphylaxis

Major Trauma

Infection Care

Transportation Accidents

Bullying

**Bystander Care Training** is a critical need in all communities. The preventable deaths we see in the news are the tip of the iceberg. Our program is a Good Samaritan support system to help everyone learn life-saving actions that will save lives.

**High Impact Care Hazards** are conditions that are frequent, severe, preventable, and measurable. We have identified the leading causes of death that strike children, youth, and those in their workforce years. We provide evidence-based bystander care training that can have the greatest impact.

**Bystander Rescue Skills** are the competencies that bystanders can learn that will save lives in the few precious minutes before the professional first responders arrive. Such behaviors can be learned by children, adults, and entire families. We have programs for children, adults, law enforcement, educators, lifeguards, and caregivers.

**MedTac** is the only integrated program addressing the top causes of death of otherwise healthy children, youth, and adults in the workforce. Med Tac partners with terrific on-site trainers from great organizations who are already in the community.

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<https://www.medtacglobal.org/>

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# High Impact Care Hazards to Patients, Students, and Employees



Cardiac Arrest

Choking & Drowning

Opioid Overdose

Anaphylaxis

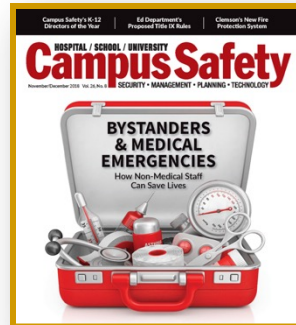
Major Trauma

Infections

Transportation Accidents

Bullying

Med Tac  
Story Article



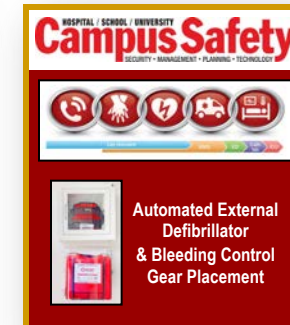
Active Shooter  
Healthcare Article



Rapid Response  
Teams Article



AED & Bleeding  
Control Gear Article



Family Safety  
Plan Article



A **Medical-Tactical Approach** undertaken by clinical and non-clinical people can have enormous impact on loss of life and harm from very common hazards:

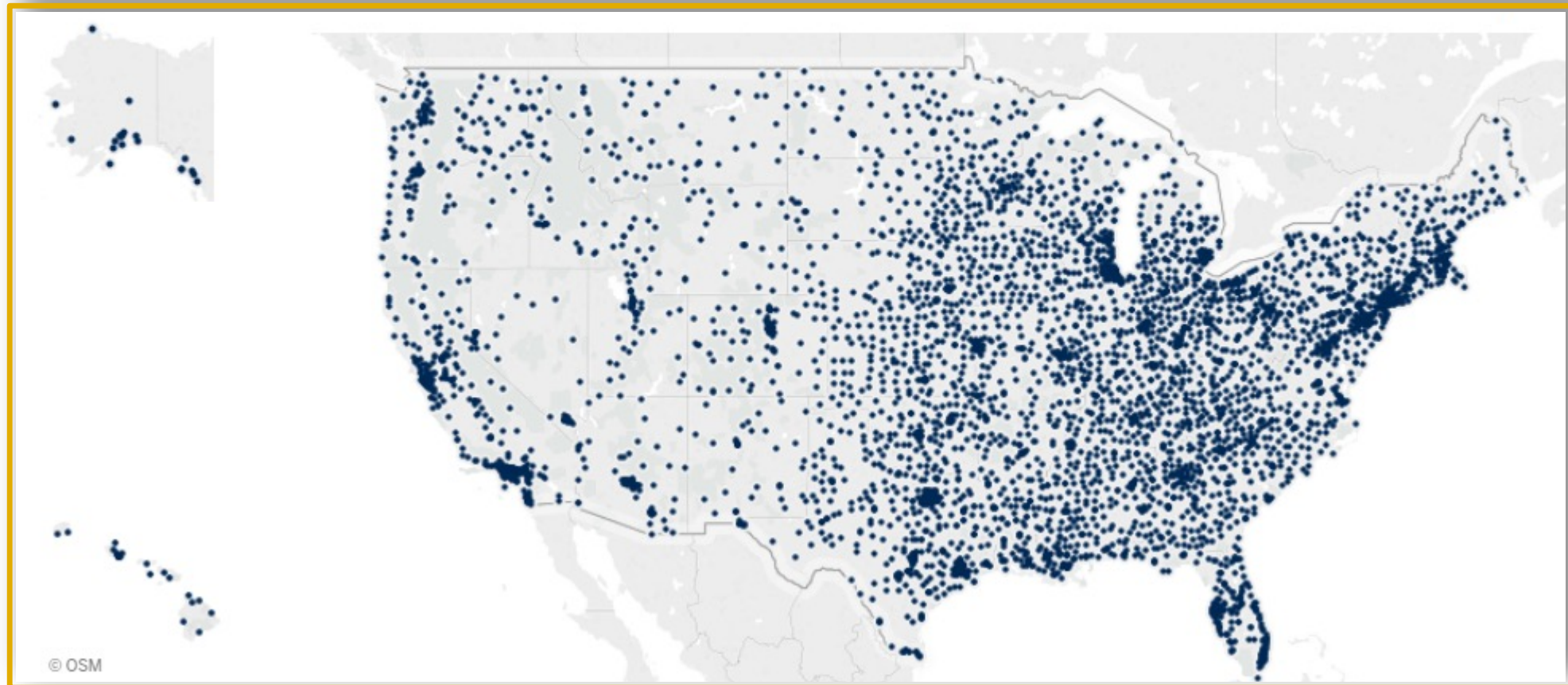
- **High Impact Care Hazards** are frequent, severe, preventable, and measurable.
- **Lifeline Behaviors** undertaken by anyone can save lives.

**Supports  
today's webinar**

# **TMIT Global Research Test Bed**

**3,100 Hospitals in 3,000 Communities**

**500 Subject Matter Expert Pool Developed over 35 Years**





# 500 Subject Matter Experts

Graphic Representation to Protect Expert Privacy



**Educators  
Declared  
Essential Critical  
Infrastructure  
Workers**



## Coronavirus – Protecting You & Your Family

See the videos, answers to FAQs, and resources below. They will be continuously updated for the communities we serve.



We have organized the videos below as BASIC VIDEOS to provide critical information quickly. For those who want more detail, view the ADVANCED VIDEOS. The source articles may be downloaded below.

### BASIC MODULES

Why Social Distancing WORKS

Masks ARE Critical

Masks: The SCIENCE of Success

Hand Washing & DISINFECTANTS

CLEAN High Contact Surfaces

Building a FAMILY SAFETY PLAN

If we NEED Emergency Care

Why ICU, Respirators, and ECMO



The following ADVANCED MODULES address more comprehensive information you may wish to watch. The medical and scientific articles are provided below the viewer.

### ADVANCED MODULES

Preparing for CARE at Home

TELEMEDICINE Works - Try It

Care of Seniors & those AT-RISK

The Latest Best Practices

Caregivers Surf the Next Wave


Coming Home Safe Webinar

The New Normal Webinar

Back to School Safely



The following table provides resource articles and links to video assets that viewers may use and download to understand the science behind the best practices.

MedTacGlobal Coronavirus Resources (View Only) |  [Report Abuse](#) [Help](#)

	Task Name	Notes
	<b>Background &amp; Foundational Information</b>	
	US and UK Were Best Prepared - What Went Wrong? Time Magazine July, 2020 <a href="https://time.com/545188/us-uk-failed-coronavirus-response/">https://time.com/545188/us-uk-failed-coronavirus-response/</a>	This is a review of the preparedness of both countries. Countries can have the best ranking for preparedness but still contain the virus.
	PAIDEMIC RESILIENCE: Getting it Done - A Supplement to the Roadmap to Pandemic Resilience 05-20-20 EDMOND J. SAFRA CENTER FOR ETHICS AT HARVARD UNIVERSITY	A plan developed at Harvard that proposes the levels of disease prevalence require different tactics, strategies. With community specific approaches, the to be successful in suppressing COVID-19 in the US.
	Amid the Coronavirus Crisis, a Regimen for Rentry, New Yorker 05-15-20 DrAlul Gwande	One of the best articles to be read by all audiences. Dr. Gwande has been one of our heroes of patient safety. He provides a timely evidence based description of the valuable practices we need to undertake.
	Multifaceted Response to Healthcare Personnel & Their Families	The first video in the Basic Videos library below describes how you can participate. Join our free monthly 90 minute webinars for families of professional caregivers, essential workers, and the public. Click here to register.

**Monthly Webinars every first Thursday of the month at 1PM ET (Noon Central and 10AM PT). Free, video, and resources posted.**

### BASIC MODULES

Why Social Distancing WORKS

Masks ARE Critical

Masks: The SCIENCE of Success

Hand Washing & DISINFECTANTS

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Building a FAMILY SAFETY PLAN

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## Masks: The SCIENCE of Success



### ADVANCED MODULES

Preparing for CARE at Home

TELEMEDICINE Works - Try It

Care of Seniors & those AT-RISK

The Latest Best Practices

Caregivers Surf the Next Wave

Coming Home Safe Webinar

The New Normal Webinar

Back to School Safely

## TELEMEDICINE Works - Try It



### BASIC MODULES:

- Short Videos 4-10 min
- Critical Information
- Hits Pillars of Prevention

### ADVANCED MODULES:

- Longer more detailed
- Webinar Recordings
- Technical Information

### Related Resources

Resources:



[www.medtacglobal.org/coronavirus-response/](http://www.medtacglobal.org/coronavirus-response/)





## Coronavirus Care Community of Practice

## Bystander Rescue Care *CareUniversity Series*



John Nance JD



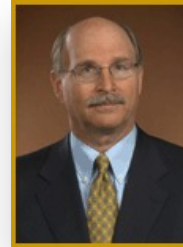
Dr. Gregory Botz



Chief William Adcox



Heather Foster



Dr. Charles Denham



Dr. Casey Clements



Beth Ullem



Dr. McDowell



Dennis Quaid



Preston Head III



Fred Haise



Dr. Steve Swensen



Tyler Sant



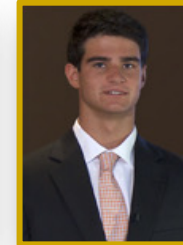
Avarie Pettit



Dr. Mary Foley



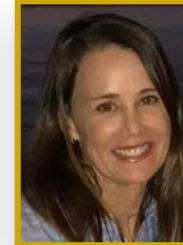
Bob Chapman



Perry Bechtle III



Becky Martins



Betsy Denham



Charlie Denham III



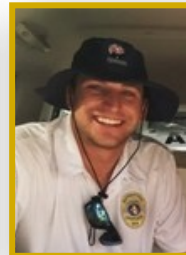
Dr. C Peabody



Dr. Chris Fox



Randy Styner



Tom Renner



David Beshk



Ann Rhoades



Nancy Conrad



Dr. Chopra



John Little



Debbie Medina



## Coronavirus Care Community of Practice

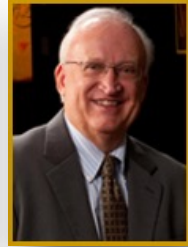
## Bystander Rescue Care *CareUniversity Series*



Matt Horace



John Tomlinson



Dan Ford



Arlene Salamendra



Jennifer Dingman



Bill George



Penny George



Hilary Schmidt PhD



Paul Bhatia EMT



Dr. McDowell

## Contributions Through Segments of our *Discovery Channel* Documentaries



Prof Christensen



Jim Collins



C Sullenberger



Charlotte Guglielmi



Dr. Don Berwick



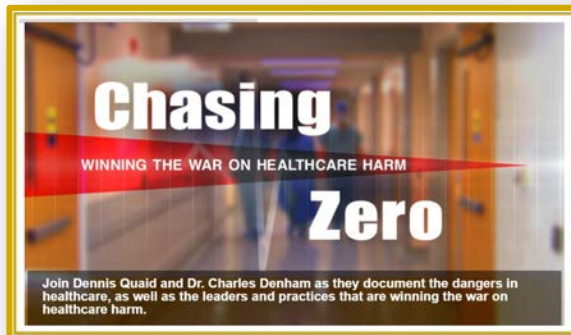
Dr. Howard Koh



Dr. Jim Bagian



Dr. Harvey Fineberg





THE UNIVERSITY OF TEXAS  
**MD Anderson**  
~~Cancer~~ Center

## Family Rescue R&D



**Stanford**  
University



**UCSF**  
University of California  
San Francisco



## The 5 R's of Safety

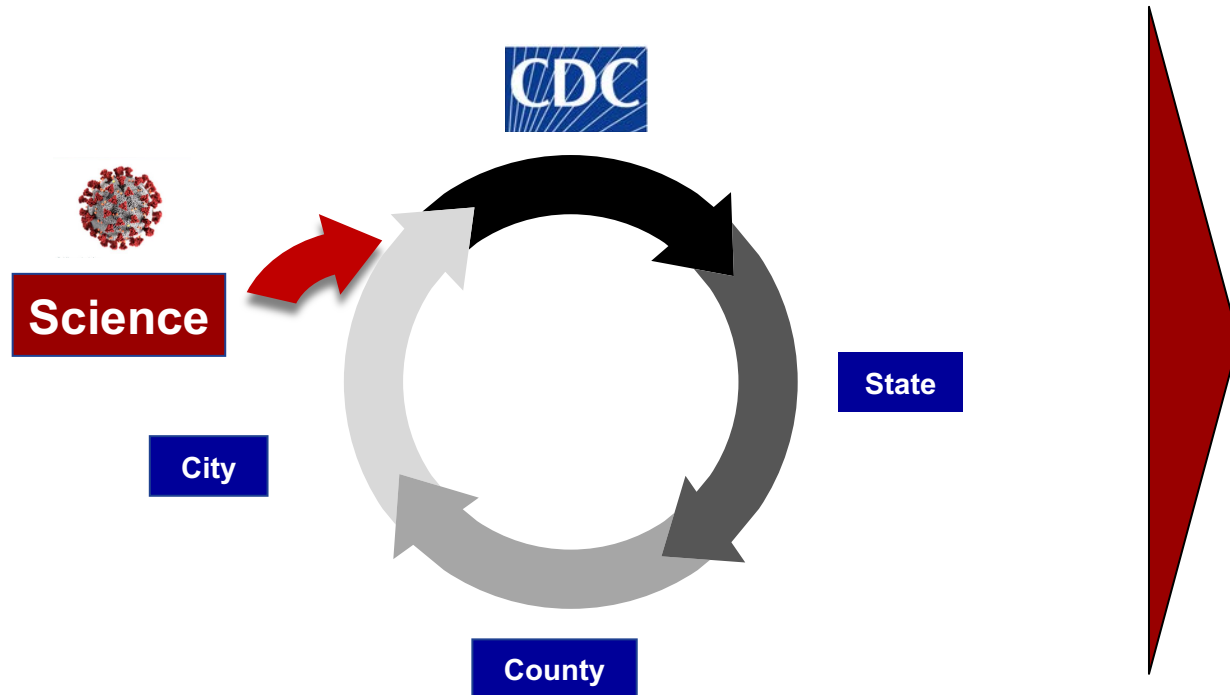
**UF** | UNIVERSITY of  
**FLORIDA**

**UT Southwestern**  
Medical Center



# ***The Science is Evolving***

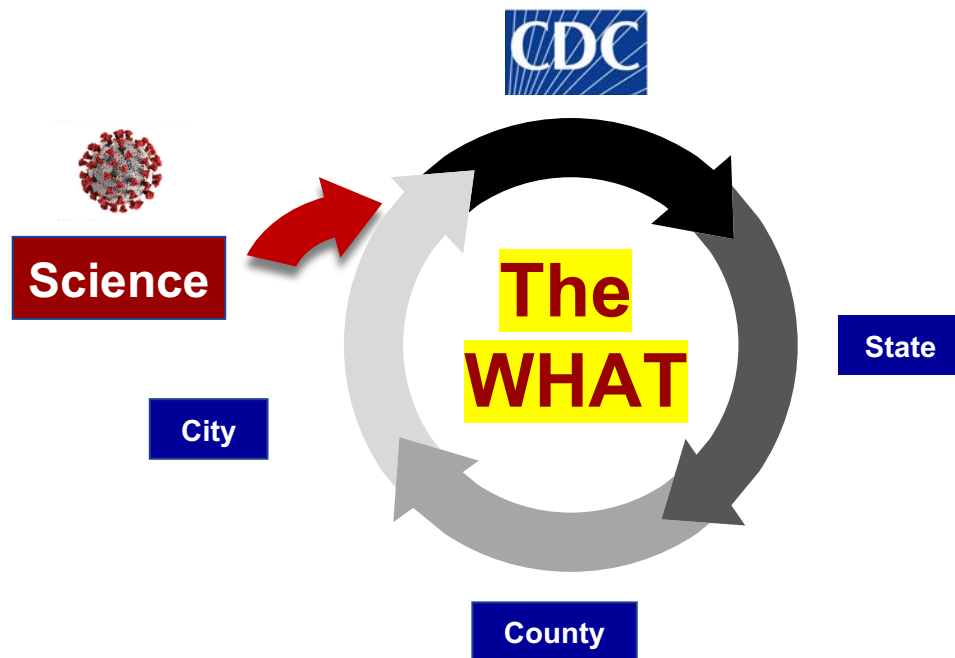
## ***Public Health Guidelines***



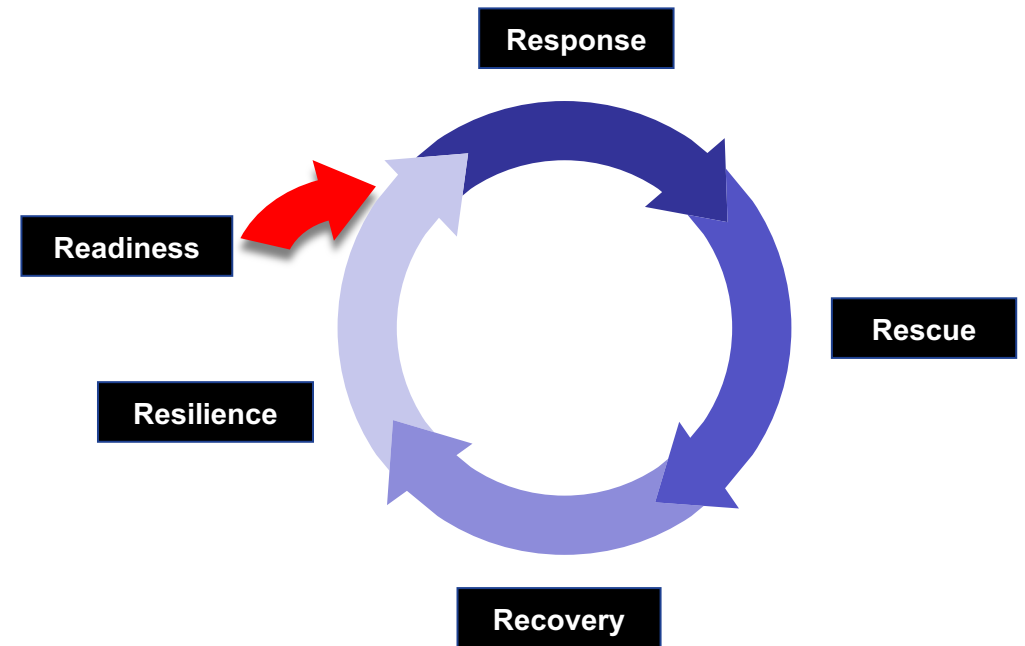


***They tell the WHAT....***

## ***Public Health Guidelines***

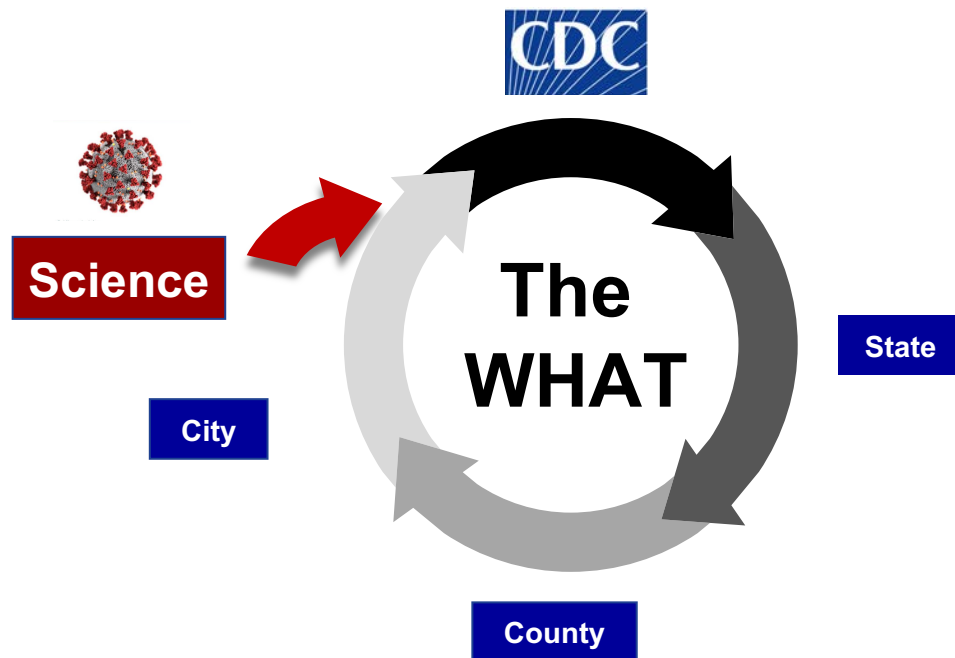


## ***Family Safety Plans***

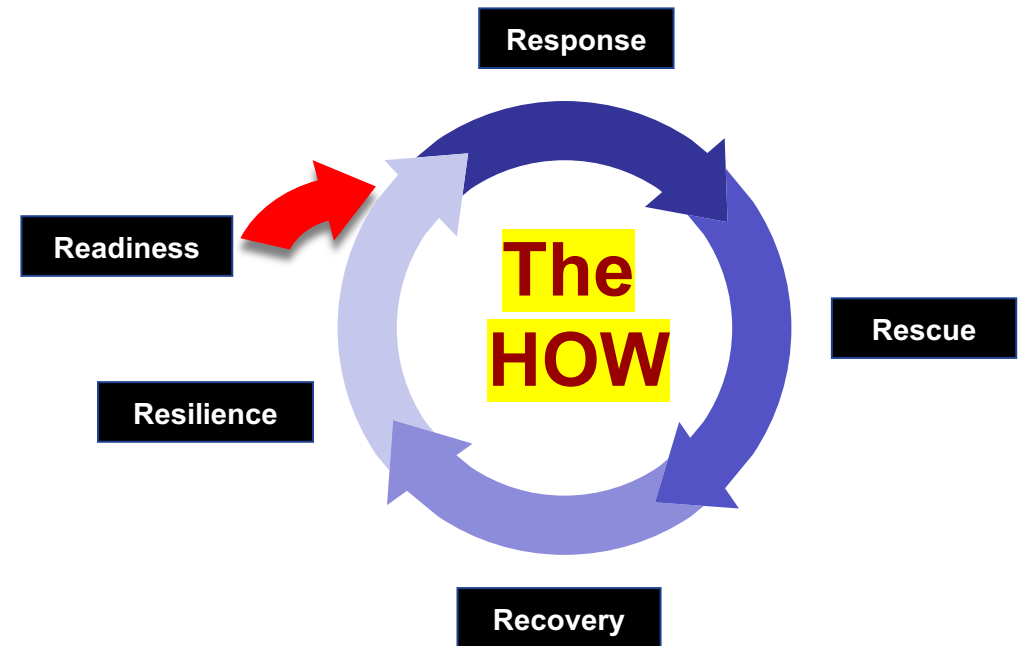


*They tell the WHAT....We provide the HOW*

## Public Health Guidelines

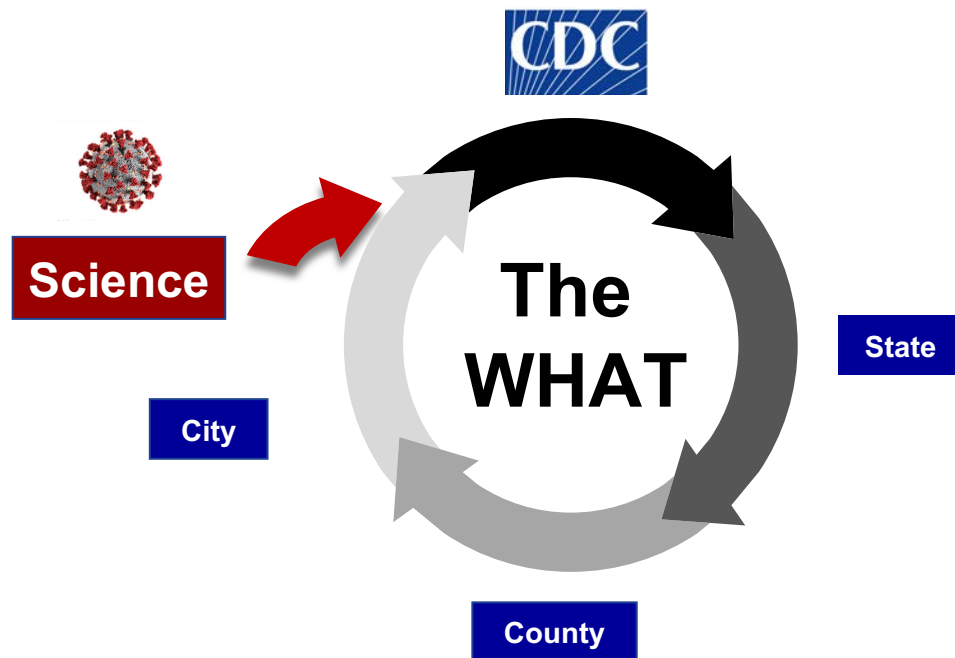


## Family Safety Plans

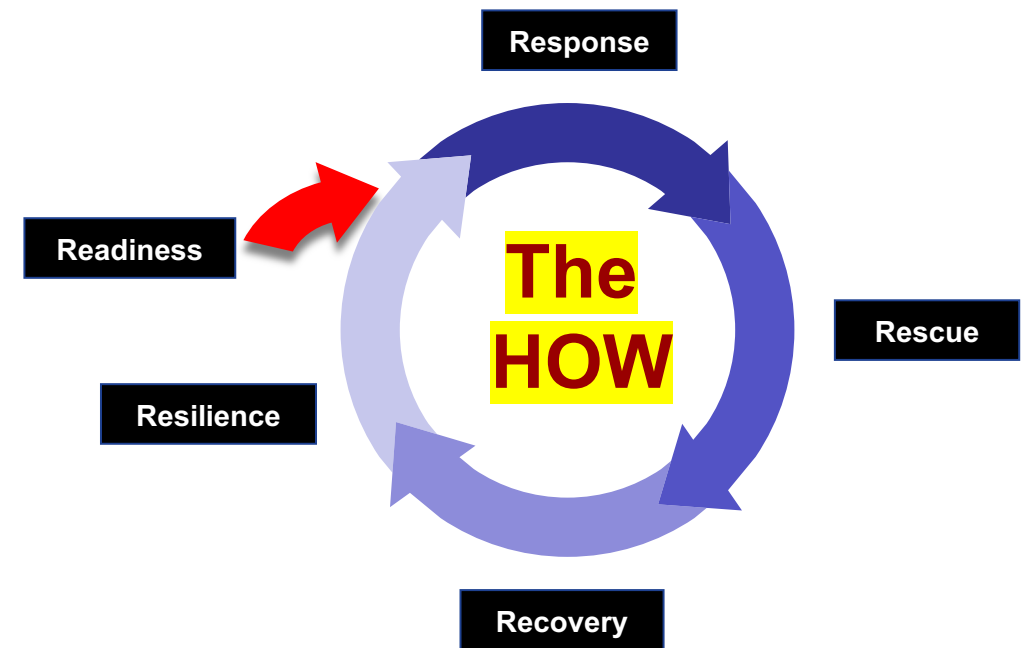


## ***Turn the Science into Safety***

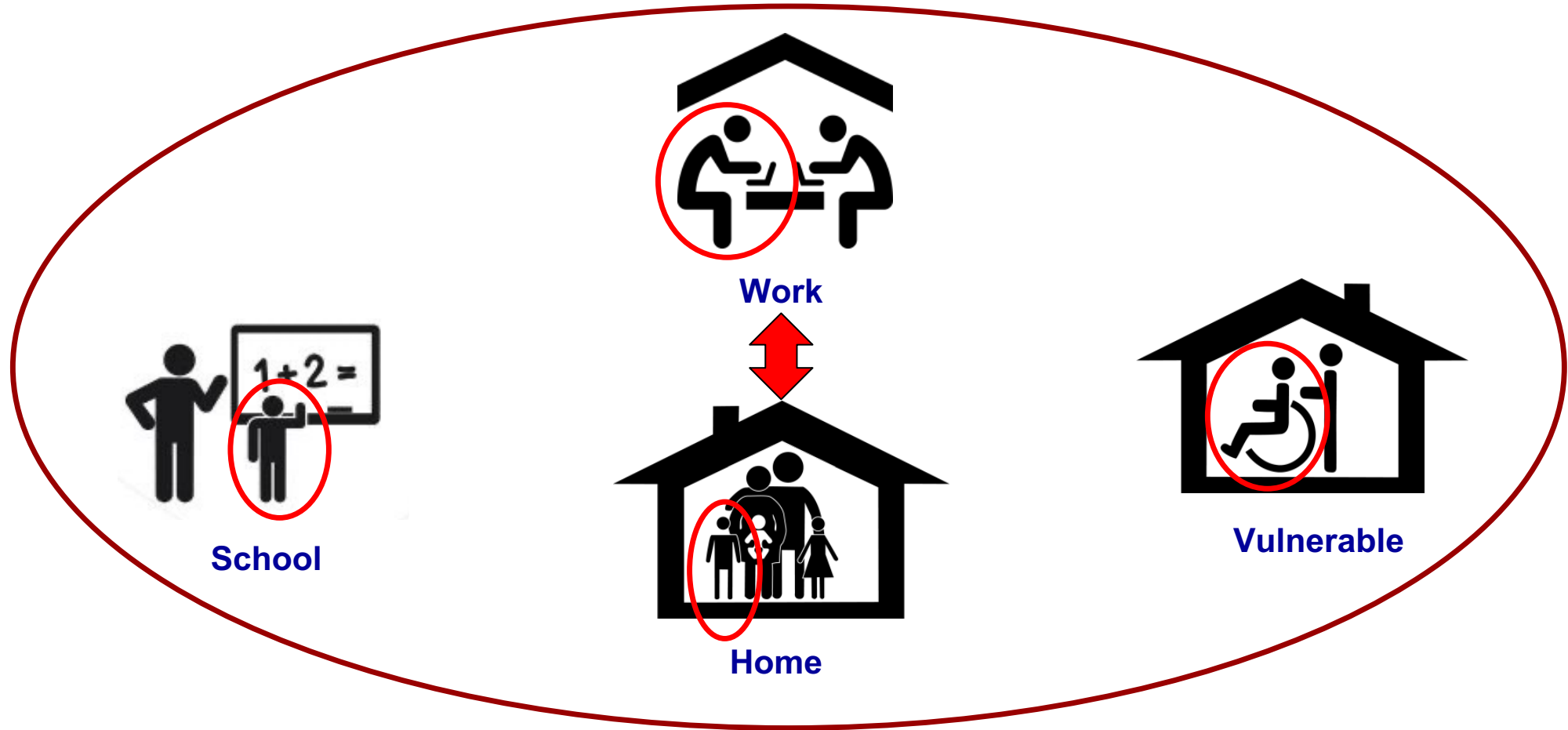
### ***Public Health Guidelines***



### ***Family Safety Plans***



# Family Transmission Chains

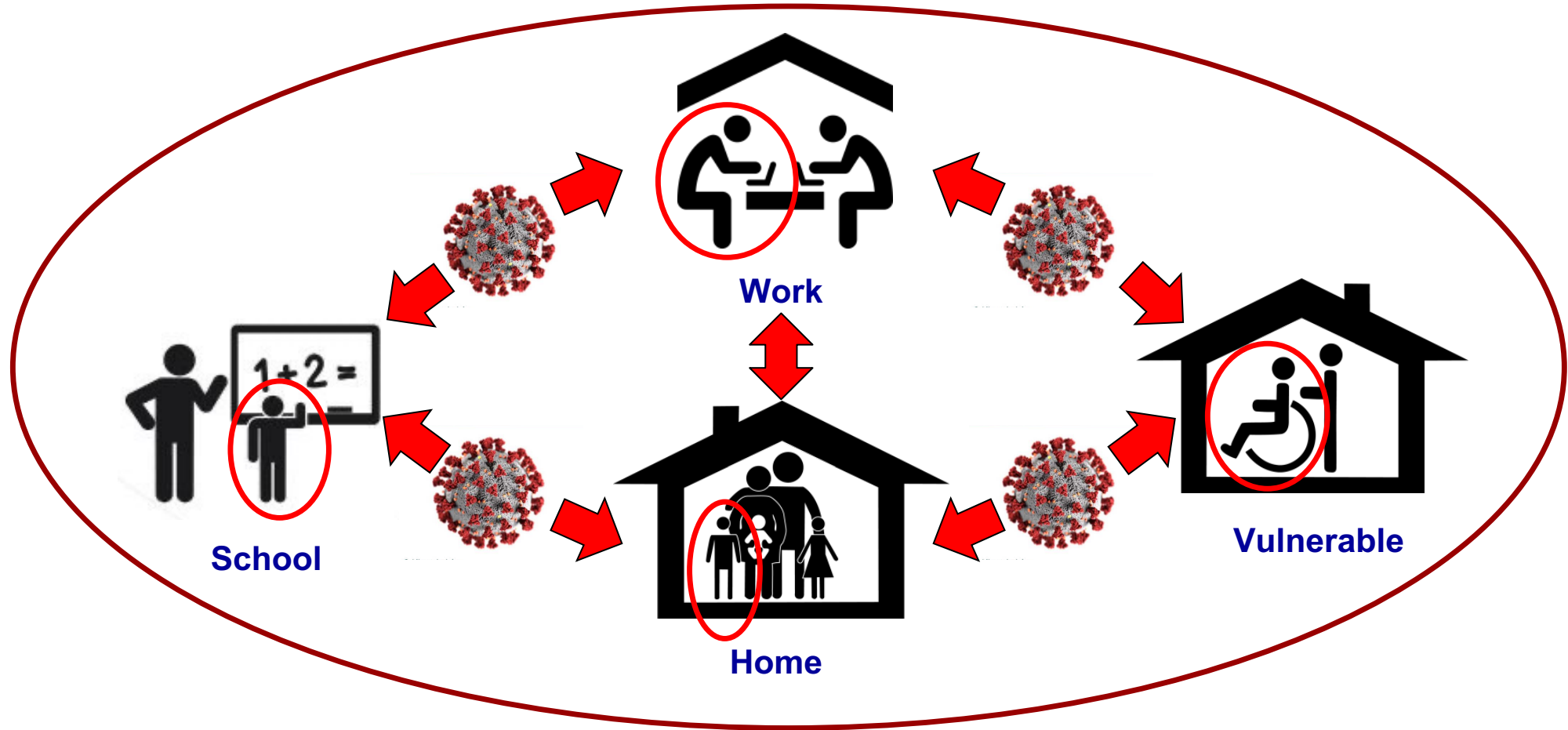




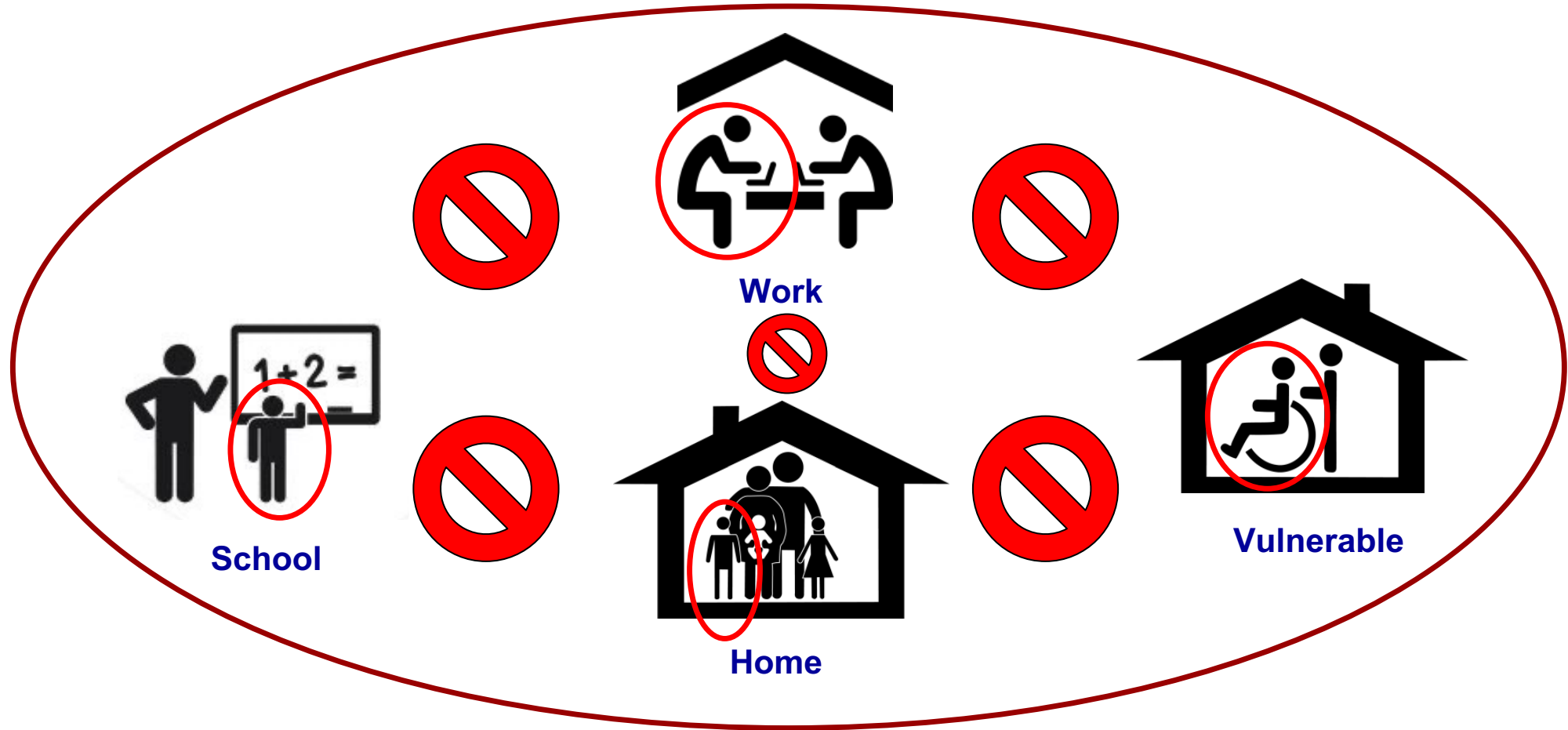
© C Denham 2020



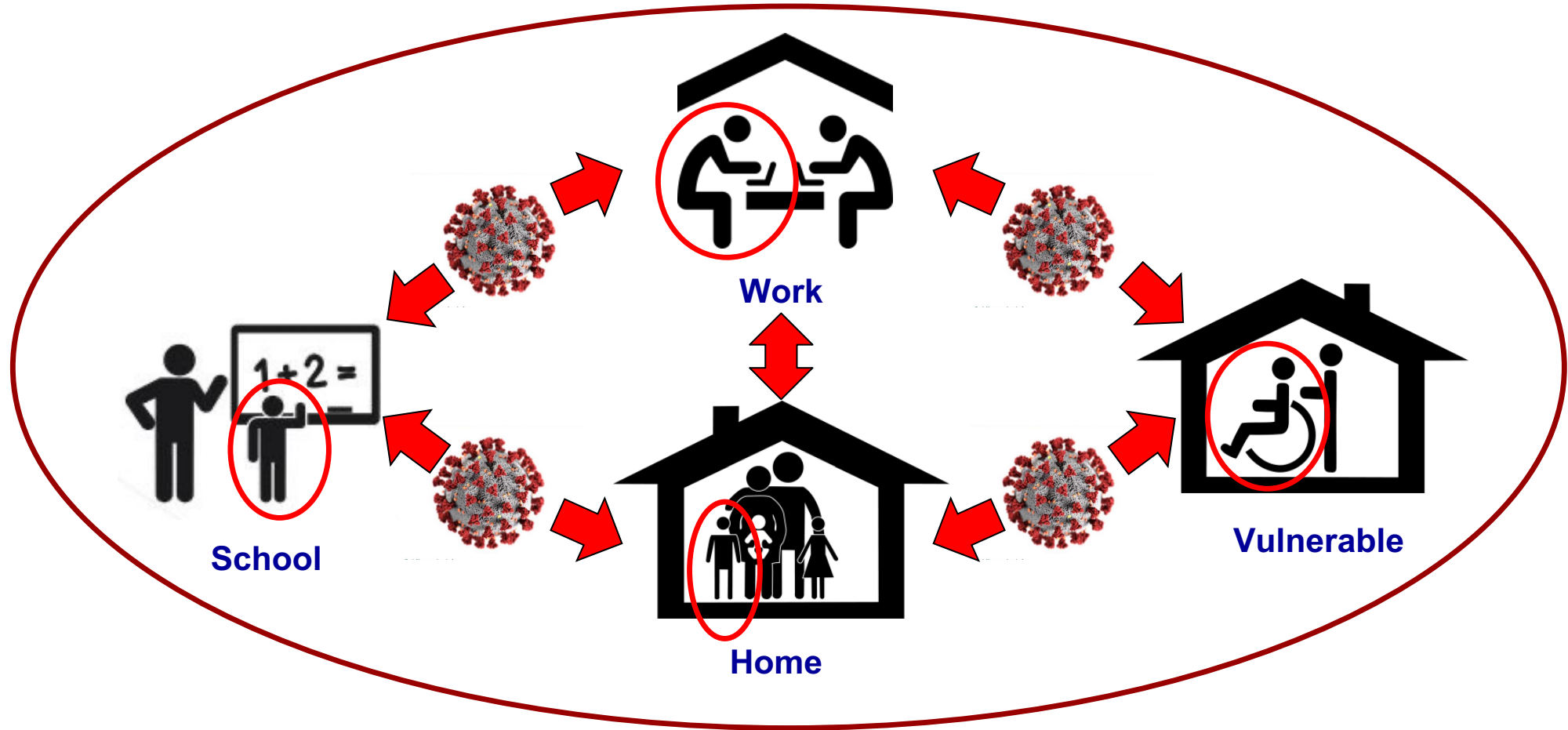
# The Achilles Heel



# Breaking Family Transmission Chains

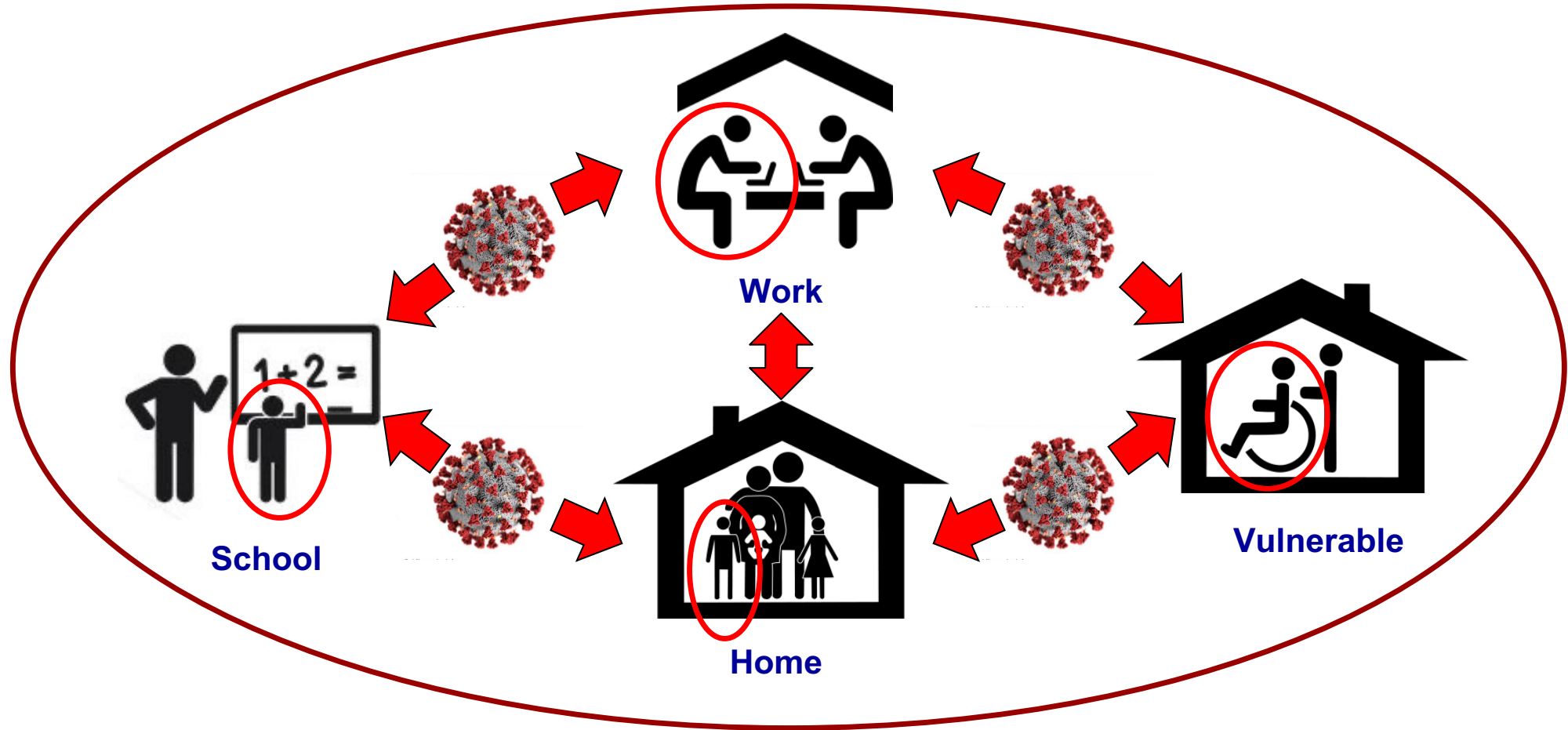


# Save the Families...

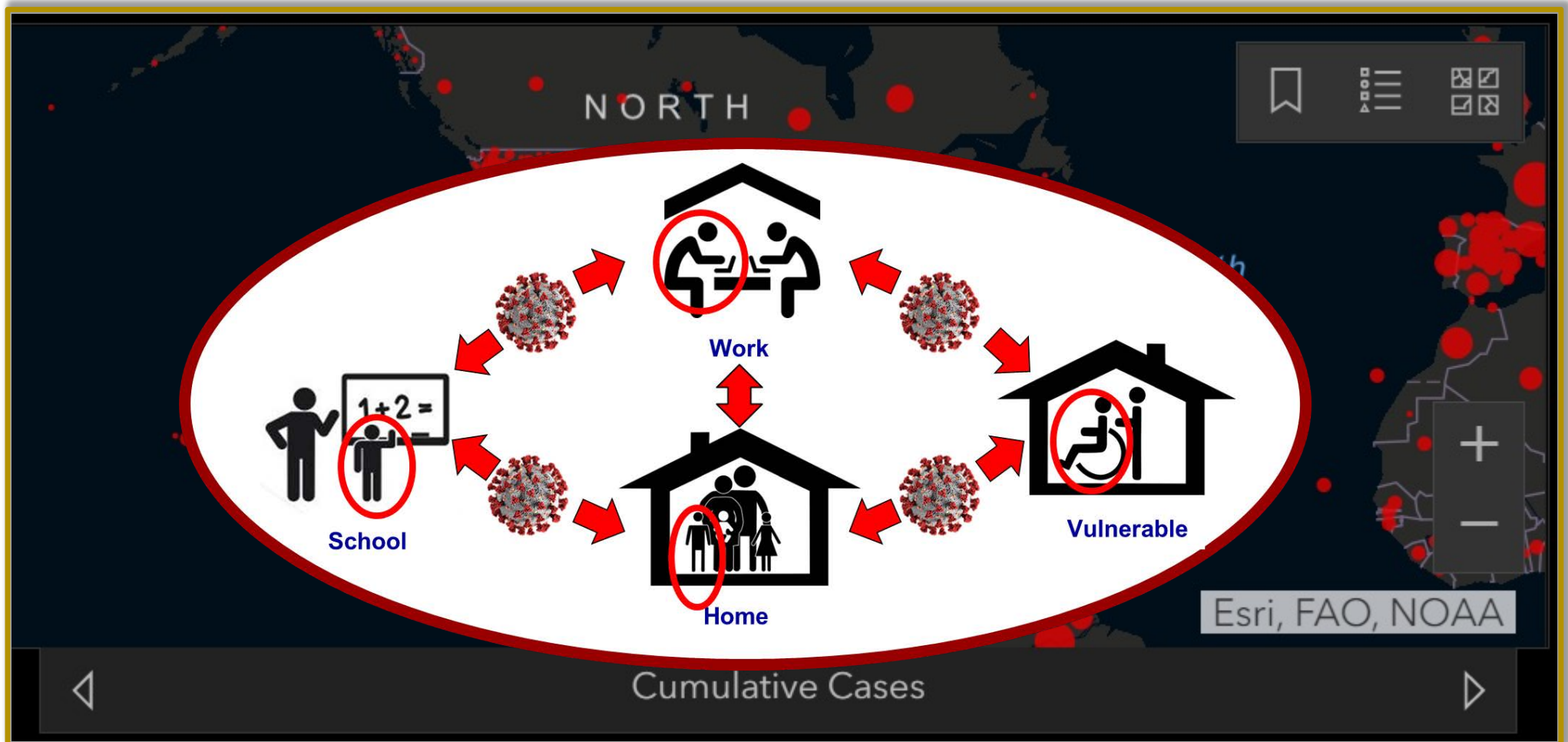




# Save the Families... You Save the Worker



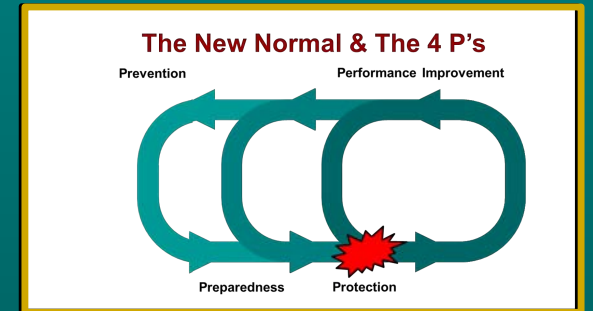
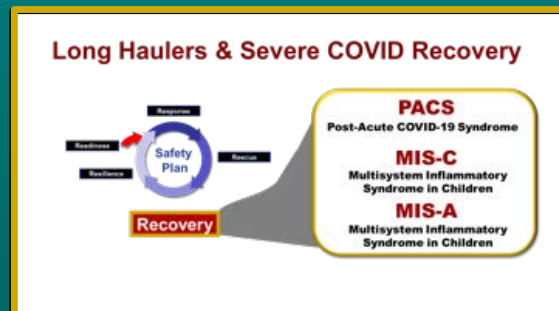
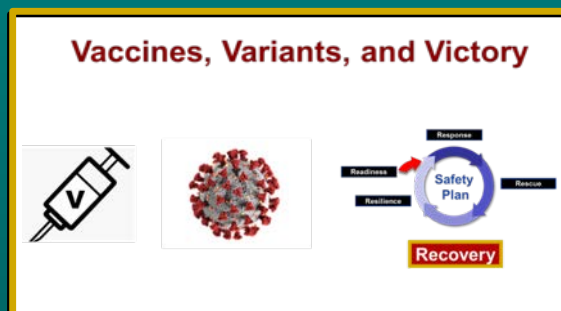
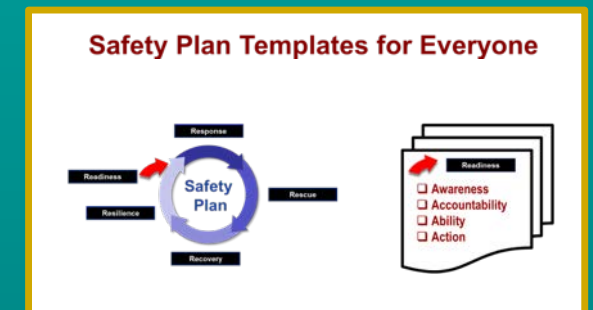
# Save the Families Across Communities...



## **Coronavirus Care Results**

- **Established National Community of Practice**
- **Launched Multi-center Family R&D Study – 1,000 Polled**
- **32 Ninety Minute Broadcasts and Online Programs**
- **12 *Survive & Thrive Family Training* Programs**
- **Produced a National Campus Safety Summit**
- **Published Multiple Articles Providing Guidance**
- **Established Student Led College & Alumni Programs**
- **Delivered Free Continuing Education for Caregivers**
- **Short Videos for Mobile Viewing**
- **Rapid Response to Family Gatherings**
- **National Vaccine Hesitancy Student Outreach**
- **Smart Phone Mobile Applications**

# Survive & Thrive Guide™ Program Road Map

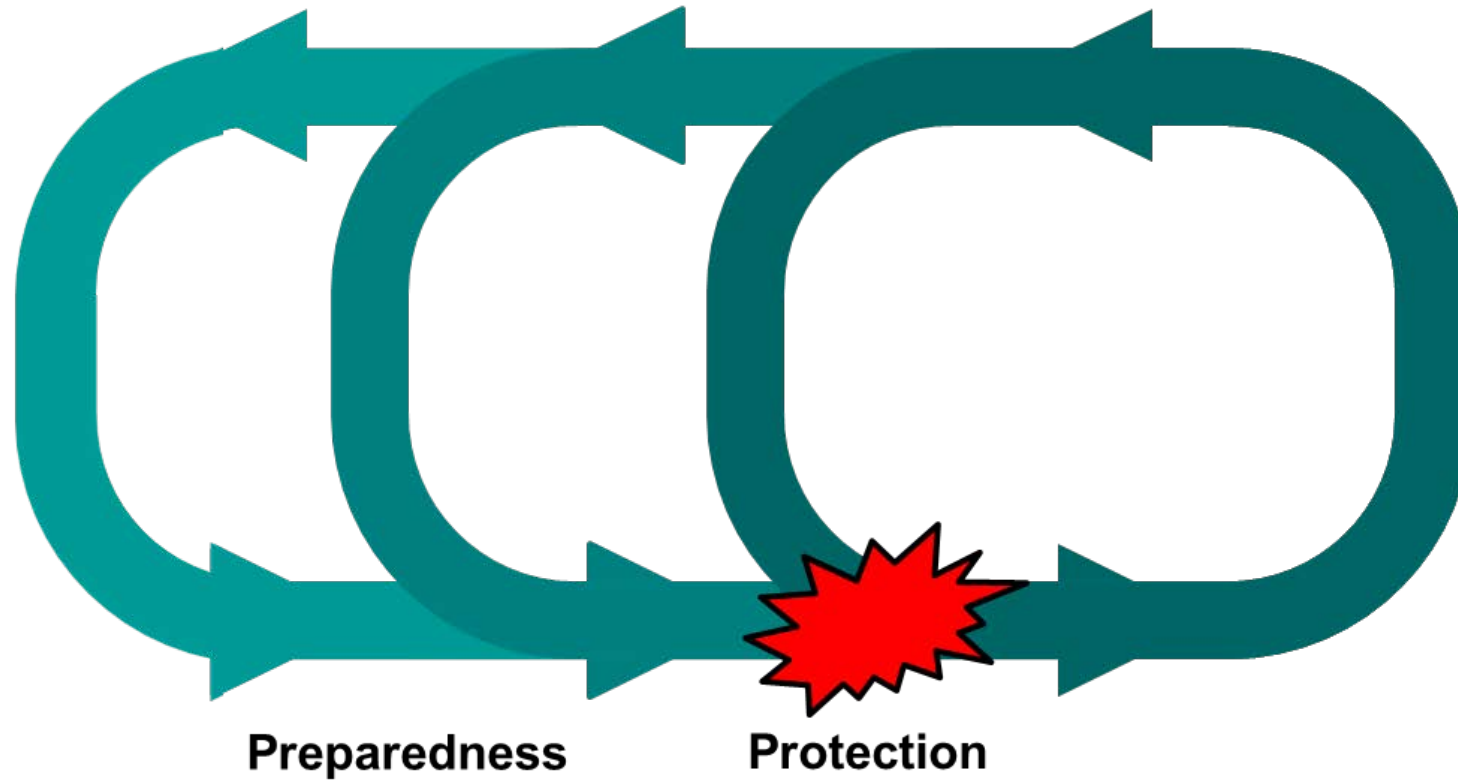




# The New Normal & The 4 P's

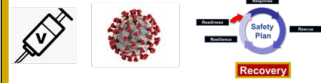
Prevention

Performance Improvement



# Survive & Thrive Guides: Prevention, Preparedness, Protection, and Performance Improvement

## Vaccines, Variants, and Victory



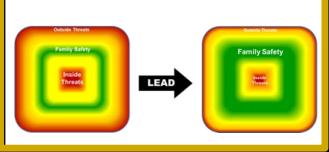
## The New Normal & The 4 P's



## Survive & Thrive Guide Series: Coming Home Safely



## Keeping Our Kids Safe



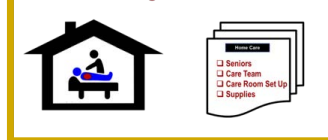
## Creating Your Family Safety Plan



## Safety Plan Templates for Everyone



## Providing Care at Home



## Emergency Rescue Skills



## What To Do - They're in the ICU



Prevention

Performance Improvement

Preparedness

Protection

## 10 Best Practices for Reopening



## Your 2021 Family Safety Plan



## Long Haulers & Severe COVID Recovery



# Take the Shot – Save a Life™

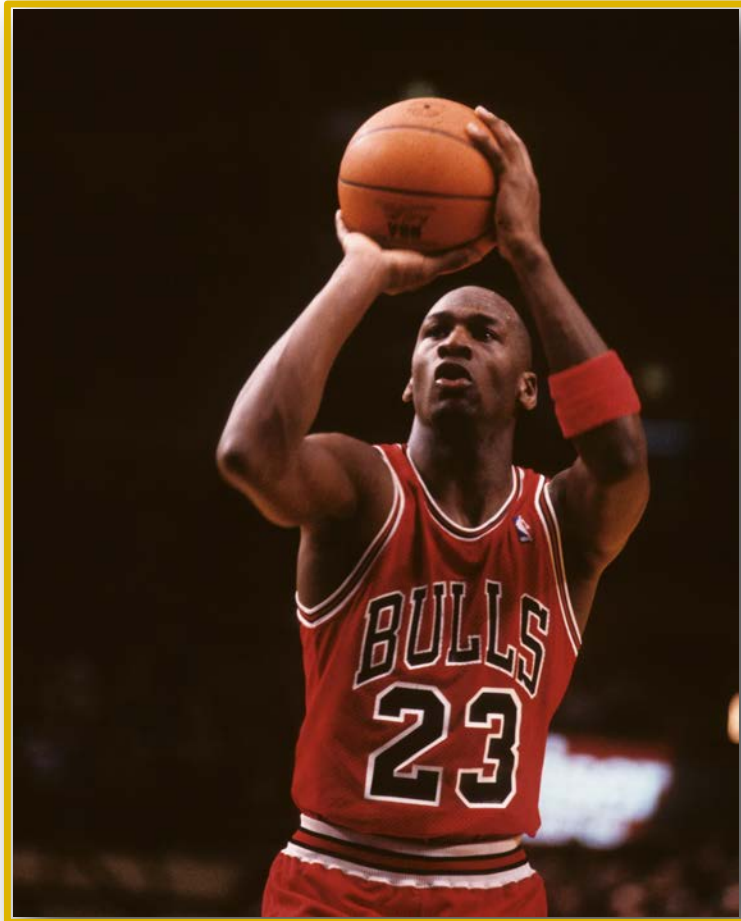


Photo 73861834 © Jerry Coli | Dreamstime.com

## The Vaccination Conversation

- Why Vaccinate?
- Why You?
- Why Now?

# **The Vaccination Conversation**





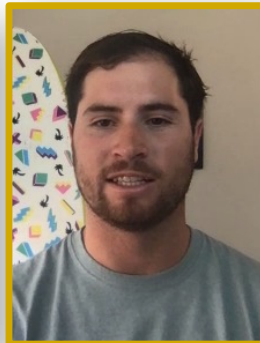
## Youth & Young Adult Team



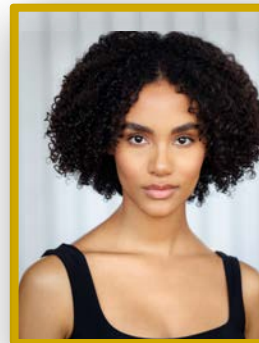
**D Contreras EMT**  
Harvard



**Ivy Tran EMT**  
Harvard



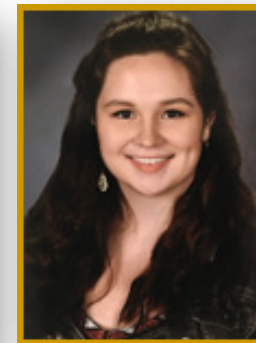
**Nick Scheel**  
UCSB



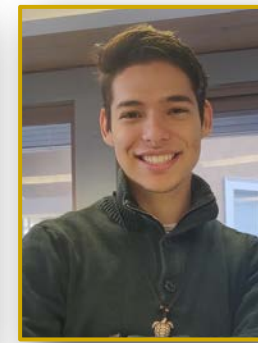
**Sophia McDowell**  
California Inst. of Arts



**Audrey Lam EMT**  
USC



**Jacqueline Botz**  
Chapman



**Luis Licon**  
UCI Alum



**Melanie Rubalcava**  
UCSD



**Charlie Denham III**  
High School Lead



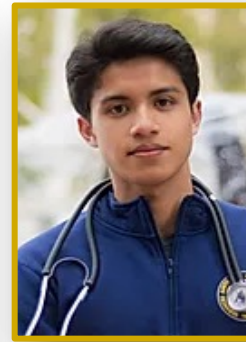
**Charlie Beall**  
Stanford Alum



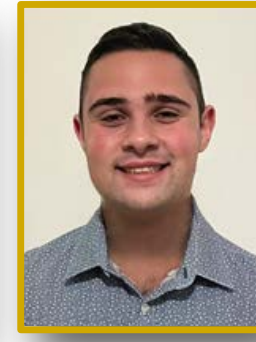
**Marcus McDowell**  
U of Cincinnati



**Jaime Yrastorza**  
UCSD Pre-med



**Paul Bhatia EMT**  
UCI Pre-med



**D Policichio**  
NYU Film



**Manue Lopez**  
Berkeley Alum



**Preston Head III**  
UCLA Alum



## Family Rescue R&D



Stanford  
University

Yale

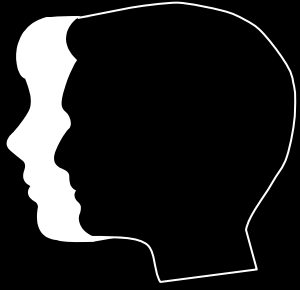


## The 5 R's of Safety



UNIVERSITY OF CALIFORNIA  
SANTA BARBARA





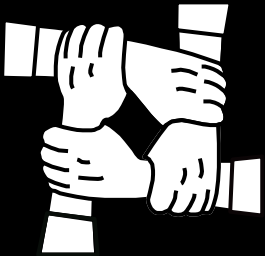
**HEAD**

What do we want you to **KNOW**?



**HEART**

What do we want you to **FEEL**?



**HANDS**

What do we want you to **DO**?



**VOICE**

What do we want you to **SAY**?

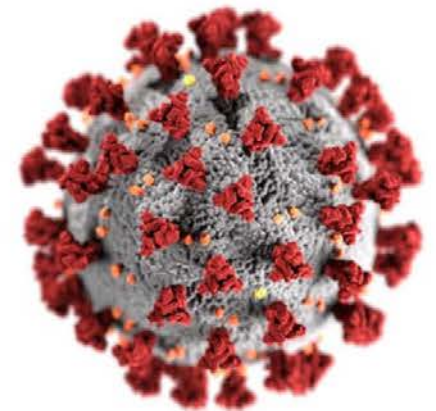
# Dealing with Delta: Critical FAQs

## *A Survive & Thrive Guide™*



**John Christian Fox, MD, FCCM**

**Professor and Chair,  
Emergency Medicine  
School of Medicine  
University of California Irvine**













JULY 29 - AUGUST 1, 2021 - GRANT PARK - CHICAGO

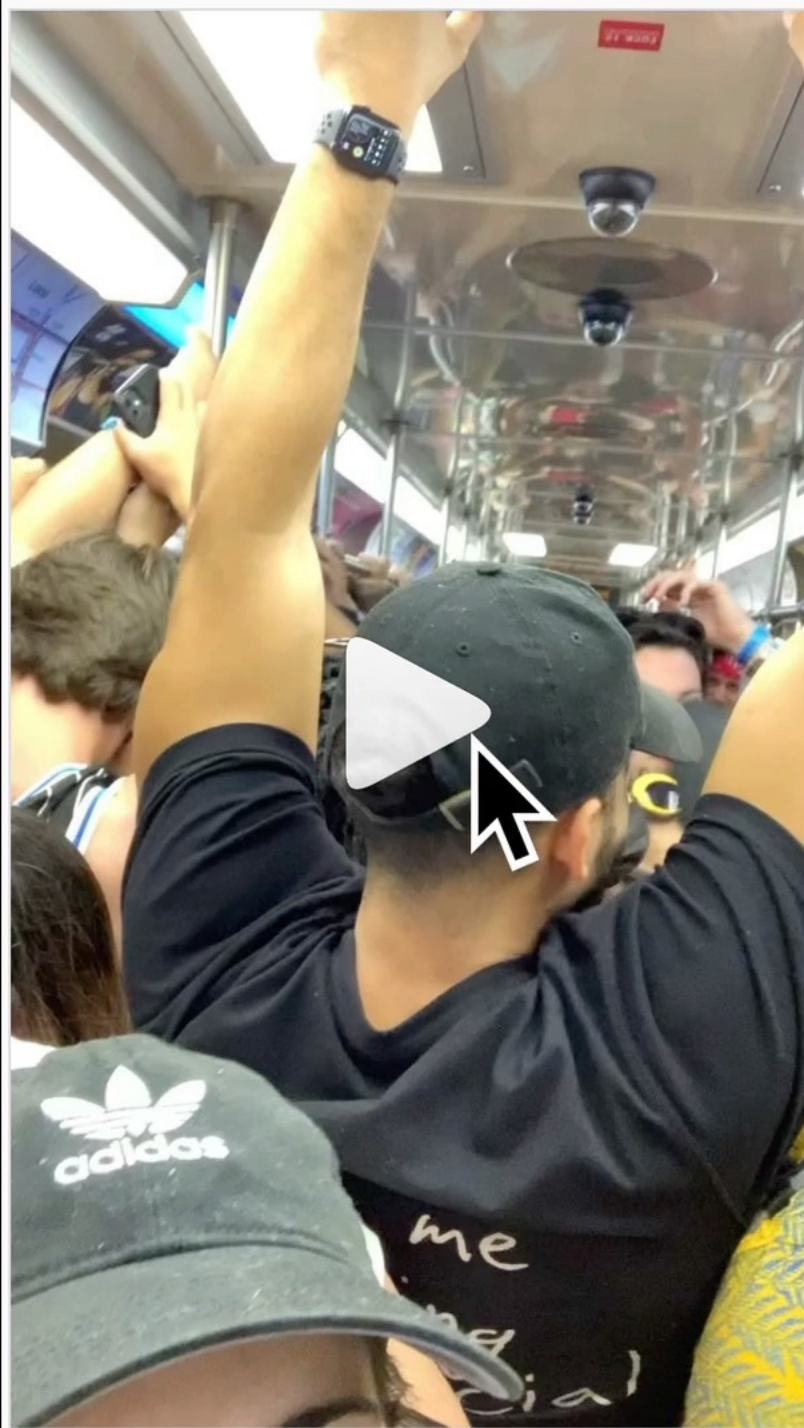
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TICKETS AT [LOLLAPALOOZA.COM](https://www.lollapalooza.com)







# US, OC, UCI Health Vaccination

	Adults			Total Population	
	US	OC	UCI Health	US	OC
≥ 1 Dose	69%	75%	82%	57%	63%
Fully Vaccinated	60%	66%	81%	49%	55%

- Strong vaccine supply
- Next few months critical
- For winter, need uptake in high-risk communities, settings

**RNs: 89%**

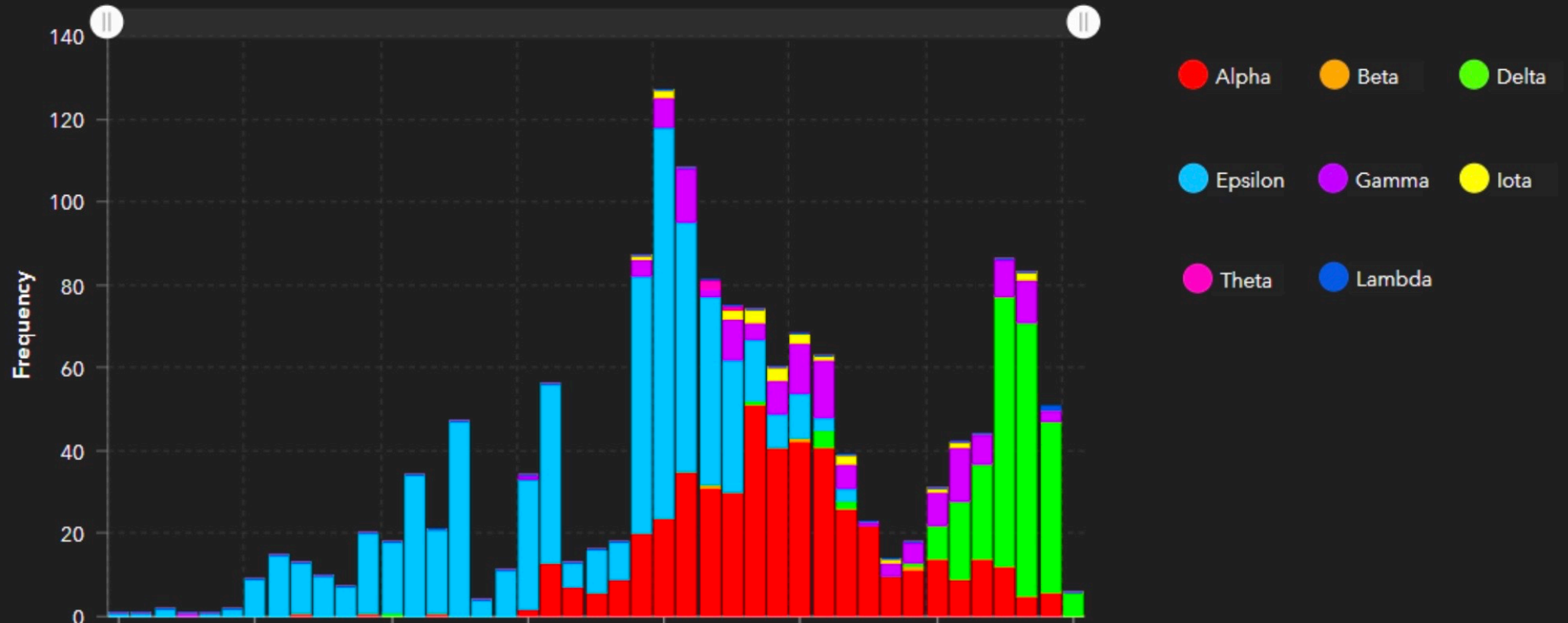
**MDs 90%**

**Residents: 94%**



# CA COVID Variants Over Time

Variant Results by Disease Week



# COVID Risk by Age Among **Unvaccinated**

Rate ratios compared to 18- to 29-year-olds<sup>1</sup>

	0-4 years old	5-17 years old	18-29 years old	30-39 years old	40-49 years old	50-64 years old	65-74 years old	75-84 years old	85+ years old
Cases <sup>2</sup>	<1x	1x	Reference group	1x	1x	1x	1x	1x	1x
Hospitalization <sup>3</sup>	<1x	<1x	Reference group	2x	2x	4x	6x	9x	15x
Death <sup>4</sup>	<1x	<1x	Reference group	4x	10x	35x	95x	230x	600x

# UK Study on Long Haul COVID in Adults

---

- **Prospective COVID Symptom Study app**
  - 4,182 adults
  - Persistent symptoms
    - 13% >4 weeks
    - 5% >8 weeks
    - 2% >12 weeks
- **Prolonged symptoms**
  - Fatigue, headache, dyspnea, anosmia most common
  - Increased risk among females and increased age, BMI

# UK Study on Long Haul COVID in Adults

---

- **Early COVID symptoms associated with prolonged symptoms**
  - Fatigue (OR 2.8)
  - Headache (OR 2.6)
  - Dyspnea (OR 2.4)
  - Hoarse voice (OR 2.3)
  - Myalgia (OR 2.2)



# Italian Study on Long Haul COVID in Children

---

- **All COVID+ patients  $\leq 18$ yo at single hospital in Rome**
  - 129 children enrolled with COVID+ test
  - Subsequently
    - 57% had symptoms >120 days
    - 2% Multisystem Inflammatory Syndrome
    - 2% Myocarditis
  - Most common persistent symptoms
    - Insomnia (19%), respiratory issues (15%), congestion (12%), fatigue (11%), myalgia (10%), arthralgia (7%), difficulty concentrating (10%)

# Italian Study on Long Haul COVID in Children

- **All COVID+ patients  $\leq 18$ yo at single hospital in Rome**
  - 129 children enrolled with COVID+ test
  - Sul
  - Risk of myocarditis from COVID: 2%
  - Risk of myocarditis from mRNA vaccine: <0.005%
  - 
  - Most common persistent symptoms
    - Insomnia (19%), respiratory issues (15%), congestion (12%), fatigue (11%), myalgia (10%), arthralgia (7%), difficulty concentrating (10%)

# COVID-19 Vaccine Updates

---

- **Full Licensure**
  - Pfizer filed May 7, Moderna filed June 1
  - FDA approval expected fall-January 2022
- **Confidence in safety by nearly 1 billion mRNA doses given**

	Pfizer	Moderna	J&J
Global Doses in Millions	587 M	187 M	24 M
U.S. Doses in Millions	190 M	138 M	13 M

# COVID-19 Vaccine Updates for Young Children

---

- **Young Children – Pfizer**

- FDA requires 4 months of safety data for emergency use authorization (EUA) and 6 months for full approval
- 5-11yo EUA expected early to mid-winter
- 2-5yo EUA a few months later
- 6 months-2y in first half 2022



# Changes in Pandemic Due to Delta

---

- **UCI Co-Worker Cases**
  - 75% vaccine breakthrough with delta variant
  - Off-site behavior allowable per CDPH/Governor, but risky
  - Vaccine highly protective for severe disease, but likely contagious
- **Prevention, *regardless of vaccination status***
  - Do not assume vaccine 100% protective
  - **Mask** in indoor social events with persons of unknown vax status
  - Post-social event, be **attentive for any symptoms** for 14 days
  - Any symptoms (even mild), **stay home and test** rapidly

# How to Assess Your Risk of COVID *if Exposed*

Exposure depends on the safety/vaccination status of your close contacts  
Remember, people are contagious 2 days before symptoms appear

	Unmasked, Undistanced	Masked, Undistanced	Masked, Distanced
Vaccinated	36% Risk 64% Protection	Very low (12%)* 88% Protection	No Risk 100% Protection
Unvaccinated	100% Risk 0% Protection	Moderate Risk*	Low Risk*

\*Dependent on season, snug fit of mask, hand hygiene before touching face, distanced eating

[www.medrxiv.org/content/10.1101/2021.06.28.21259420v1.full.pdf](https://www.medrxiv.org/content/10.1101/2021.06.28.21259420v1.full.pdf)

[www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)01358-1/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01358-1/fulltext)

[www.medrxiv.org/content/10.1101/2021.05.22.21257658v1](https://www.medrxiv.org/content/10.1101/2021.05.22.21257658v1)

Israel Health Ministry

# Pandemic Prognosis: What's Next

---

- Series of unfortunate events
  - Continued delta variant cases with unmasked social events
  - Magnified by school start (mid-August)
  - Accelerated by seasonal change
  - Worsened by holiday gatherings

# UCOP COVID-19 Mandatory Vaccine Policy FINAL

---

- Applies to on-site staff, faculty, students, contractors, volunteers
  - No option to mask instead of vaccinate
  - Can apply for medical exemption and religious exception
    - ✓ Contact your HR representative
    - ✓ **If exempt, 2x weekly COVID testing required per CDPH**
  - Deadlines
    - ✓ School of Medicine: July 21
    - ✓ UCI Health: September 1



Area	Vaccinated	Unvaccinated
Outdoors	Mask on UCI Health premises	Mask on UCI Health premises
Indoors: Non-patient care*	Mask on UCI Health premises Recommend distance, as able	<i>Must</i> mask. Distance 6 ft if unmasked for eating/drinking
Indoors: Patient care area	<i>Must</i> mask & distance	<i>Must</i> mask & distance

# September 1

Area	Vaccinated
Outdoors	Mask on UCI Health premises
Indoors: Non-patient care*	Mask on UCI Health premises Recommend distance, as able
Indoors: Patient care area	<i>Must</i> mask & distance

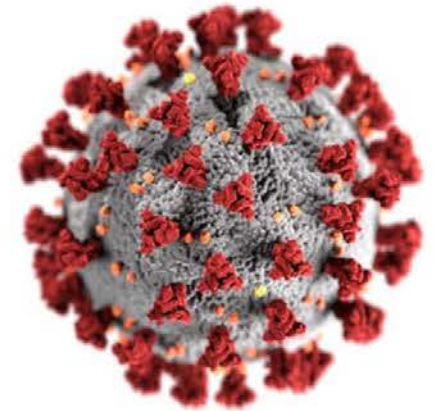
# Dealing with Delta: Critical FAQs

## *A Survive & Thrive Guide™*



**Brittany Barto-Owens**

**Community Pediatrician  
Survive & Thrive  
Subject Matter Expert**



# **Be Your Family Lifeguard & Holiday Huddle Checklist **During Delta****



**Charles R. Denham III**

**High School Student  
Co-founder Med Tac Bystander  
Rescue Care Program  
Co-lead Lifeguard Surf Program  
Junior Med Tac Instructor  
Certified Lifeguard**



**David Beshk**

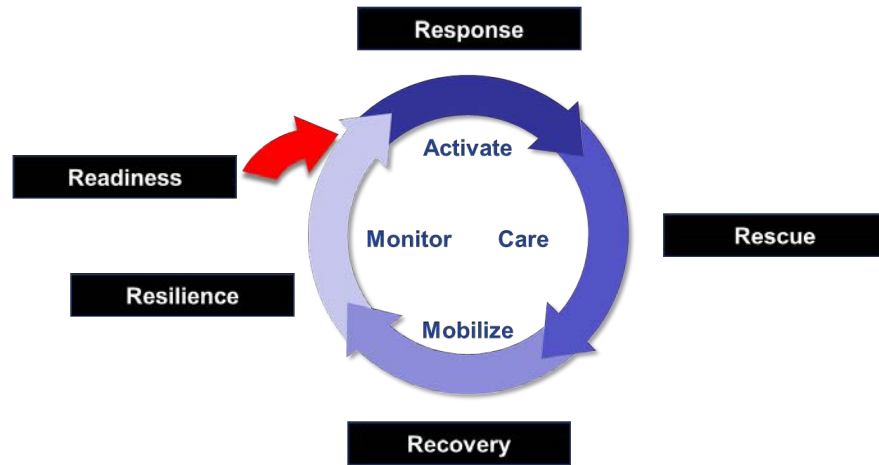
**Award Winning Educator  
Med Tac Master Instructor  
Eagle Scout Advisor  
Merit Badge Counselor**







## Family Health Safety & Organization Security Plans™



## The Family CFO: Chief Family Officer

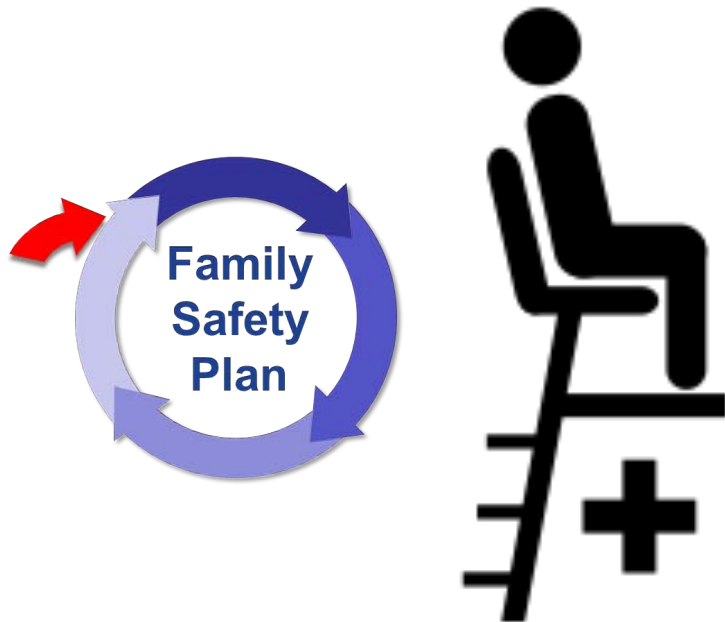


### Thoughts for Families with Young Children:

- ☐ Review other Readiness Checklists. Use FEMA Emergency Preparedness Checklist (we use when we teach Med Tac Bystander Rescue Program).
- ☐ Make sure you have Personal Protective Equipment for everyone.
- ☐ Make sure you have a copy of everyone's Medical Records including lists of allergies and meds.
- ☐ Review the 5 Rights of Emergency Care video to be prepared for a new experience.
- ☐ Use Icons in your plan to make plan family friendly.
- ☐ Create plan sections for adults and children
- ☐ Create an "All Teach All Learn" Environment
- ☐ Play Date Simulations for being prepared.
- ☐ Gamify Readiness – we use FEMA as an example

# Be Your Family Lifeguard

90% Prevention and 10% Rescue



## Holiday Huddle Checklist

### The Goal - Prevent Bubble Trouble

Maintain the Four Pillars: Distance, Hand Hygiene, Disinfect Surfaces, and Mask Use

#### Before Event:

- ☐ Assign Tasks to Family Members
- ☐ Prepare Separate Family Bubble Portions
- ☐ Set Up Handwashing Stations
- ☐ Develop a Bathroom Plan
- ☐ Prepare Bathroom – Optimize Ventilation
- ☐ Maintain Kitchen Hygiene

#### During Event:

- ☐ Convene Holiday Huddle with Guests
- ☐ Opening Prayer
- ☐ Describe Safe Family Bubbles
- ☐ Review Four Safety Pillars
- ☐ Provide Restroom Plan
- ☐ Describe Eating Plan
- ☐ Summarize Clean Up Plan

#### After Event:

- ☐ Glove up to Clean Up
- ☐ Soak Plates and Cutlery in Soapy Water
- ☐ Wipe down surfaces touched by guests
- ☐ Wipe down bathroom used by guests
- ☐ Meet to de-brief to be safer next time

# Spring Break, Ski Week, and Vacations



## Holiday Huddle Checklist

### The Goal - Prevent Bubble Trouble

Maintain the Four Pillars: Distance, Hand Hygiene, Disinfect Surfaces, and Mask Use

#### Before Event:

- ☐ Assign Tasks to Family Members
- ☐ Prepare Separate Family Bubble Portions
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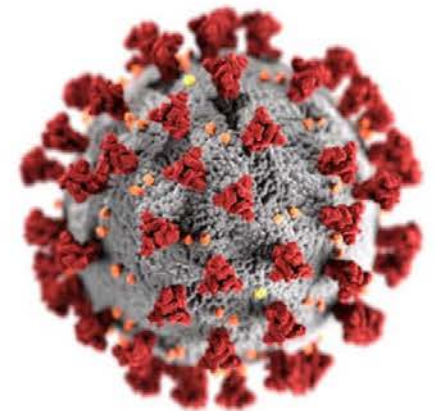
# Dealing with Delta: Critical FAQs

## *A Survive & Thrive Guide™*



**David Beshk**

**Med Tac Master Instructor  
Award Winning Educator  
Lower School Science Teacher**



## Speakers & Reactors



Jennifer Dingman



Dr. Mansfield



Dr Chris Fox



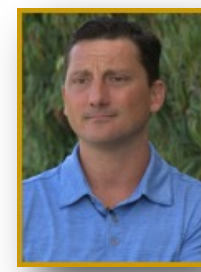
Heather Foster RN



William Adcox



Randy Styner



David Beshk



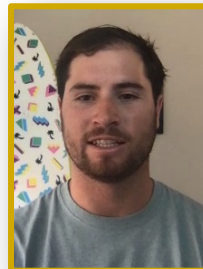
Dr. B Barto Owens



Dr. C Peabody



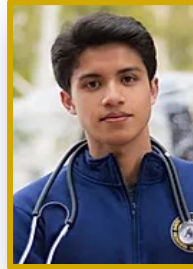
Dr. Gregory Botz



Nick Scheel



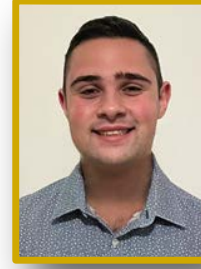
Jaime Yrastorza



Paul Bhatia EMT



Charlie Denham III



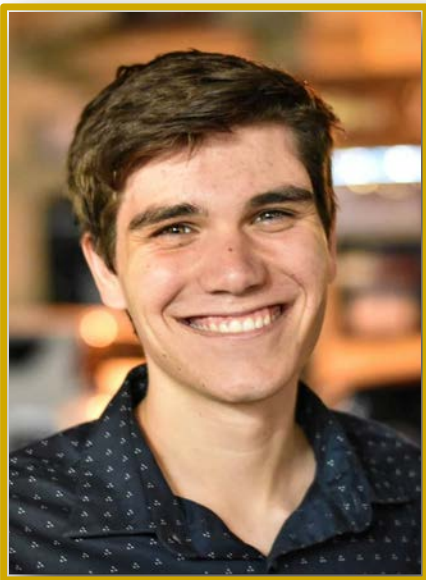
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David Grinsfelder

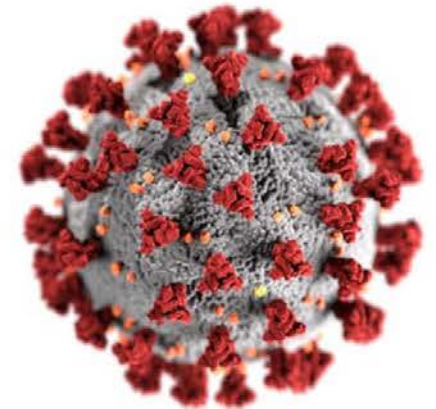
# Dealing with Delta: Critical FAQs

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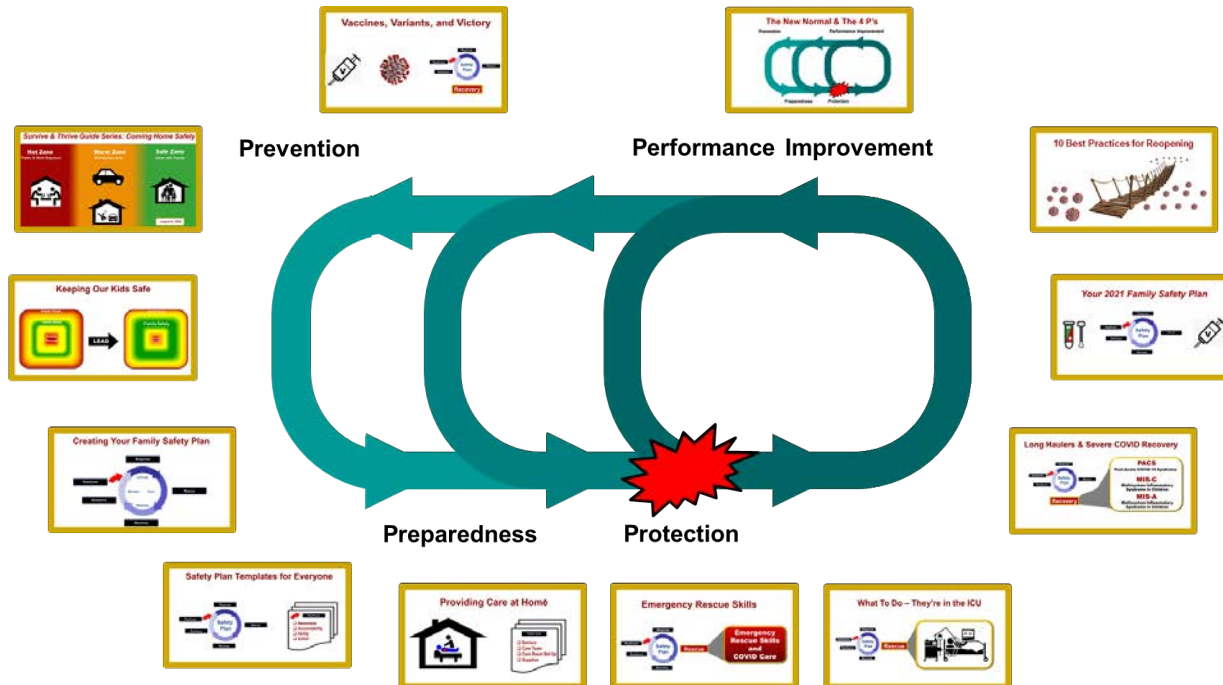
**Jaime Yrastorza**

**Freshman Medical Student  
Med Tac R&D Intern  
Med Tac Student Outreach Program**





## Our Survive & Thrive Guide Updates



## 10 Best Practices:

1. Vaccines – Take the Shots
2. Coming Home Safe
3. Keeping the Family Safe
4. Creating a Family Safety Plan
5. Practicing the Family Safety Plan
6. Providing Care at Home
7. Emergency Rescue Skills
8. What to Do – They're in ICU
9. Long Haulers & COVID Recovery
10. The 4 P's at the New Normal

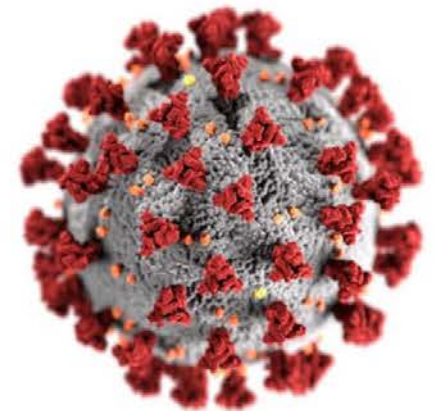
# Dealing with Delta: Critical FAQs

## *A Survive & Thrive Guide™*



**Christopher Peabody, MD, MPH**

**Associate Professor,  
Emergency Medicine  
Director Innovation Center  
University of California,  
San Francisco UCSF**



## 10 Best Practices:

### 1. Vaccines – Take the Shots

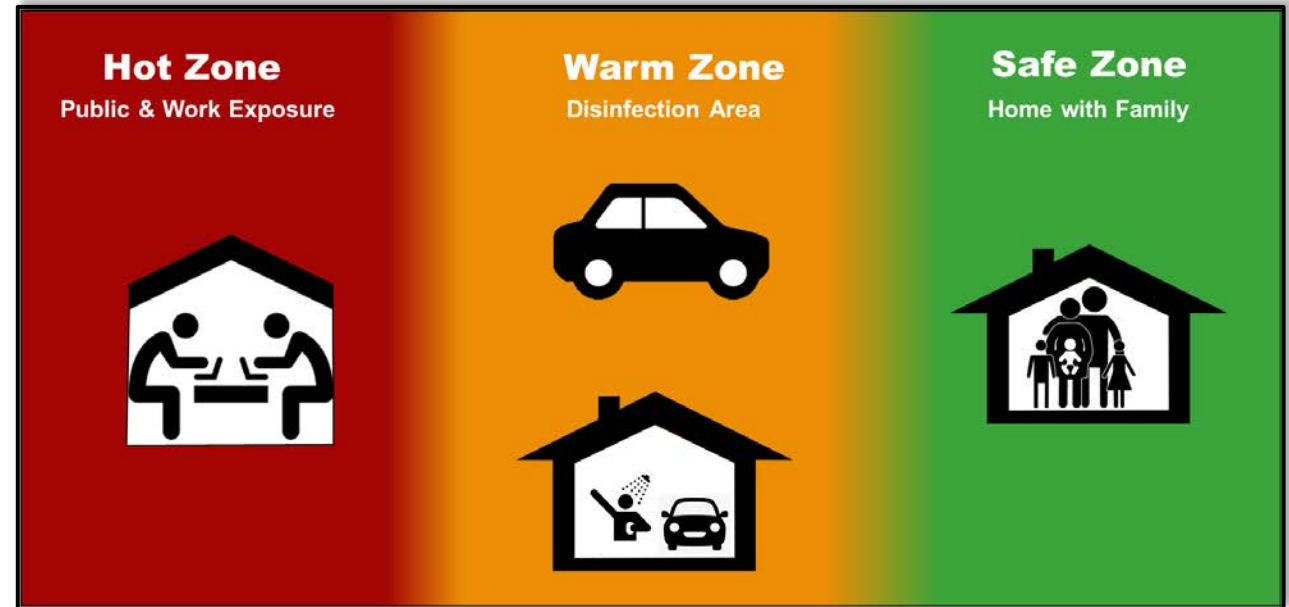
## Vaccines: Take the Shots



# 10 Best Practices:

1. Vaccines – Take the Shots
2. **Coming Home Safe**

## Coming Home Safe

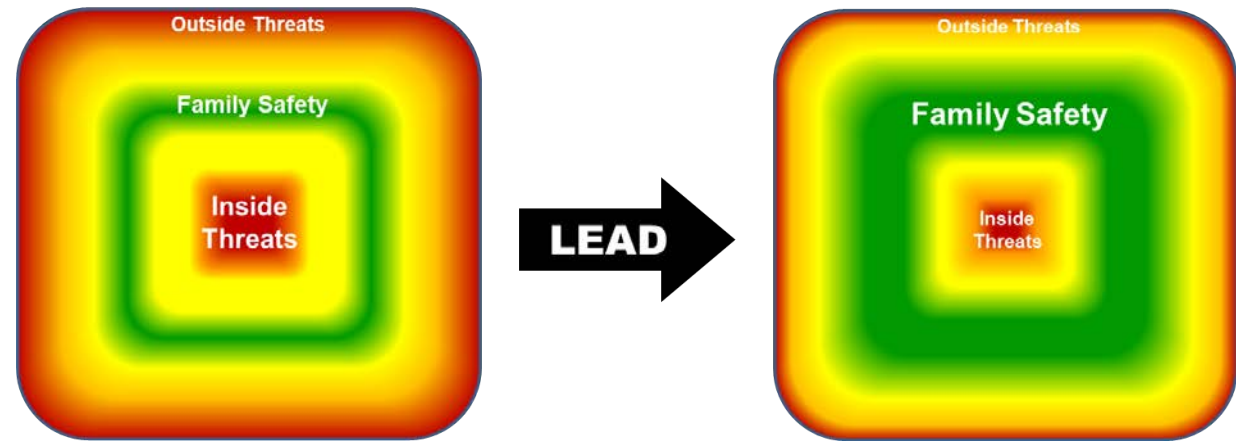




## 10 Best Practices:

1. Vaccines – Take the Shots
2. Coming Home Safe
3. **Keeping the Family Safe**

### Keeping the Family Safe



**Threats x Vulnerability = Risk**

# 10 Best Practices:

1. Vaccines – Take the Shots
2. Coming Home Safe
3. Keeping the Family Safe
4. Creating a Family Safety Plan
5. **Practicing the Family Safety Plan**

## Practicing the Family Safety Plan



## **Family Health Safety Plans**

**Readiness:** Preparation, regular review, and updating of a plan based on the latest science. Regular deliberate practice of roles and skills each family member undertake.

**Readiness**

**Resilience**

**Resilience:** Fortify response, rescue, and recovery actions in plan. In law enforcement and healthcare, we call this “target hardening”.

**Response**

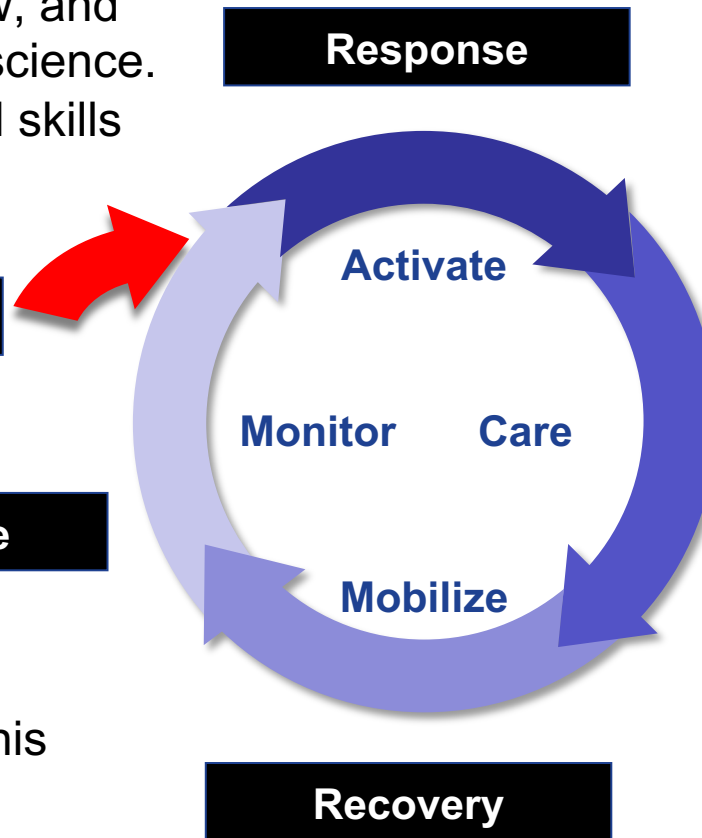
**Response:** Family moves to action to respond to an emergency. Safeguards are put in place. The family may respond to a member being infected or exposed to someone infected.

**Rescue**

**Rescue:** Regular deliberate practice of roles and skills to take a loved one to the Emergency Department if they have severe symptoms. This means having records and medications ready go with the patient.

**Recovery**

**Recovery:** Follow up care of the family member after an event. Returning to normal family activities after a family member is infected and isolated, hospitalized, or under quarantine.”



# 10 Best Practices:

1. Vaccines – Take the Shots
2. Coming Home Safe
3. Keeping the Family Safe
4. Creating a Family Safety Plan
5. Practicing the Family Safety Plan
6. Providing Care at Home

## Providing Care At Home



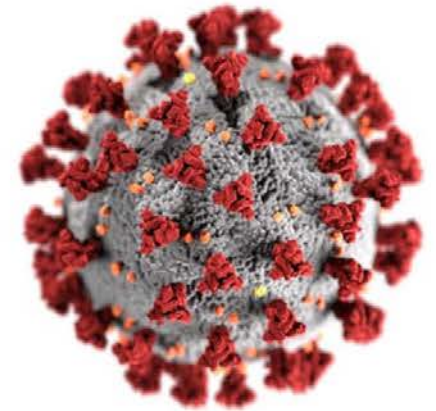


# **10 Best Practices for Reopening** ***A Survive & Thrive Guide***<sup>™</sup>



**Heather Foster RN BSN**

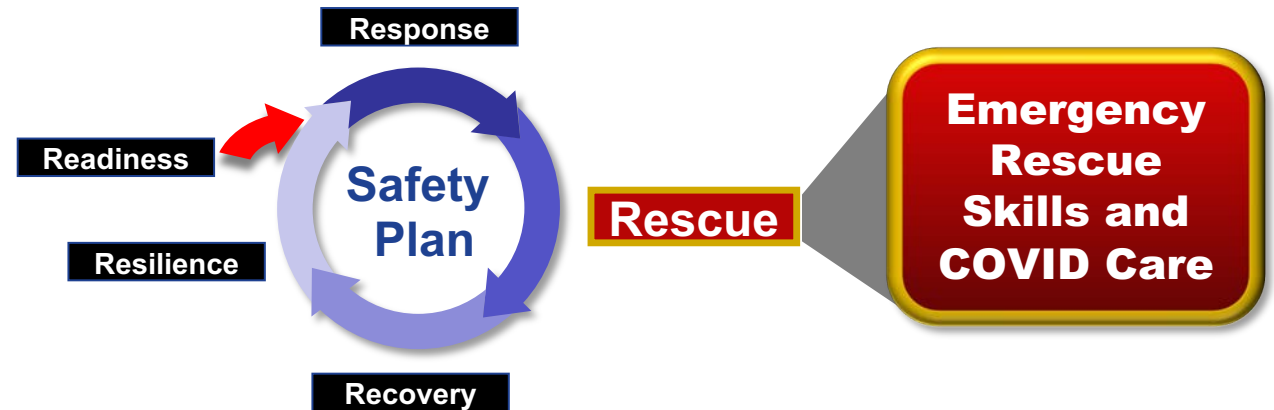
**Frontline Nurse  
Infection Prevention Advisor  
Patient Safety Advocate  
Dolores Colorado**



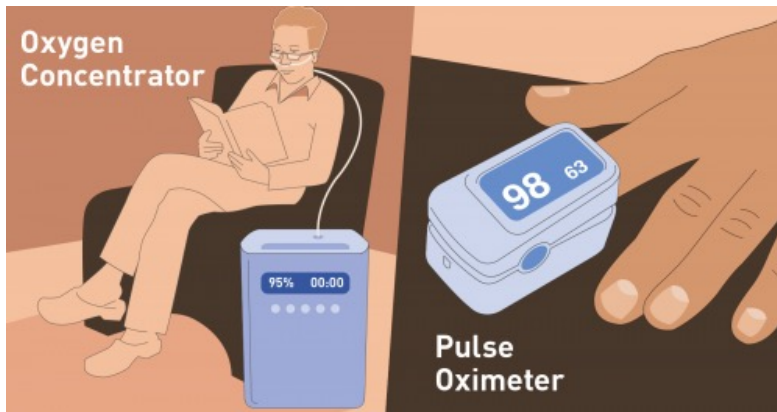
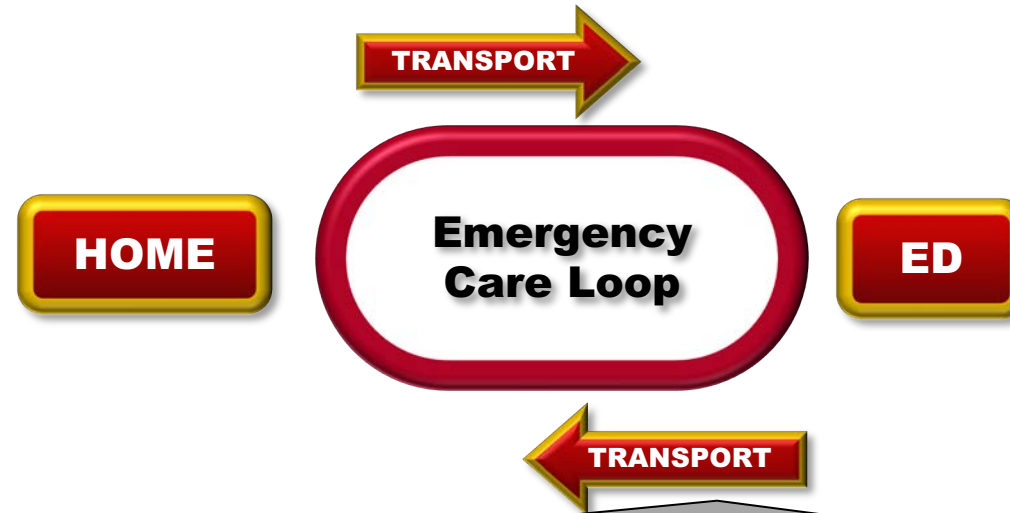
# 10 Best Practices:

1. Vaccines – Take the Shots
2. Coming Home Safe
3. Keeping the Family Safe
4. Creating a Family Safety Plan
5. Practicing the Family Safety Plan
6. Providing Care at Home
7. Emergency Rescue Skills

## Emergency Rescue Skills



# Emergency Rescue Skills: After Discharge & Transport Home



## Video Library

Med Tac Story

Med Tac Leadership Team

Adopt a Cove Program

5 Rights of Emergency Care

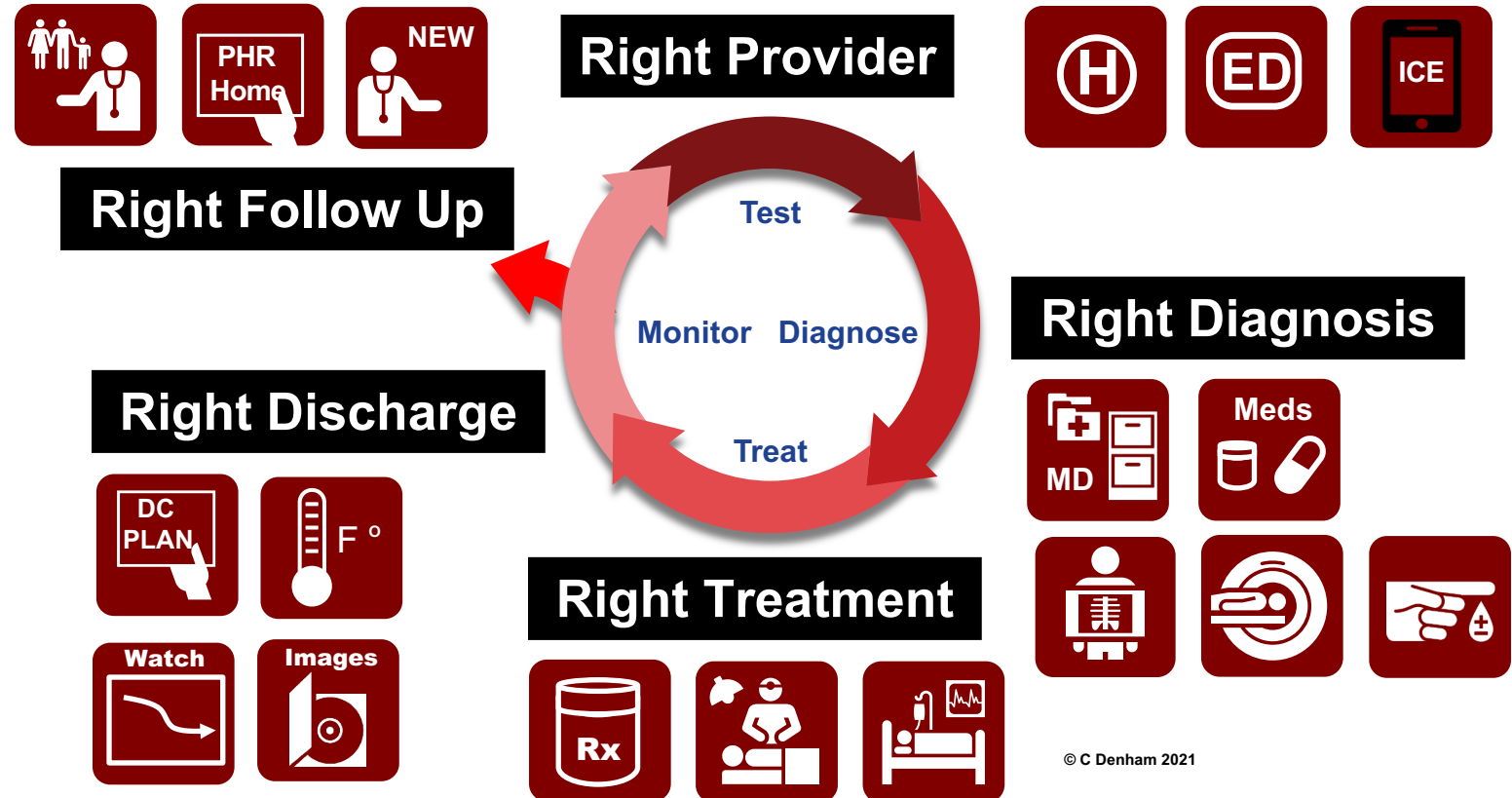
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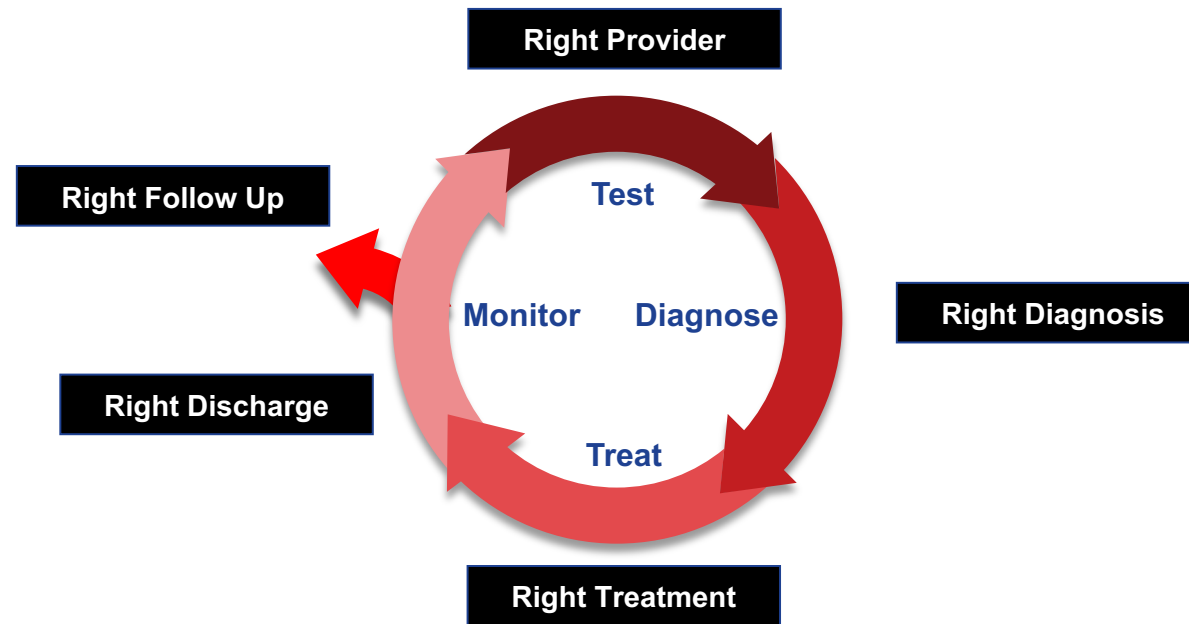
# *The 5 Rights of Emergency Care™*



Source: Denham, CR



# *The 5 Rights of Emergency Care™*



**Right Provider:** Patients and families need to choose the best emergency care provider they will use prior to experiencing an emergency.

**Right Diagnosis:** The right diagnosis depends on information – make sure to help the emergency care providers with all of the information you have to help them.

**Right Treatment:** It is important to understand both the short-term implications of emergency care as well as the long-term implications. An emergency medicine visit is a snapshot in time.

**Right Discharge:** A critical area for safety is the discharge from the Emergency Department. The information shared with the patient and family will have a major impact on the outcome of care. We need to understand why we may need to come back for care.

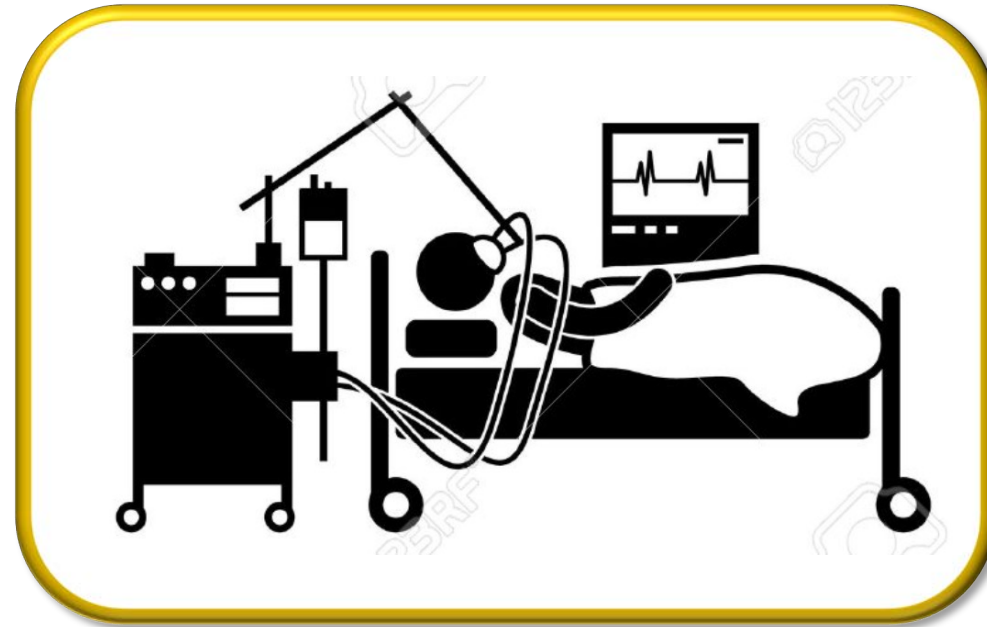
**Right Follow-up:** The continuity of care after an Emergency Medicine visit is very important to the long-term outcome of the care received. The breakdown in follow up is often an area of safety risk.

Source: Denham, CR

## 10 Best Practices:

1. Vaccines – Take the Shots
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7. Emergency Rescue Skills
8. What to Do – They're in ICU

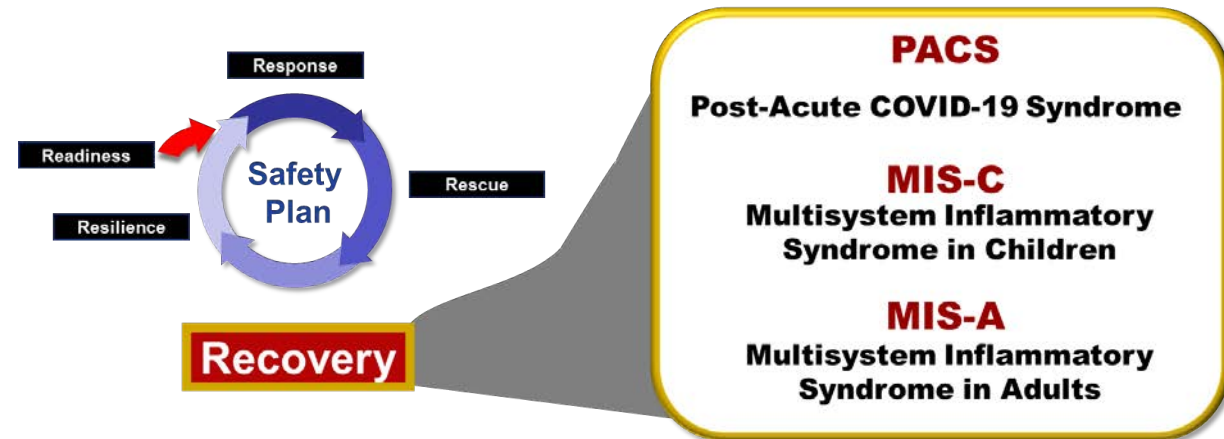
## What to Do When They're in ICU



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9. Long Haulers & COVID Recovery

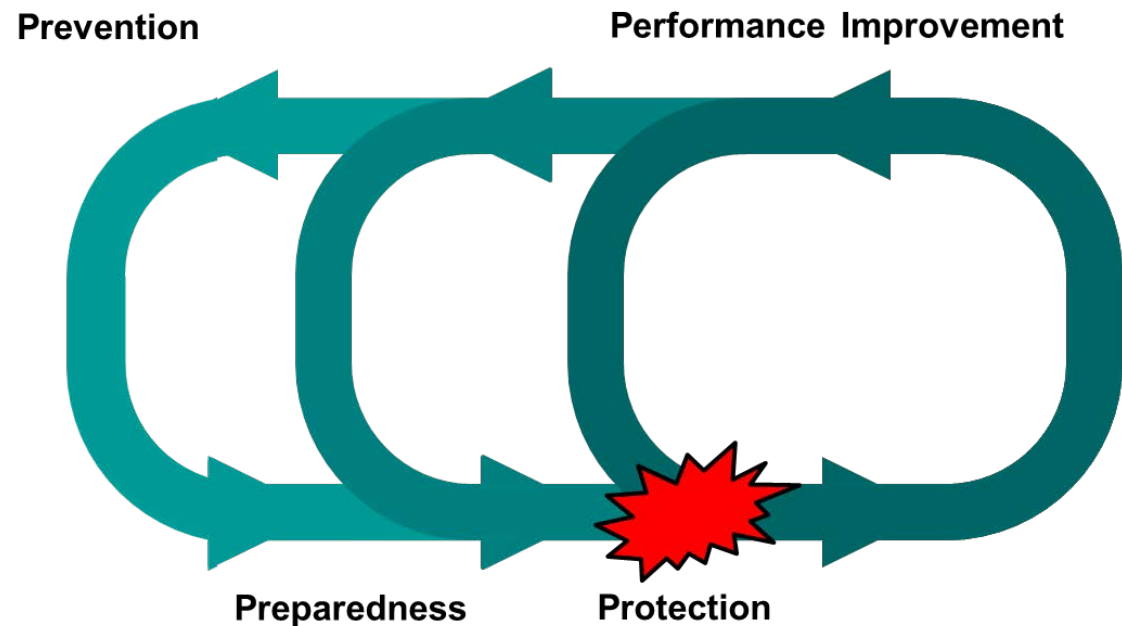
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9. Long Haulers & COVID Recovery
10. The 4 P's at the New Normal

### The 4 P's at the New Normal





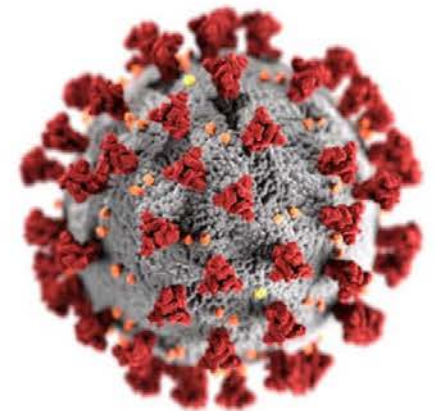
# **Dealing with Delta: Critical FAQs**

## ***A Survive & Thrive Guide™***



**Gregory H. Botz, MD, FCCM**

**Professor of Anesthesiology and Critical Care  
UT MD Anderson Cancer Center, Houston, TX  
Adjunct Clinical Professor, Department of  
Anesthesiology  
Stanford University School of Medicine,  
Stanford, CA**



## **Family Health Safety Plans**

**Readiness:** Preparation, regular review, and updating of a plan based on the latest science. Regular deliberate practice of roles and skills each family member undertake.

**Readiness**

**Resilience**

**Resilience:** Fortify response, rescue, and recovery actions in plan. In law enforcement and healthcare, we call this “target hardening”.

**Response**

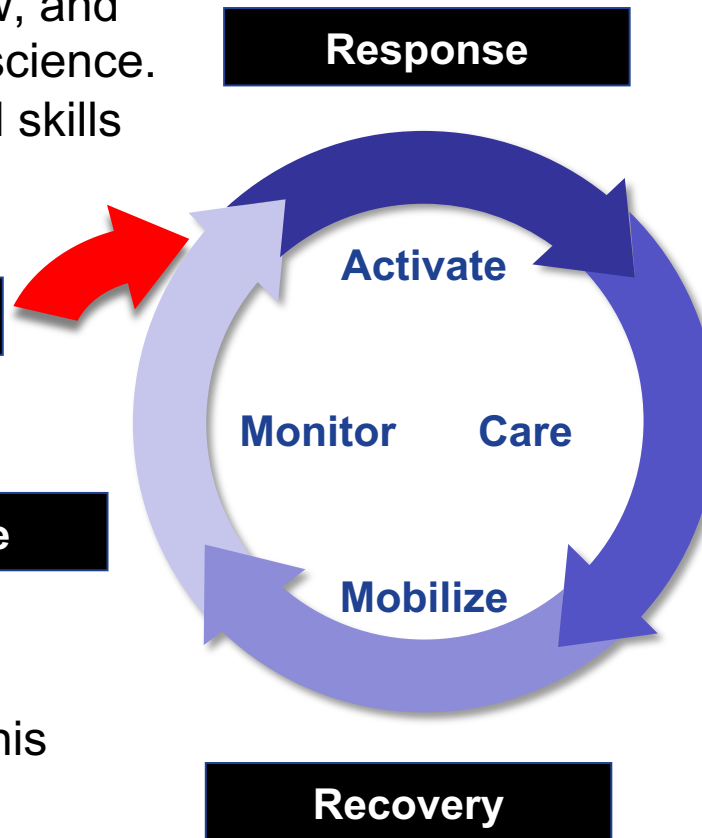
**Response:** Family moves to action to respond to an emergency. Safeguards are put in place. The family may respond to a member being infected or exposed to someone infected.

**Rescue**

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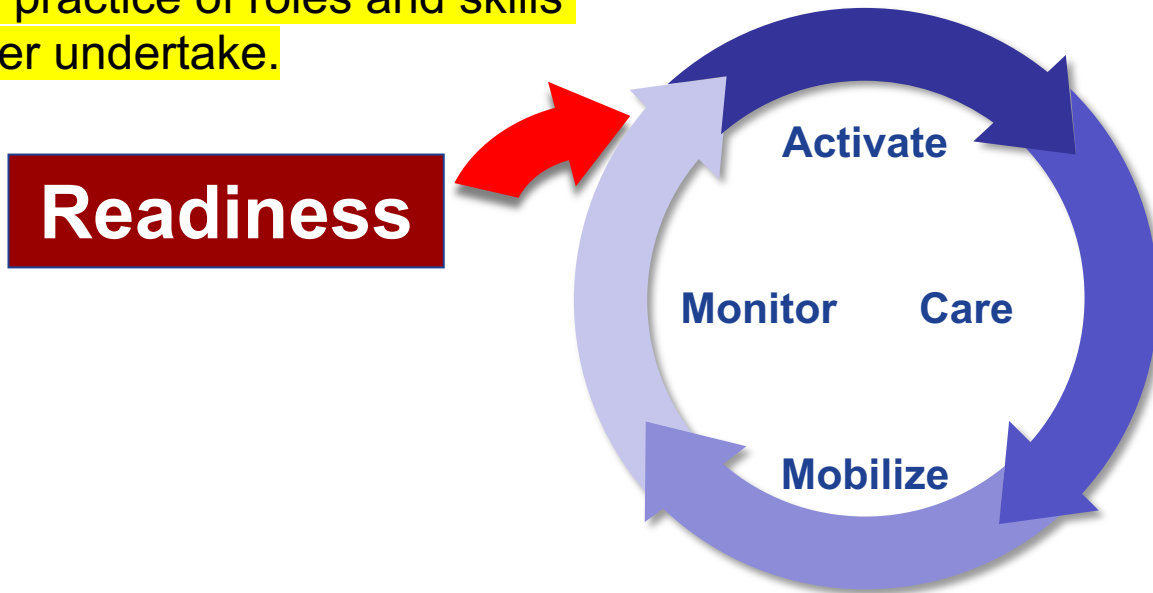
**Recovery**

**Recovery:** Follow up care of the family member after an event. Returning to normal family activities after a family member is infected and isolated, hospitalized, or under quarantine.”



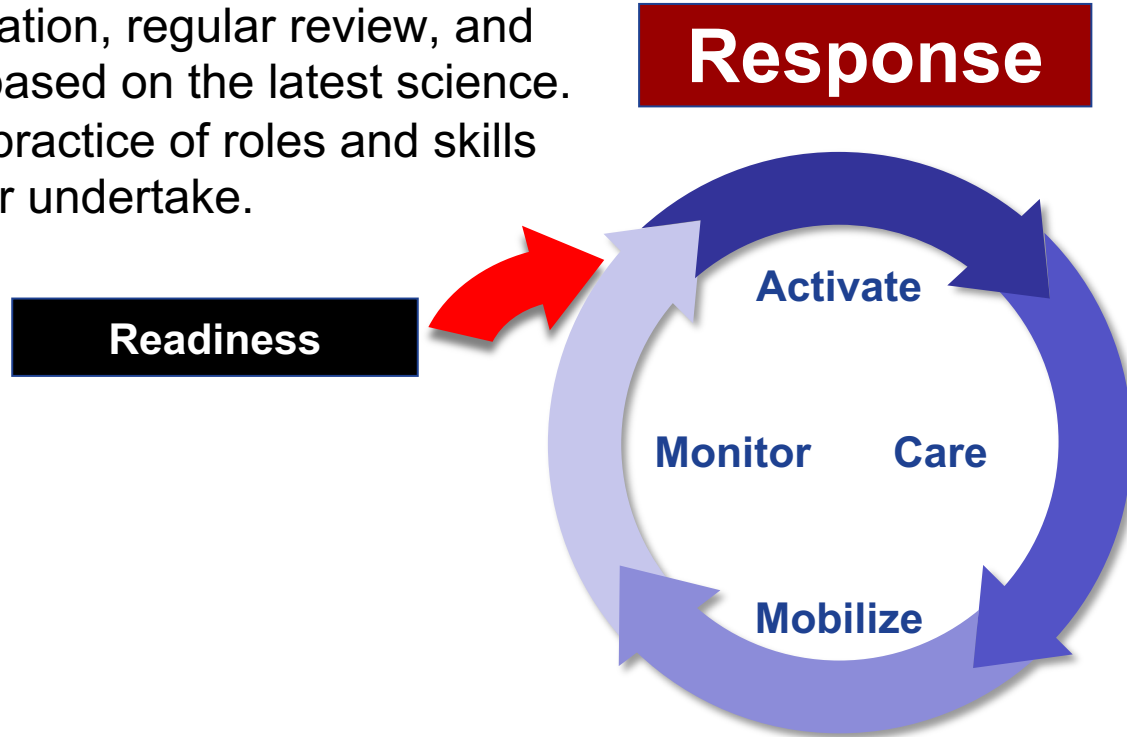
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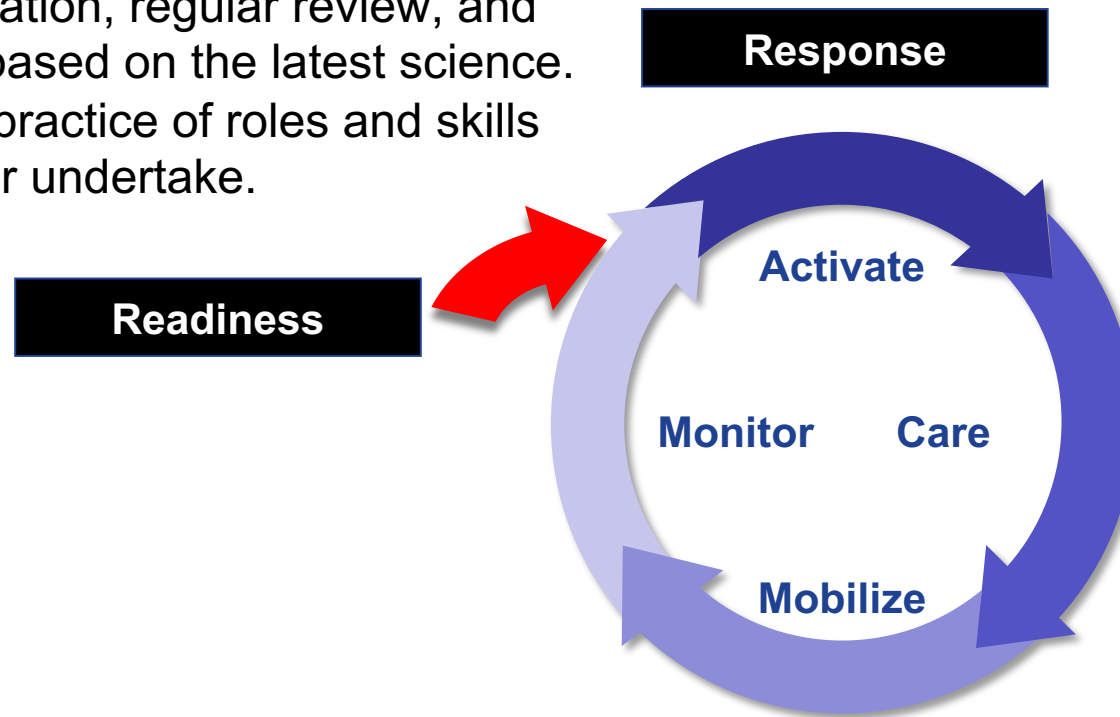


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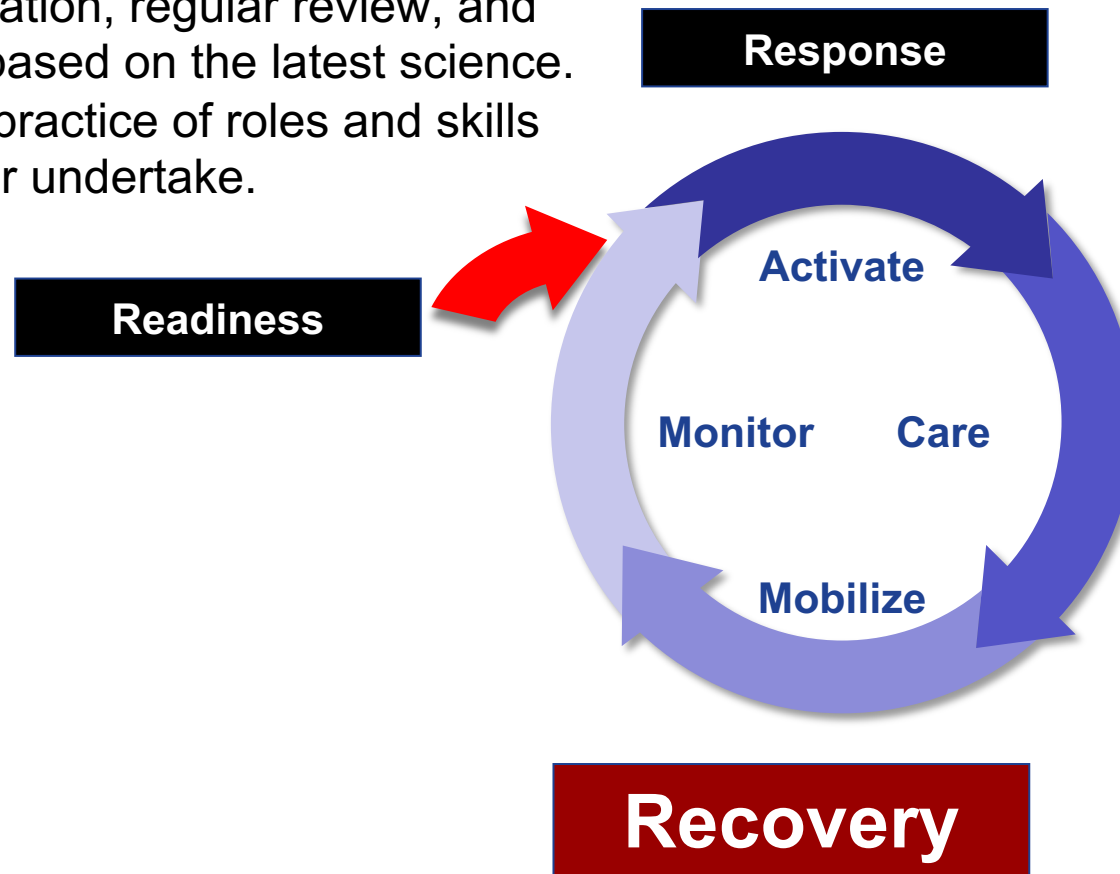
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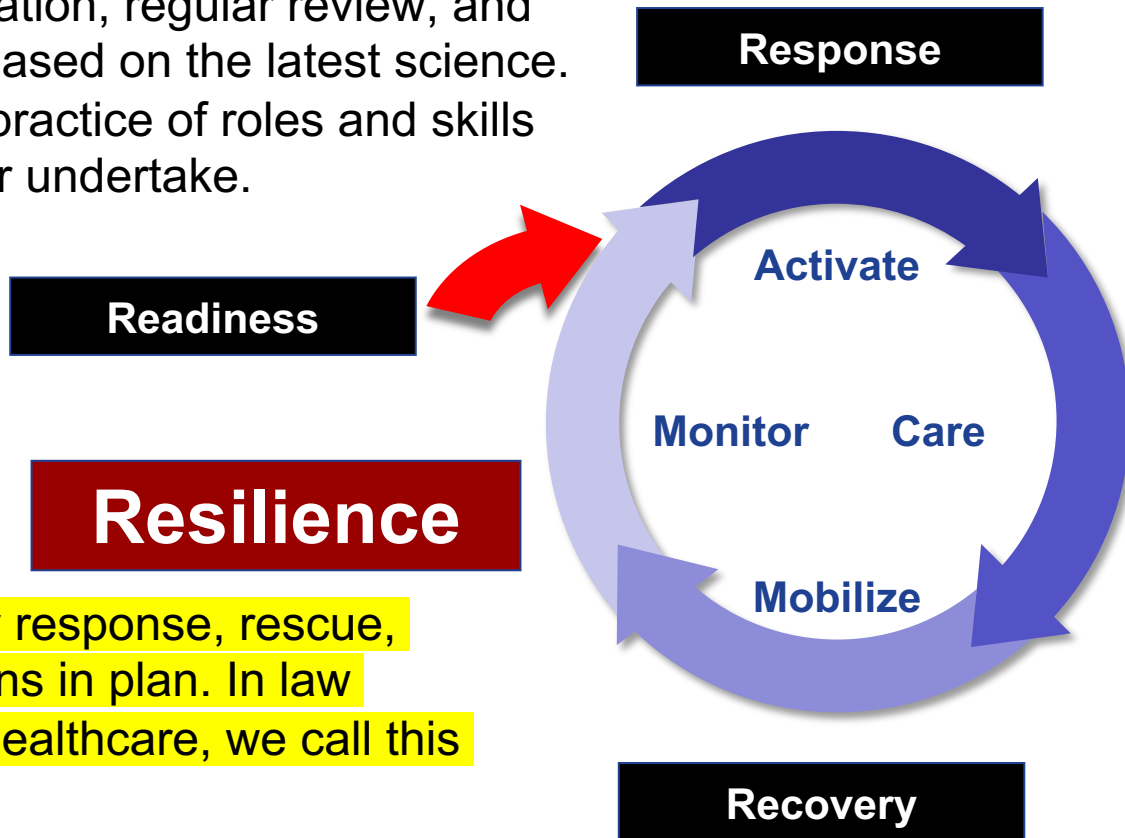
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# **Dealing with Delta: Critical FAQs**

## ***A Survive & Thrive Guide™***



**Randy Styner**

**Director Emergency Management  
University of California Irvine  
Best Selling Author  
Scout Leader**

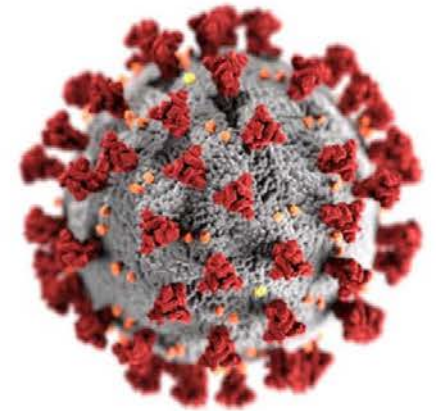


Image courtesy of CDC



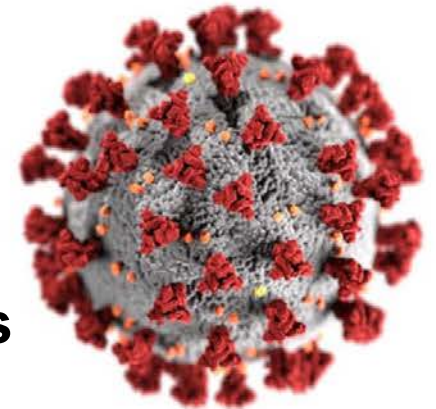
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**William Adcox, MBA**

**Chief of Police and Chief Security Officer  
MD Anderson  
Cancer Center and The University of Texas  
Health Science Center, Houston, TX**



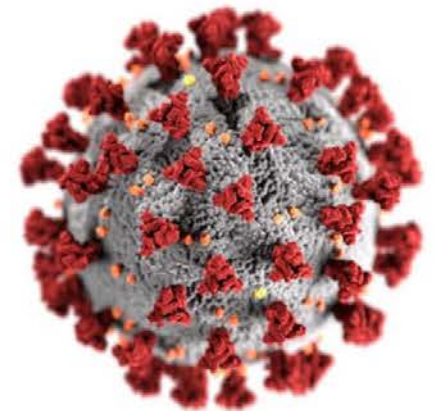
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**John Christian Fox, MD, FCCM**

**Professor and Chair,  
Emergency Medicine  
School of Medicine  
University of California Irvine**



## Speakers & Reactors



Jennifer Dingman



Dr. Mansfield



Dr Chris Fox



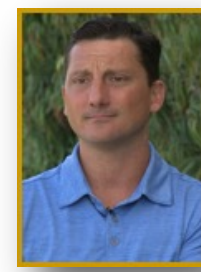
Heather Foster RN



William Adcox



Randy Styner



David Beshk



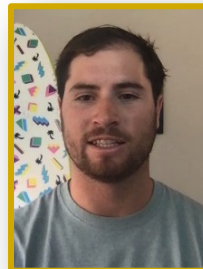
Dr. B Barto Owens



Dr. C Peabody



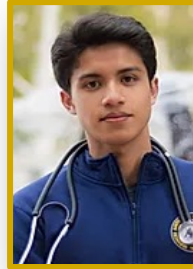
Dr. Gregory Botz



Nick Scheel



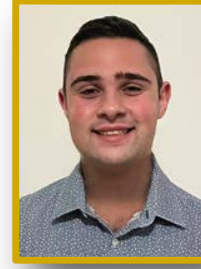
Jaime Yrastorza



Paul Bhatia EMT



Charlie Denham III



D Policicchio



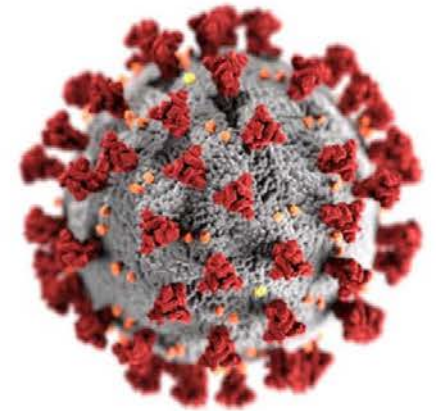
David Grinsfelder

## ***Voice of the Patient***



### **Jennifer Dingman**

**Founder, Persons United Limiting  
Substandard and Errors in Healthcare  
(PULSE), Colorado Division  
Co-founder, PULSE American Division  
TMIT Patient Advocate Team Member  
Pueblo, CO**





**Fight the Good Fight**

**Finish the Race**

**Keep the Faith**

# Additional Resources

# High Impact Care Hazards to Patients, Students, and Employees



AboutValues & TeamCoronavirus ResponseRecorded BroadcastsSpecialty ProgramsR&D Surveys & InnovationsCARE UNIVERSITY

## Med Tac Bystander Rescue Care

Med Tac is short for "Medical Tactical" and is an advanced first aid platform to battle failure to rescue. The mission is to teach anyone the critical bystander care skills that can save lives during the most common life threatening emergencies. Our focus is to train all ages to provide the greatest help in the first 10 minutes before professional first responders arrive and then assist them when they do. The training includes how to work with professional first responders and how to help families as they proceed through hospital emergency care.

### Video Library

Med Tac Story

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Opioid Overdose Briefing



### The Battle Against Failure to Rescue

The Med Tac Program was developed by a team originally focused on active shooter events. When they found that there at least 8 leading causes of preventable death including severe bleeding and that there was no integrated program to teach the public what they can do to save lives and prevent "failure to rescue" before EMS arrives, Med Tac was born. In many cases bystander rescue care can triple survival if the public knows what to do. The program was funded through 2019 by philanthropy through TMIT Global, a 501(c)(3) medical research organization that leads a global patient safety community of practice found at [www.SafetyLeaders.org](http://www.SafetyLeaders.org). With the development of the Coronavirus crisis, our rapid response team has prioritized Infection Care as one of our major focus areas. As of January 1st, 2020 the team has published four articles and has developed pilot programs in five states. [Click here](#) to download a PDF of the four articles.



Cardiac Arrest

Choking & Drowning

Opioid Overdose

Anaphylaxis

Major Trauma

Infection Care

Transportation Accidents

Bullying

**Bystander Care Training** is a critical need in all communities. The preventable deaths we see in the news are the tip of the iceberg. Our program is a Good Samaritan support system to help everyone learn life-saving actions that will save lives.

**High Impact Care Hazards** are conditions that are frequent, severe, preventable, and measurable. We have identified the leading causes of death that strike children, youth, and those in their workforce years. We provide evidence-based bystander care training that can have the greatest impact.

**Bystander Rescue Skills** are the competencies that bystanders can learn that will save lives in the few precious minutes before the professional first responders arrive. Such behaviors can be learned by children, adults, and entire families. We have programs for children, adults, law enforcement, educators, lifeguards, and caregivers.

**MedTac** is the only integrated program addressing the top causes of death of otherwise healthy children, youth, and adults in the workforce. Med Tac partners with terrific on-site trainers from great organizations who are already in the community.

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<https://www.medtacglobal.org/>

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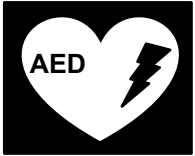
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# The Solution: Bystander Rescue Care

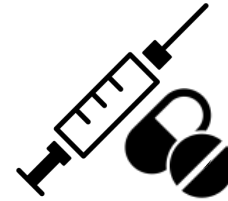
## Cardiac Arrest



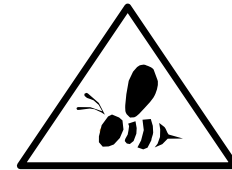
## Choking & Drowning



## Opioid OD & Poisoning



## Anaphylaxis



## Major Trauma



## Infection Care



## Transportation



## Bullying





# The Solution: Bystander Rescue Care

## Cardiac Arrest



**Sudden Cardiac Arrest:** There is an epidemic of SCA with one quarter of the SCA events in children and youth occurring at sporting events. CPR and AED use have a dramatic impact on survival.  
*Possible Lives Saved in the US: 2 every hour and 3 children per day at a sporting event – 25% of SCA deaths in children occur at such events.*

## Choking & Drowning



**Choking:** More than 100,000 lives have been saved with the Heimlich Maneuver. Most choking deaths are preventable.

*Possible Lives Saved in the US: 13 per day*

**Drowning:** By population, drowning and near drowning events are very common. Since much of the OC population is near water, the numbers are likely much greater.

*Possible Lives Saved in the US: 8 per day*

## Opioid OD & Poisoning



**Opioid Overdose and Poisoning:** An exploding opioid OD crisis is gripping our nation with a great toll on families. Narcan opioid reversal agents, rescue breathing and positioning, and rapid EMS response saves lives. Awareness drives prevention.

*Possible Lives Saved in the US: There are 197 OD deaths per day. Up to 8 lives may be saved per hour.*

## Anaphylaxis



**Anaphylaxis & Life Threatening Allergies:** Many events are unreported; however 22% occur in children without a prior diagnosis of allergies. More than one in twenty adults will have an anaphylactic event in their lifetime. Epinephrine auto-injectors save lives within minutes.

*Possible Lives Saved in the US: 1 per day*

## Major Trauma



**Major Trauma & Bleeding:** Bystander care especially for major bleeding using Stop-The-Bleed techniques of wound pressure, bandages, and tourniquets can have an enormous impact on survival.

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## Infection Care



**Infection Care:** Epidemics, pandemics, and seasonal infections are a leading cause of death. Prevention, preparedness, protection, and performance improvement strategies and tactics are critical to save lives and inform all Med Tac efforts. They are a feature of all Med Tac Bystander Rescue Care.

*Possible Lives Incalculable*

## Transportation



**Non-traffic Related Vehicular Accidents:** The incidence of non-traffic related drive-over accidents near schools and home is greater than 50 per week. More than 60% of the drivers are a parent or friend.

*Possible Lives Saved in the US: Including adults, there are 1,900 deaths per year; many are preventable.*

## Bullying



**Bullying & Workplace Violence:** Bullying and abuse of power in schools and at work can lead to suicide, workplace violence, violent intruders, and active shooter events.

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***Possible Lives Saved in the US: 2 every hour and 3 children per day at a sporting event – 25% of SCA deaths in children occur at such events.***

## COVID-19 and Adult CPR

If an adult's heart stops and you're worried that they may have COVID-19, you can still help by performing Hands-Only CPR.



American Heart Association.

### Step 1



Phone 9-1-1 and get an AED.

### Step 2



Cover your own mouth and nose with a face mask or cloth.



Cover the person's mouth and nose with a face mask or cloth.

### Step 3



**Perform Hands-Only CPR.**  
Push hard and fast on the center of the chest at a rate of 100 to 120 compressions per minute.

### Step 4



Use an AED as soon as it is available.

KJ-1424 4/20 © 2020 American Heart Association

# Cardiac Arrest



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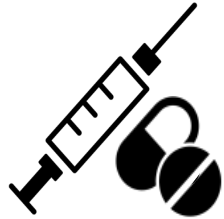
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## SAVE A LIFE. GET NALOXONE.

Naloxone stops an overdose caused by opioid pain medication, methadone or heroin.

People at risk for overdose and their family and friends can learn to spot an overdose and respond to save a life.

To get naloxone, present this card to the pharmacy staff.

A



### MULTI-STEP NASAL SPRAY

**DIRECTIONS:** Spray 1 mL (half of the syringe) into each nostril.

NO BRAND NAME/GENERIC

COST: \$-\$\$

B



### SINGLE-STEP NASAL SPRAY

**DIRECTIONS:** Spray full dose into one nostril.

BRAND NAME: Narcan

COST: \$\$\$

C



### INTRAMUSCULAR INJECTION

**DIRECTIONS:** Inject 1 mL in shoulder or thigh.

NO BRAND NAME/GENERIC

COST: \$-\$\$

D



### AUTO-INJECTOR

**DIRECTIONS:** Use as directed by voice-prompt. Press black side firmly on outer thigh.

BRAND NAME: Evzio

COST: \$\$\$\$\*

\*Coupons available, see evzio.com for more info

**FOR ALL PRODUCTS,** repeat naloxone administration after 2–3 minutes if there is no response.

Most insurance will cover at least one of these options, or you can pay cash. All products contain at least two doses

For more on opioid safety, videos on how to use naloxone, or to get help for addiction, go to [PrescribetoPrevent.org](https://www.PrescribetoPrevent.org)

Used with permission from Boston Medical Center



## Anaphylaxis



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*Possible Lives Saved in the US: 1 per day*

## How To Use An EpiPen

EpiPen is used for severe lifethreatening allergic reactions.

### Signs & Symptoms

Lungs: Chest tightness, cough that will not stop. Wheezing or shortness of breath.

Heart: Lightheaded feeling, fainting, weak pulse, or low blood pressure

Throat: Tightness of throat, hoarse/scratchy throat or drooling.

Mouth: Swollen tongue or lips

Skin: Swelling or severe itching or hives

1

Form FIST around EpiPen® and PULL OFF BLUE SAFETY RELEASE

3



Remove EpiPen & massage injection site for 10 seconds.

2

Place orange end HARD into outer thigh so it 'CLICKS' and HOLD for 10 seconds.

4

After using EpiPen. MUST seek Medical Attention



### References

[www.nationwidechildrens.org](http://www.nationwidechildrens.org)  
[www.pharmacydirect.co.nz/epipen-adult.html](http://www.pharmacydirect.co.nz/epipen-adult.html)

By: Manjit Gill RN BSN

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*Possible Lives Incalculable*

### Med Tac Rescue Skill ***CLEAN A CUT – SAVE A LIFE***

**1** CLEAN ONLY WITH SOAP AND WATER



**2** APPLY ANTIBIOTIC OINTMENT TO CUT



**3** BANDAGE TO WOUND KEEP CLEAN



**4** IF HURTS MORE ON DAY 2 - SEE DOCTOR



**Clean A Cut – Save A Life:** The pathogens of today are very resistant to antibacterial agents and can progress to life-threatening sepsis. So minor cuts and scrapes must be treated immediately and watched closely. Such wounds need to be cleaned quickly, only with soap and water. Alcohol or hydrogen peroxide will harm healing and they harm the infant cells critical to closing the wound.



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The incidence of non-traffic related drive-over accidents near schools and home is greater than 50 per week. More than 60% of the drivers are a parent or friend.

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