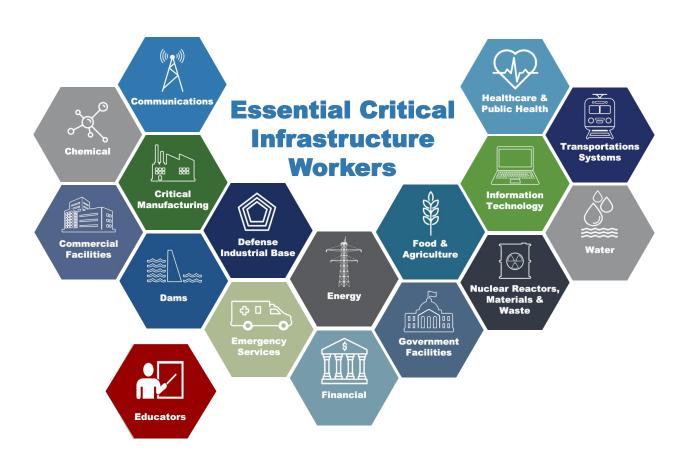


The Essential Worker Toolbox



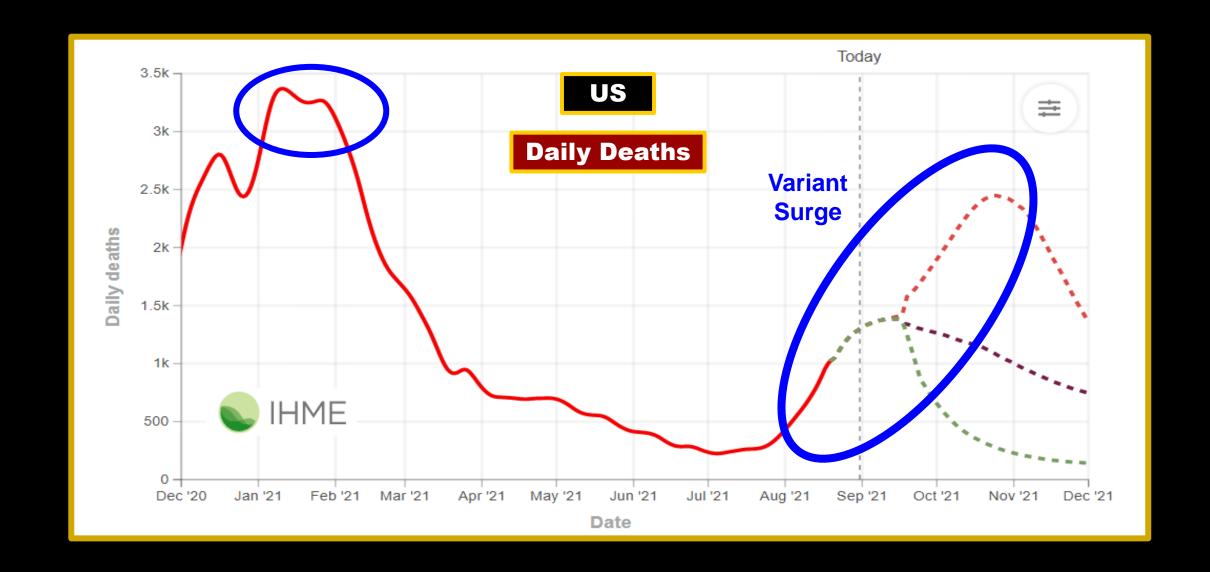


Essential Worker Toolbox:

- 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







An Infection Every Second... A Death Every 2 Minutes



A 13-year-old Missouri boy's on quarantine and last day of school was in late October. He died from Covid-19 days later



A 20-year-old dies on quarantine in her dorm room of pulmonary embolism. Test result "never delivered due to clerical error".

Who is Your CHSO & Family CFO?

PUBLIC HEALTH OFFICERS



THE CHIEF HEALTH SECURITY OFFICER



THE CFO
CHIEF FAMILY OFFICER



THEY HAVE TO TAKE CHARGE NOW!





Response

Rescue

Recovery

Resilience

Family Member Scenarios

No Exposure No Test or Negative Test

Exposure to Infected Person and No Test

Infected & Asymptomatic – No Symptoms Ever

Infected & Pre-symptomatic – Before Symptoms

Every family or living unit needs to have a plan for each of these scenarios. They will drive the elements of your plan.

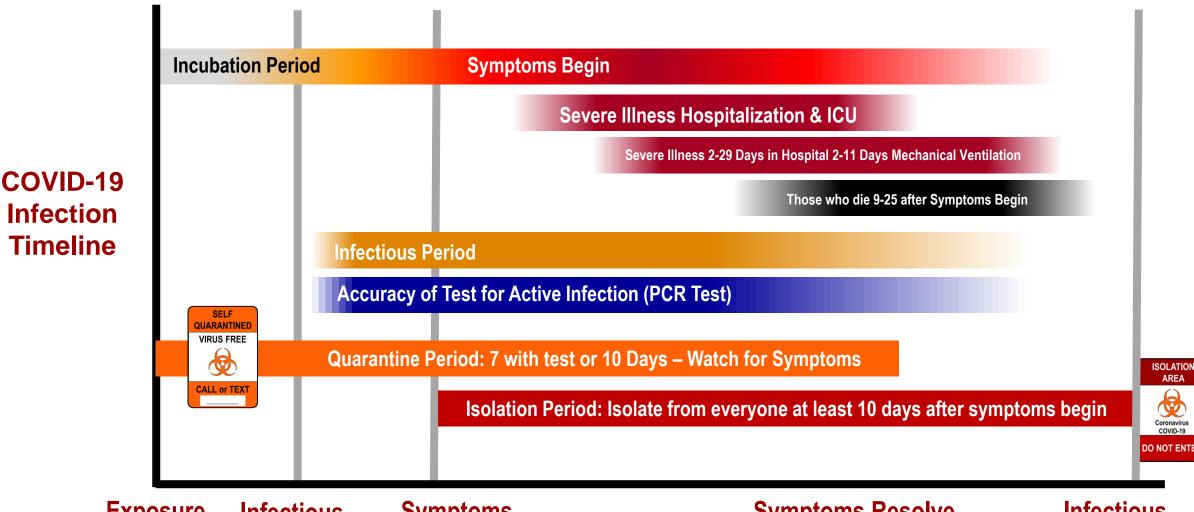
Infected & Symptomatic – Have Symptoms

Infected & Severely Symptomatic – Need Help

Infected & Requiring Hospitalization

Infected & Require ICU
Life Support
Respirator & ECMO

Survive & Thrive Guide



Exposure

Infectious **Period**

1-12 Days after **Exposure** (usually 3 Days)

Symptoms Begin

2-14 Days after **Exposure** (usually 5 Days)

Symptoms Resolve

Varies widely. Most people recover within 2 weeks, but some have symptoms much longer

Infectious **Period Ends**

At least 10 Days after symptoms begin

Source: Adapted from The Guardian 11-29-20 and from @DearPandemic

Infection

Timeline

Incubation Period Symptoms Begin This Was Pre-Delta: ation The definition of a close contact is COVID-19 someone who was within 6 feet of a Begin person diagnosed with COVID-19 for a total of 15 minutes or more over a 24 hour period. The definition of a close QUARANTINE VIRUS FREE contact applies regardless of whether ISOLATION AREA either person was wearing a mask. mptoms begin

Exposure

Infectious **Period**

1-12 Days after **Exposure** (usually 3 Days)

Symptoms Begin

2-14 Days after **Exposure** (usually 5 Days)

Symptoms Resolve

Varies widely. Most people recover within 2 weeks, but some have symptoms much longer

Infectious **Period Ends**

At least 10 Days after symptoms begin

Source: Adapted from The Guardian 11-29-20 and from @DearPandemic

Incubation

COVID-19 Infection Timeline

Exception:

In the K-12 indoor classroom setting, the close contact definition excludes students who were within 3 to 6 feet of an infected student (laboratory-confirmed or a clinically compatible illness) if both the infected student and the exposed student(s) correctly and consistently wore well-fitting masks the entire time.

s begin



Exposure

Period

1-12 Days after Exposure (usually 3 Days) Begin

2-14 Days after Exposure (usually 5 Days) Varies widely. Most people recover within 2 weeks, but some have symptoms much longer

Infectious Period Ends

At least 10 Days after symptoms begin

Source: Adapted from The Guardian 11-29-20 and from @DearPandemic



Bystander Rescue Care CareUniversity Series

CORONAVIRUS DISEASE 2019 (COVID-19)

Domestic Travel Not Vaccinated Fully Vaccinated RECOMMENDATIONS AND REQUIREMENTS Get tested 1-3 days before travel Get tested 3-5 days after travel and selfquarantine for 7 days. Self-quarantine for 10 days if you don't get tested. Self-monitor for symptoms Wear a mask and take other precautions during travel cdc.gov/coronavirus CS323515-A 04/02/2021

Welcome



Charles Denham, MD

Chairman, TMIT Global Founder Med Tac Bystander Rescue Care

Med Tac Bystander Rescue Care August 5, 2021

CareUniversity Webinar 169



CAREUNIVERSITY



September 2, 2021



The Essential Worker Toolbox: **Breaking Family Transmission Chains** Family Survive & Thrive Guide™

Session Overview

More than 1,000 household responses have guided our learning community. Our professional first responders and the critical essential workers who keep the light, water, food, money, and education flowing in our communities are experiencing an unprecedented infection rate in their families with the current surge. Join us and learn about tools employees can use. What if a roommate or family member:



- Is exposed or infected?
- . Needs to go the ED?
- Needs care at home?
- Is admitted to the ICU?
- . Needs to recover at home? Gets Long Haul COVID disease?

 - Answer the following questions:
- . Masks do I upgrade or not? · Vaccines - do I need a booster
- . If I have been infected, do I need a vaccine?
- . What is a Family CFO the Chief Family Officer

Go to https://www.medtacglobal.org/coronavirus-response/ for short videos covering the critical topics. Join as we focus on family Readiness, Response, Rescue, Recovery, and Resilience.

We offer these online webinars at no cost to our participants.

Webinar Video, and Downloads

The webinar video will be available within five (5) business days after the webinar.

We will provide a thorough update on how to keep your family and business safe through future surges.

The combined speakers' slide set will be available before the webinar begins.

Date, Time, Dial-in Information, & Objectives



- . 01:00 PM to 2:30 PM Eastern Time
- 12:00 PM to 1:30 PM Central Time
- . 11:00 AM to 12:30 PM Mountain Time 10:00 AM to 1:30 AM Pacific Time

Session Speakers and Panelists

To request a Participation Document, please click here.

webinar. TMIT Global is only providing nursing credit at this time.

number, you will be charged by your local phone company or long-distance provider for the call.



Dial-in Info: Audio will be provided through your computer (VoiP) at no cost to you. If VoiP is not an option on your computer, or if you choose to join by

• Action: Participants will learn about the line-of-sight actions that will help them support those who will be vaccinated and safe practices on the path to the new

The CAREUniversity Team of TMIT Global, approved by the California Board of Registered Nursing, Provider Number 15996, will be issuing 1.5 contact hours for this

· Awareness: Participants become aware of the best practices and science related to vaccines, variants, and safe behaviors as the nation reopens. · Accountability: Participants will learn who may be accountable for actions that can be taken to help family members, friends, and housemates related to . Ability: Participants will learn about the concepts, tools, and resources that can enable them support their family and friends before and after they are

phone only, you can use either of the following numbers to dial-in: 1-669-900-6833 OR 1-646-876-9923 Webinar ID: 810 2486 6811. If you use this dial-in













Charles Denham, MD



















www.MedTacGlobal.org



Bystander Rescue Care CareUniversity Series

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.
- Paul Cross 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 Morris 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 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.



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.

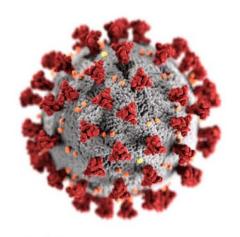


Voice of the Patient



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



CareUniversity Series

Speakers & Reactors

















Paul Cross

Randy Styner

Dr. Gregory

Dr. Gregory Botz Heather Foster RN

Charlie Denham III













Dr. C Peabody

David Morris

Jaime Yrastorza

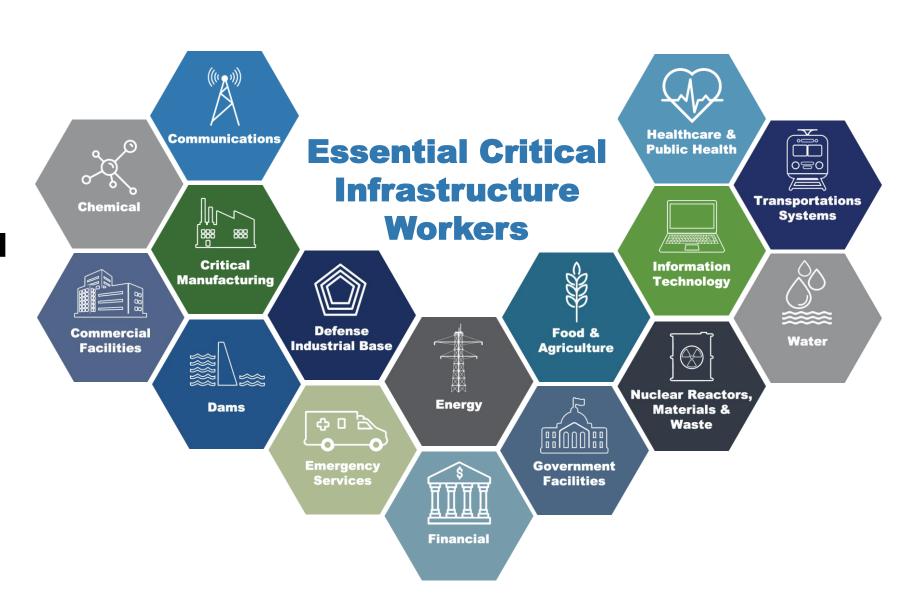
Paul Bhatia EMT

David Beshk

Dr. C Denham

Educators Declared Essential Critical Infrastructure Workers





High Impact Care Hazards to Patients, Students, and Employees



https://www.medtacglobal.org/



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.

High Impact Care Hazards to Patients, Students, and Employees



Cardiac Arrest

Choking & Drowning

Opioid Overdose

Anaphylaxis

Major Trauma

Infections

Transportation Accidents

Bullying

Active Shooter Healthcare Article



Rapid Response Teams Article



AED & Bleeding Control Gear Article



Family Safety Plan Article







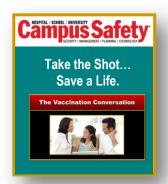
Med Tac Story Article



A Medical-Tactical Approach undertaken by clinical and non-clinical people can have enormous impact on los 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.

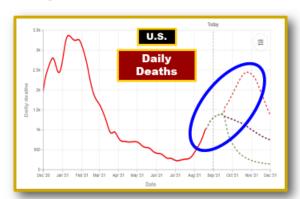
Take the Shot...
Save a Life



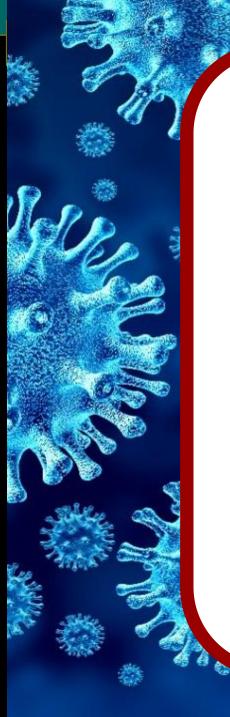


September 2021 Progress Report





www.medtacglobal.org/coronavirus-response/



Coronavirus Care Results

- Established National Community of Practice
- Launched Multi-center Family R&D Study 1,000 Polled
- 34 Ninety Minute Broadcasts and Online Programs
- 13 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

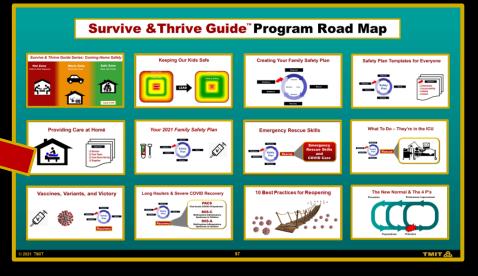


Monthly Webinars every first Thursday of the month at 1PM ET (Noon Central and 10AM PT). Free, video, and resources posted.



SHORT TOPIC:

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



SURVIVE & THRIVE 90 MINUTE COURSES:

- · Longer more detailed
- Webinar Recordings
- Technical Information

Related Resources



www.medtacglobal.org/coronavirus-response/

Survive &Thrive Guide Program Road Map









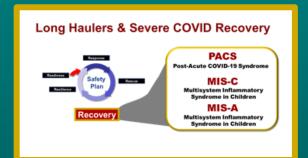










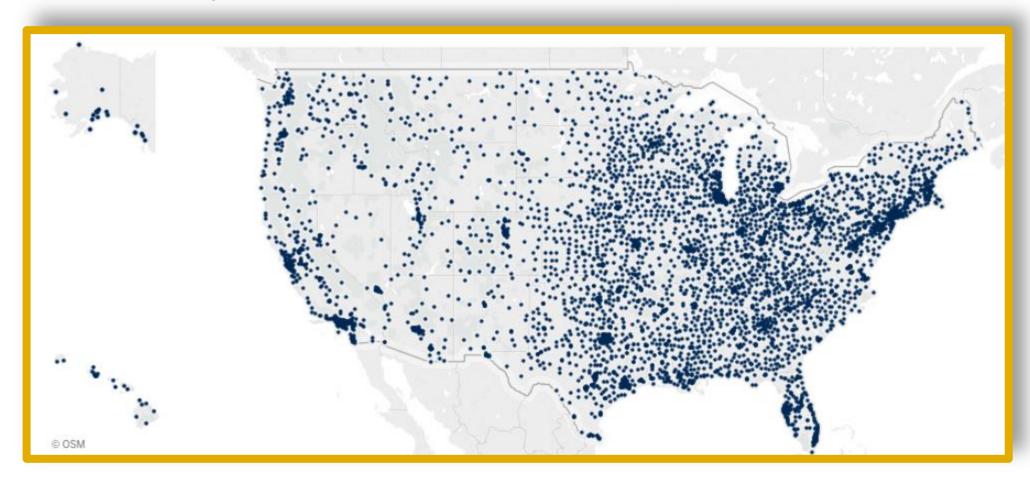






TMIT Global Research Test Bed

3,100 Hospitals in 3,000 Communities
500 Subject Matter Expert Pool Developed over 35 Years







CareUniversity Series







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



Bystander Rescue Care CareUniversity Series







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



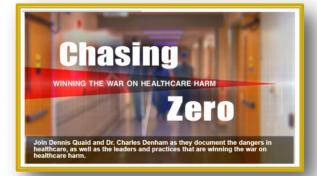
Dr. Howard Koh



Dr. Jim Bagian



Dr. Harvey Fineberg







THE UNIVERSITY OF TEXAS

MDAnderson Cancer Center

Family Rescue R&D















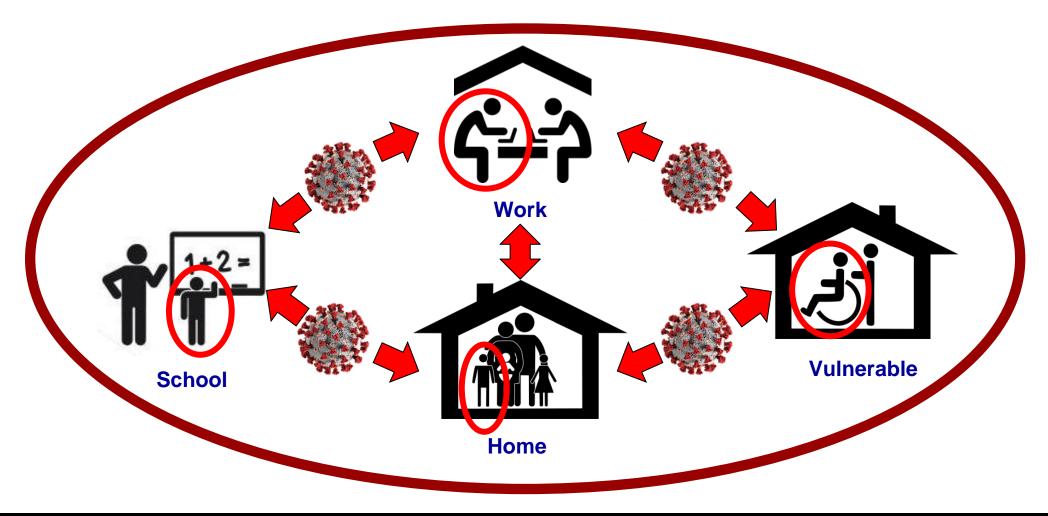




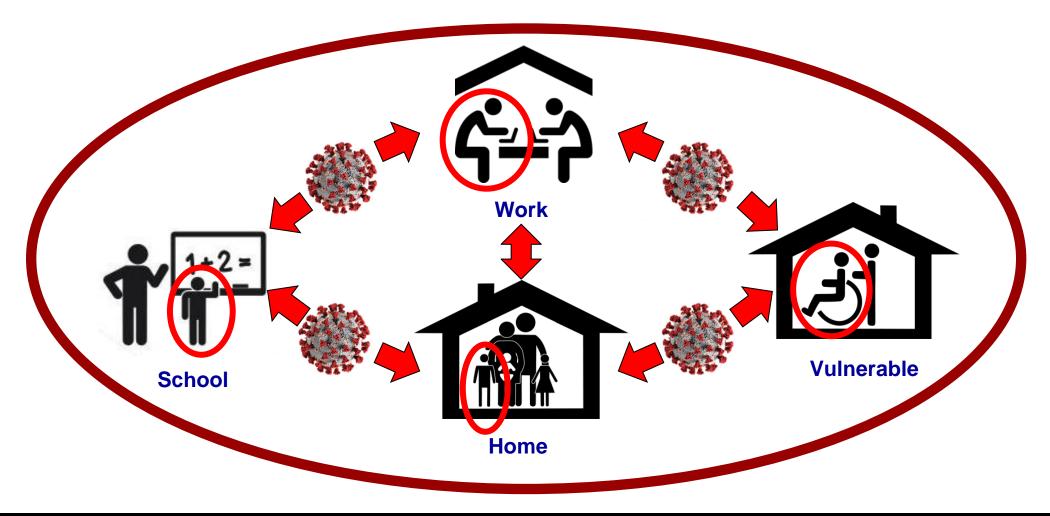




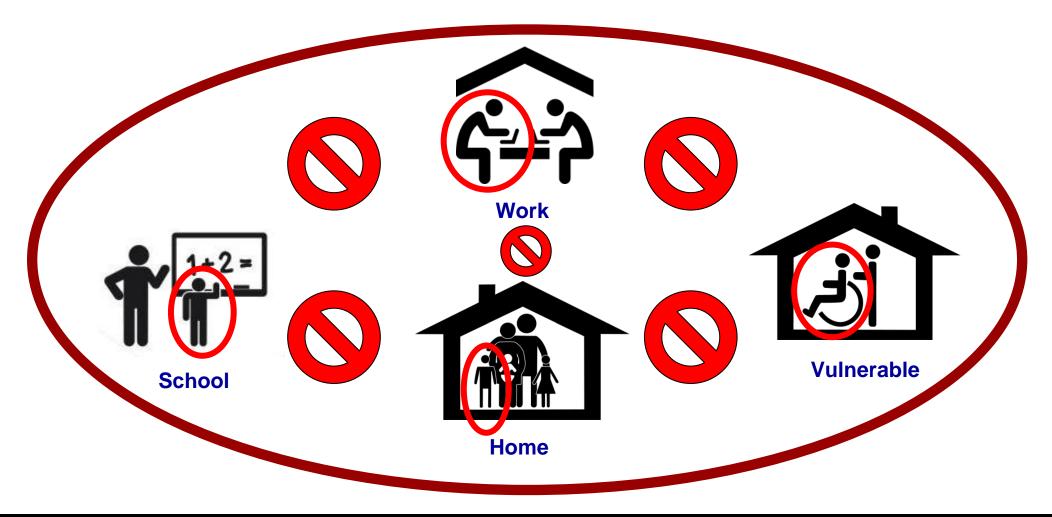
Family Transmission Chains



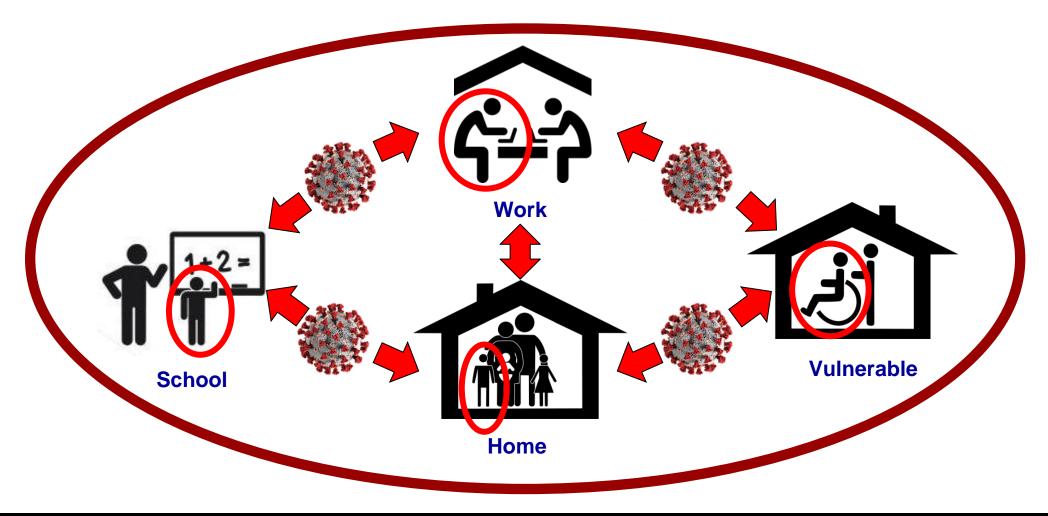
The Achilles Heel



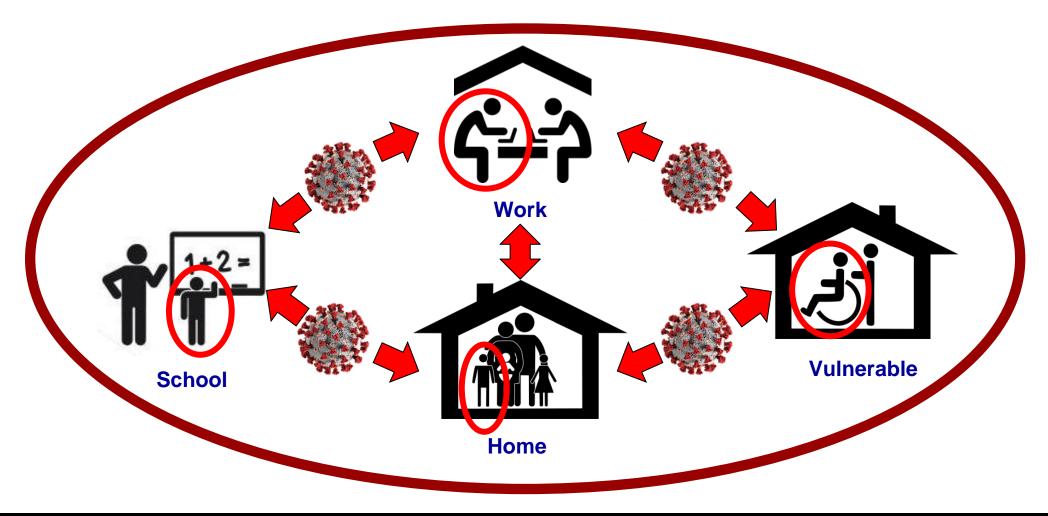
Breaking Family Transmission Chains



Save the Families...



Save the Families... You Save the Worker



In the News



Charles Denham, MD

Chairman, TMIT Global Founder Med Tac Bystander Rescue Care

Med Tac Bystander Rescue Care September 2, 2021

CareUniversity Webinar 169

WALL STREET JOURNAL

08-04-21

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,"



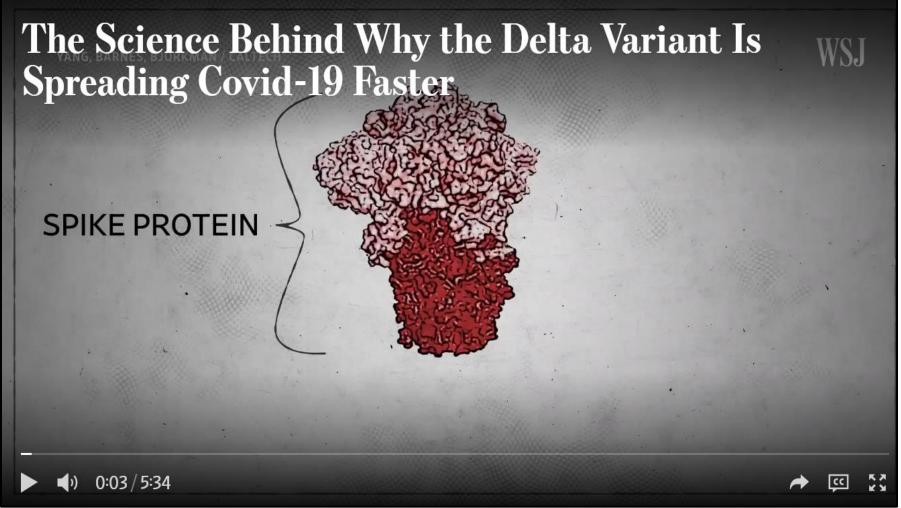


The Wall Street Journal video describes the reasons why the Delta virus is such a serious health concern.

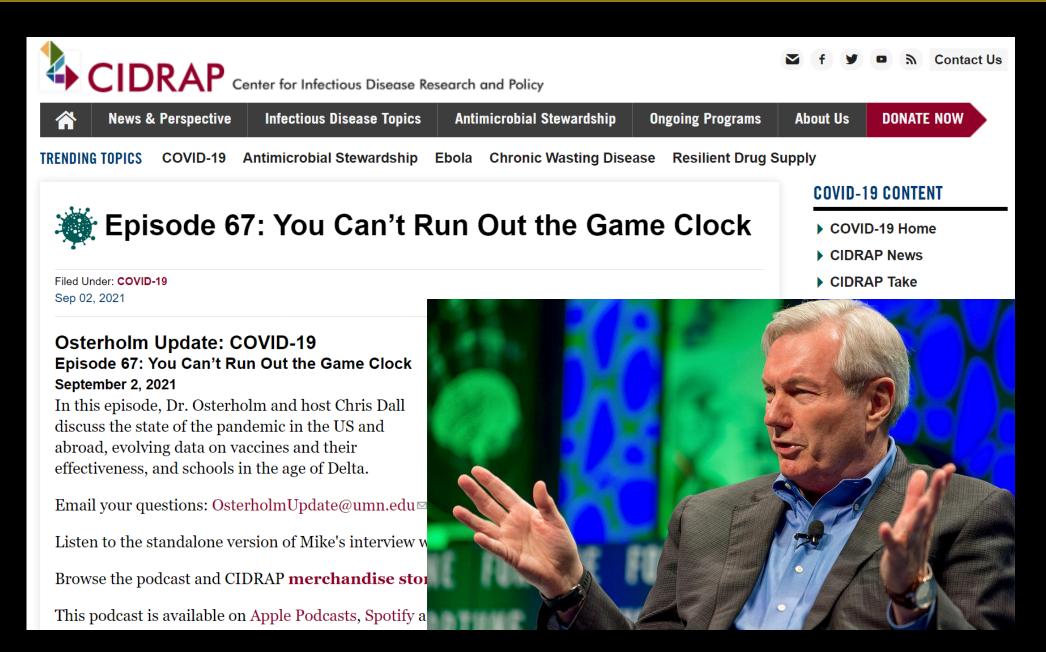
Source: <u>www.wsj.com/articles/florida-battles-record-covid-19-hospitalizations-as-delta-variant-surges-11628027994</u>

WALL STREET JOURNAL

08-04-21



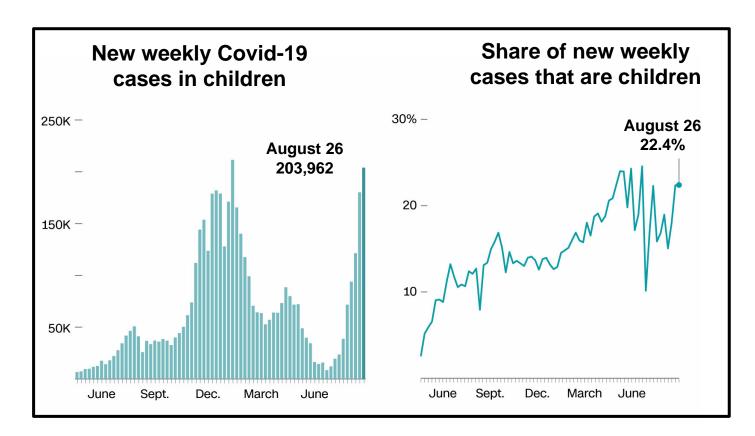
Source: <u>www.wsj.com/articles/florida-battles-record-covid-19-hospitalizations-as-delta-variant-surges-11628027994</u>





09-01-21

What the data reveals about children and Covid-19 in the US



"Contrary to research early in the pandemic, children are just as likely to become infected as adults.

According to the CDC,

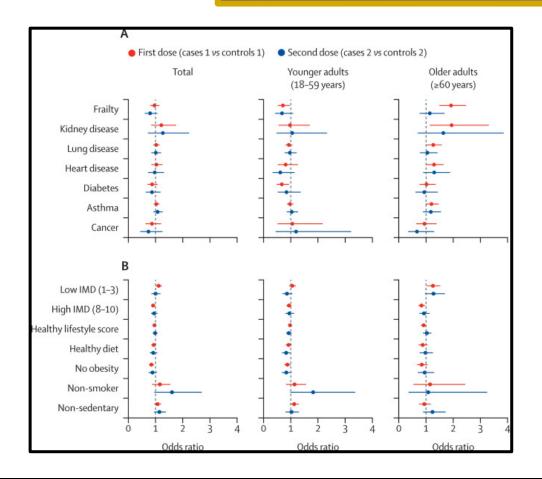
Covid-19 infection rates for adolescents aged 5 to 17 were as high as in adults 18 to 49, and higher than rates in adults over 50."

Source: https://www.cnn.com/2021/09/01/us/us-covid-kids-data/index.html

THE LANCET Infectious Diseases

09-01-21

Risk factors and disease profile of post-vaccination SARS-CoV-2 infection in UK users of the COVID Symptom Study app: a prospective, community-based, nested, case-control study



We found that the odds of having symptoms for 28 days or more after post-vaccination infection were approximately halved by having two vaccine doses. This result suggests that the risk of long COVID is reduced in individuals who have received double vaccination, when additionally considering the already documented reduced risk of infection overall.

Source: https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(21)00460-6/fulltext

COVID Impact on Direct Healthcare Cost

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers stop waiving cost sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

Largest Long-term Study of COVID Patients

- More than 2/3 have symptoms at 6 months
- Almost half have symptoms at 12 months
- Most common symptom fatigue
- Almost 1/3rd have breathing difficulty at 12 months
- 20% of non-hospitalized patients persist with symptoms

THE LANCET





CareUniversity Corporate Care

Survive & Thrive Corporate Solutions*

The COVID Tsunami is a lethal threat to business... yet it's an enormous opportunity for those who leverage the wave.

The surfers will make things happen, the swimmers watch things happen, the sinkers will drown and wonder what happened. Catch the wave with our *Survive & Thrive Corporate Solutions*.

Our service offerings range to basic Employee Safety Train End Corporate Solutions wit updated tactics to maximize

Why, Why Now, and Why this

An Achilles Heel - Family Trail
 If you save the family, you save save the worker – you save the employees are your greatest as:

the source of your success. Why act? By investing

THE CHIEF HEALTH SECURITY OFFICER



THEY HAVE TO TAKE CHARGE NOW!

are built on 35 years of national urning science into safety. We perience of a network of edical and business experts.

pices – Act, Delay, or Deny

can seize the moment and take the path etter, and cheaper to successfully come is and succeed. The surfers of the ill make things happen in their sectors and lead out of the crisis. There will be more surges.

CareUnivers

Rescue Care



CareUniversity Corporate Care

The Surfers will leverage the wave and make things happen...

The Swimmers will tread water and watch things happen...

And the Sinkers will drown and wonder what happened.

Our service offerings range from the most basic Employee Safety Training to End-to-End Corporate Solutions with continually updated tactics to maximize your success.

Our programs are built on 35 years of national experience of turning science into safety. We draw on the experience of a network of hundreds of medical and business experts.

Why, Why Now, and Why this Program?

An Achilles Heel - Family Transmission Chains
 If you save the family, you save the worker. If you save the worker – you save the business. Your employees are your greatest asset. They will be the source of your success. Why act? By investing

Your Three Choices – Act, Delay, or Deny

 Act Now: You can seize the moment and take the path that is faster, better, and cheaper to successfully come through the crisis and succeed. The surfers of the COVID wave will make things happen in their sectors and lead out of the crisis. There will be more surges.

CareUniver

Rescue Car



CareUniversity Corporate Care

The Surfers

Our service offerings range from the most basic Employee Safety Training to End-to-End Corporate Solutions with continually updated tactics to maximize your success.

Our programs are built on 35 years of national experience of turning science into safety. We draw on the experience of a network of hundreds of medical and business experts.

Why, Why Now, and Why this Program?

An Achilles Heel - Family Transmission Chains
If you save the family, you save the worker. If you
save the worker – you save the business. Your
employees are your greatest asset. They will be
the source of your success. Why act? By investing

Your Three Choices – Act, Delay, or Deny



CareUniversity Corporate Care

The Surfers

The Swimmers

Our service offerings range from the most basic Employee Safety Training to End-to-End Corporate Solutions with continually updated tactics to maximize your success.

Our programs are built on 35 years of national experience of turning science into safety. We draw on the experience of a network of hundreds of medical and business experts.

Why, Why Now, and Why this Program?

An Achilles Heel - Family Transmission Chains
If you save the family, you save the worker. If you
save the worker – you save the business. Your
employees are your greatest asset. They will be
the source of your success. Why act? By investing

Your Three Choices – Act, Delay, or Deny



CareUniversity Corporate Care

The Surfers

The Swimmers

And the Sinkers

Our service offerings range from the most basic Employee Safety Training to End-to-End Corporate Solutions with continually updated tactics to maximize your success.

Our programs are built on 35 years of national experience of turning science into safety. We draw on the experience of a network of hundreds of medical and business experts.

Why, Why Now, and Why this Program?

An Achilles Heel - Family Transmission Chains
 If you save the family, you save the worker. If you save the worker – you save the business. Your employees are your greatest asset. They will be the source of your success. Why act? By investing

Your Three Choices – Act, Delay, or Deny

 Act Now: You can seize the moment and take the path that is faster, better, and cheaper to successfully come through the crisis and succeed. The surfers of the COVID wave will make things happen in their sectors and lead out of the crisis. There will be more surges.

CareUnive

Rescue Car



CareUniversity Corporate Care

The Surfers will leverage the wave and

The Swimmers

And the Sinkers

Our service offerings range from the most basic Employee Safety Training to End-to-End Corporate Solutions with continually updated tactics to maximize your success.

Our programs are built on 35 years of national experience of turning science into safety. We draw on the experience of a network of hundreds of medical and business experts.

Why, Why Now, and Why this Program?

An Achilles Heel - Family Transmission Chains
 If you save the family, you save the worker. If you save the worker – you save the business. Your employees are your greatest asset. They will be the source of your success. Why act? By investing

Your Three Choices – Act, Delay, or Deny



CareUniversity Corporate Care

The Surfers will leverage the wave and make things happen...

The Swimmers

And the Sinkers

Our service offerings range from the most basic Employee Safety Training to End-to-End Corporate Solutions with continually updated tactics to maximize your success.

Our programs are built on 35 years of national experience of turning science into safety. We draw on the experience of a network of hundreds of medical and business experts.

Why, Why Now, and Why this Program?

An Achilles Heel - Family Transmission Chains
 If you save the family, you save the worker. If you save the worker – you save the business. Your employees are your greatest asset. They will be the source of your success. Why act? By investing

Your Three Choices – Act, Delay, or Deny



CareUniversity Corporate Care

The Surfers will leverage the wave and make things happen...

The **Swimmers** will tread water and

And the Sinkers

Our service offerings range from the most basic Employee Safety Training to End-to-End Corporate Solutions with continually updated tactics to maximize your success.

Our programs are built on 35 years of national experience of turning science into safety. We draw on the experience of a network of hundreds of medical and business experts.

Why, Why Now, and Why this Program?

An Achilles Heel - Family Transmission Chains
 If you save the family, you save the worker. If you save the worker – you save the business. Your employees are your greatest asset. They will be the source of your success. Why act? By investing

Your Three Choices – Act, Delay, or Deny



CareUniversity Corporate Care

The Surfers will leverage the wave and make things happen...

The **Swimmers** will tread water and watch things happen...

And the Sinkers

Our service offerings range from the most basic Employee Safety Training to End-to-End Corporate Solutions with continually updated tactics to maximize your success.

Our programs are built on 35 years of national experience of turning science into safety. We draw on the experience of a network of hundreds of medical and business experts.

Why, Why Now, and Why this Program?

An Achilles Heel - Family Transmission Chains
 If you save the family, you save the worker. If you save the worker – you save the business. Your employees are your greatest asset. They will be the source of your success. Why act? By investing

Your Three Choices – Act, Delay, or Deny



CareUniversity Corporate Care

The Surfers will leverage the wave and make things happen...

The Swimmers will tread water and watch things happen...

And the **Sinkers** will drown and

Our service offerings range from the most basic Employee Safety Training to End-to-End Corporate Solutions with continually updated tactics to maximize your success.

Our programs are built on 35 years of national experience of turning science into safety. We draw on the experience of a network of hundreds of medical and business experts.

Why, Why Now, and Why this Program?

An Achilles Heel - Family Transmission Chains
 If you save the family, you save the worker. If you save the worker – you save the business. Your employees are your greatest asset. They will be the source of your success. Why act? By investing

Your Three Choices – Act, Delay, or Deny



CareUniversity Corporate Care

The Surfers will leverage the wave and make things happen... The Swimmers will tread water and watch things happen...

And the Sinkers will drown and wonder what happened.

Our service offerings range from the most basic Employee Safety Training to End-to-End Corporate Solutions with continually updated tactics to maximize your success.

Our programs are built on 35 years of national experience of turning science into safety. We draw on the experience of a network of hundreds of medical and business experts.

Why, Why Now, and Why this Program?

An Achilles Heel - Family Transmission Chains
 If you save the family, you save the worker. If you save the worker – you save the business. Your employees are your greatest asset. They will be the source of your success. Why act? By investing

Your Three Choices – Act, Delay, or Deny



CareUniversity Corporate Care

The Surfers will leverage the wave and make things happen...

The Swimmers will tread water and watch things happen...

And the **Sinkers** will drown and wonder what happened.

Our service offerings range from the most basic Employee Safety Training to End-to-End Corporate Solutions with continually updated tactics to maximize your success.

Our programs are built on 35 years of national experience of turning science into safety. We draw on the experience of a network of hundreds of medical and business experts.

Why, Why Now, and Why this Program?

An Achilles Heel - Family Transmission Chains
 If you save the family, you save the worker. If you save the worker – you save the business. Your employees are your greatest asset. They will be the source of your success. Why act? By investing

Your Three Choices – Act, Delay, or Deny

Health Security: The Organization & Family Units

PUBLIC HEALTH



VS

ORGANIZATIONAL HEALTH



VS

FAMILY HEALTH



Tradeoffs for Population: Cost of Doing Business

Tradeoffs for Business:
Act Delay or Deny

You pay more and do more to spare your family

YOU HAVE TO TAKE CHARGE NOW!

Source: C Denham

Who is Your CHSO?

PUBLIC HEALTH OFFICERS





THEY HAVE TO TAKE CHARGE NOW!

Source: C Denham

Who is Your Family CFO?

PUBLIC HEALTH OFFICERS



THE CHIEF HEALTH SECURITY OFFICER



THE CFO
CHIEF FAMILY OFFICER



THEY HAVE TO TAKE CHARGE NOW!

Who is Your Family CFO

PUBLIC HEALTH OFFICERS



My Job is
My Family
Health Security

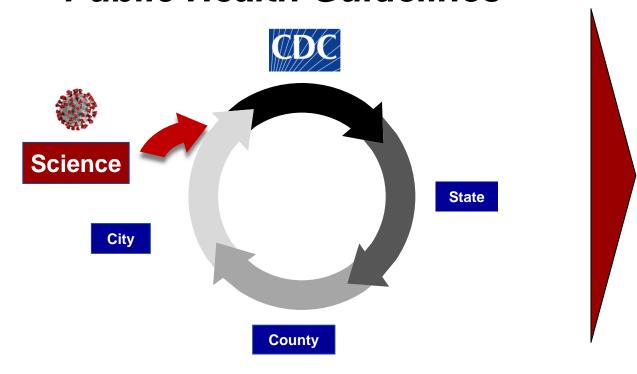
Clinical
Operational
Financial

THEY HAVE TO TAKE CHARGE NOW!

Source: C Denham

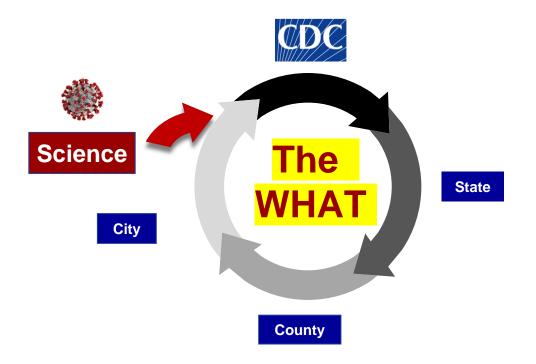
The Science is Evolving

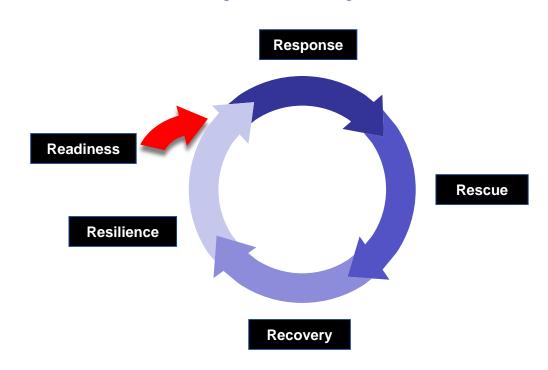
Public Health Guidelines



They tell the WHAT....

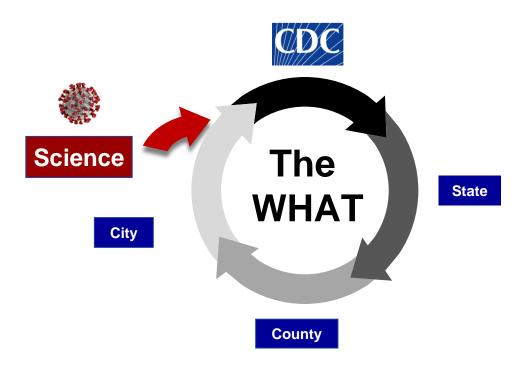
Public Health Guidelines

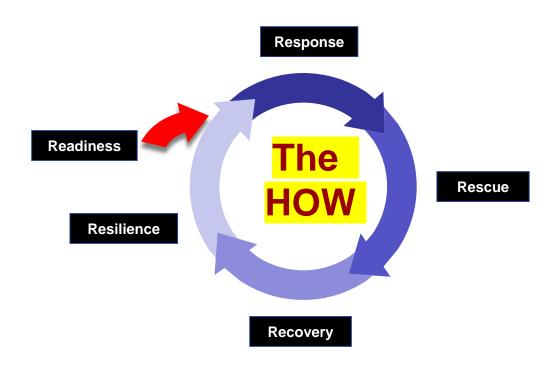




They tell the WHAT.... We provide the HOW

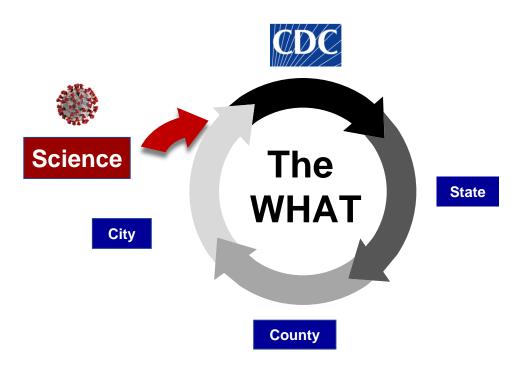
Public Health Guidelines

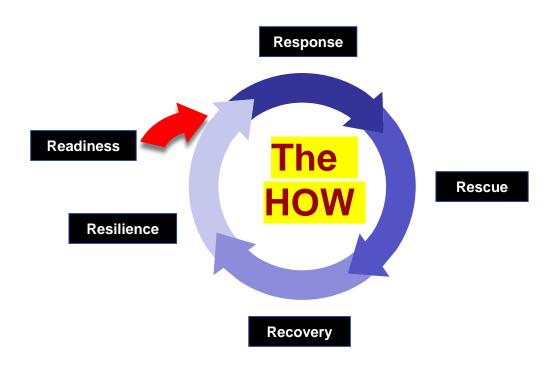




Turn the Science into Safety

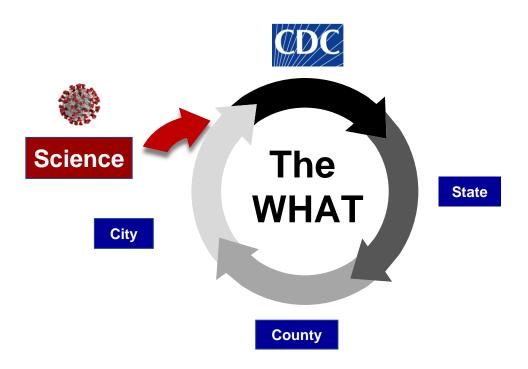
Public Health Guidelines

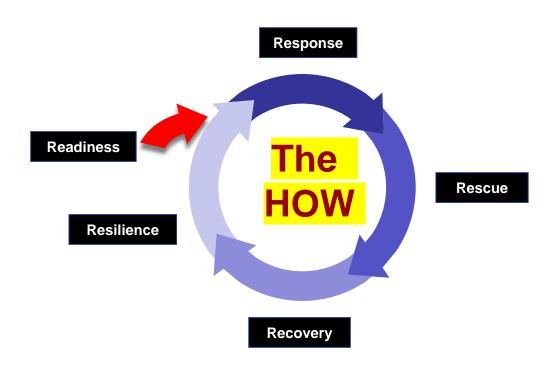




Turn the Safety into Success

Public Health Guidelines





Coronavirus Care Community of Practice

Essential Workers Toolbox Clinical Perspective



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



Heather Foster RN BSN

Frontline Nurse Infection Prevention Advisor Patient Safety Advocate Dolores Colorado



Coronavirus Care Community of Practice

Bystander Rescue Care CareUniversity Series

Essential Workers Toolbox *First Responder Perspective*



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



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



Paul Cross, MBA, FBINA 194th Assistant Chief The University of Texas Police at Houston



David M. Morris, PH.D., J.D.

President of Morris & McDaniel, Inc. Law Enforcement and First ResponderExpert and Researcher

Turn Science into Safety

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs
- Liability

- Employee Engagement
- Employee Loyalty
- Rapid Rebound
- Customer Safety
- Customer Satisfaction
- Competitive Advantage

Turn Safety into Success

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs
- Liability

- Employee Engagement
- Employee Loyalty
- Rapid Rebound
- Customer Safety
- Customer Satisfaction
- Competitive Advantage

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost
- 3. COVID Care Cost Significant
- 4. Long COVID is a Time Bomb

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost
- 3. COVID Care Cost Significant
- 4. Long COVID is a Time Bomb

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost
- 3. COVID Care Cost Significant
- 4. Long COVID is a Time Bomb

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost
- 3. COVID Care Cost Significant
- 4. Long COVID is a Time Bomb

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost
- 3. COVID Care Cost Significant
- 4. Long COVID is a Time Bomb

COVID Impact on Direct Healthcare Cost

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost Sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

2021 Milliman Medical Index

FIGURE 1: ANNUAL HEALTHCARE COST FOR MMI FAMILY OF FOUR



The 2021 MMI is based on 2019 claims data projected to 2021 with estimated healthcare cost increases. With this approach, we estimate a 2021 MMI value and restate 2020 and 2019 MMI values because we have more recent information from last year's publication.

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost Sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

2021 Milliman Medical Index

FIGURE 1: ANNUAL HEALTHCARE COST FOR MMI FAMILY OF FOUR



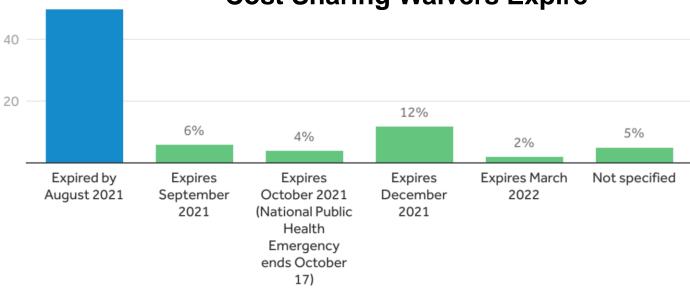
The 2021 MMI is based on 2019 claims data projected to 2021 with estimated healthcare cost increases. With this approach, we estimate a 2021 MMI value and restate 2020 and 2019 MMI values because we have more recent information from last year's publication.

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost Sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

Nearly 3 out of 4 of Largest Health Plans No Longer Waive Cost Sharing for COVID Care.

Cost Sharing Waivers Expire



- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost Sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

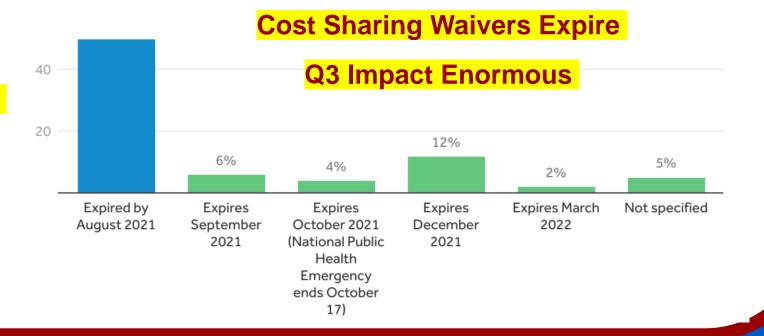
Nearly 3 out of 4 of

Largest Health Plans

No Longer Waive

Cost Sharing for

COVID Care.



- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost Sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb



30 Billion Claims Analyzed

Cost of COVID Hospital Stay

- \$73,300 with no healthcare insurance
- \$38,221 in network cost
- Out of pocket costs to consumers significant

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost Sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

Delta Airlines Cost Shift

- Declares average cost of COVID hospitalization costs Delta \$50,000.
- Charging each unvaccinated employee
 \$200 per month to defray the cost.



- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost Sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

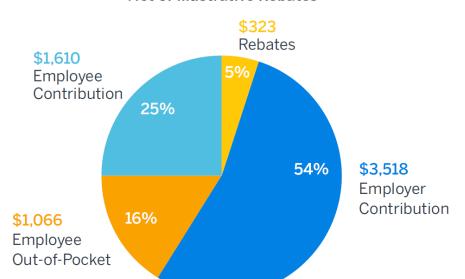
Delta Airlines Cost Shift

- Declares average cost of COVID hospitalization costs Delta \$50,000.
- Charging each unvaccinated employee
 \$200 per month to defray the cost.



- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

Net of Illustrative Rebates

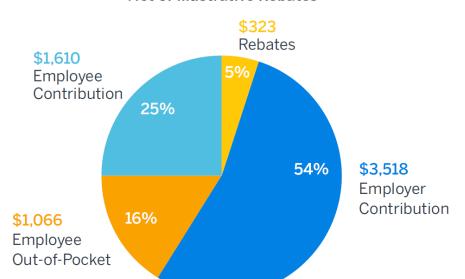


- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost Sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

- Bankruptcy due to medical bills rising
- More than 60% of all bankruptcies
- COVID consumer costs exploding as healthcare payors waiving cost sharing

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

Net of Illustrative Rebates

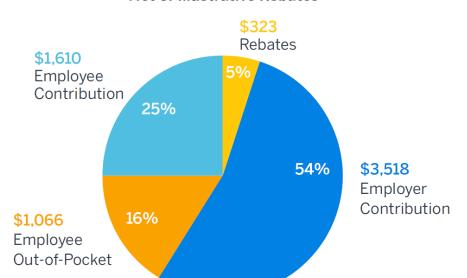


- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost Sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

- Bankruptcy due to medical bills rising
- More than 60% of all bankruptcies
- COVID consumer costs exploding as healthcare payors waiving cost sharing

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

Net of Illustrative Rebates

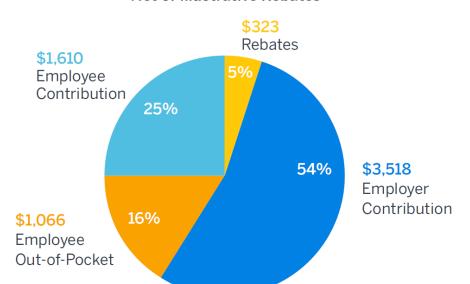


- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost Sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

- Bankruptcy due to medical bills rising
- More than 60% of all bankruptcies
- COVID consumer costs exploding as healthcare payors waiving cost sharing

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

Net of Illustrative Rebates

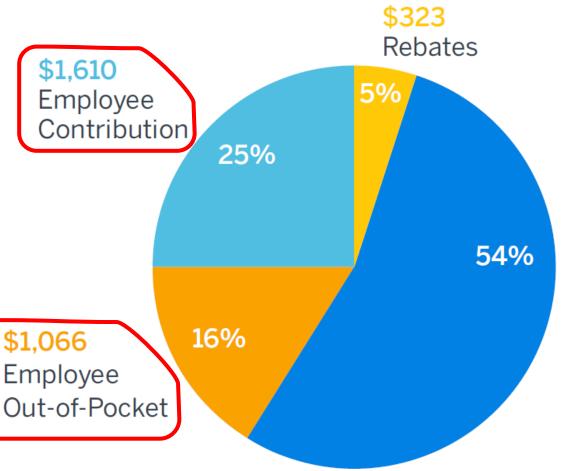


- 1. Growth of 8.4% 2020-2021
- 2. Insurers Stop Waiving Cost Sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

- Bankruptcy due to medical bills rising
- More than 60% of all bankruptcies
- COVID consumer costs exploding as healthcare payors waiving cost sharing

2021 Direct Healthcare Cost

COVID Impact on future Employee Contribution will grow in years to come



\$3,518Employer
Contribution

Individual
COVID Cost Share
of care will
greatly increase
Out-of Pocket Costs
above average

- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers stop waiving cost sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

Largest Long-term Study of COVID Patients

- More than 2/3 have symptoms at 6 months
- Almost half have symptoms at 12 months
- Most common symptom fatigue
- Almost 1/3rd have breathing difficulty at 12 months
- 20% of non-hospitalized patients persist with symptoms



- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers stop waiving cost sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

Largest Long-term Study of COVID Patients

- More than 2/3 have symptoms at 6 months
- Almost half have symptoms at 12 months
- Most common symptom fatigue
- Almost 1/3rd have breathing difficulty at 12 months
- 20% of non-hospitalized patients persist with symptoms



- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers stop waiving cost sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

Largest Long-term Study of COVID Patients

- More than 2/3 have symptoms at 6 months
- Almost half have symptoms at 12 months
- Most common symptom fatigue
- Almost 1/3rd have breathing difficulty at 12 months
- 20% of non-hospitalized patients persist with symptoms



- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers stop waiving cost sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

Largest Long-term Study of COVID Patients

- More than 2/3 have symptoms at 6 months
- Almost half have symptoms at 12 months
- Most common symptom fatigue
- Almost 1/3rd have breathing difficulty at 12 months
- 20% of non-hospitalized patients persist with symptoms



- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers stop waiving cost sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

Largest Long-term Study of COVID Patients

- More than 2/3 have symptoms at 6 months
- Almost half have symptoms at 12 months
- Most common symptom fatigue
- Almost 1/3rd have breathing difficulty at 12 months
- 20% of non-hospitalized patients persist with symptoms



- Business Disruption
- Absenteeism
- Presenteeism
- Cost of Turnover
- Healthcare Costs

- 1. Growth of 8.4% 2020-2021
- 2. Insurers stop waiving cost sharing
- 3. COVID Care Cost is Significant
- 4. Long COVID is a Time Bomb

Largest Long-term Study of COVID Patients

- More than 2/3 have symptoms at 6 months
- Almost half have symptoms at 12 months
- Most common symptom fatigue
- Almost 1/3rd have breathing difficulty at 12 months
- 20% of non-hospitalized patients persist with symptoms



Essential Worker Toolbox:

- 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



Essential Worker Toolbox:

1. Vaccines – Take the Shots

Vaccines: Take the Shots

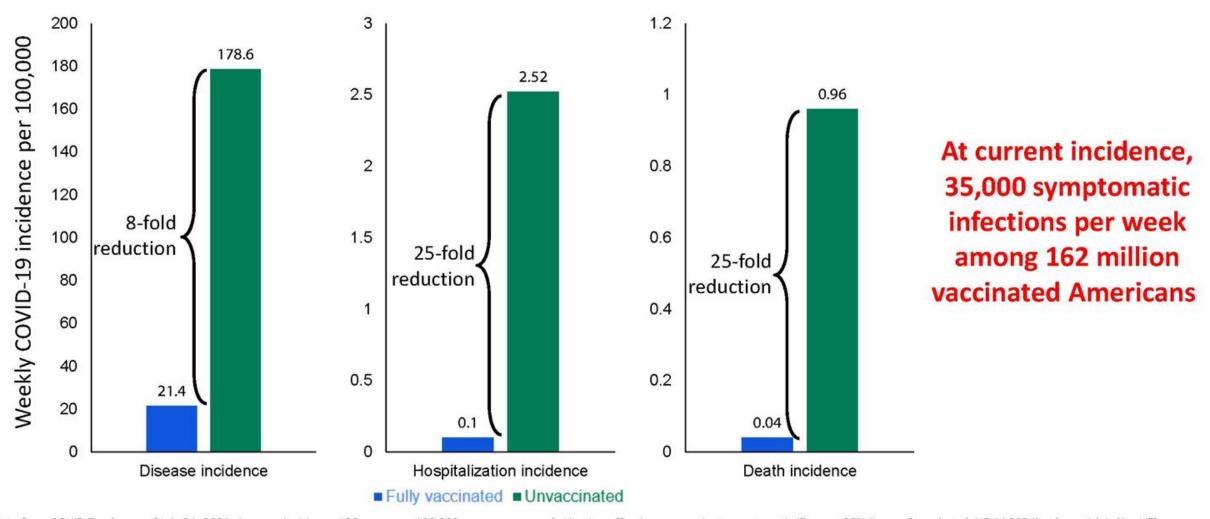




Can I: Catch it...Spread it...Get Sick...Get Long Haul?

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



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-fully vaccinated coverage) + (1-VE)*fully vaccinated coverage). Rate in fully vaccinated = Coverage proportions were from COVID Data Tracker as of July 24, 2021 (50% for US,).

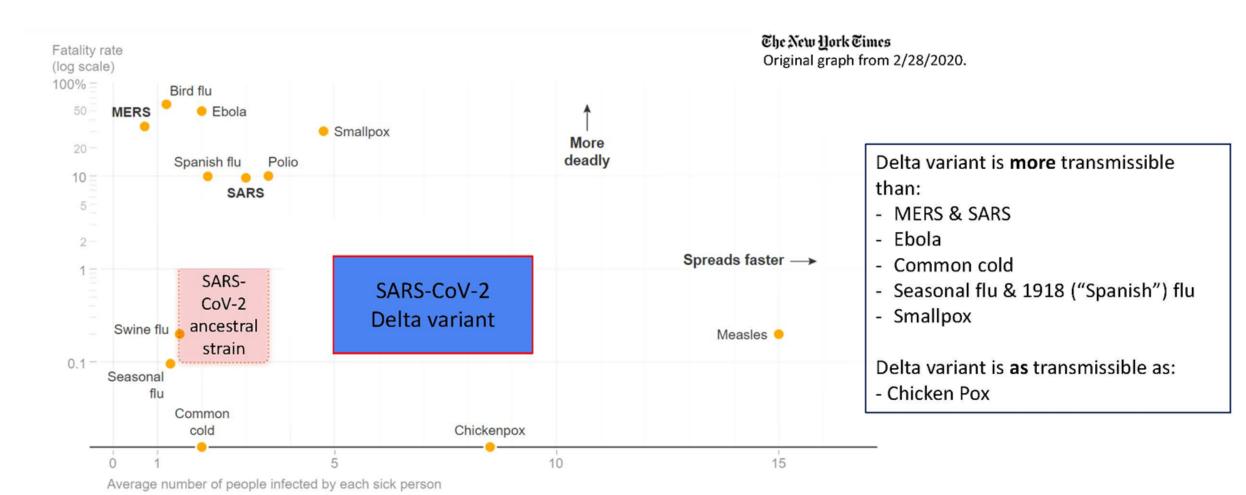
Vaccination Checklist

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

Vaccination Status	Can I CATCH it?	
Unvaccinated	Yes VERY HIGH RISK	
Vaccinated	Yes but LOWER RISK 3.5 X Reduced Risk	
Youth 12-17	More than Alpha (UK virus)	
Children Ages 2-12	Yes Under Study	

Yes You Can CATCH It Vaccinated or Not.

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



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.

Vaccination Checklist

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

Vaccination Status	Can I CATCH it?	Can I SPREAD It	
Unvaccinated	Yes VERY HIGH RISK	Yes VERY HIGH RISK	
Vaccinated	Yes but LOWER RISK 3.5 X Reduced Risk	Yes but LOWER RISK	
Youth 12-17	More than Alpha (UK virus)	More than Alpha Half Adult Spread	
Children Ages 2-12	Yes Under Study	Yes Under Study	

Yes You Can SPREAD
It
Vaccinated or Not.

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?
Unvaccinated	Yes VERY HIGH RISK	Yes VERY HIGH RISK	Yes VERY HIGH RISK May Get Sicker than Vac.
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
Youth 12-17	More than Alpha (UK virus)	More than Alpha Half Adult Spread	More than Alpha
Children Ages 2-12	Yes Under Study	Yes Under Study	Yes LOW RISK



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 May Get Sicker		Yes HIGHER RISK	
Vaccinated	Yes but 3.5 X R Vaccinated or Not			Under Study
Youth 12-17	More man Aipma (UK virus)	Half Adult Spread	More than A	More than Alpha
Children Ages 2-12	Yes Under Study	Yes Under Study	Yes LOW RISK	Yes LOW RISK 8%

Take the Shot - Save a Life...

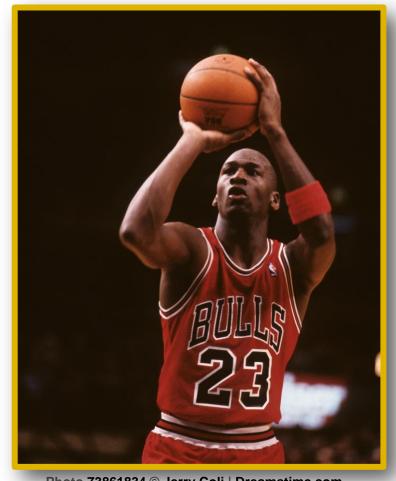


Photo 73861834 © Jerry Coli | Dreamstime.com

The Vaccination Conversation

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





Video Tape: < 14 Minutes

https://www.medtacglobal.org/student-outreach-program/ttsconverstation/



Coronavirus Care Community of Practice

CareUniversity Series

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











The 5 R's of Safety











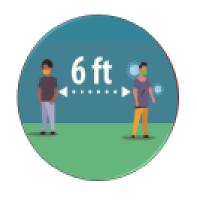
Essential Worker Toolbox:

- 1. Vaccines Take the Shots
- 2. Coming Home Safe





CDC Guidelines



Social Distancing



Disinfecting Surfaces



Hand Washing



Use of Masks

Survive & Thrive Guide Series





Warm Zone

Disinfection Area





Safe Zone

Home with Family



Survive & Thrive Guide: Protecting Your Family

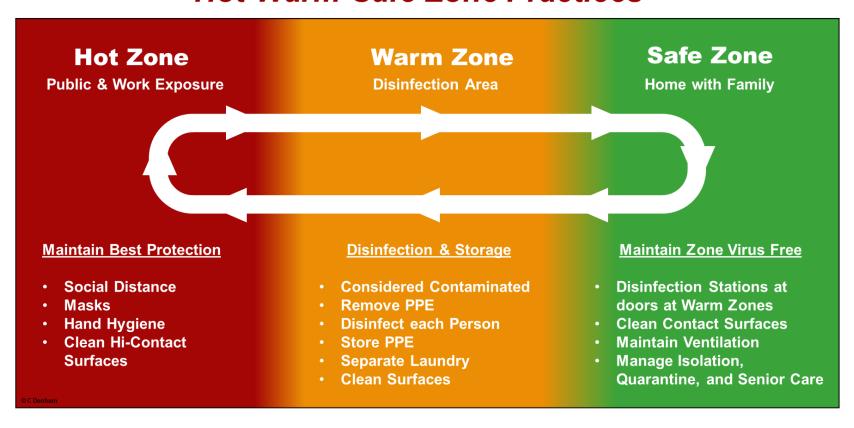
Coming Home Safely Questions

- · How do we keep from bringing the virus home?
- · What are the best practices to protect my family?
- · What if I am exposed to a COVID-19 patient at work?
- · How do I put together a Family Safety Program?
- · Can we have safe play dates?
- · Why are indoor activities riskier than those outdoors?
- What Personal Protective Equipment do I need to care for a loved one at home?
- How do we get teens and those in their 20's and 30's to take the lead in being safe and protecting families?
- What if a Contact Tracer Calls finds one of my family have been exposed?
- What should be on my family "what if list"?

Coming Home Safely

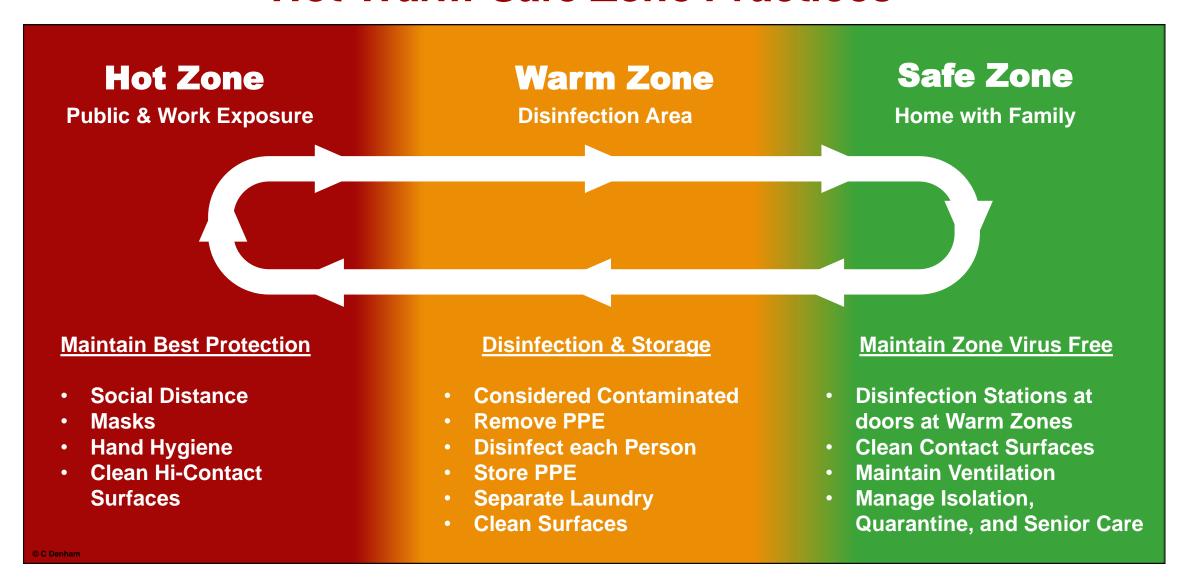
How do we keep from bringing the virus home?

Hot-Warm-Safe Zone Practices



© C Denham

Hot-Warm-Safe Zone Practices



Hot-Warm-Safe Zone Practices



HOT ZONE PRACTICES

- ☐ Social Distance 6 Feet is a MINIMUM
- ☐ Handwashing is poor even in caregivers 20 sec
- Avoid Poorly Ventilated Spaces
- ☐ Upgrade Masks to Surgical Level 3 or N95 BEST
- **□ Don't Touch Face Masks or the Face**
- ☐ Be gracious but firm when others invade your space
- ☐ It is critical to know how to put on and take off Personal Protective Equipment (PPE). Called "Don and Doff" in healthcare jargon.
- ☐ Whenever in doubt, wash your hands.
- ☐ Know the process for reporting outbreaks.
- "Exposure to Infected" is being within 6 FEET OF INFECTED FOR LONGER THAN 15 MIN. Shorter for Delta

Hot-Warm-Safe Zone Practices

WARM ZONE Leaving Hot Zone Practices

- ☐ Disinfect before getting in car.
- **☐** Contain Contaminated Materials
- □ Wipe Down Car Door Handles and contact surfaces if car is warm zone.
- If Car is WARM ZONE: It must be considered contaminated.
- ☐ Be ready to store contaminated gear in your car if you must.

WARM ZONE Joining Hot Zone Practices

- ☐ Assure your mask has good fit.
- ☐ Practice no mask or face touching
- ☐ If contaminated wash hands.
- ☐ Know the rules of the workplace or public venue.

© C Denham

WARM ZONE Coming Home Practices Warm Zone Designate WARM ZONE room or Disinfection Area space for disinfecting, ☐ Assemble & Maintain Disinfection Station with cleaning supplies. ☐ Keep the family out of WARM ZONE ☐ Increase precautions if someone is in quarantine or isolation. **WARM ZONE Leaving Home Practices ☐** New or Cleaned masks, gloves, face shields and coverings. Bring disinfectants in your car or your gear. ☐ Bring extra masks if you have them.

Med Tac Bystander Rescue Care

Hot-Warm-Safe Zone Practices

SAFE ZONE PRACTICES

- ☐ Establish and maintain disinfection stations at doors.
- ☐ Regularly clean high contact surfaces.
- ☐ Prevent people or parcels from bringing the virus home.
- ☐ If possible, keep rooms well ventilated.

Care of Someone At Home

- ☐ Getting your "MacGyver On" Use what you have.
- Whether the flu or Coronavirus use same processes.
- ☐ Isolation is for all those who are infected or sick.
- ☐ The infected NEED to wear masks. Social distance and hand hygiene are important. Surfaces ARE a risk.
- ☐ Quarantine is for who may be infected assume infected until end of quarantine period or test negative.

Safe Zone

Home with Family

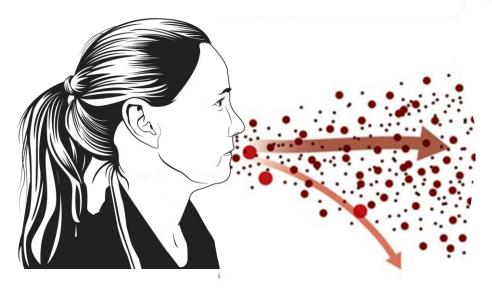
Maintain Zone Virus Free

- Disinfection Stations at doors at Warm Zones
- Clean Contact Surfaces
- Maintain Ventilation
- Manage Isolation, Quarantine, and Senior Care

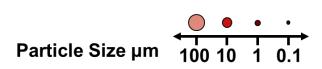
© C Denham |

Mask Reduction of Airborne Transmission

A competition between droplet size, inertia, gravity, and evaporation determines how far emitted drop-lets and aerosols will travel in air.



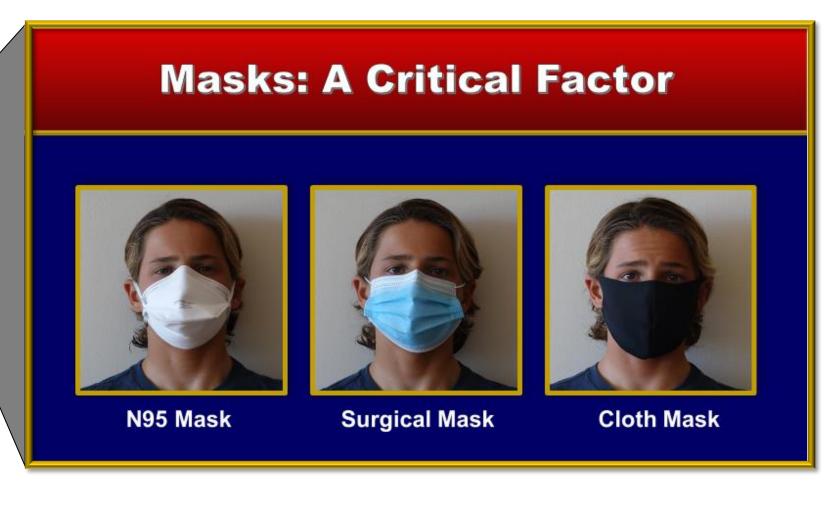
AEROSOLS are smaller will evaporate faster than they can settle, are buoyant, and thus can be affected by air currents, which can transport them over longer distances.



DROPLETS will undergo gravitational settling faster than they evaporate, contaminating high contact surfaces and leading to contact transmission.

Masks: Filter, Fit, and Finish





Video Tape: < 15 Minutes

www.medtacglobal.org/coronavirus-response/#basicmodule

www.medtacglobal.org/coronavirus-response/mask-video/

Masks: Filter, Fit, and Finish

The Delta Variant is driving all of us to upgrade our masks. If possible N95 masks that have the best <u>Filter</u> with the best <u>Fit</u> so no air escapes. <u>Finish</u> safely handling after use without contaminating you or anyone else.



N95 Mask



Surgical Mask



Cloth Mask

Short Video Topics

Masks: Filter, Fit, and Finish

Hand Washing & DISINFECTANTS

CLEAN High Contact Surfaces

Building a FAMILY SAFETY PLAN

If we NEED Emergency Care

Why ICU, Respirators, and ECMO

Family Lifeguard Program

Vaccination Conversation



Short Video Topics

Masks: Filter, Fit, and Finish

Hand Washing & DISINFECTANTS

CLEAN High Contact Surfaces

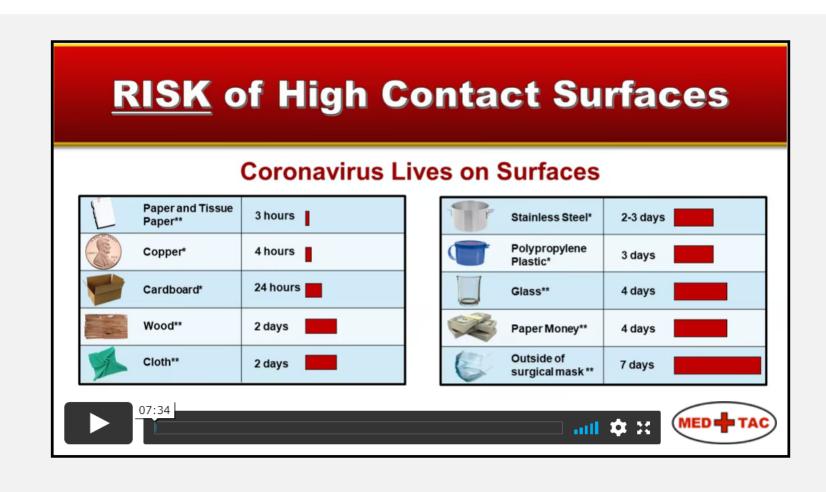
Building a FAMILY SAFETY PLAN

If we NEED Emergency Care

Why ICU, Respirators, and ECMO

Family Lifeguard Program

Vaccination Conversation

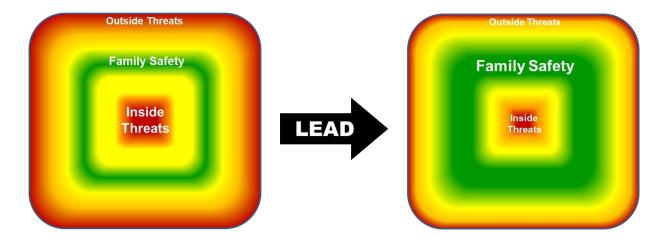


Coming Home Safe Tools

Essential Worker Toolbox:

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

Keeping the Family Safe

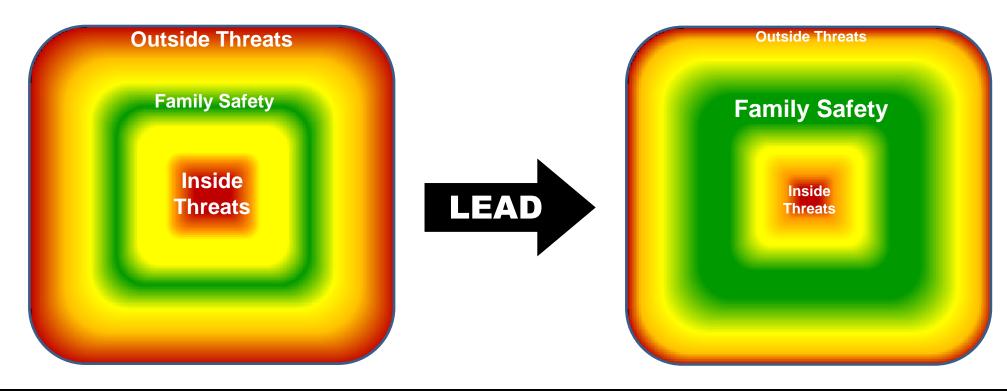


Threats x Vulnerability = Risk

How do we Keep Our Kids Safe?

ONLY POSSIBLE by keeping the "family unit" safe...

We have to BREAK FAMILY TRANSMISSION CHAINS...



Health Security: The Family Unit

PUBLIC HEALTH

FAMILY HEALTH



Versus



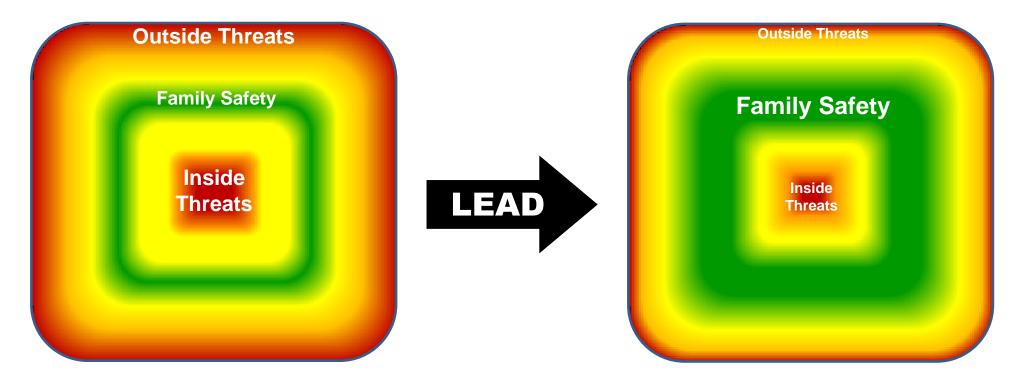
Tradeoffs for Population: Cost of Doing Business

You will pay more and do more to spare your family

YOU HAVE TO TAKE CHARGE NOW!

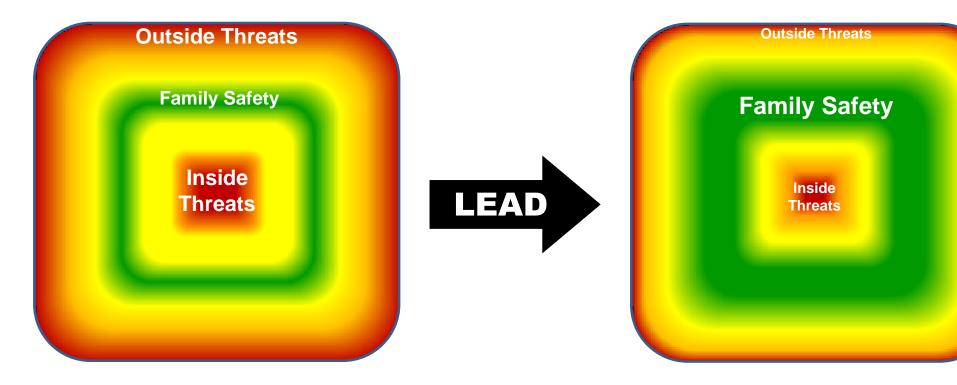
Source: C Denham

Threats:
Likely to
cause <u>HARM</u>.



Threats:
Likely to
cause HARM.

Vulnerability:
Weaknesses that can be
EXPLOITED by threats.

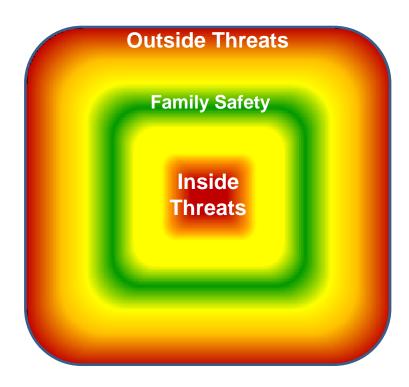


Threats:
Likely to
cause HARM.

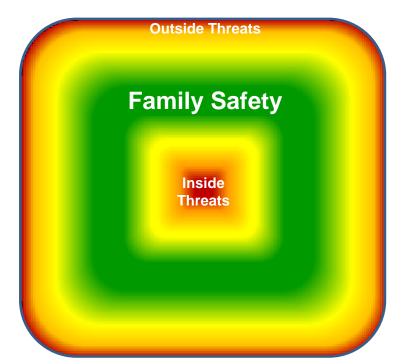
Vulnerability:
Weaknesses that can be
EXPLOITED by threats.

Risk:

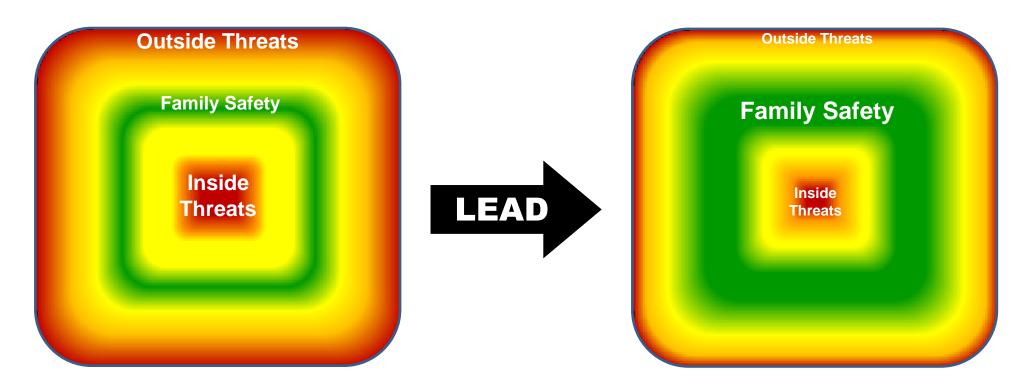
PROBABILITY of harm by a threat exploiting vulnerability.







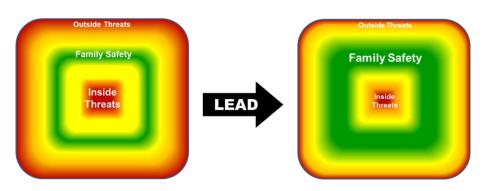
Our Goal: Reduce Risk of Family Harm by Reducing Vulnerability to Threats



Keeping Our Kids Safe...by Keeping the Unit Family Safe



Reduce Family Vulnerability



STEP 1: Identify Each Family Member's Threat Profile

- Family living together and those in direct contact.
- Identify threats due to age, underlying conditions, and outside threats related to region and living conditions.

STEP 2: Identify and Follow Local Coronvirus Threats

- Local Community infection factors, trends, and public health guidelines will drive your behaviors and plans.
- Understand the public health processes in place where the family members will work, learn, play, and pray.

STEP 3: Develop a Family Safety Plan

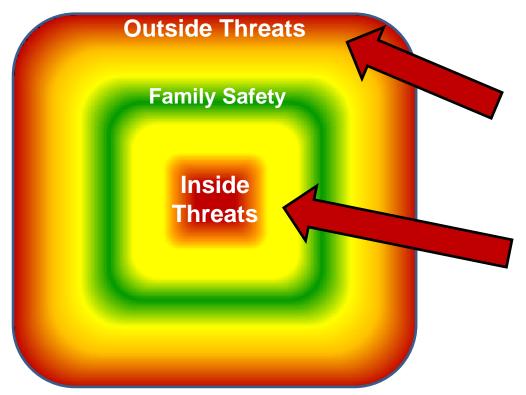
 A leader or leaders of the family act as the CFO – Chief Family Officer who drives the plan: Readiness, Response, Rescue, Recovery, and Resilience.

STEP 4: Plan the Flight and Fly the Plan

 The novel Coronavirus virus science, threats, vulnerabilities, and therefore the family risk changes continuously. Every airplane flight plan is modified along the route – so will your family safety plan.

STEP 1: Identify Each Family Member Threat Profile

Understanding the Threats, Vulnerability, and Risk of Harm to our Children





Family Unit Threat Profile:

Outside Threats from Community

- Threats, Vulnerability, and Risk from the outside environment for each individual family member for being infected, harmed, and death.
- Threats, Vulnerability, and Risk of current behaviors.

Inside Threats to Family – Home and Conditions

- Threats, Vulnerability, and Risk for each family member unique to them for being infected, harmed, and death.
- Threats, Vulnerability, and Risk of current behaviors within the home and living spaces.

STEP 1: Identify Each Family Member Threat Profile













Pregnant Under 2 Years Moms

2 to 10 Years

10 to 30 Years

30 to 50 Years

50 to 65 Years

Over 65

Pregnant Moms

 Have been found to have certain higher risks for severe COVID illness due to pregnancy – an "inside risk" (CDC)

Under 2 Years

Watch evolving science in this area for "inside risks".

2 to 10 Years

- May have more virus in their nasopharynx than adults.
- Half as likely to get infected as over 10 years old.
- A rise in infection rate seen with school attendance.
- May develop MIS-C Multisystem Inflammatory Syndrome in Children. <21 years old, lab evidence of inflammation, >2 organ involvement. SEE CDC Case Description on CDC website.

10 to 30 Years

- Fastest growing infection group more than 50%
- Super Spreaders due to social interaction.
- Over 30% of COVID positive Big 10 players have cardiac inflammation on cardiac MRI. SEE Evolving CNN Reports

30 to 50 Years

Rapidly growing group of infections in later surge stage.
Underlying conditions including obesity a factor.

50 to 65 Years

 Have higher incidence in underlying conditions putting them at higher risk for infections and harm.

Over 65 Years

Age is a risk factor independent of underlying conditions and have them. Highest death rate.

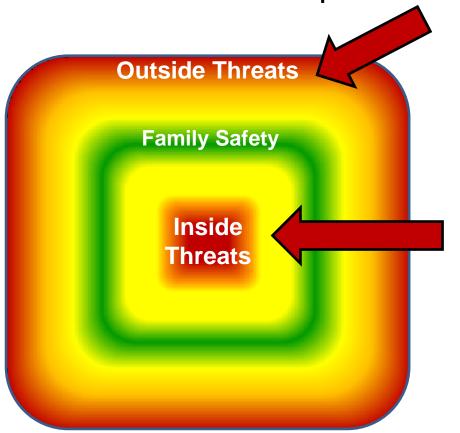
STEP 2: Identify and Follow Local Coronvirus Threats

OutsideThreats:

Inside versus Outside Threats

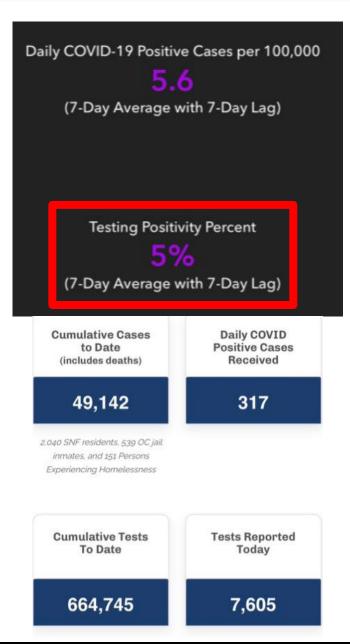
- High Background Community Infection or trending with more infections.
- Schools without proper Test, Trace, Treat, Isolate, and Quarantine Programs.
- Group Activities and Sports without Proper Prevention - Social Distancing etc.

- Lack of Mask Use by all exposed to family.
- Community without adequate public health services including Test, Trace, Treat, Isolate, and Quarantine Programs.
- Critical Essential Infrastructure Worker Exposure bringing virus home to family.



Inside Threats:

- Delayed Emergency Medical Care for of Children due to fear.
- Delayed Vaccines for Children due to fear.
- Depression in Children isolated at home.
- Threats to Immune Compromised Children.
- Inadequate Nutrition of Children.
- Lack of Exercise of Children and Adults.
- Adults with underlying at-risk illnesses.
- Seniors over 65 years of age at risk due to age.
- Delayed Emergency Medical Care for Adults due to Fear.
- Delayed or absent Screening for Adults and Seniors.
- Delayed Elective Medical Procedures for adults.
- Inadequate Disinfection of Hi Contact Surfaces.





Example Family Threat Profile Orange County CA



Male over 65 years of age.



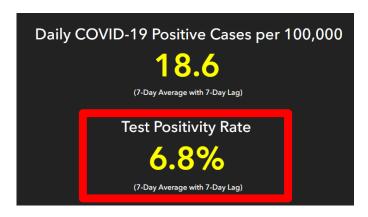
• Female in mid 50's with history of pulmonary infections & bronchitis.

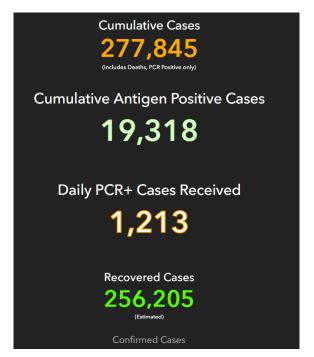


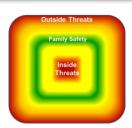
 Mid-teen youth with recent cardiac surgery and hospitalizations for hyperimmune reactions to viral infections.



 Grandmother at 99 years of age in assisted living with history of lung disease.







Example Family Threat Profile Orange County CA



Male over 65 years of age.



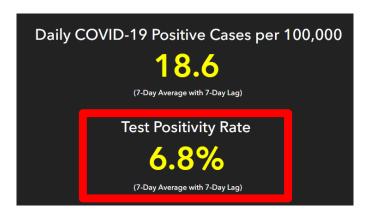
• Female in mid 50's with history of pulmonary infections & bronchitis.

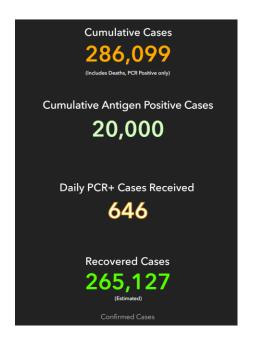


 Mid-teen youth with recent cardiac surgery and hospitalizations for hyperimmune reactions to viral infections.



 Grandmother at 100 years of age in assisted living with history of lung disease.







Example Family Threat Profile Orange County CA



Male over 65 years of age.



 Female in mid 50's with history of pulmonary infections & bronchitis.



Mid-teen youth with recent cardiac surgery and hospitalizations for hyperimmune reactions to viral infections.



 Grandmother at 100 years of age in assisted living with history of lung disease.

STEP 3: Develop a Family Safety Plan

Reduce Vulnerability

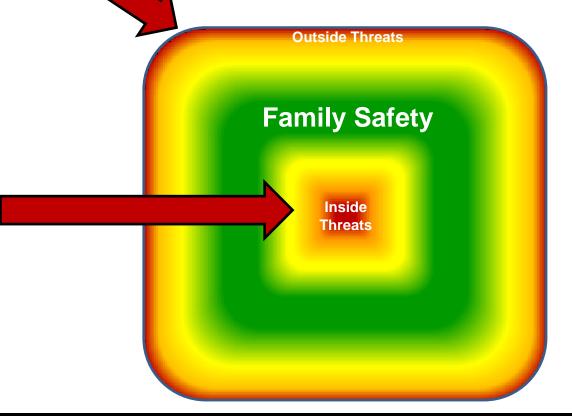
- Adjust behaviors depending on Background Community Infection and local infection trends.
- Base school decisions n Test, Trace,
 Treat, Isolate, and Quarantine Programs.
- Avoid Group Activities and Sports without Proper Social Distancing.

nerability to OutsideThreats:

- Assure Mask Use by all exposed to family
- Monitor public health services including Test, Trace, Treat, Isolate, and Quarantine Programs and adjust behavior to it.
- Assure Critical Essential Infrastructure Workers reduce bringing virus home.

Reduce Vulnerability to OutsideThreats:

- Produce a Medical Care Emergency Plan for the Children and Adults (5 Rights of Emergency Care).
- Safely see Pediatricians to maintain Vaccines.
- Combat depression in Children with activities
- Protect Immune Compromised Children .
- Protect Adults with underlying at-risk illnesses.
- Protect Seniors over 65 years of age.
- Safely Pursue Regular Screening for Adults.
- Weigh Risks for Elective Medical Procedures.
- Assure Nutrition for children and adults in isolation.
- Pursue Regular Exercise during isolation/quarantine.
- Inadequate Disinfection of Hi Contact Surfaces.



STEP 3:

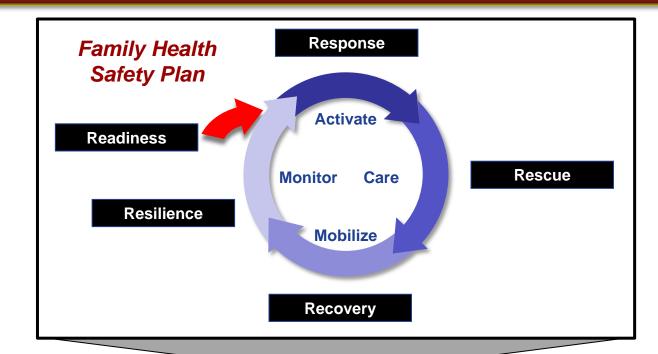
Develop a Family Safety Plan

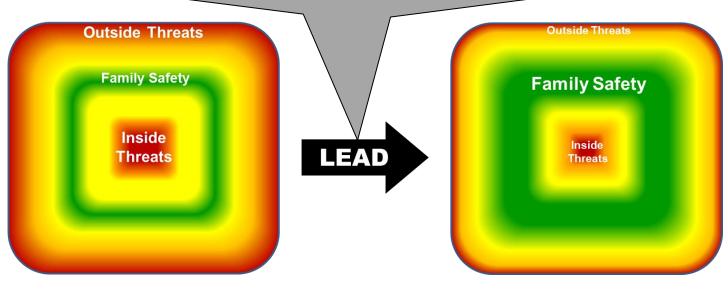
 A leader or leaders of the family act as the CFO – Chief Family Officer who drives the plan: Readiness, Response, Rescue, Recovery, and Resilience.

STEP 4:

Plan the Flight and Fly the Plan

 The novel Coronavirus virus science, threats, vulnerabilities, and therefore the family risk changes continuously. Every airplane flight plan is modified along the route – so will your family safety plan.





Essential Worker Toolbox:

- 1. Vaccines Take the Shots
- 2. Coming Home Safe
- 3. Keeping the Family Safe
- 4. Creating a Family Safety Plan

Creating the Family Safety Plan

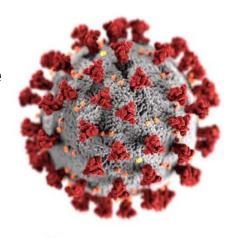


Coronavirus Care Community of Practice



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



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 **Activate Monitor** Care **Mobilize** Recovery

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.

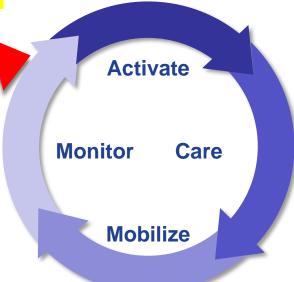
Rescue

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: 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."

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.

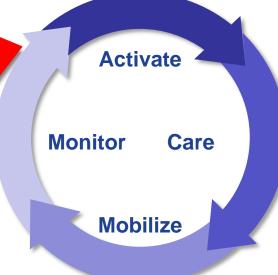
Readiness



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

Response

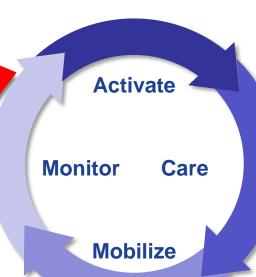


Response: Family moves to action to respond to an emergency. Safeguards are put in place. The family may respond to a member being infected or exposed to someone infected.

Response

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



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.

Response

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

Activate

Monitor Care

Mobilize

Recovery

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.

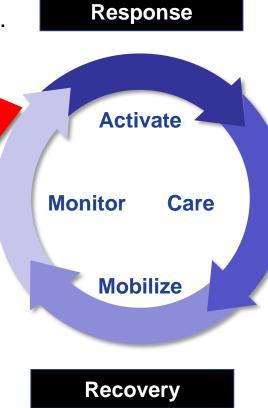
Recovery: Follow up care of the family member after an event. Returning to normal family activities after a family member is infected and isolated, hospitalized, or under quarantine."

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: 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: 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."



READINESS

Awareness

- ☐ Family Scenarios: All understand family scenarios
- National and Local Guidelines: CDC, Local Public Health, and School Guidelines understood.
- ☐ Community Threat Awareness: Local infection rate understood.
- □ Readiness Knowledge 4 P's: Prevention,
 Preparedness, Protection, and Performance Imp't.

Accountability

- □ Readiness Task Assignment: Who does what, when, of member tasks by Family Scenario.
- ☐ Readiness Task Completion Log: Documentation.

Ability

- ☐ Readiness Skills: Deliberative Practice.
- ☐ Readiness Resources: Staff, supplies, and space. Allocation of the funds.

Action

- ☐ Create a written Family Safety Plan: Readiness, Response, Rescue, Recovery, and Resilience.
 - Step 1: Identify Each Members Threat Profile
 - Step 2: Identify & Local Coronavirus Threats
 - Step 3: Develop a Family Safety Plan
- Step 4: Plan the Flight and Fly the Plan
- ☐ Assemble Family Medical Records: Hardcopy summaries & electronic version..
- ☐ Establish Required Staff, Supplies, and Space: Maintain in a state of readiness.

RESPONSE

Awareness

- □ Family Scenario Response Awareness: Know how to respond the exposed, if infected, infected and symptomatic, and if infected with severe symptoms. Understand quarantine, isolation, and care at home.
- □ Response Knowledge 4 P's: Prevention of spread. Preparedness for quarantine, isolation, and home care. Protection concepts and tools such as PPE. Performance Improvement from caregivers and trusted guideline sources.

Accountability

- ☐ Response Task Accountability: Task assignment to Family Members.
- ☐ Response Task Completion Log: Task completion should be documented to maximize effectiveness.

Ability

- □ Response Skills: Maintenance of isolation areas and care of an infected family member in isolation will require proper use of PPE, managing airflow to reduce aerosol risks, food service, and laundry functions.
- ☐ Response Resources: Staff, supplies, space, and financial resources must be available.

Action

- ☐ Activate Family Member Scenario Plans:
- Exposure to Infected Person and No Test:
 Quarantine
- 2. Infected and Asymptomatic: Isolation
- 3. Infected and Pre-symptomatic: Isolation and Care when Symptomatic
- Infected and Symptomatic Isolation and Care at Home. Follow the Rescue Checklist if CDC emergency warning signs develop (see below).

RESCUE

Awareness

- ☐ Family Rescue Scenario Awareness: Know "rescue scenarios" & CDC "emergency warning signs":
 - Trouble breathing
 - · Persistent pain or pressure in the chest
 - New confusion
 - · Inability to wake or stay awake
 - · Bluish lips or face
- □ Rescue Knowledge 4 P's: Prevention of spread, prepare for transport, protect all, learn performance improvement from caregivers.

Accountability

- ☐ Rescue Task Accountability Reinforced: Task assignment to Family Members. Tie to CDC emergency warning signs.
- □ Rescue Task Completion Log: Recording of lifesaving tasks are vital to caregivers.

Ability

- □ Rescue Skills: Isolation skills safe use of PPE, safe transport, and protecting family.
- □ Rescue Resources: Adequate funding, outside service, PPE supplies, "go bags", and disinfection resources are critical.

Action

- ☐ Activate Family Member Scenario Plans:

 Specific checklists for each scenario needs to
- be followed. The most important issue is that patients will have to be admitted to hospital alone.
- 1.Infected & Severely Symptomatic Need Help: Emergency Sign recognition, safe transportation, safe Caregiver communication. See SBAR Pt. Tool.
- **2.Infected Requiring Hospitalization:** Patient alone Caregiver Communication by only by phone.
- 3.Infected & Require ICU Life Support Respirator & ECMO: The seriousness of the situation should be communicated to the family members.

RECOVERY

Awareness

- ☐ Family Recovery Scenario Awareness: Know "recovery scenarios" with return to a "new safe normal".
- · Long Hauler Threat
- Multisystem Inflammatory Syndrome (MIS-C) in children and MIS-A in adults.
- □ Recovery 4 P's: Prevent reinfection postinfection immunity not assured. Protect familylearn performance improvement from others.

Accountability

- ☐ Recovery Task Accountability Reinforced:
 Assign tasks for assure safe return to the "new normal" social distance, mask use, hand washing, contact surface disinfection, avoiding poorly ventilated areas, and group events.
 Updating of recovering member's threat profile, medical records, and history action items.
- ☐ Recovery Task Completion Log: Info may be very important to future care decisions.

Ability

- □ Recovery Skills: Help children, youth, adults, and seniors SAFELY return to work, play, and pray. Recovery care after severe harm.
- ☐ Recovery Resources: Staff, supplies, space, and finances for family to return to a new safe normal. Adjust to sports & play.

Action

- ☐ The actions include care documentation and preparation for future problems:
- Record & Follow "Return Precautions": Specific caregiver instructions to return for care if patients deteriorate —.
- 2. Update Family Member Threat Profiles: New medical info added to threat profile.
- Update and Maintain Medical Records: Incase of a future infection, hospital admission, "long hauler", MIS-C, or MIS-A.

RESILIENCE

During the "quiet before the storm" between community infection surges or after caring for someone, it is an ideal time to "harden the target" of the home and members.

Awareness

- ☐ Family Impact Scenarios Review: Update Family Impact Scenarios. Performance improvement can be informed by member caregivers and guidelines..
- □ Resilience Knowledge Review 4 P's: Apply prevention, preparedness, protection, and performance improvement lessons learned..

Accountability

- □ 5 R Accountability Task Assignments Review:
 Review task assignments for each of the 5 R Phases in to optimize lessons learned.
- □ 5 R Task Completion Logs Reviewed: Review each phase log provide to drive performance improvement.

Ability

- ☐ Resilience Skills: As the Coronavirus Crises evolves, updated recognition and care skills.
- □ Resilience Resources: Staff, supplies, space, and financial resources must be available and budgeted for the future. Hardening target of the living space to external threats and from internal threats to the family.

Action

- ☐ Revise Family Safety Plan and Update All Checklists
 - Readiness: The team & space needs reviewed to be ready for response, rescue, and recovery.
 - Response: Testing, quarantine, isolation, and quidelines for essential workers are evolving.
 - Rescue: The clinical signs, symptoms, and caregiver emergency practices are evolving as are the interventions. Medical records must be updated.
 - **Recovery:** The long-term impact of the disease impacts the length and means of recovery.
- ☐ Review & Update Family Member Threat Profiles:

 The inherent threats and their medical records will be very important to successfully care for them.





Response

Rescue

Recovery



Family Member Scenarios	Be ready for waves or new epidemics.	Response if someone in the home gets sick.	Care of loved on with severe symptoms.	Assistance safely to the "new normal".	Making the family "hardened" as a target
No Exposure No Test or Negative Test	Social distance, hygiene, cleaning, and masks. Protect high risk family members.	Recognize people with no exposure – no test are at risk for infections.	Know the triggers for emergency care. Have med records ready for family	Be very careful until vaccine, antivirals, or an immunity shield is can protect public.	Learn from others who are infected. Maintain medical records for family members.
Exposure to Infected Person and No Test	Know: what "exposure" is, what to if exposed, and if notified by a contact tracer.	Know where to get testing, maintain quarantine period, and how to protect family.	Know the triggers for emergency care. Have med records ready for family	If infected, be aware of the possible long-term consequences of infection.	Maintain prevention, testing, contact tracing, isolation and quarantine knowledge.
Infected & Asymptomatic – No Symptoms Ever	Family behaves as if they can infect someone. Protect "at risk" family members.	Isolate if test positive and contact tracers link infections to you.	Watch for the signs and symptoms triggering seeking emergency care.	Be aware of and watch for the long-term consequences of infection.	Maintain prevention, testing, contact tracing, isolation and quarantine knowledge.
Infected & Pre-symptomatic – Before Symptoms	Know: what "exposure is", what to do if exposed or notified by a contact tracer.	Isolate if test positive and contact tracers link infections to you.	Watch for the signs and symptoms triggering seeking emergency care.	Be aware of and watch for the long-term consequences of infection.	Maintain prevention, testing, contact tracing, isolation and quarantine knowledge.
Infected & Symptomatic – Have Symptoms	Be ready for worsening symptoms and to maintain Isolation per guidelines.	Isolate if test positive and contact tracers link infections to you.	Watch for the signs and symptoms triggering seeking emergency care.	Be aware of and watch for the long-term consequences of infection.	Maintain prevention, testing, contact tracing, isolation and quarantine knowledge.
Infected & Severely Symptomatic – Need Help	Choose ED Care site, have med records, meds, and a plan. Be ready for patient to be solo phone only contact.	Isolate if test positive and contact tracers link infections to you. Watch for worsening signs/symptoms	Seek emergency care immediately. Have medical records and medications for ED care providers.	Recognize probable long- term consequences after being infected. Be aware of "long haulers" scenario	Maintain latest knowledge of local testing, contact tracing, isolation process <u>AND</u> best emergency care location.
Infected & Requiring Hospitalization	Be ready for no contact with patient while at hospital. Be ready to give care at home following hospital discharge.	Be ready to respond to infections of others at home or in contact with patient.	Watch for triggers for emergency care of other family members who may get sick.	Recognize probable long- term consequences after being infected. Be aware of "long haulers" scenario	Maintain latest knowledge of local testing, contact tracing, isolation process AND ID best hospital care providers.
Infected & Require ICU Life Support Respirator & ECMO	Keep the family ready for a death. Prepare to deliver substantial care at home if the patient is discharged.	Be ready to respond to isolate and care for infected family members. Quarantine those in significant contact.	Watch for symptom triggers requiring emergency care visit if others in family get sick.	Recognize probable long- term consequences after being infected. Be aware of "long haulers" scenario	Maintain latest knowledge of local testing, contact tracing, isolation process AND ID best hospital care providers.





Response

Rescue

Recovery

Resilience

Family Member Scenarios	Be ready for waves or new epidemics.	Response if someone in the home gets sick.	Care of loved on with severe symptoms.	Assistance safely to the "new normal".	Making the family "hardened" as a target
No Exposure No Test or Negative Test	Social distance, hygiene, cleaning, and masks. Protect high risk family members.	Recognize people with no exposure – no test are at risk for infections.	Know the triggers for emergency care. Have med records ready for family	Be very careful until vaccine, antivirals, or an immunity shield is can protect public.	Learn from others who are infected. Maintain medical records for family members.
Exposure to Infected Person and No Test	Know: what "exposure" is, what to if exposed, and if notified by a contact tracer.	Know where to get testing, maintain quarantine period, and how to protect family.	Know the triggers for emergency care. Have med records ready for family	If infected, be aware of the possible long-term consequences of infection.	Maintain prevention, testing, contact tracing, isolation and quarantine knowledge.
Infected & Asymptomatic – No Symptoms Ever	Family behaves as if they can infect someone. Protect	Isolate if test positive and contact tracers link	Watch for the signs and symptoms triggering	Be aware of and watch for the long-term consequences	Maintain prevention, testing, contact tracing, isolation and guarantine knowledge.
Infected & Pre-symptomatic - Before Symptoms	Customi	laintain prevention, testing, ontact tracing, isolation and uarantine knowledge.			
Infected & Symptomatic – Have Symptoms	to t	laintain prevention, testing, ontact tracing, isolation and uarantine knowledge.			
Infected & Severely Symptomatic – Need Help	that	laintain latest knowledge of cal testing, contact tracing,			
	be solo phone only contact.	worsening signs/symptoms	ED care providers.	"long haulers" scenario	solation process <u>AND</u> best emergency care location.
Infected & Requiring Hospitalization	Be ready for no contact with patient while at hospital. Be ready to give care at home following hospital discharge.	Be ready to respond to infections of others at home or in contact with patient.	Watch for triggers for emergency care of other family members who may get sick.	Recognize probable long- term consequences after being infected. Be aware of "long haulers" scenario	Maintain latest knowledge of local testing, contact tracing, isolation process AND ID best hospital care providers.
Infected & Require ICU Life Support Respirator & ECMO	Keep the family ready for a death. Prepare to deliver substantial care at home if the patient is discharged.	Be ready to respond to isolate and care for infected family members. Quarantine those in significant contact.	Watch for symptom triggers requiring emergency care visit if others in family get sick.	Recognize probable long- term consequences after being infected. Be aware of "long haulers" scenario	Maintain latest knowledge of local testing, contact tracing, isolation process AND ID best hospital care providers.





Response

Rescue

Recovery

Resilience

Family Member Scenarios

No Exposure
No Test or Negative Test

Exposure to Infected Person and No Test

Infected & Asymptomatic – No Symptoms Ever

Infected & Pre-symptomatic – Before Symptoms

Every family or living unit needs to have a plan for each of these scenarios. They will drive the elements of your plan.

Infected & Symptomatic – Have Symptoms

Infected & Severely Symptomatic – Need Help

Infected & Requiring Hospitalization

Infected & Require ICU
Life Support
Respirator & ECMO



Coronavirus Care Community of Practice

Bystander Rescue Care CareUniversity Series

Essential Workers Toolbox *First Responder Perspective*



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



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



Paul Cross, MBA, FBINA 194th Assistant Chief The University of Texas Police at Houston



David M. Morris, PH.D., J.D.

President of Morris & McDaniel, Inc. Law Enforcement and First ResponderExpert and Researcher

Essential Worker Toolbox:

- 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



Coronavirus Care Community of Practice

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



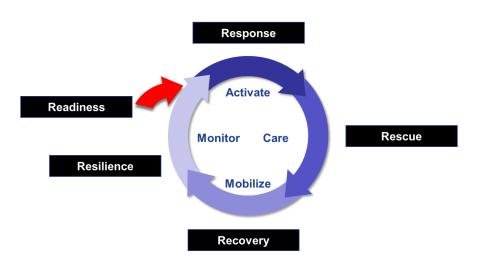
David Beshk

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



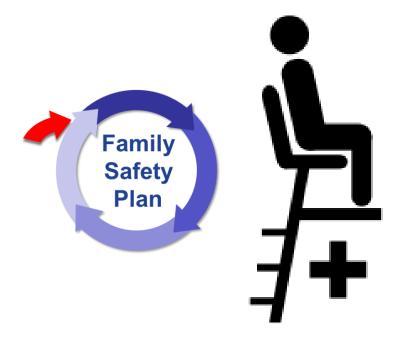
Thoughts for Families with Young Children:

- ☐ 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
- 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



Family Lifeguard



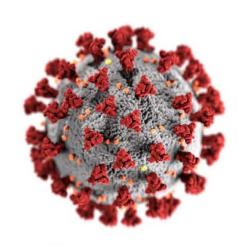
Coronavirus Care Community of Practice

Essential Workers Toolbox *A Survive & Thrive Guide*■



David Beshk

Med Tac Master Instructor
Award Winning Educator
Lower School Science Teacher



Essential Worker Toolbox:

- 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



An Infection Every Second... A Death Every 2 Minutes



A 13-year-old Missouri boy's on quarantine and last day of school was in late October. He died from Covid-19 days later



Long-haulers taking months to recover from multi-system symptoms – many develop it.



A 20-year-old dies on quarantine in her dorm room of pulmonary embolism. Test result "never delivered due to clerical error".



Coronavirus Response

CareUniversity Series



Coronavirus Response CareUniversity Series

Select a Care Room Checklist:

	Select a room separated and away from the family traffic
	that ideally should be well ventilated to the outside.
	Identify the bathroom to be used by the loved one that
	can be used to wash hands and for personal hygiene. If a fully dedicated bathroom cannot be used, identify
	where supplies and dishes may be cleaned away from
	the family and other inhabitants.
	If another room or hall can be used for a disinfection
	station set that up for use.
	Make sure the Care Room has a door that can be closed.
	If you have no separate bedroom for the patient, use
and the	plastic sheets, or waterproof materials such as shower
	curtains or tents to wall off the area from others.
	Optimize ventilation. If the Care Room has an outside
	window that may be opened, it is optimal.
	If Heating and Airconditioning vents can be closed to
	separate ventilation from the rest of the dwelling, do so.
	Make decisions regarding allowing pets in the Care
	Room. It is optimal if pets are separated from the
	patient.

- Aerosol Risk is much greater than previously believed.
- Aerosol virus particles can linger in the air for a number of hours.
- Don't Dare Share Air is our motto now.
- ► Ventilation is ABSOLUTELY critical.
- Less Emphasis on High Contact Surfaces
- Less worry with pets than early in pandemic.



Coronavirus Response CareUniversity Series

Care Room Set Up Checklist:

Set Up Cleaning Station Outside Room
Set Up Cleaning Station Inside Room
Equip Both Cleaning Stations with Disinfectant Supplies
Post Signs to Remind Everyone of Entry Instructions
Consider Signs Outside Home
Prepare a Daily Contact & Visitor Roster
Remove Hard to Clean Furniture & Objects
Set Up Personal Protective Equipment Storage
Set up a Contaminated Waste Can
Set up Waste Can Outside Room
Set up a Contaminated Laundry Bag
Set up a Non-contaminated Laundry Bag
Put Waste Cans, Garbage Bags, and Waste Collection
Materials in Care Room
Place Safe Container for Needles for Diabetics & if
Injection Meds Used
Keep Patient's Personal Items to minimum
Place Water Pitchers and Cups, Tissue Wipes, and
Personal Hygiene Supplies, within Patient Reach
Keep dedicated Thermometers & Devices such as Pulse
Oximeters in Care Room
Keep Reusable Supplies in Care Room
Keep Reusable Dishes/Cutlery in Care Room
Put Equipment Needing Disinfection in Clean Container
with Lid outside the room
Set Up Phones, Mobile Phones, and Chargers within
patient's reach

- Aerosol Risk is much greater than previously believed.
- Less Emphasis on High Contact Surfaces
- Keep dedicated Thermometers & Devices such as Pulse Oximeters in Care Room important to use pulse oximeters to track status of the patients.



- Aerosol Risk is much greater than previously believed.
- ► Less Emphasis on High Contact Surfaces
- Convert mask selection to N95 Mask and emphasize Filter, Fit, and Finish of masks. Surgical Medical Procedural masks are as good as well fitting N95.
- If KN95 Masks are used, make sure they are not counterfeit and are of the regulated and US medically approved type.



Coronavirus Response
CareUniversity Series

Home Care Team Checklists:	
Laundry Processes:	
☐ Disinfect Laundry Room after Every Wash	
□ Always Separate Contaminated Laundry from Non-	
contaminated Laundry	
☐ Wash all regular and Non-contaminated laundry first	
Wash kitchen towels and bathroom hand towels daily.	
□ Wash all Contaminated Laundry last	
☐ Disinfect Laundry Room while Contaminated Laundry	are
in the wash	
☐ Move Formerly Contaminated Laundry from Washer to	
Dryer after Disinfecting Laundry Room	
Cleaning the Home:	
□ Door knobs	
☐ Light switches and bedside lamp switches	
□ Bathroom Faucets and toilet flush handles	
☐ Kitchen faucets, knobs/pulls, refrigerator handle, stov	е
knobs, dishwasher & microwave buttons	
□ All TV Remote controls	
☐ All phones, keyboards, and iPad and tablet screens	
☐ Railings	
☐ Desk surfaces	
☐ Floors – Once daily.	
Upon Returning Home:	
□ Disinfect Car steering wheel/door handles	
□ Remove Shoes Before Entry	
□ Leave Keys Outside Door Before Sanitizing	
 Use Disinfection Station inside door 	
□ Disinfect Hands On Entry	
☐ Go To Bathroom Wash Hands	
□ Remove Clothes and place in Contaminated Laundry	
☐ Shower or Bath before interacting with family	

- Aerosol Risk is much greater than previously believed.
- ► Less Emphasis on High Contact Surfaces, however do not ignore them.
- Make sure to be careful with contaminated masks after care of the patient or in high risk environments.
- ☐ First Responders and caregivers continue to maintain decontamination practices.

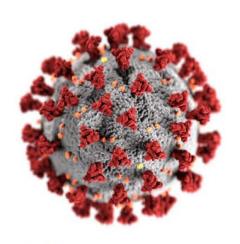
Coronavirus Care Community of Practice

Essential Workers Toolbox *A Survive & Thrive Guide*■



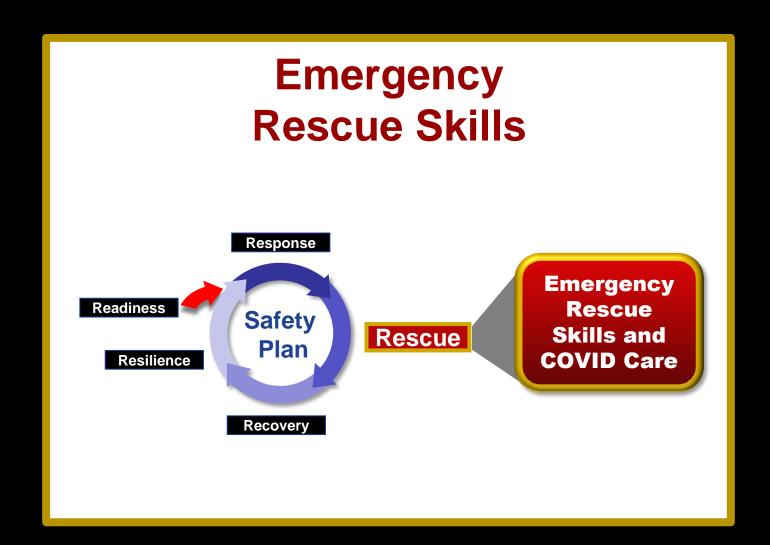
Heather Foster RN BSN

Frontline Nurse
Infection Prevention Advisor
Patient Safety Advocate
Dolores Colorado



Essential Worker Toolbox:

- 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



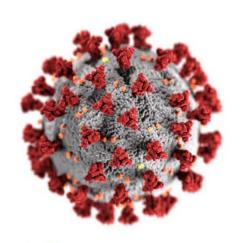
Coronavirus Care Community of Practice

Essential Workers Toolbox *A Survive & Thrive Guide*■



Christopher Peabody, MD, MPH

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



Video Library

Med Tac Story

Med Tac Leadership Team

Adopt a Cove Program

5 Rights of Emergency Care

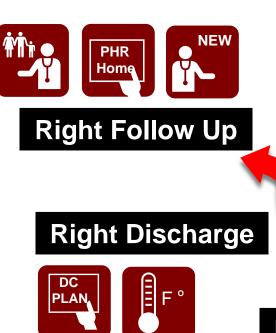
College and Youth Program

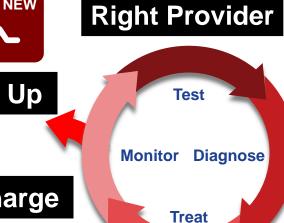
Surf & Lifeguard Program

3 Minutes & Counting Trailer

Opioid Overdose Briefing

The 5 Rights of Emergency Care™











Right Diagnosis











Right Treatment





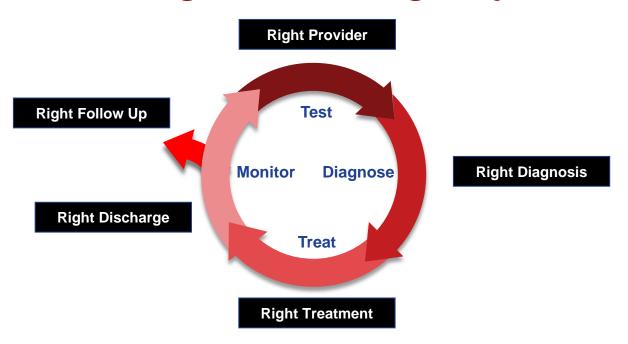


© C Denham 2021

Source: Denham, CR

Watch

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.

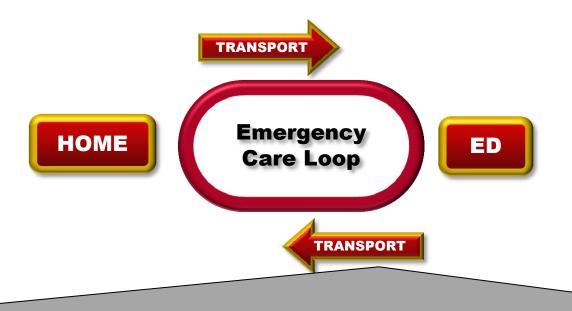
Right Treatment: It is important to understand both the short-term implications of emergency care as well as the long-term implications. An emergency medicine visit is a snapshot in time.

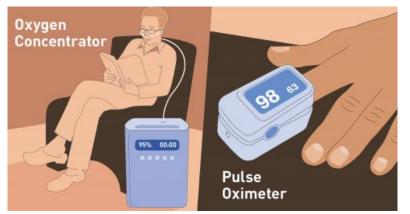
Right Discharge: A critical area for safety is the discharge from the Emergency Department. The information shared with the patient and family will have a major impact on the outcome of care. We need to understand why we may need to come back for care.

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

Emergency Rescue Skills: After Discharge & Transport Home





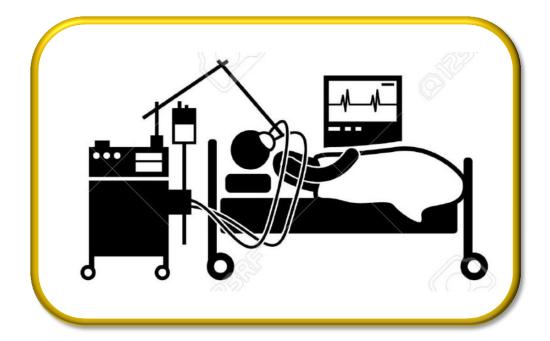




Essential Worker Toolbox:

- 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

What to Do When They're in ICU



Short Video Topics

Masks: Filter, Fit, and Finish

Hand Washing & DISINFECTANTS

CLEAN High Contact Surfaces

Building a FAMILY SAFETY PLAN

If we NEED Emergency Care

Why ICU, Respirators, and ECMO

Family Lifeguard Program

Vaccination Conversation



Essential Worker Toolbox:

- 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

Long Haulers & COVID Recovery



PACS

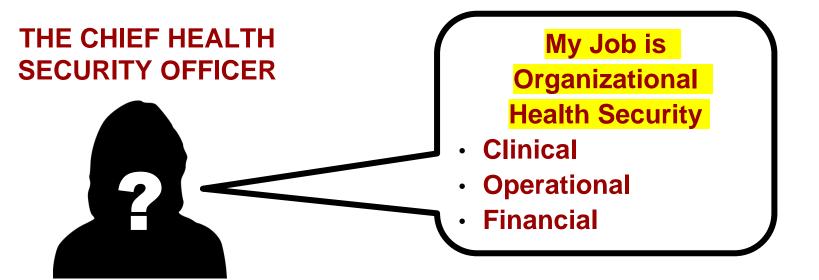
Post-Acute COVID-19 Syndrome

MIS-C

Multisystem Inflammatory Syndrome in Children

MIS-A

Multisystem Inflammatory Syndrome in Adults



Largest Long-term Study of COVID Patients

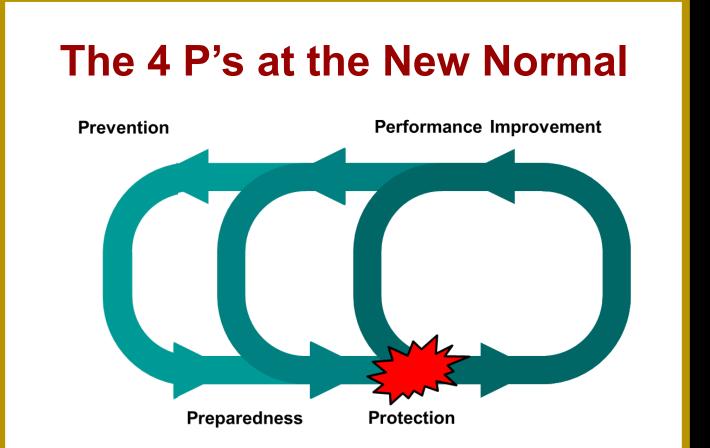
- More than 2/3 have symptoms at 6 months
- Almost half have symptoms at 12 months
- Most common symptom fatigue
- Almost 1/3rd have breathing difficulty at 12 months
- 20% of non-hospitalized patients persist with symptoms



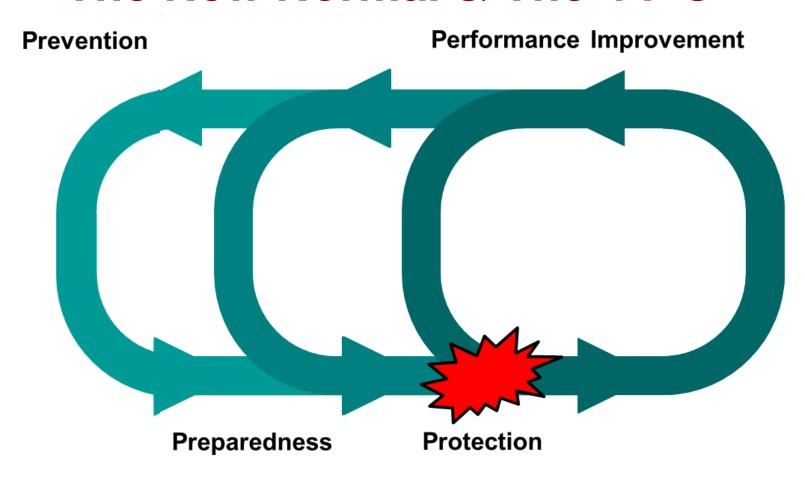


Essential Worker Toolbox:

- 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



The New Normal & The 4 P's



Survive &Thrive Guide Program Road Map









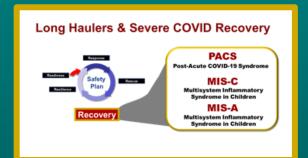








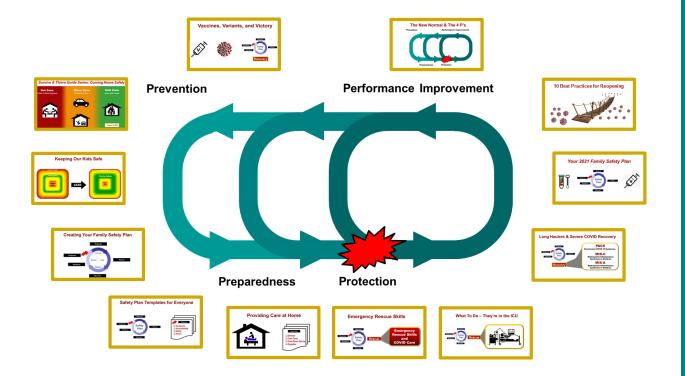








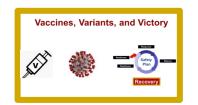
Our Survive & Thrive Guide Updates



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

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







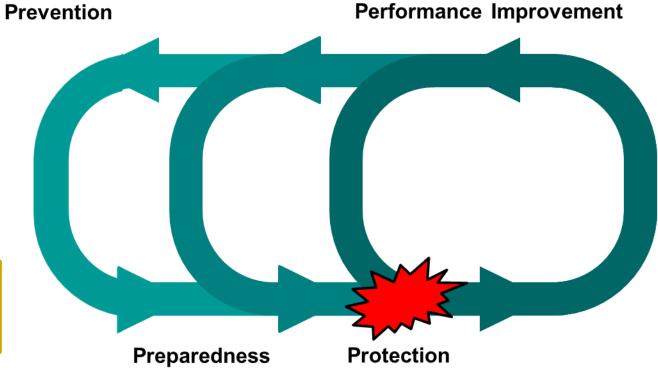
























Who is Your CHSO & Family CFO?

PUBLIC HEALTH OFFICERS



THE CHIEF HEALTH SECURITY OFFICER



THE CFO
CHIEF FAMILY OFFICER



THEY HAVE TO TAKE CHARGE NOW!

Source: C Denham





Response

Rescue

Recovery

Resilience

Family Member Scenarios

No Exposure
No Test or Negative Test

Exposure to Infected Person and No Test

Infected & Asymptomatic – No Symptoms Ever

Infected & Pre-symptomatic – Before Symptoms

Every family or living unit needs to have a plan for each of these scenarios. They will drive the elements of your plan.

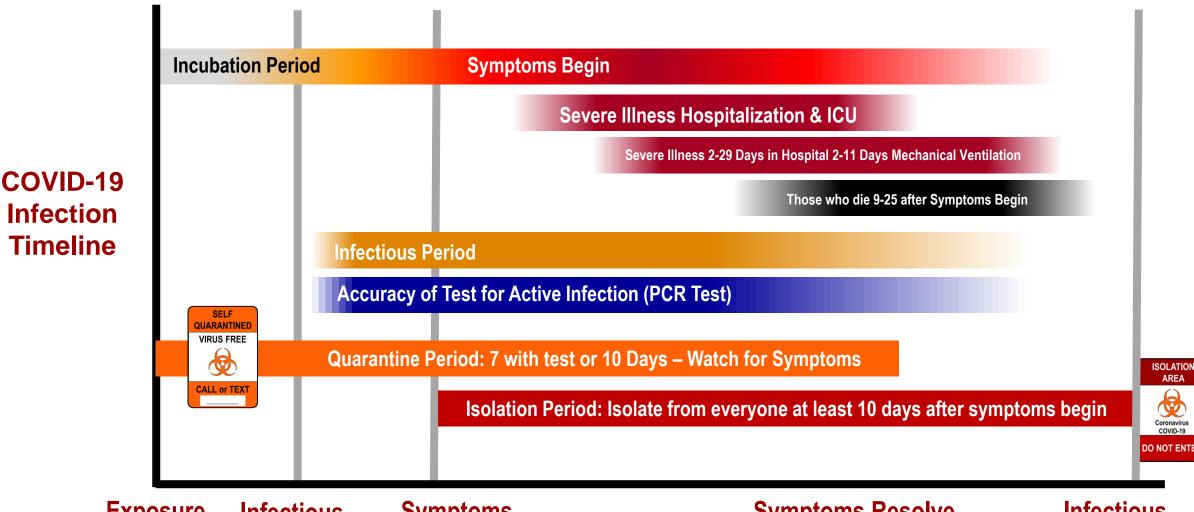
Infected & Symptomatic – Have Symptoms

Infected & Severely Symptomatic – Need Help

Infected & Requiring Hospitalization

Infected & Require ICU
Life Support
Respirator & ECMO

Survive & Thrive Guide



Exposure

Infectious **Period**

1-12 Days after **Exposure** (usually 3 Days)

Symptoms Begin

2-14 Days after **Exposure** (usually 5 Days)

Symptoms Resolve

Varies widely. Most people recover within 2 weeks, but some have symptoms much longer

Infectious **Period Ends**

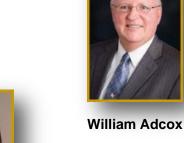
At least 10 Days after symptoms begin

Source: Adapted from The Guardian 11-29-20 and from @DearPandemic

Coronavirus Care Community of Practice

CareUniversity Series

Speakers & Reactors



























Dr. C Peabody

David Morris

Jaime Yrastorza

Paul Bhatia EMT

David Beshk

Dr. C Denham

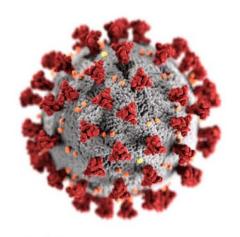


Voice of the Patient



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



https://www.medtacglobal.org/



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.

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

<u>Drowning</u>: 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.

Possible Lives Saved in the US: 1 per hour

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



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

Possible Lives Saved in the US: Difficult to estimate, however the consensus is that they are likely to be very significant.

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.

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.



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

CareUniversity **Med Tac Bystander Rescue Care** © TMIT Global 2021

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

<u>Drowning</u>: 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.

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.



MULTI-STEP NASAL SPRAY

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

NO BRAND NAME/GENERIC

COST: \$-\$\$



NASAL SPRAY

DIRECTIONS: Spray full dose into one nostril.

BRAND NAME: Narcan

COST: \$\$\$



INTRAMUSCULAR INJECTION

DIRECTIONS: Inject 1 mL in shoulder or thigh.

NO BRAND NAME/GENERIC

COST: \$-\$\$



AUTO-INJECTOR

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

BRAND NAME: Evzio

COST: \$\$\$5° 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

Used with permission from Boston Medical Center

For more on opioid safety, videos on how to use naloxone, or to get help for addiction, go to PrescribetoPrevent.org



CareUniversity

© TMIT Global 2021

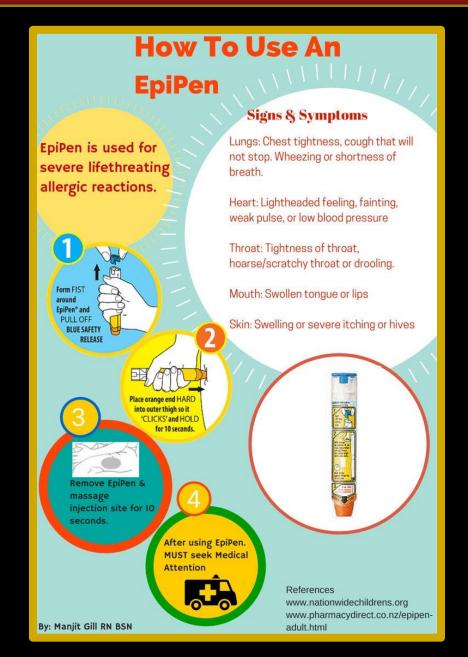
Med Tac Bystander Rescue Care

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.

Possible Lives Saved in the US: 1 per hour



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

CareUniversity



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.

Transportation



Non-traffic Related Vehicular Accidents:

The incidence of non-traffic related driveover 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.



© TMIT Global 2021

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.

Possible Lives Saved in the US: Difficult to estimate, however the consensus is that they are likely to be very significant.

