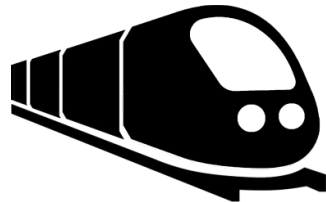
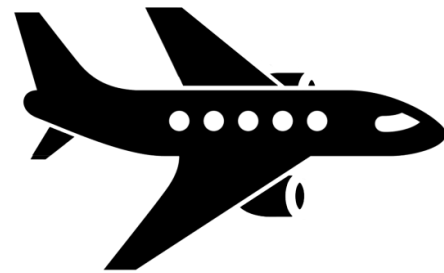
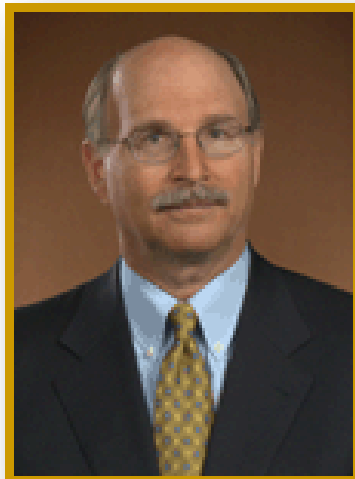


# **Safer Holidays Safer Families**

## ***Family Survive & Thrive Guide™***



# Welcome



## **Charles Denham, MD**

Chairman, TMIT Global  
Founder Med Tac Bystander Rescue Care

**Med Tac Bystander Rescue Care  
November 4, 2021**

***CareUniversity* Webinar 174**



## 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.**



## 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

- Robert Katzer MD MBA has nothing to disclose.
- John Nance JD 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.
- Randy Styner has nothing to disclose.
- Heather Foster has nothing to disclose.
- David Beshk has nothing to disclose.
- Paul Bhatia has nothing to disclose.
- Charlie Denham III has nothing to disclose.

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



Coronavirus Care  
Community of Practice

Bystander Rescue Care  
CareUniversity Series

November 4, 2021

REGISTER

JOIN  
EVENT

## Safer Holidays & Safer Families Family Survive & Thrive Guide™

### Session Overview

More than 1,000 household responses have guided our learning community. Although infection rates and deaths are trending down, the national forecasters indicate we may have surges through and after the holidays. There are key questions we need to answer. The best defense is a strong offense:



- How I make an airline flight safer?
- How do we design a safer family gathering?
- How do we make it safer for the elderly?
- What can I do for the immune-compromised?
- How about play dates – what can we do?
- What if someone has a close contact?
- What is a Family CFO – a Chief Family Officer?
- What is a Family Lifeguard?
- What do we tell our kids, teens, young adults?

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

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

Webinar Video:

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

Speaker Slide Set:

The slides will be posted here before the webinar begins.

### Session Speakers and Panelists



Charles Denham, MD



Robert Katzer, MD, MBA,  
FAEMS, FACEP



John Nance, JD



Christopher Peabody, MD



Gregory H. Botz, MD



Brittany Owens, MD



William Adcox



Heather Foster, RN



Jennifer Dingman



David Morris, Ph.D., J.D.



Paul Bhatia, EMT



Gunita Singh



David Beshk



Randal Styner



Charlie Denham



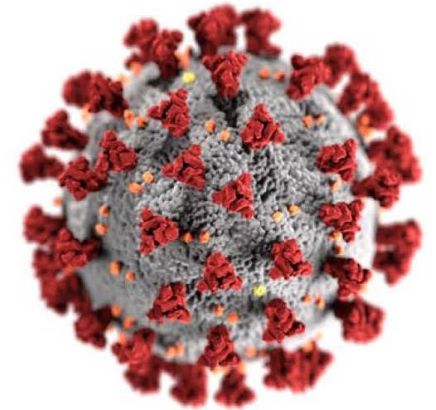
[www.MedTacGlobal.org](http://www.MedTacGlobal.org)

## ***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**



## Speakers & Reactors



Jennifer Dingman



Robert Katzer



Dr. Gregory Botz



Dr. Brittany Barto



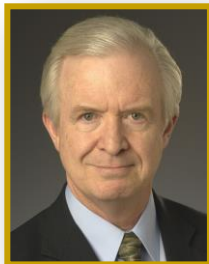
William Adcox



Heather Foster RN



Charlie Denham III



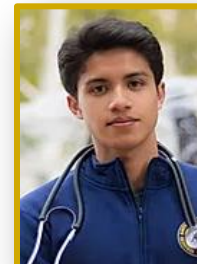
John Nance JD



David Morris PhD JD



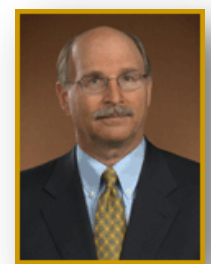
Gunita Singh JD



Paul Bhatia EMT



David Beshk



Dr. C Denham

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

**MED TAC** About Values & Team Coronavirus Response Recorded Broadcasts Specialty Programs R&D Surveys & Innovations CAREUNIVERSITY

## Med Tac Bystander Rescue Care

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

### Video Library

Med Tac Story

- Med Tac Leadership Team
- Adopt a Cove Program
- 5 Rights of Emergency Care
- College and Youth Program
- Surf & Lifeguard Program
- 3 Minutes & Counting Trailer
- Opioid Overdose Briefing

### The Battle Against Failure to Rescue

The Med Tac Program was developed by a team originally focused on active shooter events. When they found that there at least 8 leading causes of preventable death including severe bleeding and that there was no integrated program to teach the public what they can do to save lives and prevent "failure to rescue" before EMS arrives, Med Tac was born. In many cases bystander rescue care can triple survival if the public knows what to do. The program was funded through 2019 by philanthropy through TMIT Global, a 501c3 medical research organization that leads a global patient safety community of practice found at [www.SafetyLeaders.org](http://www.SafetyLeaders.org). With the development of the Coronavirus crisis, our rapid response team has prioritized Infection Care as one of our major focus areas. As of January 1st, 2020 the team has published four articles and has developed pilot programs in five states. [Click here](#) to download a PDF of the four articles.

### High Impact Care Hazards

- Cardiac Arrest
- Choking & Drowning
- Opioid Overdose
- Anaphylaxis
- Major Trauma
- Infection Care
- Transportation Accidents
- Bullying

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

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

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

**Med Tac** 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.

Med Tac Global | Copyright © 2021 | LOGIN Austin, Texas

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

Cardiac Arrest

Choking & Drowning

Opioid Overdose

Anaphylaxis

Major Trauma

Infection Care

Transportation Accidents

Bullying

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Cardiac Arrest

Choking & Drowning

Opioid Overdose

Anaphylaxis

Major Trauma

Infections

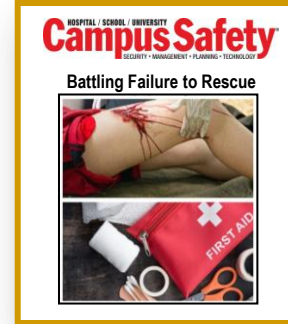
Transportation Accidents

Bullying

Active Shooter  
Healthcare Article



Rapid Response  
Teams Article



AED & Bleeding  
Control Gear Article



Family Safety  
Plan Article



Support  
today's  
webinar

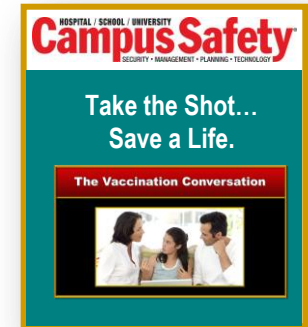
Med Tac  
Story Article



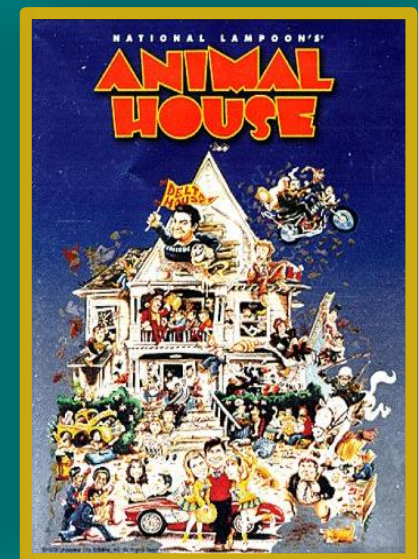
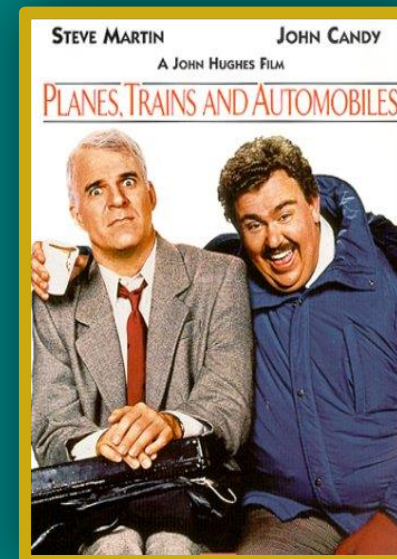
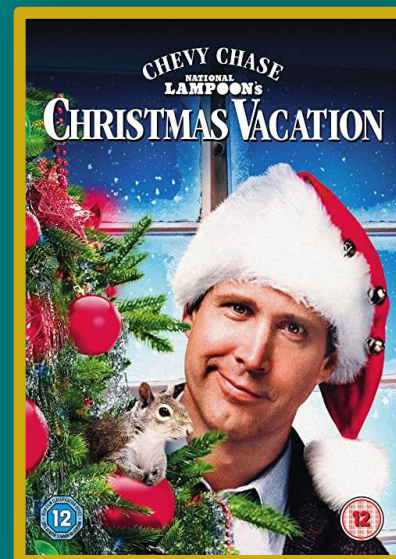
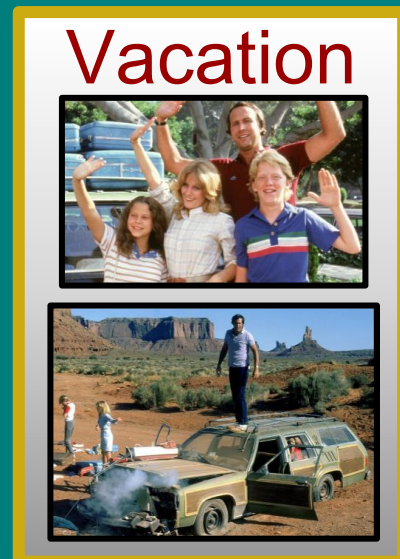
A **Medical-Tactical Approach** undertaken by clinical and non-clinical people can have enormous impact on loss of life and harm from very common hazards:

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

Take the Shot...  
Save a Life



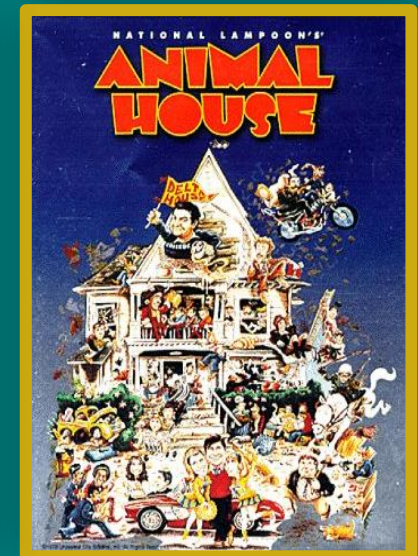
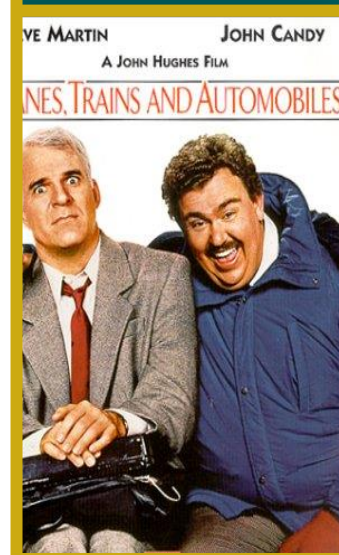
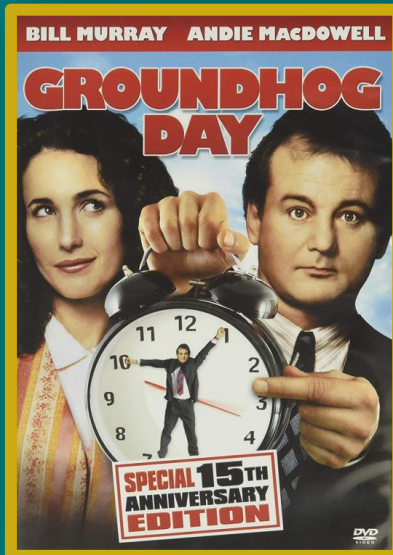
# Safer Holidays Safer Families



# Safer Holidays Safer Families

## What's New for 2022?

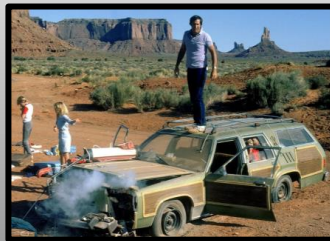
- ✓ Aerosol Spread
- ✓ High Transmission Variants
- ✓ Vaccine Impact
- ✓ Herd Immunity is Lost



# Safer Holidays Safer Families

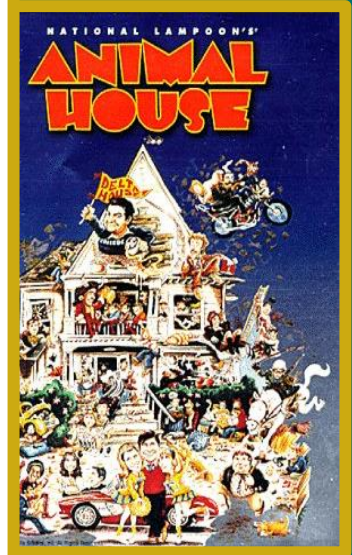


## Vacation



## Family Transmission

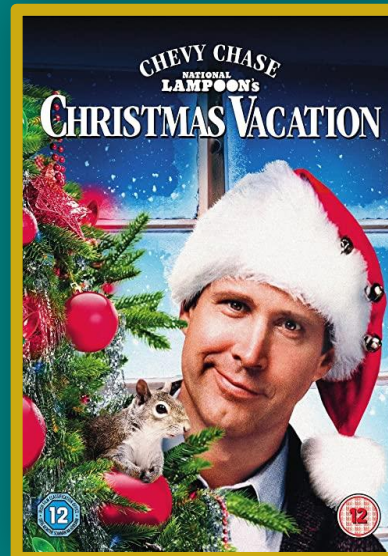
- ✓ The Achilles Heel of Workers
- ✓ Family Plans Work
- ✓ There is a New Normal



# Safer Holidays Safer Families



## Vacation



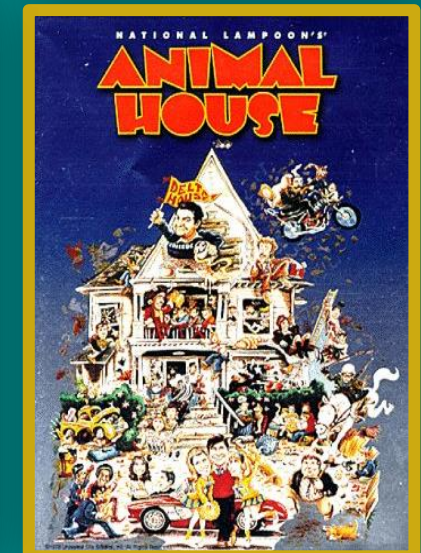
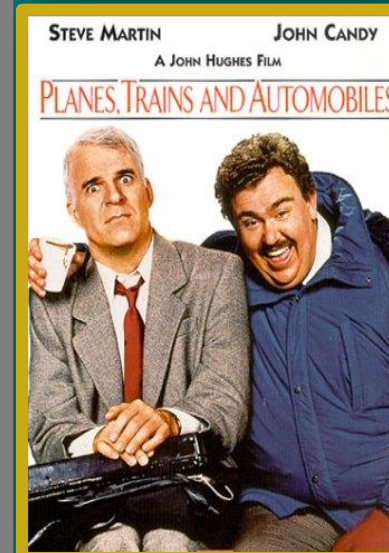
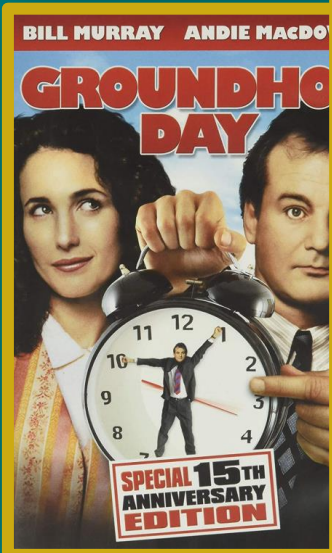
## The Family Plan

- ✓ Readiness, Response, Rescue Recovery, and Resilience.
- ✓ Family CFO: Chief Family Officer
- ✓ The Family Lifeguard

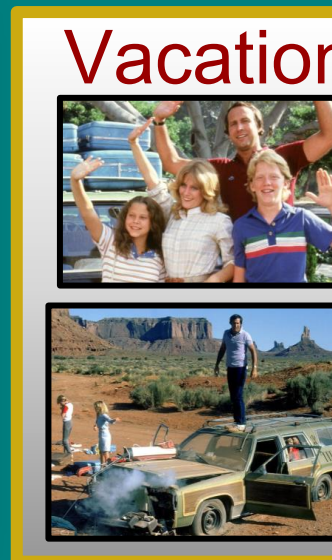
# Safer Holidays Safer Families

## Safer Travel Safer Families

- ✓ Never Totally Safe...Just Safer
- ✓ Safer Air Travel
- ✓ Safer Train and Public Transit
- ✓ Safer Car Travel

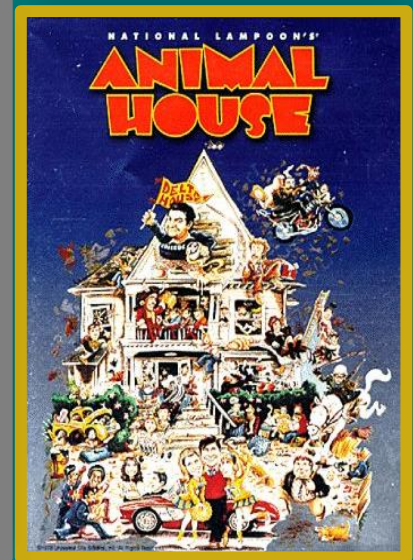


# Safer Holidays Safer Families

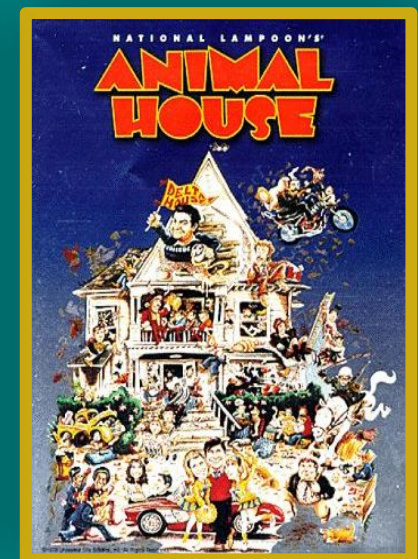
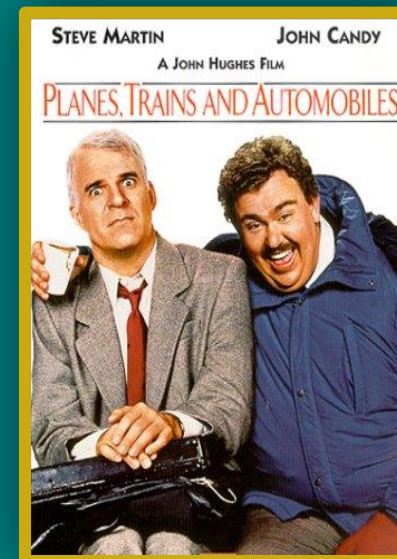
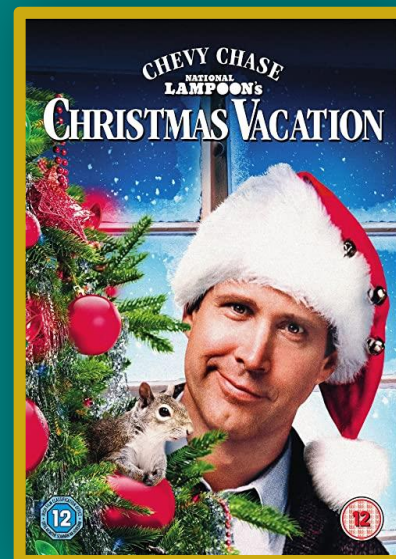
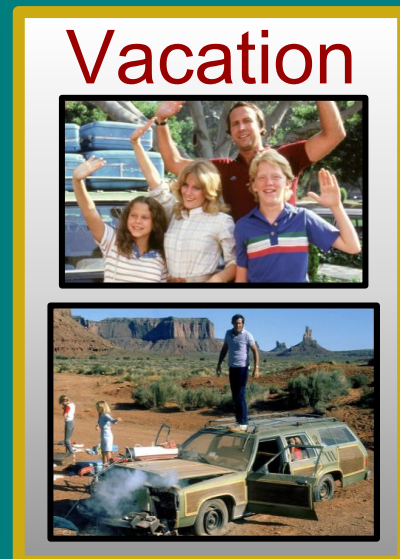


## Safer Singles & Seniors

- ✓ Medical Power of Attorney
- ✓ Smartphone ICE Notification
- ✓ Know Emergency Providers
- ✓ Medical Record Access



# Safer Holidays Safer Families

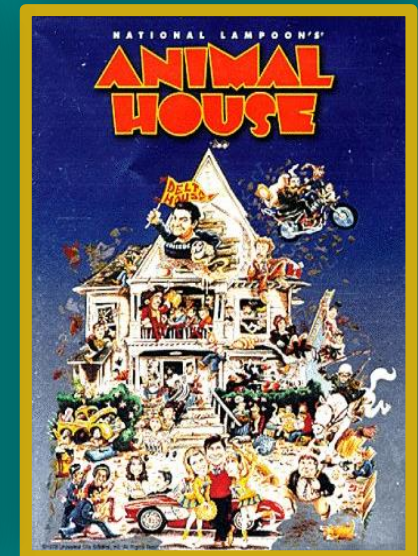
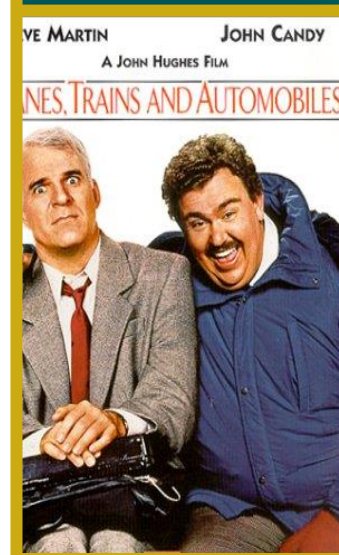
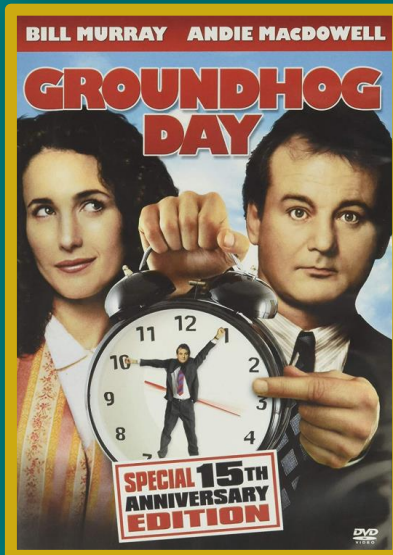


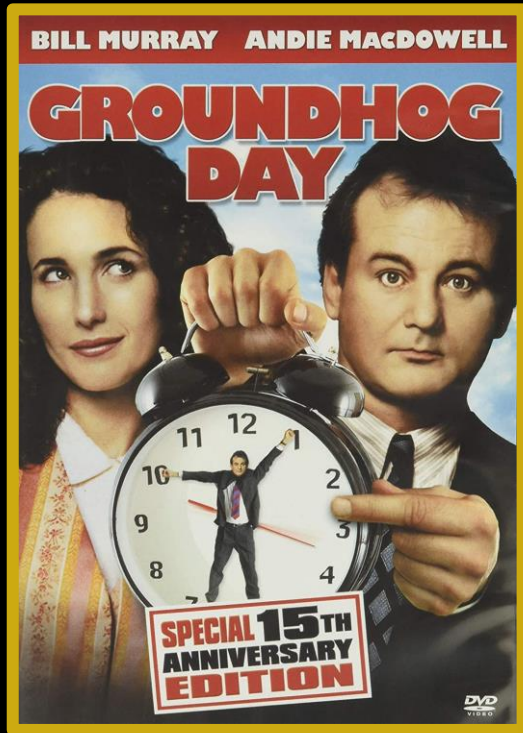


# Safer Holidays Safer Families

## What's New for 2022?

- ✓ Aerosol Spread
- ✓ High Transmission Variants
- ✓ Vaccine Impact
- ✓ Herd Immunity is Lost





## COVID-19 Risk Index

Risk levels for exposure vary based on four main factors:

- Enclosed space**
- Duration of interaction**
- Crowds**  
Density of people + challenges for social distancing
- Forceful exhalation**  
Sneezing, yelling, singing, and coughing

### Low

<b>Staying at home</b> Alone or with members of your household <b>Risks:</b> None	<b>Walking outdoors</b> With or without pets <b>Risks:</b> None	<b>Running or biking</b> Alone or with another person <b>Risks:</b> Close contact or potential clustering of people
<b>Picking up takeout food, coffee, or groceries from stores</b> <b>Risks:</b> Potential crowding	<b>Outdoor picnic or porch dining</b> With non-household people and physical distancing <b>Risks:</b> Potential crowding and activity	<b>Running or biking</b> Alone or with another person <b>Risks:</b> Close contact or potential clustering of people

### Low / Medium

**Playing "distanced" sports outside**  
Ex. Tennis or golf  
**Risks:** None

**Grocery shopping**  
**Risks:** Indoor, close contact, potential clustering of people, high-touch surfaces

**Retail shopping**  
**Risks:** Indoor, close contact, potential clustering of people



### Medium

**Medical office visit**  
**Risks:** Indoor, close contact, potential clustering of people, high-touch surfaces

**Dentist appointment**  
**Risks:** Indoor, close contact, potential clustering of people, patient not wearing a mask

**Taking a taxi or a ride-sharing service**  
**Risks:** Dependency on frequency of cleaning, duration of ride, and number of passengers

**Museum**  
**Risks:** Indoor, close contact, potential clustering of people

**Outdoor restaurant dining**  
**Risks:** Close contact, potential clustering of people, challenge to wear a mask during eating



### Medium / High

**Exercising at a gym**  
**Risks:** Indoor, close contact, potential clustering of people, high-touch surfaces, difficult to wear a mask, high respiratory rate

**Hair/nail salon and barbershops**  
**Risks:** Prolonged close contact, difficult to wear a mask

**Working in an office**  
**Risks:** Indoor, high-touch surfaces, prolonged close contact/potential clustering of people

**Indoor restaurant or coffee shop**  
**Risks:** Indoor, prolonged close contact/potential clustering of people, difficult to wear mask while eating and drinking

### High

**Indoor party**  
**Risks:** Indoor, prolonged close contact/potential clustering of people  
**Additional risks:** alcohol (loss of inhibition), shared joint/pipes (coughing)

**Playing contact sports**  
Football, basketball, soccer, etc.  
**Risks:** Prolonged close contact/potential clustering of people, high respiratory rate, unable to wear a mask

**Public transportation**  
Subway or bus  
**Risks:** Enclosed space, prolonged close contact/potential clustering of people, and high-touch surfaces

**Religious services**  
**Risks:** Enclosed space, prolonged close contact/potential clustering of people, high-touch surfaces, yelling/projection of voice

**Concert**  
**Risks:** Enclosed space, prolonged close contact/potential clustering of people, high-touch surfaces, yelling/projection of voice

**Watching sports**  
**Risks:** Prolonged close contact/potential clustering of people, high-touch surfaces, yelling/projection of voice, enclosed space (if indoor)

**Bars and nightclubs**  
**Risks:** Enclosed space, prolonged close contact/potential clustering of people, high respiratory rate, yelling/projection of voice

**Air travel**  
**Risks:** Enclosed space, prolonged close contact/potential clustering of people, and high-touch surfaces

**Movie theater or live theater**  
**Risks:** Enclosed space, prolonged close contact/potential clustering of people, high-touch surfaces

REOPEN INTELLIGENTLY.  
REOPEN SAFELY.

Ezekiel J. Emanuel, MD, PhD Perelman School of Medicine at the University of Pennsylvania / James P. Phillips, MD, EMT-T George Washington University / Saskia Popescu, PhD, MPH University of Arizona/George Mason University

[www.covid19reopen.com](http://www.covid19reopen.com)

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Risk levels for exposure vary based on four main factors:

- Enclosed space**
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- Crowds**  
Density of people + challenges for social distancing
- Forceful exhalation**  
Sneezing, yelling, singing, and coughing

**When near people, wear a mask**

**COVID-19 RECOVERY CONSULTING**

### Low

- Walking outdoors**  
Walk or without pets. *Risks: Close proximity, duration of time.*
- Running or biking**  
Alone or with another person. *Risks: Close proximity, duration of time.*
- Staying at home**  
Alone or with members of your household. *Risks: Close proximity, duration of time.*
- Picking up takeout food, coffee, or groceries from stores**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Outdoor picnic or porch dining**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Retail shopping**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Grocery shopping**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Playing "distanced" sports outside**  
Tennis or golf. *Risks: Close proximity, duration of time.*
- Outdoor restaurant dining**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Museum**  
Make in-store ordering. *Risks: Close proximity, duration of time.*

### Medium / High

- Exercising at a gym**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Hair/nail salon and barbershops**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Working in an office**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Indoor restaurant or coffee shop**  
Make in-store ordering. *Risks: Close proximity, duration of time.*

### High

- Indoor party**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Public transportation**  
Subway or bus. *Risks: Close proximity, duration of time.*
- Religious services**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Concert**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Movie theater or live theater**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Watching sports**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Air travel**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Bars and nightclubs**  
Make in-store ordering. *Risks: Close proximity, duration of time.*
- Playing contact sports**  
Football, basketball. *Risks: Close proximity, duration of time.*

**REOPEN INTELLIGENTLY. REOPEN SAFELY.**

Ezekiel J. Emanuel, MD, PhD Perelman School of Medicine at the University of Pennsylvania / James P. Phillips, MD, EMT-T George Washington University / Saskia Popescu, PhD, MPH University of Arizona/George Mason University  
www.covid19reopen.com

## K-12 School Relative Risk Index

For all students and adults

**Requirements**

- Low community spread
- 6 feet Physical distance
- Mask wearing
- Hand hygiene and disinfection
- HEPA air filtration indoors or outdoor activities

Transportation to and from school	Routine classwork	Lunchtime	Arts & Humanities	Recess & Athletics
Low: Walk or ride a bicycle	Low/Medium: Desk-based instruction	Low/Medium: Picking up prepackaged meals	Low/Medium: Art indoor	Low/Medium: Outdoor playground
Low: Automobile Household members only	Low/Medium: Shop/Vocational-technical	Low/Medium: Outdoor eating	Low/Medium: Supervised clubs/Organizations	Low/Medium: Outdoor non-contact sports
Medium: Automobile Carpool/non-household members	Low/Medium: Going to the restroom	Medium: Cafeteria lunch line	High: Band/Orchestra	Medium/High: Indoor non-contact sports
High: School bus	Medium: Unmonitored study hall	Medium/High: Indoor eating Classroom	High: Choir	High: All contact sports, indoor or outdoor
High: Public transportation (Subway, bus)	Medium/High: Lockers/Changing rooms between classes	Medium/High: Indoor seating Cafeteria	High: Drama performances	High: Locker rooms

### Risk Reducing Actions

- Classes outdoors (e.g., using tents)
- Maximum class size of 10-15 students
- Open classroom windows
- Stagger drop-off and pick-up times
- Pod students in groups
- Switch teachers between classes, not students
- Limit shared items
- Make unused spaces classrooms (e.g., gyms and band rooms)

Ezekiel J. Emanuel, MD, PhD Perelman School of Medicine at the University of Pennsylvania  
James P. Phillips, MD George Washington University School of Medicine and Health Sciences  
Saskia Popescu, PhD, MPH University of Arizona/George Mason University

DATE: 10/20/20  
CDC: <https://www.cdc.gov/coronavirus/2019-nCoV/community/schools-childcare/guidance-for-schools.html>  
NASEM: <https://www.nationalacademies.org/our-work/guidance-for-k-12-education-on-reopening-to-covid-19>

## COVID-19 CORONAVIRUS DISEASE

### BE INFORMED: Know Your Risk During COVID-19

On a scale of 1 to 10, how risky is...

Ranked by physicians from the TMA COVID-19 Task Force and the TMA Committee on Infectious Diseases

TEXAS MEDICAL ASSOCIATION  
Physicians Caring for Texans

Risk Level	Activity
LOW RISK	1 Opening the mail
LOW RISK	2 Getting restaurant takeout
MODERATE-LOW RISK	2 Pumping gasoline
MODERATE-LOW RISK	2 Playing tennis
MODERATE-LOW RISK	2 Going camping
MODERATE-LOW RISK	3 Grocery shopping
MODERATE-LOW RISK	3 Going for a walk, run, or bike ride with others
MODERATE-LOW RISK	3 Playing golf
MODERATE-LOW RISK	4 Staying at a hotel for two nights
MODERATE-LOW RISK	4 Sitting in a doctor's waiting room
MODERATE-LOW RISK	4 Going to a library or museum
MODERATE-LOW RISK	4 Eating in a restaurant (outside)
MODERATE-LOW RISK	4 Walking in a busy downtown
MODERATE-LOW RISK	4 Spending an hour at a playground
MODERATE RISK	5 Having dinner at someone else's house
MODERATE RISK	5 Attending a backyard barbecue
MODERATE RISK	5 Going to a beach
MODERATE RISK	5 Shopping at a mall
MODERATE RISK	6 Sending kids to school, camp, or day care
MODERATE RISK	6 Working a week in an office building
MODERATE RISK	6 Swimming in a public pool
MODERATE RISK	6 Visiting an elderly relative or friend in their home
MODERATE-HIGH RISK	7 Going to a hair salon or barbershop
MODERATE-HIGH RISK	7 Eating in a restaurant (inside)
MODERATE-HIGH RISK	7 Attending a wedding or funeral
MODERATE-HIGH RISK	7 Traveling by plane
MODERATE-HIGH RISK	7 Playing basketball
MODERATE-HIGH RISK	7 Playing football
MODERATE-HIGH RISK	7 Hugging or shaking hands when greeting a friend
HIGH RISK	8 Eating at a buffet
HIGH RISK	8 Working out at a gym
HIGH RISK	8 Going to an amusement park
HIGH RISK	8 Going to a movie theater
HIGH RISK	9 Attending a large music concert
HIGH RISK	9 Going to a sports stadium
HIGH RISK	9 Attending a religious service with 500+ worshippers
HIGH RISK	9 Going to a bar

Texas Medical Association | 401 W. 15th St. | Austin, TX 78701-1680  
www.texmed.org @texmed @wearatma



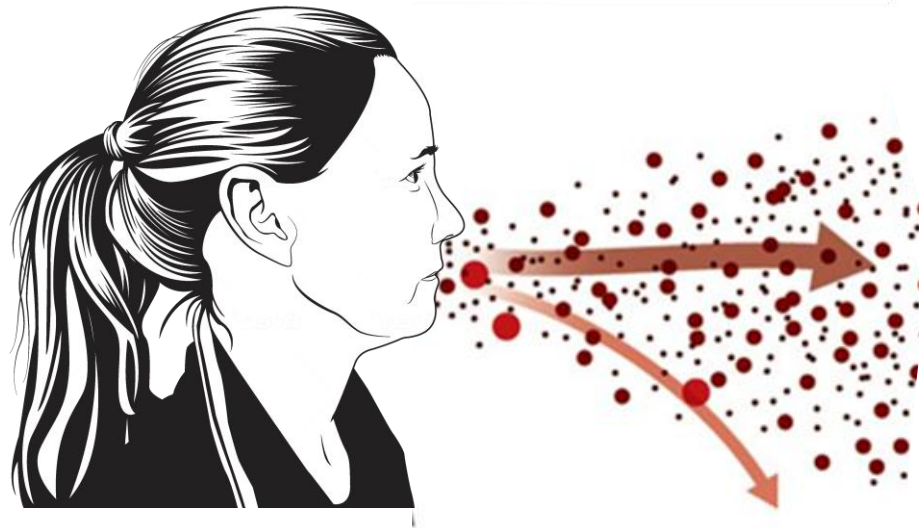
# Vaccination Checklist

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

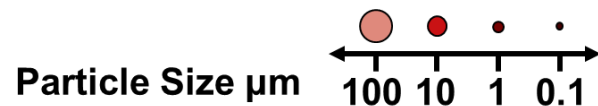
Vaccination Status	Can I CATCH it?	Can I SPREAD It	Can I GET SICK?	Can I Get LONG HAUL?
Unvaccinated	Yes VERY HIGH RISK	Yes VERY HIGH RISK	Yes VERY HIGH RISK May Get Sicker than Vac.	Yes HIGHER RISK
Vaccinated	Yes but LOWER RISK	Yes but LOWER RISK	Yes but LOWER RISK	Under Study
Youth 12-17	More than 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%

# 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.



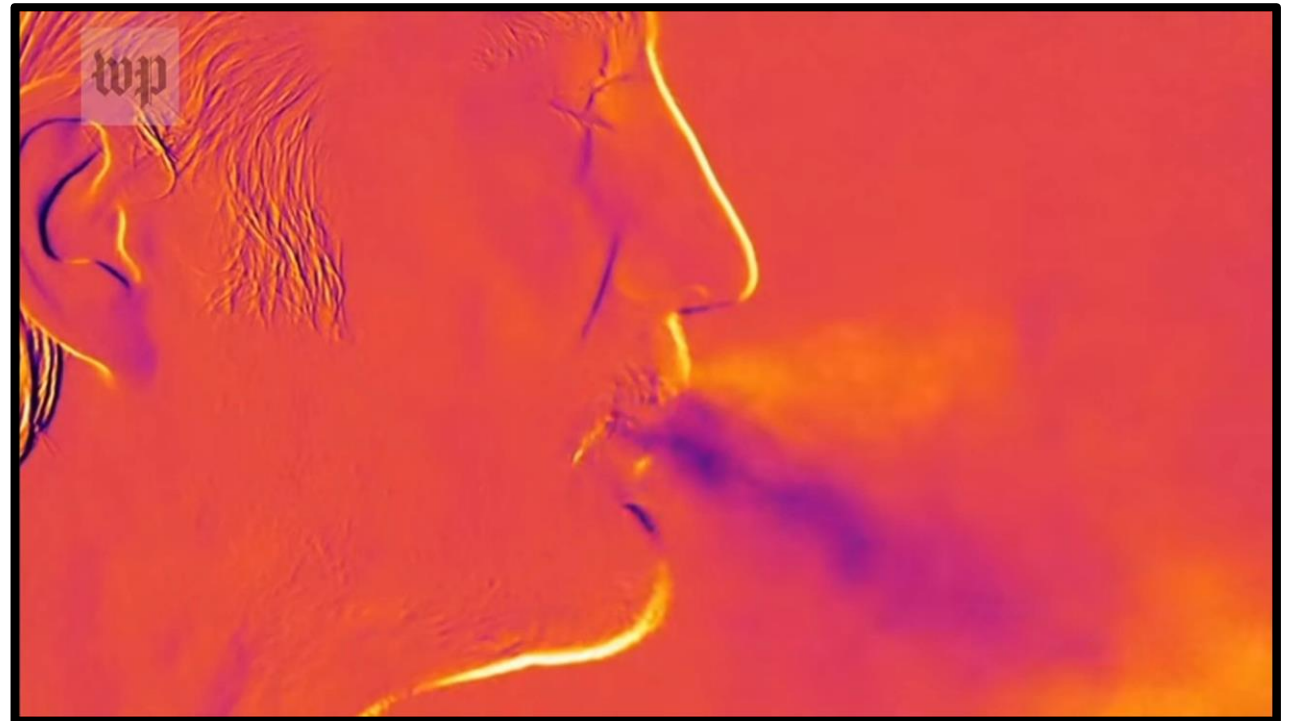
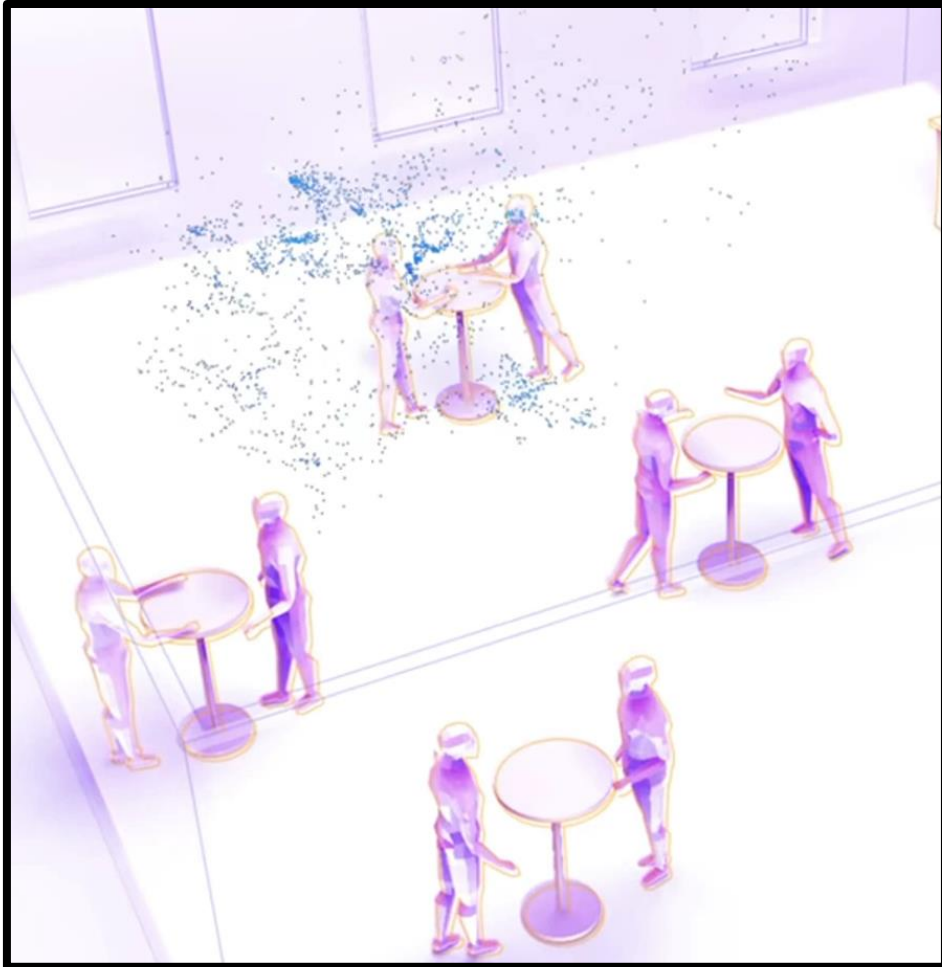
**AEROSOLS** are smaller will evaporate faster than they can settle, are buoyant, and thus can be affected by air currents, which can transport them over longer distances.



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

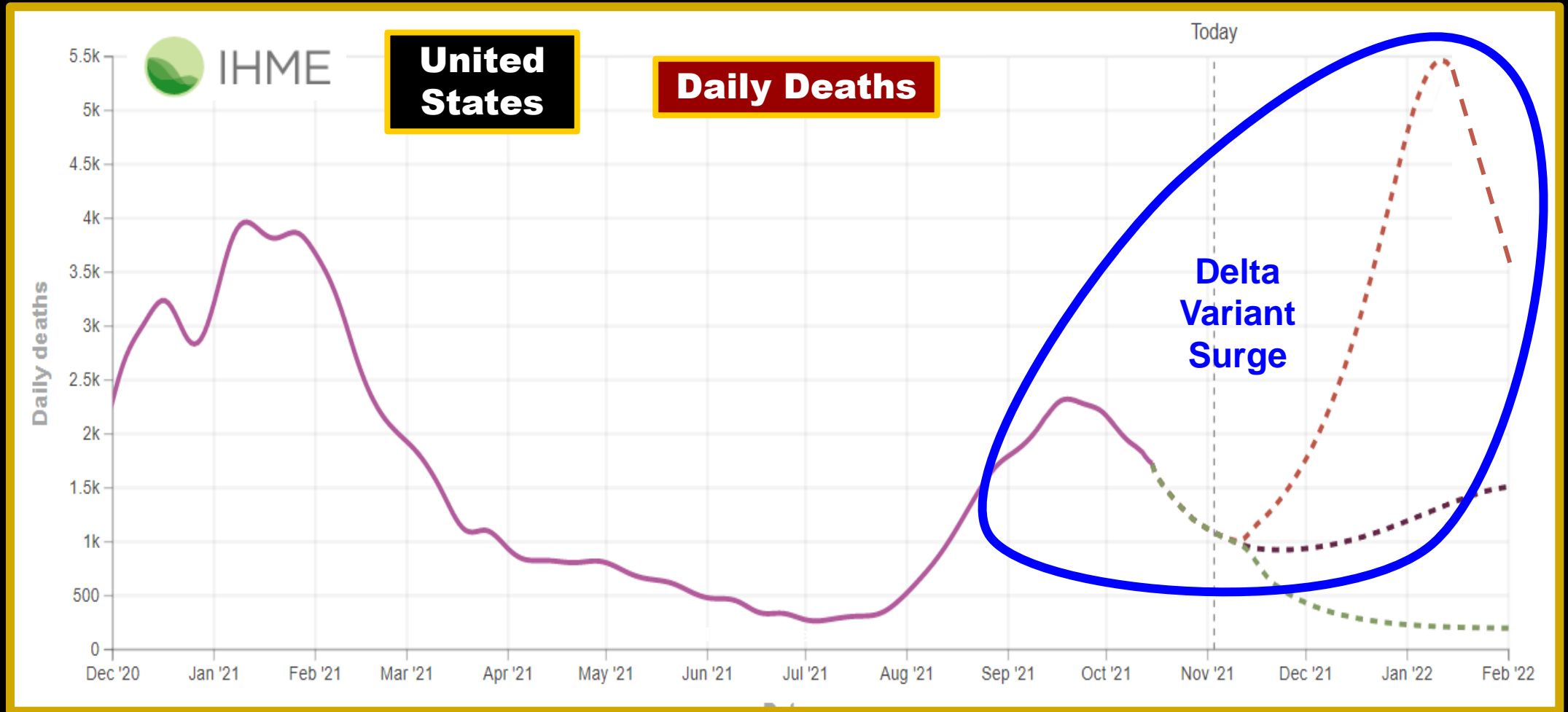
## Washington Post Video

Infrared video shows the risks of airborne coronavirus spread



<https://www.youtube.com/watch?v=xEp-Sdgl9AU>

# U.S. COVID Deaths



10/30/2021, 7:22 PM

Total Cases  
**45,949,951**

Total Deaths  
**745,665**

Total Vaccine Doses Administered  
**414,543,104**

28-Day Cases  
**2,285,217**

28-Day Deaths  
**44,364**

28-Day Vaccine Doses Administered  
**19,345,391**

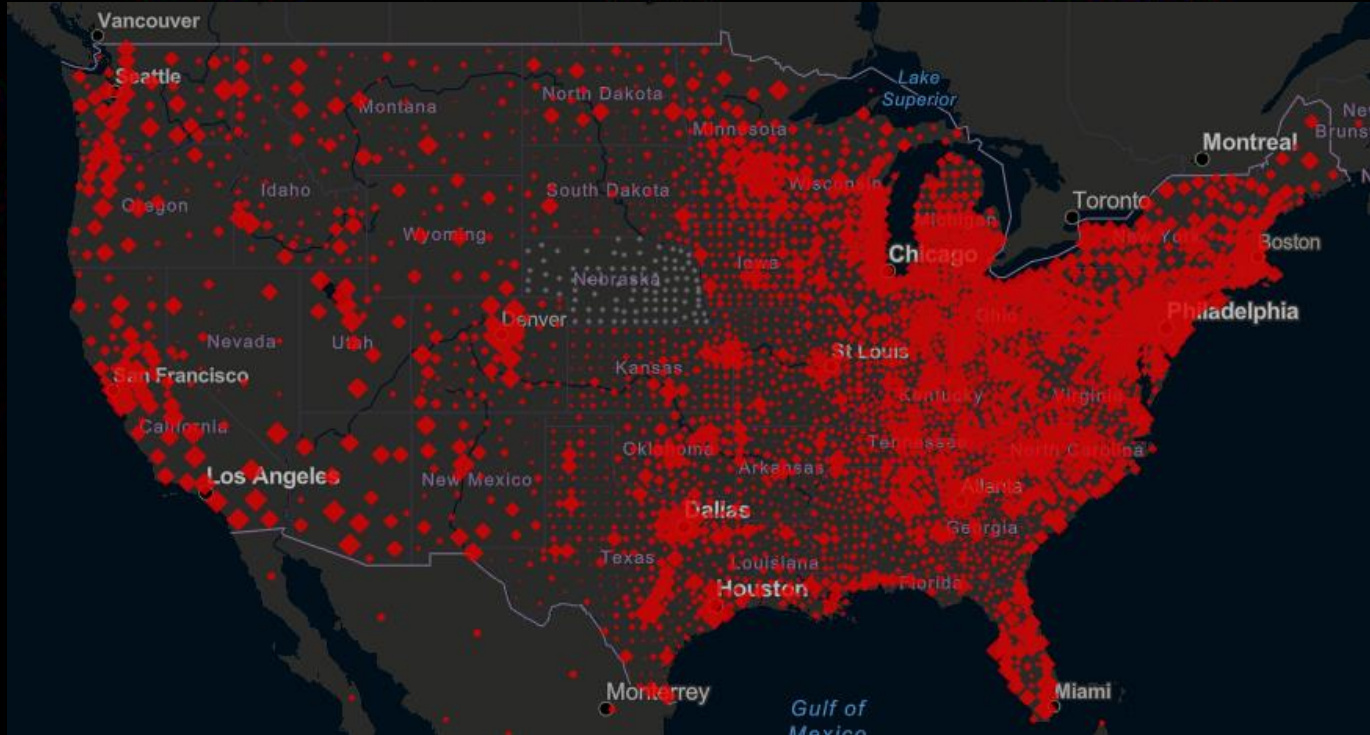
Cases | Deaths by  
Country/Region/Sovereignty

**US**  
28-Day: **2,285,208** | **44,338**  
Totals: **45,949,951** | **745,665**

**United Kingdom**  
28-Day: **1,143,130** | **3,644**  
Totals: **9,062,710** | **140,981**

**Russia**

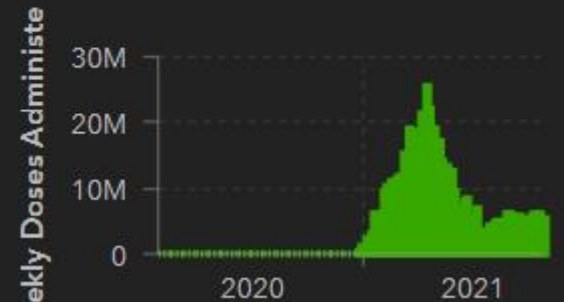
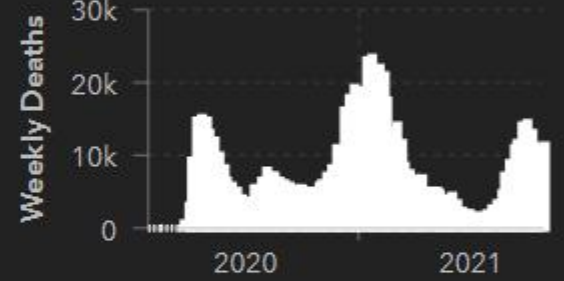
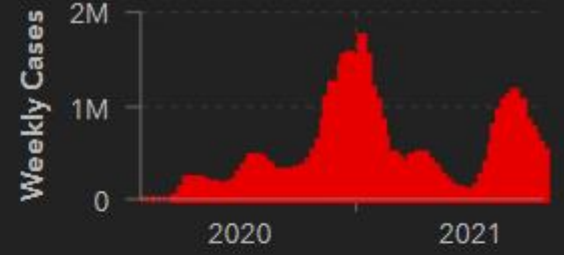
Admin0



Esri, Garmin, FAO, NOAA, EPA

Powered by Esri

28-Day



Weekly

28-Day



**Educators  
Declared  
Essential Critical  
Infrastructure  
Workers**



**Educators  
Declared  
Essential Critical  
Infrastructure  
Workers**



# First Responders Best Responders

**Bystander  
Rescue Care**



**The Public Health Safety Net**

# 240 Million 911 Calls Every Year

**Bystander  
Rescue Care**



**The Public Health Safety Net**

# Firefighter Family Care





10-20-21



RESEARCH

## Report: On-Duty Firefighter Fatalities in 2020



Last year, more firefighters died in the line of duty than since 2001. Research shows COVID infections are to blame. Plus, a look at the 62 non-COVID-related on-duty firefighter deaths in 2020.

### Half of firefighter deaths were from COVID.

Last year, a total of 140 firefighters in the United States died while on the job—more than double the figure reported in 2019. Of those, 78 are believed to have died from line-of-duty COVID-19 exposures. An additional 62 on-duty firefighter deaths occurred from other causes.

<https://www.cnn.com/2021/10/16/us/police-vaccine-covid-deaths/index.html>

# Law Enforcement Family Care



**Bystander  
Rescue Care**





RESEARCH

# Report: On-Duty Firefighter Fatalities in 2020



Last year, more firefighters died in the line of duty than since 2001. Research shows COVID infections are to blame. Plus, a look at the 62 non-COVID-related on-duty firefighter deaths in 2020.

Last year, a total of 140 firefighters in the United States died while on the job—more than double the figure reported in 2019. Of those, 78 are believed to have died from line-of-duty COVID-19 exposures. An additional 62 on-duty firefighter deaths occurred from other causes.

As many as 65% of firefighter calls are medical calls with 4% as fire calls.



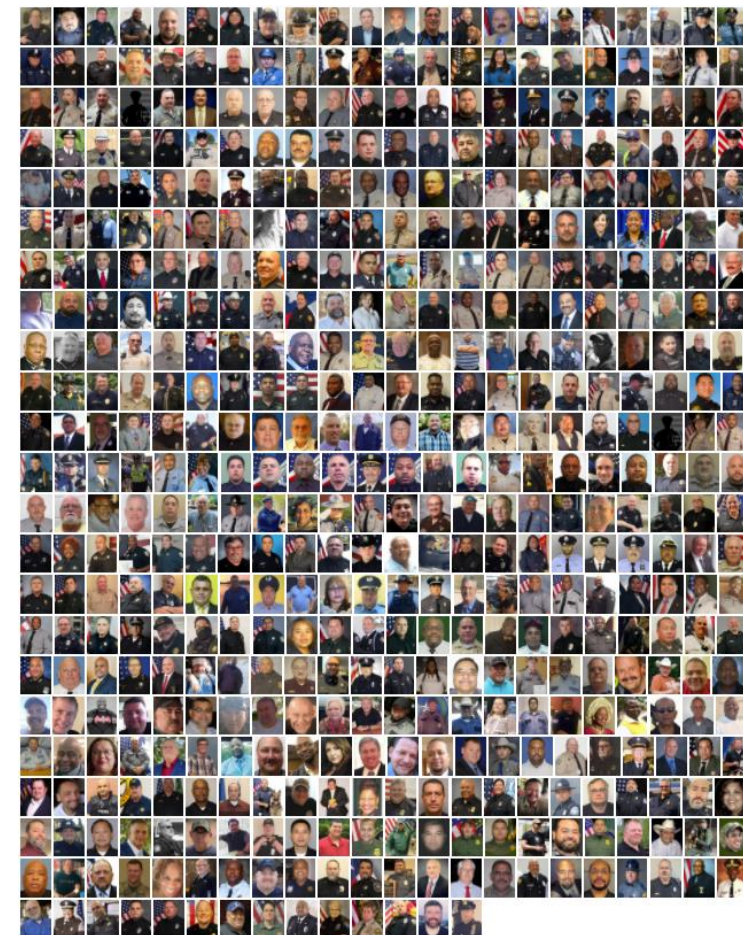
<https://www.nfpa.org/News-and-Research/Publications-and-media/NFPA-Journal/2021/Winter-2021/Reports/FF-Deaths-2020>



# Five times as many police officers have died from Covid-19 as from gunfire since start of pandemic



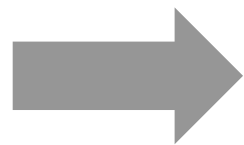
The coronavirus has become the leading cause of death for officers despite law enforcement being among the first groups eligible to receive the vaccine at the end of 2020. **The total stands at 476 Covid-19 related deaths since the start of the pandemic, compared to 94 from gunfire in the same period.**



<https://www.cnn.com/2021/10/16/us/police-vaccination/index.html>

# EMS & ED Caregiver Family Care

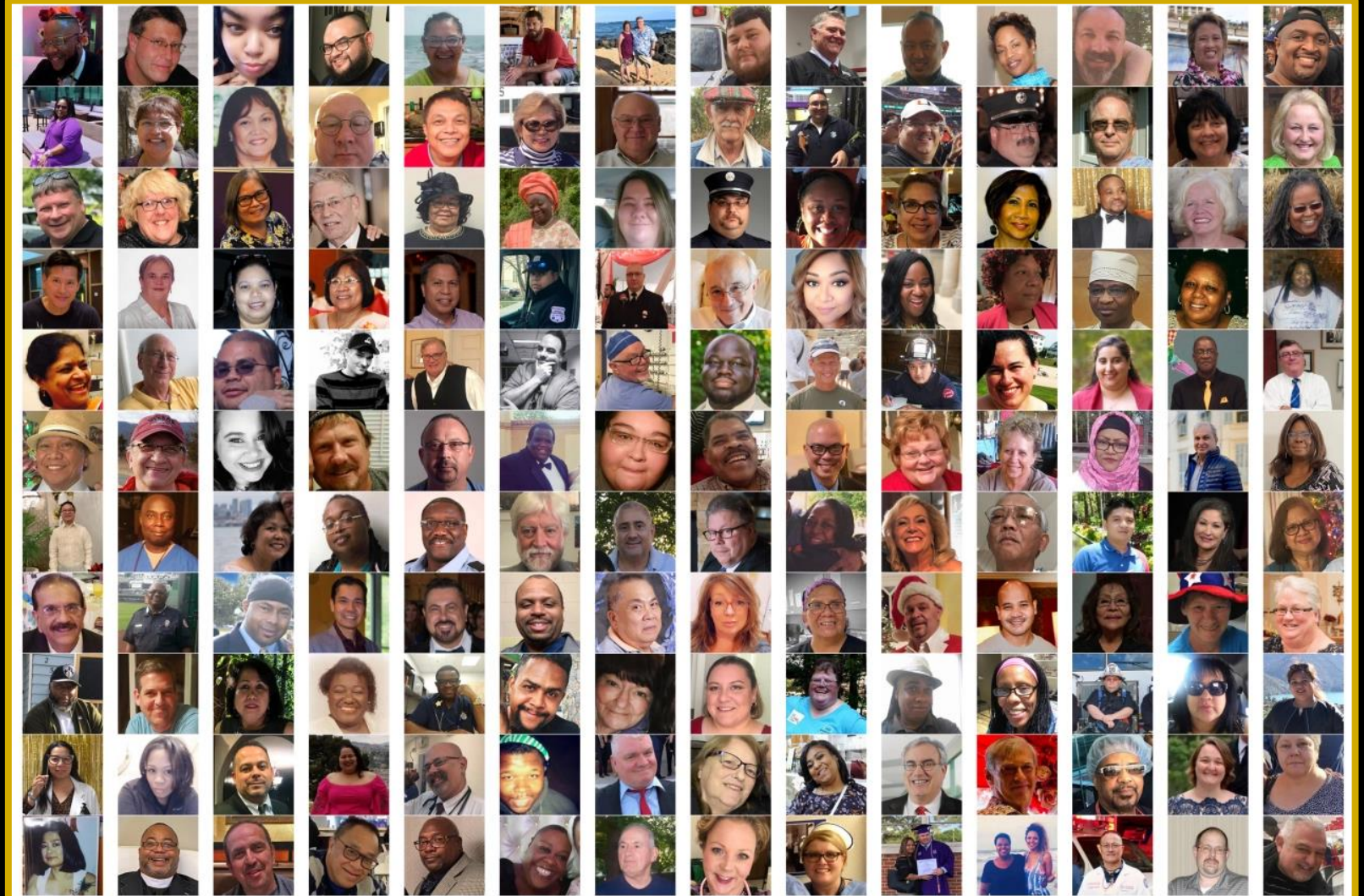
  
**Bystander  
Rescue Care**



# Healthcare Worker Deaths from COVID-19

**KHN**  
KAISER HEALTH NEWS

theguardian



Source: <https://www.theguardian.com/us-news/ng-interactive/2020/aug/11/lost-on-the-frontline-covid-19-coronavirus-us-healthcare-workers-deaths-database>

# Healthcare Worker Deaths from COVID-19

# 922

US healthcare worker deaths are under investigation by the Guardian and KHN.

Did they have to die?



As of 11 August, our journalists have profiled **167** health workers and included them in our database. Read their stories below.

Source: <https://www.theguardian.com/us-news/ng-interactive/2020/aug/11/lost-on-the-frontline-covid-19-coronavirus-us-healthcare-workers-deaths-database>

# 922

US healthcare worker deaths are under investigation by the Guardian and KHN.

Did they have to die?

## New Interactive Database by KFF's Kaiser Health News and Guardian US Reveals More Than 900 Health Care Workers Have Died in the Fight Against COVID-19 in the U.S.

Many Were Unable to Access Adequate Personal Protective Equipment, and People of Color Account for a Disproportionate Share of Deaths Among Those Profiled So Far

Key themes have emerged from the lives and deaths of the 167 workers whose profiles are in the database so far, including:

- At least 52 (31%) had **inadequate personal protective equipment (PPE)**.
- At least 103 (62%) were identified as people of color.
- Sixty-four **(38%) were nurses**, the largest single group, but the total also includes physicians, pharmacists, first responders and hospital technicians, among others.
- **Ages ranged from 20 to 80**, with 21 people (13%) under 40, including eight (5%) under 30. Seventy-seven people — or 46% — were 60 or older.
- At least 53 workers **(32%) were born outside the U.S.**, including 25 (15%) from the Philippines.

Exclusive stories by the project reporters have revealed that many health care workers are using surgical masks that are far less effective and have put them in jeopardy.

# Healthcare Worker Death Breakdown

## Confirmed deaths by occupation

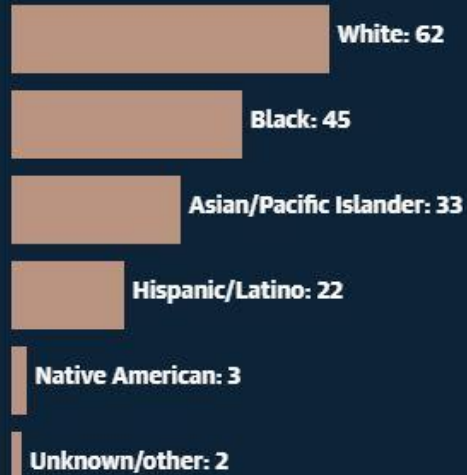
Select an occupation

Health care support: 27 confirmed deaths



## Confirmed deaths by race and ethnicity

Total deaths % of total deaths



## Confirmed deaths by state

Select a state

Texas: 5 confirmed healthcare worker deaths



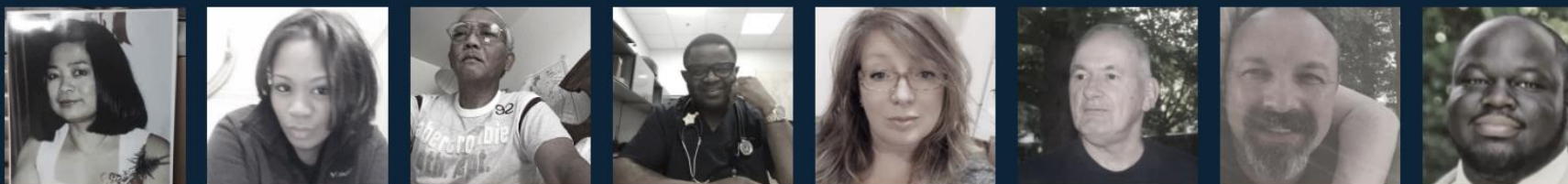
Source: **INSERT**

# 3607

## US healthcare worker deaths

were counted by the Guardian and KHN in the first year of the pandemic. This is the most comprehensive count in the nation as of April 2021, and our [series of investigative reports](#) into this tragedy posed a disturbing question:

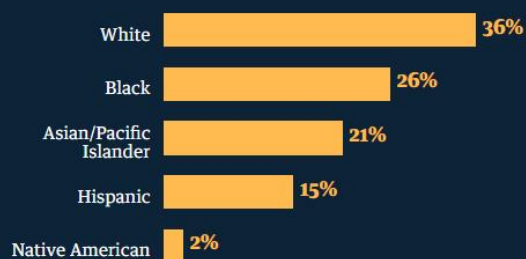
Did they have to die?



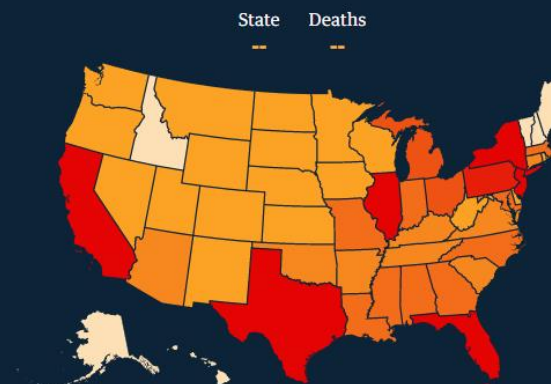
### DEATHS BY OCCUPATION

Nurse	32%
Healthcare support	20%
Physician	17%
Medical first responder	7%
Admin/ Admin support	6%
Diagnosing clinician	4%
Healthcare technologist	4%
Community or social worker	3%
Cleaner	2%
Other	2%
Security personnel	1%
Culinary/food services	1%
Coroner	0%

### DEATHS BY RACE AND ETHNICITY



### DEATHS BY STATE



Graphics are based on subsets of data for which we have the relevant information. For more, see the [methodology](#)

<https://khn.org/news/article/us-health-workers-deaths-covid-lost-on-the-frontline/>





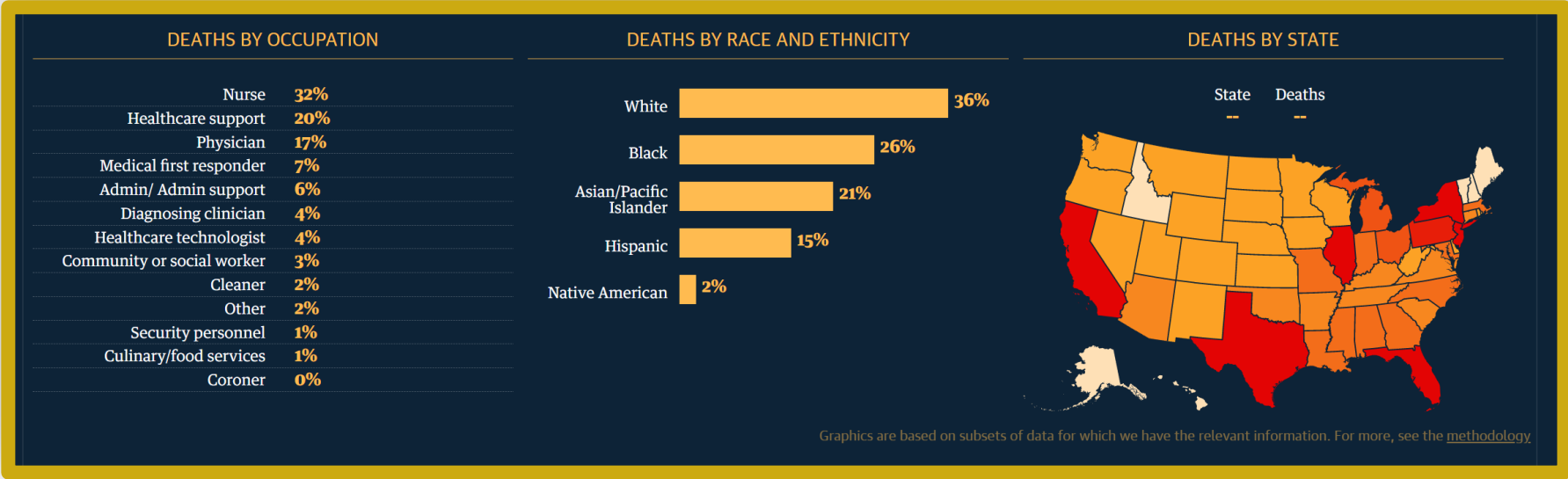
## 3607

### US healthcare worker deaths

were counted by the Guardian and KHN in the first year of the pandemic. This is the most comprehensive count in the nation as of April 2021, and our series of investigative reports into this tragedy posed a disturbing question:

Did they have to die?

## 12 Months of Trauma: More Than 3,600 US Health Workers Died in Covid's First Year



<https://khn.org/news/article/us-health-workers-deaths-covid-lost-on-the-frontline/>





EducationWeek®

09-03-21

**Educators  
Declared  
Essential Critical  
Infrastructure  
Workers**



**We Feel Your Grief: Remembering the 1,000 Plus  
Educators Who've Died of COVID-19**  
A Reflection on the People Our Schools Are Losing



<https://www.edweek.org/teaching-learning/we-feel-your-grief-remembering-the-1-000-plus-educators-whove-died-of-covid-19/2021/09>

## COVID Harm to Children:

- COVID Deaths – More than 700 Children
- Multisystem Inflammatory Syndrome in Children (MISC)  
5,217 MISC Cases and 46 deaths
- 170,000 Children have lost a parent or guardian to COVID



# **TMIT Global Research Test Bed**

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

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





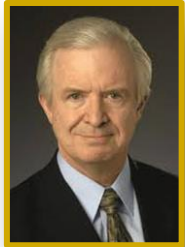
# 500 Subject Matter Experts

Graphic Representation to Protect Expert Privacy



# Coronavirus Care Community of Practice

# Bystander Rescue Care *CareUniversity Series*



John Nance JD



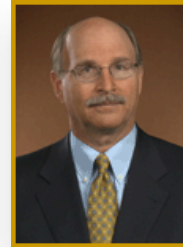
Dr. Gregory Botz



Chief William Adcox



Heather Foster



Dr. Charles Denham



Dr. Casey Clements



Beth Ullem



Dr. McDowell



Dennis Quaid



Preston Head III



Fred Haise



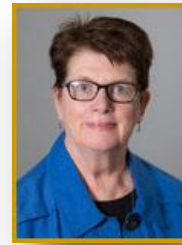
Dr. Steve Swensen



Tyler Sant



Avarie Pettit



Dr. Mary Foley



Bob Chapman



Perry Bechtle III



Becky Martins



Betsy Denham



Charlie Denham III



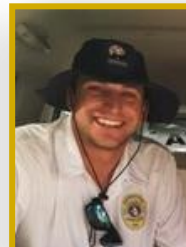
Dr. C Peabody



Dr. Chris Fox



Randy Styner



Tom Renner



David Beshk



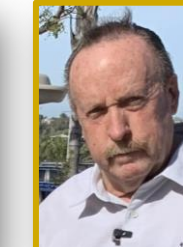
Ann Rhoades



Nancy Conrad



Dr. Chopra



John Little



Debbie Medina





# Coronavirus Care Community of Practice

# Bystander Rescue Care *CareUniversity Series*



Matt Horace



John Tomlinson



Dan Ford



Arlene Salamendra



Jennifer Dingman



Bill George



Penny George



Hilary Schmidt PhD



Paul Bhatia EMT



Dr. McDowell

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



Prof Christensen



Jim Collins



C Sullenberger



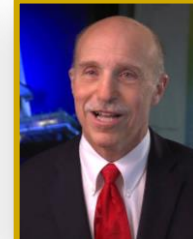
Charlotte Guglielmi



Dr. Don Berwick



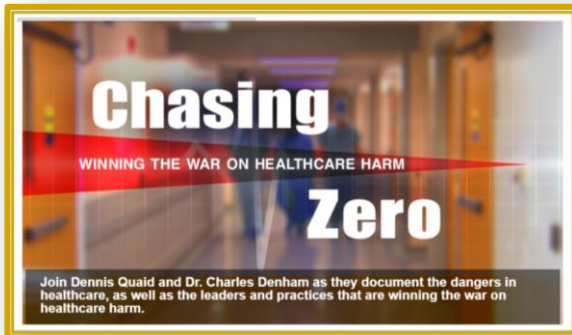
Dr. Howard Koh



Dr. Jim Bagian



Dr. Harvey Fineberg



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

## Family Rescue R&D



**Stanford  
University**



**UCSF**  
University of California  
San Francisco

## The 5 R's of Safety



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

**UT Southwestern**  
Medical Center



A large, dense grid of small photographs, each depicting a different family or household scene. The images are arranged in a regular pattern, creating a mosaic effect. The scenes vary widely, showing people in various settings, activities, and interactions. A prominent red banner with a yellow border is centered across the middle of the grid, containing the text "1,000 Family Household Study" in white, bold, sans-serif font.

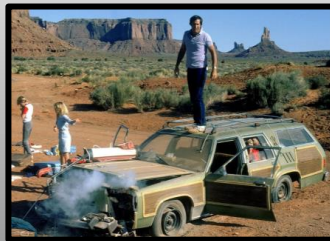
**1,000 Family Household Study**



# Safer Holidays Safer Families

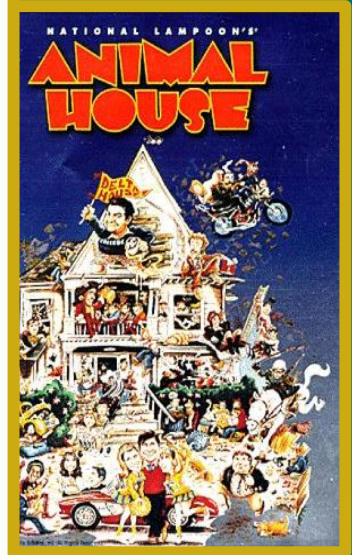


## Vacation



## Family Transmission

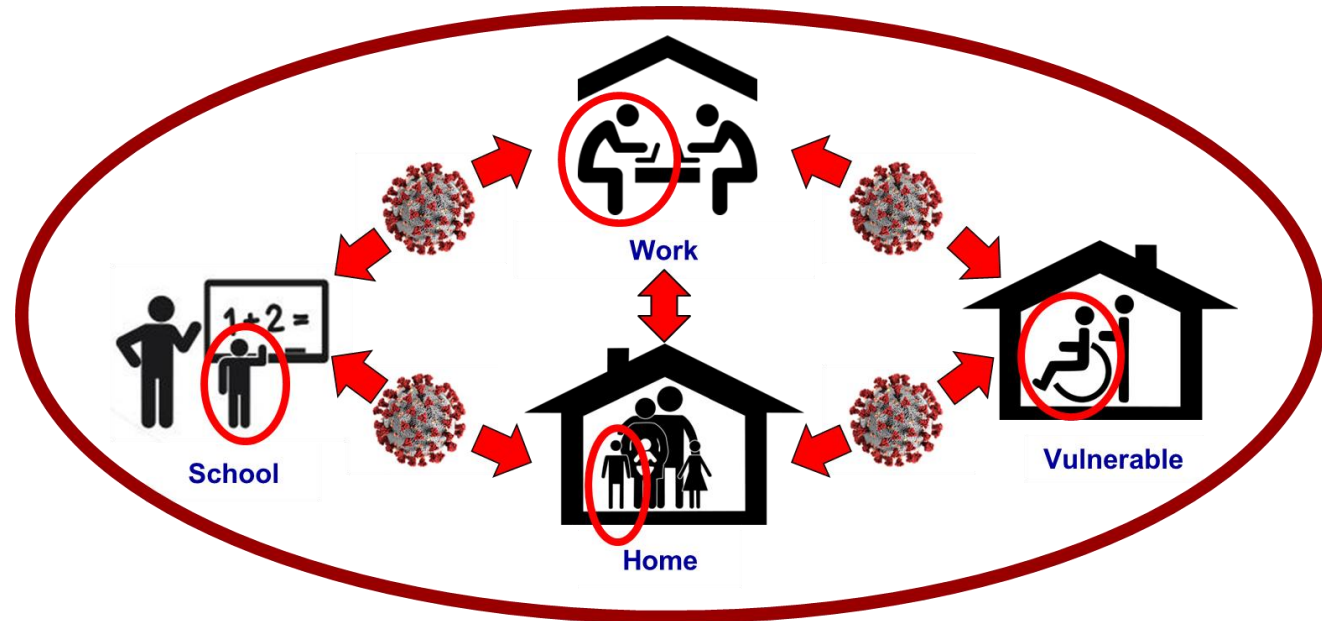
- ✓ The Achilles Heel of Workers
- ✓ Family Plans Work
- ✓ There is a New Normal



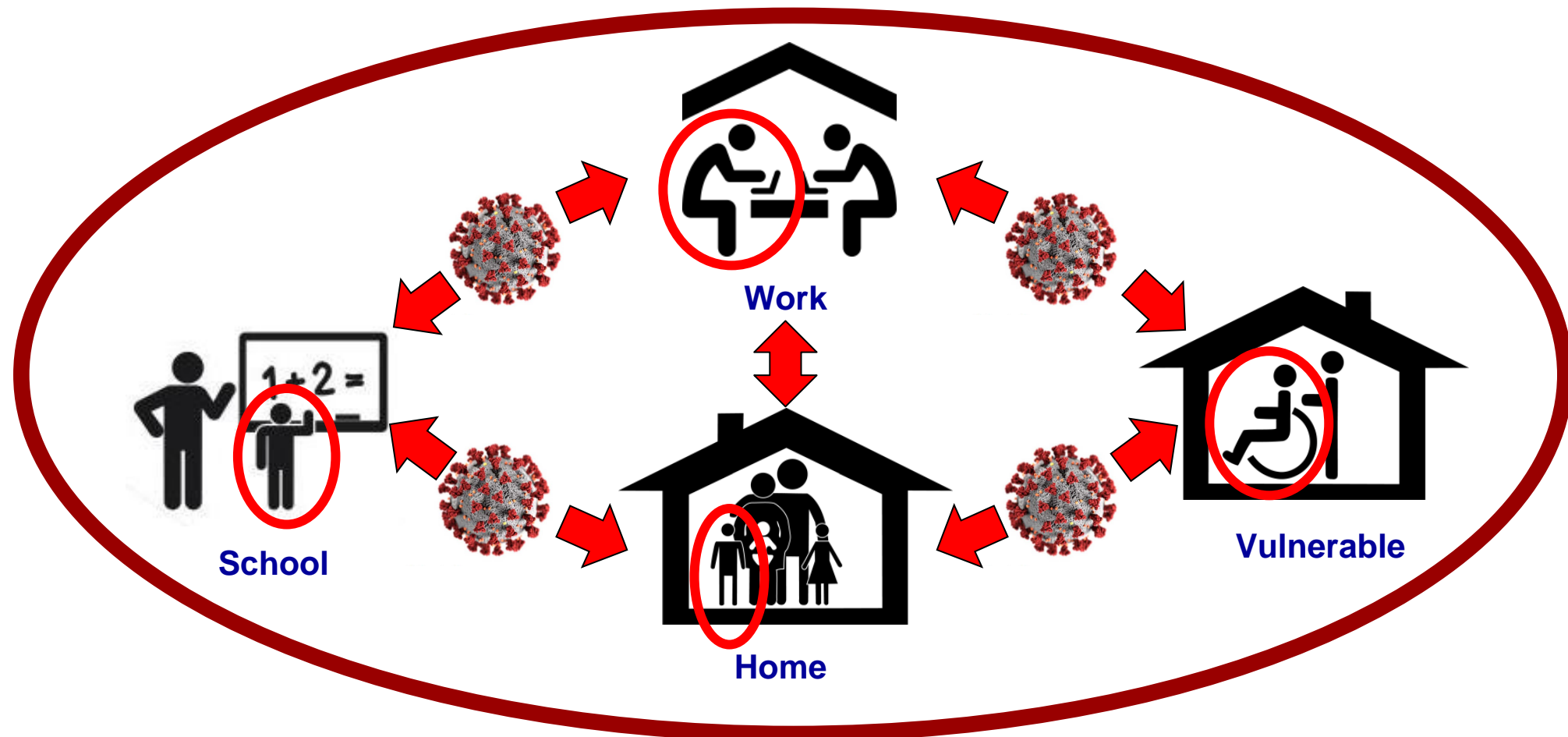
## Vacation



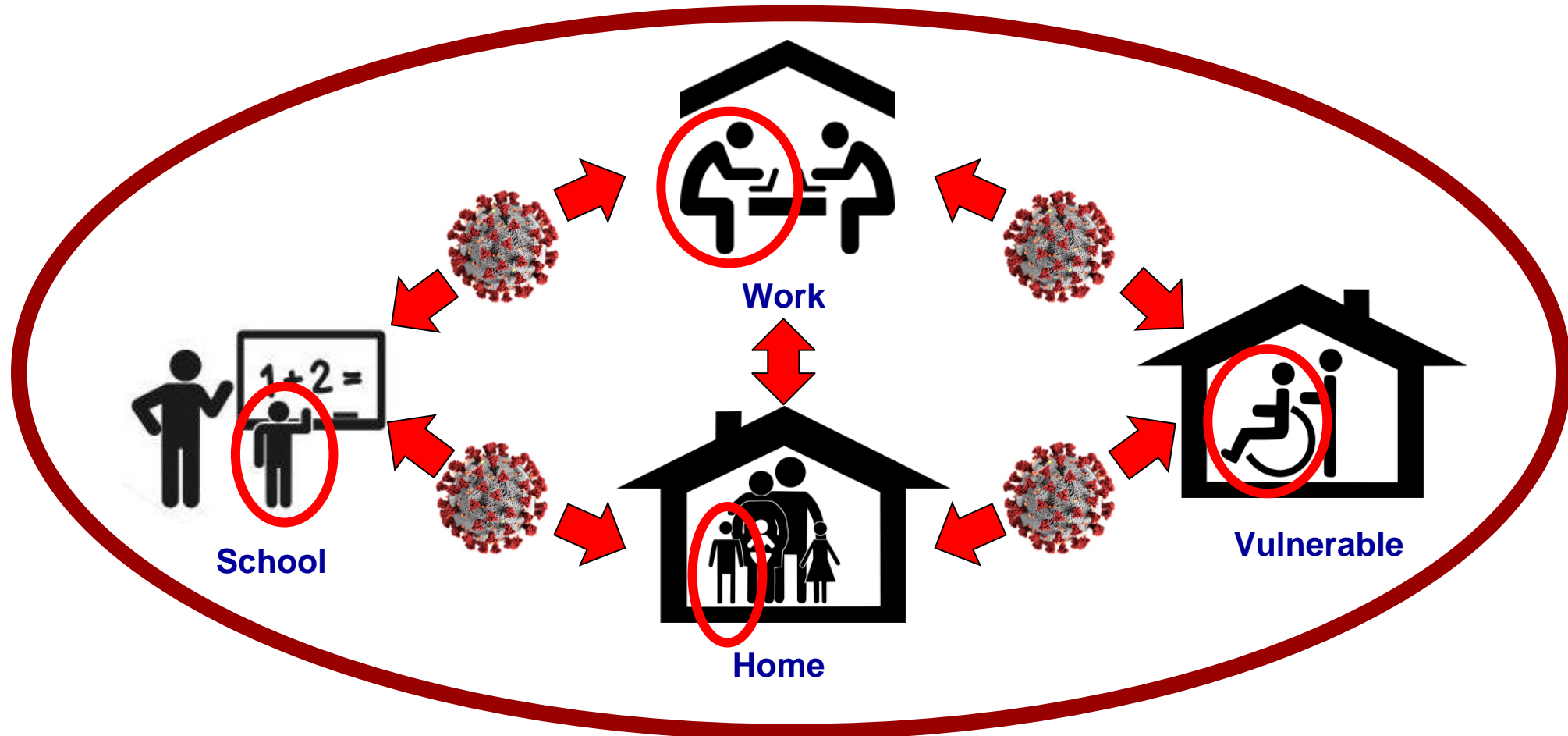
# Family Transmission Chains



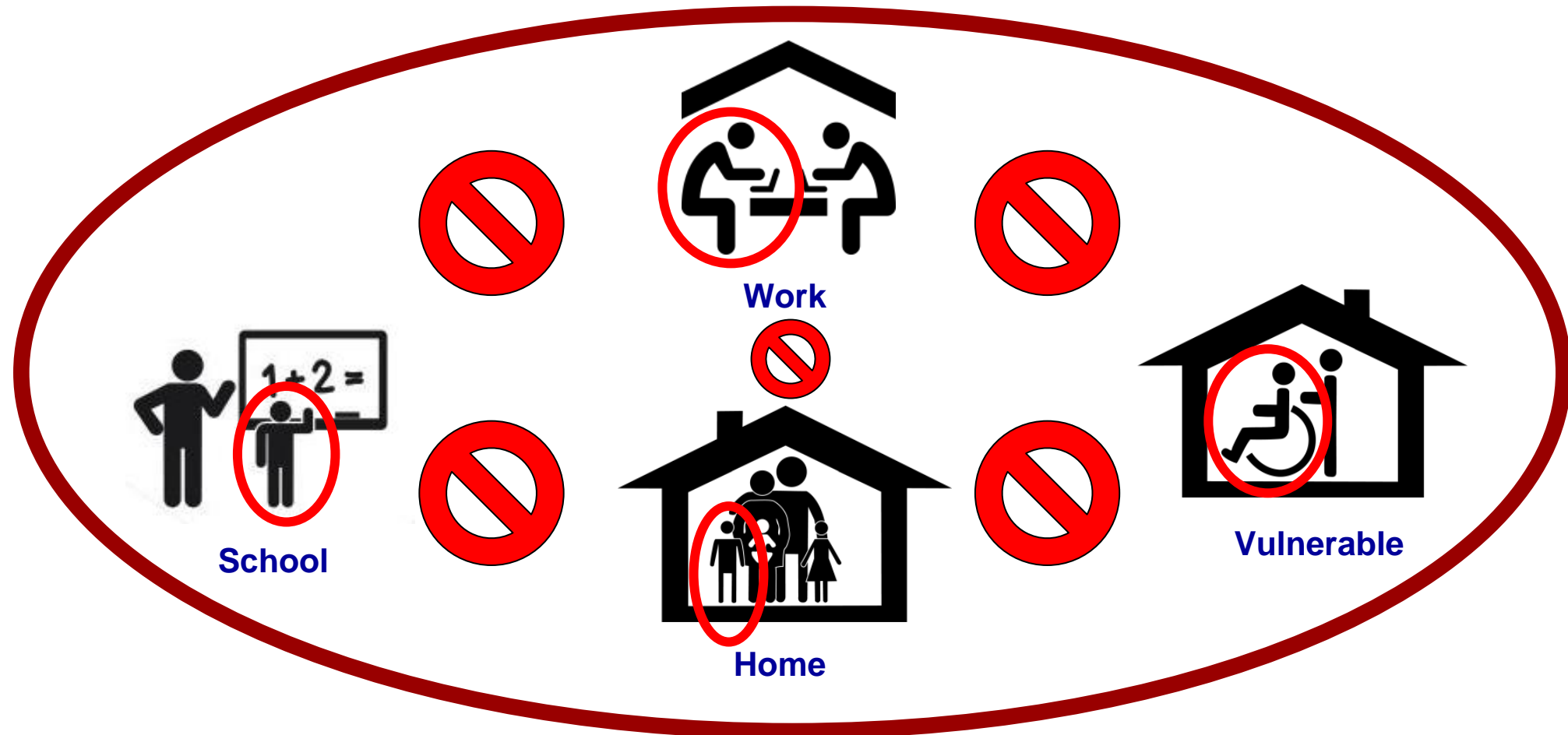
# Family Transmission Chains



# Family Transmission Chains: The Achilles Heel

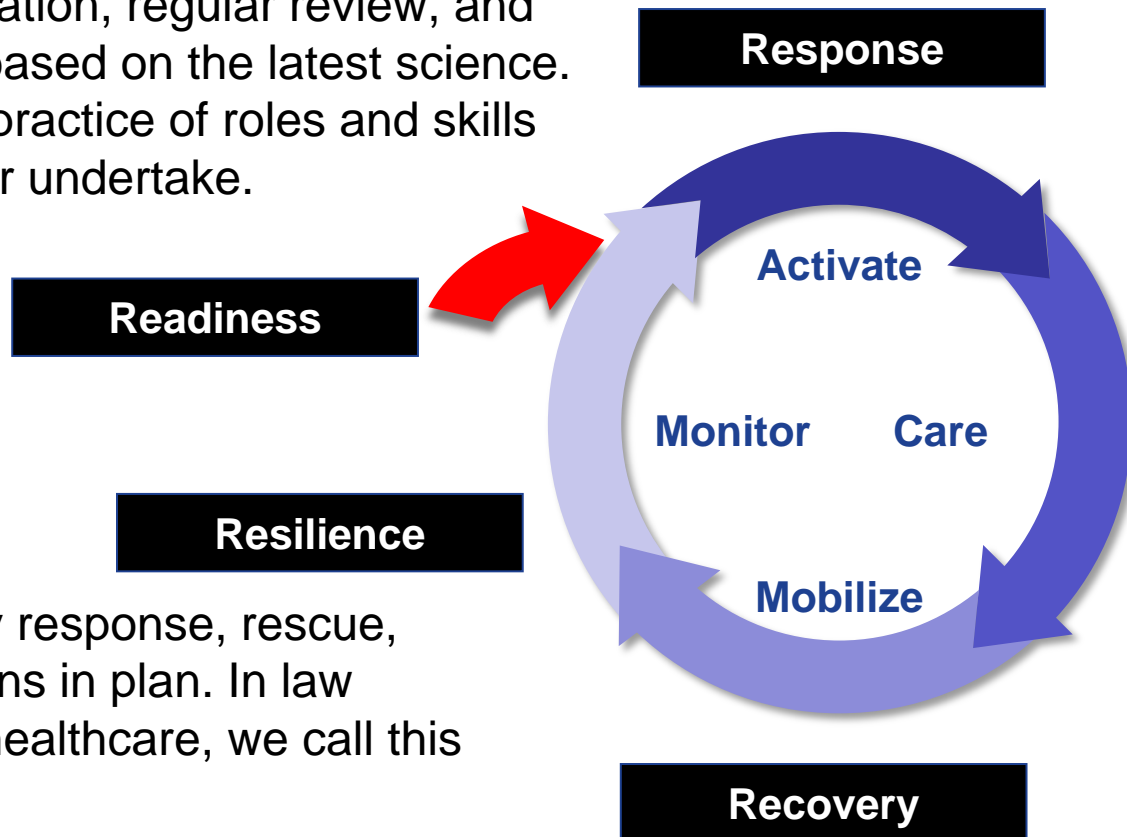


# Break Family Transmission and Win



## Family Health Safety Plans

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



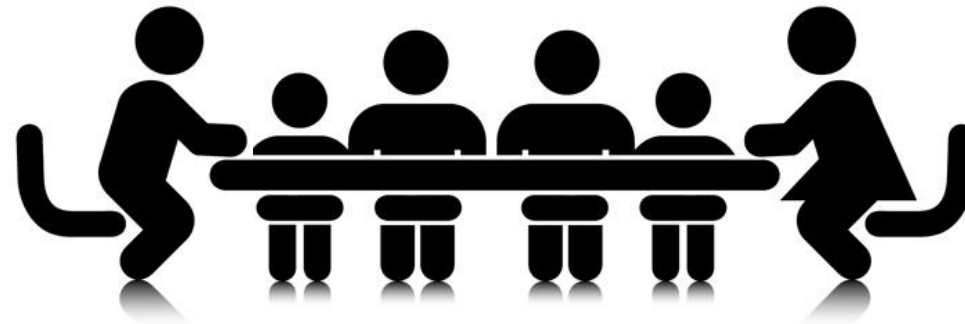
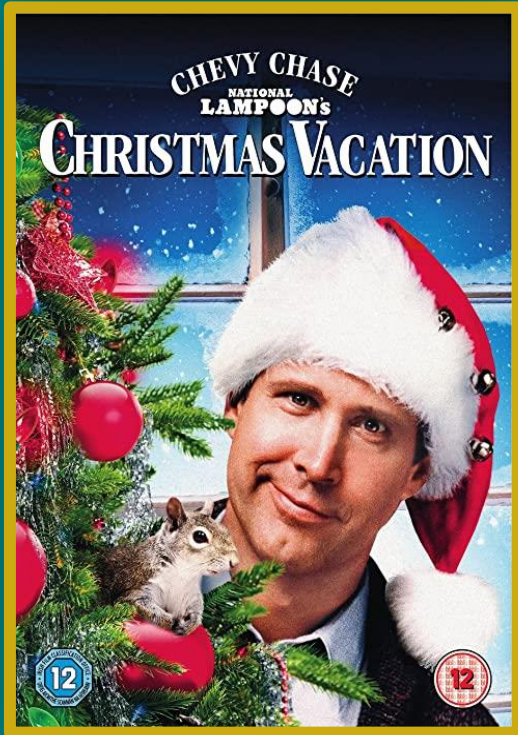
**Response:** Family moves to action to respond to an emergency. Safeguards are put in place. The family may respond to a member being infected or exposed to someone infected.

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

**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.”

# Safer Gatherings Safer Families

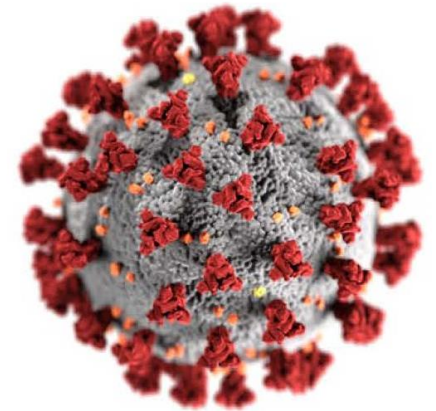


## An Update on Children



### **Dr. Brittany Barto-Owens**

**Community Pediatrician  
Med Tac Advisor  
Coronavirus Care  
Community of Practice**





# The Chief Family Officer & Family Lifeguard Program



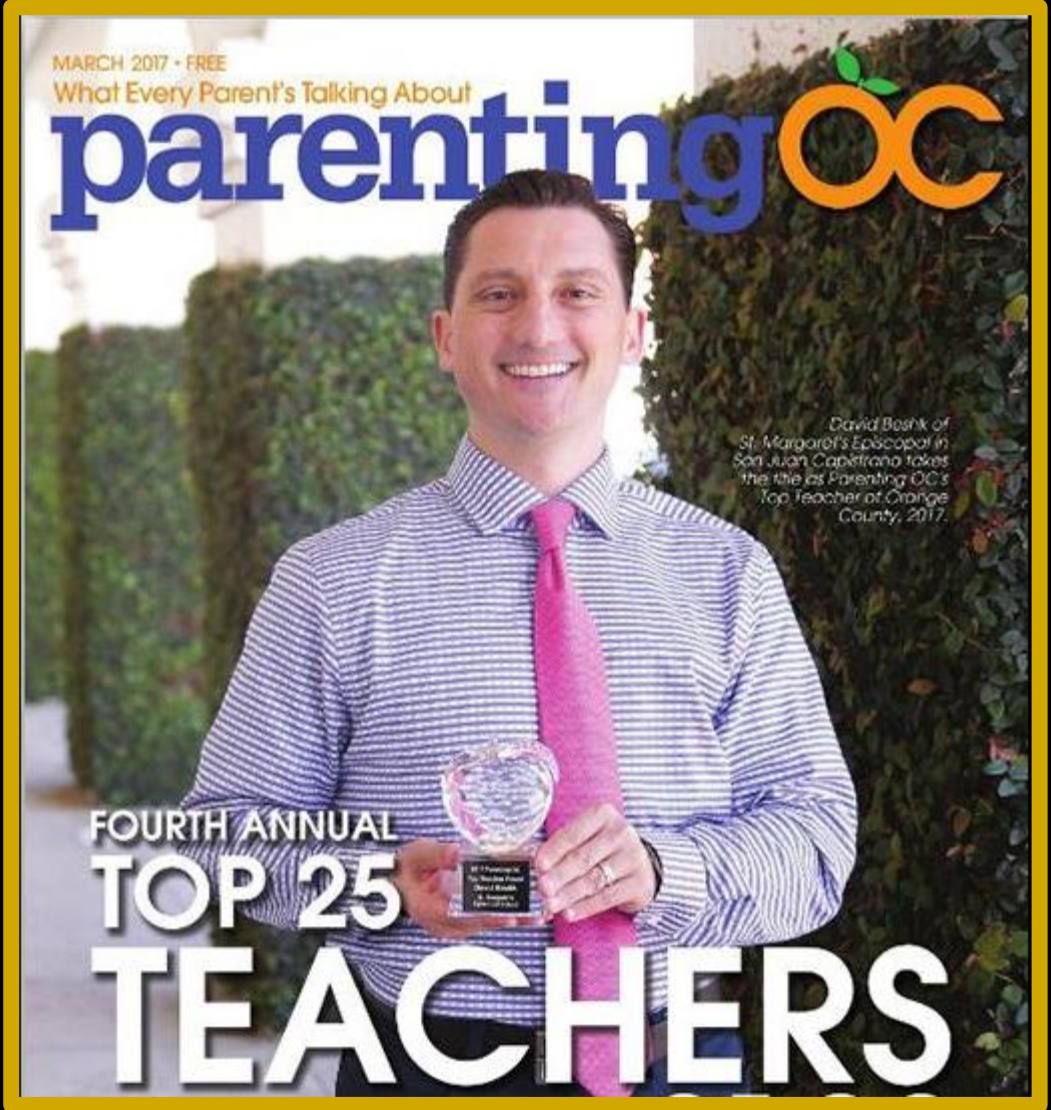
**David Beshk**

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



**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**



# Med Tac Rescue Stations

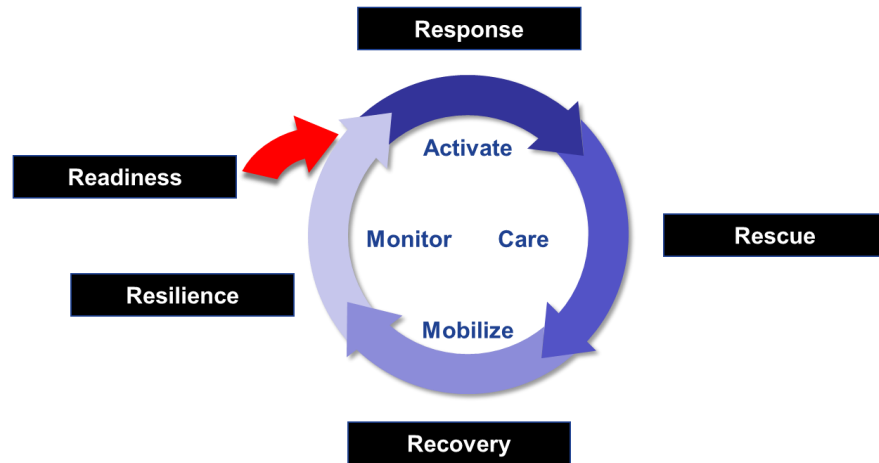


**Soaring Eagle Awards:  
David Beshk  
Danny Policchichio**

**Lives Saved by Med Tac  
Bystander Rescue Care  
Trainers in Community**



## 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:

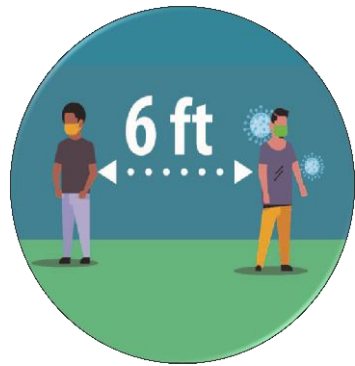
- Convene Holiday Huddle with Guests
- Opening Prayer
- Describe Safe Family Bubbles
- Review Four Safety Pillars
- Provide Restroom Plan
- Describe Eating Plan
- Summarize Clean Up Plan

#### 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



# CDC Guidelines: The 4 Pillars



**Social  
Distancing**



**Disinfecting  
Surfaces**



**Hand  
Washing**



**Use of  
Masks**

SOURCE: Centers for Disease Control



# Holidays, 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

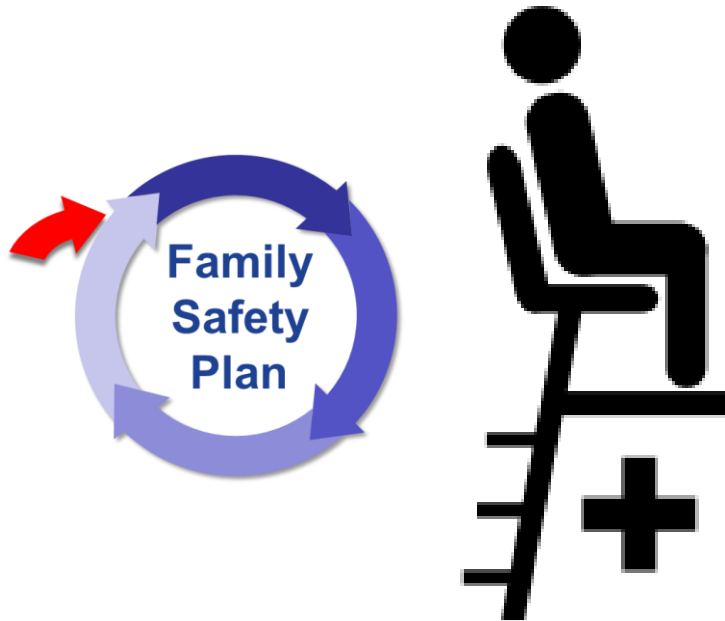




# What's New for 2022

90% Prevention and 10% Rescue

**Community Immunity  
& Aerosol Transmission**



## Holiday Huddle Checklist

### The Goal - Prevent Bubble Trouble

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

#### Before Event:

- Know Vaccination Status of Guests
- Know Threat Status of Guests
- 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
- Protect At-risk Guests - Apply the Pillars
- Provide Restroom Plan
- Describe Eating Plan
- Summarize Clean Up Plan

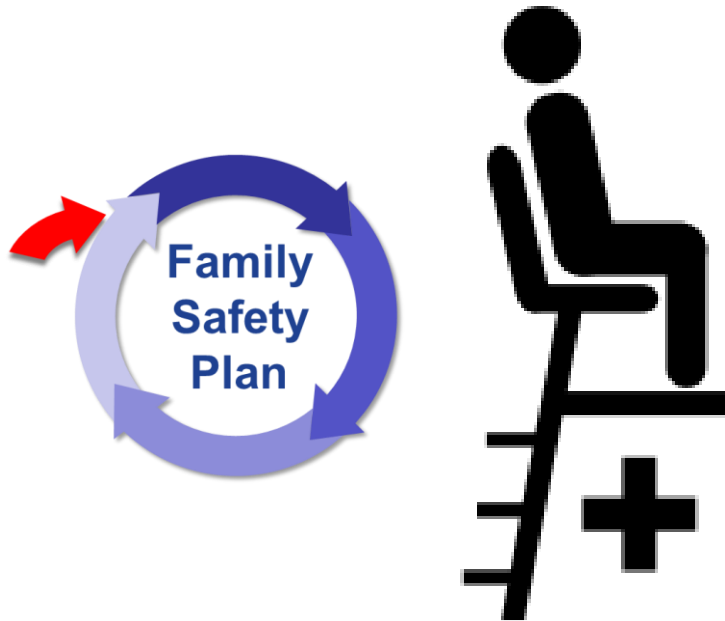
#### After Event:

- Glove up to Clean Up - Optional
- Soak Plates and Cutlery in Soapy Water
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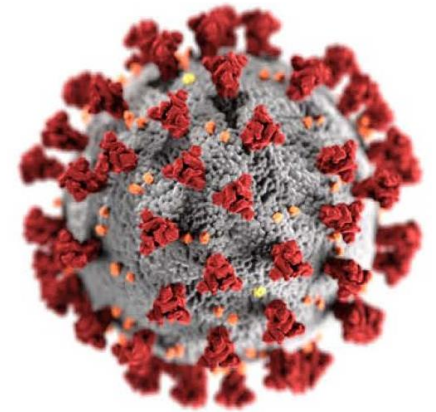
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## Holiday Huddle and Play Dates



**Dr. Brittany Barto-Owens**

**Community Pediatrician  
Med Tac Advisor  
Coronavirus Care  
Community of Practice**



## COVID-19



MENU >

### Safer Ways to Celebrate Holidays

Holiday traditions are important for families and children. There are several ways to enjoy holiday traditions and protect your health. Because many generations tend to gather to celebrate holidays, the best way to minimize COVID-19 risk and keep your family and friends safer is to get vaccinated if you're eligible.

Here are safer ways to celebrate the holidays:

#### Generally:

- Protect those not yet eligible for vaccination such as young children by getting yourself and other eligible people around them vaccinated.
- Wear well-fitting masks over your nose and mouth if you are in public indoor settings if you are not fully vaccinated.
  - Even those who are fully vaccinated should wear a mask in public indoor settings in communities with substantial to high transmission.
    - Outdoors is safer than indoors.
  - Avoid crowded, poorly ventilated spaces.
  - If you are sick or have symptoms, don't host or attend a gathering.
  - Get [tested](#) if you have symptoms of COVID-19 or have a close contact with someone who has COVID-19.

### Last Year Don't Gather – This Year Gather Safer

- Protect those At Risk**
- Wear Masks**
- Avoid Crowds**
- If Sick Don't Attend**



## COVID-19



MENU >

If you are considering traveling for a holiday or event, visit CDC's [Travel](#) page to help you decide what is best for you and your family. CDC still recommends delaying travel until you are [fully vaccinated](#).

- If you are not fully vaccinated and must [travel](#), follow CDC's [domestic travel](#) or [international travel](#) recommendations for unvaccinated people.
- If you will be traveling in a group or family with unvaccinated people, choose [safer travel options](#).
- Everyone, even people who are fully vaccinated, is [required to wear a mask](#) on public transportation and follow [international travel recommendations](#).

### Special considerations:

- People who have a condition or are taking medications that weaken their immune system may not be fully protected even if they are fully vaccinated and have received an [additional dose](#). They should continue to take all [precautions recommended for unvaccinated people, including wearing a well-fitted mask](#), until advised otherwise by their healthcare provider.
- You might choose to wear a mask regardless of the level of transmission if a member of your household has a weakened immune system, is at increased risk for severe disease, or is unvaccinated.
- If you are gathering with a group of people from multiple households and potentially from different parts of the country, you could consider additional precautions (e.g., avoiding crowded indoor spaces before travel, taking a test) in advance of gathering to further reduce risk.
- Do NOT put a mask on children younger than 2 years old.

By working together, we can enjoy safer holidays, travel, and protect our own health as well as the health of our family and friends.

## Last Year Don't Travel – This Year Travel Safer

- If not Vaccinated, follow recommendations for unvaccinated people.**
- Protect those At Risk**
- Wear Masks**
- Minimize Exposure to Crowds & Poor Ventilation**
- If Sick Don't Travel**

## Speakers & Reactors



Jennifer Dingman



Robert Katzer



Dr. Gregory Botz



Dr. Brittany Barto



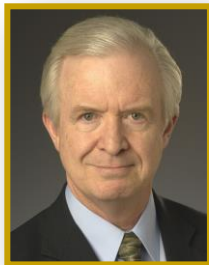
William Adcox



Heather Foster RN



Charlie Denham III



John Nance JD



Dr. C Peabody



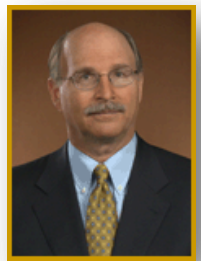
Gunita Singh JD



Paul Bhatia EMT



David Beshk



Dr. C Denham

# A Message to Essential Worker Families



**David Morris PhD JD**

**Forensic Psychologist  
Attorney  
Expert Advisor to Public  
Safety Organizations for  
Performance Improvement**



**William Adcox MBA**

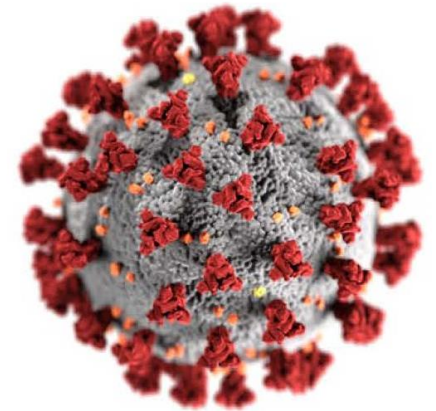
**Chief Security Officer  
MD Anderson Cancer Center  
Chief of Police,  
University of Texas at Houston  
Med Tac Lead Threat  
Safety Scientist**

## A Message to Essential Worker Families



### David Morris PhD JD

**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**



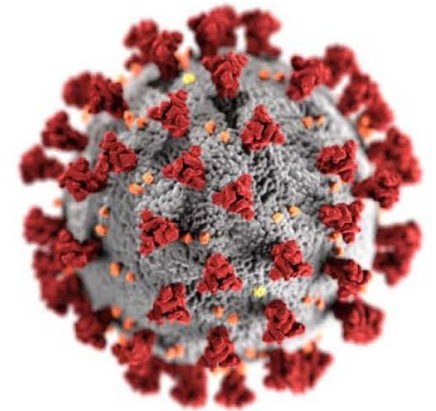


## Our Message to Families



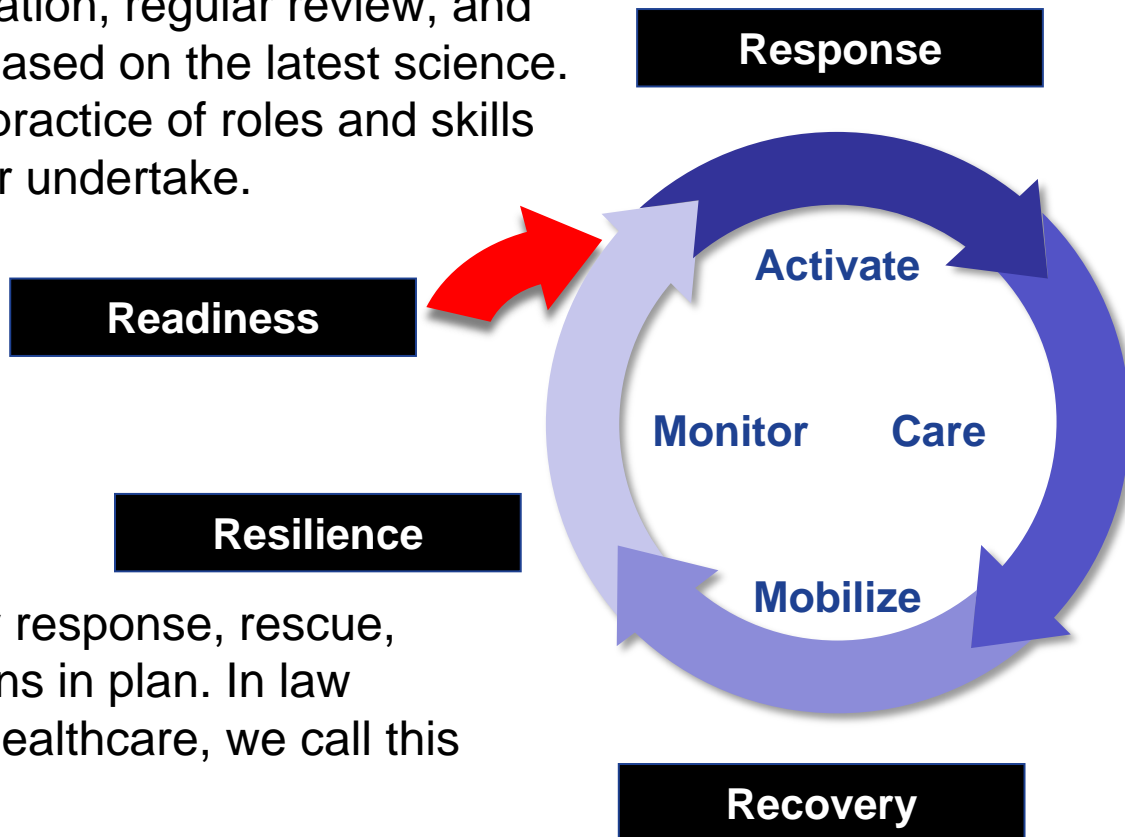
### **Gregory H. Botz, MD, FCCM**

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



## Family Health Safety Plans

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



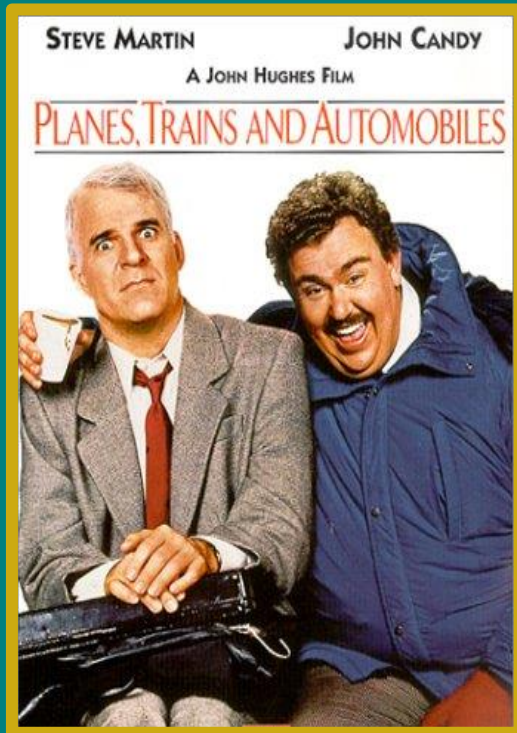
**Response:** Family moves to action to respond to an emergency. Safeguards are put in place. The family may respond to a member being infected or exposed to someone infected.

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

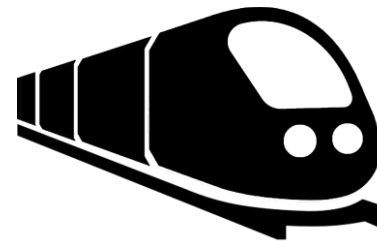
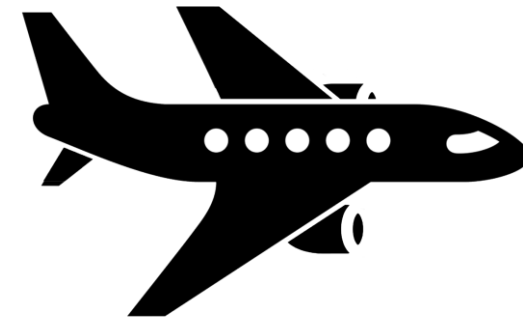
**Rescue:** Regular deliberate practice of roles and skills to take a loved one to the Emergency Department if they have severe symptoms. This means having records and medications ready go with the patient.

**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.”

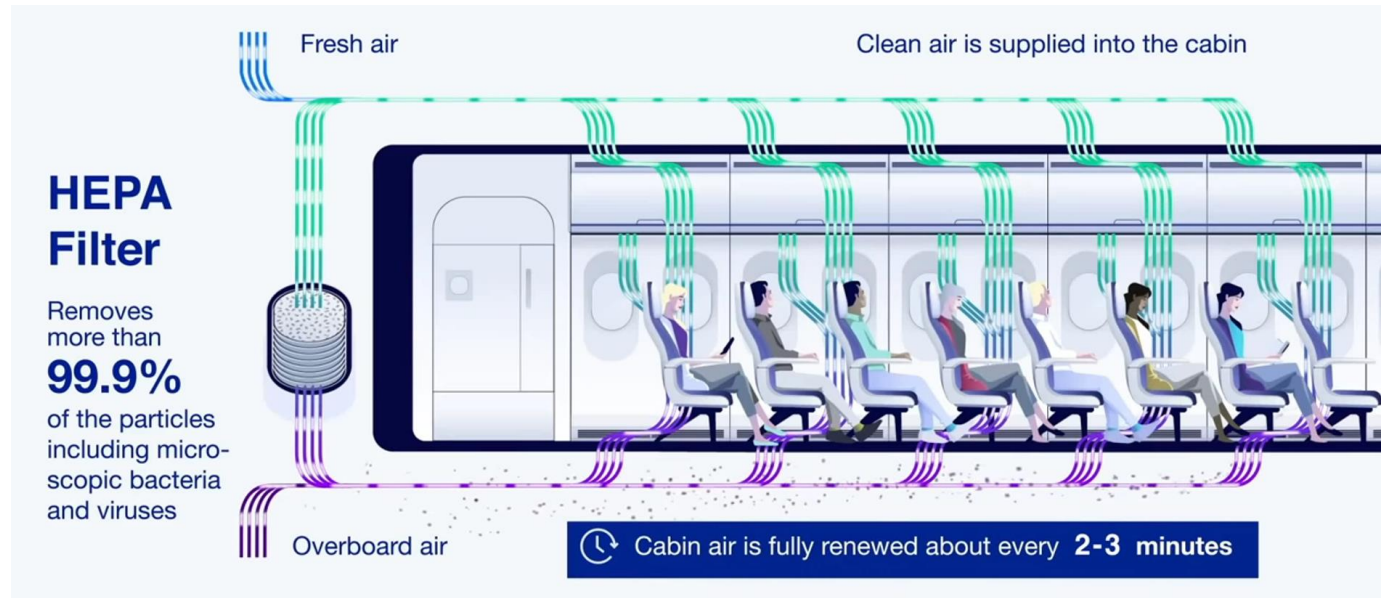
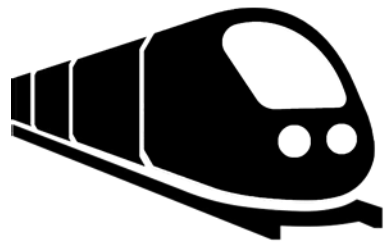
# Planes, Trains, and Automobiles



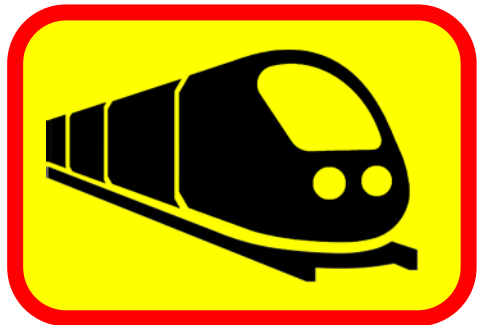
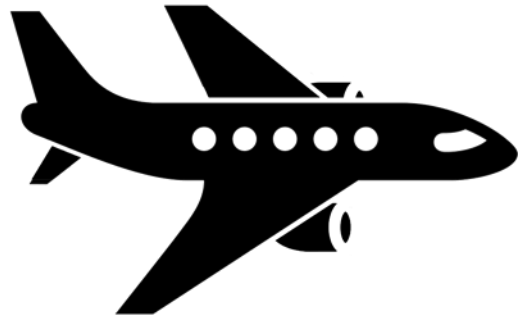
Robert Katzer MD MBA  
Emergency Medicine  
University of  
California Irvine



# Air Flow Science

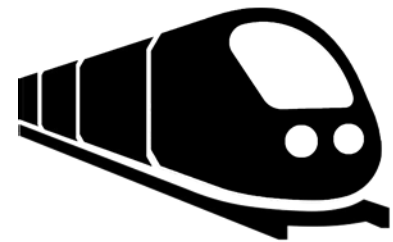
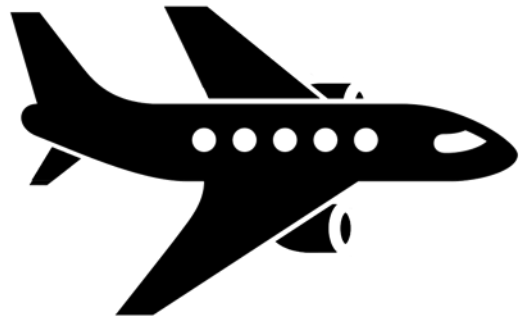


## Air Flow Science



On our Tube services, the air inside each carriage changes completely every two to three minutes on average,

# Air Flow Science

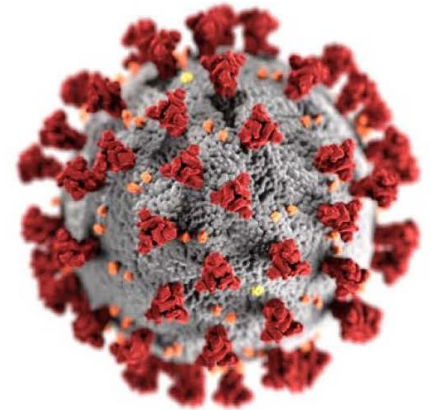


## ***Keeping Your Family COVID Free in Transit***



### **Robert Katzer MD MBA FACEP FAEMS**

**Professor, Emergency Medicine  
University of California, Irvine  
Air Medic, San Bernardino Sheriff Air Rescue Team  
Medical Director, City of Anaheim, Fire and Rescue**



# Keeping your Family COVID Free During Transit this Holiday Season

Robert Katzer MD MBA FACEP FAEMS

Professor, Emergency Medicine

University of California, Irvine

Air Medic, San Bernardino Sheriff Air Rescue Team

Medical Director, City of Anaheim, Fire and Rescue



**UC Irvine Health**



## Disclosure Statement

- ✓ No financial conflicts with the presentation topic or content covered today
- ✓ Opinions stated in this presentation are mine and not those of the US Federal Government, Department of HHS, State of California, County of San Bernardino, or City of Anaheim

## Lecture Overview

- ✓ Vaccine effectiveness
- ✓ Travel to the airport
- ✓ Travel within the airport
- ✓ Inflight considerations
- ✓ Lodging



Image: fandango.com

## Before You Depart, Weeks Before You Depart

- ✓ Protect your family by having all eligible family members vaccinated for covid.
- ✓ Start this early enough to allow the development of immunity.
- ✓ The CDC is currently recommending that unvaccinated persons delay travel.
- ✓ Do not travel if you have symptoms that may be a result of covid or if you are under quarantine for a covid exposure.
- ✓ Check ahead for any state or local travel restrictions or requirements in the location of your travel

## What Protection Does the COVID Vaccine Provide in Regards to Delta Strain?



Image: denofgeek.com

- ✓ Initially, performance of COVID19 mRNA vaccines demonstrated the equivalence of Rock Star status within epidemiology
- ✓ How long does that immunity (antibody titers and/or cellular immunity) last?
- ✓ How well do the vaccines hold up against delta strain?

## Initial Efficacy Data by Vaccine

- ✓ Two dose Pfizer series:
  - ✓ Clinical efficacy of 95% (CI 90.3%, 97.6%)
- ✓ Two dose Moderna series:
  - ✓ Clinical efficacy of 94.5% (CI 86.5%, 97.8%)
- ✓ Single dose Johnson and Johnson:
  - ✓ Clinical efficacy of 66.9% (CI 59.0%, 73.4%)



## Vaccine Efficacy in the Age of the Delta Strain

- ✓ One review article:
  - ✓ mRNA vaccines (Moderna and Pfizer):
    - ✓ efficacy of 77.7% (CI 62.3%, 88.6%)
    - ✓ Incidence of Death: 0% in vaccinated, 1.25%–4.5% in unvaccinated
  - ✓ Viral Vector Vaccines (J and J type): efficacy of 67.74% (CI 62.3%, 72.5%)
  - ✓ Incidence of Death: Insufficient data
- ✓ Review article plus statistical modeling
  - ✓ Overall efficacy of mRNA and viral vector vaccines predicted to have an overall efficacy that is 25%-50% less than the original COVID strain

## Covid Vaccine Boosters

- ✓ Currently recommended for those who:
  - ✓ Received a Pfizer or Moderna Vaccination initial series more than 6 months ago
  - ✓ AND
  - ✓ Are 65 years old or older
  - ✓ OR one or more of the following
    - ✓ 18+, living in long-term care facility
    - ✓ 18+ with underlying medical conditions
    - ✓ 18+ who work or live in high risk settings

## Vaccines are Now Mix and Match Approved

- ✓ As of 10/20/2021 FDA has approved “Mix and Match” vaccination
- ✓ After completing an initial series with Moderna, J and J, or Pfizer COVID vaccines, any of the three vaccines may be administered as a booster in accordance with booster eligibility



## Bottom Line on Vaccines and Travel

- ✓ Vaccination of all eligible family members is the best way to protect your family from COVID during travel and after



Image: [www.Wikipedia.org](http://www.Wikipedia.org)

## The Ride to the Airport

- ✓ Driving your own car to the airport with your family is equivalent to placing your house on wheels
- ✓ Ride share vehicles
  - ✓ Partition recommended
  - ✓ Avoid sitting in the front seat if possible
  - ✓ Masking of all occupants is preferred



## The Ride to the Airport Continued

- ✓ Other public transit to airport such as bus or rail
  - ✓ Wear masks
  - ✓ Maximize distance from other riders who are not masked
  - ✓ Bring hand sanitizer
  - ✓ Shorter the ride the better



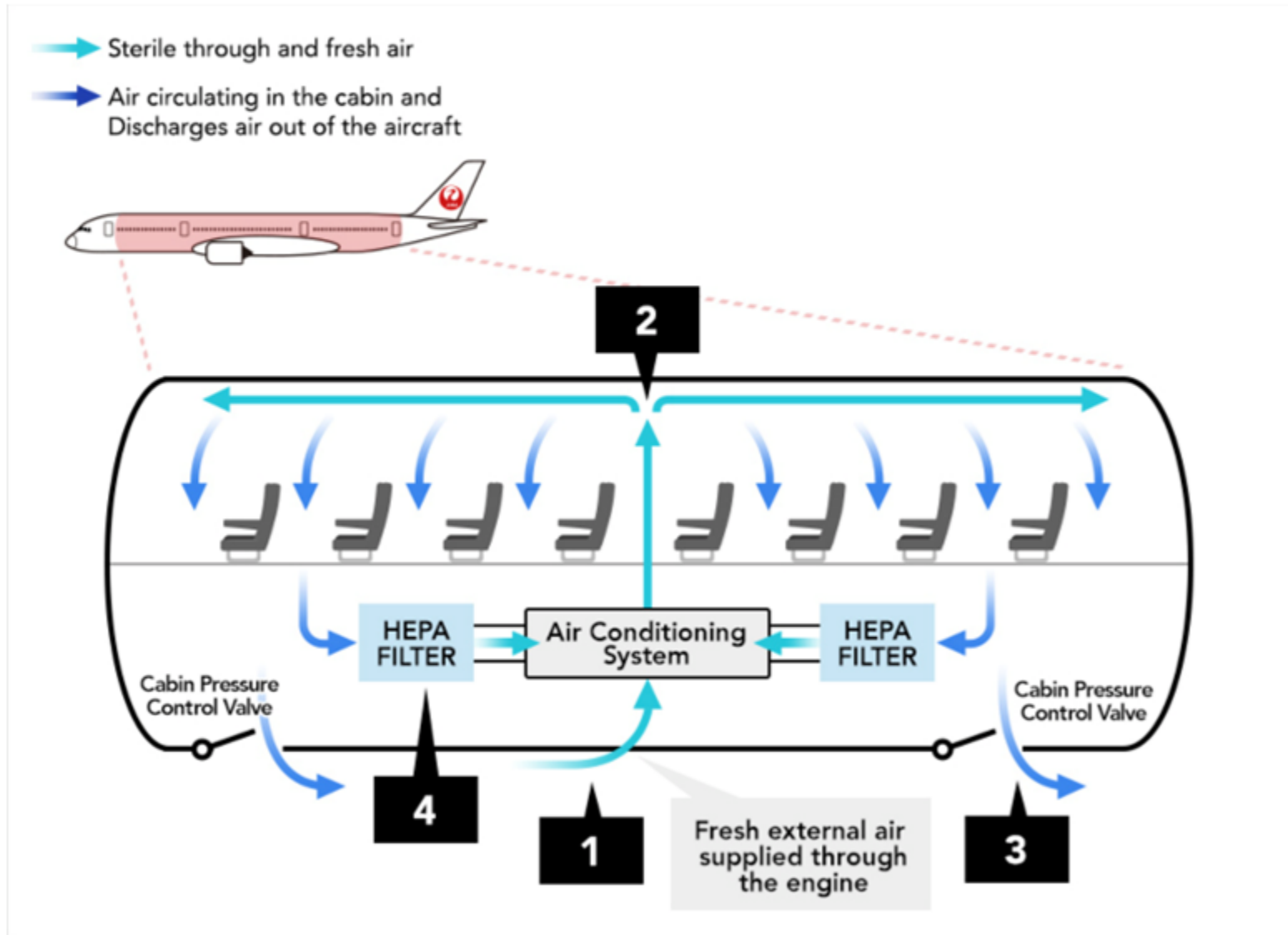
## At The Airport

- ✓ There is a federal CDC order, requiring people to wear masks while on public transportation or in public transportation hubs unless
  - ✓ They are eating
  - ✓ Asked to briefly lower the mask for security
  - ✓ They are wearing an oxygen mask in the event of cabin depressurization
  - ✓ Briefly while communicating with someone who is hearing impaired
  - ✓ While in respiratory distress
  - ✓ While unconscious, for reasons not involving sleeping
  - ✓ Under the age of 2
  - ✓ Have a disability that precludes them from wearing a mask

## In Flight

- ✓ Federal CDC mask order remains in effect
- ✓ Commercial aircraft have ventilation systems with hepa filters and that circulate air through the cabin more frequently (once every 3-4 minutes) than those of buildings or other public transportation
  - ✓ HEPA filter will remove 99.7% of Covid droplets, so 50/50 air is as clean as all fresh air would be from a covid standpoint.
- ✓ Aircraft are considered lower risk than other shared public transportation as a result.

# Air Circulation Aboard Commercial Aircraft



## Air Circulates Vertically and not Horizontally



## Inflight Risks

- ✓ Overall estimates of air traveler contracting COVID all over the place:
  - ✓ 1 in 27 million travelers
  - ✓ 1 infection per 54 flight hours on a 12 hour flight, with a passenger volume of that of a Boeing 777 or 767
  - ✓ 15 infected in one flight without masks
- ✓ Data is difficult given different cofounders at different times
  - ✓ Variable masking
  - ✓ Vaccinations
  - ✓ Delta variant



## Inflight Risks

- ✓ Like other respiratory infections before it, COVID can be spread within two rows of a contagious passenger.
- ✓ Although hard data on this does not exist, utilizing the personal air vent above the seat may improve local air quality further.
- ✓ Utilization of lavatory does not appear to increased risk of infection
- ✓ Aisle seats do appear to be associated with increased risk of infection
- ✓ Business class or First class do not have a decreased risk of transmission

## Inflight Infection Mitigation Conclusions

- ✓ Air travel “safer” than bus or train travel
- ✓ Wear masks as much as tolerated (Multilayer better than, single layer cloth. N95 the best protection when properly fitted)
- ✓ Avoid the aisle seat if possible
- ✓ Utilize personal air vents
- ✓ Exercise good hand hygiene practices

## Your Final Destination

- ✓ Vacation rental with only your household is the safest
- ✓ Hotels or bed and breakfasts with common eating areas are believed to have higher risk
- ✓ Sharing bathroom facilities at your lodging location with those outside of your household should be avoided.



# Thank You and Safe Travels

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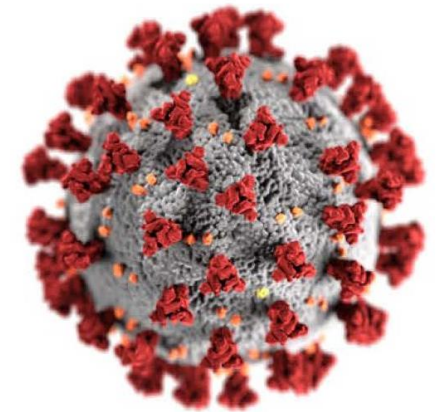
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## **COVID FAQs**

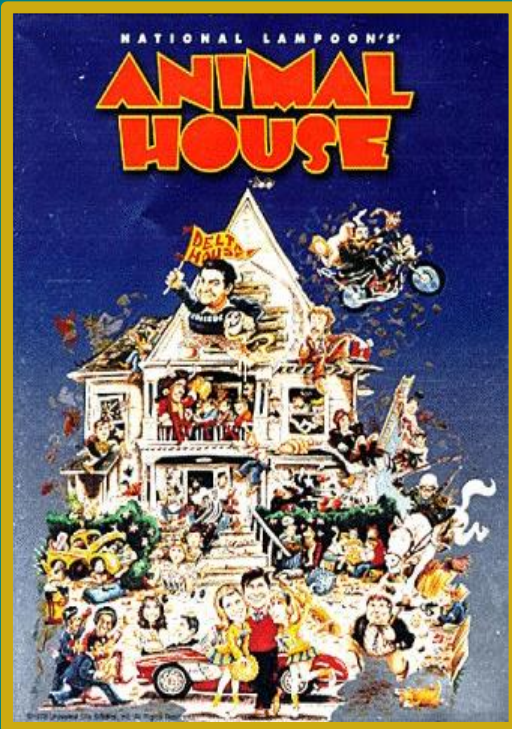


### **Robert Katzer MD MBA FACEP FAEMS**

**Professor, Emergency Medicine  
University of California, Irvine  
Air Medic, San Bernardino Sheriff Air Rescue Team  
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# Your Fouled Up...You Trusted Us





## COVID-19 Risk Index

Risk levels for exposure vary based on four main factors:



**Enclosed space**



**Duration of interaction**



**Crowds**

Density of people + challenges for social distancing



**Forceful exhalation**

Sneezing, yelling, singing, and coughing

### Low

**Walking outdoors**  
With or without pets

**Staying at home**  
Alone or with members of your household

**Picking up takeout food, coffee, or groceries from stores**  
Risk: Potential crowding

**Running or biking**  
Alone or with another person

Risks: Close contact or potential clustering of people

**Outdoor picnic or porch dining**  
With non-household people and physical distancing

Risks: Potential crowding and activity



### Medium

**Visiting hospital emergency department**  
Risk: Indoor, potential clustering of people

**Medical office visit**  
Risk: Indoor, close contact, potential clustering of people, high-touch surfaces

**Dentist appointment**  
Risk: Indoor, close contact, potential clustering of people, patient not wearing a mask

**Taking a taxi or a ride-sharing service**  
Risk: Dependency on frequency of cleaning, duration of ride, and number of passengers

**Museum**  
Risk: Indoor, close contact/potential clustering of people

**Outdoor restaurant dining**  
Risk: Close contact, potential clustering of people, challenge to wear a mask during eating

**Playing "distanced" sports outside**  
Ex. Tennis or golf

**Grocery shopping**  
Risk: Indoor, close contact, potential clustering of people, high-touch surfaces

**Retail shopping**  
Risk: Indoor, close contact, potential clustering of people

### Low / Medium

### Medium / High

**Exercising at a gym**  
Risk: Indoor, close contact/potential clustering of people, high-touch surfaces, difficult to wear a mask, high respiratory rate

**Hair/nail salon and barbershops**  
Risk: Prolonged close contact, difficult to wear a mask

**Working in an office**  
Risk: Indoor, high-touch surfaces, prolonged close contact/potential clustering of people

**Indoor restaurant or coffee shop**  
Risk: Indoor, prolonged close contact/potential clustering of people, difficult to wear mask while eating and drinking

**Public transportation Subway or bus**  
Risk: Enclosed space, prolonged close contact/potential clustering of people, and high-touch surfaces

**Religious services**  
Risk: Enclosed space, prolonged close contact/potential clustering of people, high-touch surfaces, singing/projection of voice

### High

**Indoor party**  
Risk: Indoor, prolonged close contact/potential clustering of people  
Additional risks: alcohol (loss of inhibition), shared joint/pipe (coughing)

**Air travel**  
Risk: Enclosed space, prolonged close contact/potential clustering of people, and high-touch surfaces

**Concert**  
Risk: Enclosed space, prolonged close contact/potential clustering of people, high-touch surfaces, yelling/projection of voice

**Movie theater or live theater**  
Risk: Enclosed space, prolonged close contact/potential clustering of people, high-touch surfaces

**Bars and nightclubs**  
Risk: Enclosed space, prolonged close contact/potential clustering of people, high respiratory rate, yelling/projection of voice

**Playing contact sports**  
Football, basketball, soccer, etc.  
Risk: Prolonged close contact/potential clustering of people, high respiratory rate, unable to wear a mask

**Watching sports**  
Risk: Prolonged close contact/potential clustering of people, high-touch surfaces, yelling/projection of voice, enclosed space (if indoor)

**REOPEN INTELLIGENTLY.  
REOPEN SAFELY.**





## Emergency Checklist:

- ✓ Medical Power of Attorney
- ✓ Smartphone ICE Notification
- ✓ Know Emergency Providers
- ✓ Medical Record Access

# Emergency Checklist:

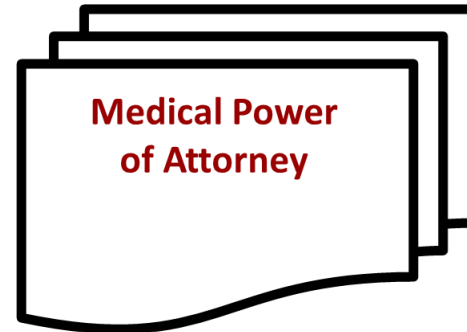
✓ Medical Power of Attorney

✓ Smartphone ICE Notification

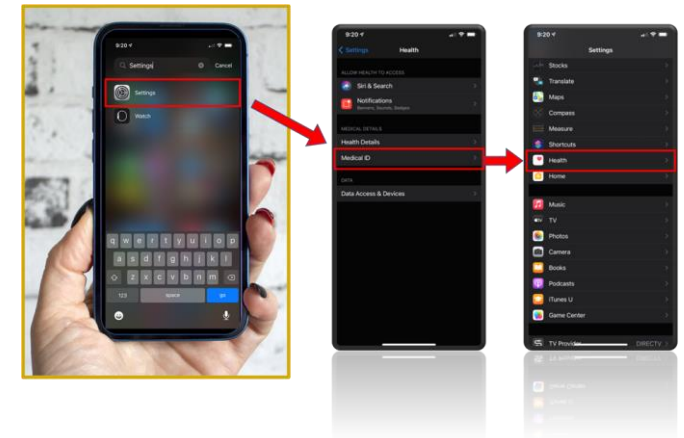
✓ Know Emergency Providers

✓ Medical Record Access

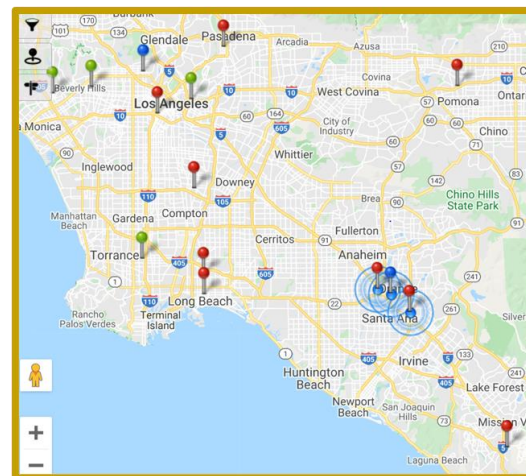
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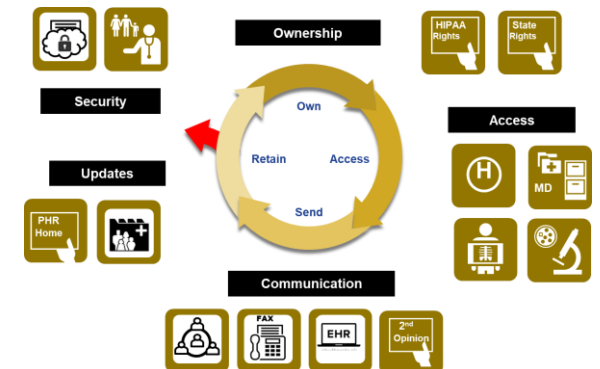


✓ Know Emergency Providers



✓ Medical Record Access

*The 5 Rights of Medical Records™*

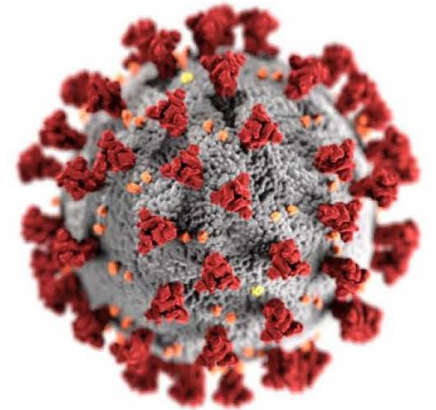


## ***Checklist for Singles & Seniors***



### **Robert Katzer MD MBA FACEP FAEMS**

**Professor, Emergency Medicine  
University of California, Irvine  
Air Medic, San Bernardino Sheriff Air Rescue Team  
Medical Director, City of Anaheim, Fire and Rescue**

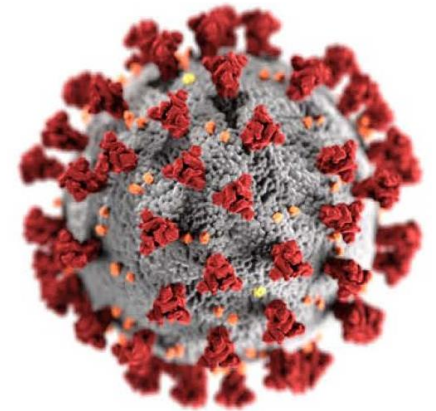


# The In Case of Emergency Checklist A Lawyer's Perspective



**Gunita Singh JD**

**Staff Attorney  
Reporters Committee  
For Freedom of the Press  
Georgetown University  
Law Center Alumna**



## Speakers & Reactors



Jennifer Dingman



Robert Katzer



Dr. Gregory Botz



Dr. Brittany Barto



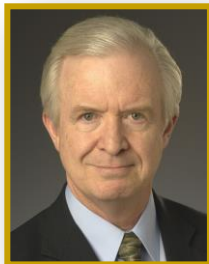
William Adcox



Heather Foster RN



Charlie Denham III



John Nance JD



David Morris PhD JD



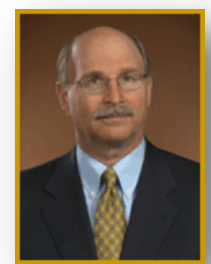
Gunita Singh JD



Paul Bhatia EMT



David Beshk



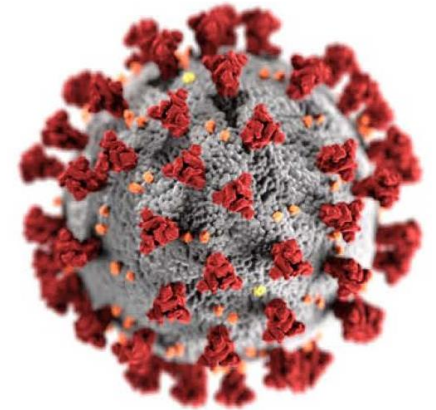
Dr. C Denham

## ***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**

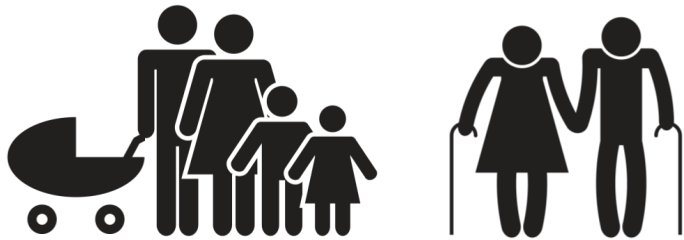
**Finish the Race**

**Keep the Faith**

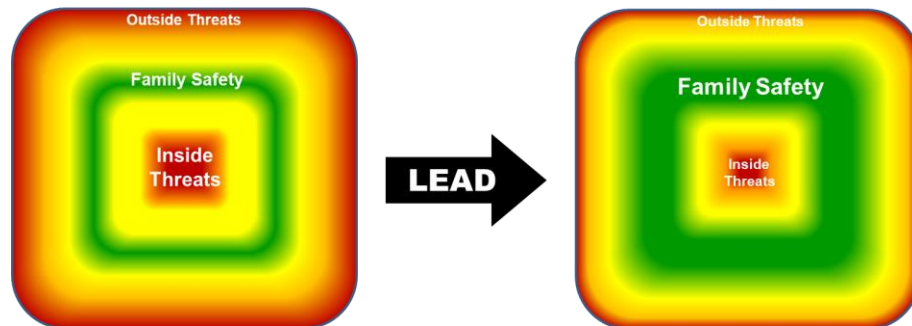


# Additional Resources

# 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 Coronavirus 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

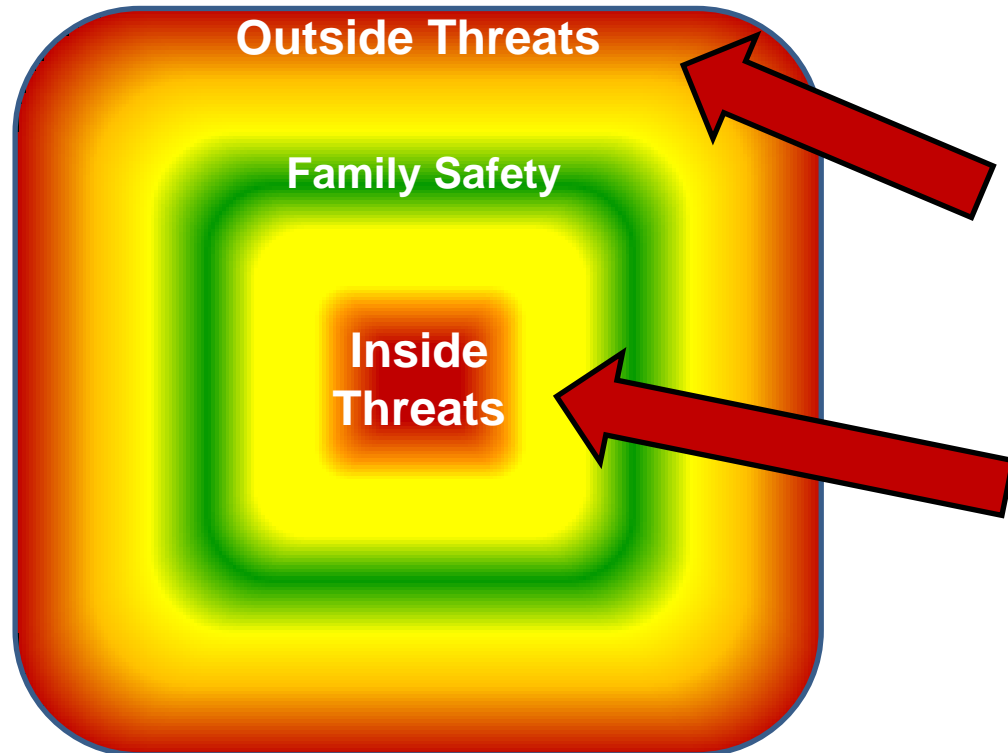
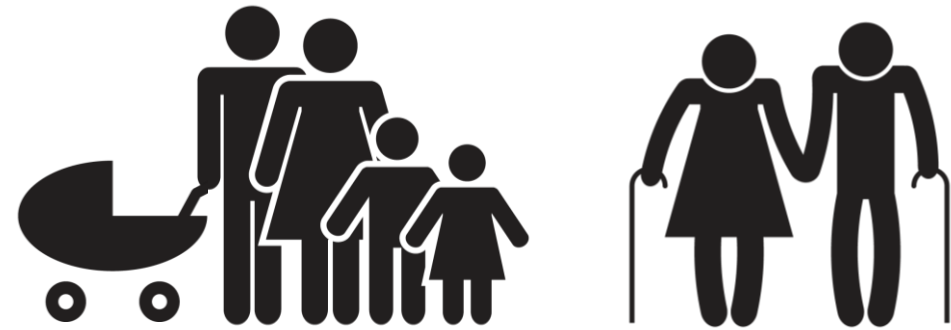
- A leader or leaders of the family act as the CFO – Chief Family Officer who drives the plan: Readiness, Response, Rescue, Recovery, and Resilience.

## 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:

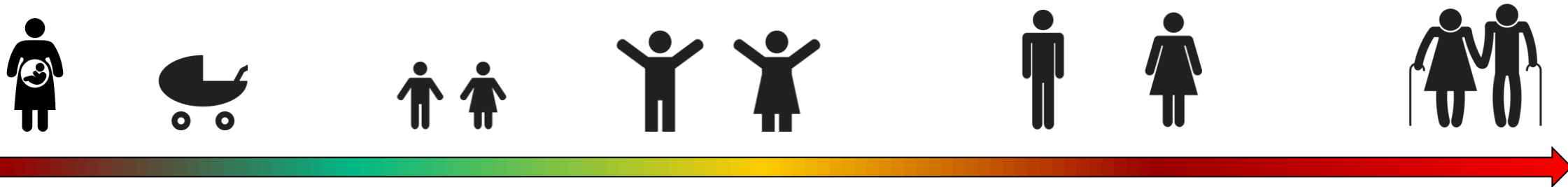
#### Outside Threats from Community

- 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 Moms**

**Under 2 Years**

**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 Coronavirus Threats

### Inside versus Outside Threats

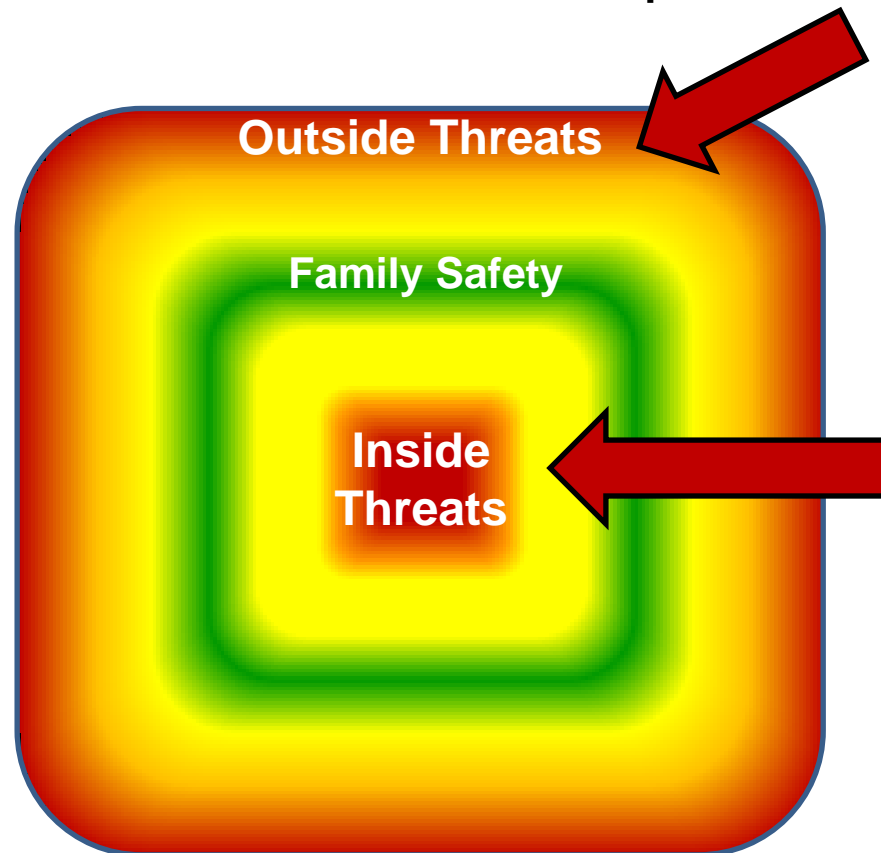
- High Background Community Infection or trending with more infections.
- Schools without proper Test, Trace, Treat, Isolate, and Quarantine Programs.
- Group Activities and Sports without Proper Prevention - Social Distancing etc.

### Outside Threats:

- 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 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.



**STEP 3: Develop a Family Safety Plan**

## Reduce Vulnerability

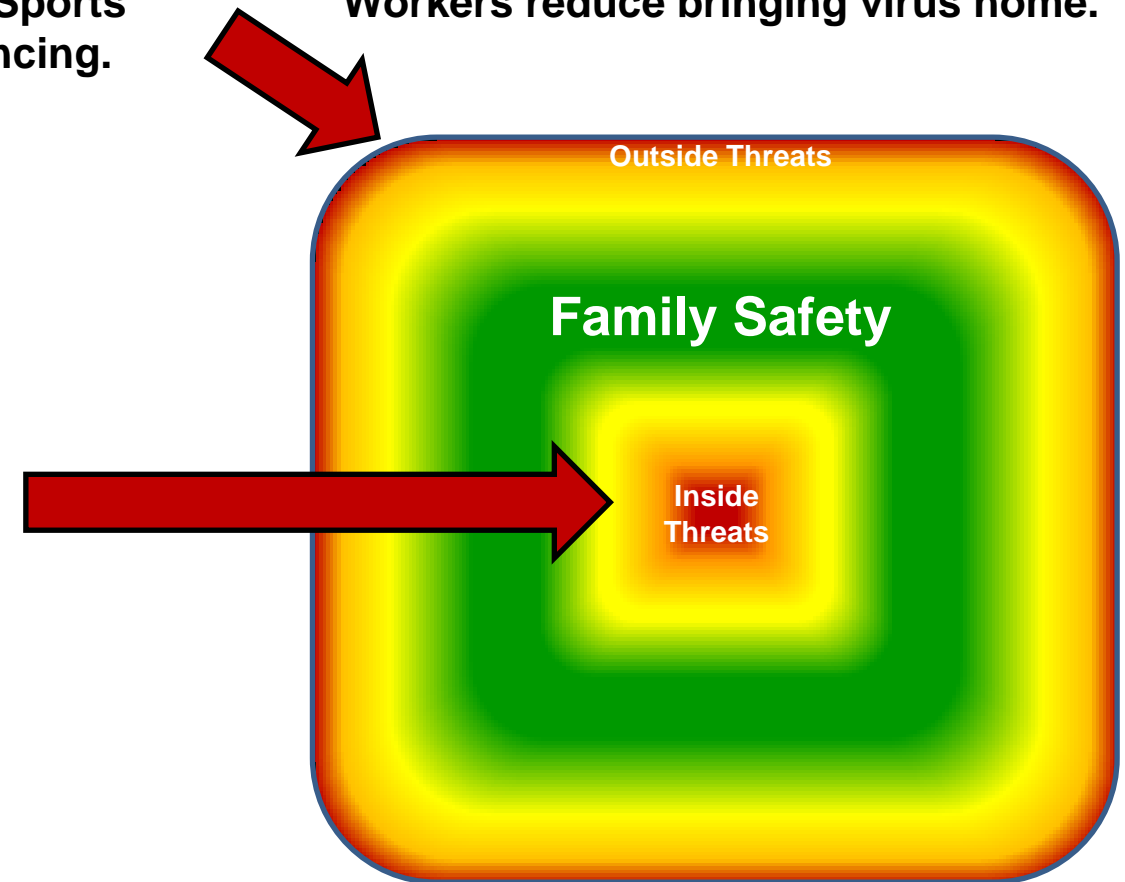
- Adjust behaviors depending on Background Community Infection and local infection trends.
- Base school decisions on Test, Trace, Treat, Isolate, and Quarantine Programs.
- Avoid Group Activities and Sports without Proper Social Distancing.

## Reduce Vulnerability to Outside Threats:

- 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 Inside Threats:

- 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:

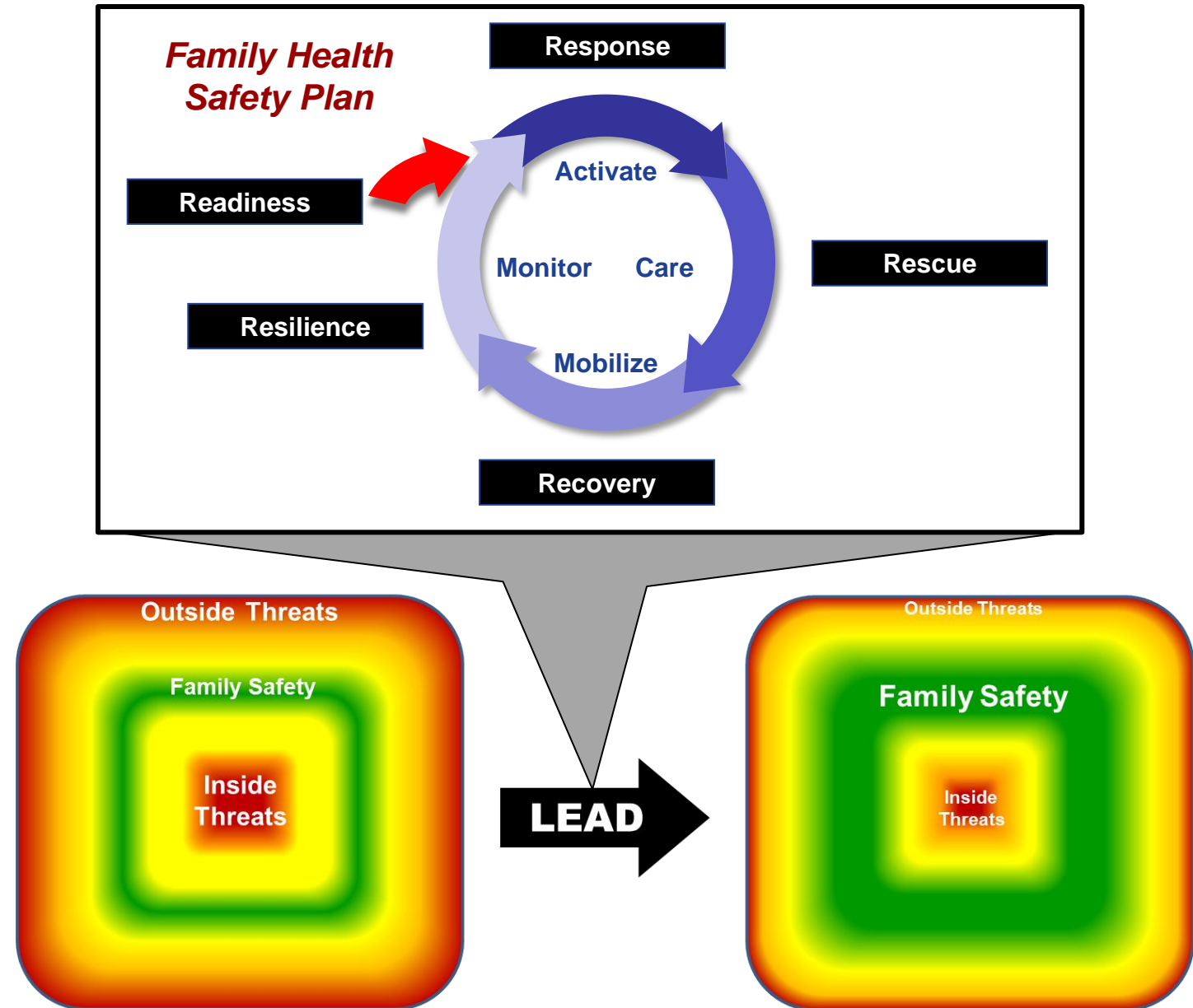
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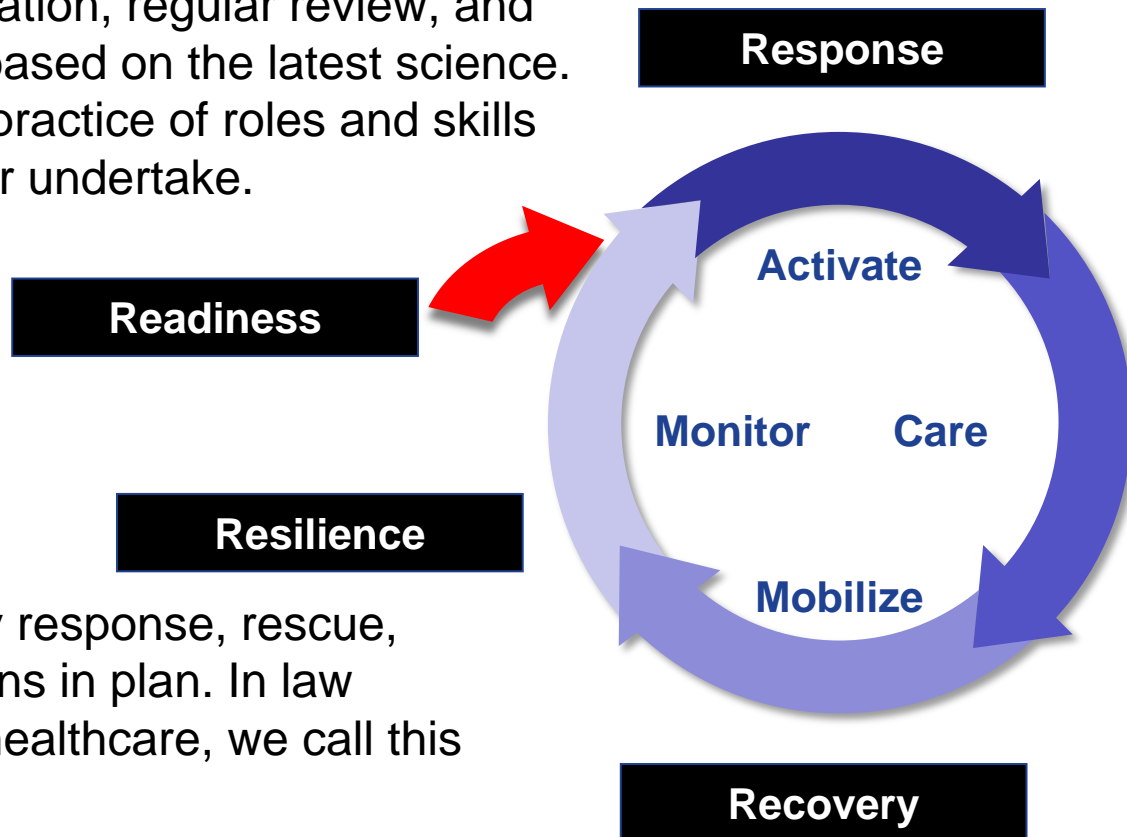
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- The novel Coronavirus virus science, threats, vulnerabilities, and therefore the family risk changes continuously. Every airplane flight plan is modified along the route – so will your family safety plan.



## Family Health Safety Plans

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



**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.

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

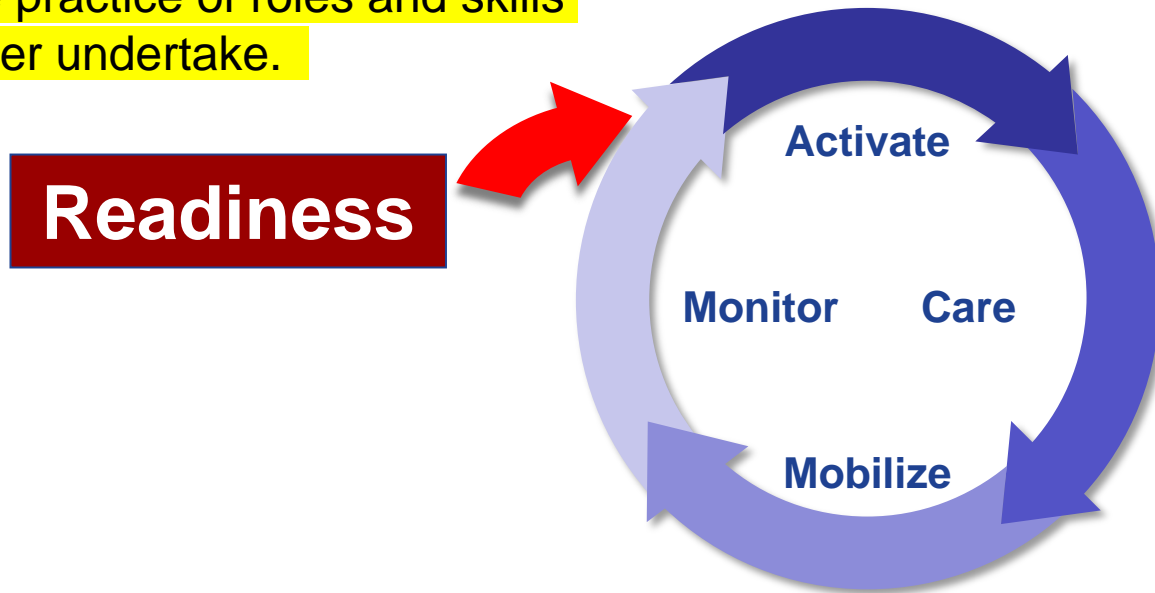
**Rescue:** Regular deliberate practice of roles and skills to take a loved one to the Emergency Department if they have severe symptoms. This means having records and medications ready go with the patient.

**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.”



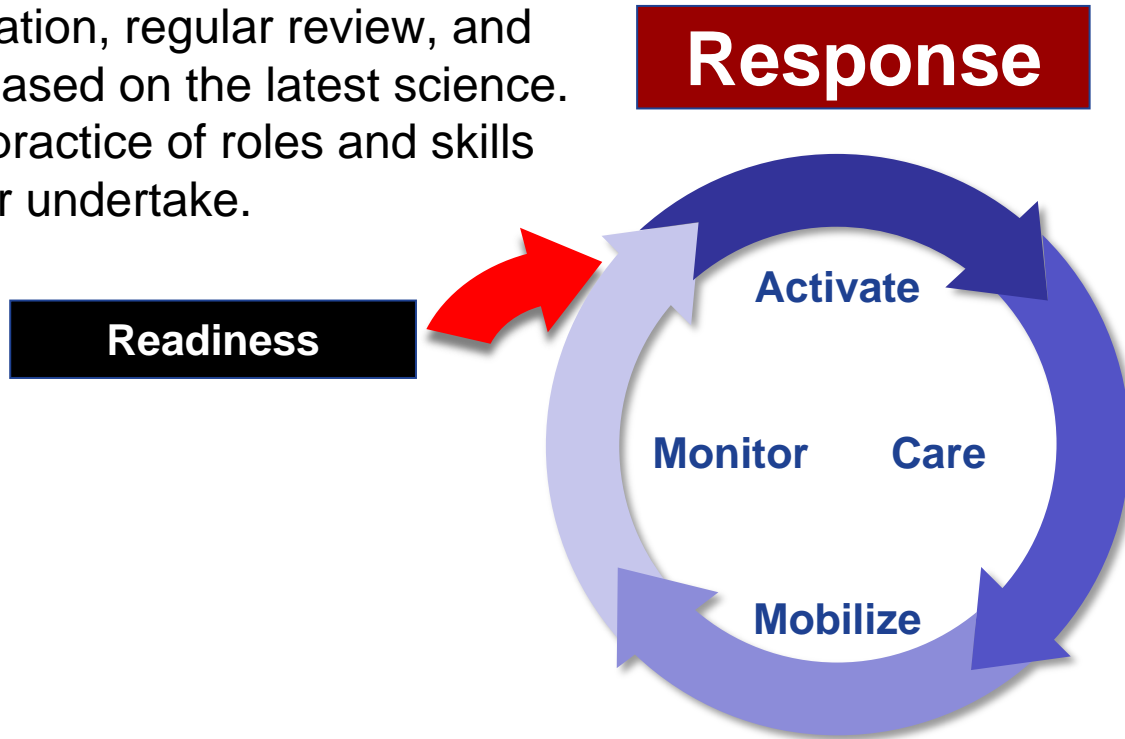
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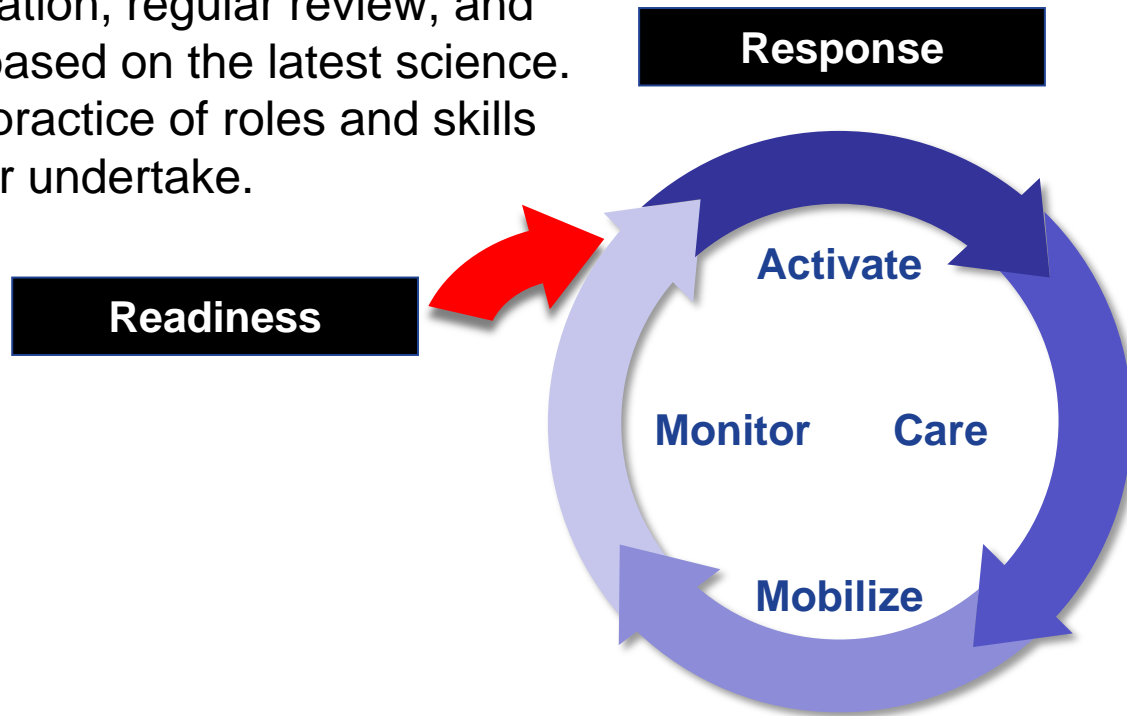
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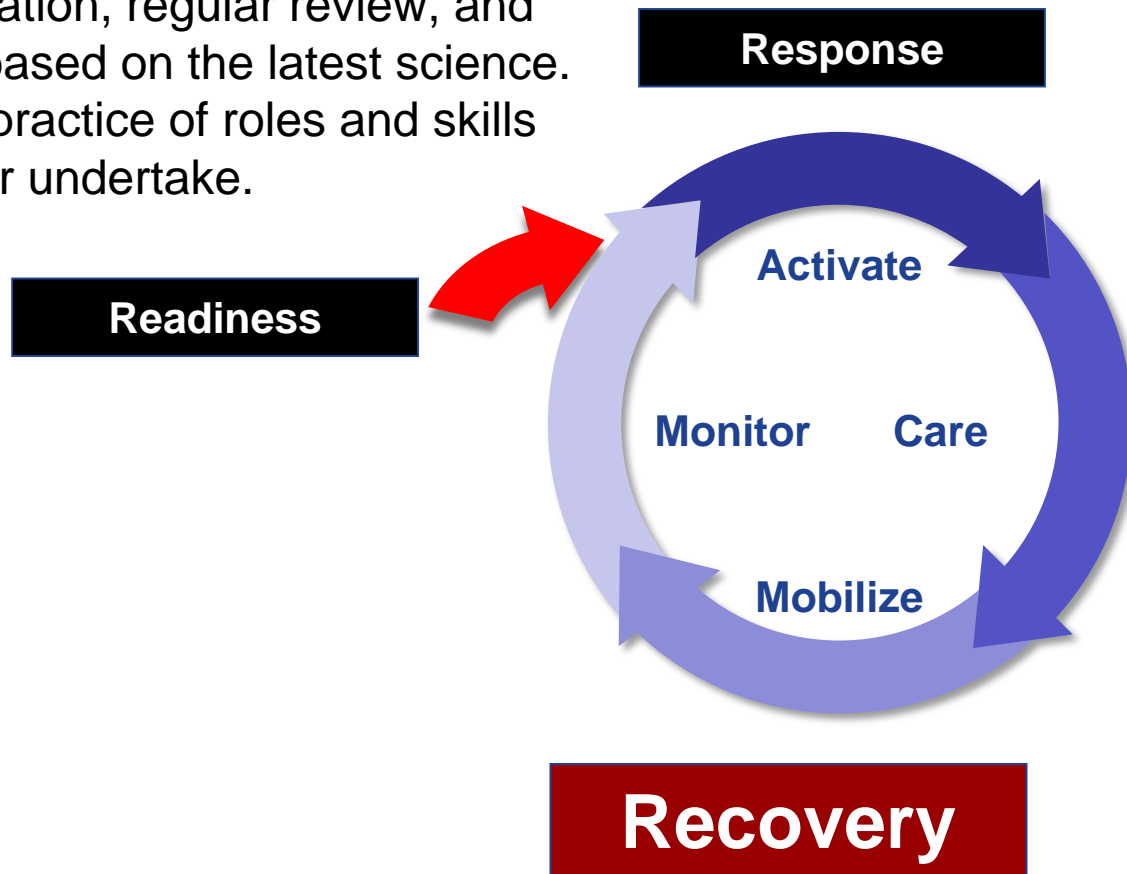
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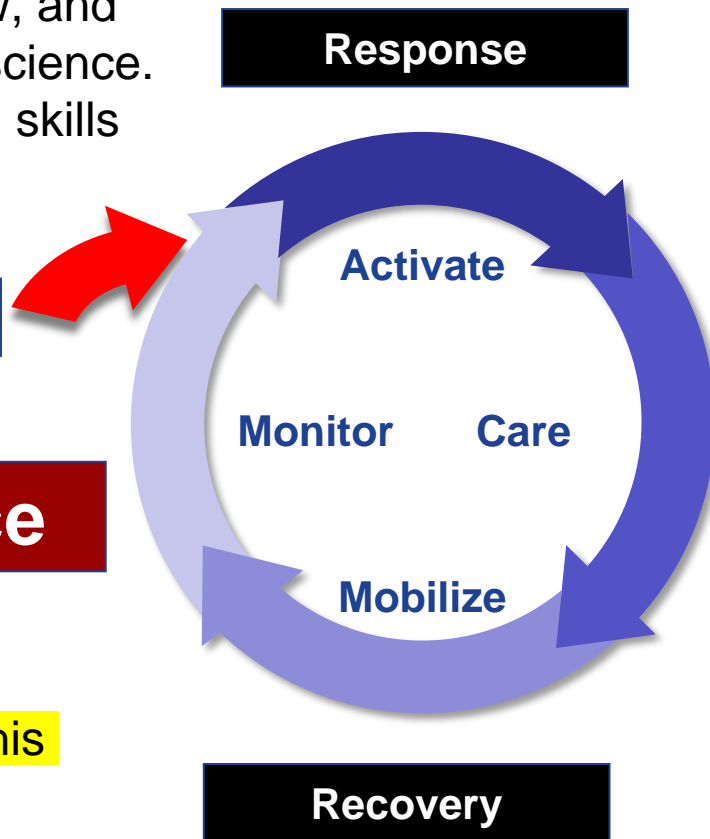
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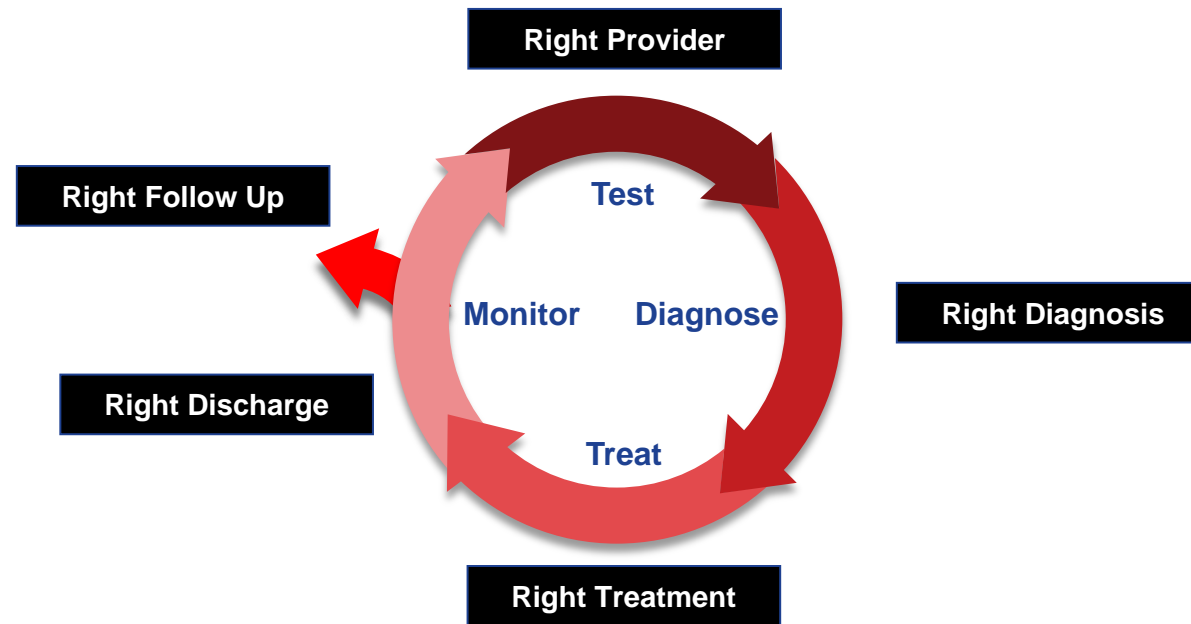
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# The 5 Rights of Emergency Care™



**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.

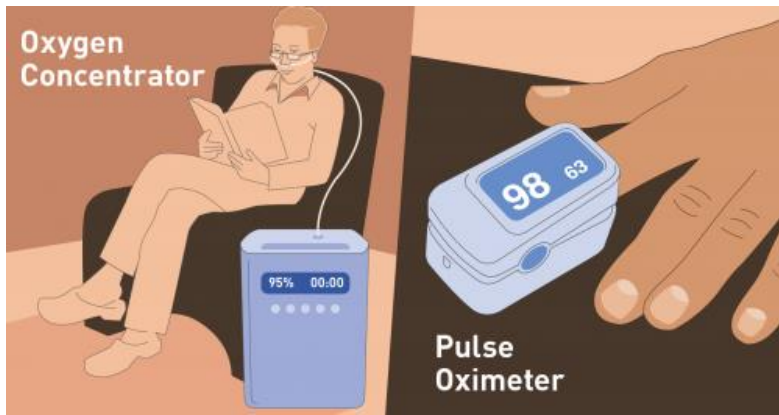
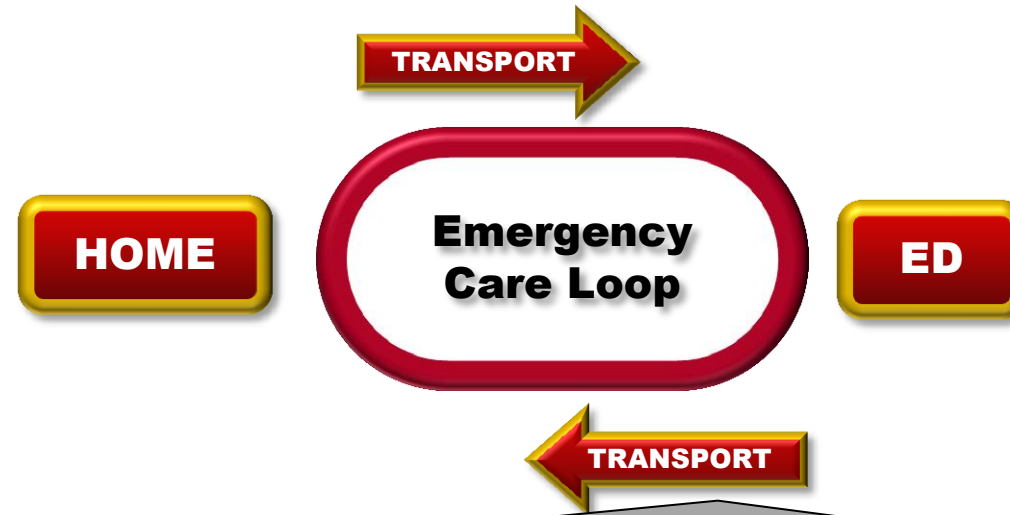
**Right Treatment:** It is important to understand both the short-term implications of emergency care as well as the long-term implications. An emergency medicine visit is a snapshot in time.

**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



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

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

Cardiac Arrest

Choking & Drowning

Opioid Overdose

Anaphylaxis

Major Trauma

Infection Care

Transportation Accidents

Bullying

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

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

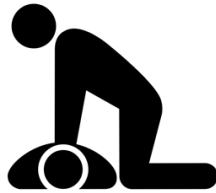
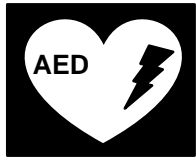
**Bystander Rescue Skills** are the competencies that bystanders can learn that will save lives in the few precious minutes before the professional first responders arrive. Such behaviors can be learned by children, adults, and entire families. We have programs for children, adults, law enforcement,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

**Med Tac** 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*

**Drowning:** By population, drowning and near drowning events are very common. Since much of the OC population is near water, the numbers are likely much greater.  
*Possible Lives Saved in the US: 8 per day*

## Opioid OD & Poisoning



**Opioid Overdose and Poisoning:** An exploding opioid OD crisis is gripping our nation with a great toll on families. Narcan opioid reversal agents, rescue breathing and positioning, and rapid EMS response saves lives. Awareness drives prevention.  
*Possible Lives Saved in the US: There are 197 OD deaths per day. Up to 8 lives may be saved per hour.*

## Anaphylaxis



**Anaphylaxis & Life Threatening Allergies:** Many events are unreported; however 22% occur in children without a prior diagnosis of allergies. More than one in twenty adults will have an anaphylactic event in their lifetime. Epinephrine auto-injectors save lives within minutes.  
*Possible Lives Saved in the US: 1 per day*

## Major Trauma



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



**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.*

## Cardiac Arrest



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

## COVID-19 and Adult CPR

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



### Step 1



Phone 9-1-1 and get an AED.

### Step 2



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



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

### Step 3



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

### Step 4



Use an AED as soon as it is available.

KJ-1424 4/20 © 2020 American Heart Association

## Cardiac Arrest



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***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.

A



### MULTI-STEP NASAL SPRAY

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

NO BRAND NAME/GENERIC

COST: \$-\$\$

B



### SINGLE-STEP NASAL SPRAY

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

BRAND NAME: Narcan

COST: \$\$\$

C



### INTRAMUSCULAR INJECTION

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

NO BRAND NAME/GENERIC

COST: \$-\$\$

D



### AUTO-INJECTOR

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

BRAND NAME: Evzio

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

\*Coupons available, see [evzio.com](http://evzio.com) for more info

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

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

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

Used with permission from Boston Medical Center



## 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***

## How To Use An EpiPen

EpiPen is used for severe lifethreatening allergic reactions.

### Signs & Symptoms

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

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

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

Mouth: Swollen tongue or lips

Skin: Swelling or severe itching or hives

1

Form FIST around EpiPen® and PULL OFF BLUE SAFETY RELEASE



2

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



3

Remove EpiPen & massage injection site for 10 seconds.



4

After using EpiPen. MUST seek Medical Attention



### References

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

By: Manjit Gill RN BSN

## 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**



**STOP THE BLEED<sup>SM</sup> SAVE A LIFE**

HARTFORD CONSENSUS<sup>SM</sup>  
SAVE A LIFE  
STOP THE BLEEDING

**1 APPLY PRESSURE WITH HANDS**

**2 APPLY DRESSING AND PRESS**

**3 APPLY TOURNIQUET**

WRAP WIND SECURE TIME

**CALL 911**

The Stop the Bleed campaign was developed by a team of emergency care experts convened by the National Security Council Staff. The White House. The success of the campaign will be measured primarily by better prepared by the public to save lives by using immediate first aid to stop life-threatening bleeding from wounds and other causes and control bleeding. Additional goals include: increasing the number of people who know how to stop the bleeding and the use of this critical lifesaving knowledge to the maximum in the benefit of the general public. The Department of Defense runs the Stop the Bleed sign and program. Additional funding.



## 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*

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

**1** CLEAN ONLY WITH SOAP AND WATER



**2** APPLY ANTIBIOTIC OINTMENT TO CUT



**3** BANDAGE TO WOUND KEEP CLEAN



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



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

## Transportation



### **Non-traffic Related Vehicular Accidents:**

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

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



## Bullying



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

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

## Bullying

