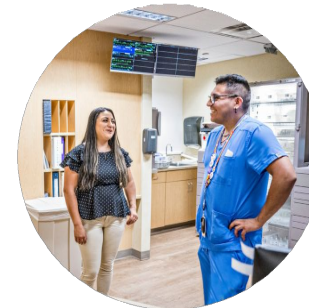


# Welcome!

## **NACCHO Healthcare Infection Prevention and Control Summit:** Equip, Collaborate, and Innovate for Success

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## Disclosure

*Project Firstline is a national collaborative led by the U.S. Centers for Disease Control and Prevention (CDC) to provide infection control training and education to frontline healthcare workers and public health personnel. National Association of County and City Health Officials (NACCHO) is proud to partner with Project Firstline to host the NACCHO Healthcare Infection Prevention and Control Summit (Summit), as supported through CDC Grant # 6NU380T000306-03-05. CDC is an agency within the Department of Health and Human Services (HHS). This presentation is being hosted as part of the Summit; the contents of this presentation and Summit do not necessarily represent the policies of CDC or HHS and should not be considered an endorsement by the Federal Government.*



## Things to Know:

- Agenda
- Main Sessions
- Breakout Sessions
- Session Evaluations
- Passport to IPC
- Meals
- Certificate of Attendance
- Accessibility: State Street Elevators

## Agenda Schedule Change

- **Today at 11am in Salon 1**  
The Project Firstline Escape Room and  
Other IPC Education and Communication Tools
- **Wednesday at 10:30 in Salon 1**  
Leveraging Data to Support Infection  
Preventionists: Insights and Strategic Priorities  
from a Comprehensive Needs Assessment



## Exhibit Hall Hours Today

- Pre-Conference: 7:30am - 9:00am
- Lunch: 12:00pm – 1:30pm
- Afternoon Exhibit Hall Spotlight Session: 3:45pm– 4:15pm

*.....Followed by Chicago's Urban Historian, Dilla!*

# #NACCHOIPCSummit



**Christina Baum, MPH**  
Director of Infectious Disease  
NACCHO



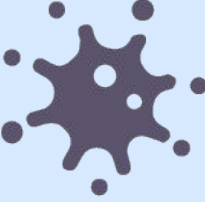
## **Sara Black, MPA, MSW**

Senior Advisor for Programs  
NACCHO

## *Main Session*

# IPC Basics

Training Infection Prevention through Simulation (TIPS)  
University of Washington



# T*i*PS

Training Infection Prevention through Simulation

*This project is supported by the Centers for Disease Control and Prevention/Project Firstline*



# PRE-SESSION ASSESSMENT



[bit.ly/3UFEPWC](https://bit.ly/3UFEPWC)

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# TIPS TEACHING TEAM

## **Ylinne Lynch, MD, MS (Project PI)**

Assistant Professor,  
Division of Pulmonary, Critical Care,  
and Sleep Medicine

## **Liza Rosenman, MD (Project PI)**

Associate Professor,  
Department of Emergency Medicine  
Adjunct Assistant Professor,  
Division of Healthcare Simulation Science

## **Colleen Farrell**

TIPS Project Manager  
Department of Emergency Medicine

## **Megan Sherman, MAEdHD**

Associate Director  
WWAMI Institute for Simulation in Healthcare (WISH)

## **Laura Flood, RN, BSN, IP**

Clinical Nurse Educator  
Department of Emergency Medicine



# THE LARGER TIPS TEAM – It takes a village

## **Jenny Garnett, MFA, CST**

Simulation Instructional Designer  
WWAMI Institute for Simulation in  
Healthcare (WISH)

## **Tonya Martino, RN, BSN**

Clinical Director of Team Performance  
WWAMI Institute for Simulation in  
Healthcare (WISH)

## **Victoria Roach, PhD**

Director of Evaluation and Assessment  
WWAMI Institute for Simulation in  
Healthcare (WISH)

## **Steve Pergam, MD, MPH**

Associate Professor,  
Vaccine and Infectious Disease  
Division and Clinical Research Division  
Fred Hutch

## **Denise McCulloch, MD, MPH**

Assistant Professor,  
Vaccine and Infectious Disease  
Division and Clinical Research Division  
Fred Hutch

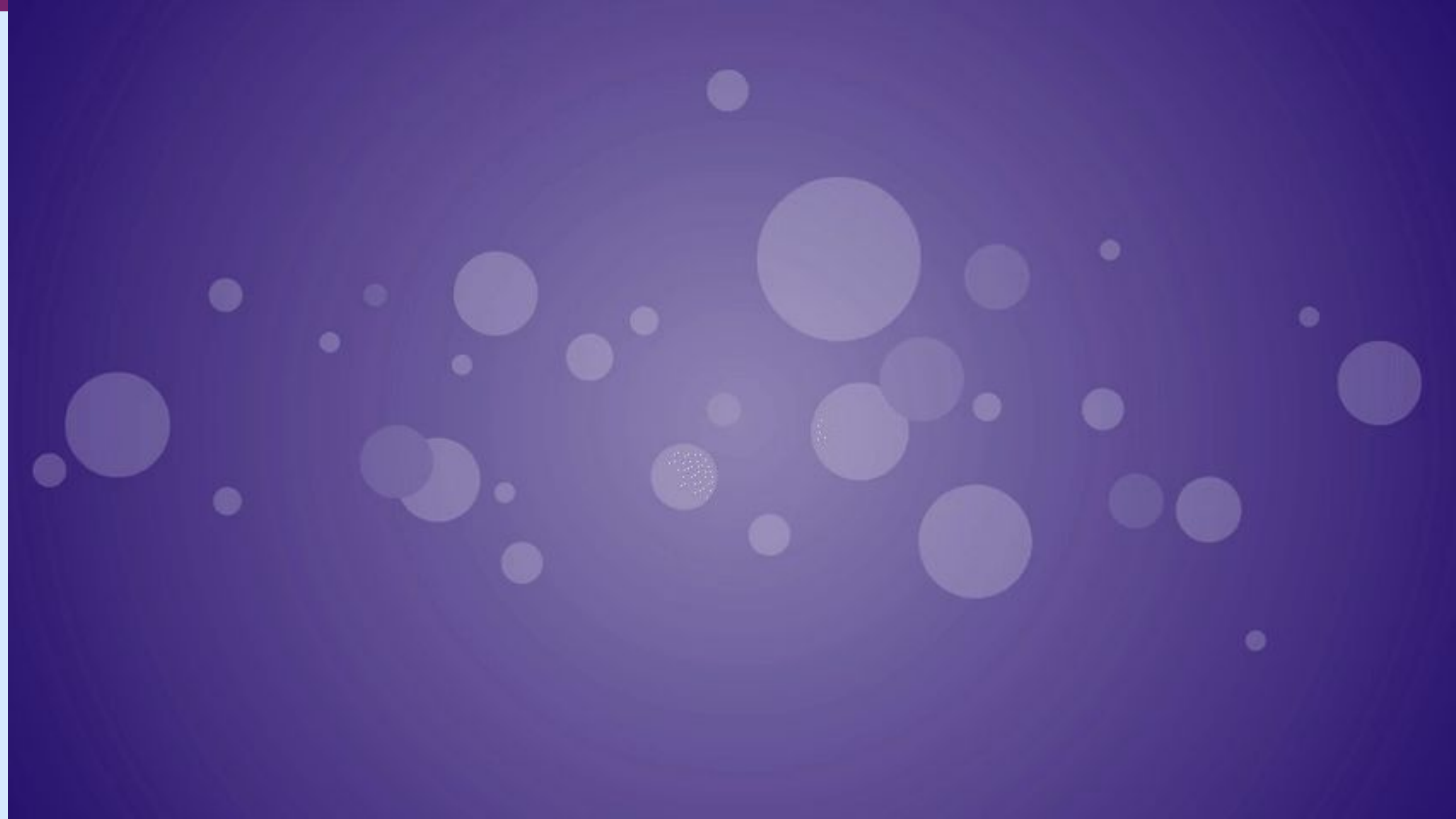
## **Elizabeth Sanders, PhD**

Associate Professor  
Measurement and Statistics  
UW College of Education

## **Min Li, PhD**

Professor  
Measurement and Statistics  
UW College of Education





# ASSESSING RISK

Sort yourselves amongst your group from highest to lowest perceived risk

# ASSESSING RISK

Compare groups



# ASSESSING RISK

Take home points?

# OBJECTIVES

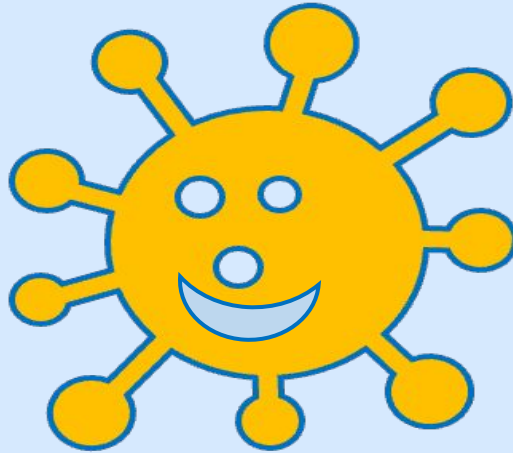
By the end of this session, you will be able to:

- Describe how germs are spread
- Define the Three “I”s (Identify, Isolate, Inform)
- Explain how healthcare workers assess and mitigate risk



# MEET TIPPY

Are you teaching me or teaching me how to teach?



In a word, BOTH!  
But Tippy will help us to point it out.

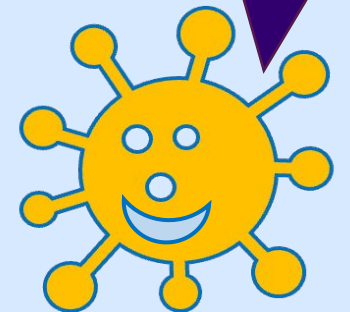
# WHY SHOULD WE CARE ABOUT IPC?



[Source: University Health Handwashing Video \(youtube.com\)](https://www.youtube.com/watch?v=...)

*Using a video can help learners visualize a point.*

*You don't have to be George Lucas – there's lots of great content out there!*



# 5 ELEMENTS OF GERM SPREAD

Reservoir

Germ  
Survival

Pathway

Person

Body's  
defenses



# HOW GERMS SPREAD

## Reservoirs

### Germ habitat

- Break in skin, blood
- Water/wet surfaces
- Dry Surfaces (dirt/dust)
- Respiratory system
- Devices





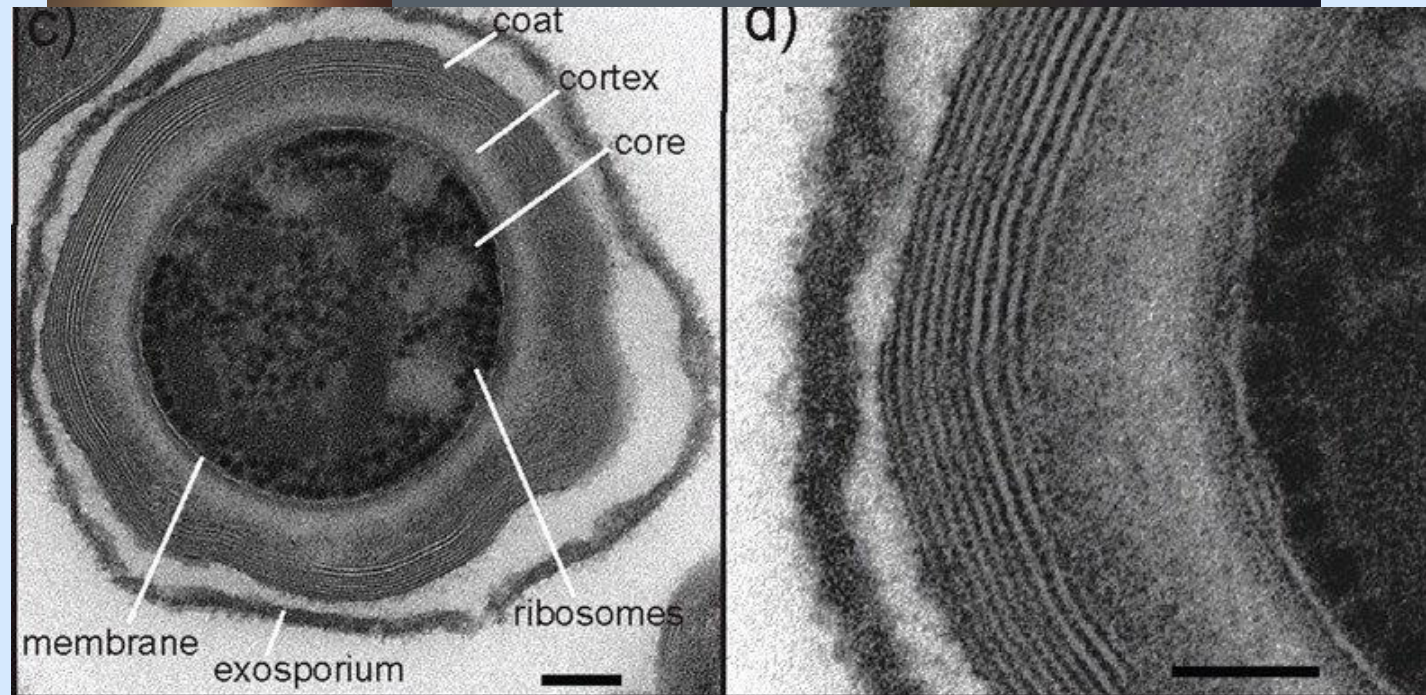
# HOW GERMS SPREAD

## Germ Survival

**Need to survive to make people sick**

- Some germs can survive harsh conditions
- Understanding what the germ is helps you mitigate risk

**C. difficile, spore form**



[https://www.researchgate.net/publication/316014041/C-difficile-spores-a-Endospore-stain-of-C-difficile-culture\\_fig1\\_26307018](https://www.researchgate.net/publication/316014041/C-difficile-spores-a-Endospore-stain-of-C-difficile-culture_fig1_26307018)

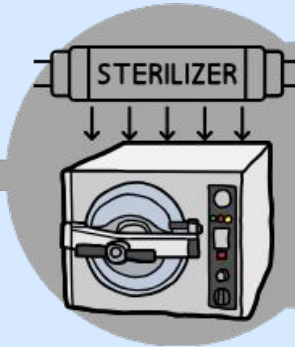
# STOP THE SPREAD: RESERVOIRS, GERM SURVIVAL



**Sanitization**  
REDUCES THE NUMBER OF SOME GERMS ON OBJECTS AND SURFACES



**Disinfection**  
KILLS/INACTIVATES MOST GERMS ON SURFACES WITH CHEMICALS



**Sterilization**  
DESTROYS ALL FORMS GERMS ON SURFACES AND IN FLUIDS WITH EXTREME CHEMICAL OR PHYSICAL PROCESS



# HOW GERMS SPREAD: PATHWAYS

## Pathways

How germs move from person or place



Touch-Indirect

This Photo by Unknown author is licensed under [CC BY](#).



Touch-Direct

This Photo by Unknown author is licensed under [CC BY](#).

Splashes or sprays



Breathing germs in

This Photo by Unknown author is licensed under [CC BY-NC-ND](#).

Clinical tasks that avoid body's defenses



# HOW GERMS SPREAD: PERSON

## Person

### Someone to infect

- Patient
- HCW
- Visitors
- Immunocompromised



This Photo by Unknown author is licensed under CC BY-ND.



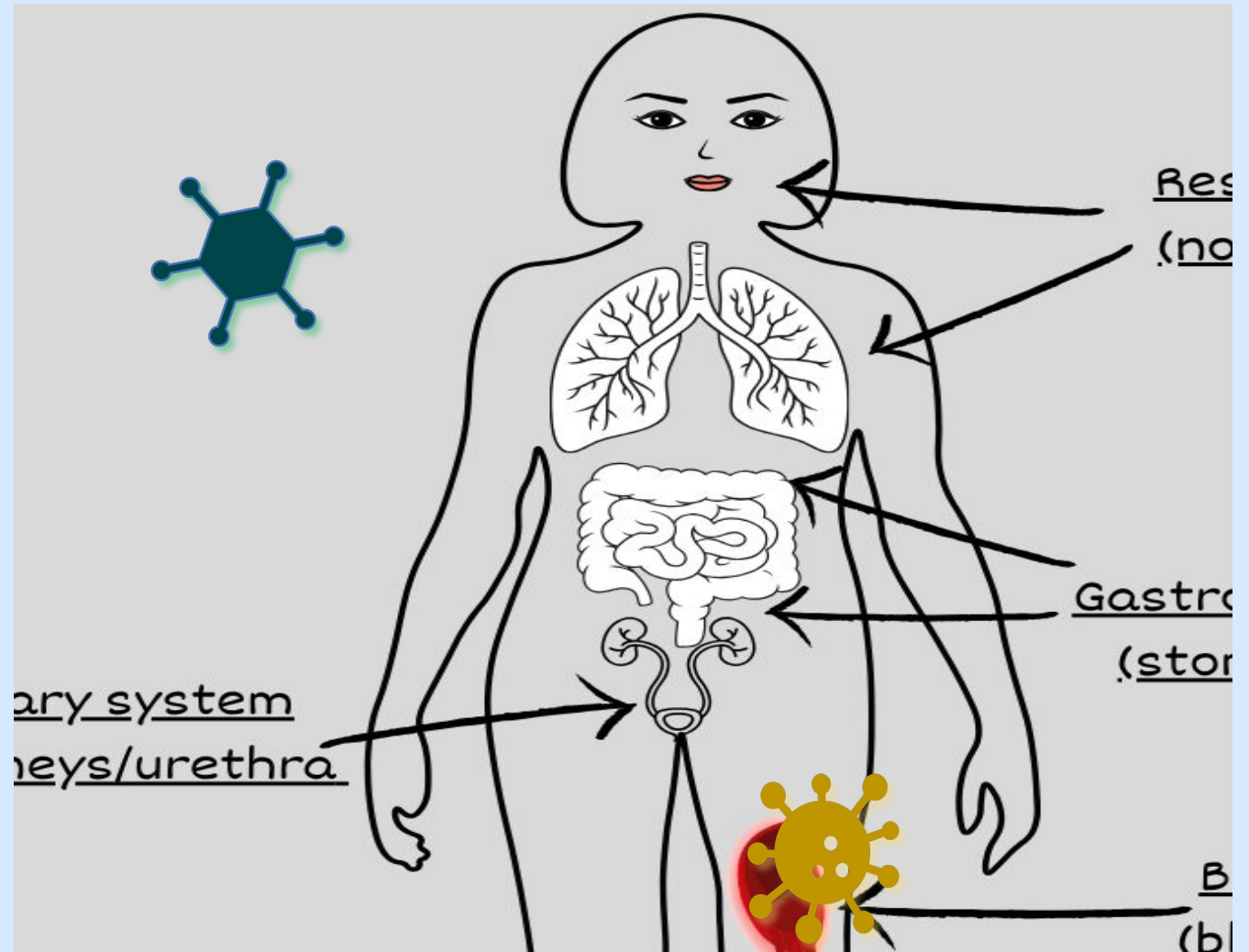
This Photo by Unknown author is licensed under CC BY.

# HOW GERMS SPREAD

## Body's Defenses

Breaks down or bypasses protections

- Must get past body's natural barriers





# STOP THE SPREAD: PATHWAYS, PERSON, BODY'S DEFENSES

All of us can protect

- PPE use
- Limiting invasive devices
- Cleaning your hands



<https://twitter.com/CleantheWorld/status/1237430513125777408>





# PUTTING IT ALL TOGETHER

## Reservoir

- Germs spread to pulse oximeter from a sick patient



## Germ Survival

- HCW fails to clean/sanitize device between patients



## Pathway

- HCW places contaminated device on next patient's hand



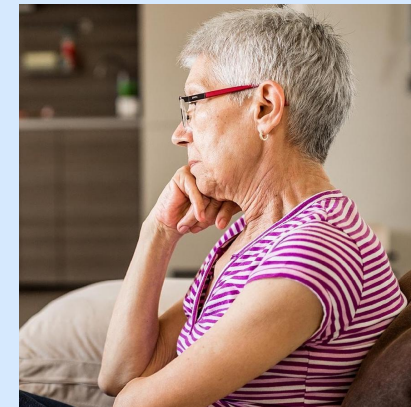
## Person

- Elderly patient with heart condition is more at risk for infection

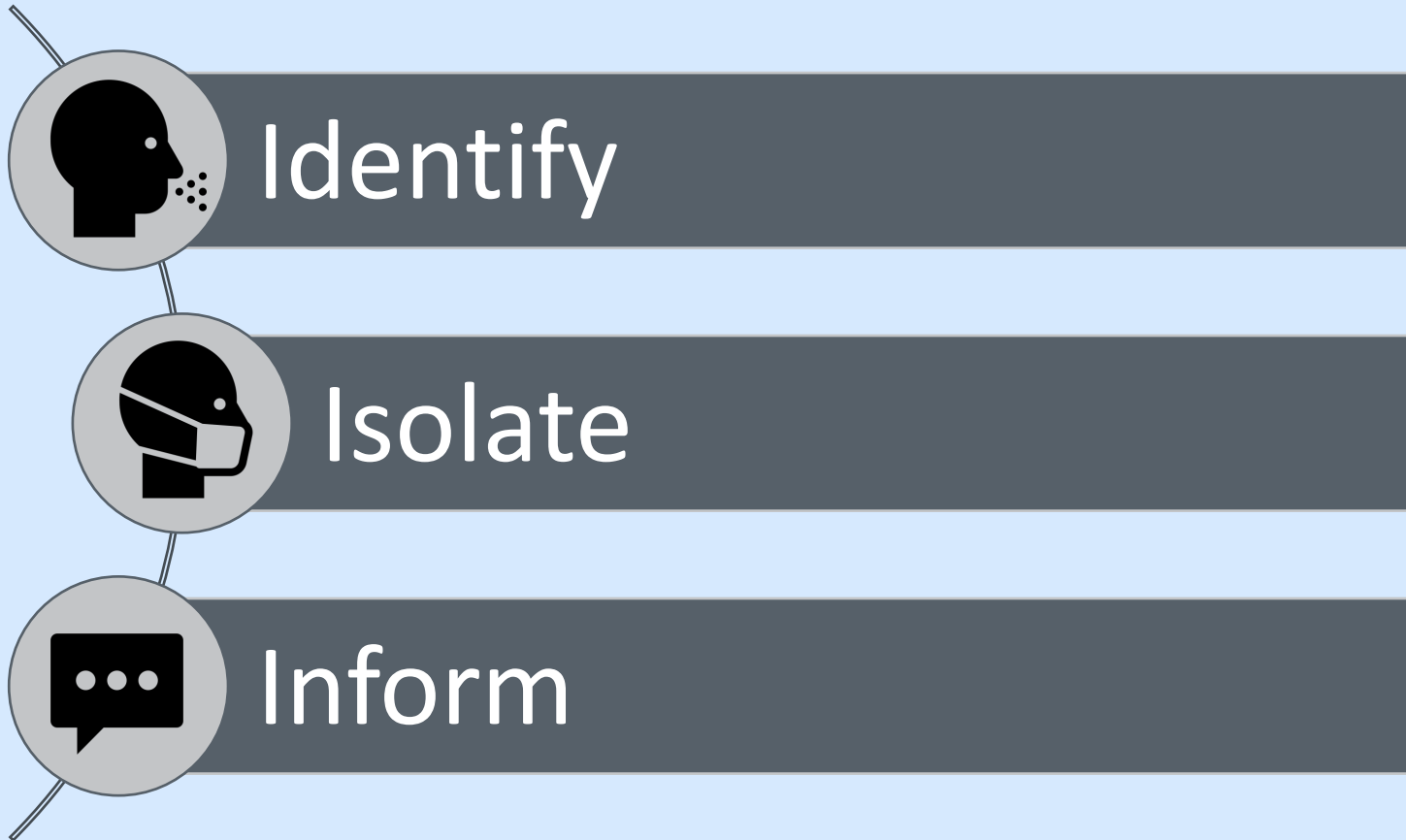


## Body's Defenses

- Patient rubs their face with contaminated hand without hand hygiene



# THE 3 I'S



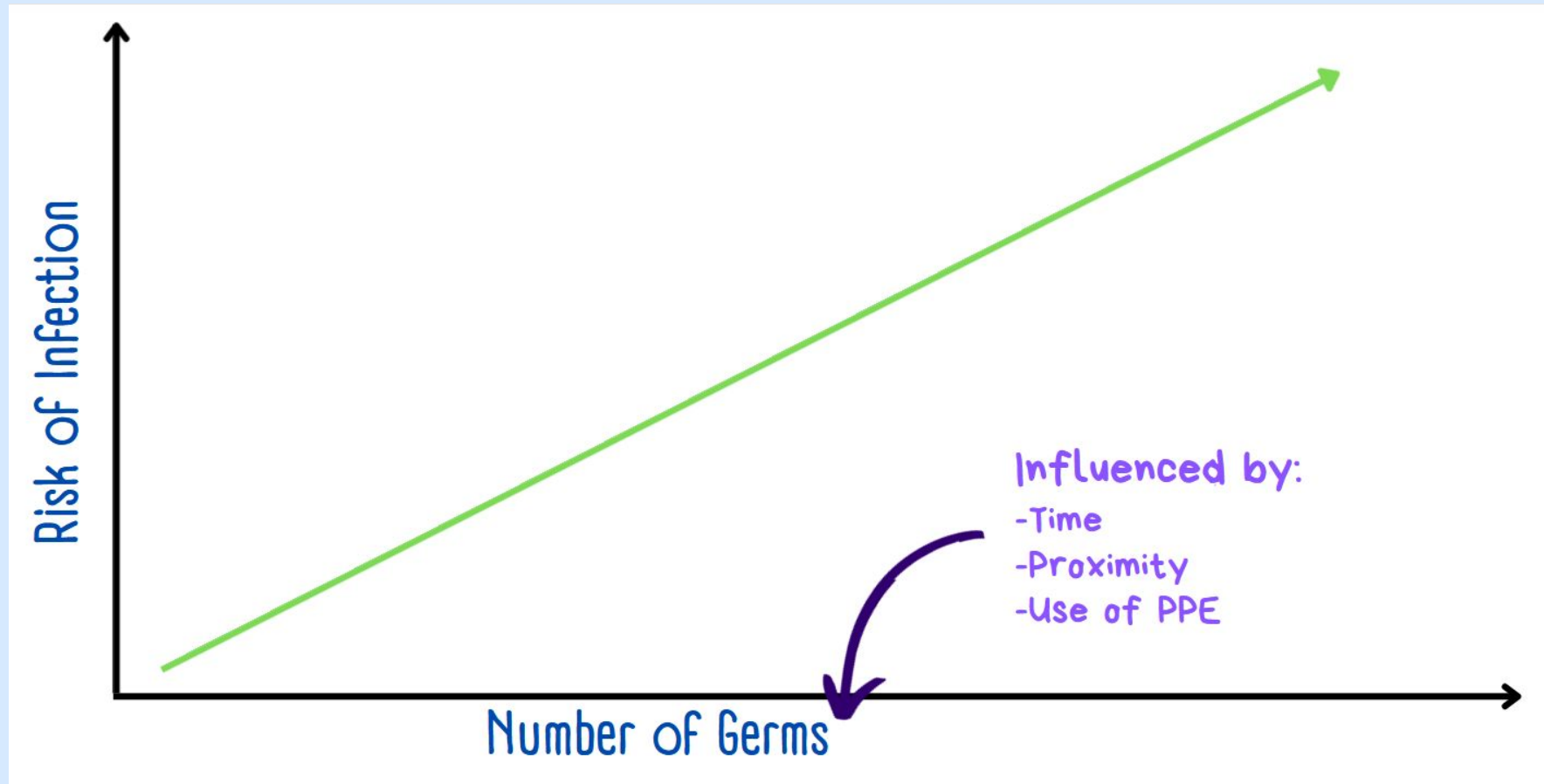
# IDENTIFY

Identify people with symptoms of possible infection



# ISOLATE

**Isolate** patients to prevent the spread of infection to yourself or others



# INFORM

**Inform** the appropriate people about the presence of a potentially contagious person





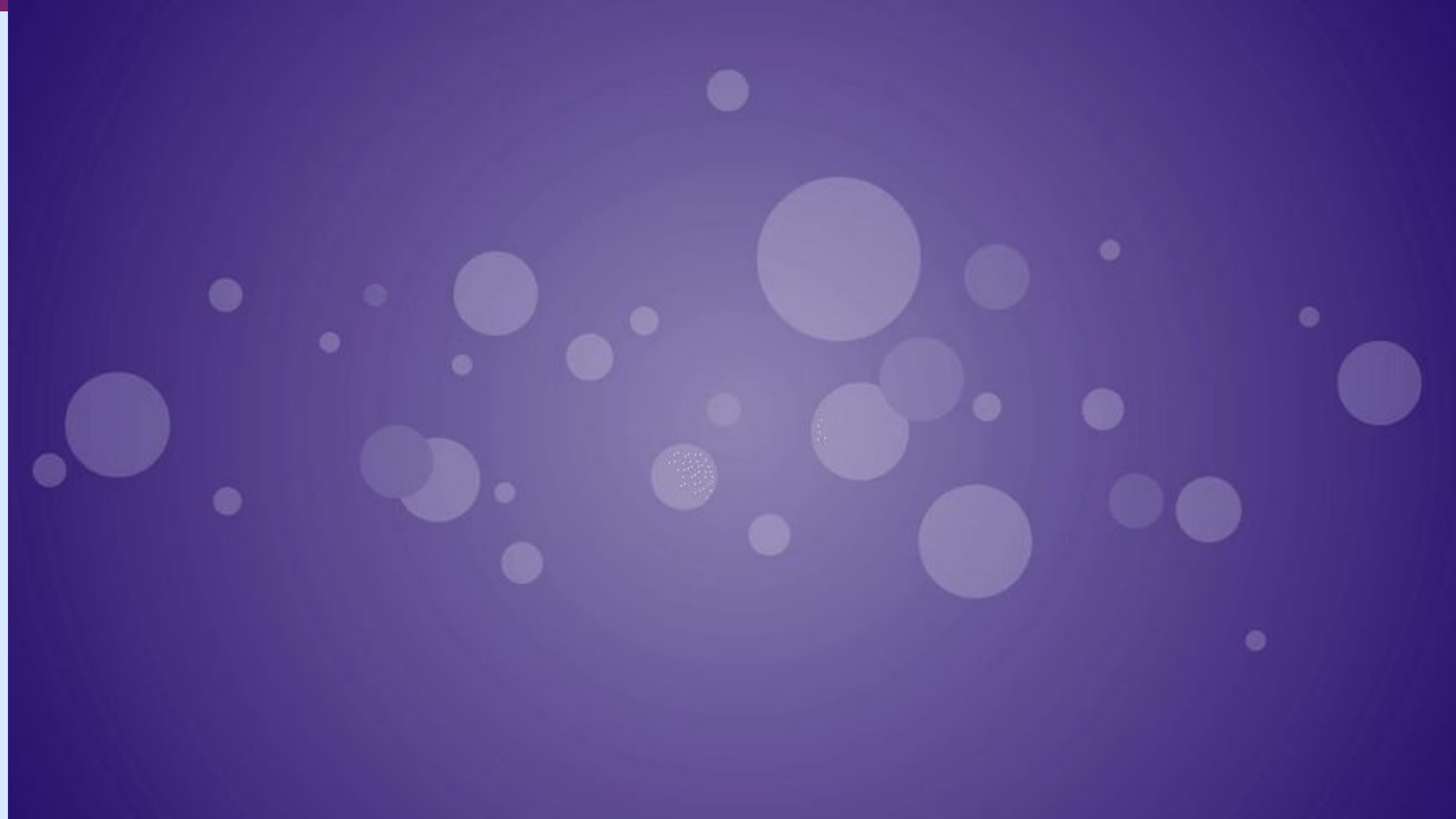
# ASSESSING RISK

Identify the hazards



Decide who might be harmed and how





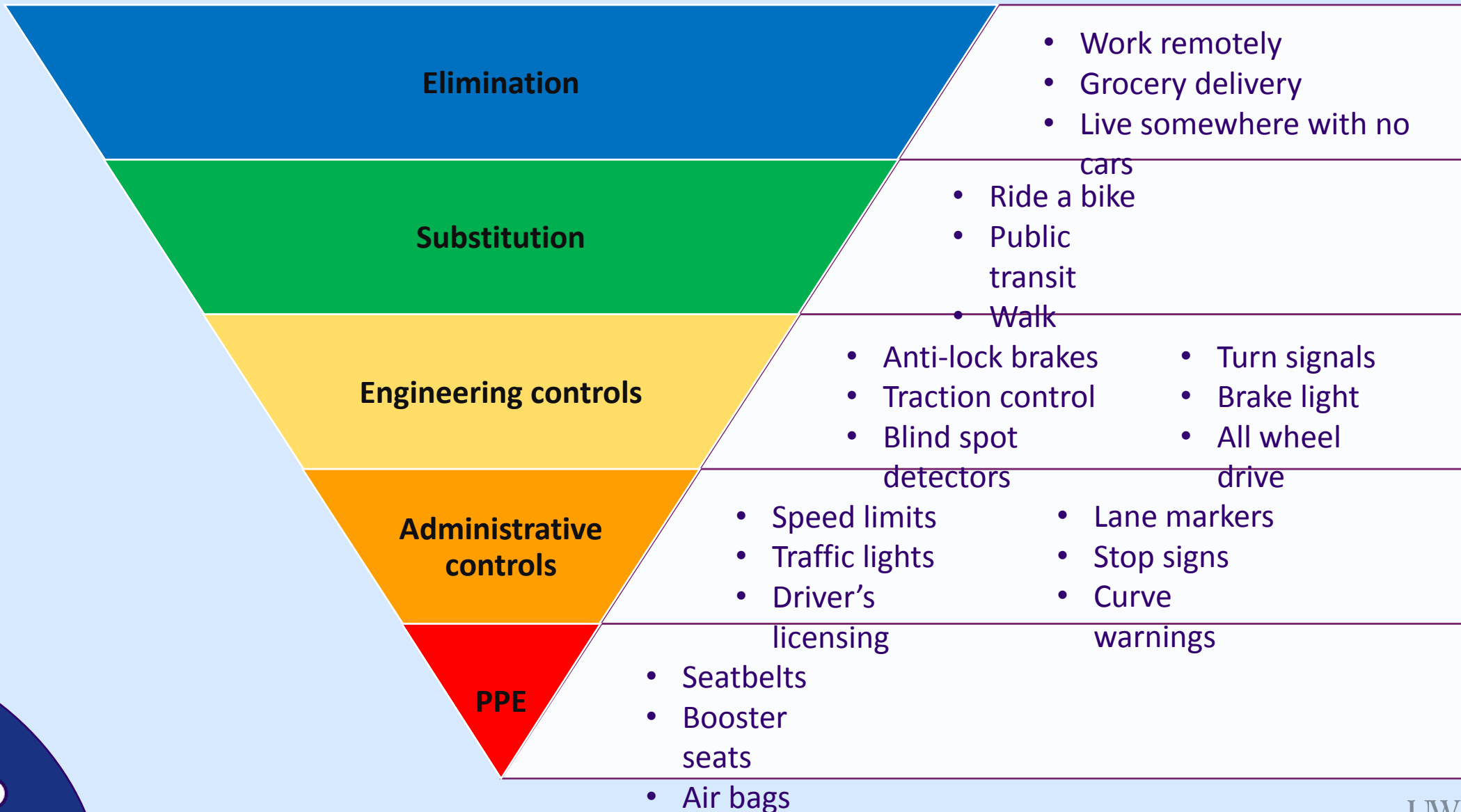
# MITIGATING RISK: INJURY BY MOTOR VEHICLE



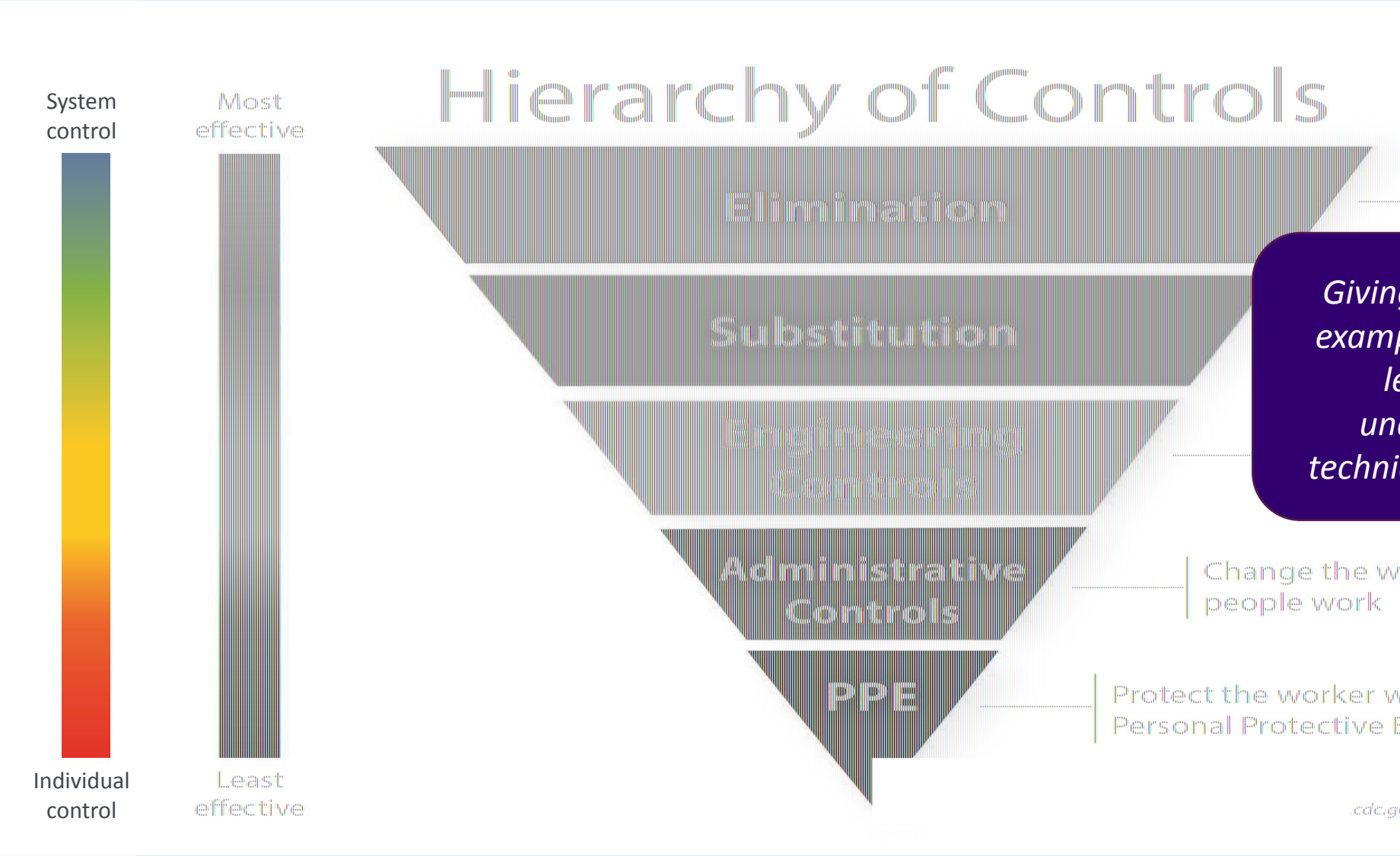


**LET'S GO OVER IT TOGETHER:**

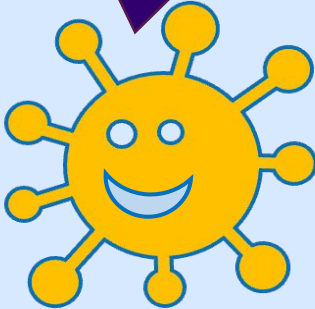
# HIERARCHY OF CONTROLS



# MITIGATING RISK



*Giving a real-life example can help learners understand technical concepts*



# PUTTING IT ALL TOGETHER

Identify the hazards



Decide who might be harmed and how



Decide on an action to mitigate the hazard



# PUTTING IT ALL TOGETHER

Identify the hazards

Decide who might be harmed and how

Decide on an action to mitigate the hazard



Identify



Isolate



Inform





# TRANSMISSION-BASED PRECAUTIONS

**STOP CONTACT PRECAUTIONS STOP**

**EVERYONE MUST:**

-  Clean their hands, including before entering and when leaving the room.

**PROVIDERS AND STAFF MUST ALSO:**

-  Put on gloves before room entry. Discard gloves before room exit.
-  Put on gown before room entry. Discard gown before room exit. **Do not wear the same gown and gloves for the care of more than one person.**
-  Use dedicated or disposable equipment. Clean and disinfect reusable equipment before use on another person.

 U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

**STOP DROPLET PRECAUTIONS STOP**

**EVERYONE MUST:**

-  Clean their hands, including before entering and when leaving the room.

Make sure their eyes, nose and mouth are fully covered before room entry.

 or 

Remove face protection before room exit.

 U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

**STOP AIRBORNE PRECAUTIONS STOP**

**EVERYONE MUST:**

-  Clean their hands, including before entering and when leaving the room.
-  Put on a fit-tested N-95 or higher level respirator before room entry.
-  Remove respirator after exiting the room and closing the door.
-  Door to room must remain closed.

 U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

# CONTACT PRECAUTIONS

Pathway: Touch

PPE: Gown and gloves

Examples: Multi-drug resistant organisms, scabies



**STOP CONTACT PRECAUTIONS STOP**  
**EVERYONE MUST:**

-  Clean their hands, including before entering and when leaving the room.

**PROVIDERS AND STAFF MUST ALSO:**

-  Put on gloves before room entry. Discard gloves before room exit.
-  Put on gown before room entry. Discard gown before room exit. **Do not wear the same gown and gloves for the care of more than one person.**
-  Use dedicated or disposable equipment. Clean and disinfect reusable equipment before use on another person.

PHOTO: CDC  
U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention



# DROPLET PRECAUTIONS

Pathway: Breathing, splashes and sprays

PPE: Mask and eye protection

- Some facilities might require gowns/face shields

Examples: Common cold, influenza





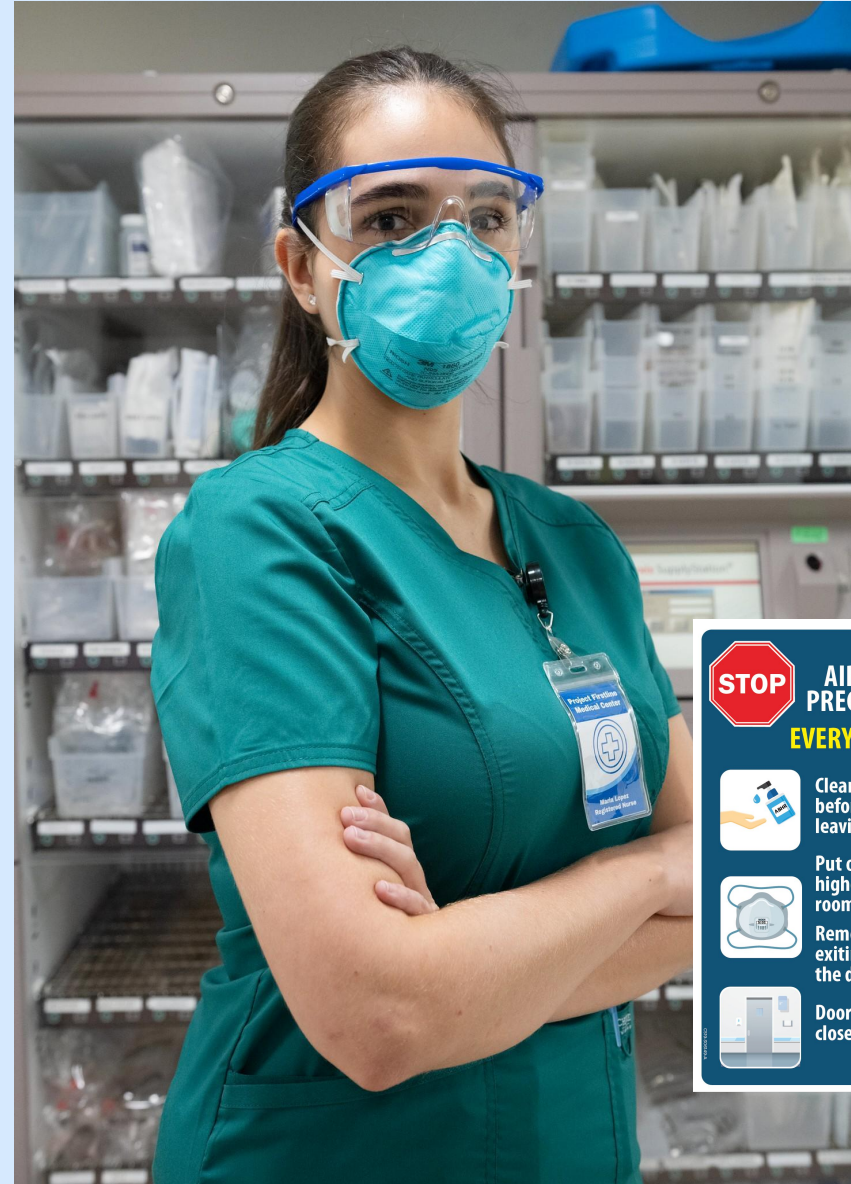
# AIRBORNE PRECAUTIONS

Pathway: Breathing

PPE: N-95 respirator

- Patients should be in a negative airflow room with the door closed

Example: Tuberculosis



**STOP AIRBORNE PRECAUTIONS STOP**  
**EVERYONE MUST:**

- Clean their hands, including before entering and when leaving the room.
- Put on a fit-tested N-95 or higher level respirator before room entry.
- Remove respirator after exiting the room and closing the door.
- Door to room must remain closed.

CDC U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

# NO KNOWN INFECTION

Assume all people could have an infectious disease.

## Standard Precautions:

- Task-appropriate PPE
- Clean hands when entering and leaving the room and after touching the patient



# WHEN IS SOAP AND WATER PREFERRED?

- Hands are visibly dirty
- After contact with someone who has a difficult to kill organism
  - C. difficile
  - Norovirus
- After using the bathroom
- Before eating



Benefit is **only** achieved with thorough technique

# CONCLUSION

The 5 elements of germ spread (reservoirs, germ survival, pathways, patient, and body defenses) help us understand the risk for getting an infection and the best ways to stop the spread.

Assessing and mitigating risk for germ spread are things that we do constantly in our every day lives.

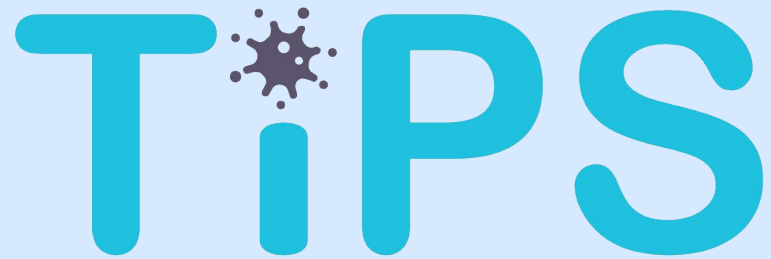
The three I's – identify, isolate, and inform – is a framework for assessing and mitigating risk of germ spread for patients with possible infection.

# SESSION ASSESSMENT



[bit.ly/4dnCiHO](https://bit.ly/4dnCiHO)





Training Infection Prevention through Simulation

## Ways to Stay Connected and Get Involved!

- Email: [uwtips@uw.edu](mailto:uwtips@uw.edu)
- Website: [wish.washington.edu/tips](http://wish.washington.edu/tips)
- Mighty Network: [uw-tips-project.mn.co/](http://uw-tips-project.mn.co/)



*This project is supported by the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$1.25M, with 100 percent funded by CDC/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CDC/HHS, or the U.S. Government.*