

# THE SAFE SYSTEMS PYRAMID

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EPIDEMIOLOGIST



Good Nutrition



Regular Physical Activity



Healthy Weight



Centers for Disease Control and Prevention

National Center for Chronic Disease Prevention and Health Promotion

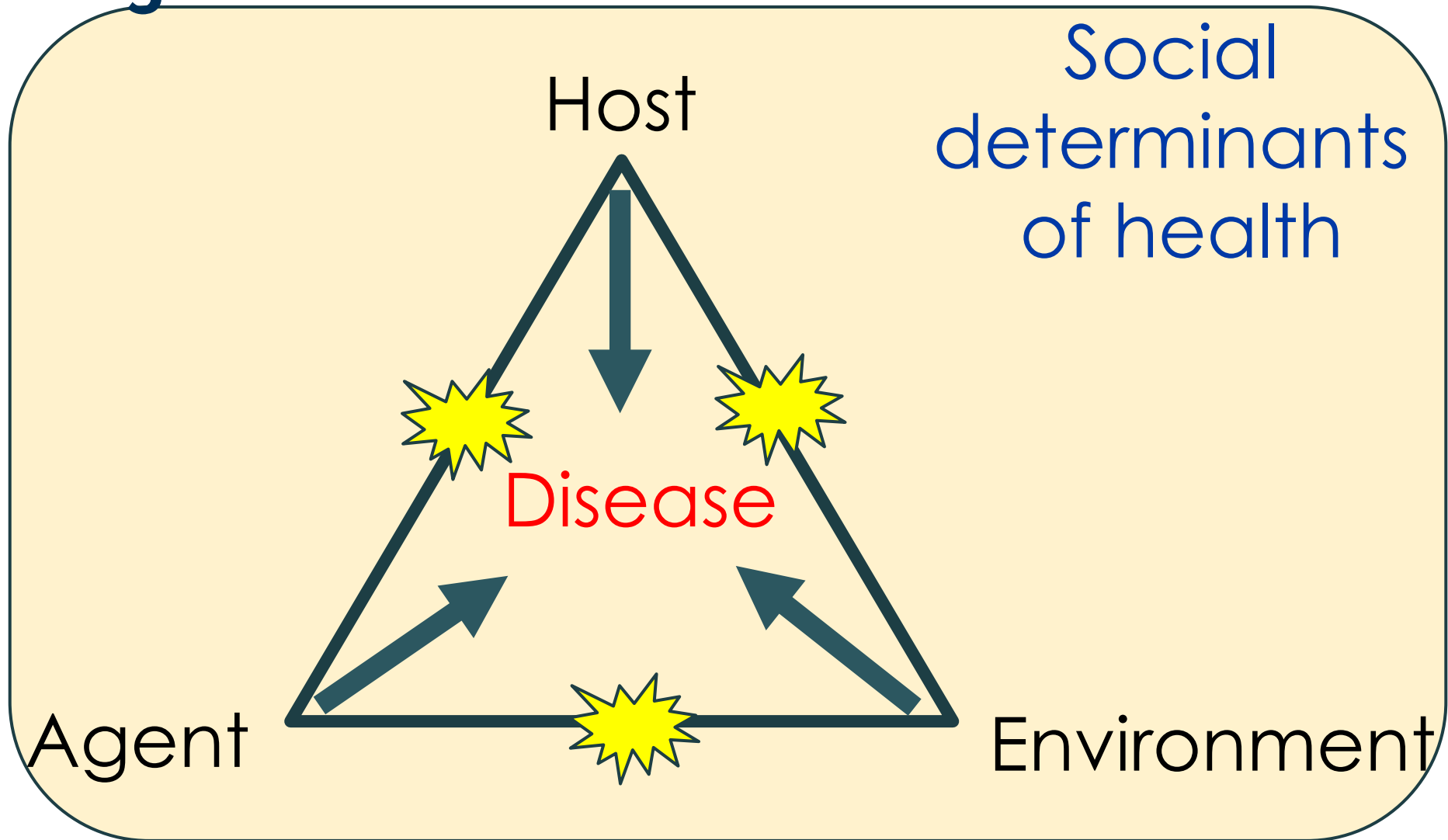
Division of Nutrition Physical Activity, and Obesity



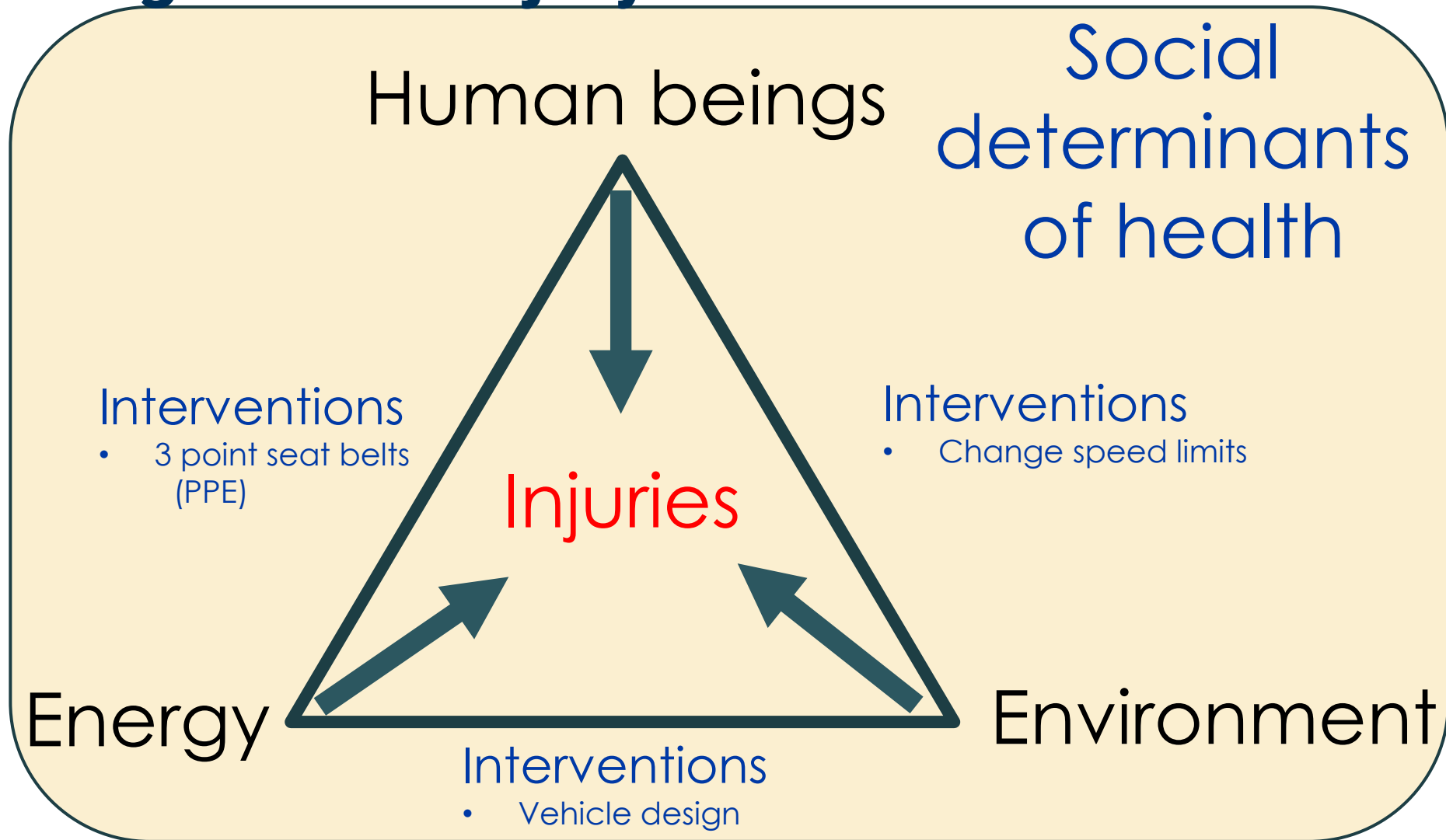


(U.S. Centers for Disease Control, CDC, Public Health Image Library ID# 1304)

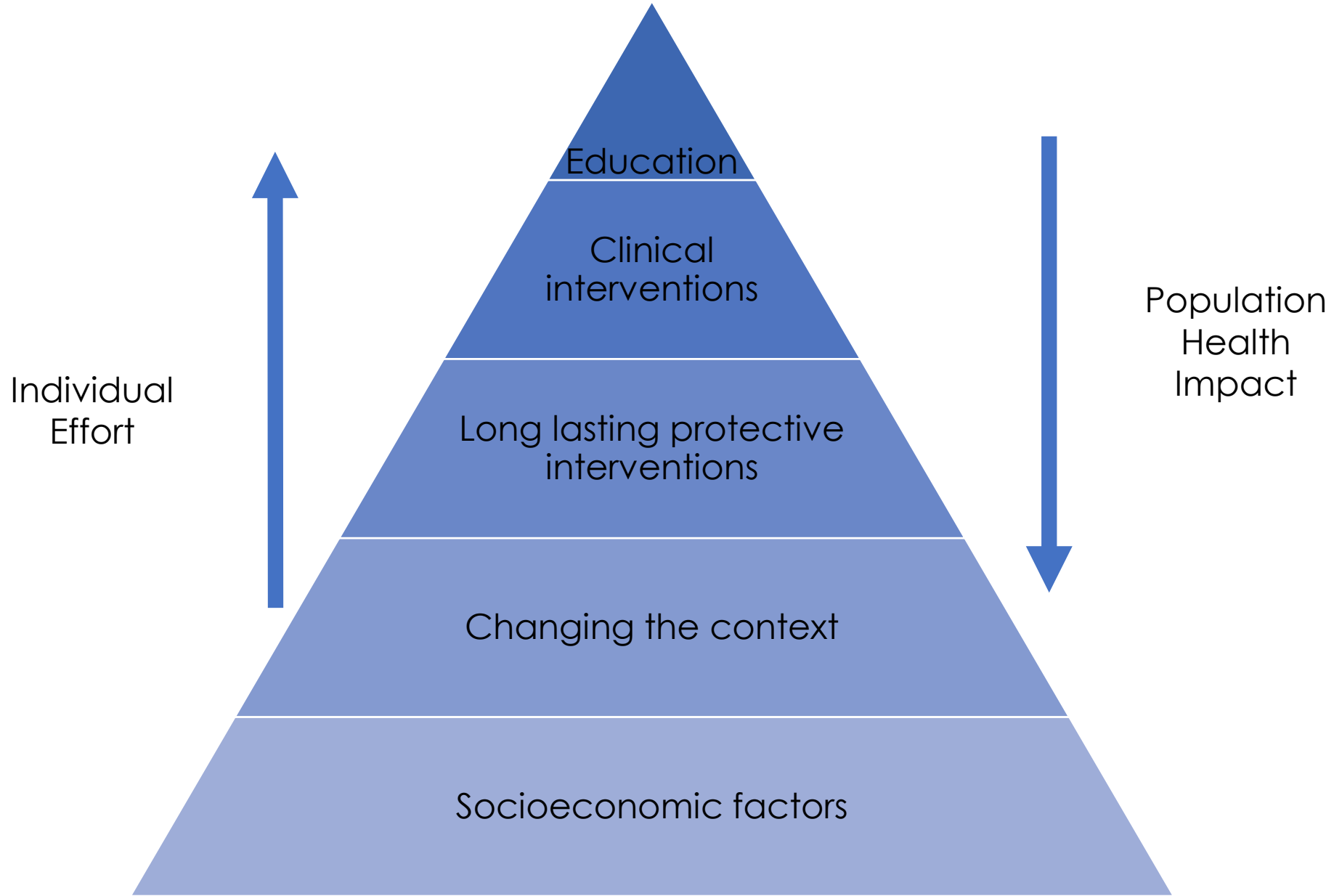
# Epidemiologic Triad



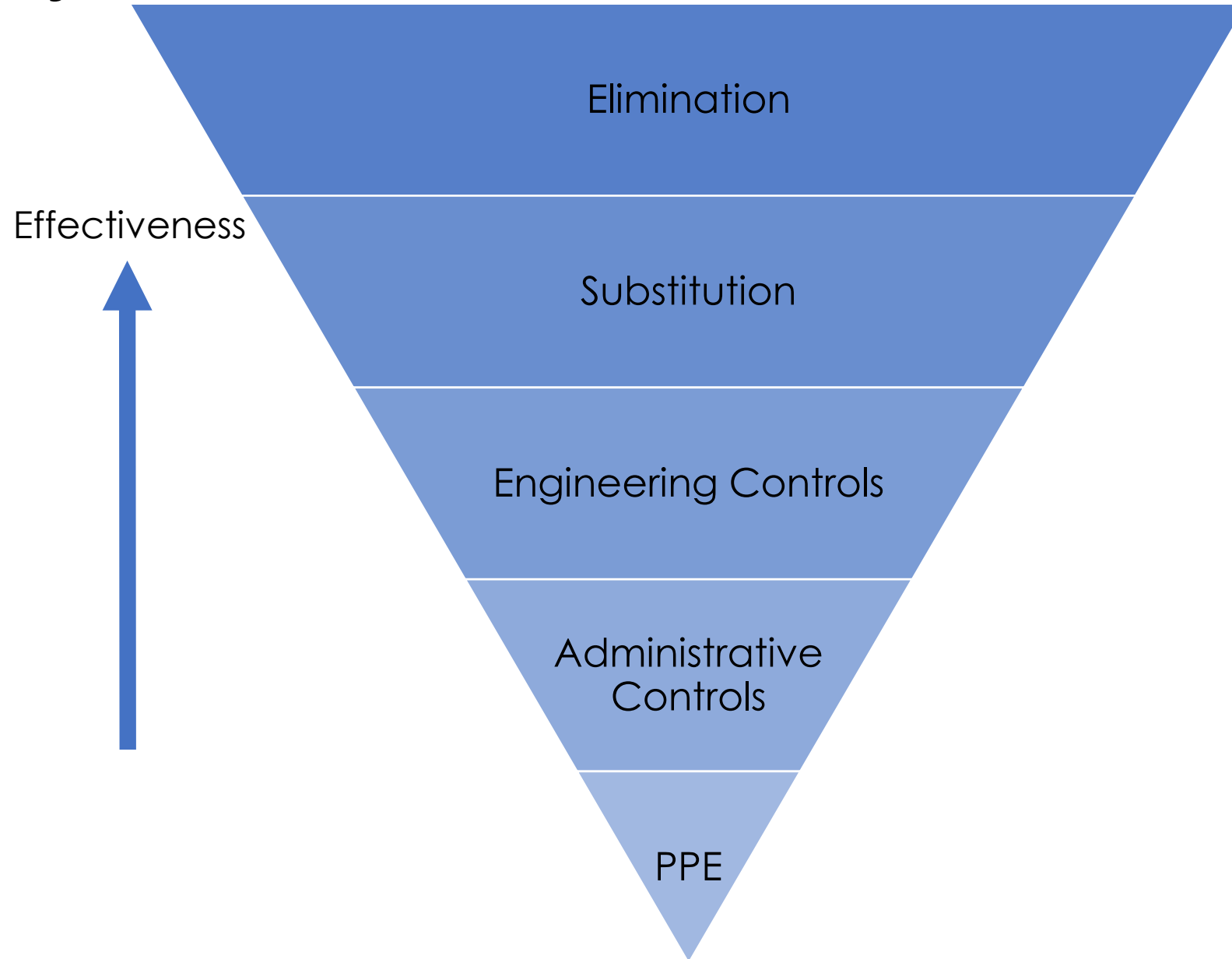
# Epidemiologic Triad-Injury



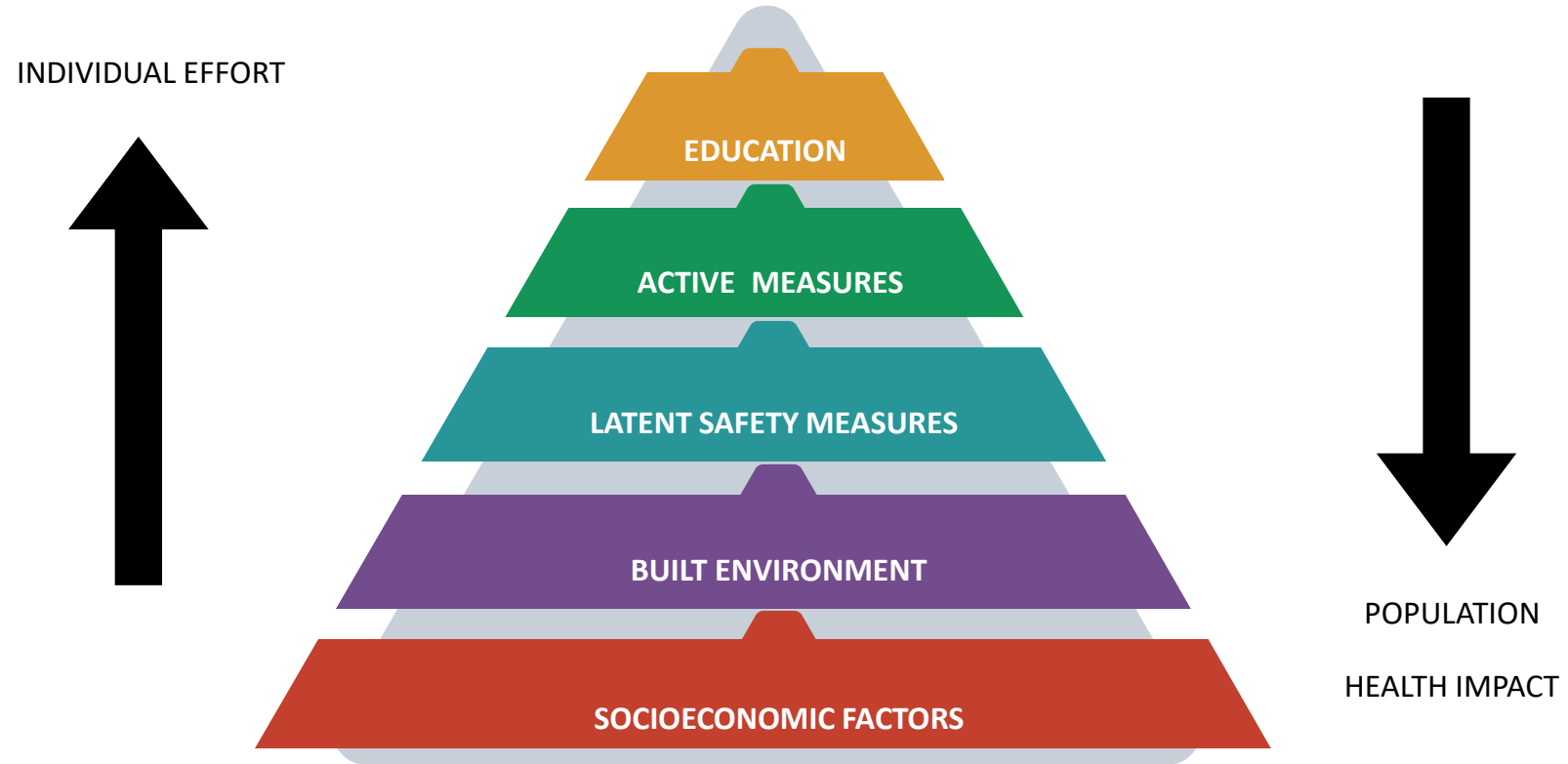
# Health Impact Pyramid (Frieden 2010)



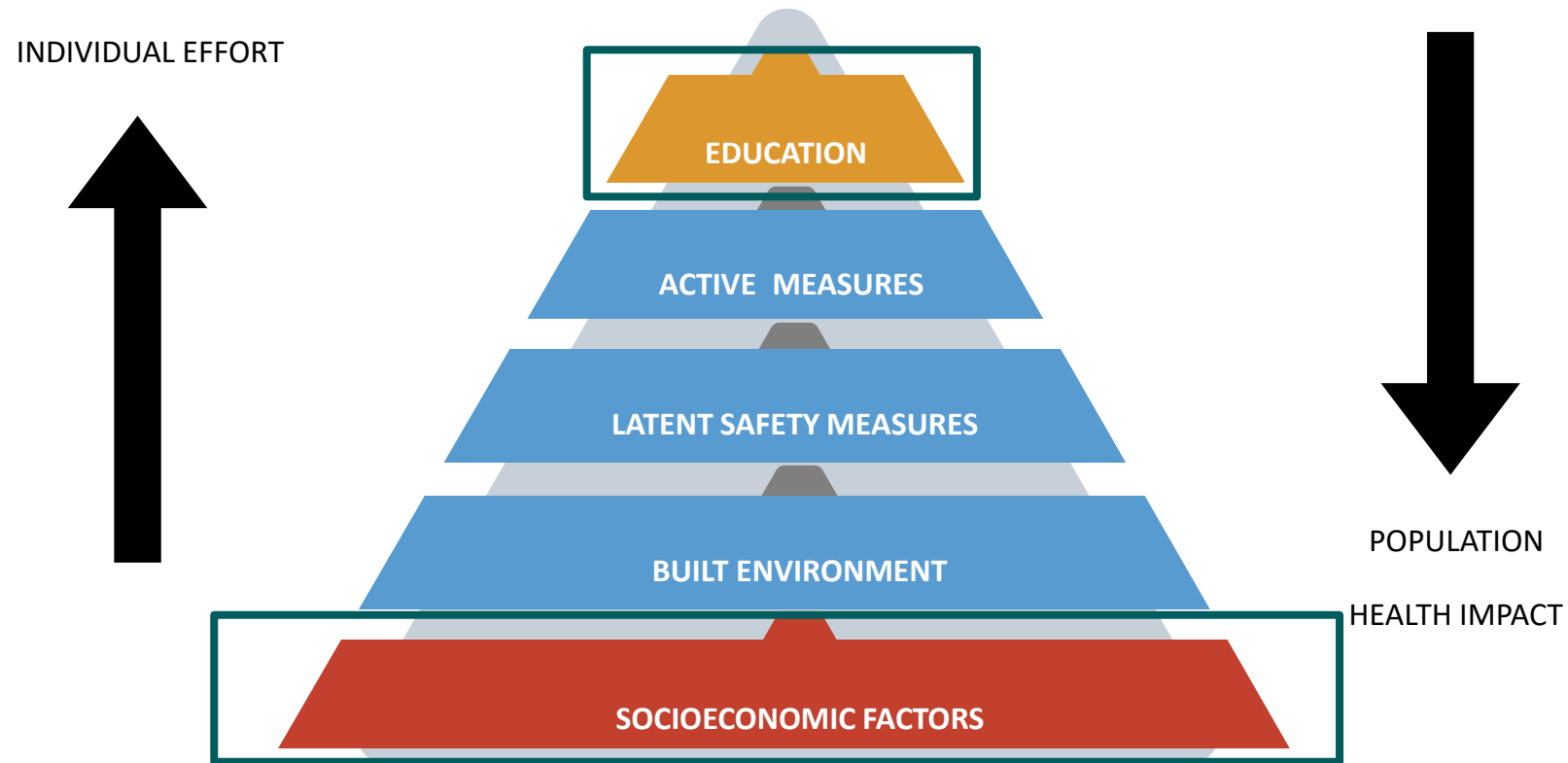
# Hierarchy of Controls



# SAFE SYSTEMS PYRAMID

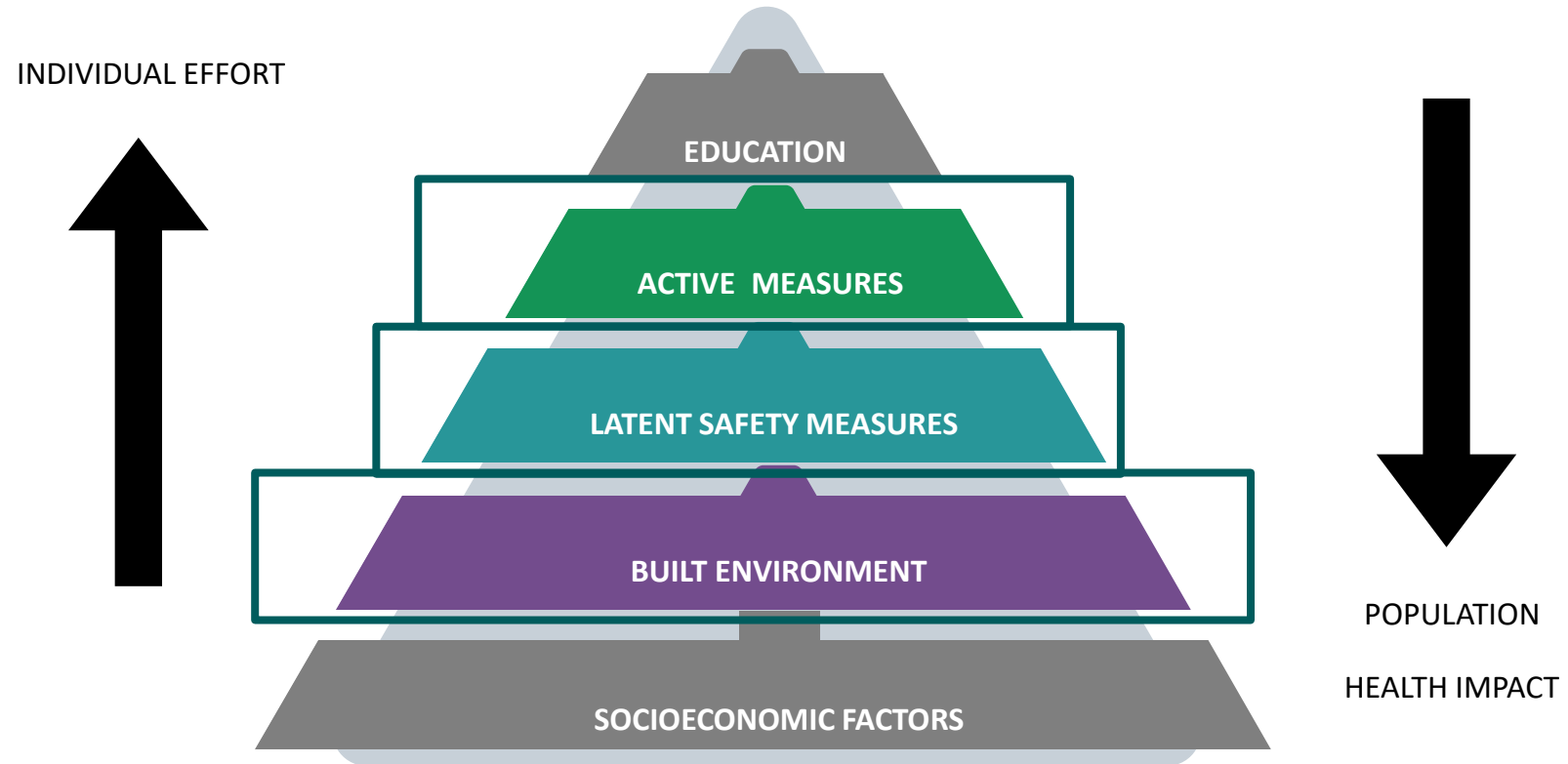


# SAFE SYSTEMS PYRAMID

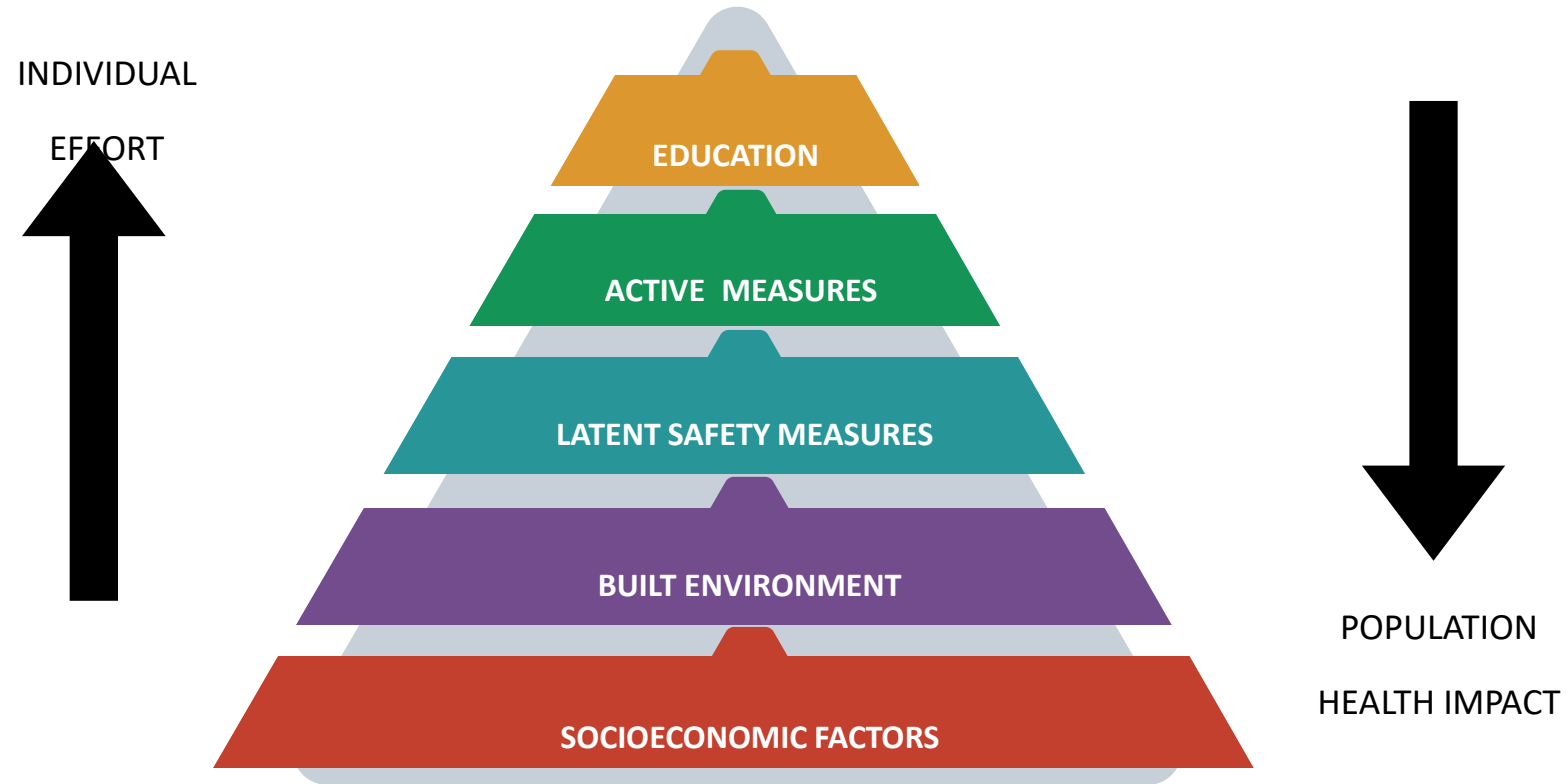




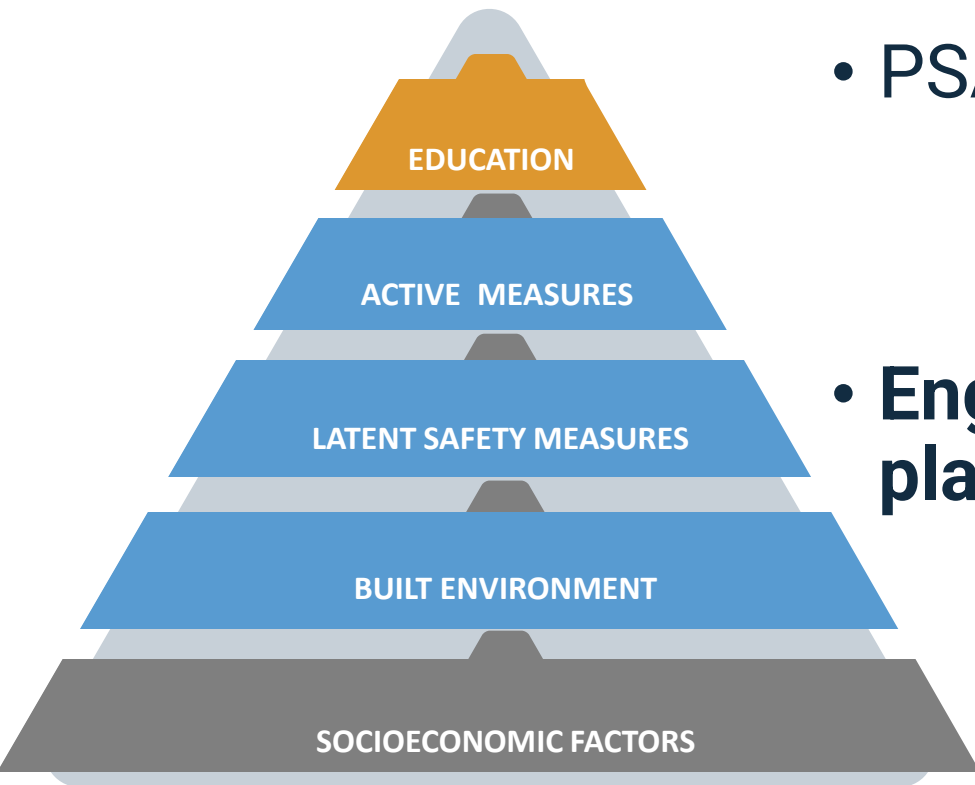
# SAFE SYSTEMS PYRAMID



# SAFE SYSTEMS PYRAMID



# SAFE SYSTEMS PYRAMID APPLICATION: EDUCATION



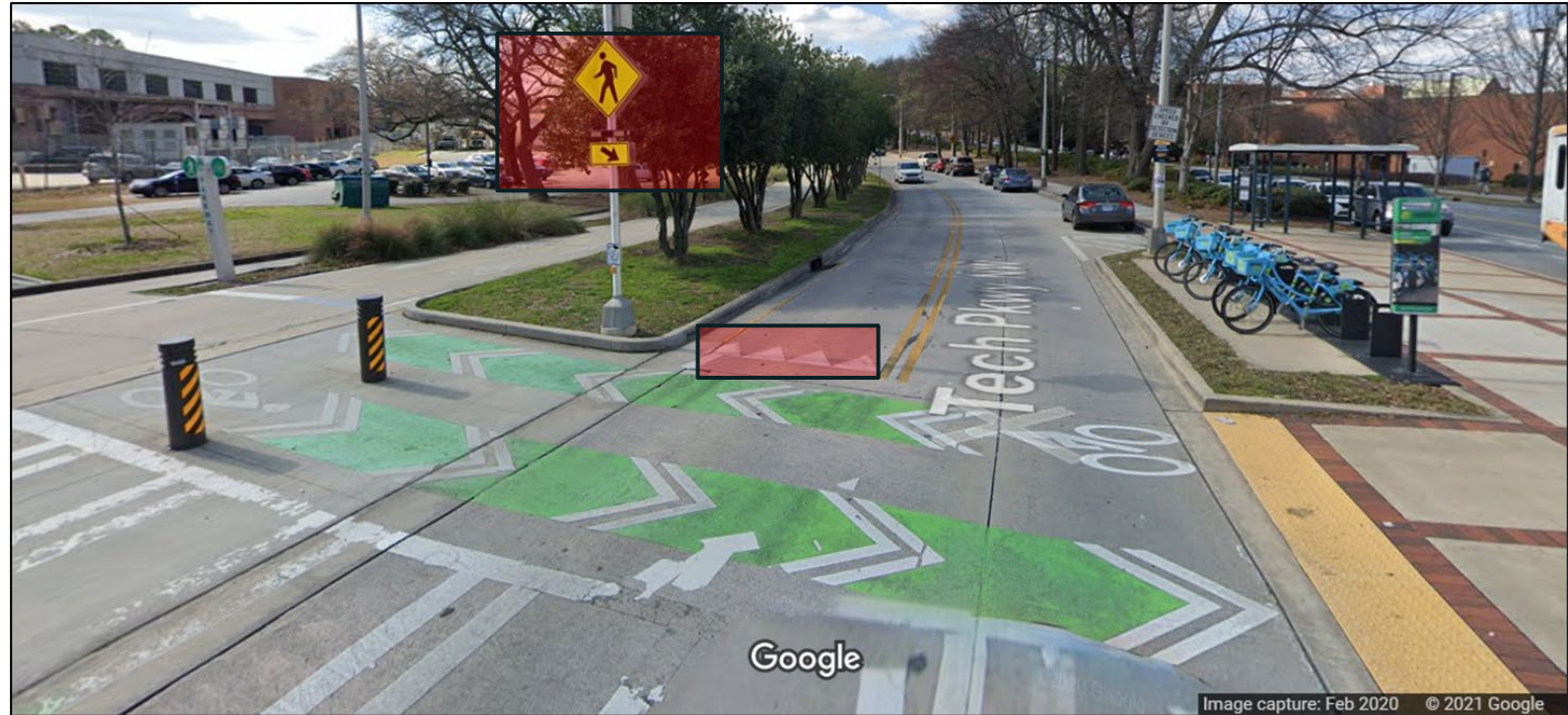
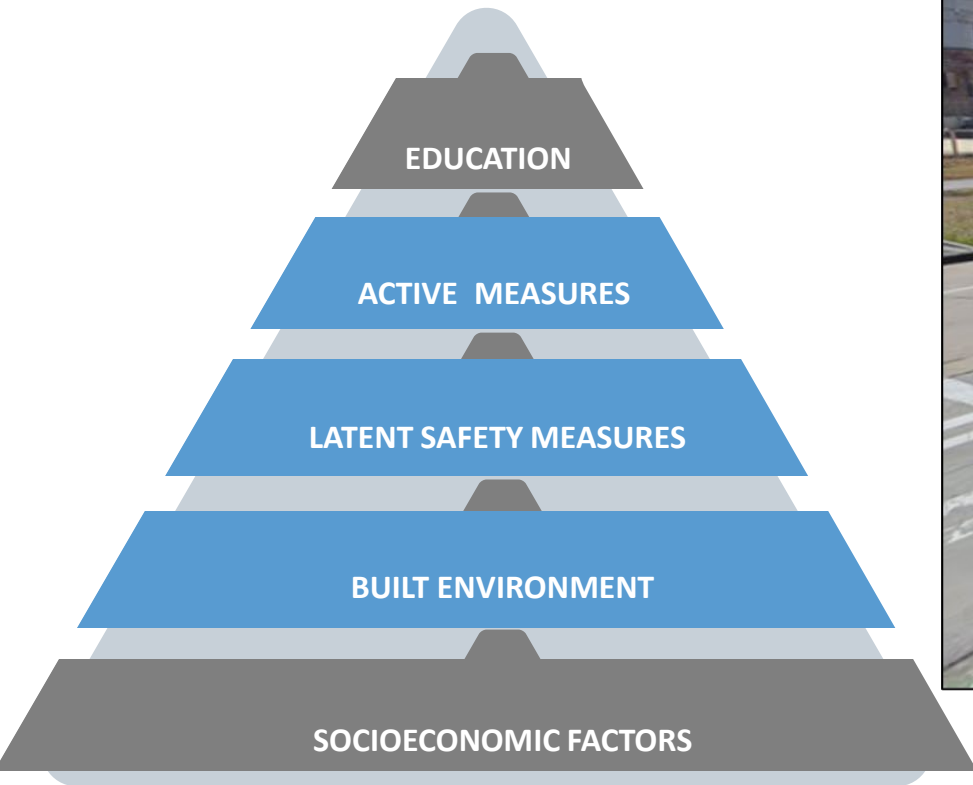
- PSAs, campaigns

- **Engineering and planning education**



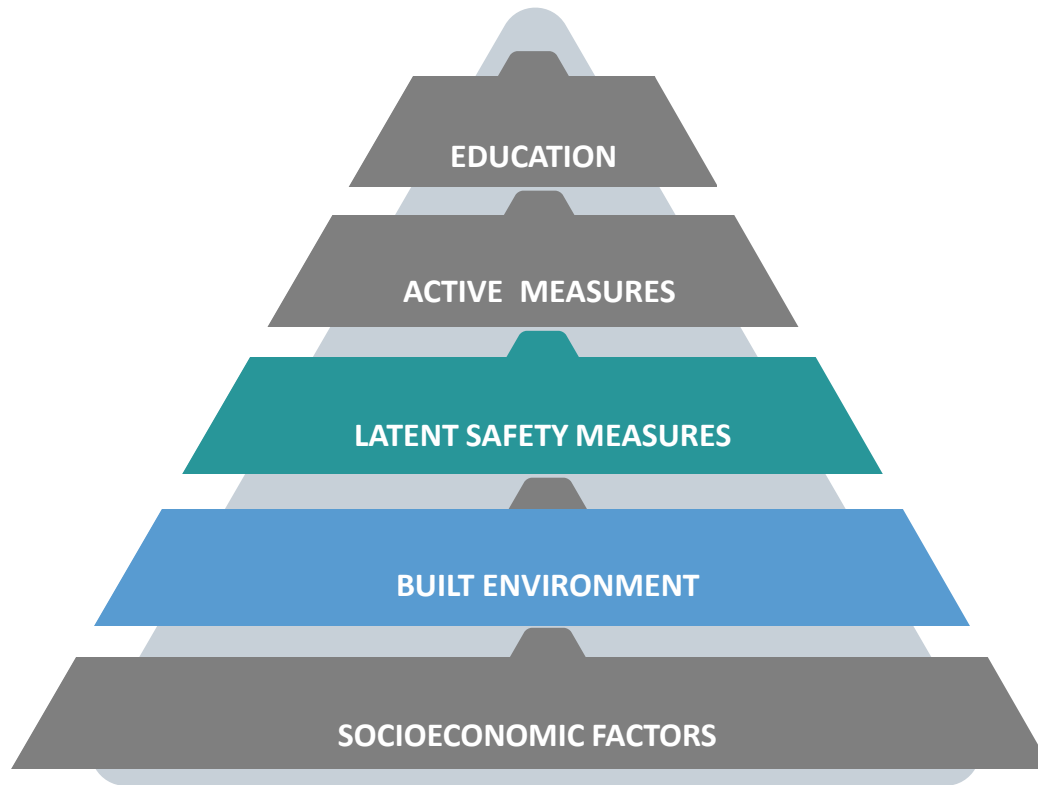
**“Low-hanging fruit” opportunities**

# SAFE SYSTEMS PYRAMID APPLICATION: ACTIVE MEASURES



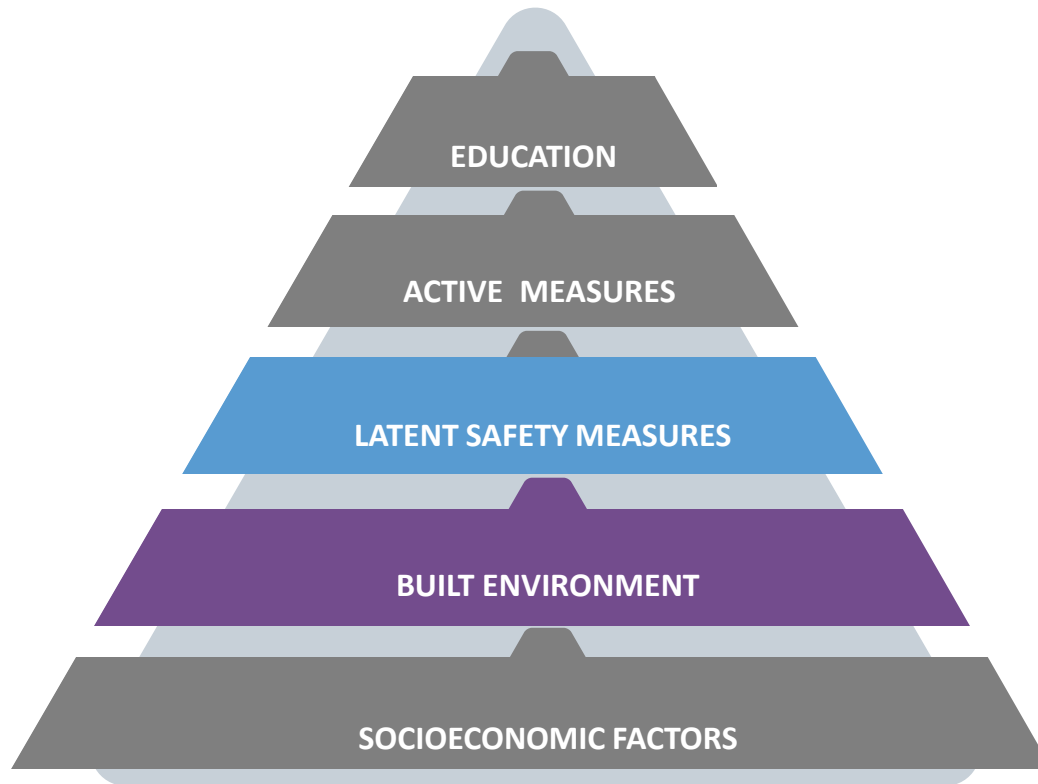
**“Low-hanging fruit” opportunities**

# SAFE SYSTEMS PYRAMID APPLICATION: LATENT SAFETY MEASURES



- Corridor signal timing to reduce speeds
- Leading pedestrian intervals

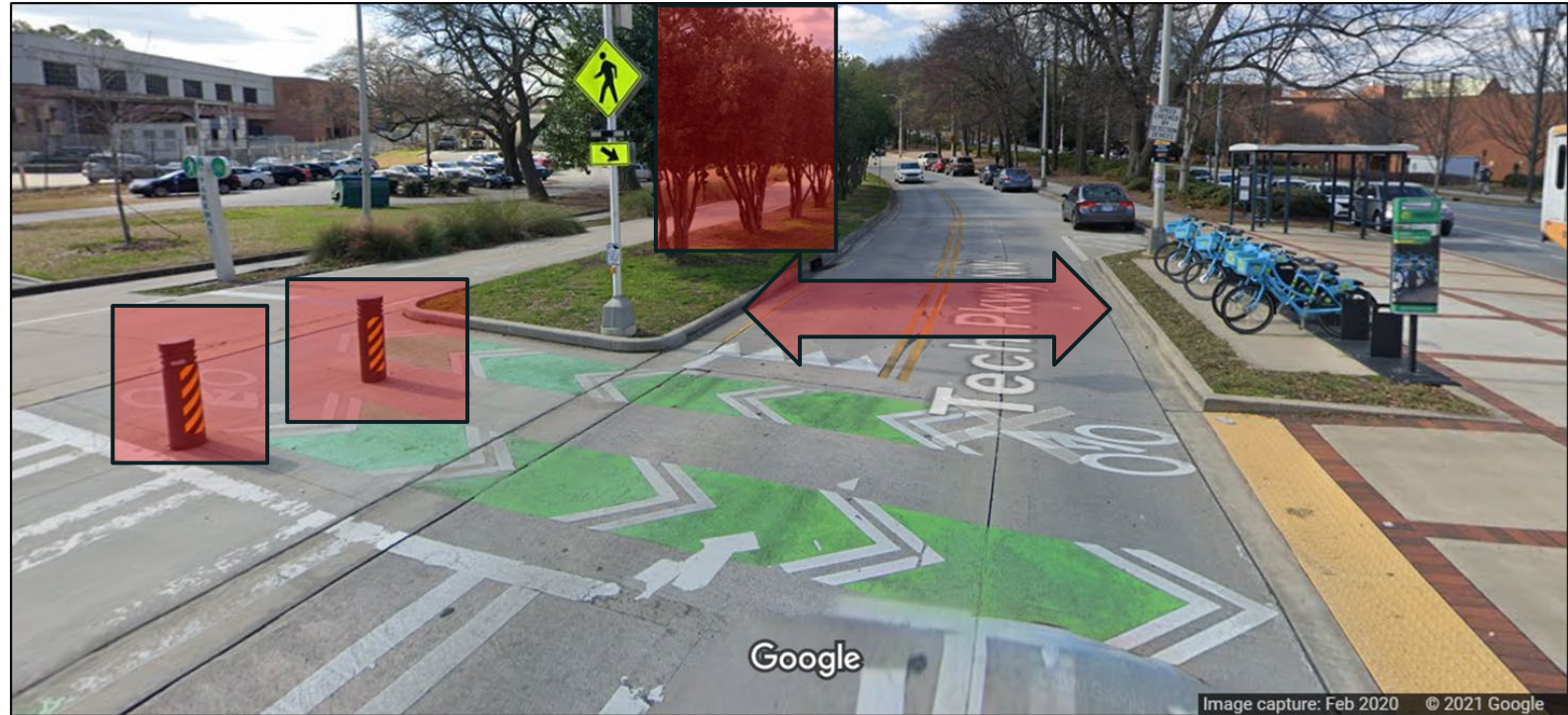
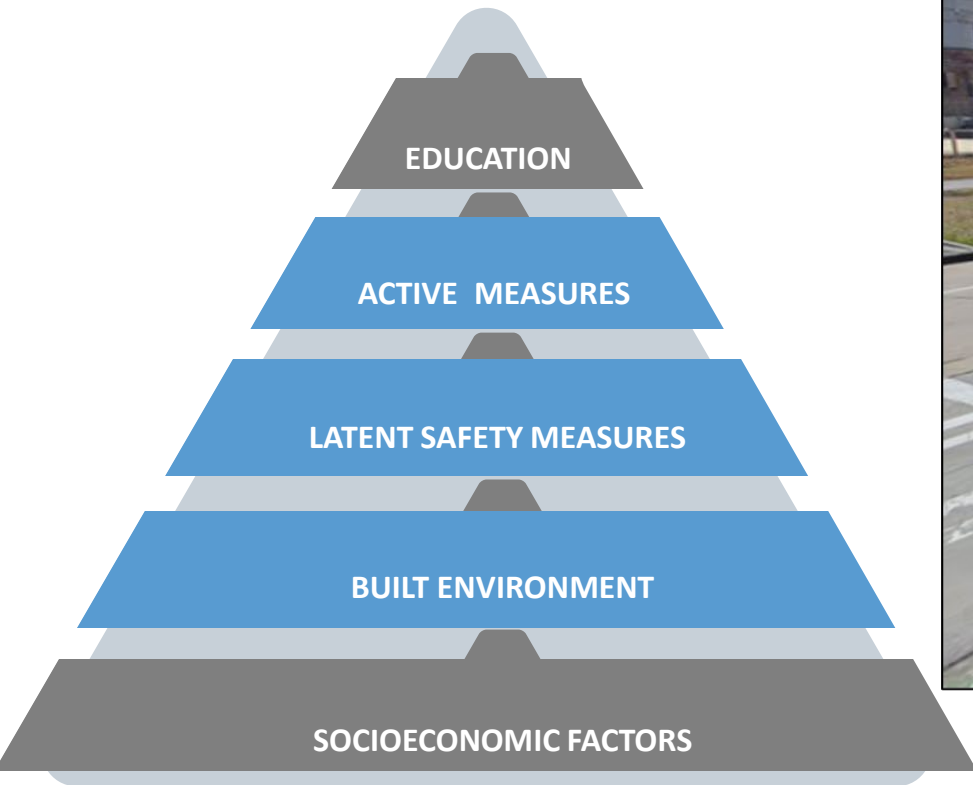
# SAFE SYSTEMS PYRAMID APPLICATION: BUILT ENVIRONMENT



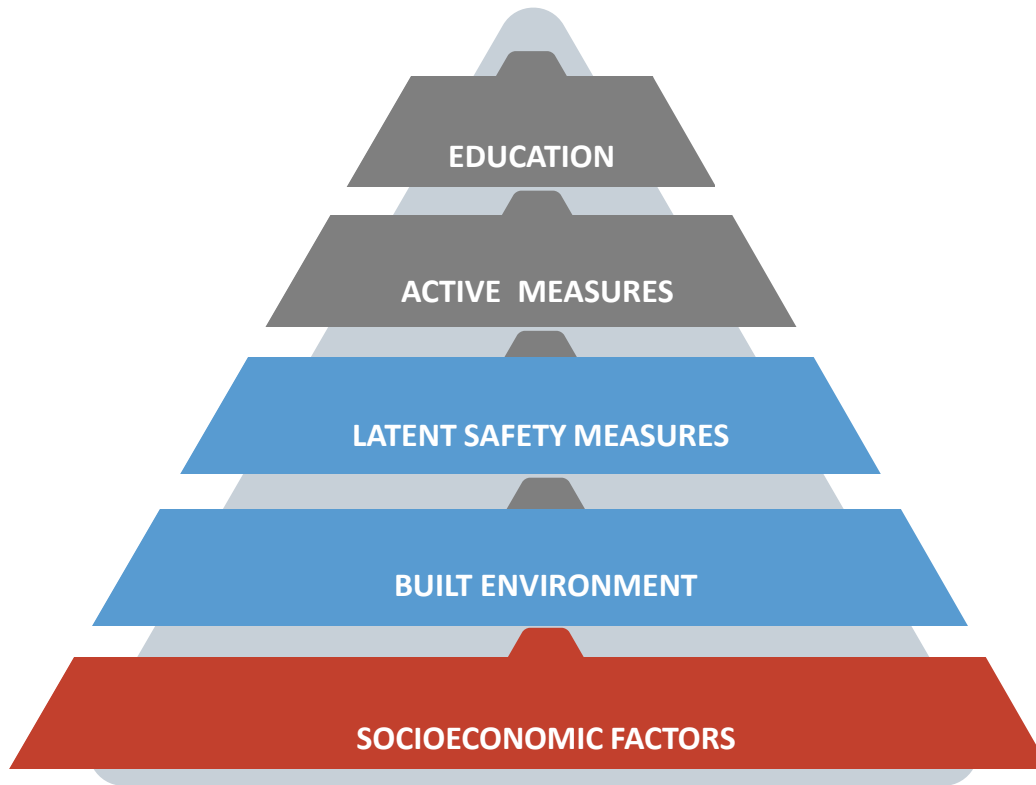
- **Prioritize interventions that reduce speed and conflict points**
- Roundabouts
- Raised crossings, sidewalks



# SAFE SYSTEMS PYRAMID APPLICATION: BUILT ENVIRONMENT



# SAFE SYSTEM PYRAMID APPLICATION: SOCIOECONOMIC FACTORS



- The things we build, and how we build them influence socioeconomic factors
  - Zoning and land use policy
  - Shared data systems across departments
  - “Co-signing” relevant policies across departments





# Traffic Calming Interventions & Vision Zero Initiatives



Traffic calming interventions and Vision Zero initiatives reduce pedestrian motor vehicle crashes

Porter KM, Omura JD, Ballard RM, Peterson EL, Carlson SA.  
Systematic review on quantifying pedestrian injury when evaluating changes to the built environment.  
*Preventive Medicine Reports*, 2022;26: 101703.



# Transportation improves people's lives

thebmj Visual abstract



## Effect of exercise for depression

A systematic review and network meta-analysis of randomised controlled trials

### Summary



For treating depression, various exercise modalities are well tolerated and effective, particularly walking or jogging, yoga, and strength training. Effects were comparable to psychotherapy and pharmacotherapy. Exercise worked better when more intense

### Population

14 170 participants

Participants with depression (ie, meeting clinical thresholds or diagnosed by a clinician)

No other exclusion criteria, so participants are from any age, and with any comorbidities

### Study design

218 studies

495 unique arms

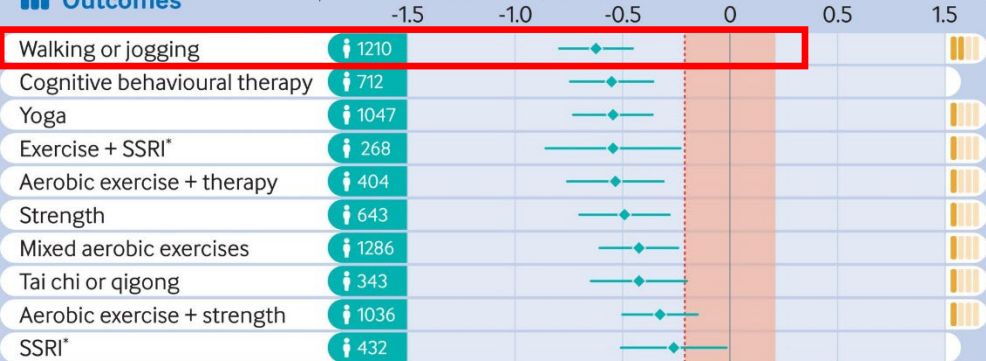
### Comparison

Different forms of exercise compared with other common treatments for depression. All results are presented as 'compared with active controls.'



### Outcomes

Network meta-analysis, standardised mean difference 95% CrI



#### Certainty rating

Low  
Very low

--- Clinically important benefit

Equivalent to active control

\* Selective serotonin reuptake inhibitor



<https://bit.ly/BMJ-exedep>

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The effect of walking is comparable to that of pharmaceuticals in treating depression.

# Join today!



SCAN ME

<https://www.cdc.gov/physicalactivity/activepeoplehealthynation/join-active-people-healthy-nation>





# THANK YOU

For more information, contact: [dnpaopolicy@cdc.gov](mailto:dnpaopolicy@cdc.gov)

Help us keep America healthy and strong. See how at: [cdc.gov/nccdphp/dnpao](https://cdc.gov/nccdphp/dnpao)

**Centers for Disease Control and Prevention**

**National Center for Chronic Disease Prevention and Health Promotion**

Division of Nutrition, Physical Activity, and Obesity (DNPAO)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

