

# A Journey to the Teachings

## Injury Prevention for Youth



# Ice Breaker





# Injury Prevention **BINGO!**



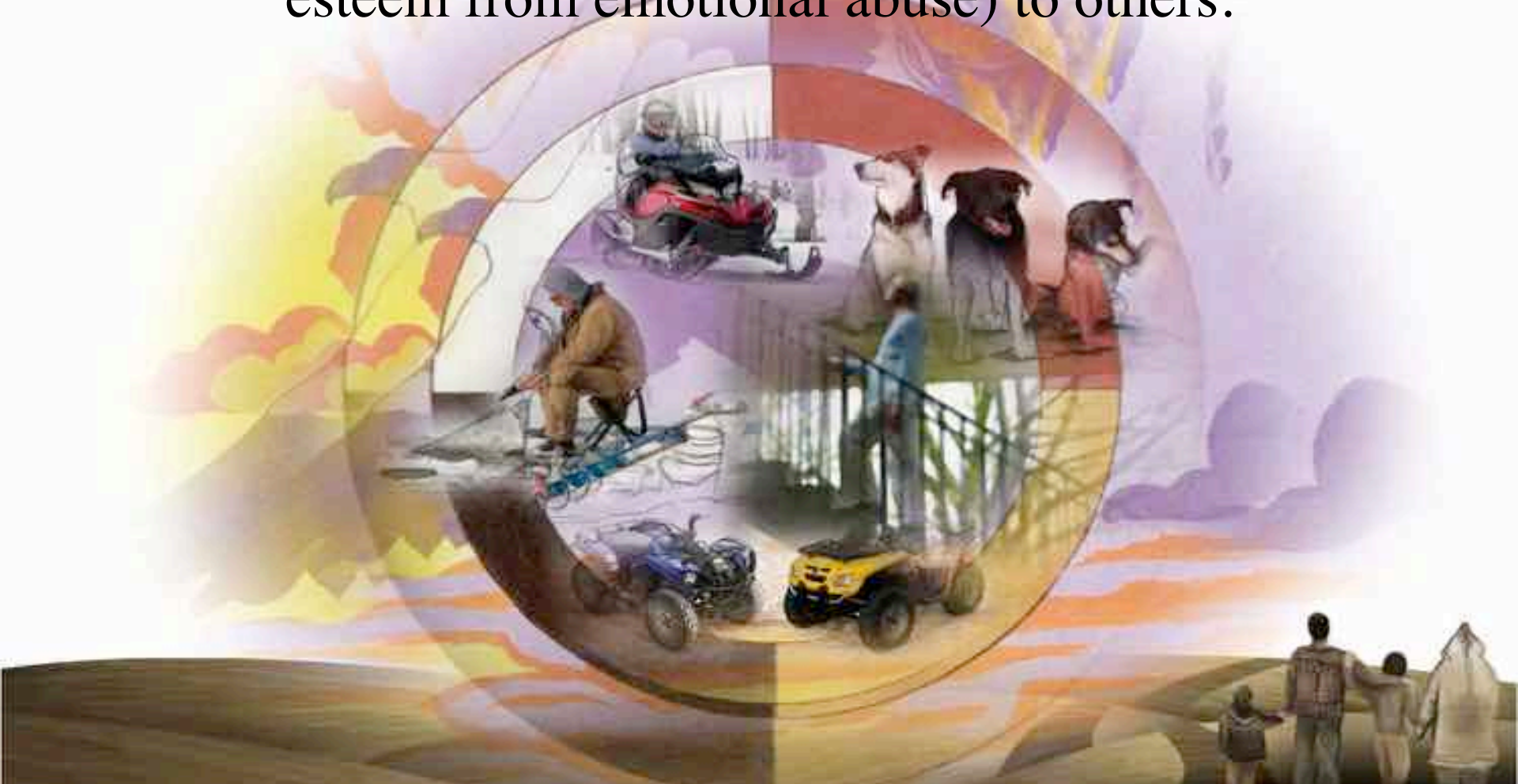
# What are Injuries?





# Definition

An injury is when the body is damaged. It may be visible (i.e. broken arm from falling down stairs) or invisible (i.e. low self esteem from emotional abuse) to others.



# Injury Categories

**Unintentional injuries**



**Intentional injuries**

# Injuries: Intentional & Unintentional

- **Violence to others** (domestic abuse)
- **Violence to self** (suicide attempts and completions)
- **Firearm injuries** (lack of safety precautions)
- **Motor vehicle crashes** (includes snow machines, all terrain vehicles, boats, cars and trucks)
- **Drowning** (lack of water safety precautions, life jackets, swimming instruction)



# Different Injury Types

- **Heat** (e.g. burns or scalds)
- **Action/Motion** human or machine (e.g. falls, motor vehicle collisions)
- **Electrical** (e.g. electrocution)
- **Chemical** (e.g. unintentional poisoning, overdose)
- **No Air or Heat** (e.g. drowning, choking or suffocation, hypothermia)





# Traditional Knowledge and Stories



# Looking Back...



# Ways We Stay Safe Today...





# Discussion Questions



- What traditional and current knowledge can help keep our communities safe?







# Injury: A Big Problem for Everyone



# Nunavut PYLL (2001)



The rate of PYLL for unintentional injuries is 3 times greater for Nunavut than for Canada as a whole.

# Nunavik PYLL (2001)



The PYLL for unintentional injuries in Nunavik was almost 6 times greater than the overall Canadian rate.



# More Than What the Numbers Show Us

## SEE

(injury data we have)

## PHYSICAL

(person)

## DO

(limited data and what we acknowledge limits what we do)

## EMOTIONAL

(heart and spirit)

## ACT

(under reporting of the injury problem should not limit our action)

## WHOLE PERSON

(physical, emotional, spiritual)

working together will bring these elements together



# What Do We Know About Injuries in our Community?



## Discussion Questions:

1. What are common injuries that occur in our communities?
2. Who seems to be at greatest risk?
3. What impact do these injuries have?



# Lights, Camera, Action...





# AWARENESS

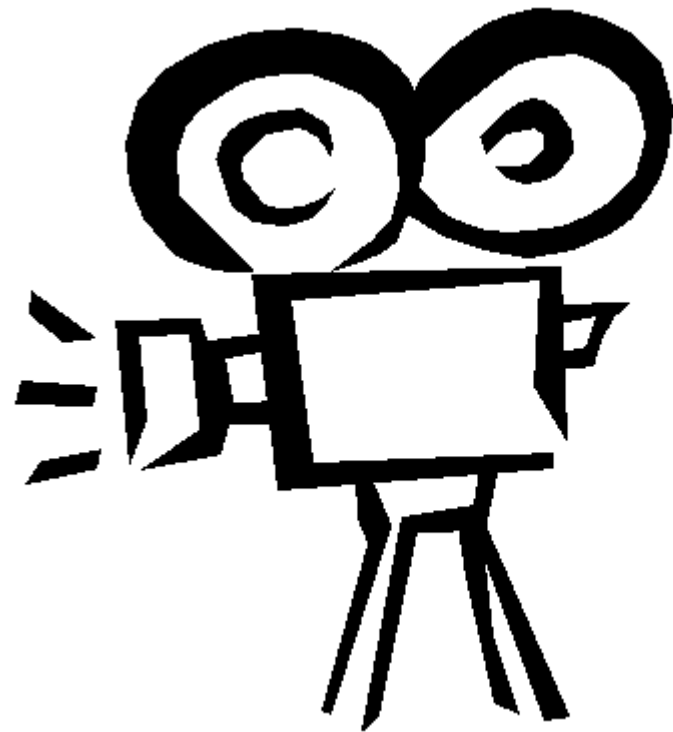
## Looking at the Problem



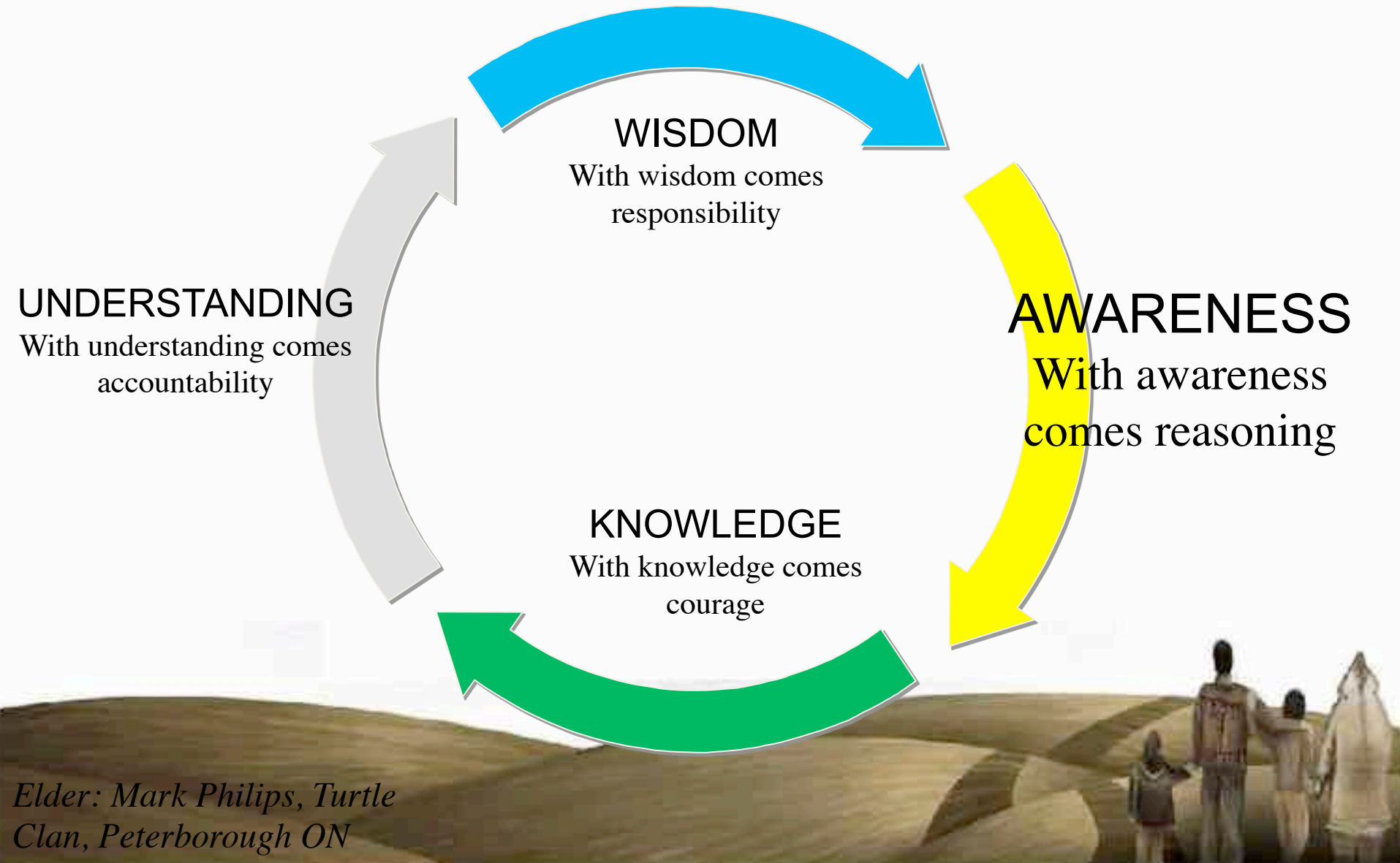




Share a  
Story...



# Stages of Learning



# Checking Our Awareness Level Quiz

**T/F** Injury is the leading cause of premature death in Inuit regions.

**T/F** Most injuries cannot be prevented.

**T/F** Number one risk factor for injuries is the weather conditions

**T/F** Disability rates (associated with injury) for Aboriginal people are the same as Canada's overall disability rate.



# Checking Our Awareness Level Quiz

**T/F** Injuries are the leading cause of premature death in Inuit regions.



**TRUE**

**Injuries are the leading cause of premature death in Inuit regions.**





# Checking Our Awareness Level Quiz



**T/F** Most injuries cannot be prevented.

**FALSE**

**Experts in the field estimate that up to 90% of all injuries are preventable.**



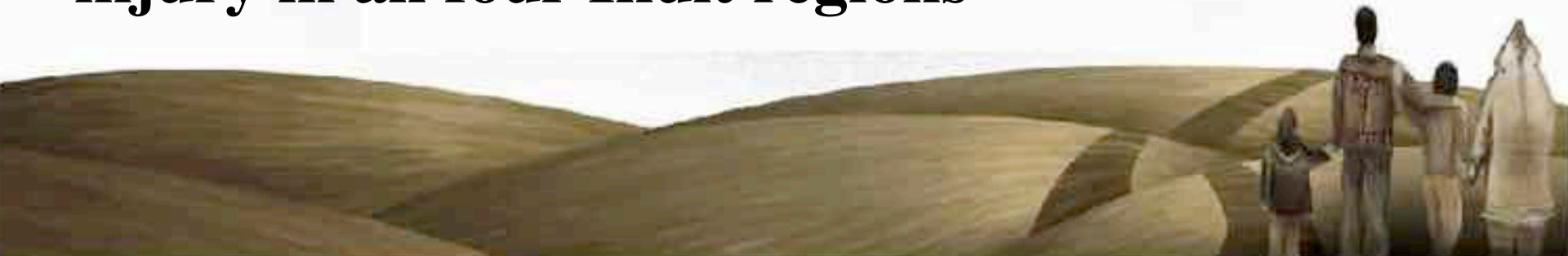
# Checking Our Awareness Level Quiz

**T/F** Number one risk factor for injuries is the weather conditions.



**FALSE**

**Alcohol/drug consumption and abuse were associated with the number one cause of injury in all four Inuit regions**



# Checking Our Awareness Level Quiz

**T/F** Disability rates (associated with injury) for Aboriginal peoples are the same as Canada's overall disability rate.



**FALSE**

**Aboriginal disability rates (associated with injury) are reported at 31% or double the national rate.**



# Keeping Safe: Introduction to Risk Factors

- Greater chance for injury.
- Examples of risk factors for motor vehicle collisions: drinking and driving, not wearing a seat belt, not wearing a helmet on an ATV or snowmobile, poor road or lighting conditions





# Determinants of Health



# Protective Factors and Resiliency



- Protective Factors
- Resiliency

# Can You Spot the Risks?



# Can You Spot the Risks?





# Awareness: What We Learned

- **Risk Factors:** things that increase the risk for injury.
- **Protective Factors:** good influences that help prevent negative behaviors and outcomes.
- **Resiliency:** important factor in helping us cope.
- **Determinants of health** greatly impacts injury.



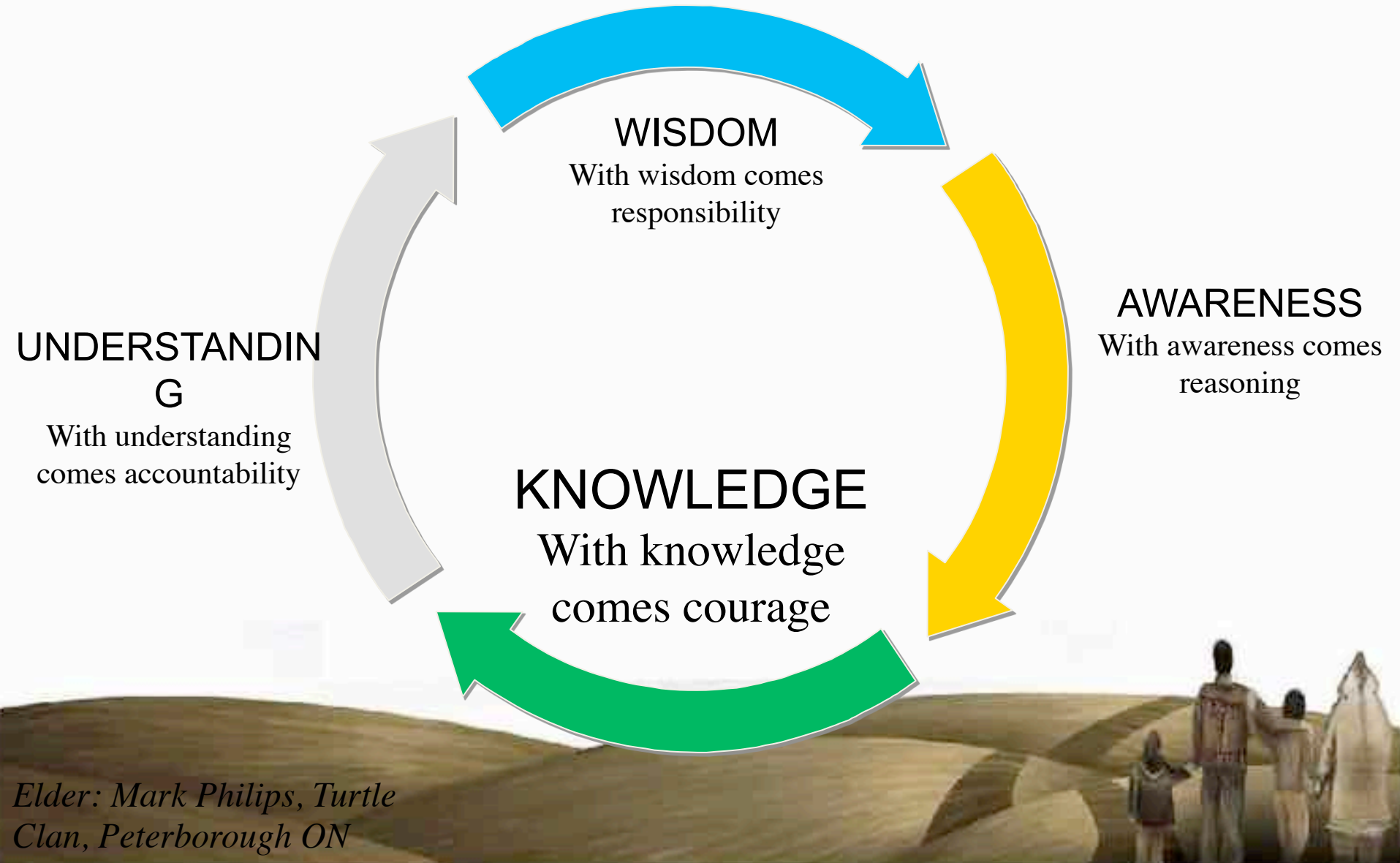


# Knowledge


## Identifying Injury Patterns and Prevention Strategies



# Stages of Learning



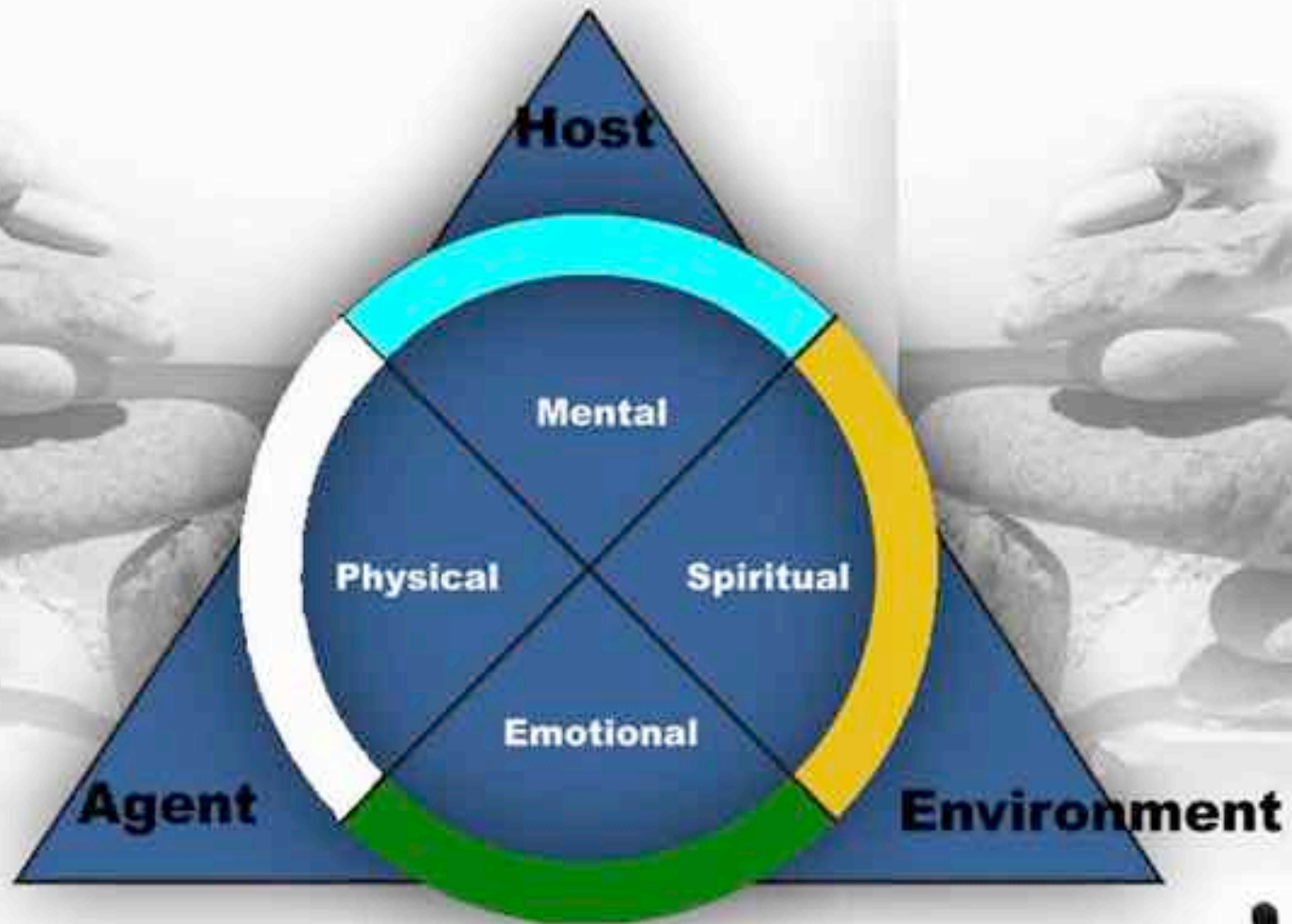
*Elder: Mark Philips, Turtle  
Clan, Peterborough ON*

A scenic landscape featuring snow-capped mountains and a body of water. The sky is a mix of blue and orange, suggesting a sunset or sunrise. The text "Most Injuries are Predictable and Preventable." is overlaid in the center.

Most Injuries  
are Predictable  
and Preventable.



# Understanding the Elements of Injury



Gordon, J.E. "The epidemiology of accidents", *American Journal of Public Health*, 1948, 3, p. 504-515.

# Host

The person who is injured



# Agent

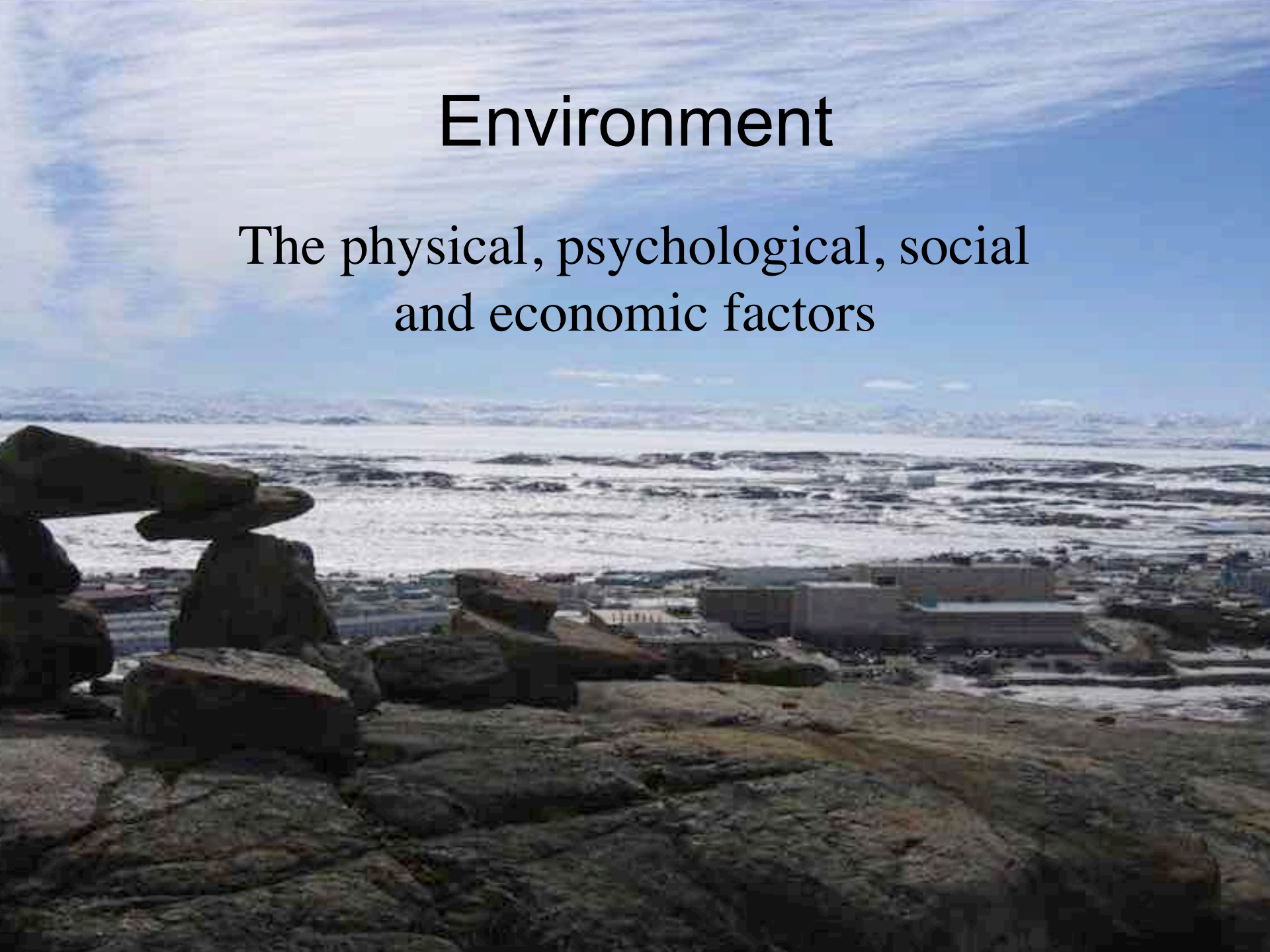
The object/force that produces the injury





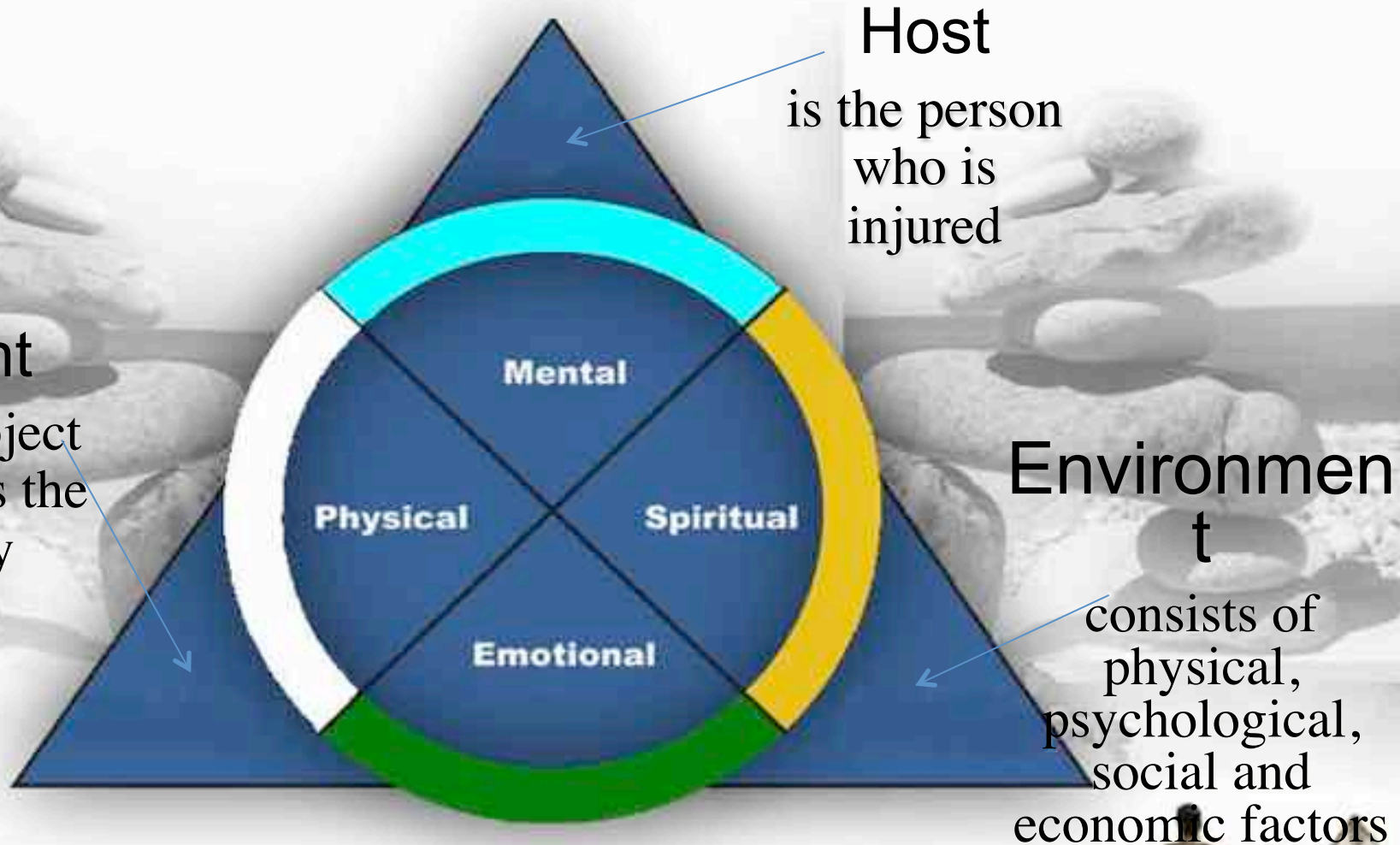
# Environment

The physical, psychological, social  
and economic factors

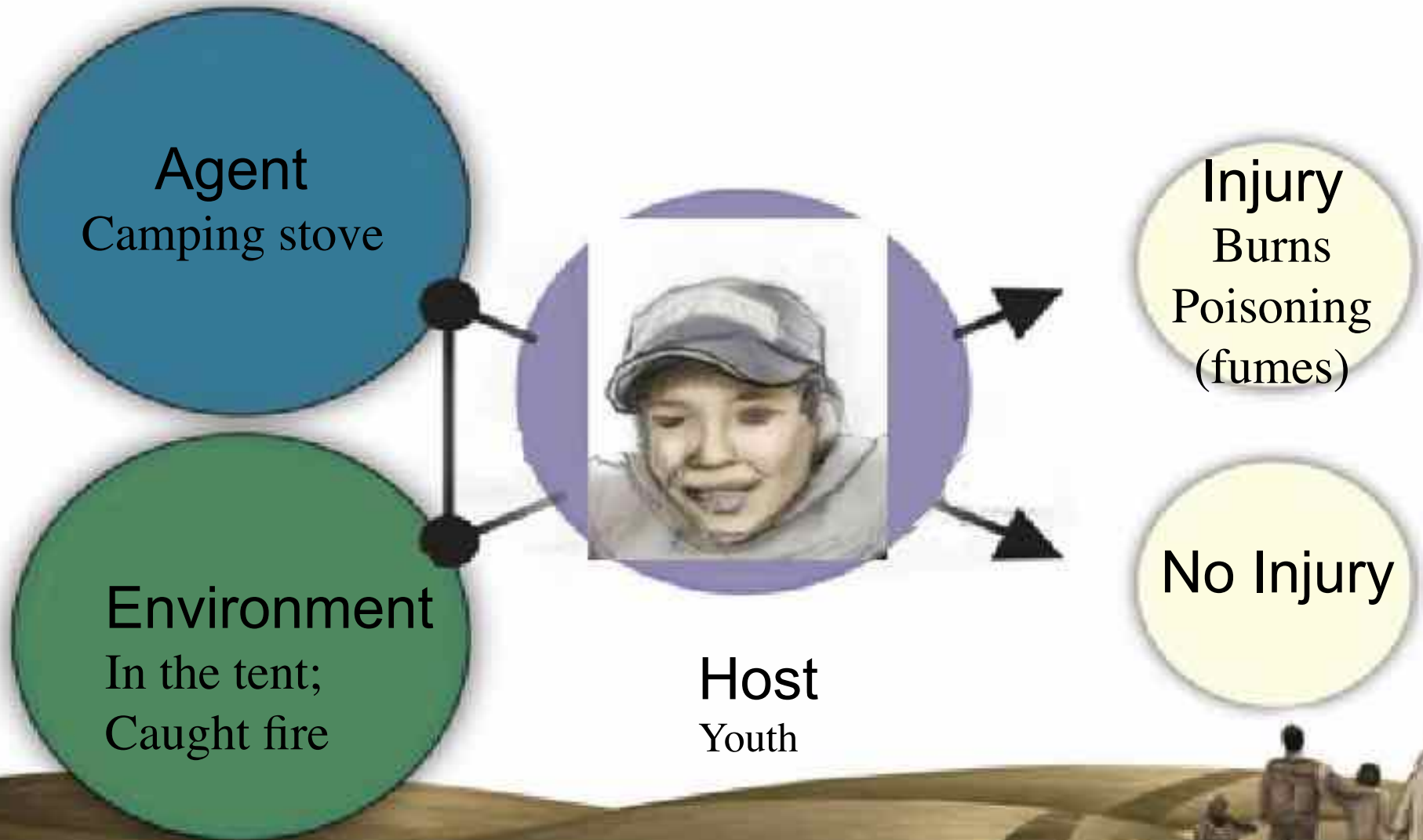




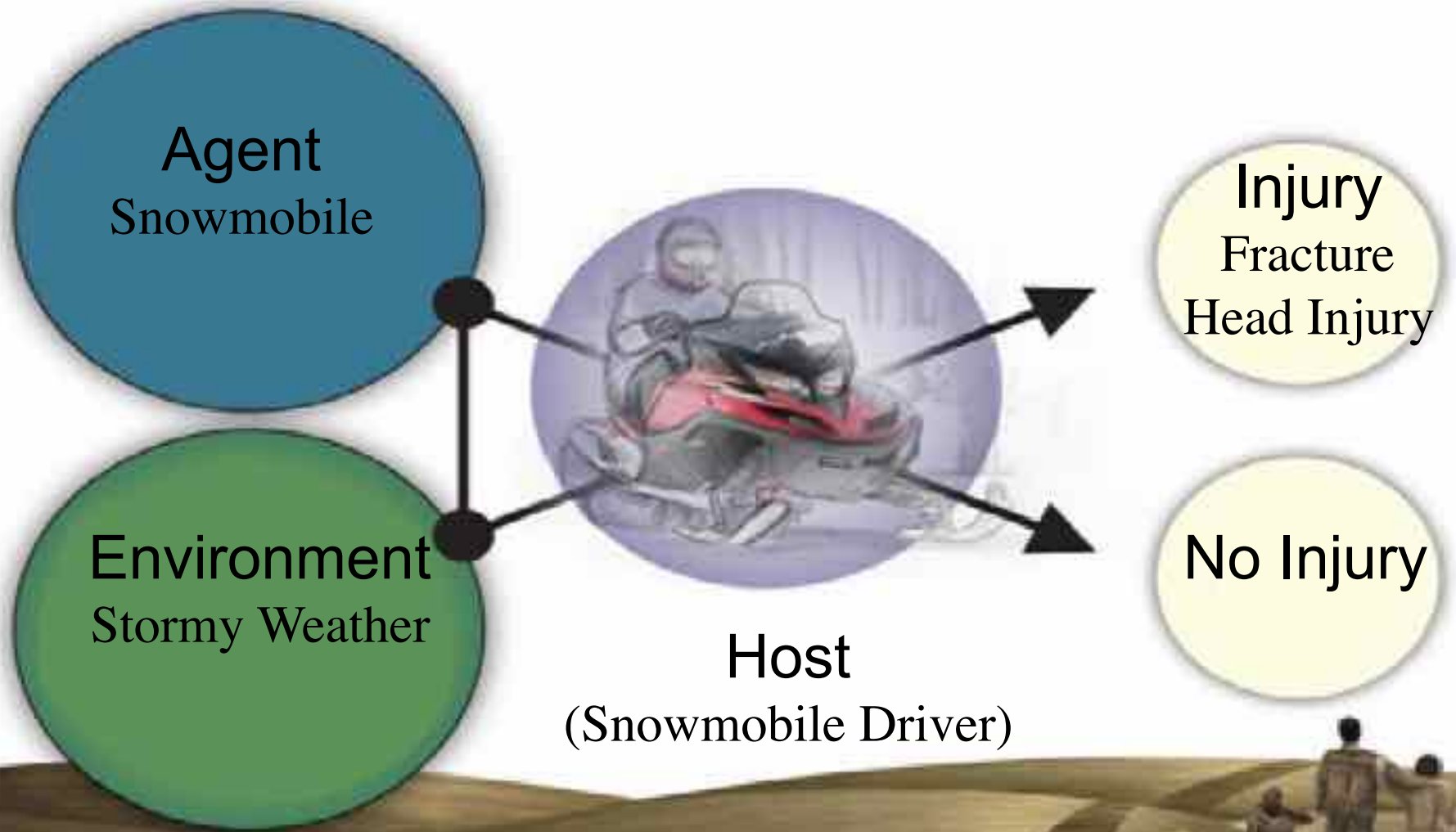
# Host-Agent-Environment



# Heat



# Action/Motion



# Electrical

## Agent

Frayed extension  
cord; wire exposed

## Environment

Pulled the cord  
instead of the  
plug



Host  
Youth

## Injury

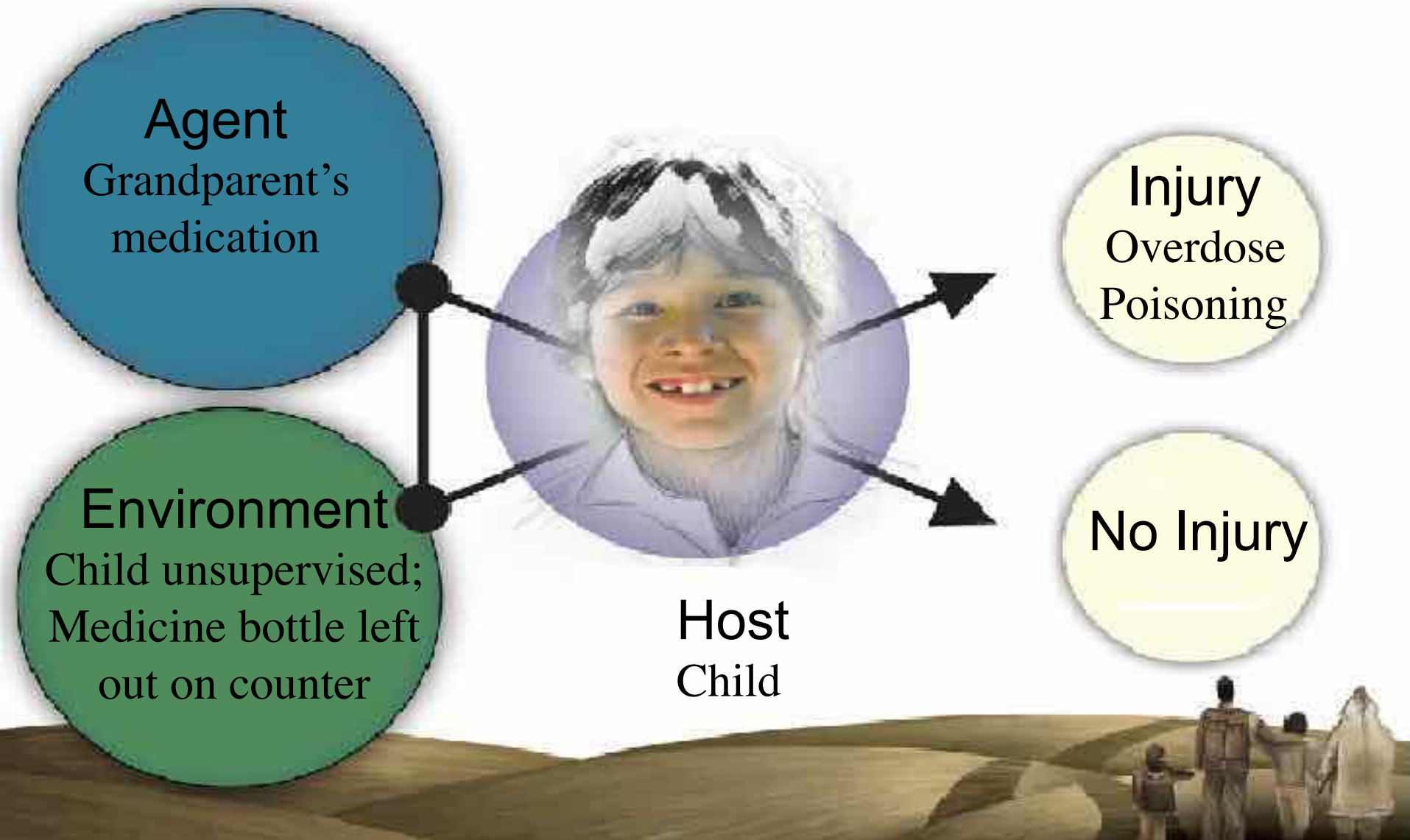
Electrocution  
Burns

No Injury

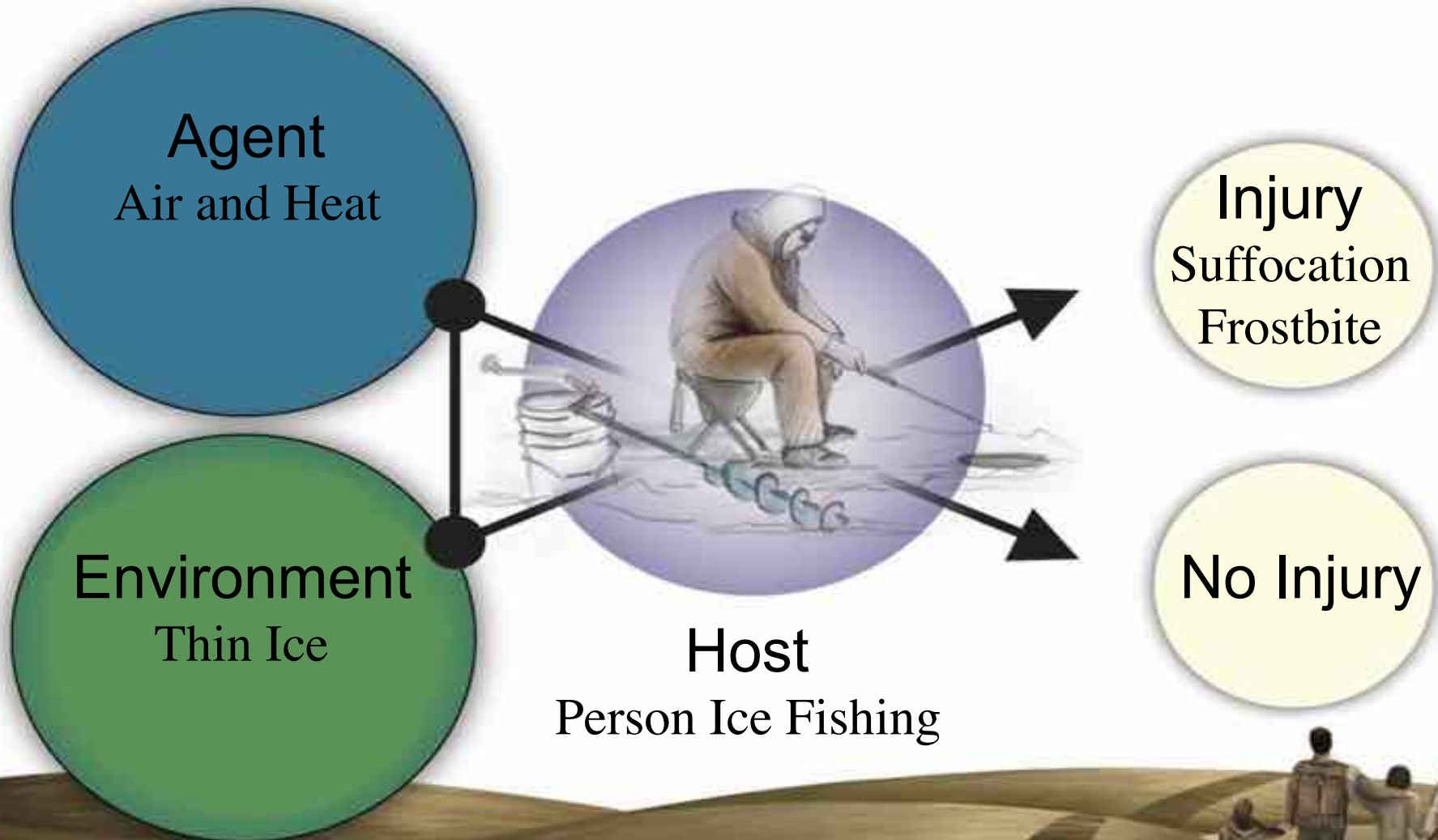




# Chemical



# No Air or Heat



# Activity



# Knowledge: What We Learned

- Injuries are predictable and preventable
- Host-Agent-Environment Injury triangle
- This triangle helps us to understand injuries





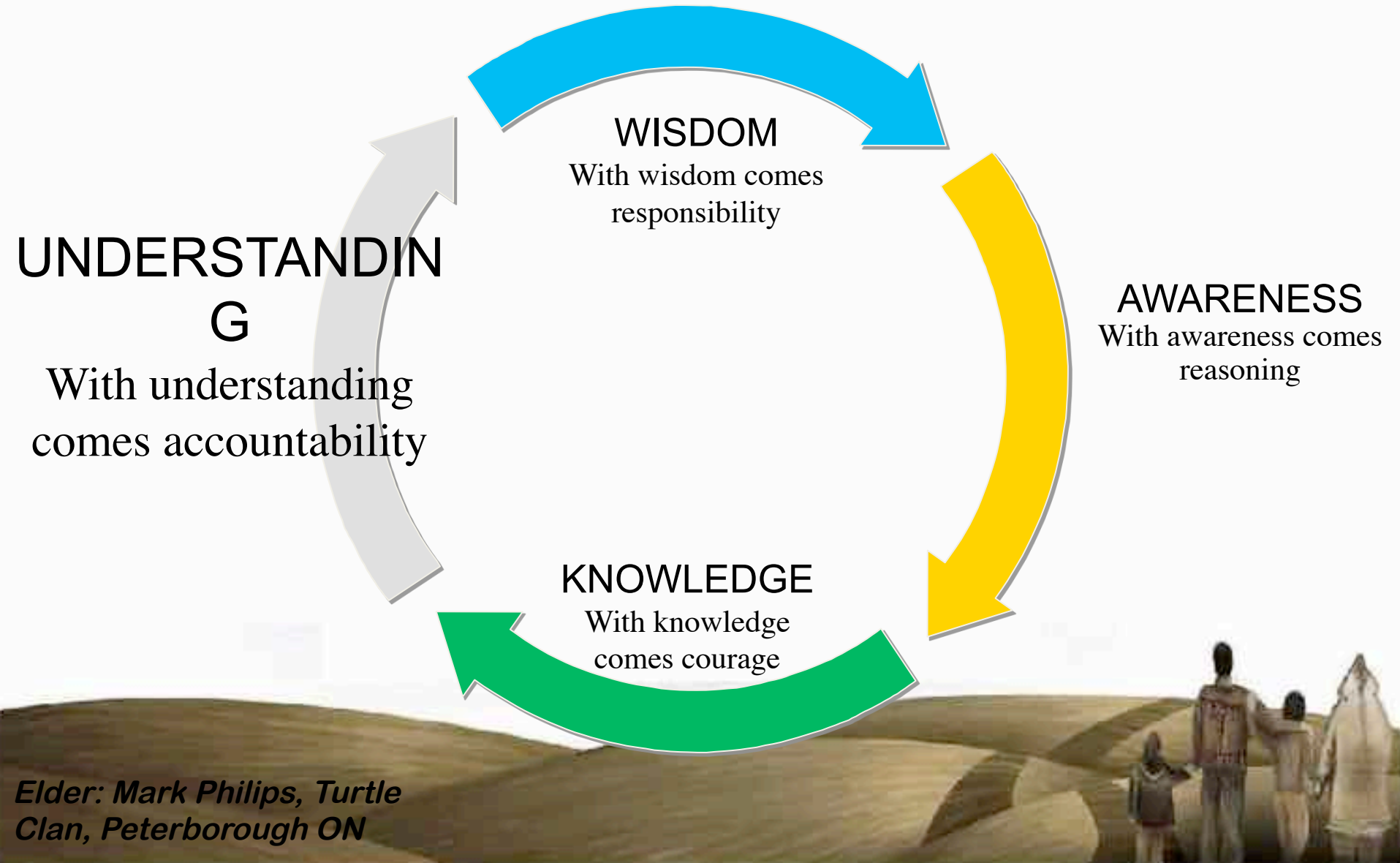


# UNDERSTANDING

## Identifying Risk and Protective Factors



# Stages of Learning



# What is Haddon's Matrix?

A way of looking at all the factors that lead to an injury

Consists of:

- Injury Triangle: host, agent and environment
- Divided into pre-event, event and post-event

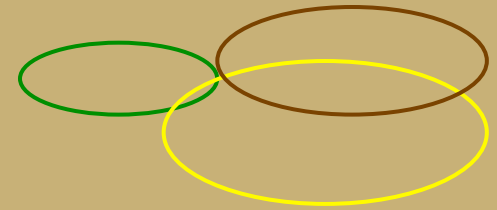
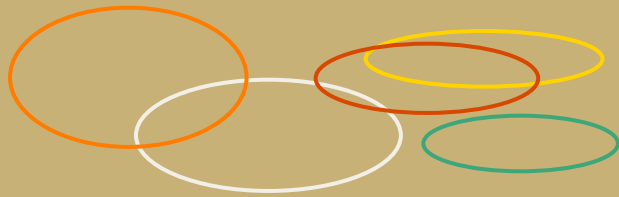


# Chain of Events Over Time

PRE-EVENT  
(BEFORE the injury)

EVENT  
(AT THE TIME of the injury)

POST-EVENT  
(AFTER the injury)



Each circle represents a factor

The more circles (risks) interacting means more risk for

**LONG TERM IMPACT**  
family breakdown, start of an addiction, etc.



# Haddon's Matrix

<b>HADDON's MATRIX</b>  (table of injury factors involved in the injury event)		<b>INJURY TRIANGLE</b> (3 key injury elements)		
		<b>HOST</b> (person injured)	<b>AGENT</b> (object transferring energy)	<b>ENVIRONMENT</b> (physical-social-economic)
<b>INJURY LIFE-CYCLE</b> (continuum of time)	<b>Pre-event</b> (before the injury)			
	<b>Event</b> (at the time of the injury)			
	<b>Post-event</b> (after the injury)			

## IMPACT OF INJURY

death, permanent disability, family breakdown, unemployment, other

# Haddon's Matrix Scenario



A twenty-year old female driver had attended a family gathering. It was a special birthday celebration with many family members gathered. Along with the food, the young driver consumed alcoholic beverages throughout the course of the evening. The young woman departed for home before midnight, forgetting to buckle up for the drive home. The road was dry and unlit. The driver, driving a small compact vehicle, swerved and rolled over several times. The driver was discovered shortly after the incident and transported by emergency services to hospital within 40 minutes. Unfortunately the driver still suffered from major head and spinal injuries which left her a quadriplegic.

# Haddon's Matrix: Host

<b>HADDON's MATRIX</b>  (table of injury factors involved in the injury event)		<b>INJURY TRIANGLE</b> (3 key injury elements)		
		<b>HOST</b> (person injured)	<b>AGENT</b> (object transferring energy)	<b>ENVIRONMENT</b> (physical-social-economic)
<b>INJURY LIFE-CYCLE</b> (continuum of time)	<b>Pre-event</b> (before the injury)	Alcohol beverages consumed		
	<b>Event</b> (at the time of the injury)	Did not use seat belt		
	<b>Post-event</b> (after the injury)	20 year old female		

# Haddon's Matrix: Agent

HADDON's MATRIX  (table of injury factors involved in the injury event)		INJURY TRIANGLE (3 key injury elements)		
		HOST (person injured)	AGENT (object transferring energy)	ENVIRONMENT (physical-social-economic)
INJURY LIFE-CYCLE (continuum of time)	Pre-event (before the injury)	Alcohol beverages consumed		
	Event (at the time of the injury)	Did not use seat belt	Small compact vehicle	
	Post-event (after the injury)	20 year old female	Roll over	



# Haddon's Matrix: Environment

<b>HADDON's MATRIX</b>  (table of injury factors involved in the injury event)		<b>INJURY TRIANGLE</b> (3 key injury elements)		
		<b>HOST</b> (person injured)	<b>AGENT</b> (object transferring energy)	<b>ENVIRONMENT</b> (physical-social-economic)
<b>INJURY LIFE-CYCLE</b> (continuum of time)	<b>Pre-event</b> (before the injury)	Alcohol beverages consumed		Family gathering
	<b>Event</b> (at the time of the injury)	Did not use seat belt	Small compact vehicle	Midnight Dry road condition Unlit road
	<b>Post-event</b> (after the injury)	20 year old female	Roll over	Quick response and transport to medical facilities

# Do your own Haddon's Matrix!

<b>HADDON's MATRIX</b>  (table of injury factors involved in the injury event)		<b>INJURY TRIANGLE</b> (3 key injury elements)		
		<b>HOST</b> (person injured)	<b>AGENT</b> (object transferring energy)	<b>ENVIRONMENT</b> (physical-social-economic)
<b>INJURY LIFE-CYCLE</b> (continuum of time)	<b>Pre-event</b> (before the injury)			
	<b>Event</b> (at the time of the injury)			
	<b>Post-event</b> (after the injury)			

# Haddon's Matrix

## Discussion Questions:

1. What patterns have you found from your injury examples?
2. What could be done to make things better?



# Understanding: What We Learned

- Chain of events leads to injuries—understanding this can help with prevention
- Long-term impacts of injury
- Haddon's Matrix is used to help understand patterns related to an injury event







# Wisdom

## Using Prevention Strategies to Act



# Stages of Learning



*Elder: Mark Philips, Turtle  
Clan, Peterborough ON*



# Keeping Track of Injuries in the Community

- Collecting information about injury events in a community
- It can help identify and prevent injuries
- What, Who, When, Where and How; whenever an injury occurs

Why is this important for my community?

Reduces injury by helping you to identify, understand and prevent injury problems



# Injury Prevention E's



- Education
- Environment
- Enforcement
- Economics

# Education and Environment

## Education Approaches



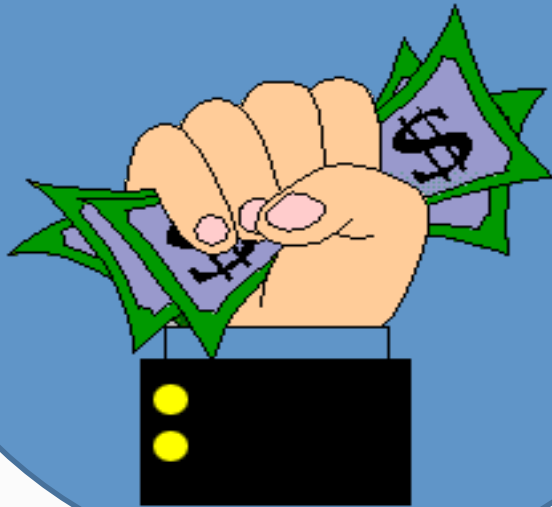
## Environment Approaches





# Enforcement and Economics

## Economic Approaches



## Enforcement Approaches



# Activity: Injury Patterns in Your Community



# YOU Can Create Change

