



**UMTRI**

**Putting Research Into Action**

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# The challenge of behavior change



# The Public Health Model

Define  
the problem

Identify risk  
and protective  
factors

Develop and  
test prevention  
strategies

Assure  
widespread  
adoption

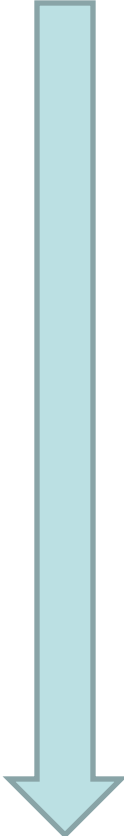
Define  
the  
problem



## The U.S. numbers...

- ❑ Each day, there are more than 8 killed and 1,160 injured in crashes involving a distracted driver.
- ❑ Nearly one in five injury crashes involve a distracted driver.

# Defining the Problem: What is distracted driving?

- 
- ❑ Adjusting dashboard controls
  - ❑ Drinking
  - ❑ Adjusting other controls (e.g. windows)
  - ❑ Eating
  - ❑ Texting
  - ❑ Looking at a roadside object
  - ❑ Reaching for a cell phone
  - ❑ Reaching for an inanimate object
  - ❑ Dialing a cell phone



**Ok, I Admit It...**

## Frequency of distracted driving behavior (never to > 5 times/ trip)

| Behavior                      | Teens | Parents |
|-------------------------------|-------|---------|
| Read or send text             | 1.42  | 1.74    |
| Deal with passengers          | 2.13  | 1.94    |
| Eat/ drink                    | 2.13  | 2.05    |
| Use electronic music device   | 1.17  | 2.12    |
| Check internet/ social media  | 1.05  | 1.15    |
| Look for something in vehicle | 2.10  | 2.25    |

Identify  
risk and  
protective  
factors



# Risk and protective factors



# Example risk & protective factors

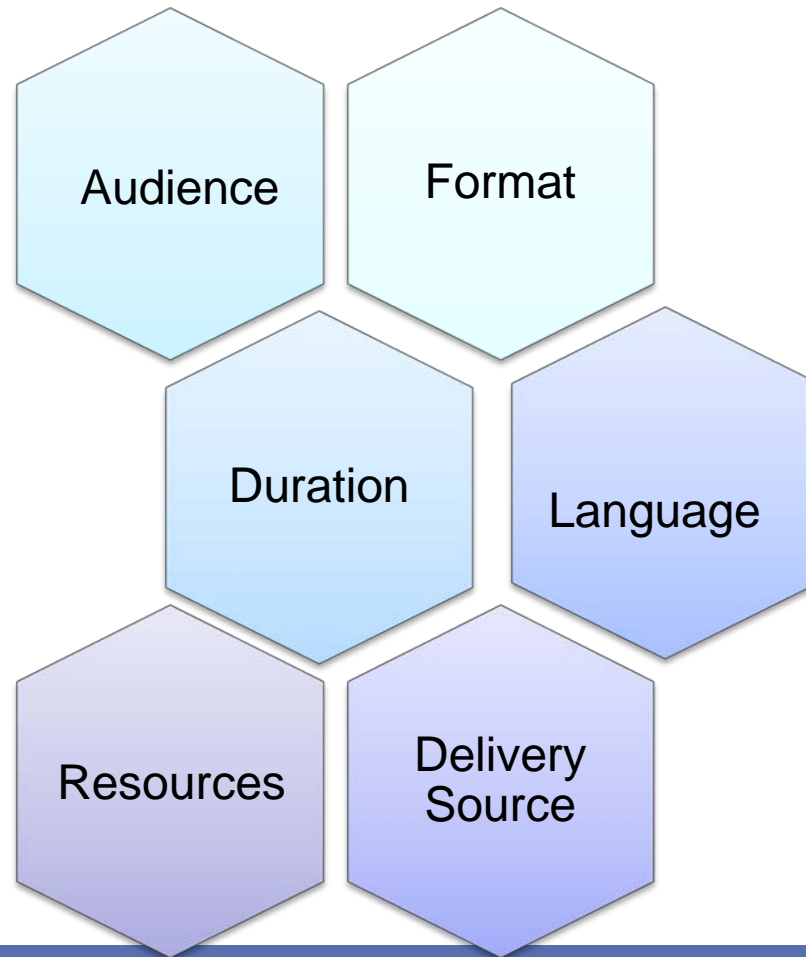
- ❑ Belief in low probability of negative consequences
- ❑ Belief in benefits to calls (keep up with friends)
- ❑ Belief and actual greater prevalence from friends and family
- ❑ Confidence in ability to multitask
- ❑ Little enforcement



- ❑ Organization safety culture – policy and practice
- ❑ Legislation + enforcement (with relevant consequences)
- ❑ Having friends that disapprove of distracted driving behaviors

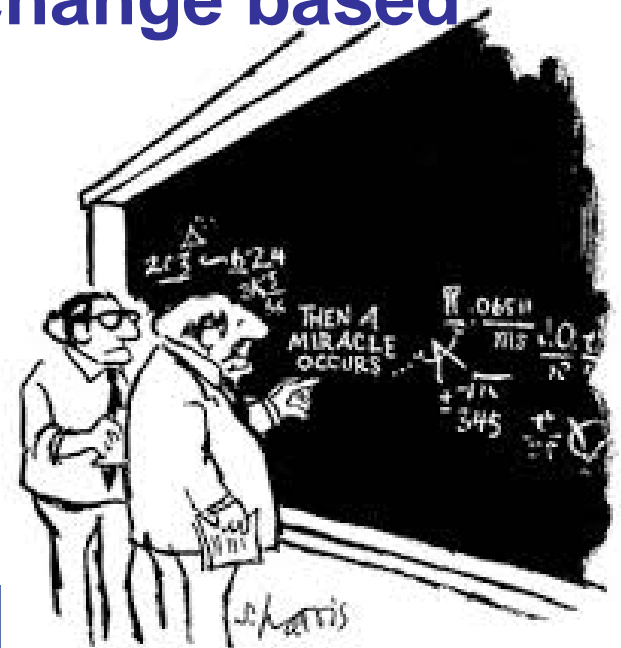
Develop  
and test  
prevention  
strategies

# Design Considerations



# Why theory?

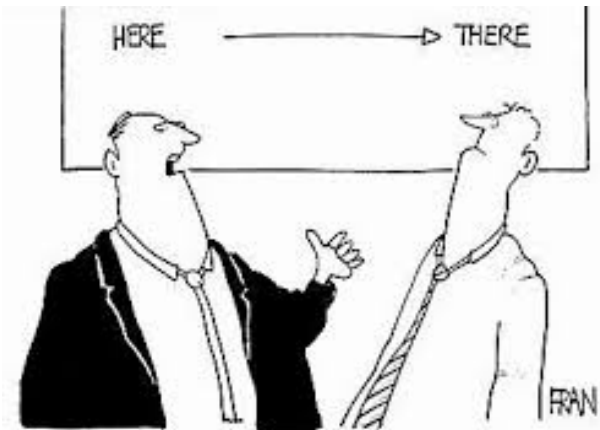
- ❑ Logic
- ❑ Internal consistency
- ❑ Guide selected targets for change based on research
- ❑ Guides design principles



"I think you should be more explicit here in step two."

# What to consider in selecting a theory?

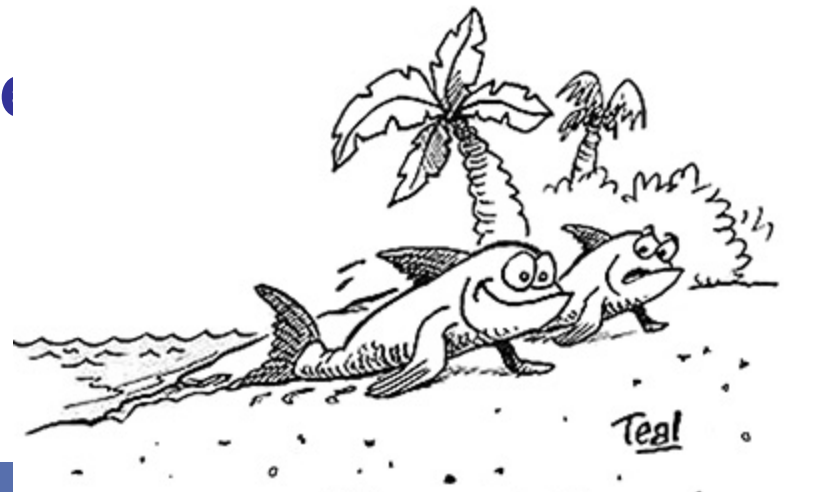
- ❑ Parsimony
- ❑ Demonstration it works - prediction of the outcome among target individuals, behavior, and context



"It's a simple model... but it works for me..."

# Understand the context for change

- ❑ Gender
- ❑ Age
- ❑ Ethnicity
- ❑ Personality
- ❑ Neurological processes
- ❑ Automaticity



# What theoretical constructs have been used in research

- ❑ Theory of Planned Behavior
- ❑ Health Belief Model
- ❑ Extended Parallel Process Model
- ❑ Self-determination Theory
- ❑ Social Cognitive Theory
- ❑ Norms
- ❑ Prototype Willingness Model



# What are the common constructs? Attitudes

- ❑ May be affective or cognitive
- ❑ Weighing of the costs and benefits
- ❑ Consideration given to how important that cost/ benefit is to a target audience at any given time
- ❑ Typically interventions focus on costs and merely present costs to the audience



# What are the common constructs? Norms

- ❑ Includes both injunctive and descriptive
- ❑ Injunctive: internalize others' expectations
- ❑ Descriptive: perceived prevalence of behavior by others
- ❑ Defining 'other' can vary

# What are the common constructs?

## Confidence

- ❑ A belief that it's easy to perform a particular behavior
- ❑ Research evidence suggests those confident in their ability to multi-task increases poor performance
- ❑ Other possible considerations might be about turning a phone off before getting in the car or putting it out of reach

# What are the common constructs? Self-representation

- ❑ Reflects identity, internalized values or standards that one holds or aspires to.
- ❑ For example, being a law abiding citizen or being a good friend.

# Youtube PSAs: Review of theory

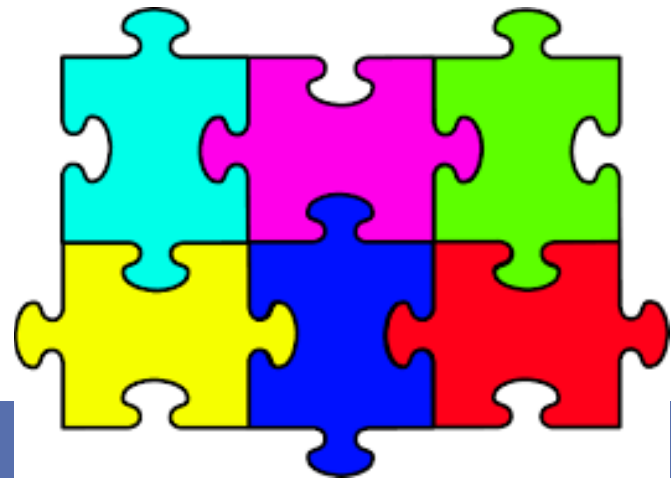
| Construct           | % used | Description   |
|---------------------|--------|---|
| Risk                | 89     | Increased risk of death/ crashing   |
| Barriers            | 86     | Guidelines of non-distracted driving  |
| Modeling            | 61     | General information about non-distracted driving or depicts actual behavior |
| Knowledge           | 38     | Links to websites   |
| Benefits            | 30     | Benefits of alternative – e.g. arrive safely                                |
| Social norms        | 22     | Celebrity endorsement, or social information re not responding              |
| General information | 20     | Driving statistics  |
| Skill building      | 14     | Talks about skills and how to do it   |
| Social support      | 14     | Community resources, pledges  |

# Effectiveness in mass media approaches

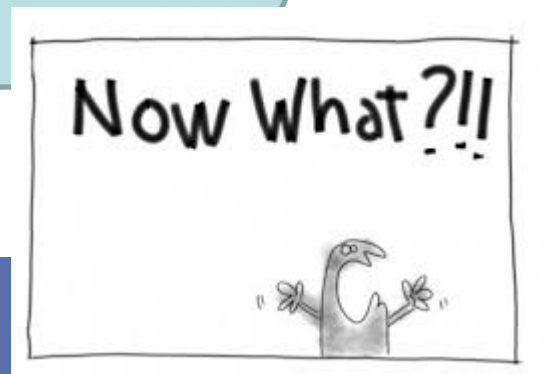
- ❑ **Formative research (understand the target behavior and audience) and pre-test messages**
- ❑ **Use a theory**
- ❑ **Combined with other activities (e.g. enforcement, legislation)**
- ❑ **Segment the audience meaningfully (e.g. age, risk)**
- ❑ **Use widely viewed channels relevant to the target audience**
- ❑ **Evaluate!**

# What's success?

- ❑ Identify goals and objectives
- ❑ Choose best method for evaluation
- ❑ Choose how to carry out the evaluation
- ❑ Undertake the evaluation
- ❑ Feedback



# Assure widespread adoption





# Challenges in translation

- ❑ **Getting the message out**
- ❑ **Resources**
- ❑ **Community commitment**
- ❑ **Champion**
- ❑ **Research provides very little background to provide best practice**

**ANY QUESTIONS?**