

How to Measure Risk Communications & Public Awareness Campaigns



Measurement Hour
April 25, 2018

First things first: What are we talking about?

Goals for Crisis Communications

- ▶ Make bad news go away as quickly as possible
- ▶ **Minimize damage to brand reputation**
- ▶ Minimize damage to stock price and shareholder value

Goals for Public Awareness & Risk Comms

- ▶ Improve understanding among affected publics
- ▶ Disclose information about hazards to those potentially impacted
- ▶ Modify attitudes and perceptions around risk
- ▶ Improve the acceptance of a specific risk source
- ▶ Enhancing the trust in the competence and fairness of the risk-management process
- ▶ **Enhance public protection through information**
- ▶ Encourage desired behavior or supportive actions

How to Motivate People to Avoid Disaster

- ▶ To engage in self-protective behavior, a certain level of risk awareness (or threat) is necessary in the communication effort to motivate receivers to actively engage in information seeking and to adopt self-protective recommendations.
- ▶ Risk messages aimed at promoting self-protective actions are effective as long as people believe they can do it, and that it works
- ▶ Messages should be carefully crafted and designed along the lines of behavioral actions that are seen as efficacious by large numbers of people.

Effective Risk Communications requires:

According to the NRC:

- ▶ Risk communication is an *interactive process of exchange of information* and opinion among individuals, groups, and institutions.
- ▶ Trust of central government was a primary factor influencing success of communications and trust is related to cultural worldview
- ▶ Definition of success: The extent to which communications “raises the level of understanding of relevant issues or actions and satisfies those involved that they are adequately informed within the limits of available knowledge.”
- ▶ A perceived need for information
- ▶ Awareness of the risk
- ▶ Interactive dialog between affected publics and organization
- ▶ Belief in one’s ability to do something about the risk
- ▶ Trust in central authority giving advice
- ▶ Trust that the advice will work

Best Practice Measurement Process

6 Steps to Success

Step 1: Define the goal

What outcomes is this strategy or tactic going to achieve?
What are your measurable objectives?

Step 2: Define the parameters

Who are you are trying to reach? How do your efforts connect with those audiences to achieve the goal?

Step 3: Define the benchmark

Who or what are you going to compare your results to?

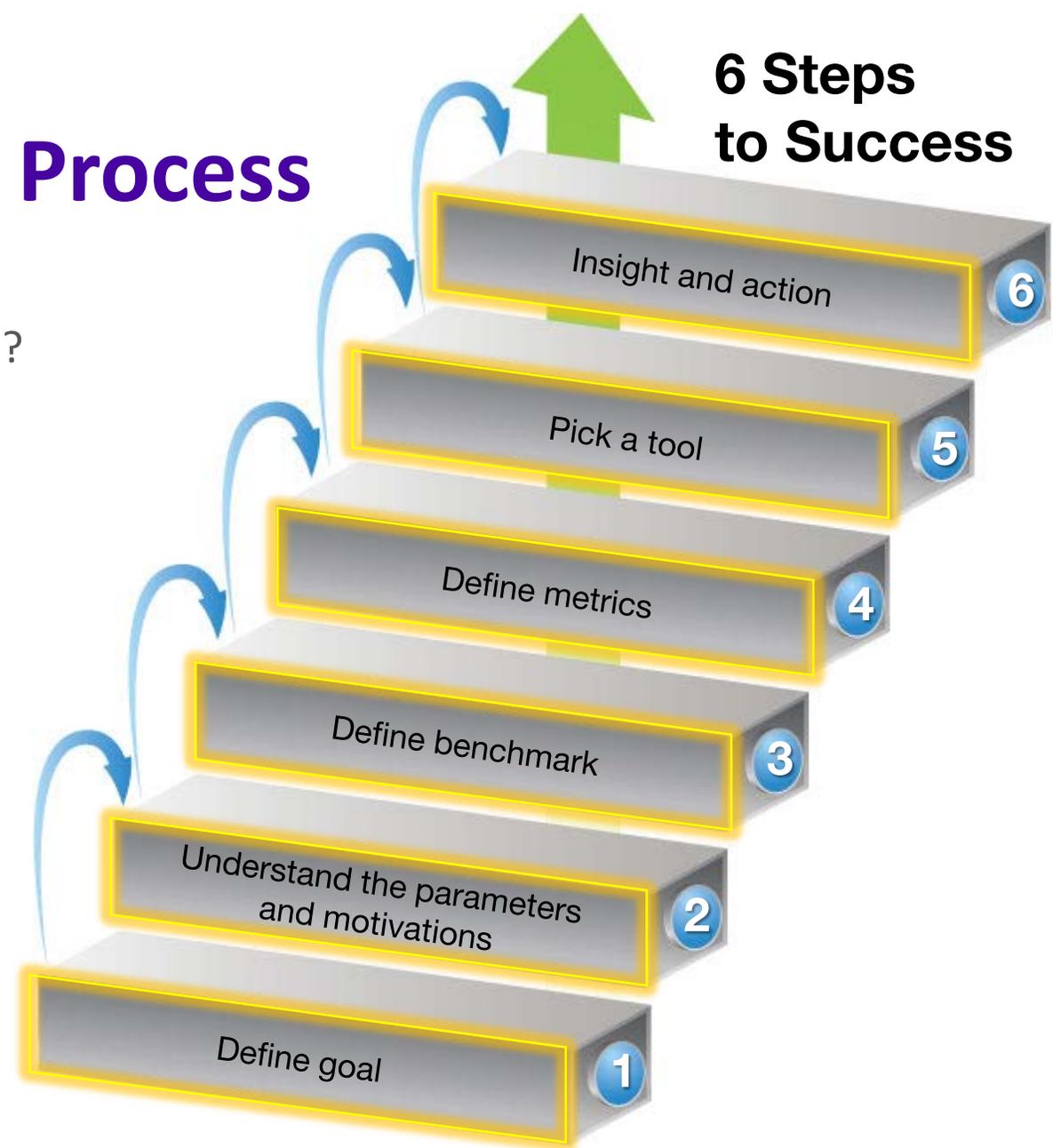
Step 4: Define the metrics

What are the indicators to judge your progress?

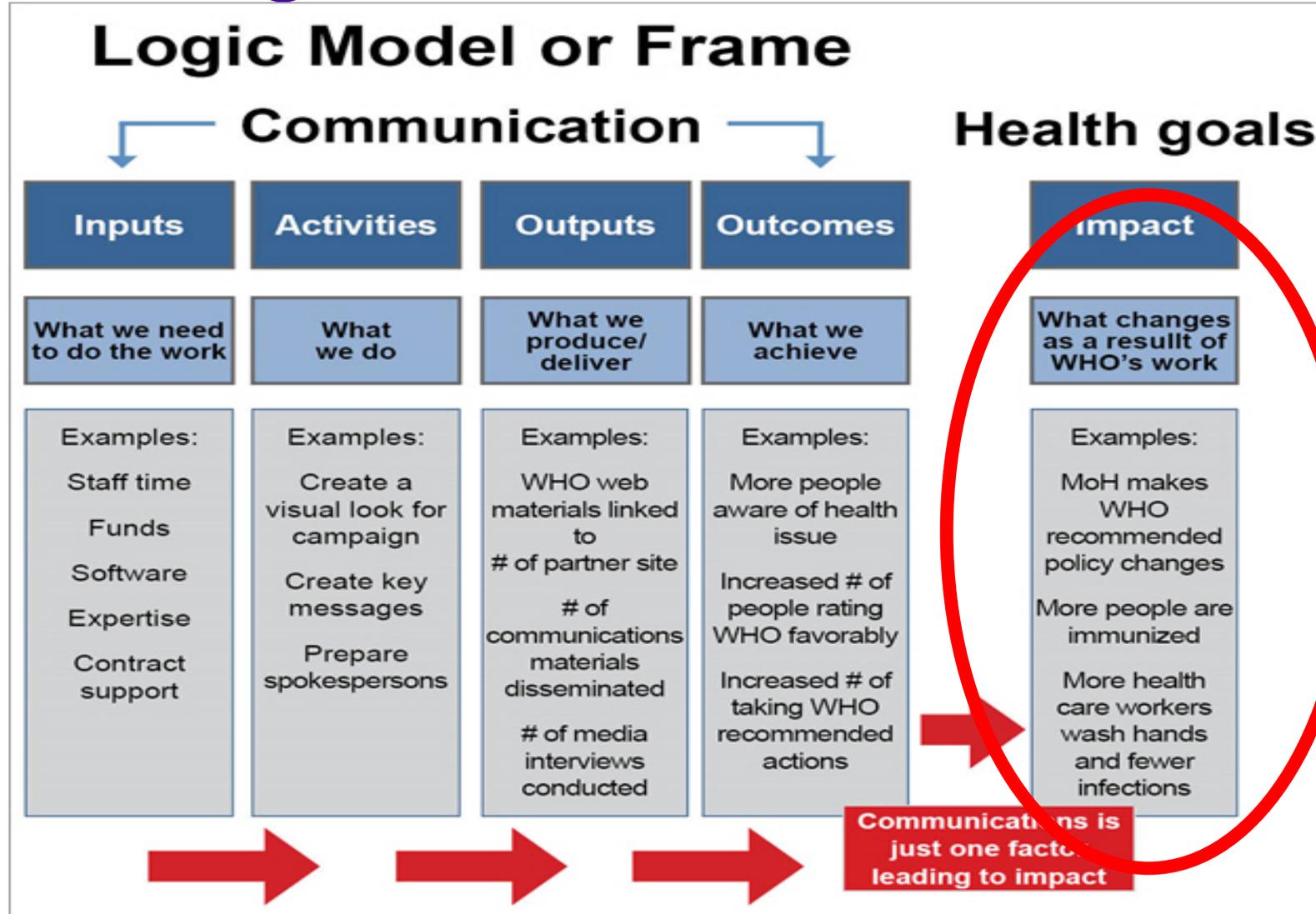
Step 5: Select your data collection tool(s)

Step 6: Analyze the data

Turn it into action, measure again



World Health Organization



Does Health Communications Change Behavior?

- ▶ Behavior =
 - ▶ Action
 - ▶ Audience
 - ▶ Circumstance.
- ▶ The focus should be on **behavior**, not attitudes, knowledge, beliefs, or any other intermediate variable such as communication products, channel exposure, or public support. Although these intermediate variables can be indispensable as a means to influence the behavior, they should not be the focus for measuring success.

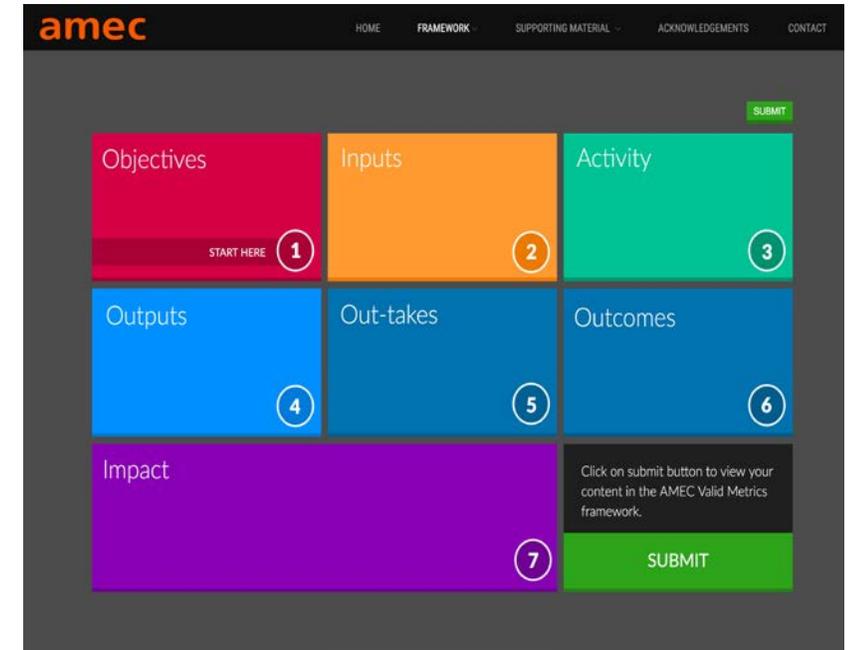
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WHO approach to evaluation of risk communications

- ▶ Goal: Informs potential or actual risk bearers about a potential future harm and related dangers so that they may be in a position to take action to better manage and ideally mitigate the risk to themselves, their families and friends
- ▶ **Assessment: Measure communication on what it can achieve**
 - ▶ Levels of knowledge
 - ▶ Attitude change
 - ▶ Increased knowledge
 - ▶ Behavioral intent
- ▶ What it can't achieve
 - ▶ Ensure the vaccine is delivered
 - ▶ Available at the appointed time
 - ▶ Transportation is accessible to reach the appropriate clinics
- ▶ Therefore communication must be integrated with the larger planning efforts.
- ▶ Measurements should be used consistently to indicate the effectiveness of particular communications tactics, strategies

The Framework

- ▶ **Outputs** are first-level results including quantification of activities. Outputs could include the number of posters disseminated, number of staff trained, or numbers of websites linking to WHO content.
- ▶ **Outcomes** include second-level results that occur from communication outputs. These are usually changes in audience knowledge, attitudes, or behaviors taken by target audiences based on exposure to WHO communication messages or materials. These changes are necessary to achieve health impact.
- ▶ **Impact** refers to longer term health goals such as reduced maternal mortality. These impacts require, but routinely transcend, communication inputs, activities, outputs or outcomes.



Step 2: Define Target Audiences

- ▶ advisory panels
- ▶ business leaders and business community
- ▶ consultants
- ▶ contractors
- ▶ education leaders and education community
- ▶ elderly populations
- ▶ elected officials
- ▶ emergency response personnel
- ▶ employees of the nuclear power licensee
- ▶ employees of off site emergency response organizations
- ▶ environmental officials
- ▶ ethnic populations
- ▶ **faith leaders**
 - ▶ families of employees at the nuclear power plant
 - ▶ families of those involved in the response effort, such as emergency responders, law
 - ▶ enforcement personnel, contractors, consultants, security personnel, hospital personnel,
 - ▶ health agencies, volunteers, and others
 - ▶ farmers
 - ▶ fire department personnel
 - ▶ government agencies
 - ▶ health agency personnel
 - ▶ homebound populations
- ▶ homeless people
- ▶ **hospital personnel**
- ▶ **illiterate populations**
- ▶ institutionalized populations
- ▶ law enforcement personnel
- ▶ legal professionals
- ▶ **local residents who are out of town and their relatives**
 - ▶ media, print and electronic
 - ▶ military leaders
 - ▶ minority populations
 - ▶ neighborhood associations
 - ▶ non-English speaking groups
 - ▶ non-governmental organizations
 - ▶ nurses
 - ▶ nursing homes
 - ▶ other nuclear power plants
 - ▶ other energy utilities
 - ▶ Physicians
 - ▶ paramedics and other emergency healthcare personnel
 - ▶ politicians/legislators/elected officials
 - ▶ prisons
 - ▶ professional societies
- ▶ public-at-large
- ▶ public-at-risk
- ▶ public health officials
- ▶ radiological response personnel/teams
- ▶ religious groups
- ▶ scientific leaders and scientific community
- ▶ security personnel
- ▶ service and maintenance personnel
- ▶ suppliers/vendors
- ▶ **tourists or business travelers and their relatives**
 - ▶ transportation dependent populations
 - ▶ union officials and labor advocates
- ▶ **veterinarians**
 - ▶ victims
 - ▶ victims' families
 - ▶ volunteers ready and willing to assist in the emergency response

Step 3: Establish benchmarks

- ▶ Benchmarks put your results into context
- ▶ Possible benchmarks
 - ▶ A/B Tests
 - ▶ Results of a prior disaster
 - ▶ A community that is/was not informed
- ▶ What keeps leadership up at night?



Step 4: Pick your Kick-Butt Index

The Perfect KBI

- ▶ Is actionable
- ▶ Is there when you need it
- ▶ Continuously improves your processes & gets you where you want to go
- ▶ **You become what you measure, so pick your KBI carefully**



Step 4: Define your metrics

Public Health ROI Calculations

- ▶ Goal:
 - ▶ Increase the number of vasectomies obtained by lower middle-class men between 25 and 49.
- ▶ Tactics:
 - ▶ PR events
 - ▶ TV Spots
 - ▶ Radio spots
- ▶ Results:
 - ▶ Calls and visits to the clinics increased 261% in one clinic, and doubled across the board
 - ▶ Significant impact on the number of procedures, even during periods of relative decline and in the face of rising procedure costs.
 - ▶ Before the campaign friends and family were the primary source of referrals. Post campaign showed TV was most effective in driving referrals
 - ▶ Dividing the total cost by each of these net increases in vasectomies yields cost-effectiveness ratios (which can be expressed as the cost of motivating each additional call, visit, or operation) of \$53 per visit or call and \$93 per vasectomy.

Step 5: Pick the right measurement tools

- ▶ If you want to measure messaging, positioning, themes, sentiment:

Content analysis

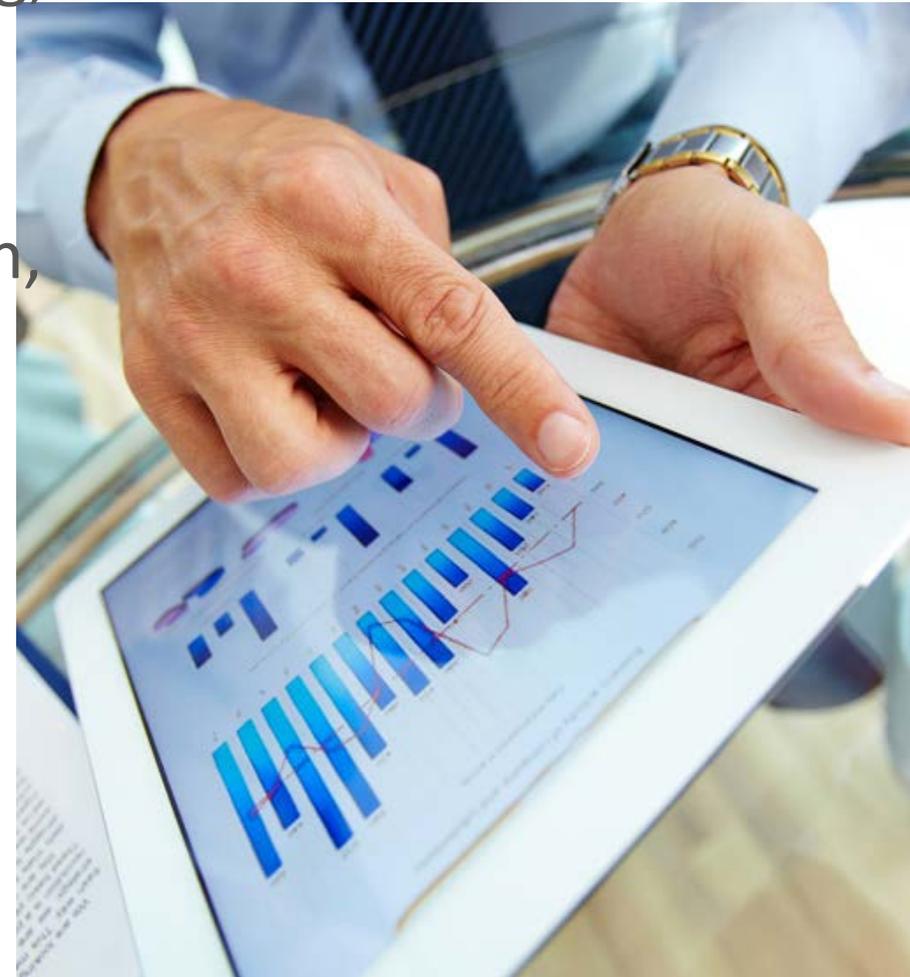
- ▶ If you want to measure awareness, perception, relationships, preference:

Survey research

- ▶ If you want to measure engagement, action, purchase:

Social & Web analytics

- ▶ If you want predictions and correlations you need two out of three



Health Communications Assessment Best Practices

- ▶ Incorporate measurement at multiple time points, particularly if there are multiple measurement points both before and after the initiation of an intervention.
- ▶ Make comparisons with unexposed populations, whether as natural control areas or unexposed individuals, if they are available.
- ▶ Establish that the model of effect of the program is consistent with the observed effects in terms of exposure, and on intermediate cognitive outcomes as well as on behavior.
- ▶ Triangulate evidence, showing effects through more than one analytic approach.
- ▶ Focus attention on the target population rather than on the broad population and/or analyze interactions recognizing that some groups will be more vulnerable than others

Step 6: What's the Point? Use Metrics to tell Your Story

- ▶ Start with the basics
 - ▶ What were the objectives?
 - ▶ Who's the audience?
- ▶ Analyze data
 - ▶ Rank from worst to best
 - ▶ Run correlations
- ▶ Find your “A-ha!” moment and put everything in context
- ▶ Add recommendations



What we can learn from flu prevention efforts

- ▶ People are more likely to adhere to public health recommendations * if:
 - ▶ They believe the recommended behaviors are effective
 - ▶ They perceive that they have a high likelihood of being affect
 - ▶ They recognize that the illness has severe results
 - ▶ They believe it is difficult to treat
 - ▶ That the government is proving understandable and sufficient information about the outbreak and can be trusted to control the spread of infection.
- ▶ Ask about:
 - ▶ Perceived efficacy
 - ▶ Level of anxiety
- ▶ Media reached the most but the most trusted source was health care providers.

* https://www.researchgate.net/publication/259992132_Community-Based_Risk_Communication_Survey_Risk_Prevention_Behaviors_in_Communities_during_the_H1N1_crisis_2010

Chemical Safety

▶ The Wally Study

- ▶ RQ1: How familiar are residents with a costumed character named Wally?
- ▶ RQ2: What kind of animal is Wally?
- ▶ RQ3: What does Wally want people to do in the case of an emergency?
- ▶ RQ4: What does the phrase “shelter in place” mean to you?
- ▶ RQ5: How did you become aware of “shelter in place” (as a concept)?
- ▶ RQ6: How exposed are you to LEPC activities?
- ▶ RQ7: Are you aware of a telephone service called the CAER Line that you can call to get information about a chemical release or the chemical industry?
- ▶ RQ8: What telephone number would you call to reach the CAER Line?
- ▶ RQ9: Are you aware that an LEPC exists in Deer Park/Pasadena?
- ▶ RQ10: Which of the following communication tools are you aware of?

▶ Results:

- ▶ In addition to being aware of and knowing what kind of animal Wally is, there was marked improvement in knowledge of what Wally wants people to do in case of emergency, (Go Inside, Stay Inside) despite the fact that the shelter-in-place concept was known by less than 4% of residents when the campaign began. The Wally calendar was among the most effective tactics. Newspaper articles and signage were next.



Best Practices:

- ▶ Consistent messaging and relatable imaging works
- ▶ Teaching children is as important as teaching parents
- ▶ Don't ask them if they know there's a number, ask them what it is
- ▶ Test if they understand and know what they would do
- ▶ Expand definition of affected publics and stakeholders
- ▶ Measure trust levels and improve if necessary if you want people to believe you.

Lesson's learned from Railroad Safety

- ▶ Humor gets more attention than scare tactics
- ▶ Humor + visuals + music is memorable
- ▶ If you want to show behavioral change, set up the metrics ahead of time.

What can we learn from all this?

- ▶ You can't count on people to communicate risks unless that communication benefits them in some way, personally and immediately.
- ▶ People do not become informed unless they are seeking information
- ▶ Without information seeking there is no exposure, without exposure there is no impact.
- ▶ Why do people seek information ?
 - ▶ Gain knowledge or fill lack of knowledge
 - ▶ Social environment i.e. peer pressure, FOMO
 - ▶ Reduce uncertainty
- ▶ What impacts the degree to which they are informed and internalize the messages:
 - ▶ They are aware of appropriate protective actions.
 - ▶ They believe that they are able to conduct a specific task successfully.
 - ▶ They trust that the suggested behaviors are effective in protecting oneself and others from negative consequences of a risk
 - ▶ When people believe they are able to conduct an effective course of action against the risk, they are motivated to control the risk and consciously consider ways to reduce negative outcomes

Thank You!

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