



# EVALUATION

2018 Wyoming Cancer Conference

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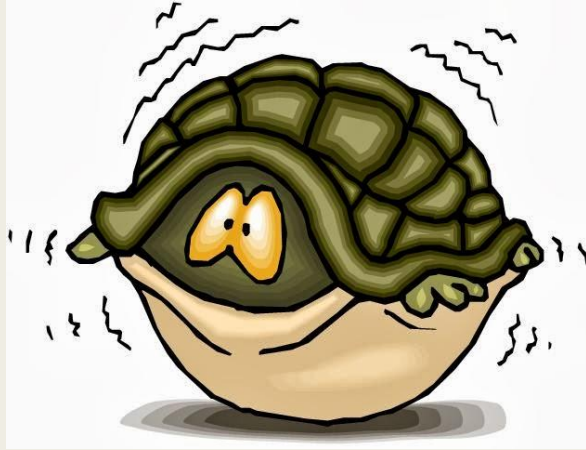


DATA

# SURVEYS

STATISTICS





**IF I JUST IGNORE IT –  
IT WILL GO AWAY**

# Game Plan

1. What is Evaluation?
2. Types of Evaluation
3. Steps of Evaluation
4. Examples

# What is Evaluation?

Evaluation is the comparison of an object of interest against a standard of acceptability.

OR

Are we as good as we say we are? Or as good as the funding agency wants us to be?

Source: Green, L. W., & Kreuter, M. (1999). Health promotion planning: An educational and ecological approach. Mountain View, CA: Mayfield.

# Why Evaluate?

- To demonstrate effectiveness
- To determine and/or justify costs
- To determine future plans
- To provide evidence for more support

**IF WE CAN'T SHOW IT WORKS, WHY KEEP DOING IT?**



# MESSAGE TO REMEMBER

- EVALUATION IS **NOT** JUST THE END PRODUCT!!!



- EVALUATION MUST BE PART OF THE BEGINNING, MIDDLE, AND END OF ANY INTERVENTION

# TYPES OF EVALUATIONS

- **Implementation Science** – Assesses extent to which efficacious interventions can be integrated into real-world public health.
- **Impact** – Assesses the efficacy and effectiveness of intervention on intended outcomes.
- **Program** – Assesses the processes and outcomes of a program...to further improve the program.

# STEPS OF EVALUATION

## 1. Determine goals and objectives

- What do we wish to accomplish overall?
- What do we want to change? (e.g., more flu shots, more cancer screenings)
- Who do we want to change?(e.g. children, adults, middle aged men who own more than two ducks)
- Where do we want them to change? (e.g., school, work, home, community)

*If you don't know **this** your evaluation is worthless!*

# STEPS OF EVALUATION

## 2. Defining the evaluation purpose



- Why do we want to evaluate **this** intervention? (should already be evidence-based) – don't need to show it works.....but does it work with this pop?
- What do we wish to try to prove (e.g., Effectiveness, Efficiency, Cost effectiveness, Simplicity of Implementation)?
- Is this a Pilot study? Do we want to expand to other communities?
- Do we need more money to reach more people?

# STEPS OF EVALUATION

## 3. What questions need to be answered?

- How do we prove effectiveness?
- What will show that the intervention is cost effective?  
(e.g., ROI, Costs Avoided)
- What can we ask participants? (e.g., did you get screened, did you use the support program, how much do you weigh)
- What other information can help make our case?

**YOU CAN'T EVALUATE WHAT YOU DON'T ASK!!!!**

# STEPS OF EVALUATION

## 4. Selecting a Criteria for Success

- What is the cutoff for proving effectiveness?
- How much of a **change** must we see to prove success? (e.g., 5% increase, 10% decrease,  $p < 0.5$ , 6/10 get screened)?
- Will qualitative data show success (e.g., testimonials, informant interviews, focus groups)?



# STEPS OF EVALUATION

## 5. Choose type and design of evaluation

- What type of evaluation? (e.g., impact, implementation, program, combination)
- What type of design? (e.g., Pretest-Posttest, Posttest only, Repeated measures) – Can't decide this after collecting the data!!!!
- IF NOT ALREADY DONE, NOW IS A GOOD TIME TO CALL AN EPIDEMIOLOGIST OR STATISTICIAN!



$$\begin{array}{c} 5 \div 2 \quad 3/4 \\ 14^8 \\ 3.14 \quad 300,000 \\ \sqrt{9} \end{array}$$



# STEPS OF EVALUATION

## 6. Plan how and when to collect data

- How much will it cost? – **VERY IMPORTANT**
- When?(e.g., Spring, November, first week in June)
- How long will it last? (e.g., week, month, 6 months)
- Who will conduct the evaluation (e.g., program manager, epi, outside source)?
- Will data from other sources be used? (e.g., collaborating organizations gather data as well, hospital records)
- How will this data be collected? (e.g., survey, interviews, paper and pencil, computer, Survey Monkey, phone survey)
- Where will sample come from? (Random, Convenience)

# STEPS OF EVALUATION

## 7. Developing the evaluation instrument

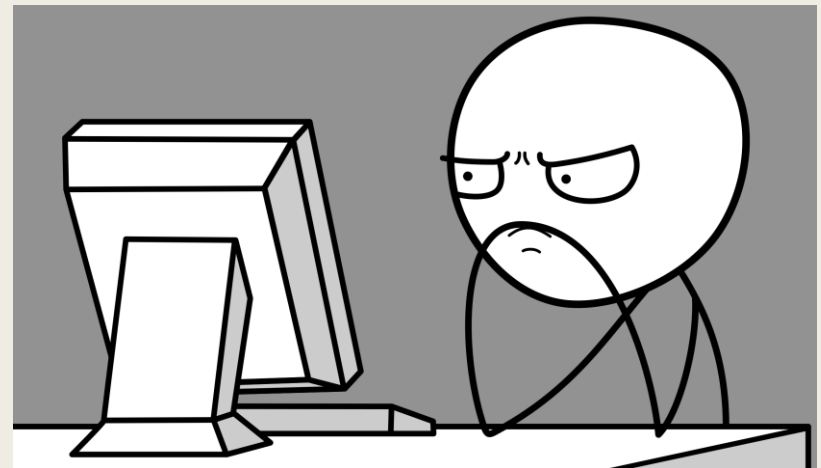
- What type of questions will you ask? (e.g., T/F, Likert scale, Semantic differential, open-ended)
- How long will it be? (e.g., one-page, two, four screens, 10 minutes on the phone)
- Which questions will answer your overall QUESTIONS?
- Do you need IRB Approval? (Always YES if participants are children, pregnant women, or incarcerated)

*Review literature to see how other people asked these types of questions!!!*

# STEPS OF EVALUATION

## 8. Collect the DATA

- How will it be entered into a computer and protected? (e.g., Excel, Access, Survey Monkey)
- Who controls access to the data if it has PHI?
- Who OWNS the data? (usually whoever pays)



# STEPS OF EVALUATION

## 9. Determine type of data analysis

- Significance testing?(t-Test, ANOVA, Logistic regression, Odds Ratios, Chi-square)
- Triangulation? (Qualitative and Quantitative data)
- Percentages (Increase by X% = success)?
- What analysis package will be used? (e.g., SAS, SPSS, R)

*Ultimately determined by design, types of questions and data collected, and success criteria*

# STEPS OF EVALUATION

## 10. Identifying who will analyze the data

- Are they experienced?(not the Jimi Hendrix way – google it)
- Are they qualified?
- Do they have an interest in a particular outcome? (e.g., biased or objective)
- Can they interpret the data as well as crunch the numbers? (garbage in = garbage out)
- Can they help explain what everything means?



# STEPS OF EVALUATION

## 11. Crunch the numbers

- Just do it. NO FEAR
- Remember goals and objectives.(what are you trying to prove?)
- Try not to get so immersed in the details that you miss the bigger picture (What happened and SO WHAT?)



# STEPS OF EVALUATION

## 12. Report out Results

- What did you find? (e.g., Success, Failure, mixed)
- REMEMBER - even negative results are informative.
- Try to resist reporting results that have nothing to do with your goals and objectives.
- How are you going to move forward? (e.g., expand to other communities, try something else)



# EXAMPLE

## **SOPLAY – WY CHRONIC DISEASE PREVENTION**

Goal – Increase Physical Activity among children age 0-5

Environment – Schools

### **INTERVENTION**

1. Map school play areas (asphalt, concrete)
2. Observe how many kids play in each area of map (Pre)
3. Design and paint new play areas
4. Observe how many kids play in each area of map (Post)
5. Follow up observation 6 months later

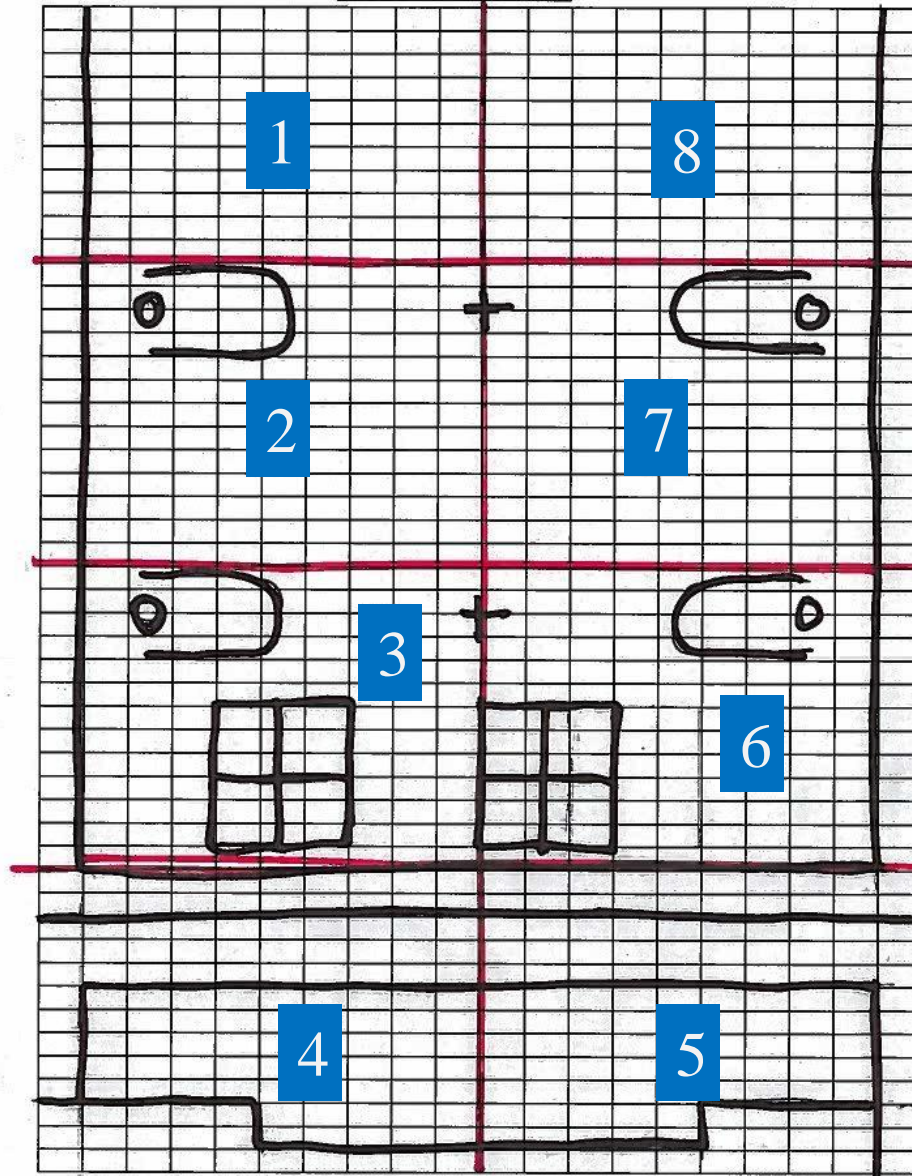
# Painting Play Areas for Movement



Center for  
Healthy Communities  
CALIFORNIA STATE UNIVERSITY, CHICO



Observation Grid P. p



# SOPLAY

(System for Observing Play and Leisure Activity in Youth)

School: West Elem #1

Date: 6/1/18

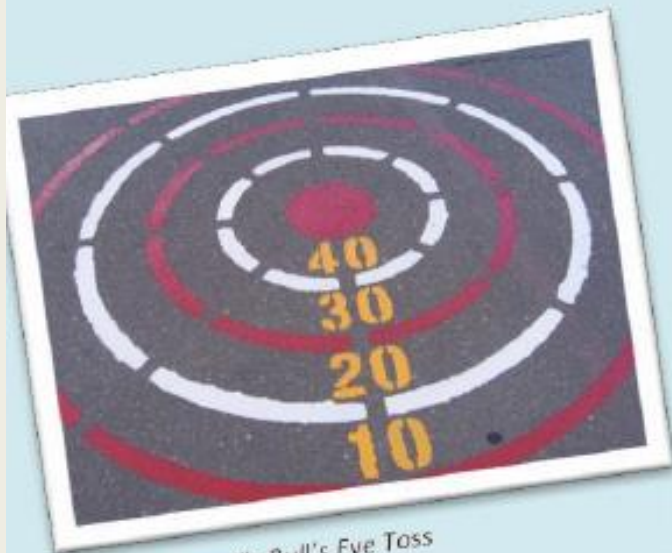
Observer Initials: ME

Observation: 1. Pre 2. Post

Observation Period: 1. Before School 2. Lunch 3. After School

START TIME	AREA	Condition		Number of GIRLS			Number of BOYS		
		Equipment Provided	Main Activity	Sedentary	Moderate	Vigorous	Sedentary	Moderate	Vigorous
<u>10:00</u>	1	<u>0. N</u> 1. Y	0	0	2	0	4	0	4
<u>10:02</u>	2	<u>0. N</u> 1. Y	3	4	2	2	6	2	0
<u>10:03</u>	3	<u>0. N</u> 1. Y	13	10	4	0	2	2	0
<u>10:05</u>	4	<u>0. N</u> 1. Y	0	2	0	0	3	1	2
<u>10:07</u>	5	<u>0. N</u> 1. Y	13	4	2	2	2	2	1
<u>10:08</u>	6	<u>0. N</u> 1. Y	9	6	4	2	4	3	0
<u>10:10</u>	7	<u>0. N</u> 1. Y	3	0	2	0	0	2	0
<u>10:12</u>	8	<u>0. N</u> 1. Y	0	0	0	0	1	2	0

Activity Codes: 0=No identifiable activity 1=Aerobics 2=Baseball/Softball 3=Basketball 4=Dance 5=Football 6=Gymnastics  
7=Martial Arts 8=Racquet sports 9=Soccer 10=Swimming 11=Volleyball 12=Weight Training 13=Other playground games  
14=None of the above



Fastline Stencils Bull's Eye Toss



Playground track painted free-hand by CSU Chico Center for Healthy Communities



Fastline Stencils Snake Hopscotch with Letters



Combination of free-hand painting and Fastline Stencils Playground Pond from CSU Chico Center for Healthy Communities

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# EXAMPLE

## **WyPREP – WY MATERNAL and CHILD HEALTH**

Goal – WyPREP aims to educate young people on both abstinence and contraception use to prevent pregnancy and sexually transmitted infections, including HIV/AIDS.

**Environment** – Schools and Communities – 7<sup>th</sup>-12<sup>th</sup> grade

## **INTERVENTION**

Two Curricula – Making Proud Choices (MPC) and Reducing the Risk (RTR)

8 and 16 Sessions Respectively

Pre and Post Survey

Knowledge Survey

# **An Evaluation Plan for the Wyoming Department of Health's Wyoming Personal Responsibility Education Program (WyPREP)**

In collaboration with the Centers for Disease Control and Prevention, the Harvard T.H. Chan School of Public Health, and the Wyoming Department of Health

Maternal and Child Health (MCH) Program Evaluation Practicum  
January 2018

Prepared by: Tolani Akinola and Nayely Chavez (Masters of Public Health Candidates)

## Appendix III: Wyoming Personal Responsibility Program Logic Model

Activities	Outputs	Outcomes		
<p>WDH Recruits Organizations</p> <p>WDH Conducts Training of Organization Facilitators</p> <p>WDH Contracts with Organization</p> <p>Organization Facilitator Submits Master Calendar to WDH</p> <p>Curriculum Distribution by WDH to Organization</p> <p>Curriculum is Taught by Organization Facilitator</p> <p>Organization Facilitator Submits Reporting to WDH</p> <p>Contracting Monitoring by WDH</p> <p>Evaluation by WDH</p>	<p>WDH Training Contracts</p> <p>Implementations</p> <p>Facilitator Participants</p> <p>Contract</p> <p>Monitoring</p> <p>Reporting</p>	<p><b>Short-Term</b></p> <p><b>Increased participant knowledge related to:</b></p> <ul style="list-style-type: none"> <li>•Peer sexual norm beliefs</li> <li>•HIV/STDs                             <ul style="list-style-type: none"> <li>•Transmission</li> <li>•Treatment</li> <li>•Myths</li> </ul> </li> <li>•Unintended Pregnancy</li> <li>•Correct Condom Use</li> <li>•Contraceptive Use</li> <li>•Problem Solving</li> <li>•Local resources</li> </ul>	<p><b>Mid-Term</b></p> <p><b>Reporting Intended Behaviors:</b></p> <ul style="list-style-type: none"> <li>•Abstinence</li> <li>•Delay initiation of sexual activity</li> <li>•Condom Use</li> <li>•Contraception Use</li> </ul> <p><b>Healthy Life Skills:</b></p> <ul style="list-style-type: none"> <li>•Parent/guardian communication</li> <li>•Peer pressure</li> <li>•Conflict management</li> <li>•Caring about school</li> <li>•Likelihood of employment</li> <li>•Making healthy decisions about drugs and alcohol</li> </ul>	<p><b>Long-Term</b></p> <p><b>District Level:</b></p> <ul style="list-style-type: none"> <li>•Decrease in prevalence of past 30 Day Alcohol Use</li> <li>•Schools that implement have higher graduation rates as compared to non-implementers</li> </ul> <p><b>County Level:</b></p> <ul style="list-style-type: none"> <li>•Decrease Teen Birth Rate</li> <li>•Decrease incidence of STDs/HIV</li> </ul> <p><b>Population Level:</b></p> <ul style="list-style-type: none"> <li>•Decrease prevalence of high school student sexual activity</li> <li>•Increase condom use</li> <li>•Increase contraception use</li> </ul>

# Appendix IV: Core Concepts for Reducing the Risk and Making Proud Choices

Curriculum	Core component	Logic model element
Reducing the Risk	Knowledge of pregnancy risk and prevention	Student knowledge <ul style="list-style-type: none"> <li>Unintended pregnancy</li> </ul>
	Knowledge about STD & HIV risk, prevention, treatment, and consequences	Student knowledge <ul style="list-style-type: none"> <li>HIV/STDs</li> </ul>
	Knowledge about abstinence or effective use of birth control methods	Student knowledge <ul style="list-style-type: none"> <li>Correct condom use</li> <li>Contraceptive use</li> </ul>
	Knowledge of how to access health care information and contraception (including condoms)	Student knowledge <ul style="list-style-type: none"> <li>Awareness of local resources</li> </ul>
	Self-efficacy, refusal skills and delaying tactics	Student intended behaviors <ul style="list-style-type: none"> <li>Abstinence</li> <li>Delay initiation of sexual activity</li> </ul>
	Social and peer norms and personal attitudes	Student knowledge <ul style="list-style-type: none"> <li>Peer sexual norm beliefs</li> </ul> Healthy life skills <ul style="list-style-type: none"> <li>Peer pressure</li> </ul>
	Skills to communicate with parents and other adults	Healthy life skills <ul style="list-style-type: none"> <li>parent/guardian communication</li> </ul>
Making Proud Choices	Attitudes about contraception, safer sex, condom use	Student intended behaviors <ul style="list-style-type: none"> <li>Condom use</li> <li>Contraception use</li> </ul>
	Perception of risk related to HIV/STDs and unintended pregnancy	Student knowledge <ul style="list-style-type: none"> <li>HIV/STDs</li> <li>Unintended pregnancy</li> </ul>
	Skills and self-efficacy: <ul style="list-style-type: none"> <li>Correct condom use</li> <li>Negotiating abstinence or condom use</li> <li>Problem solving and refusals</li> </ul>	Student knowledge <ul style="list-style-type: none"> <li>Correct condom use</li> <li>Problem solving</li> </ul>

Data Source	Measurement	Description
Pre-Survey	<ul style="list-style-type: none"> <li>Knowledge Short-Term Outcomes</li> <li>Mid-term Outcomes</li> <li>Healthy Life Skills</li> <li>Student Intended Behaviors</li> <li>Participant penetration</li> </ul>	Pre-program surveys are administered by organization facilitators and completed by students before instruction of the WyPREP curriculum
Post-Survey	<ul style="list-style-type: none"> <li>Knowledge Short-Term Outcomes</li> <li>Mid-term Outcomes</li> <li>Healthy Life Skills</li> <li>Student Intended Behaviors</li> <li>Participant penetration</li> </ul>	Post-program surveys are administered by organization facilitators and completed by students after instruction of the WyPREP curriculum
Knowledge Survey	<ul style="list-style-type: none"> <li>Knowledge Short-Term Outcomes</li> <li>Mid-term Outcomes</li> <li>Healthy Life Skills</li> <li>Student Intended Behaviors</li> </ul>	Knowledge surveys are administered by organization facilitators and completed by students before and after instruction of the RTR curriculum
End of Training Survey	<ul style="list-style-type: none"> <li>Fidelity of implementation</li> </ul>	End of training surveys are completed by facilitators at the end of their initial WyPREP training and submitted to WDH
Fidelity Log	<ul style="list-style-type: none"> <li>Fidelity of implementation</li> </ul>	Fidelity logs are to be completed by facilitators at the end of each module and submitted to WDH
Contracts	Not applicable.	Legal agreement between WDH and organization implementing the WyPREP program, specifying the number of implementations of the curriculum to be completed
Facilitator Final Report	<ul style="list-style-type: none"> <li>Fidelity of Implementation</li> <li>Participant penetration</li> </ul>	Final report that facilitators submit to WDH at the end of each implementation
Implementation Tracking Form	<ul style="list-style-type: none"> <li>Number of organizations contracted</li> </ul>	Internal WDH document that summarizes list of currently contracted WyPREP organization
Master Calendar	<ul style="list-style-type: none"> <li>Fidelity of implementation</li> </ul>	Document that facilitators submit to WDH upon receipt of WyPREP curriculum outlining when they plan to instruct each of its modules



QUESTIONS?