

**Better Focusing on Our Problems:**  
*The Planning Process & Needs Assessment*



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Division of Family Health Services  
Florida Department of Health

HRSA/CDC Training Course in MCH Epidemiology  
Conference Call Training –May 31, 2011

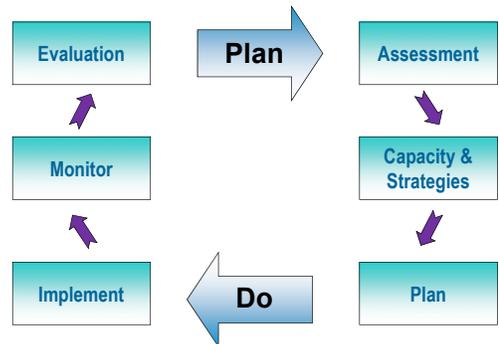
## Acknowledgements

- Mary D. Peoples-Sheps, Anita Farel, & Mary Rogers
- South Carolina Department of Health and Environment Control (DHEC)
- CityMatCH Urban MCH Data Use Institute
- Greg Alexander & Donna Peterson

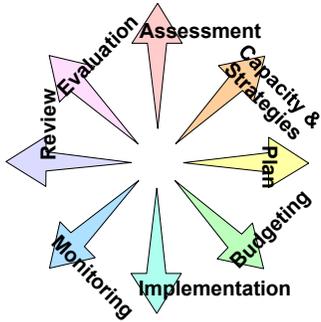
## Act I

*Public Health Planning Cycle*

## Being Effective in Public Health



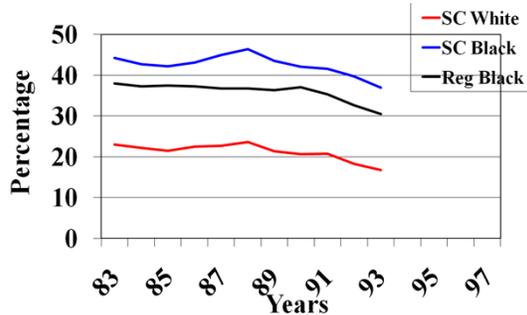
## Being Effective in Public Health?



## Being Effective in Public Health



## Health Problem: *Late PNC Entry* *South Carolina*



## Needs Assessment

- Underreporting of prenatal visits
- Physicians not starting to 2nd trimester
- Late entry into the WIC program
- Problem recognition by Community
- Transportation & child care barriers
- Unintended pregnancy

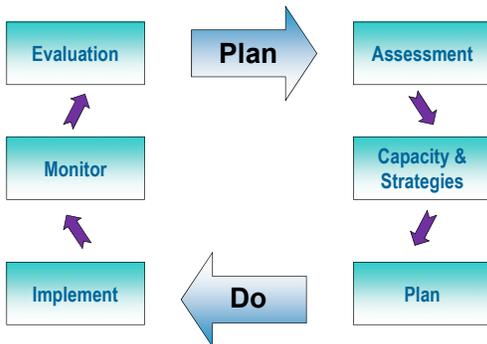
## Potential Strategies

- Underreporting of prenatal visits
  - Vital registration manual
  - Clerk training
  - Health department record transfer
  - Physician record transfer
  - Standardized prenatal care record
  - Physician & hospital education
  - Monthly reporting system
  - Hospital standards
  - Incentive awards

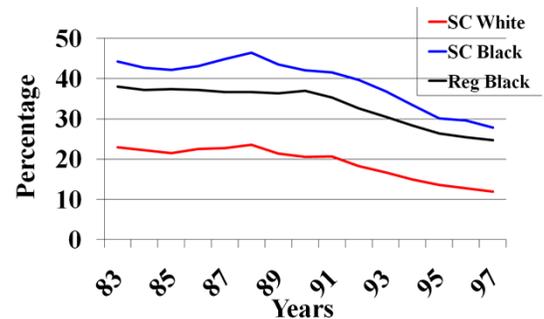
## Chosen Strategies

- Underreporting of prenatal visits
  - Vital registration manual
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  - Standardized prenatal care record
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  - Monthly reporting system
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## Being Effective in Public Health



## Health Problem: *Late PNC Entry* *South Carolina*



## So Why Doesn't It Happen?

- Over-committed staff
- Lack of political will
- Committed to present activities
- Previous planning failures
- Limited expertise
- Insufficient resources
- Competing priorities/desires



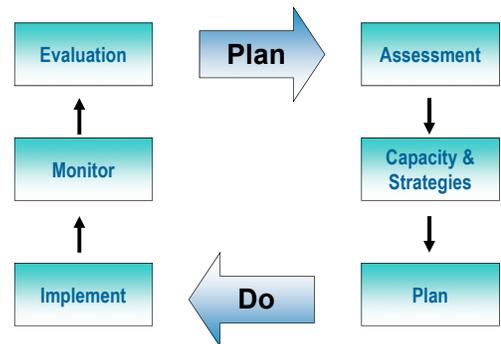
## Being Effective in Public Health



## Act II

*Needs Assessment*

## Being Effective in Public Health





## Definition of Needs Assessment

Systematic collection and examination of information



## Definition of Needs Assessment

Systematic collection and examination of information **to make decisions**



## Definition of Needs Assessment

Systematic collection and examination of information to make decisions **to formulate a plan**



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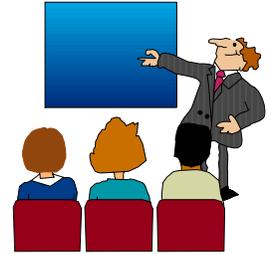
Systematic collection and examination of information to make decisions to formulate a plan for the next steps **leading to public health action.**

## Definition of Needs Assessment

Systematic collection and examination of information to make decisions to formulate a plan **for the next steps** leading to public health action.

## Needs Assessment Qualities

- Conceptual
- Visionary
- Systematic
- Resourceful
- Pragmatic
- Action-oriented
- Cohesive



## Types of Needs Assessment...

- Community--*Healthy Communities*
- Population--*Title V (MCH)*
- Health Systems--*Emergency Response*
- Program--*Title X (Family Planning)*
- Health Services--*Prenatal Clinic Location*
- Health Problem--*Infant Mortality*

## Needs Assessment Phases

### *Part 1*

- Health problem identification and measurement
- Prioritization of health problems

### *Part 2*

- Analysis of a particular health problem
- Assess potential strategies to address targeted aspects

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## What is a health problem?

- Community perception?
- Health status measure?
- Risk Factor?
- Health Service Deficiency?
- Measurement?
- Comparison?

## Problem Identification & Verification

- Stakeholders
- Partners
- Reports
- Available Data

**Purpose: Search & compile**

## Problem Definition

- Extent
- Duration
- Expected future course
- Variation

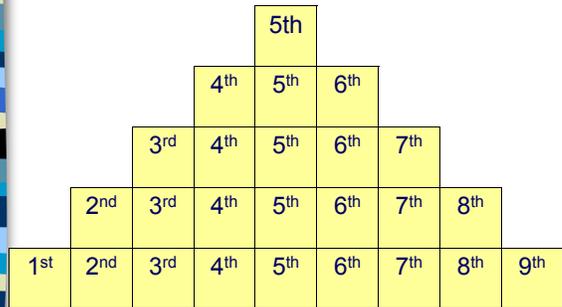
**Purpose: Define, describe & validate**

## Types of Prioritization

- Group consensus
- Voting
- Criteria-based rating
- Q sort

**Purpose: Build consensus/support**

## Q-Sort Procedure: *Priority Log Sheet for 25 MCH Needs*



## Part 1: Identification & Prioritization Selection Criteria

- Magnitude of the problem
- Trend
- Severity/consequences
- Perceived preventability
- National/state goals
- Agency capacity
- Political/community acceptability

## Part 1: Identification & Prioritization **Real** Selection Criteria

- State or agency political will
- Current program priority
- Currently funded activity
- Fits current staffing/resource patterns
- People available to work on the issue
- Important issue to the heart

## Matrix of MCH Problems

Criteria	Weight	LBW	Peri HIV	Smoking
Magnitude	2			
Trend	2			
Severity	3			
Preventable	2			
Goal	1			
Capacity	3			
Acceptable	1			

## Clear Scoring Criteria

### Magnitude

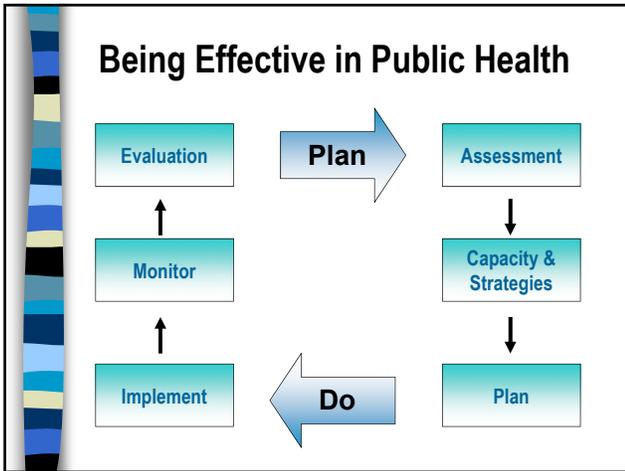
- Low incidence/prevalence
- Moderate in some subgroups
- Moderate in all groups
- High in some subgroups
- High in all groups

## Matrix of MCH Problems

Criteria	Weight	LBW	Peri HIV	Smoking
Magnitude	2	2 x 4	2 x 1	2 x 4
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Severity	3	3 x 3	3 x 4	3 x 2
Preventable	2	2 x 2	2 x 4	2 x 3
Goal	1	1 x 3	1 x 3	1 x 3
Capacity	3	3 x 1	3 x 3	3 x 3
Acceptable	1	1 x 2	1 x 2	1 x 3

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### *Needs Assessment*



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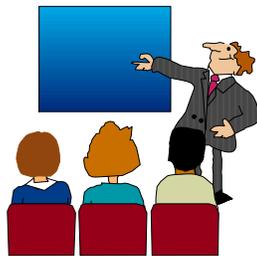
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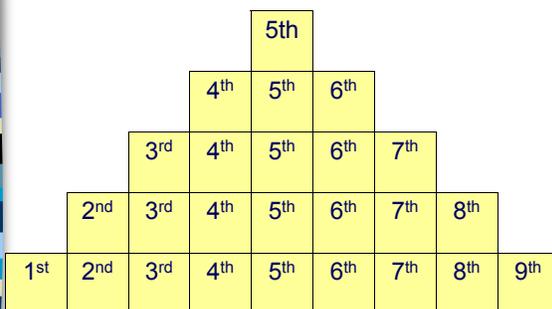
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## Act III

### *Problem-Oriented Needs Assessment*



## Needs Assessment Phases

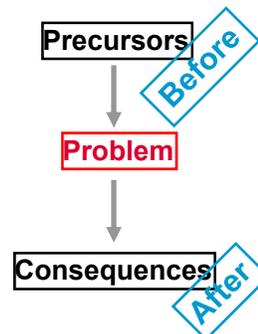
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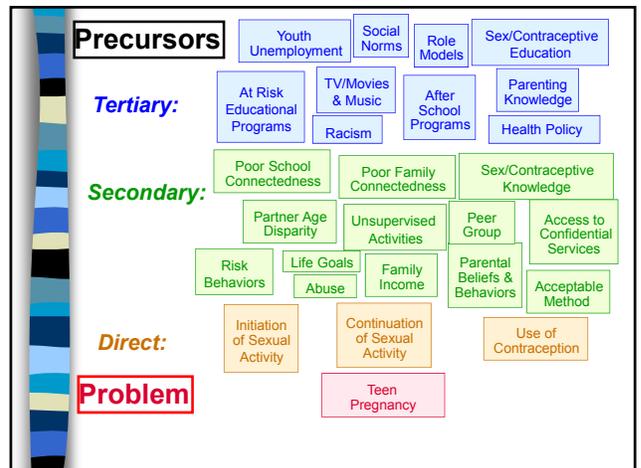
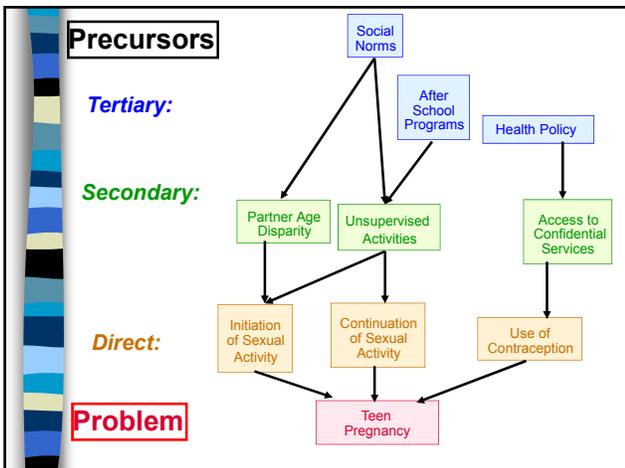
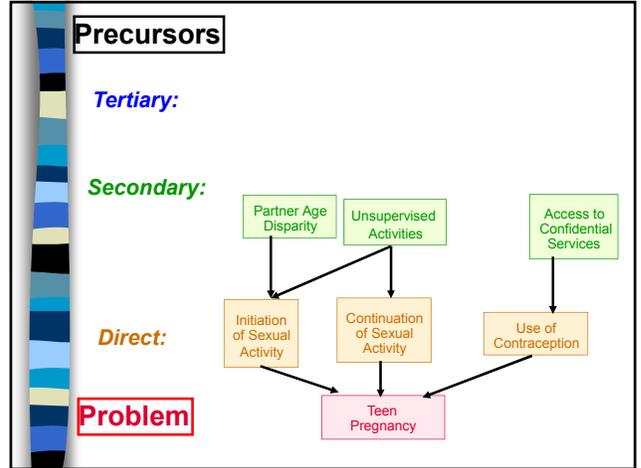
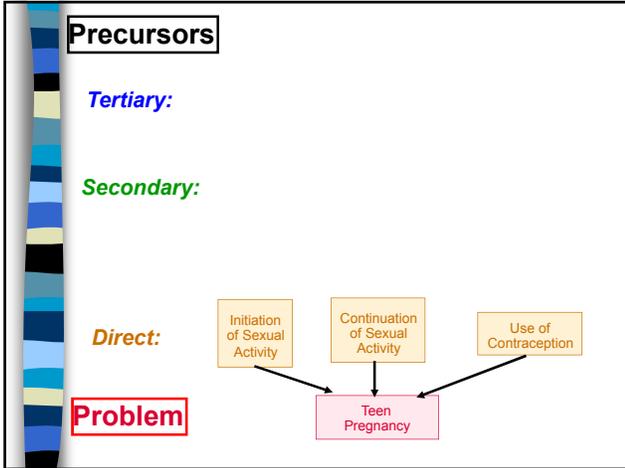
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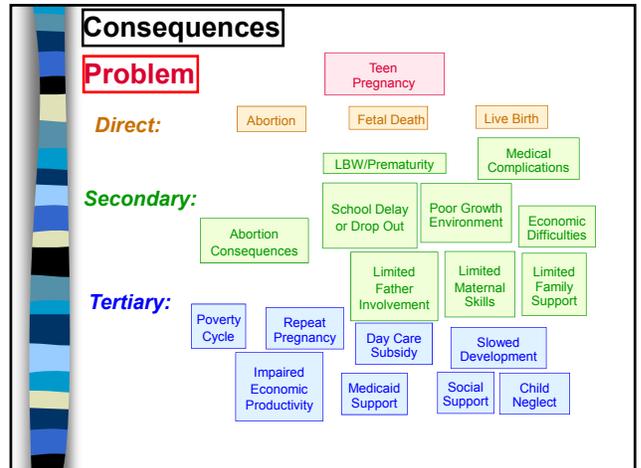
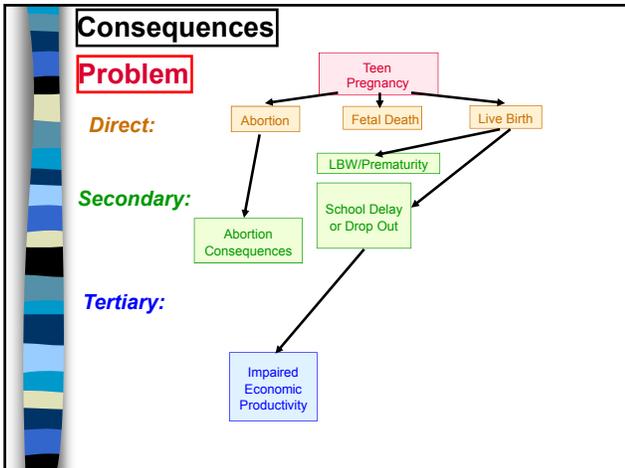
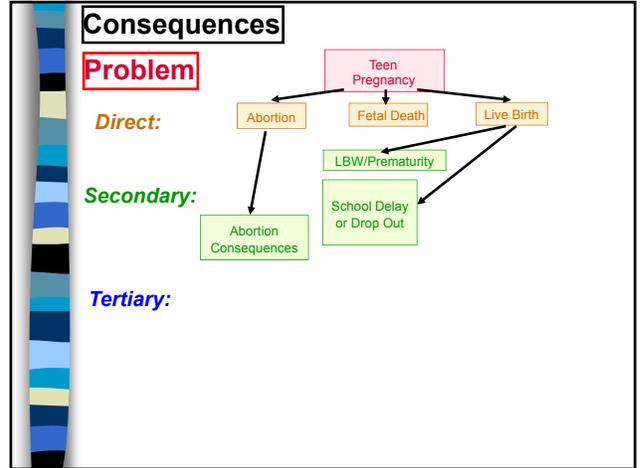
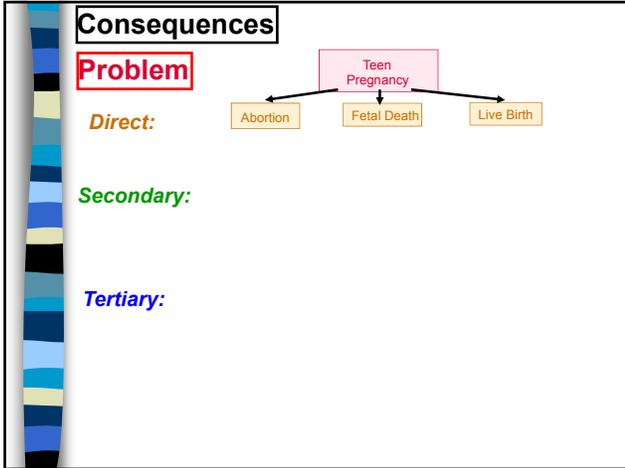
### *Part 2*

- **Analysis of a particular health problem**
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## Problem Map: *Basic Components*







## Need for Services

- Standards--Professional or Consensus
- Demand--Waiting Lists
- Population at Risk--At Risk Not Using
- Relative--Population Comparisons
- Perceptions--Reported Needs

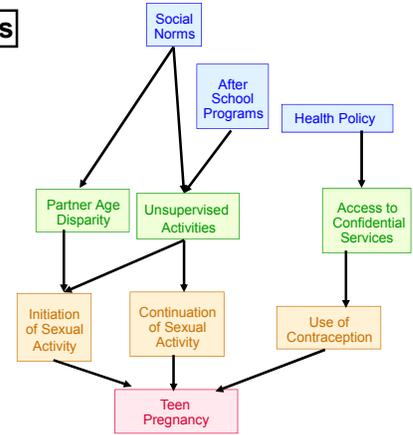
## Precursors

*Tertiary:*

*Secondary:*

*Direct:*

**Problem**



## Why Do You Need A Problem Map?

- Many causes & risk factors
- Many levels of influence
- Different opinions--causes & solutions
- Vast scientific knowledge
- Stacks of local data

Simple  
**Map**  
 to  
 Show  
 You  
 Where to  
 Go!



## What Is A Problem Map?

- Oriented around a health problem
- Shows causes & solutions
- Shows consequences
- Consensus of opinions, knowledge, & information
- Defines boundaries of what is known
- Provides a map for use

## Steps for Making A Problem Map

- Obtain community thoughts
- Review scientific information
- Obtain & review local information
- Develop consensus
- Determine gaps in information
- Determine potential actions
- Develop an action plan

## Bill's Steps for Problem-Oriented Needs Assessment

- Theoretical Framework
- Gather Readily Available Information
- Frame and Choose Critical Questions
- Choose and Develop Methods
- Analyze and Answer Your Questions
- Summarize Your Problem
- Present the Results



## Gather...

- Other Needs Assessments
- Available Reports
- Key Data People
- Key Community People



## Frame & Choose Critical Questions

- What Are Remaining Questions?
- What is Gained By Answering the Question? Do Something Different?
- Can the Question Be Answered?
- What Will It Cost?
- Will It Be Part of the Big Picture?

## Bill's Steps for Problem-Oriented Needs Assessment

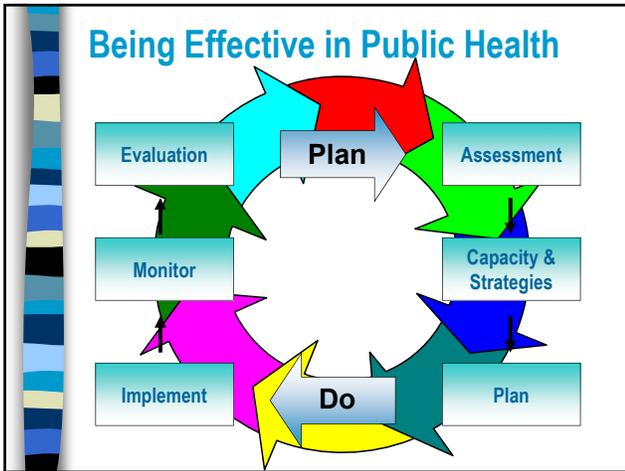
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## Summarize the Findings!!!

- Problem statement
- Trends
- Individual contributors
- Community contributors
- Individual strengths
- Community strengths

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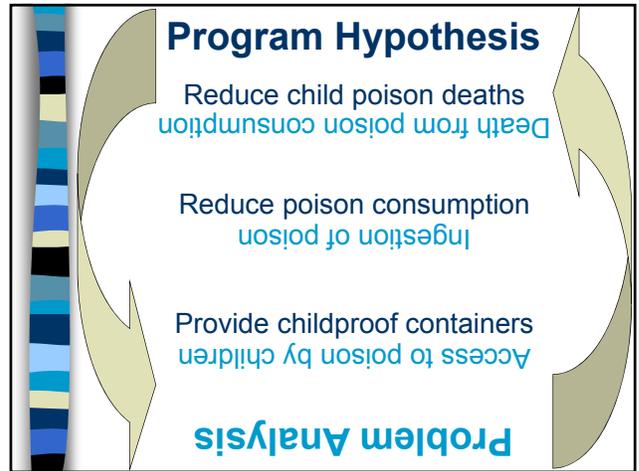
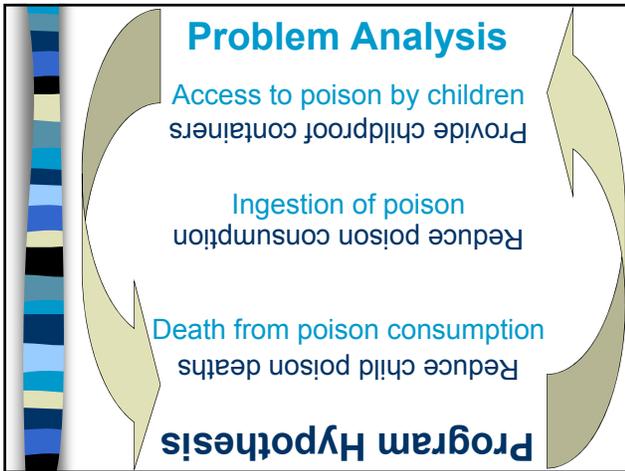


- ### Needs Assessment Debates
- Qualitative or Quantitative
  - Assets or Problems
  - Assessment or Surveillance
  - One Time or Ongoing
  - Ourselves or Contract
  - Science or Art
  - Performance or Pretty
- 
- The scales of justice icon represents the balance and debate between different approaches and values in needs assessment.

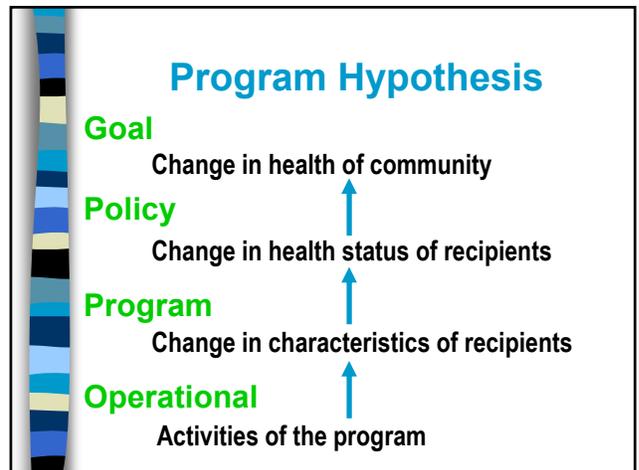
## Act IV

### *Linkage of Assessment to Planning*

- What are objectives?
- Where do objectives come from?



- What is a program hypothesis?
- How do objectives form a program hypothesis?



## Program Hypothesis

**Goal:** A broad statement of desired health status which does not have to be measured. All of the objectives must be state in measurable terms.

**Policy:** A specific, measurable statement about the desired extent of improvement in a health status problem.

**Program:** A specific, measurable statement of desired change in knowledge, behavior, biomedical measures or other intermediate characteristics that are expected to occur.

**Operational:** A specific, measurable statement of an activity to be carried out by the program or intervention.

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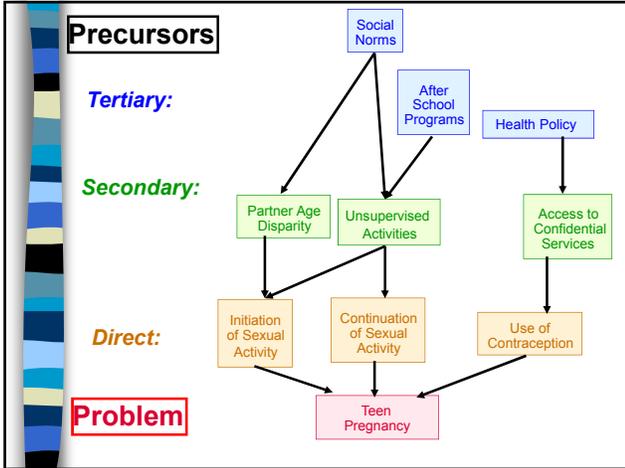
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Number Timing Control Available

## ■ What are the qualities of a good objective?

## Good Objectives

- Connected to the problem analysis
- Straight forward
- Measurable
- Available
- Baseline and target measures
- Time period



■ What are the advantages and disadvantages of defining a program by its objective?

**Columbus Health Department Perinatal Program**

Target Population: Uninsured or Medicaid Pregnant Women in Low SES Communities

Assumptions	Inputs	Activities	Outputs	Outcomes
<i>Theoretical assumptions about why a program works</i>	<i>The resources needed to deliver the program</i>	<i>Key actions of program staff and clients</i>	<i>Products of the program</i>	<i>Changes in the target population</i>
Low income pregnant women who receive early risk-appropriate prenatal services will receive: <ul style="list-style-type: none"> <li>Early continuous care</li> <li>Risk-based health care plan</li> <li>Tailored medical care</li> <li>Tailored health ed</li> <li>Tailored health intervention/services</li> </ul>	<ul style="list-style-type: none"> <li>3 Clinic Sites</li> <li>OBs</li> <li>Advanced Nurse P.</li> <li>Nurses</li> <li>Nurse Case Managers</li> <li>Nutritionists</li> <li>Social Workers</li> <li>Health Educator</li> <li>Substance Abuse Counselors</li> <li>Outreach workers</li> <li>Interpreters</li> <li>Administrative Staff</li> </ul>	Train and monitor staff  Clinic staff: <ul style="list-style-type: none"> <li>Outreach</li> <li>Medicaid and WIC enrollment</li> <li>Early enrollment</li> <li>Risk assessment</li> <li>Care Plan</li> <li>Tailored Services based on plan</li> <li>Interpretation</li> <li>Follow up</li> </ul>	<ul style="list-style-type: none"> <li>Outreach visits</li> <li>Clinic visits</li> <li>Home visits</li> <li>Services provided</li> <li>Completed referrals</li> <li>Medicaid enrollment</li> <li>WIC enrollment</li> <li>Deliveries</li> </ul>	<ul style="list-style-type: none"> <li>Early prenatal care</li> <li>More prenatal visits</li> <li>Better medical care</li> <li>Better nutrition</li> <li>Better weight gain</li> <li>Less smoking</li> <li>Less substance abuse</li> <li>More stable social situation</li> <li>Less stress</li> <li>Less prematurity/LBW</li> </ul>

**Act V**

*What is next after needs assessment?*

## Definition of MCH Epidemiology

“The systematic collection, analysis and interpretation of population-based and program-specific health and related data in order to assess the distribution and determinants of the health status and needs of the maternal child population for the purpose of planning, implementing, and assessing effective, science-based strategies and promoting policy development.”

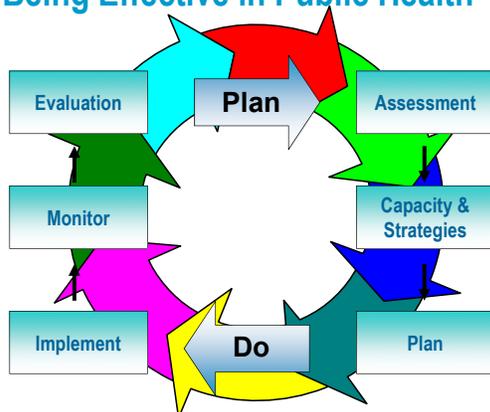
*Coalition for Excellence in MCH Epidemiology*

## Consequential Epidemiology

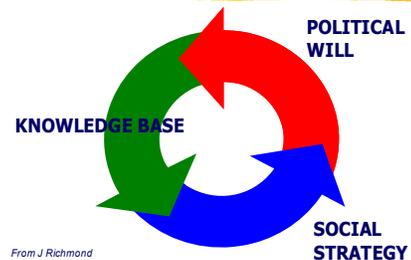


*William Foege*

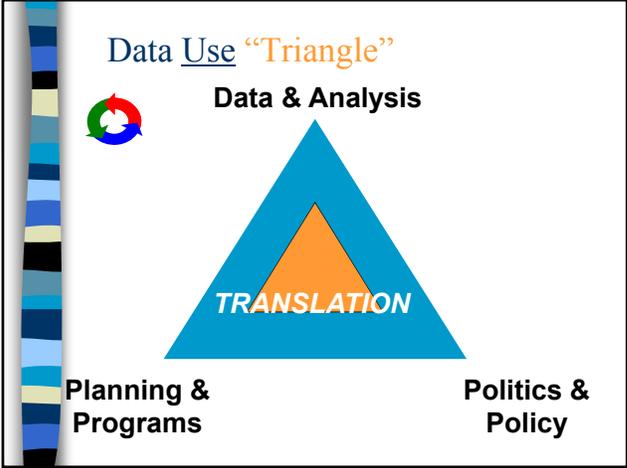
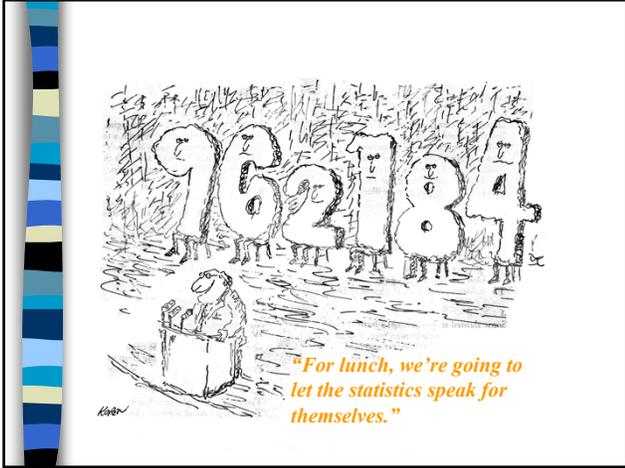
## Being Effective in Public Health



**Data to Action = Opportunity into Results**  
*Spin the Wheel...*



*From J Richmond*



## CDC Preconception Efforts

### National Summit on Preconception Care



- Summit
- Select Panel Meeting
- Recommendations Supplement
- Lectures/Speakers' Bureau
- Evaluations/Best Practices
- Workgroups to develop implementation strategies
- TA to programs
- Journal publications



## Preconception Health

Concept  Measurement

*“How do we measure preconception health?”*

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## Background

- FDOH wanted to assess, monitor and evaluate preconception health and interventions
- CA had previously developed a preconception health report including indicators
- No real consensus existed as to appropriate preconception health measures

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## CORE State Preconception Health Indicator Initiative

### Purpose

- 7 states formed the initiative
  - CA, FL, MI, NC, RI, TX & UT
- Review and evaluate potential indicators
- Recommend an initial set of available core state indicators

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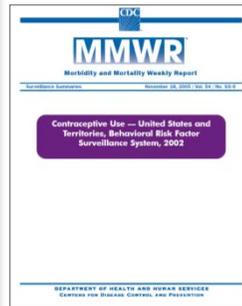
## CORE State Preconception Health Indicator Initiative

### Domains

- General Health Status
- Chronic Conditions
- Emotional/Social Support
- Genetics / Epigenetics
- Health Care
- Infections
- Mental Health
- Nutrition / Physical Activity
- Reproductive Health / Family Planning
- Social Determinants
- Tobacco, Alcohol & Substance Use

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## Background



- Florida had some of the lowest contraceptive use among women at risk of pregnancy
- Florida DOH requested CDC assistance

## Prevalence & Rank of Contraceptive Use Among Women 15 to 44 Years 5 Largest States of 51 States BRFSS 2002 & 2004

States	Sterilization		Effective Reversible Methods		Either Method	
	Rank	%	Rank	%	Rank	%
California	8	24.7	39	38.3	10	63.0
Florida	12	27.4	1	30.4	5	57.8
Illinois	7	24.1	8	33.5	4	57.7
New York	4	22.5	6	33.2	3	55.7
Texas	20	31.2	15	34.8	16	66.1

## Florida Summary (n=2,018)

Characteristic	Sterilization	Reversible	Either
Younger Age	Risk	Protective	--
Black		Risk	Risk
Never Married	Risk	Protective	Risk
≤ 2 Children at Home	Risk	Protective	Risk
Greater Resources	Risk	--	--
No Pap in Past Year	Protective	Risk	Risk
Daily Smoker	Protective	--	--

## Contraceptive Use

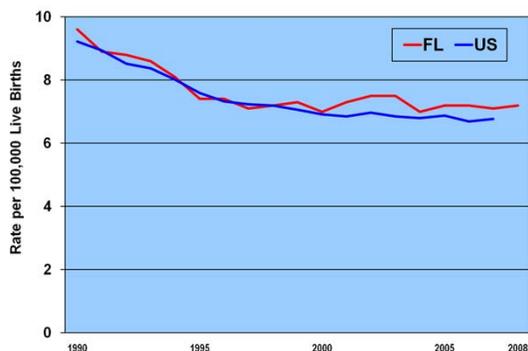
Population	Sterilization	Effective Reversible	Either
Florida	27.4%	30.4%	57.8%
SE	33.5%*	36.3%*	69.8%*

\*Statistically different than Florida at  $p < .05$  based on chi-square analysis.

## Summary of Florida's Risk Factors Different from SE Region's Based on Interactions

Significant Interactions	Non-Use of Sterilization	Non-Use of Reversible	Non-Use of Either
Race/Ethnicity * Popn	--	Black	Black/White
Employment * Popn	--	Employed	Employed
Marital Status * Popn	Never Married	--	--
Household %FPL * Popn	100 to 200%	--	--

## Infant Mortality Rates for Florida and the United States, 1990-2008



## What is Sudden Unexpected Infant Death (SUID)?

Group of infant deaths that occur suddenly and unexpectedly, and whose manner and cause of death are not immediately obvious prior to investigation. SUID excludes deaths with an obvious cause, e.g., motor vehicle accidents.

## SUID Explained vs. Unexplained

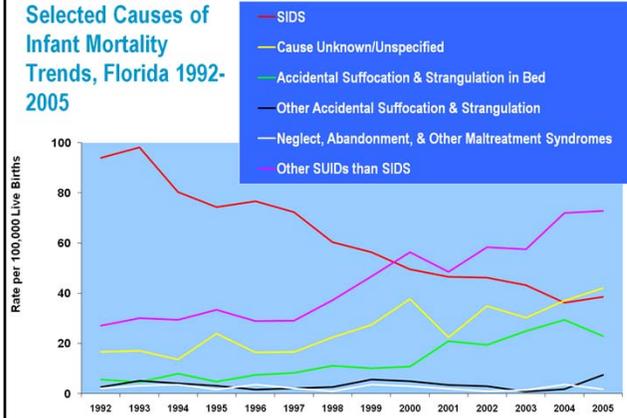
### Explained

- Poisoning
- Head injury
- Metabolic disorder
- Neglect or homicide
- Hypo or hyperthermia
- Accidental suffocation?

### Unexplained

- SIDS
- Cause unknown or unspecified
- SIDS, but cannot rule out suffocation from unsafe sleep environment

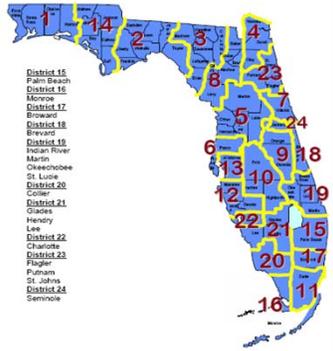
## Selected Causes of Infant Mortality Trends, Florida 1992-2005



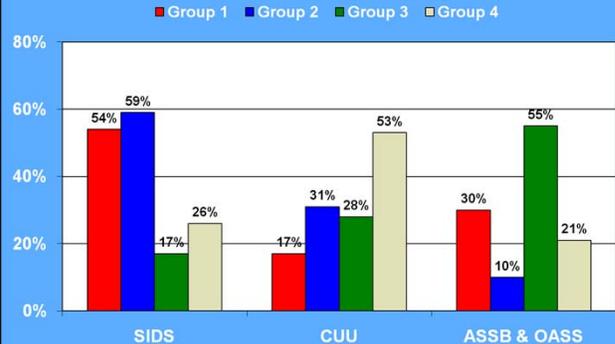
Data Source: Florida Department of Health, Office of Planning, Evaluation and Data Analysis

### Florida Medical Examiner Districts

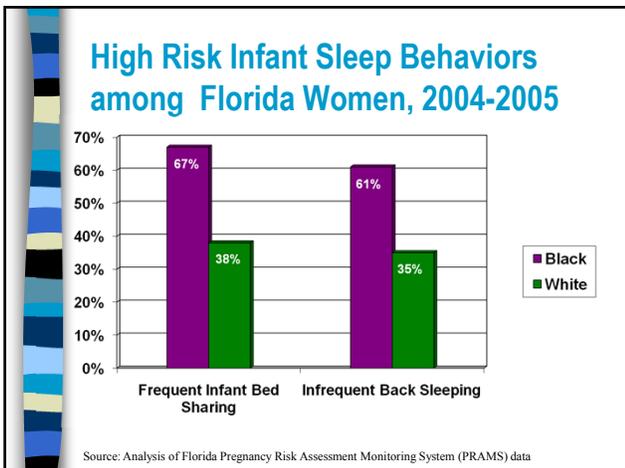
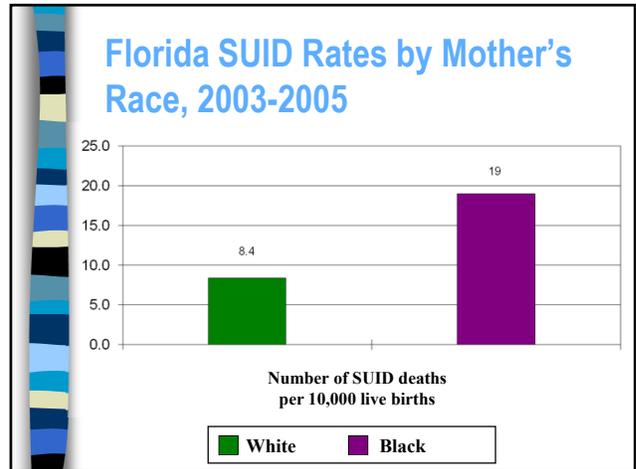
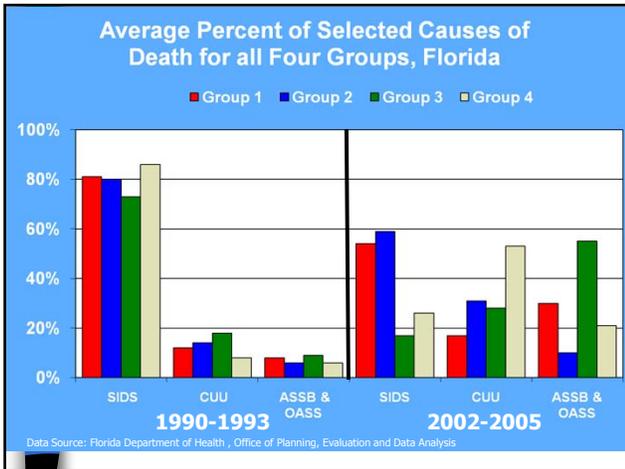
- |   |   |   |
|---|---|---|
| District 1<br>Escambia<br>Okaloosa<br>Santa Rosa<br>Walton  | District 8<br>Alachua<br>Baker<br>Bradford<br>Gulfport            | District 15<br>Palm Beach<br>St. Johns  |
| District 2<br>Franklin<br>Gadsden<br>Leon<br>Liberty<br>Jefferson<br>Taylor                                   | District 9<br>Orange  | District 16<br>Monroe   |
| District 3 *Covered by<br>Columbia *4<br>Dixie *6<br>Hamilton *4<br>Lafayette *4<br>Madison *2<br>Suwannee *4 | District 10<br>Hardee<br>Highlands<br>Polk                        | District 17<br>Brevard  |
| District 4<br>Dade  | District 11<br>Dade   | District 18<br>Brevard  |
| District 5<br>Dade  | District 12<br>DeSoto<br>Manatee<br>Sarasota                      | District 19<br>Indian River<br>Martin<br>Okeechobee<br>St. Lucie                      |
| District 6<br>Citrus<br>Hernando<br>Lake<br>Manatee<br>Sumter   | District 13<br>Hillsborough                                       | District 20<br>Citrus   |
| District 7<br>Pinellas<br>Pasco   | District 14<br>Bay<br>Calhoun<br>Suwannee<br>Washington<br>Holmes | District 21<br>Glades<br>Henry  |
|   |   | District 22<br>Levy   |
|   |   | District 23<br>Charlotte<br>Flagler<br>Putnam<br>St. Johns<br>District 24<br>Seminole |



## Average Percent of Selected Causes of Death for all Four Groups, Florida 2002-05

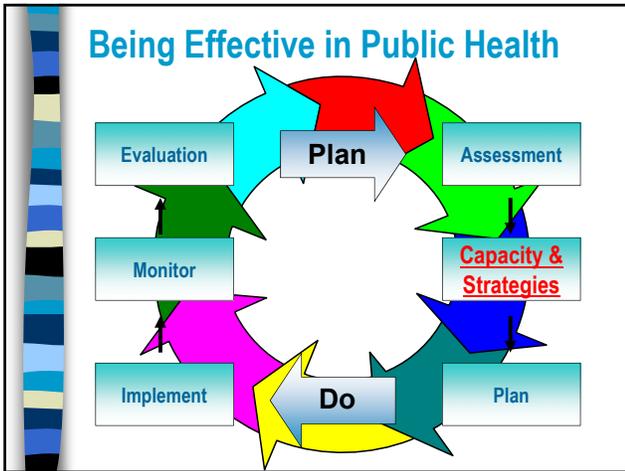


Data Source: Florida Department of Health, Office of Planning, Evaluation and Data Analysis



### Frequent Infant Bed Sharing and Infrequent Back Sleeping

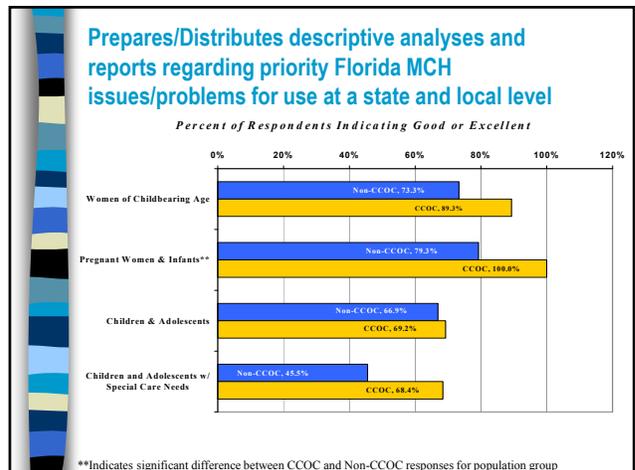
Model 1		OR (95% CI)	P-value
Infant Bed Sharing		1.35 (1.09, 1.66)	0.01
Model 2		Adjusted OR (95% CI)	P-value
Infant Bed Sharing		1.04 (0.83, 1.31)	0.71
Race			
	Black	2.88 (2.33, 3.56)	<0.0001
	White	1.00 (ref.)	

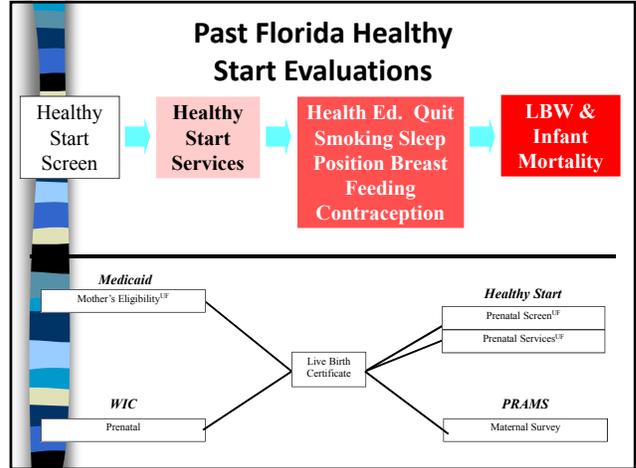
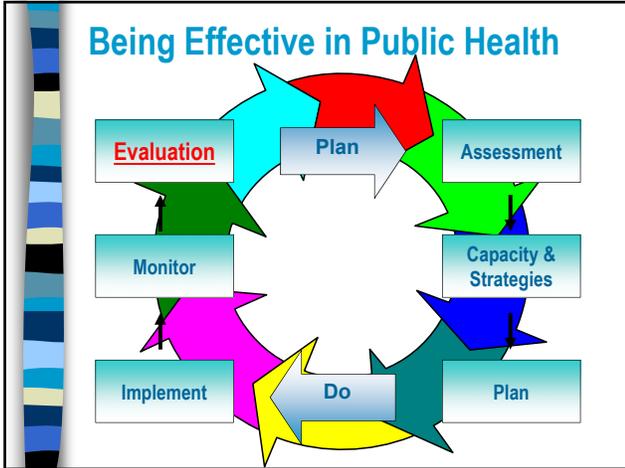


- ### Capacity Assessment
- The 10 essential functions of public health used as assessment platform
  - Question: Worked with the FDOH Central Office in such a way that you believe you can assess its performance for one or more of the MCH population groups?
  - 186 respondents indicated 'Yes'
    - 29 FDOH Central Office (CCOC)
    - 157 Non-FDOH Central Office (Non-CCOC)
  - Dataset filtered to include only 186 "Yes" respondents
  - Significance testing of differences between CCOC and non-CCOC responses by MCH population performed

### Essential Public Health Service

1. Monitor Health Status to Identify and Solve Community Health Problems





### Evaluation Questions

What is the association of Florida Healthy Start (HS) prenatal services and the maternal and infant health behaviors and experiences?

<b>Prenatal / Perinatal</b>	<b>Post Partum</b>
<ul style="list-style-type: none"> <li>● Adequate prenatal visits</li> <li>● Prenatal counseling</li> <li>● Prenatal WIC</li> <li>● Gestational weight gain</li> <li>● NICU admissions</li> </ul>	<ul style="list-style-type: none"> <li>● Postpartum contraception</li> <li>● Health provider in 1st week</li> <li>● Breastfeeding</li> <li>● Sleep position &amp; location</li> <li>● Passive smoking</li> </ul>

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### Results— Adjusted Risk Ratios (ARR) Healthy Start Care Coordination Positive Prenatal and Perinatal Findings

	Screened ARR (95% CI)	No Screen ARR (95% CI)
Adequate Number of Prenatal Visits	1.06 (1.01-1.11)	1.05 (1.00-1.10)
Comprehensive Prenatal Counseling	1.19 (1.04-1.36)	1.19 (1.04-1.37)
Prenatal WIC Participation	1.17 (1.10-1.25)	1.39 (1.29-1.50)

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