

Building a Performance Improvement System in a Large Urban Public Health Department: Linkages and Learning Collaboratives

NHPHII Grantee Meeting

Atlanta, GA

March 30-April 1, 2011

*Dawn Marie Jacobson, MD, MPH
Director, Performance Improvement
Los Angeles County Department of Public Health
Adjunct Health Policy Researcher
RAND Corporation*



Presentation Objectives

- Provide an overview of the Los Angeles County Performance Improvement system
- Discuss linkages required for efficient analysis and reporting
 - Data
 - Standards/Benchmarks
 - Reports
- Describe the DPH Performance Improvement Learning Collaborative (PILC)

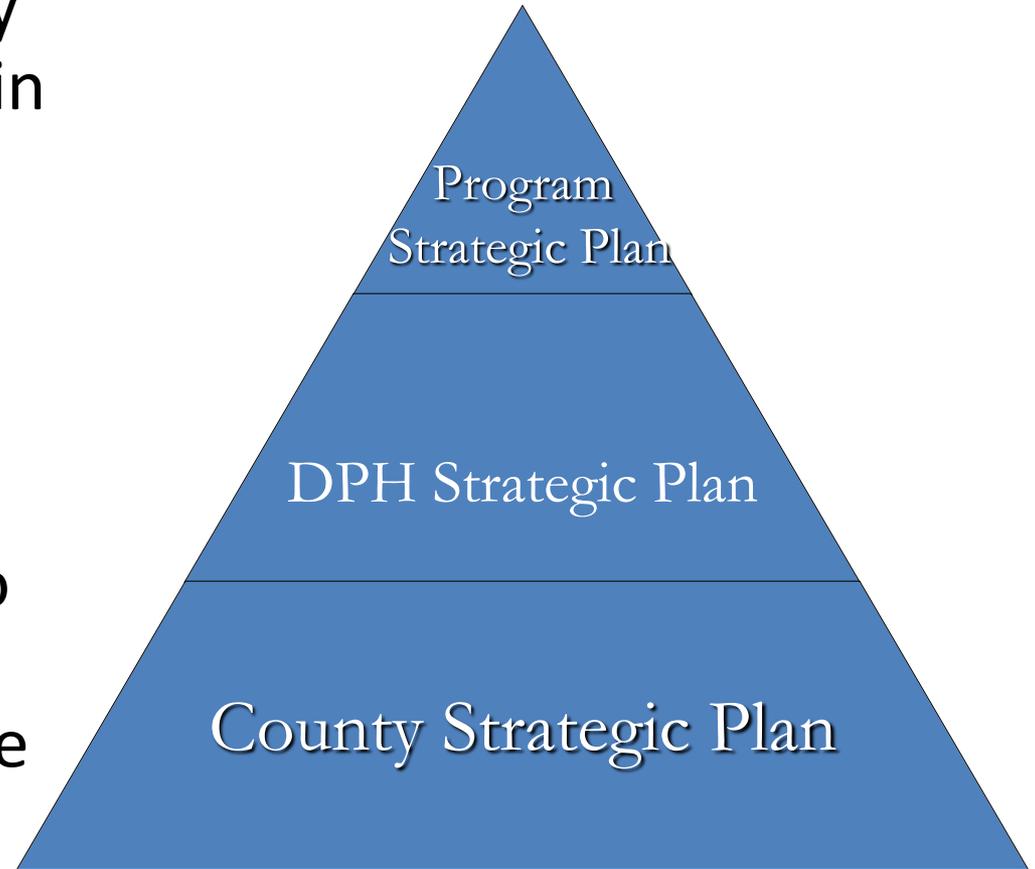
Performance Improvement—LAC DPH

Key Elements

1. Strategic Planning
 - determine priorities and goals
2. Performance Measurement
 - data management
 - reporting
3. Performance Improvement Projects
 - Modified IHI Method for Improvement
 - Other tools (RCA, Fishbone diagrams, etc)

1. Strategic Planning: Determine Priorities and Goals

- What are the priority public health issues in Los Angeles County?
- What are the behaviors and outcomes related to these issues that we want for people who live in LA County?
- How can we measure these conditions?



Decision-Making in Public Health: Evidence Review

Tier 1 Evidence

Type (ranked)
Research findings: syntheses, systematic reviews, meta-analyses
Research findings: individual studies (quantitative and qualitative)
Performance data such as program evaluation or peer review reports
Demonstrated to be effective in computer modeling, simulations, or exercises
Consensus recommendations of recognized experts either local or national
Anecdotal accounts such as practices of other public health jurisdictions alleged to be effective, clinical narratives, or case reports

Decision-Making in Public Health: Other Rationale

Tier 2 Other Rationale

Type (unranked)
Philosophical or conceptual bases such as an ethical framework or a professional code of conduct
Regulations, laws, or public policies
Grant requirements
Community preferences
Necessary because of the political climate
Best hunches

2. Performance Measurement: *Public Health Measures*

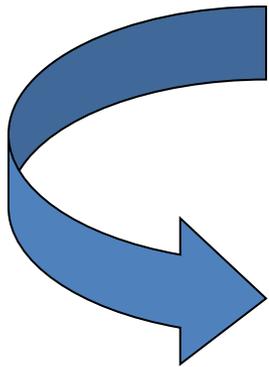
- The LAC DPH approach based on Mark Friedman's "Results Accountability"
- 32 operational units identified population health indicators linked to program performance measures to follow over time
- Healthy People objectives often identified and used as the "Standard" to achieve over time
- Organized by Essential Services of Public Health/NACCHO Standards/Accreditation Domains

Public Health Measures

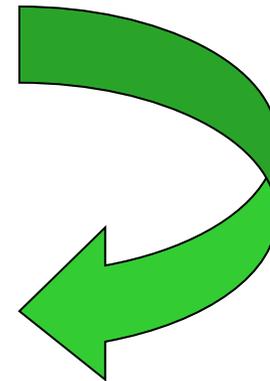
POPULATION INDICATORS
(measures of population-level
health outcomes and behaviors)

AND

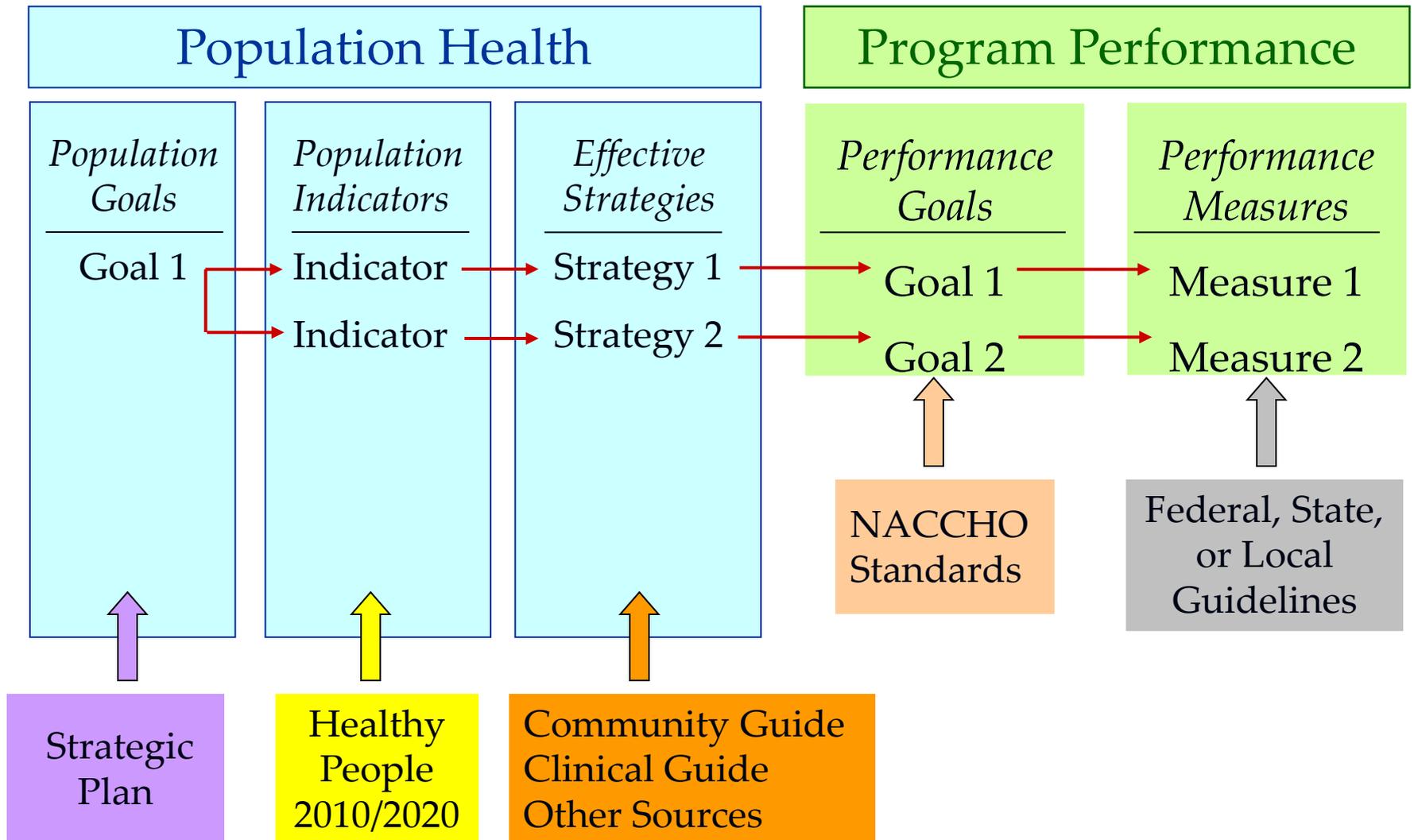
PERFORMANCE MEASURES
(measures of program
effort and output)



**Public Health
Measures**

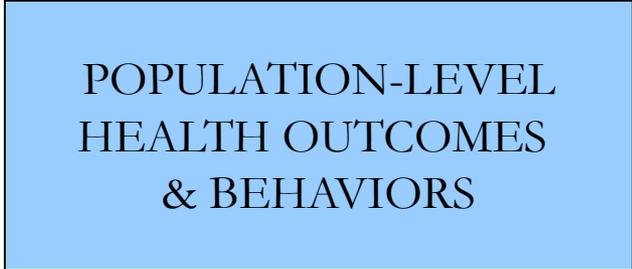


Selecting Indicators and Measures



Population Indicators

- Longer life span
- Increased quality of life
- Increased health equity
- Less disease
- Less premature death
- Healthier choices
- Safer environment
- Healthier homes



POPULATION-LEVEL
HEALTH OUTCOMES
& BEHAVIORS

Performance Measures

1. Who are our clients?
2. Which services do we provide to our clients?
3. What evidence-based strategies will lead to positive change in our clients?
4. How can we measure if our clients are better off?
5. How can we measure if we are delivering services well?

	Quantity	Quality
Input / Effort	How Much Did We Do? (#)	How Well Did We Do It? (%)
Output / Effect	How Much Change? (#)	Quality of Change? (%)

Performance Measures

- Policies Created
- People Informed
- Partners Engaged
- Surveillance Performed
- Investigations Completed
- Increased Access to Services
- Client satisfaction



MEASURES OF
PROGRAM
EFFORT & OUTPUT

Example: Immunization Program

Population Goal To reduce morbidity and mortality from vaccine-preventable diseases by improving immunization levels

Population Indicator

Percentage of children, ages 19-35 months, who are fully immunized with one of the series of the Advisory Committee on Immunization Practices (ACIP) recommended vaccines

Effective, Evidence-Based Strategies (selected subset)

1. Change provider behavior through systems change—Provider recall/reminder systems in clinics
2. Change provider behavior through education—multi-component interventions with education
3. Increase demand and access to immunizations—reduce out-of-pocket costs

Performance Goal (NACCHO Standard 9)

Performance Measure

Percent of Immunization Program public and nonprofit clinic partners who routinely meet the Standards for Pediatric Immunization Practices for provider and client recall/reminder systems

Public Health Measures: Data Management

- Standardized spreadsheet for reporting data
- Labeling System
 - Population Indicators= letters
 - organized by population goals
 - Program Performance Measures= numbers
 - organized by Accreditation domains
- Data Documentation
- Standard Documentation

Public Health Measures: Data Measurement Worksheet

- Type of measure (PI or PM)
- Measure name and description
- How calculated
- Target (e.g. Healthy People)
- How target was selected
- Data source (Name, govt level, dept, program)
- Data collection instrument
- Data collection plan
- NACCHO/Accreditation Domain (if applicable)
- *Shared with another unit*

Common Data Sources

Population Indicators

Examples:

- Los Angeles County Health Survey
- LA FANS
- Disease specific surveillance systems
- Vital Records
- CA Health Interview Survey
- OSHPD (Healthcare Utilization data)
- BRFSS
- YRBS
- National Immunization Survey

Program Performance Measures

Examples:

- Casewatch (STD, AIDS)
- RASSCLE (lead surveillance)
- EHMIS
- TRIMS (TB control)
- vCMR (outbreak reporting and investigation)
- Syndromic surveillance
- Clinic utilization data
- Contracts and grants management
- Project-specific databases

Common Standard Sources

Population Indicators

Examples:

- Healthy People
- State of CA plans
- County of LA plans (e.g. Commission on HIV)
- Internal DPH

Program Performance Measures

Examples:

- Healthy People
- CDC guidelines
- State of CA guidelines or mandates
- Grant-specific guidelines
- Professional associations
- Internal DPH

Example: Immunization Program

PRG	Ltr	Population Indicator	Cycle	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	Standard
IP		Population Goal: Reduce morbidity and mortality from vaccine-preventable diseases by improving immunization levels												
IP	A	Percent of children ages 19-35 months who received selected vaccines <i>National Immunization Survey (NIS), US DHHS, CDC, NCIRD</i>												<i>Healthy People 2010, US DHHS, ODPHP</i>
		DTaP (4 doses)		82%	80%	87%	87%	DNA	83%	85%	86%	88%		90%
		Polio (3 doses)		88%	88%	91%	95%	DNA	95%	93%	96%	94%		90%
		MMR (1 dose)		92%	92%	93%	96%	DNA	92%	93%	93%	92%		90%
		Hib (3 doses)		88%	90%	94%	92%	DNA	94%	94%	95%	91%		90%
		Hep B (3 doses)		90%	89%	93%	92%	DNA	92%	93%	94%	96%		90%
		Varicella (1 dose)		86%	88%	90%	94%	DNA	92%	91%	93%	93%		90%
		PCV (4 doses)		DNC	DNC	DNC	DNC	DNA	57%	73%	78%	79%		90%
IP_MCAH	B	Percent of children ages 19-35 months who are fully immunized with one of the series of ACIP recommended vaccines <i>National Immunization Survey (NIS), US DHHS, CDC, NCIRD</i>												<i>Healthy People 2010, US DHHS, ODPHP</i>
		4:3:1:3:3:1 series		DNC	DNC	78%	78%	DNC	78%	78%	77%	79%		80%
		4:3:1:3:3:1:4 series		DNC	67%	69%		80%						
IP	C	Percent of persons, ages 6 months and older, who were vaccinated against influenza in the past year <i>CA Health Interview Survey (CHIS), UCLA, Health Policy and Research</i>	CY	DNC	33%	DNC		<i>Healthy People 2010, US DHHS, ODPHP</i>						
		6 months through 17 years of age	CY	DNC	35%	DNC		NE						

Example: Immunization Program

PRG	#	Performance Measure	Cycle	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	Standard
IP		OS 1: Monitor health status and understand health issues facing the community												
IP	1-1	Percent of children in licensed childcare facilities and kindergartens who are age-appropriately vaccinated <i>Kindergarten and Childcare Assessment Results, CA DPH</i>												<i>Healthy People 2010, US DHHS, ODPHP</i>
		Childcare facilities		94%	93%	95%	94%	94%	94%	94%	94%	92%		95%
		Kindergartens		91%	89%	91%	91%	91%	91%	91%	90%	90%		95%
IP	1-2	Percent of children under age 6 who participate in fully operational population-based immunization registries <i>Los Angeles-Orange Immunization Network (LINK), LAC DPH, IP</i>	CY except 07-08 FY	DNC	0%	≤1%	3%	6%	9%	20%	30%	38%		62% <i>Healthy People 2010, US DHHS, ODPHP</i>
IP		OS 2: Protect people from health problems and health hazards												
	RC	Number of quarters in which an internal phone tree test to contact employees in the event of an emergency was conducted <i>Internal Record, LAC DPH, IP</i>		N/A	1		4 <i>Internal, LAC DPH, EPRP</i>							
	RC	Number of staff whose duty statement reflects their duties in emergency response <i>Duty Statement Records, LAC DPH, IP</i>		N/A	0	0		NE						

Public Health Measures: Data Management

- Data collected two times per year
- Data analyzed and reported one time per year
- Option to update content of Public Health Measures one time per year
- ***Public Health Measures database in development***

Public Health Measures: Reporting

National Efforts

1. CDC Guidelines or Performance Measures

County Efforts

1. Performance Counts!
2. County Progress Report

State Efforts

1. State Performance Measures
2. Mandates and Regulations

Department Efforts

1. Annual Performance Report
2. PI Project Reports

LAC DPH Annual Performance Report

- Internal report of a subset of Population Indicators and Performance Measures
- Includes:
 - Department-Level Report Card
 - Program-Level Performance Snapshots
- In-Person Progress Review with Director and Health Officer

Public Health Report Card



Report Card 2006-2007

Objective Area 1: Use of Data and Evidence to Improve Quality

	2005-06 Result	2006-07 Result	2006-07 Benchmark	Long-Term Goal
I-1. Percent of programs that use population-based data to guide planning and monitoring activities.	98%	100%	100%	100%
I-2. Percent of programs with approved Public Health Measures				
a. Mission and Vision statements	100%	100%	100%	100%
b. Population goals and indicators	76%	100%	100%	100%
c. Performance goals and performance measures	74%	100%	100%	100%
I-3. Percent of programs using evidence-based interventions				
a. Program directors/management staff who have ever participated in evidence-based Public Health training	87%	76%	100%	100%
b. Programs with documentation of a systematic review of literature and prioritized effective interventions	87%	100%	100%	100%
c. Programs with documentation that current interventions and practices are based upon the best available evidence	82%	100%	100%	100%
I-4. Proportion of targeted programs participating in VCMR (electronic disease reporting)				
a. Targeted* programs that are connected to the VCMR	70%	70%	100%	100%
b. Targeted programs that are using data from the VCMR	60%	60%	100%	100%

Objective Area 2: Communication, Planning, and Technology

2-1. Percent of programs with effective collaboration within Public Health or Health Services:				
a. Programs that have developed a written action plan	61%	32%	95%	100%
b. Action plans proceeding on schedule for those with plans	91%	77%	95%	100%
2-2. Percent of programs that have a publicly accessible website through www.lapublichealth.org	82%	88%	100%	100%
2-3. Percent of programs whose directors have verified that their website is current	74%	86%	100%	100%



Objective Area 3: Resource Utilization

	2005-06 Result	2006-07 Result	2006-07 Benchmark	Long-Term Goal
3-1. Percent of Program Directors who have ever completed leadership training	87%	89%	90%	90%
3-2. Percent of programs whose employees' Performance Evaluations were completed on-time	66%	97%	90%	100%
3-3. Percent of employees who have ever completed "Core Functions of Public Health" training	29%	43%	35%	100%
3-4. Percent of programs that have had one or more staff ever complete "Core Functions of Public Health" training	95%	100%	100%	100%
3-5. Percent of employees who participated in at least one emergency preparedness training, drill, or exercise during 2006-07.				
a. All Employees	78%	63%	25%	25%
b. Employees in targeted PH programs	91%	89%	50%	50%
c. Physicians	84%	74%	50%	50%
d. Nurses	94%	62%	50%	50%
e. Epidemiologists	96%	84%	50%	50%
f. Others	72%	62%	25%	25%

Public Health Report Card

Objective Area 1: Use of Data and Evidence to Improve Quality

	2005-06 Result	2006-07 Result	2006-07 Benchmark	Long-Term Goal
1-1. Percent of programs that use population-based data to guide planning and monitoring activities.	<u>98%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>
1-2. Percent of programs with approved Public Health Measures				
a. Mission and Vision statements	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>
b. Population goals and indicators	<u>76%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>
c. Performance goals and performance measures	<u>74%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>
1-3. Percent of programs using evidence-based interventions				
a. Program directors/management staff who have ever participated in evidence-based Public Health training	<u>87%</u>	<u>76%</u>	<u>100%</u>	<u>100%</u>
b. Programs with documentation of a systematic review of literature and prioritized effective interventions	<u>87%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>
c. Programs with documentation that current interventions and practices are based upon the best available evidence	<u>82%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>
1-4. Proportion of targeted programs participating in VCMR (electronic disease reporting)				
a. Targeted* programs that are connected to the VCMR	<u>70%</u>	<u>70%</u>	<u>100%</u>	<u>100%</u>
b. Targeted programs that are using data from the VCMR	<u>60%</u>	<u>60%</u>	<u>100%</u>	<u>100%</u>

2010 PERFORMANCE IMPROVEMENT SNAPSHOT ORAL HEALTH (OH)

Population Goals

- 1) Reduce dental decay among Los Angeles County residents through community water fluoridation
- 2) Reduce dental decay among Los Angeles County children
- 3) Increase access to quality dental care for low income Los Angeles County residents

Evidence-Based Strategies

Community Guide Recommended Strategies

- 1) Increase residents' access to fluoridated water by achieving optimal fluoride level in public water supplies

Other

- 2) Education programs directed at parents, caregivers and medical staff to prevent tooth decay by using appropriate feedings practices such as: breastfeeding, proper use of nursing bottles and pacifiers, restriction of sugary foods and drinks
- 3) Promote and fund innovative community-based early childhood dental caries (ECC) prevention programs that include an emphasis on early and periodic screening, diagnosis, and treatment of ECC
- 4) Mass media community awareness campaigns on prevention of ECC

Results of Linked Population Indicators (PI) and Program Performance Measures (PM)

Population Indicator	Program Performance Measure	Baseline	Current	Standard (2010)
OH-A Percent of Los Angeles County residents who have access to an optimally fluoridated public water supply		44% (2000)	46% (2008)	75%
	OH 4-2 Number of municipalities that currently have active community coalition groups seeking to adjust the fluoride amount in their water supply	1 (2000)	4 (2008)	5

3. Performance Improvement Projects

A Learning Collaborative Approach*

- Create an internal performance improvement learning collaborative (PI LC) of a diverse group of DPH units
- Teams represent 8 of 32 department Divisions/Programs
- Teams learn and work together for a 10 month period
- Teams apply common PI methods to improve a priority area *selected by their respective units*

*This project is part of the “Building the Evidence for Quality Improvement in Public Health ” grant program funded by the Robert Wood Johnson Foundation. The RAND Corporation is providing training and evaluation support.

PI Method and Tools:

The IHI Model for Improvement... Plus

1. Set the Aim
 - Population health improvement
 - Customer or service improvement
2. Measure Performance
 - Population Indicators
 - Program Performance Measures
3. Map the Process
4. Make Changes for Improvement
 - Evidence Review and Best Practices
 - PDSA cycles
5. Apply other Tools (RCA, Fishbone diagrams, etc.)

Evaluation Methods

Big QI

- Senior Manager Survey of QI culture, QI knowledge and readiness for change
- Key Informant Interviews of DPH Executives

Small QI

- Pre and post surveys of P1LC participants
- Monthly reports from the 8 P1 LC project teams

Lessons Learned – PILC Team Perspective

- Using Process Maps
 - Helped to break down complex problems/processes into small steps for targeting improvement efforts
- Using PDSA cycles
 - Having a methodical, agreed upon approach to improvement helped to bring about change
- Following the 4-Step Model
 - Helped to engage the whole team/division in improvement effort

Lessons Learned –Manager Perspective

- Ratio of 1 manager to 8 ongoing QI projects is not feasible – even in a learning collaborative environment
- Requires creative and collaborative leadership and team building skills –may be at odds with hierarchical organizational structure
- Must be mentally flexible and a systems thinker
 - Understand complex service delivery and business processes *across scale*
 - Adapt coaching strategy often

LAC PERFORMS – Strategic Planning

- Community Health Assessment
- Community Health Improvement Plan
- Linked to Performance Measurement
 - 10 to 12 topic areas (e.g. Take Care NY, Healthy People Leading Health Indicators, Healthy CA 2020, other)
 - 30-50 Population Indicators
 - 90-250 Performance Measures

LAC PERFORMS – Measurement and Reporting

- Automated data platform and report generation
 - More efficient data collection
 - More frequent reporting and review by decision makers
- Preparation for accreditation
 - Portfolio of services by NACCHO Standard/Accreditation domain
 - Linked directly to strategic plan and CHA/CHIP

	Total	NS1	NS2	NS3	NS4	NS5	NS6	NS7	NS8	NS9	NS10	NS11
PIs	224											
PMs	736	51 (7%)	100 (14%)	110 (15%)	34 (5%)	22 (3%)	36 (5%)	142 (19%)	92 (13%)	61 (8%)	36 (5%)	87 (12%)

LAC PERFORMS - PI Projects

- PI Office to prepare department-wide Performance Improvement Plan and Policy
- PI Office to design and implement one large-scale PI project yearly
- PI office to track program-level PI projects
 - All operational divisions and units working on at least one PI project each year
- PI Office to develop and provide department-wide training
 - Online training module (mandatory)
 - Interactive workshops
 - Outside experts/consultants

LAC PERFORMS – Evaluation Metrics

- Develop a department-wide performance management plan by September 30, 2011
- Percent of programs that implement a performance improvement project to address performance that did not reach a benchmark or demonstrate reasonable progress
- Percent of programs that submit results of their Public Health Measures on time biannually
- Percent of program directors and staff who complete a performance improvement training workshop
- Number of state and national presentations and sharing sessions delivered annually

Summary

- A large health department needs to link many sources of data, standards, and reporting processes to build an efficient performance improvement system
 - This takes time to do properly
 - Best with department-wide participation
 - Need to communicate effectively across levels of government and understand a wide variety of unit demands

Summary

- A learning collaborative approach is essential to explore common processes and small tests of change
 - Brings PI champions together which generates enthusiasm
 - Maximizes learning and sharing
 - Promotes a culture of openness and transparency
 - Creates a “centralized” opportunity for technical assistance and coaching