

CalREDIE: *Surveillance Present and Future*

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DCDC | CID | CDPH

CCLHO Semi-Annual Meeting

October 23, 2013



CaIREDIE components



CaLEDIE

overview

California

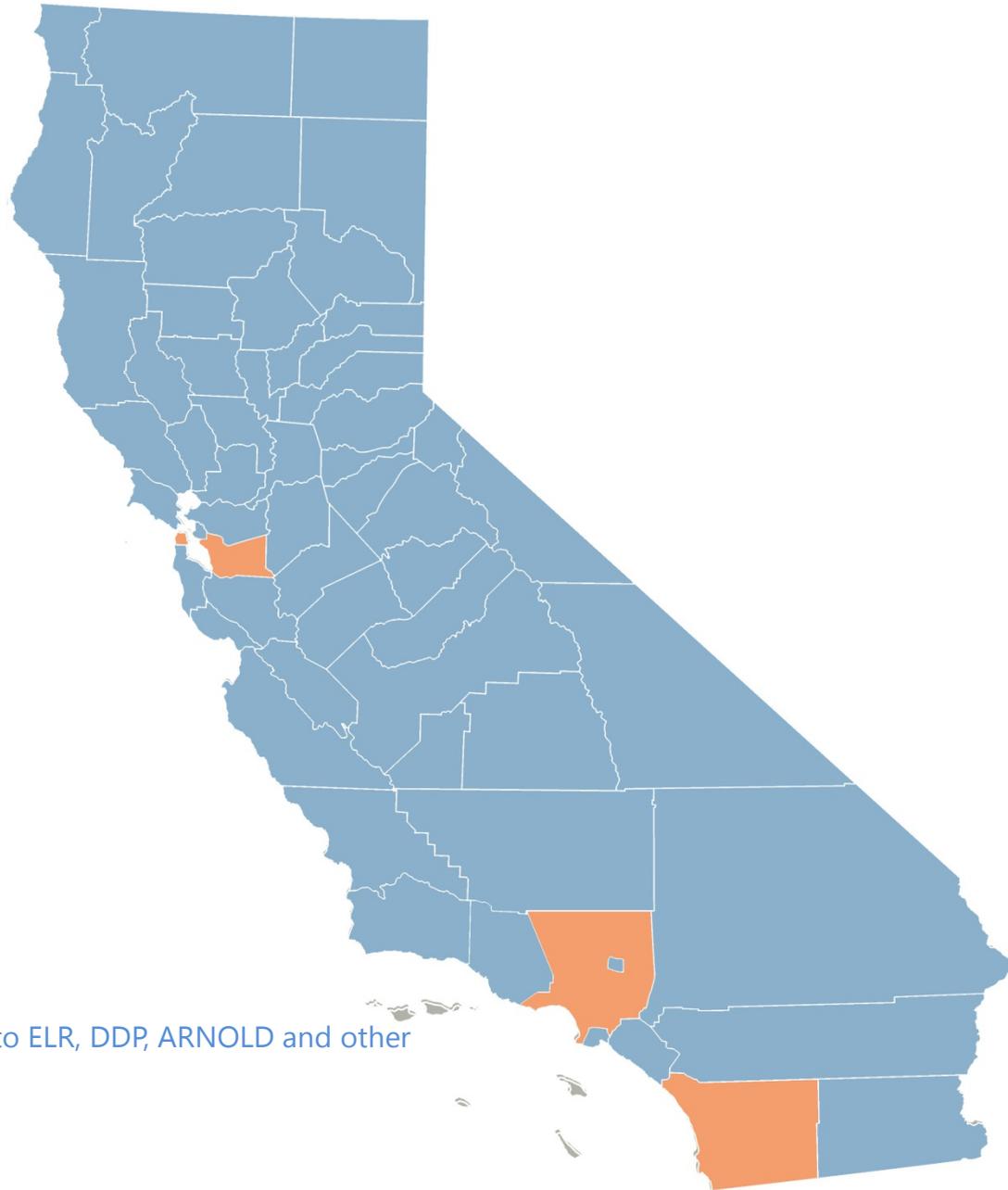
- ALL 61 LHJs are using CaLEDIE

Reportable Disease

- Implemented: CD, TB, STD, Pesticide Illness
- 520,900 disease incidents in system
- 2100 active users

Information Exchange

- Providers, Laboratories, LHDs, CDPH, CDC



CaIREDIE LHDs
CaIREDIE PP LHDs
EDEJs

all CaIREDIE LHDs have access to ELR, DDP, ARNOLD and other functionalities in CaIREDIE

Surveillance Vision

Timely, accurate, complete and efficient collection
of communicable disease surveillance data for
public health action

Surveillance Goals

Continue to modernize the communicable disease surveillance system in California by:

- Increasing electronic data inputs
- Creating a single data repository
- Enhancing data access
- Standardizing and limiting data input formats
- Ensuring sustainability

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Increase Electronic Data Inputs

present

Provider Portal

- 25 LHDs
- 1300 providers
- 39,547 incidents

Electronic Lab Reporting

- 3 large labs
- Average 340 reports/day (excluding External Data Exchange Jurisdictions)

Structural Validation



LIS/EHR system



Submitter continues mechanical message testing

Submitter submits test ELR messages for automated validation through the CDPH HIE Gateway

Lab **Passes** structural validation

☑ ELR messages adhere to standard format

ELR Message Quality Control

at the State and Local level

CDPH Staff Validation

CalREDIE
ELR Pre Production
Environment



State Staff reviews and performs validation and quality analysis

- ☑ Lab is sending messages for required conditions
- ☑ Lab is NOT sending superfluous messages
- ☑ CalREDIE is configured appropriately to handle lab's messages
- ☑ Lab demonstrates capability to send consistent correct messages

User Acceptance Testing

CalREDIE
ELR Testing



Lab's live feed is sent to the ELR Test Environment



LHD user may review feed in the ELR Test Environment

CalREDIE
ELR Testing



LHD reports any issues to State Staff it is determined that Lab ELR feed is ready for production

☑ LHJs confirm that ELR is at least as good as paper reporting

Production



State Staff connects feed to production environment

CalREDIE
ELR Production



State Staff reviews messages exceptions, and conducts analysis to identify when submitter falls outside of its regular reporting pattern.

CalREDIE
ELR Production



LHD works with ELRs on an ongoing basis in ELR Production Environment

Increase Electronic Data Inputs

future

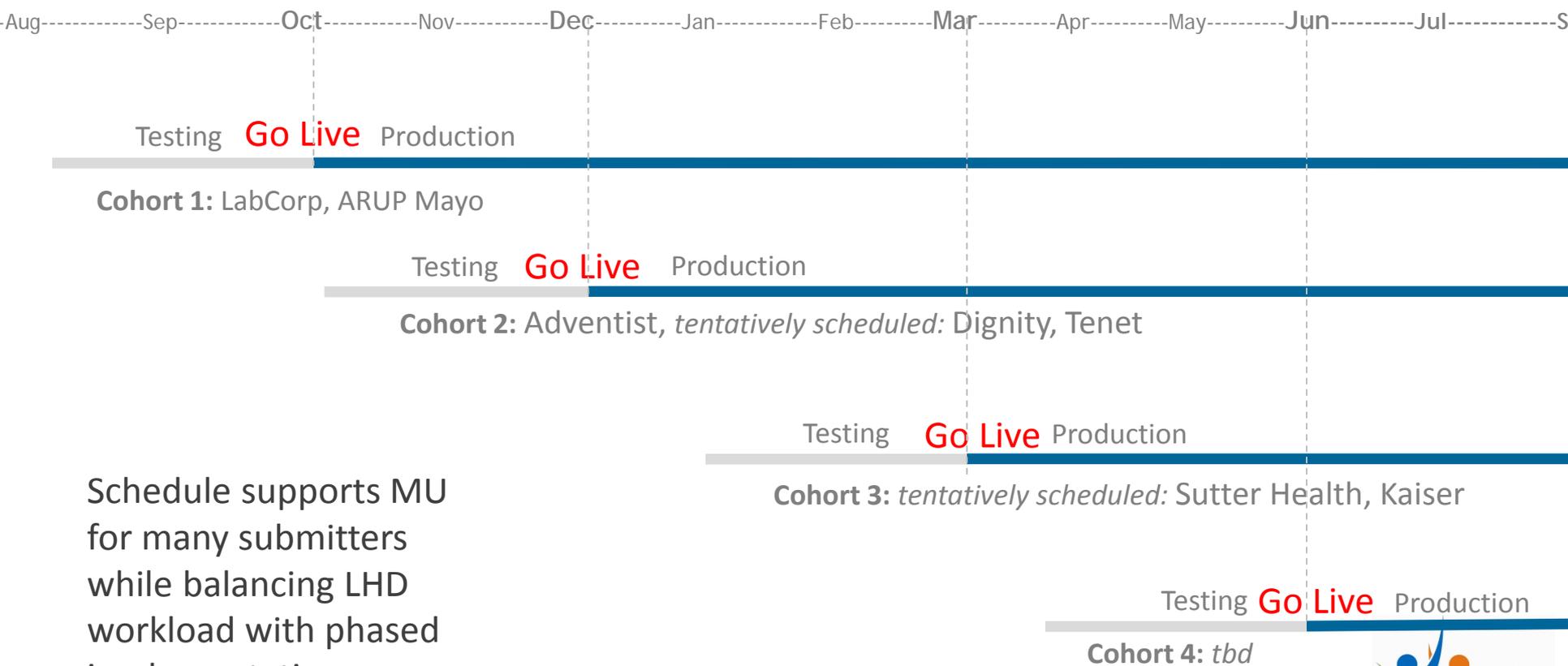
Provider Portal

- Continue to train interested LHDs

Health Information Exchanges

Electronic Lab Reporting

ELR submitter Cohort Schedule 2013 & 2014



Schedule supports MU for many submitters while balancing LHD workload with phased implementation



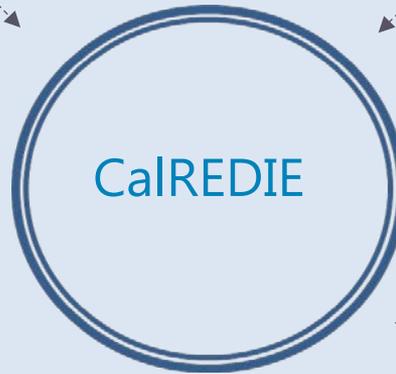
Hospital Systems

Meaningful Use

Dignity Adventist Tenet Kaiser Sutter Health

National Laboratories

LabCop
ARUP
Mayo
Quest



Apollo { 12 PHLs
Orchard { 3 PHLs
Cerner { 2PHLs
BtB { 2PHLS
STARLIMS

Public Health Labs
(grouped by vendor)

Redwood Med Net HIE Inland Empire HIE

Health Information Exchanges (HIEs)

Regulations

Connected
Connecting
PHL: public health lab



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Create a Single Data Repository

present

Data Warehouse

- System tab
- User Defined Fields
- “Tuesday Process”

Available UDFs

October 8

- Anaplasmosis
- Anthrax
- Botulism
- Brucellosis
- Chlamydia; Gonorrhea; Pelvic Inflammatory Disease (PID)
- Dengue
- Ehrlichiosis
- Hantavirus Infections
- Haemophilus influenzae
- Hepatitis A
- Hepatitis B, Perinatal Case
- Legionellosis
- Leptospirosis
- Listeriosis
- Lyme
- Measles
- Meningitis - Bacterial, Fungal, Parasitic, Not Otherwise Specified, Viral
- Mumps
- Pertussis
- Relapsing Fever
- Rocky Mountain Spotted Fever
- Toxic Shock Syndrome
- Trichinosis
- Typhoid
- Typhus and Other Non-Spotted Fever Rickettsioses
- Varicella (Chickenpox); Varicella Hospitalization/Death
- Vibriosis/Cholera
- West Nile Virus

Create a Single Data Repository

present

Data Warehouse

- System tab
- User Defined Fields
- “Tuesday Process”
 - CalREDIE
 - AVSS
 - External Data Exchange Jurisdictions
 - STD
 - Foodborne

Create a Single Data Repository

San Francisco

CDPH-requested data element (CMR-level data)	SF - data sent	SF - data available
Patient last name	+	+
Patient first name	+	+
Patient Middle name/Middle initial	-	+
Address	-	+
Pregnant?	-	+
Estimated delivery date	-	+
Hospitalized?	-	+
Visited ER?	-	+
Case (process) status	-	+
Resolution status	-	+
Date case first reported to LHJ	-	+
Specimen collection date	-	+
Date of lab result	-	+
Date of diagnosis	-	+
Date of death	-	+
Primary language	-	+
Country of birth	+	+
Home telephone number	-	+
Cell telephone number	-	+
Work telephone number	-	+
Email address	-	+
Age	+	+
Occupational or exposure setting	+	+

Survey Results:

Current = 15%

Available = 98%

Create a Single Data Repository

future

Data Warehouse

- Estimated completion UDF extracts from CalREDIE December, 2013
- Incorporate EDEJ data
 - Include statewide nationally reportable data
 - Include statewide case report data
- Message directly to CDC

All Statewide data in **one** dataset

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Enhance Data Access

present

Data Distribution Portal

- Live January, 2013

Data Warehouse

- No access to historical (pre-CalREDIE) data

Enhance Data Access

future

Data Warehouse

- Historical Data sets
 - syphilis
- Denominator data

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Standardizing and Limiting Data Input Formats

present

- ELR
 - Receive ELR in a standardized format
- Case report data
 - from different sources in varying formats

Standardizing and Limiting Data Input Formats

future

- All case report data to DCDC in a standard format
(no Tuesday process!)

Surveillance Goal

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Infrastructure - Tenant Managed Services- Premier

- CalREDIE moved on August 29

Expansion of CalREDIE use outside DCDC

- Pesticide illness reporting

Tenant Managed Services-Premier

- Tier-3 data center
- Advanced security and monitoring systems
- Latest virtualization technologies
- Highly flexible and expandable environment
- Reduce CDPH programs hosting cost
- Faster response to customer requests and application changes

Infrastructure - Tenant Managed Services- Premier

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Expansion of CalREDIE use outside DCDC

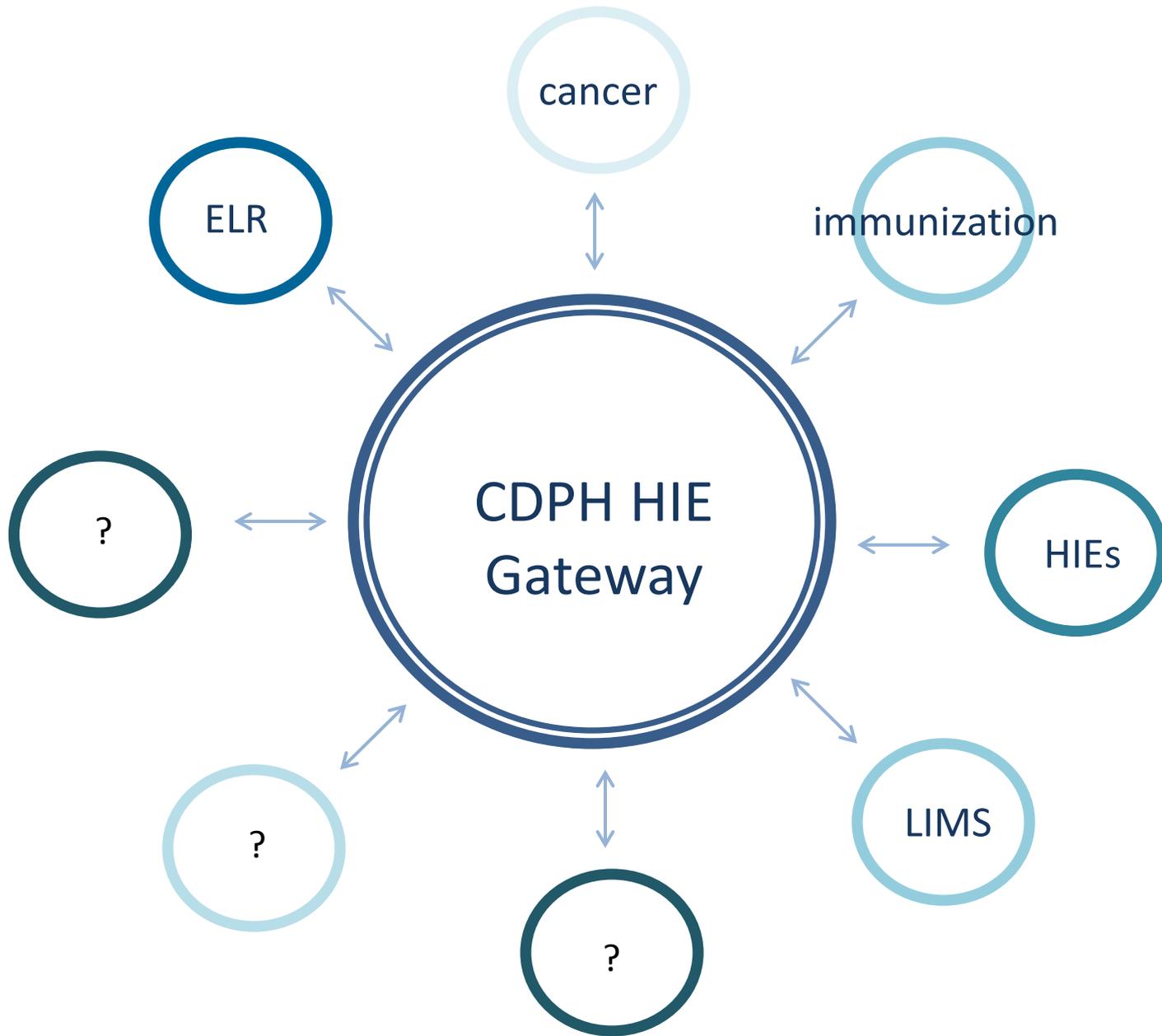
- Pesticide illness reporting

Ensure Sustainability future

Continue to expand CalREDIE outside DCDC

- Office of AIDS
- Blood Lead
- DMV

CDPH Gateway



The CDPH HIE Gateway is a major step forward:

Leverages technologies

Employs a common data standard

Provides easy access for submitters

<http://hie.cdph.ca.gov/>

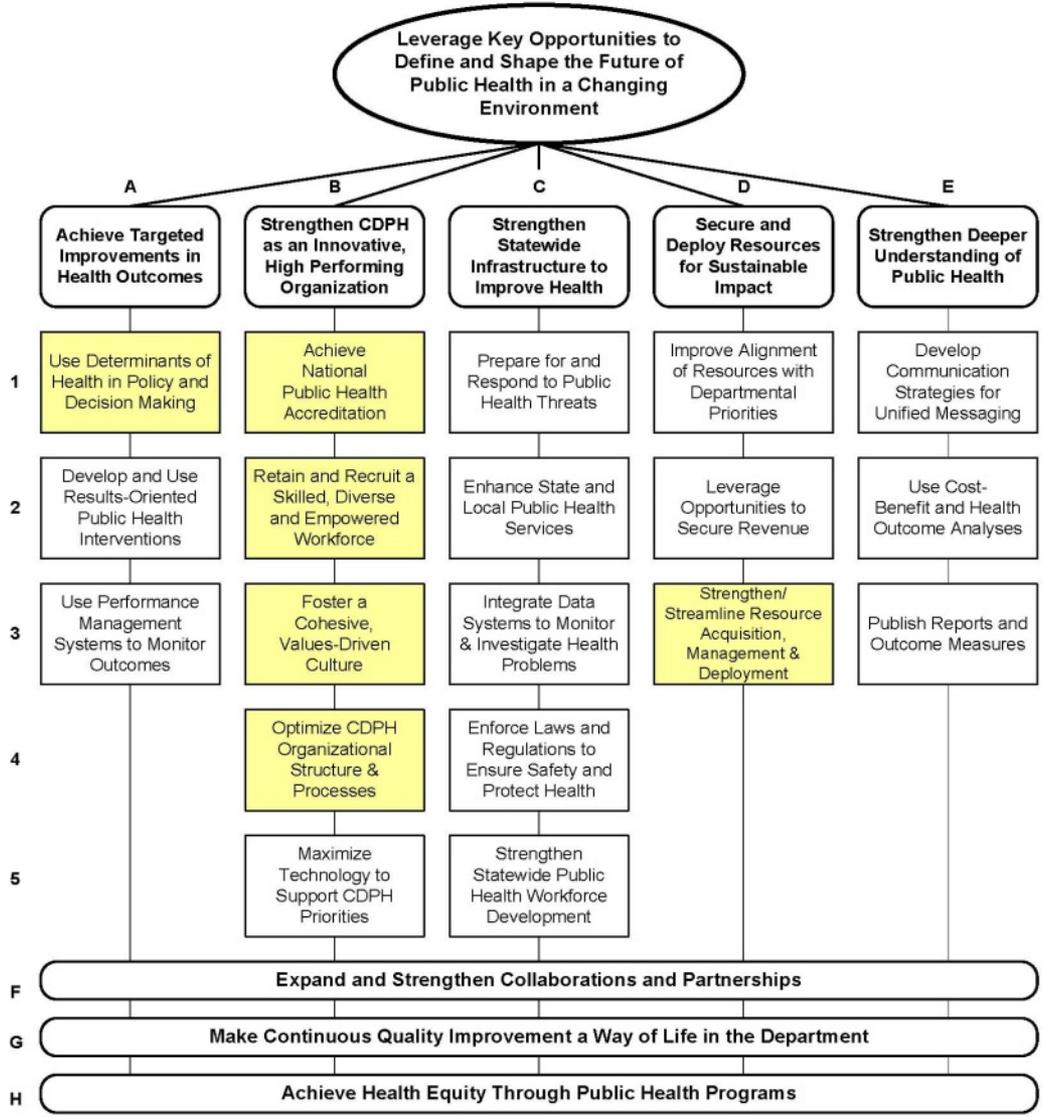


**California Department of Public Health Strategic Map:
2012-2014**



Vision: Healthy individuals and families in healthful communities

Mission: The California Department of Public Health is dedicated to optimizing the health and well-being of the people in California



Collaboration present and future

CalREDIE is a shared system. The success of CalREDIE is due to the partnership between CDPH and all LHDs.

Please let us know if you have thoughts on ways to improve collaboration!

CalREDIE Questions

CalREDIEHelp@cdph.ca.gov