

# Introduction and Protocol for Congenital Syphilis Surveillance in California

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Syphilis Elimination Coordinator  
May 6, 2013 9-10AM*

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**Please mute your phones!**



# Training Series

Introduction and Protocol for  
Congenital Syphilis Surveillance  
in California

*May 6, 2013 – 9-10AM*

Completion of the Revised Congenital  
Syphilis Form

*May 13, 2013 – 9-10AM*

CalREDIE: Initiating, Monitoring and  
Entering Data for Congenital Syphilis

*May 20, 2013 – 9-10AM*

# The Revised Congenital Syphilis Report Form – What's New, Why, and How to Use It

**John R. Su, MD, PhD, MPH**  
Division of STD Prevention

April 29, 2013

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention  
Division of STD Prevention



# What we will cover today

- Rationale for changing the system
- National congenital syphilis case definition
- Revised California protocol for surveillance and case management
- Algorithm for classifying congenital syphilis cases
- Case Studies

Changing Congenital Syphilis and Case  
Management Protocols in California

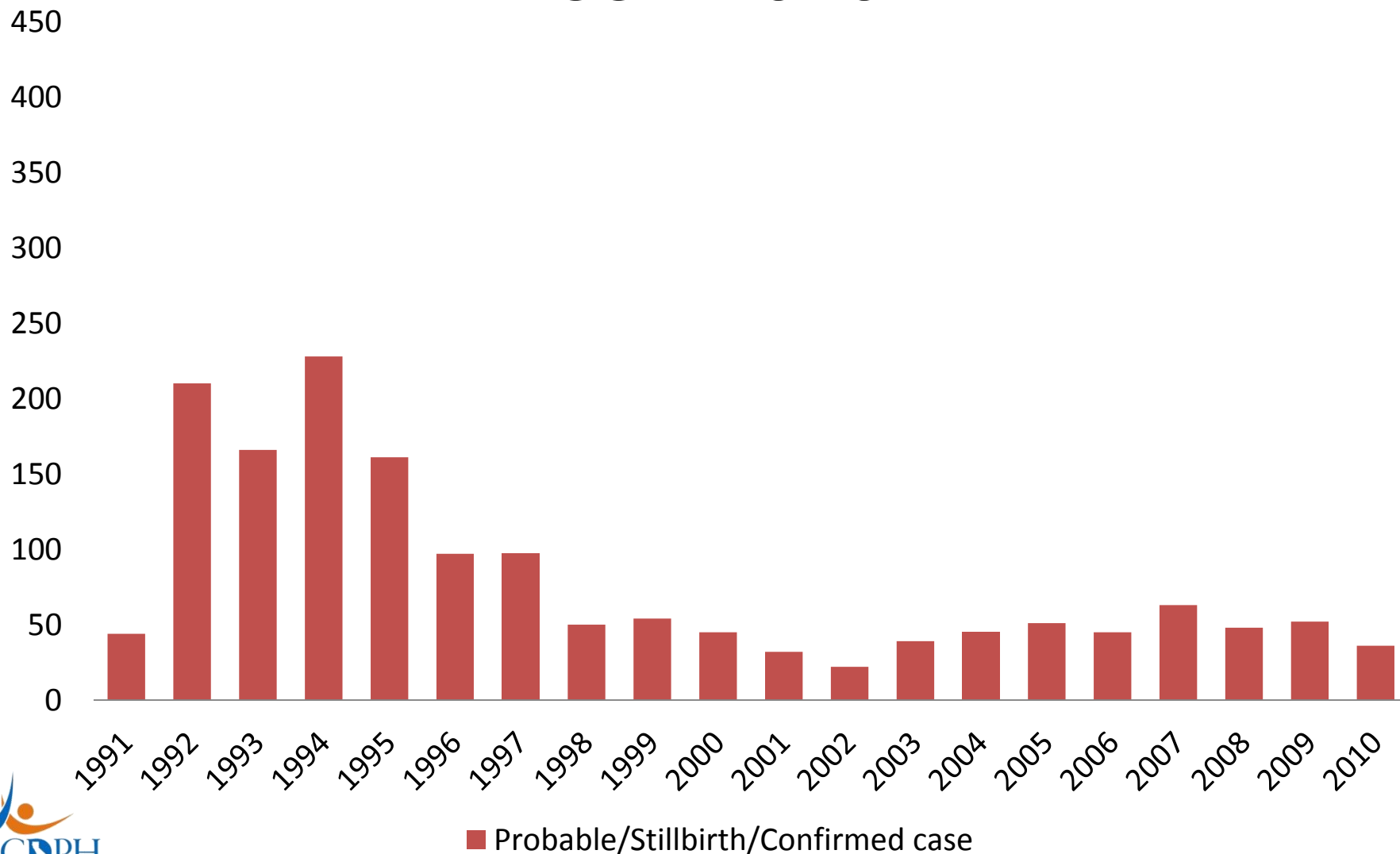
# RATIONALE



# Rationale for Revisions

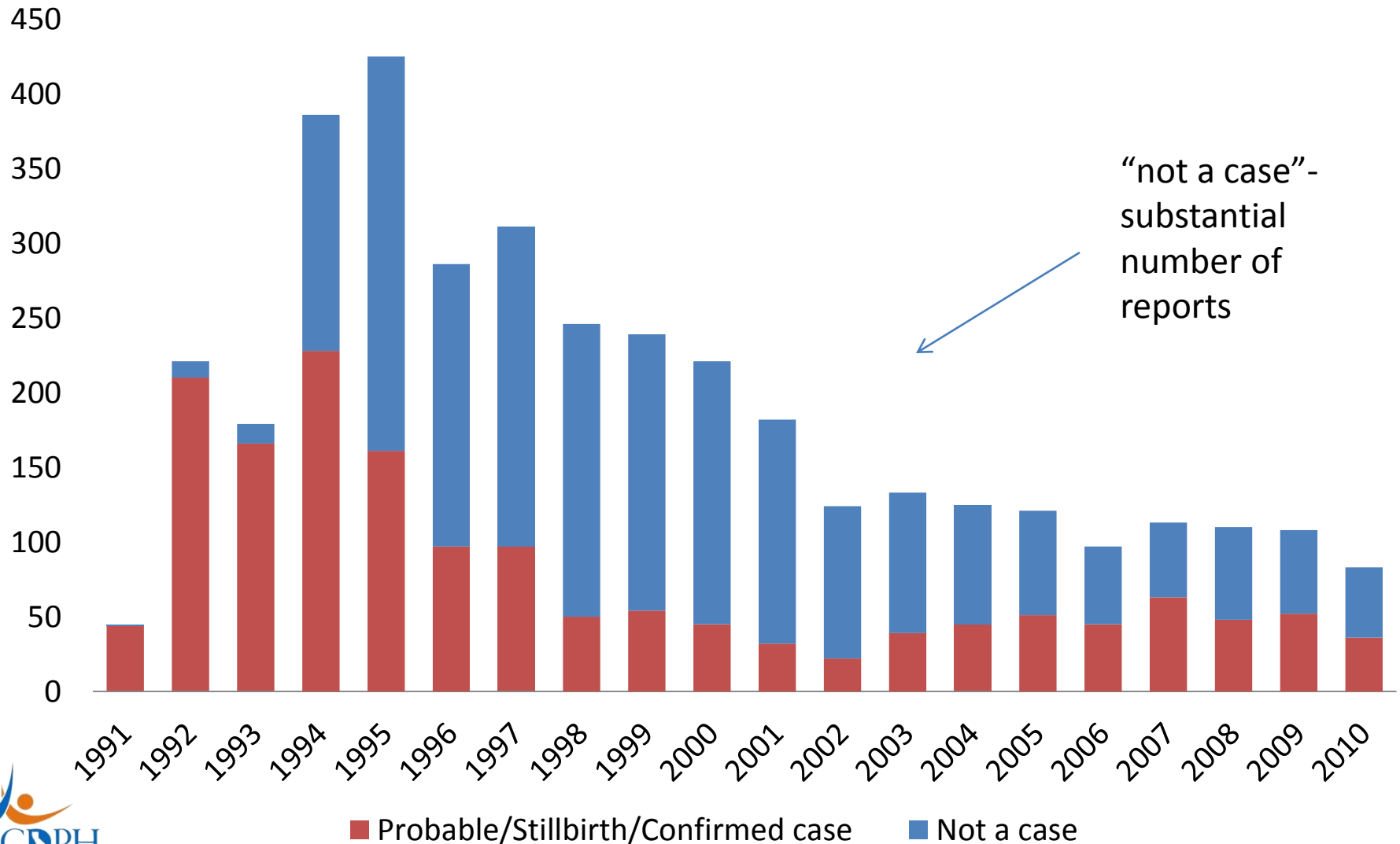
- Low true congenital syphilis morbidity
- Proposed changes will increase efficiencies
  - Reduce paperwork
  - Reduce workload by 3.5 hours per case
- Survey of state DIS in 2010 suggested changes that could be made

# Trends in Congenital Syphilis Reporting, 1991-2010

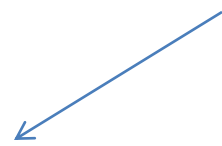


■ Probable/Stillbirth/Confirmed case

# Trends in Congenital Syphilis Reporting, 1991-2010



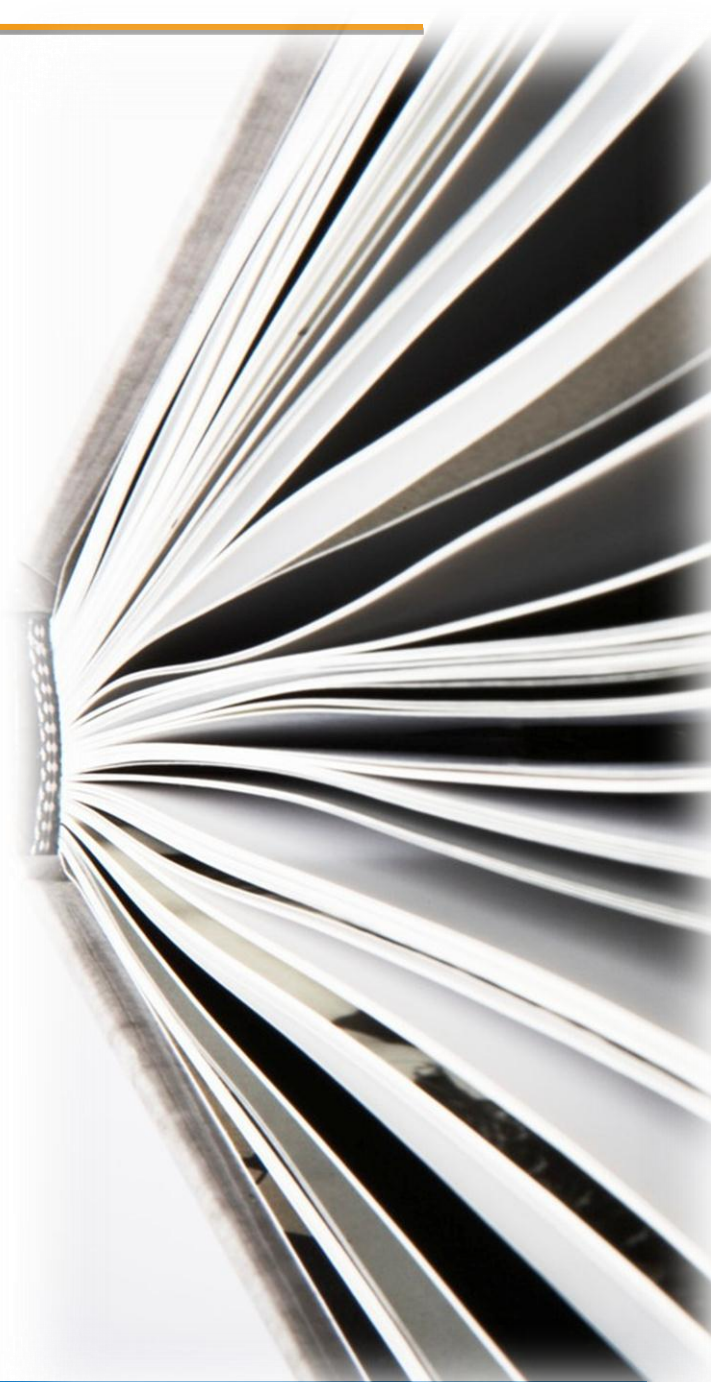
“not a case”-  
substantial  
number of  
reports





Getting on the same page.

# CASE DEFINITION



# Surveillance Case Definition for Congenital Syphilis (CS)

- A **confirmed case** of CS is an infant or child in whom *Treponema pallidum* is identified by darkfield microscopy, direct fluorescent antibody, or other specific stains in specimens from lesions, placenta, umbilical cord, or autopsy material.
- A **presumptive case** of CS is either of the following: any infant whose mother had untreated or inadequately treated syphilis at the time of delivery, regardless of the findings in the infant or child; any infant or child who has a reactive treponemal test for syphilis and any one of the following:
  - evidence of CS on physical examination;
  - evidence of CS on long bone X-ray;
  - reactive CSF-VDRL;
  - elevated CSF cell count or protein (without other cause);
- A **syphilitic stillbirth** is defined as a fetal death in which the mother had untreated or inadequately treated syphilis at the time of delivery of either a fetus after a 20-week gestation or a fetus weighing >500g.

# Definition: Confirmed Case

- positive darkfield or special stains in the specimens from
  - lesions
  - placenta
  - umbilical cord, or
  - autopsy material

# Definition: Presumptive Case

- inadequate treatment in the *mother*, regardless of infant results, OR
- reactive [non-]treponemal\* test in the *infant* plus one of the following:
  - evidence on physical exam,
  - evidence on long bone X-ray,
  - reactive CSF-VDRL, OR
  - elevated CSF cell count or protein (without other cause)

*\*CDC does not recommend treponemal tests in infants, as they reflect mother's titer. A non-treponemal test (RPR/VDRL) is sufficient.*

# Elevated CSF Results

Age of infant/neonates	Elevated CSF White Blood Cell Count	Elevated CSF Protein Count
≤30 days old	>15 WBC/mm <sup>3</sup>	>120 mg/dL
>30 days old	>5 WBC/mm <sup>3</sup>	>40 mg/dL

# Definition: Syphilitic Stillbirth

- fetal death in which the mother had untreated or inadequately treated syphilis at the time of delivery of either
  - a fetus after a 20-week gestation or
  - a fetus weighing >500g

# Adequate treatment for syphilis in pregnant females

Stage of syphilis	Treatment	Timing
Primary, Secondary, and Early Latent	BIC x 1	Administered 30 days or more prior to delivery
Late Latent and Latent of Unknown Duration	BIC x 3	First dose administered 30 days or more prior to delivery, AND all doses received

**Pregnant women allergic to penicillin should be treated with penicillin after desensitization. There are no alternative regimens for syphilis treatment in pregnancy.**

Preventing and reporting cases.

# REVISED PROTOCOL





# Responsibilities: Medical Providers vs Public Health

- Medical providers are responsible for the **care of individual patients** by:
  - Diagnosing and appropriately treating syphilis
  - Discussing previous pregnancies
  - Discussing partner testing and treatment
  - Reporting to the Health Department
- Public Health staff are responsible for monitoring and **reducing the spread of syphilis in the community** by
  - Following up on infectious syphilis cases to confirm treatment and conduct partner services
  - Assuring treatment of women of child-bearing age to prevent congenital syphilis
  - Assuring providers have accurate and current information about syphilis in pregnancy and infants

# Summary of new protocol for CS management

- Confirm treatment for **all cases in women** of child-bearing age and **infants**
- Initiate FR for the following:
  - All **female cases** of child-bearing age
  - All **females with an infant** with a reactive STS
  - All **infants** with a reactive STS
- Syphilis interview records and partner services are only required for **early cases**
- Complete the revised CS form for the following:
  - Infants or stillborn fetuses of mothers who are **inadequately treated**
  - Infants with reactive STS and **evidence of congenital syphilis**
- Providers should be faxed information sheets according to circumstances.
- Cases should be closed within 30 days of treatment verification or delivery.

# Managing Reactive STS in Women

- Reactor search and entry remains the same
  - All reactive STS, including biologic false positives in women should be entered
- Initiation of FRs and verification of clinical information
  - For all new cases
  - For all infants with reactive STS
  - For all mothers determined to be ‘Not a Case’ but deliver infants with reactive STS (rare)

# Management of Non-Pregnant Female Syphilis Cases

## Early Syphilis Cases

- Confirm treatment
- Initiate FR
- Interview
- Conduct partner services
- Close case within 30 days of treatment confirmation

## Late Syphilis Cases

- Confirm treatment series
- Initiate FR
- No interview or partner services
- Fax to providers
  - Guidelines for Clinical Management of Late Latent Syphilis
- Close case within 30 days of treatment series confirmation

# Management of Pregnant Syphilis Cases

## Adequately Treated

- Confirm treatment series
- Initiate FR if new case
- Interview and partner services for early syphilis cases only
- Fax to providers
  - Evaluation and Management of Pregnant Women with Syphilis
  - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Close case within 30 days of treatment confirmation

## Inadequately Treated

- Interview and partner services for early syphilis cases only
- Initiate FR on mother (if new case) and infant
- Fax to providers
  - Evaluation and Management of Pregnant Women with Syphilis
  - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Contact the ICCR headquarters for CS ID Number
- Complete the CS Form
- Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

# Management of Reactive STS in Infants

## Mother Adequately Treated

- Confirm treatment series
- Initiate FR for mother if new case
- Initiate FR for infant
- Interview and partner services for early syphilis cases only (mother)
- Fax to providers
  - Evaluation and Management of Pregnant Women with Syphilis
  - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- If infant has evidence of CS
  - Contact the ICCR headquarters for CS ID Number
  - Complete the CS Form
  - Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

## Mother Inadequately Treated

- Initiate FR for mother if new case
- Initiate FR for infant
- Interview and partner services for early syphilis cases only (mother)
- Fax to providers
  - Evaluation and Management of Pregnant Women with Syphilis
  - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Contact the ICCR headquarters for CS ID Number
- Complete the CS Form
- Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

# Management of Reactive STS in Delivery Blood

## Mother Adequately Treated

- Confirm treatment series
- Initiate FR for mother if new case
- Initiate FR for infant
- Interview and partner services for early syphilis cases only (mother)
- Fax to providers
  - Evaluation and Management of Pregnant Women with Syphilis
  - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- If infant has evidence of CS
  - Contact the ICCR headquarters for CS ID Number
  - Complete the CS Form
  - Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

## Mother Inadequately Treated

- Initiate FR for mother if new case
- Initiate FR for infant
- Interview and partner services for early syphilis cases only (mother)
- Fax to providers
  - Evaluation and Management of Pregnant Women with Syphilis
  - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Contact the ICCR headquarters for CS ID Number
- Complete the CS Form
- Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

# Management of Suspected Syphilitic Stillbirths

## Mother Adequately Treated

- Confirm treatment series
- Initiate FR for mother if new case
- Interview and partner services for early syphilis cases only
- Close case within 30 days of treatment series confirmation

**Do not report as syphilitic stillbirth – does not meet the case definition.**

## Mother Inadequately Treated

- Initiate FR for mother if new case
- Interview and partner services for early syphilis cases only
- Fax to providers
  - Evaluation and Management of Pregnant Women with Syphilis
- If fetus was delivered after a 20-week gestation or weighed >500g
  - Contact the ICCR headquarters for CS ID Number
  - Complete the CS Form
  - Classify the infant as a syphilitic stillbirth
- Alert the STD Controller
- Close case within 30 days of stillbirth



# Case Closure, Case Review and Documentation

## Mother Adequately Treated

- Within 30 days of treatment confirmation

## Mother Inadequately Treated

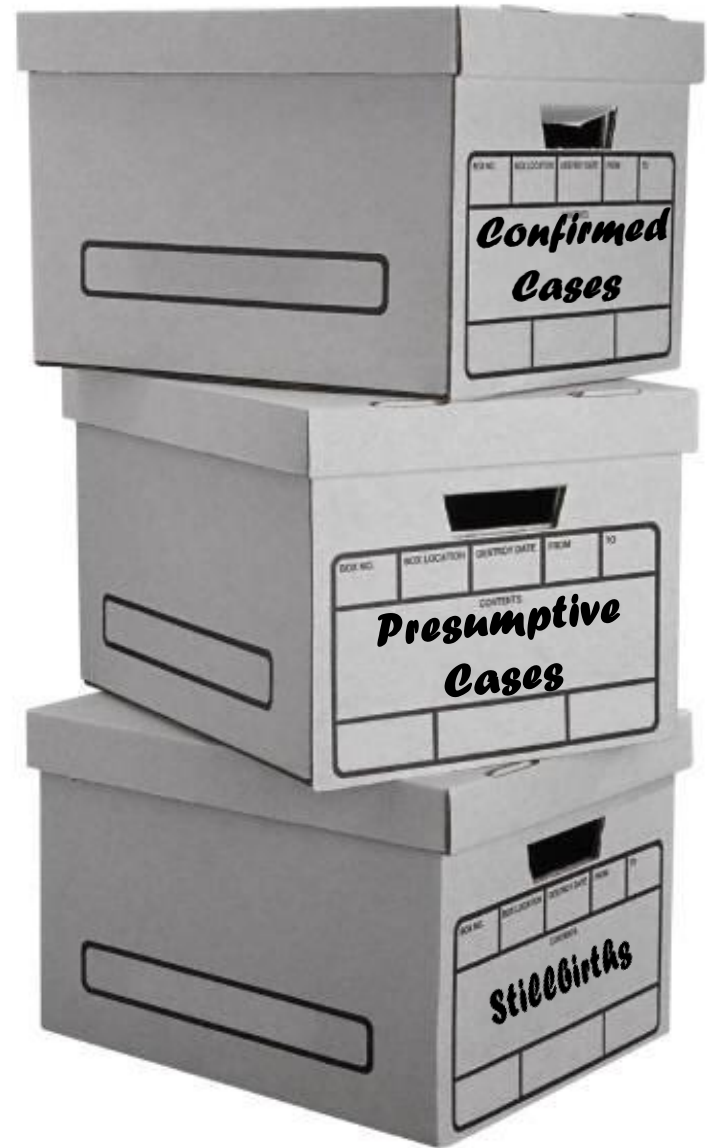
- Within 30 days of treatment confirmation, stillbirth or delivery

- Front line supervisors should review all cases prior to submission.
- The following should be submitted to the Congenital Syphilis Coordinator within 7 days of case closure :
  - California CS Case Investigation and Report
  - Copy of the FR for mother and infant
  - Reactor history printed from the local reactor database
  - For early cases: copies of the FRs for partners and IR for mother
- Notify ICCR headquarters if you request a CS ID Number and the infant is subsequently determined not to be a case.

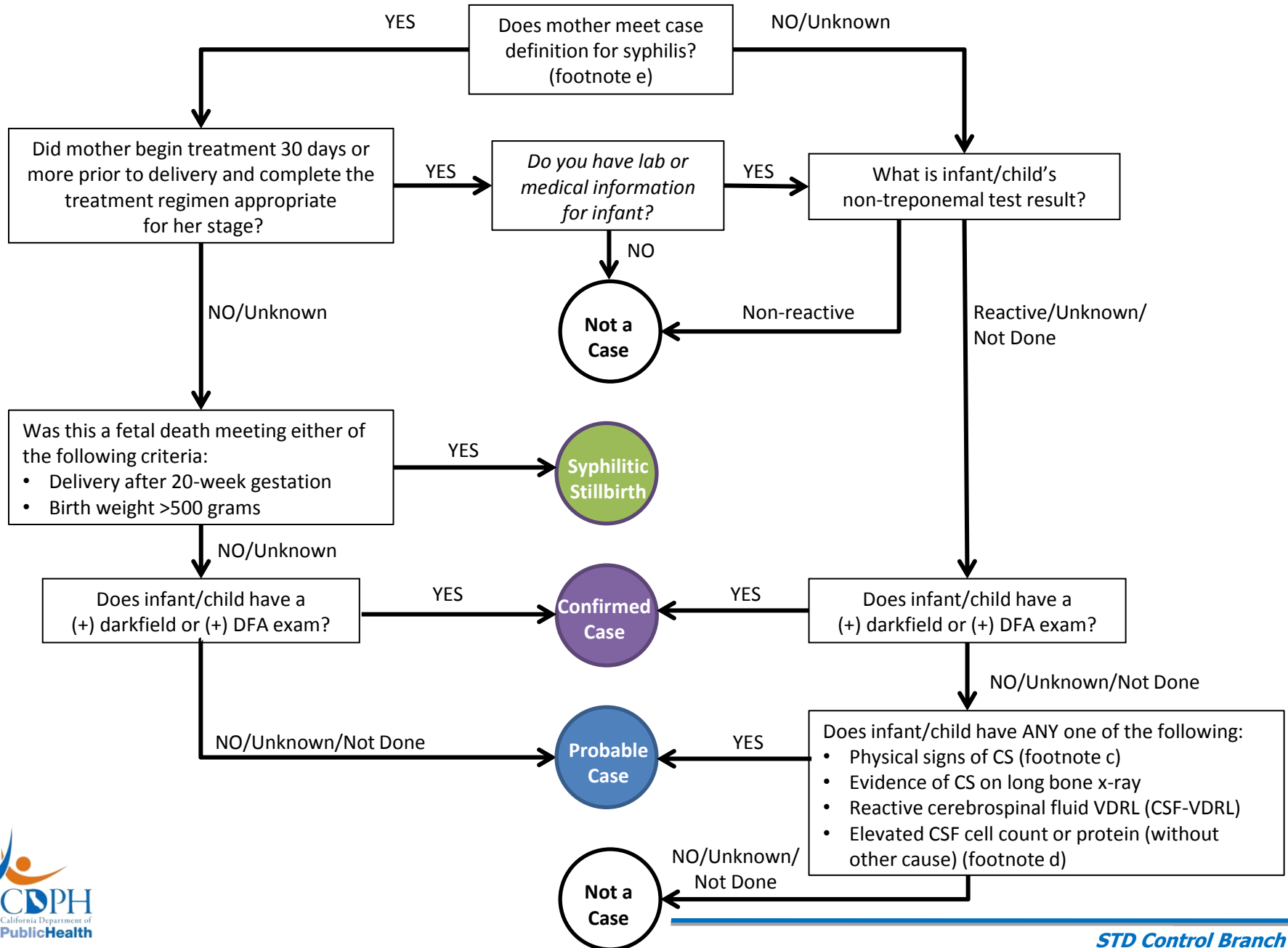
**CONGENITAL SYPHILIS COORDINATOR:**  
**cpacs@cdph.ca.gov** or fax to **916.440.5949**

Classifying CS Cases

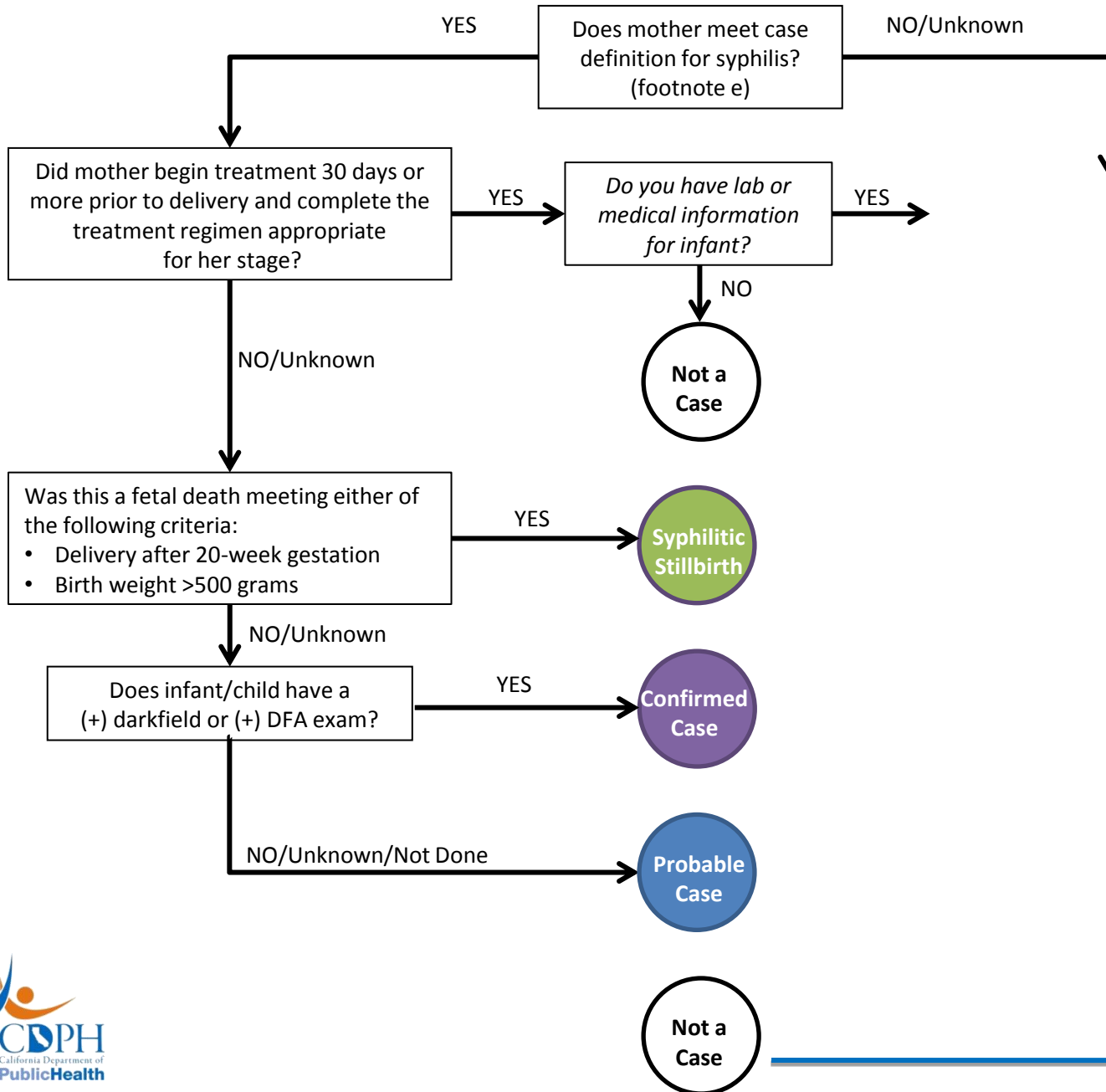
# THE ALGORITHM



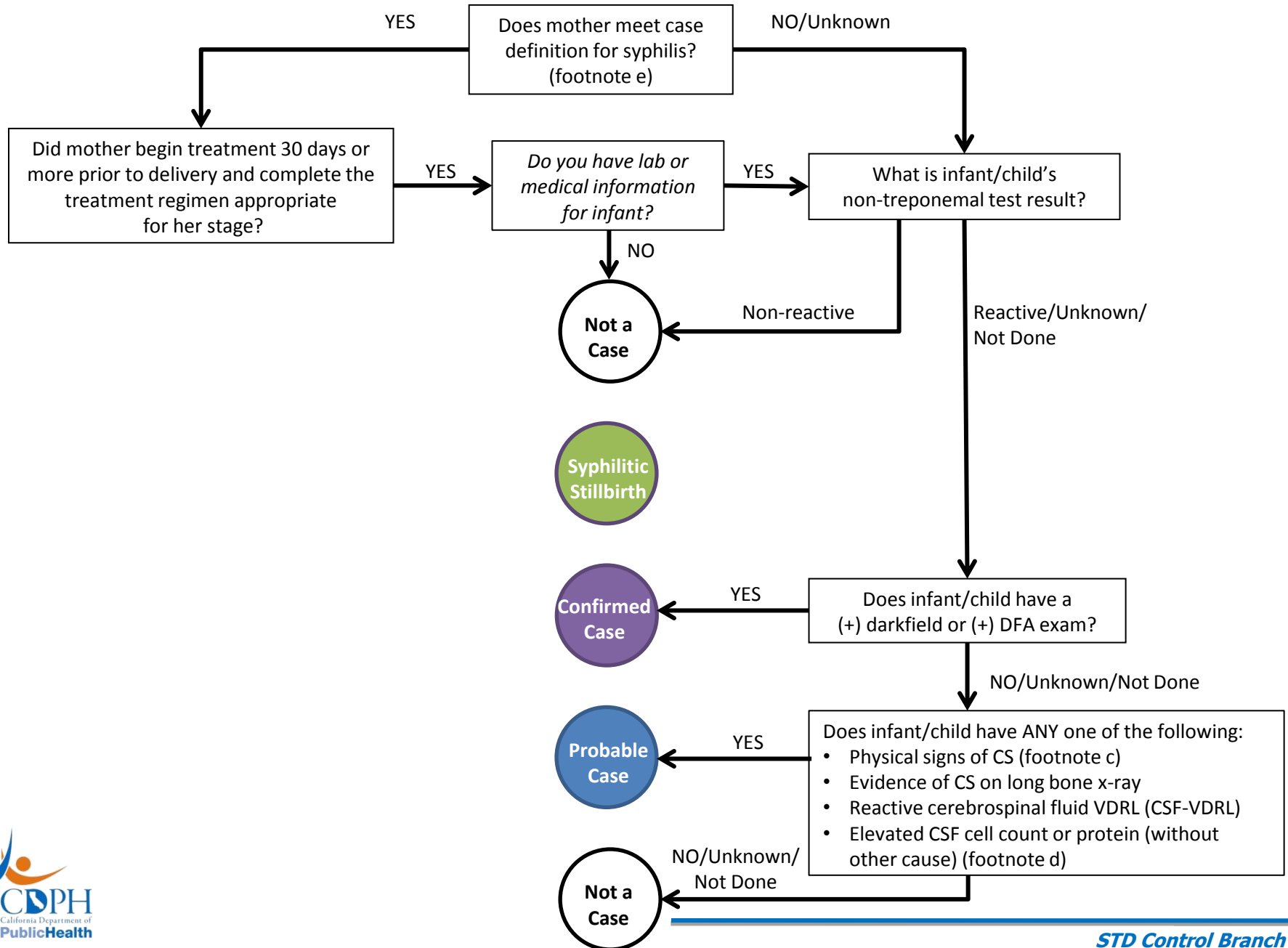
# Algorithm for Classifying CS Cases



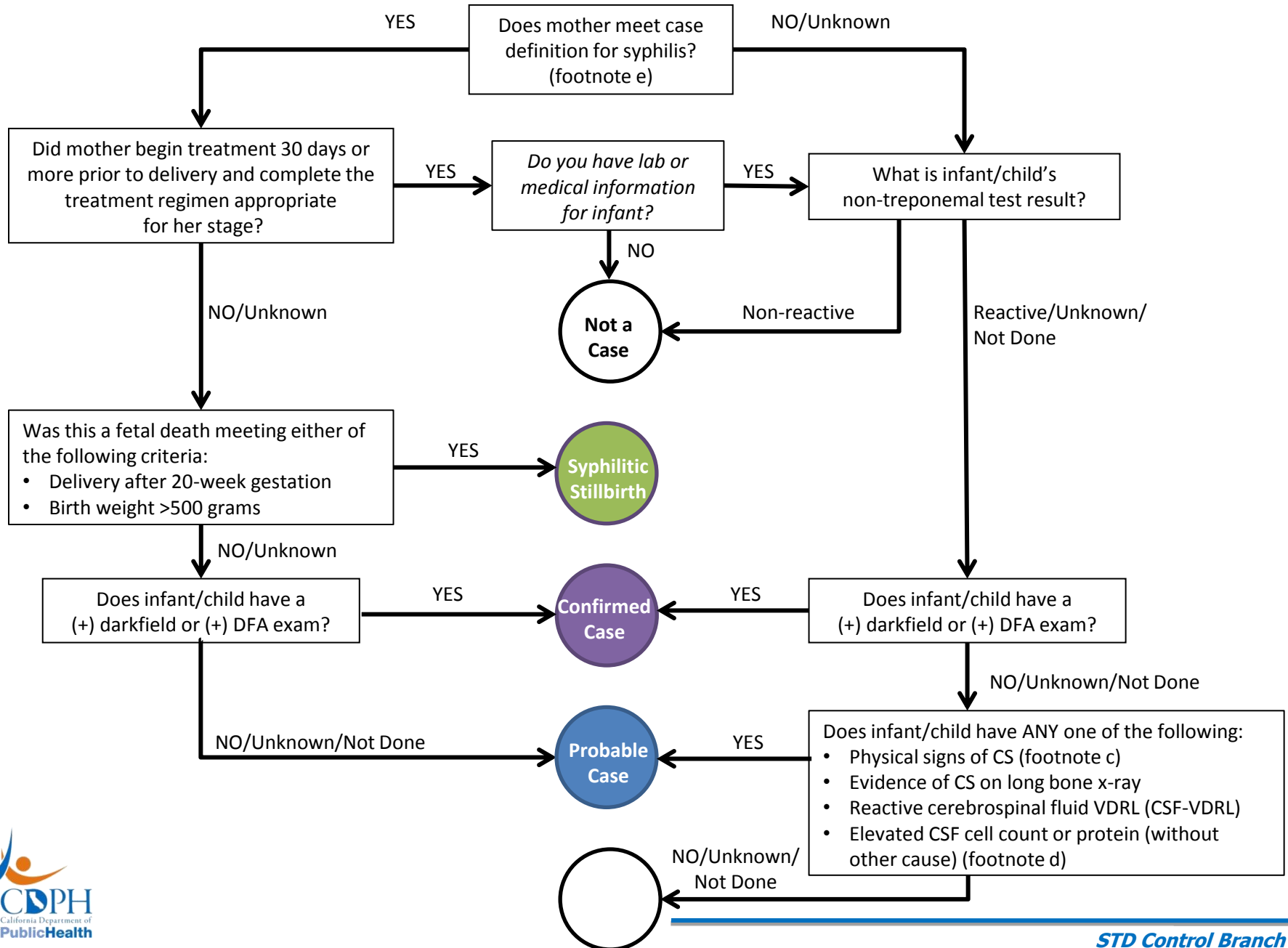
# Algorithm for Classifying CS Cases



# Algorithm for Classifying CS Cases



# Algorithm for Classifying CS Cases



Putting theory into practice.

# CASE STUDY #1



# Case Study #1: Sophia

- 27 year old mother, who is TP-PA+ with RPR of 1:16
- Previously treated for secondary syphilis (2009) with 2.4 MU BIC
- Last reported RPR of 1:2 in 2010

*What stage of syphilis does Sophia have?*





## What stage of syphilis does Sophia have?

- She has no symptoms
  - Reports no symptoms consistent with syphilis in past 12 months
- She has reactive treponemal test (TP-PA+)
  - Treated for secondary syphilis in the past
- Her last RPR = 1:2, but her titer is now 1:16
  - Four-fold increase in non-treponemal titer
- Sophia meets case definition for *late latent syphilis*.

# Case Study #1: Sophia (cont)

- Sophia received her first dose of 2.4 MU of BIC 40 days before delivery.
- She received her 3<sup>rd</sup> dose of BIC (i.e., she completed treatment) 26 days before delivery.
- Treatment was verified by a medical provider.

*Was Sophia adequately treated for syphilis?*



# Adequate treatment for syphilis in pregnant females

Stage of syphilis	Treatment	Timing
Primary, Secondary, and Early Latent	BIC x 1	Administered 30 days or more prior to delivery
Late Latent and Latent of Unknown Duration	BIC x 3	First dose administered 30 days or more prior to delivery, AND all doses received

**Pregnant women allergic to penicillin should be treated with penicillin after desensitization. There are no alternative regimens for syphilis treatment in pregnancy.**

## Was Sophia adequately treated for syphilis?

- Sophia received 7.2 MU BIC
  - Appropriate treatment for late latent syphilis
- She began treatment 40 days before delivery
  - She completed treatment 26 days before delivery

*Yes, Sophia was adequately treated for syphilis.*

# Management of Pregnant Syphilis Cases

## Adequately Treated

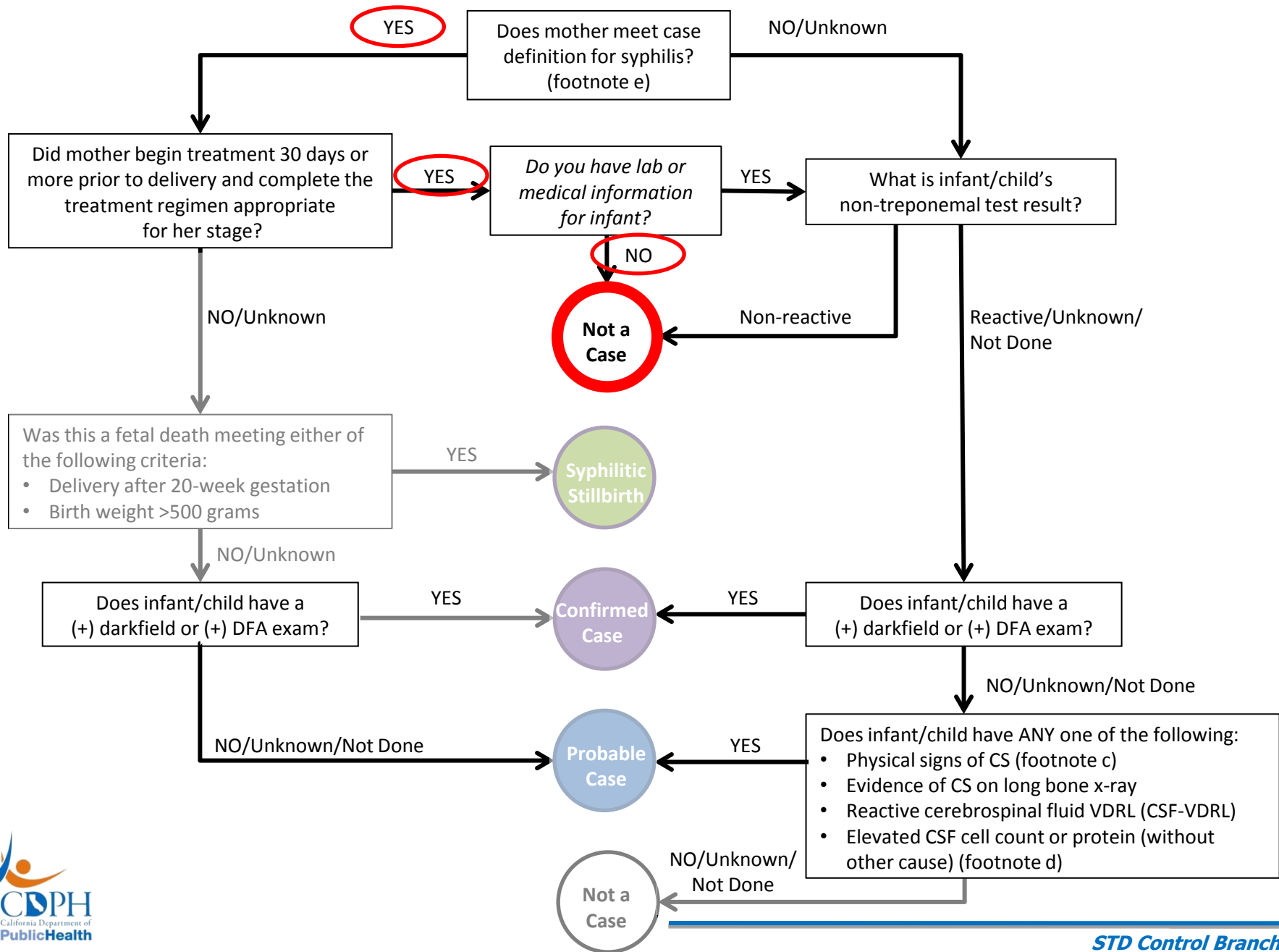
- Confirm treatment series
- Initiate FR if new case
- Interview and partner services for early syphilis cases only
- Fax to providers
  - Evaluation and Management of Pregnant Women with Syphilis
  - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Close case within 30 days of treatment confirmation

## Inadequately Treated

- Interview and partner services for early syphilis cases only
- Initiate FR on mother (if new case) and infant
- Fax to providers
  - Evaluation and Management of Pregnant Women with Syphilis
  - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Contact the ICCR headquarters for CS ID Number
- Complete the CS Form
- Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

# Management of Sophia's Case

- Confirm treatment series
- Initiate FR if new case
- No interview required – late latent case
- Fax to provider
  - Evaluation and Management of Pregnant Women with Syphilis
  - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Close case within 30 days of treatment confirmation
- Submit to Congenital Syphilis Coordinator within 7 days of case closure



Putting theory into practice.

## **CASE STUDY #2**





# Case Study #2: Isabella

- 3 month-old female with RPR of 1:8
- Adopted – no information on mother
- Lumbar puncture results:
  - WBC count = 3 WBC/mm<sup>3</sup>
  - CSF protein = 58 mg/dL
- No long bone X-ray available

*Is Isabella's serology consistent with a diagnosis of CS?*



## *Is Isabella's serology consistent with a diagnosis of CS?*

- Isabella has a reactive non-treponemal tests
  - RPR 1:8
- She does not have a reactive treponemal test, but this is not required in infants.

*Yes, Isabella's serology is consistent with a diagnosis of CS.*

# Management of Reactive STS in Infants

## Mother Adequately Treated

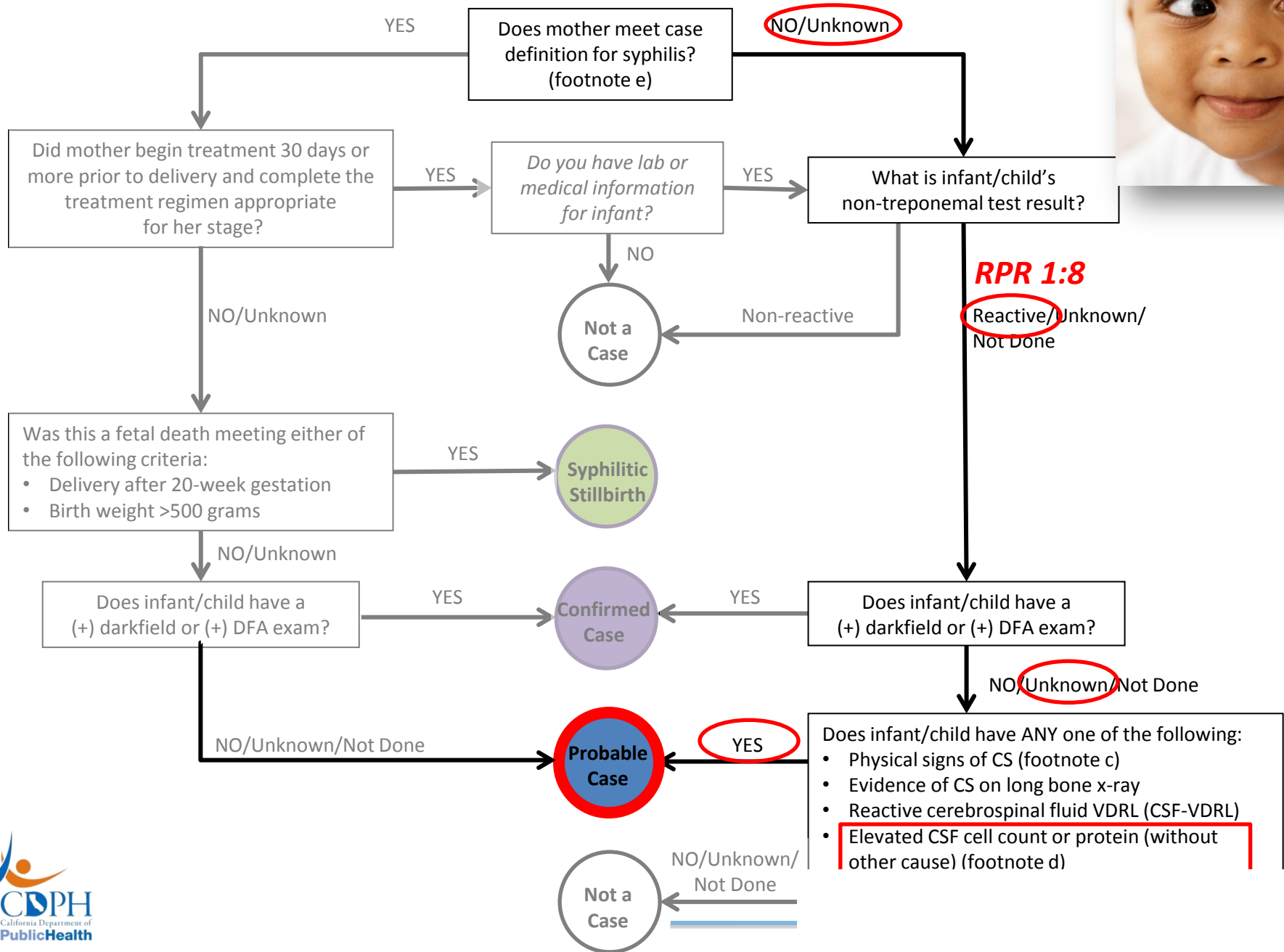
- Confirm treatment series
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- Initiate FR for infant
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- Fax to providers
  - Evaluation and Management of Pregnant Women with Syphilis
  - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- If infant has evidence of CS
  - Contact the ICCR headquarters for CS ID Number
  - Complete the CS Form
  - Classify the infant using the CS algorithm
- Close case within 30 days of delivery

## Mother Inadequately Treated

- Initiate FR for mother if new case
- Initiate FR for infant
- Interview and partner services for early syphilis cases only (mother)
- Fax to providers
  - Evaluation and Management of Pregnant Women with Syphilis
  - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Contact the ICCR headquarters for CS ID Number
- Complete the CS Form
- Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

# Management of Isabella's Case

- Initiate FR for infant
- Fax to provider
  - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Contact the ICCR headquarters for CS ID Number
- Complete the CS Form
- Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of lab report
- Submit to Congenital Syphilis Coordinator within 7 days of case closure



# Definition: Presumptive Case

- inadequate treatment in the *mother*, regardless of infant results, OR
- reactive non-treponemal test in the *infant* plus one of the following:
  - evidence on physical exam,
  - evidence on long bone X-ray,
  - reactive CSF-VDRL, OR
  - elevated CSF cell count or protein (without other cause)

Age of infant/neonates	Elevated CSF White Blood Cell Count	Elevated CSF Protein Count
≤30 days old	>15 WBC/mm <sup>3</sup>	>120 mg/dL
>30 days old	>5 WBC/mm <sup>3</sup>	>40 mg/dL

# SUMMARY



# Protocol Summary

- Confirm treatment for **all cases in women** of child-bearing age and **infants**
- Initiate FR for the following:
  - All **female cases** of child-bearing age
  - All **females with an infant** with a reactive STS
  - All **infants** with a reactive STS
- Syphilis interview records and partner services are only required for **early cases**
- Complete the revised CS form for the following:
  - Infants or stillborn fetuses of mothers who are **inadequately treated**
  - Infants with reactive STS and **evidence of congenital syphilis**
- Providers should be faxed information sheets according to circumstances.
- Cases should be closed within 30 days of treatment verification or delivery, and sent to the CS Coordinator within 7 days.





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CalREDIE: Initiating, Monitoring and  
Entering Data for Congenital Syphilis

*May 20, 2013 – 9-10AM*

# Thank You!

## *California Department of Public Health*

- Michael Samuel
- Denise Gilson
- Romni Neiman
- Edwin Lopez
- George Camarillo
- Heidi Bauer

## *County of San Diego*

- Heidi Aiem
- Debra Lopez-Devereaux

## Contact Information

### **PRESENTER INFORMATION:**

Jessica Frasure-Williams  
*Syphilis Elimination Coordinator*  
[Jessica.Frasure@cdph.ca.gov](mailto:Jessica.Frasure@cdph.ca.gov)

### **SUBMIT ALL FORMS TO:**

Congenital Syphilis Coordinator  
[cpacs@cdph.ca.gov](mailto:cpacs@cdph.ca.gov) or  
fax to 916.440.5949