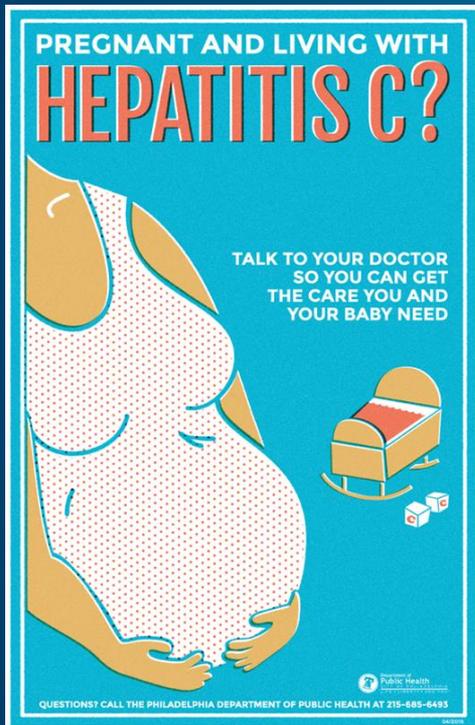
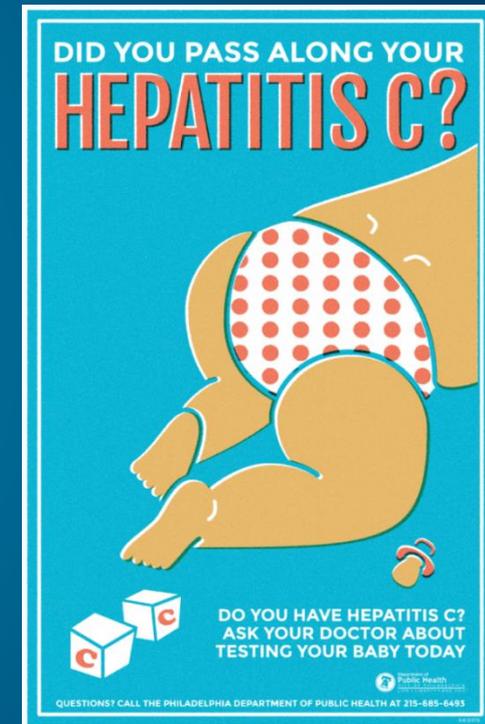


Philadelphia Dept. of Public Health's Perinatal Hepatitis C Program

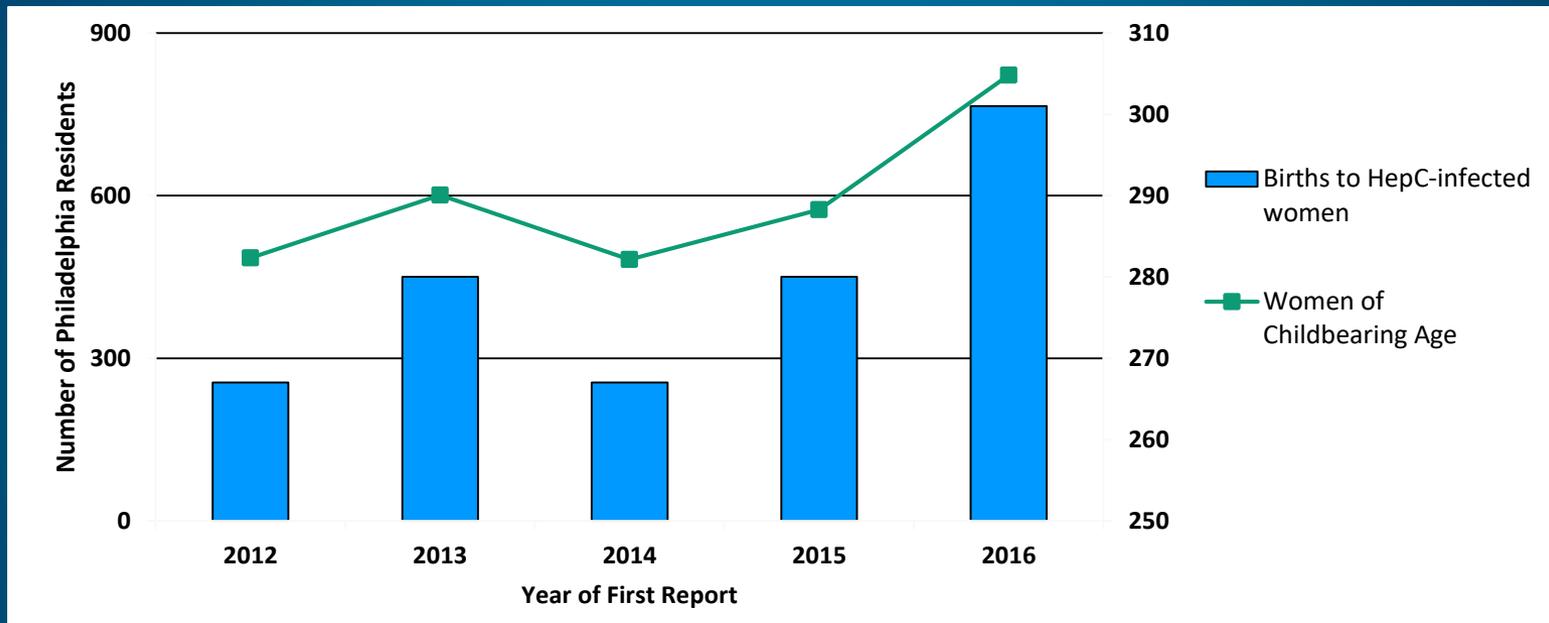


Danica E. Kuncio, MPH
Viral Hepatitis Program Manager
Philadelphia Department of Public Health



*CSTE HCV Subcommittee Call
April 5th, 2018*

HepC-positive Pregnant Women in Philly



- >2% of births in Philly are to HepC-positive women → increasing
- >10,000 women of child-bearing age living in Philadelphia and HepC-positive

Perinatal Hepatitis C Program

PDPH Launched PHCP in 2016

Program goals:

1. Identify HCV-positive pregnant women
2. Work with mother and pediatrician to ensure child is tested and linked to care if necessary
3. Work with mother and provider to ensure mother is linked to care for her own infection
4. Provide support and resources to prenatal and pediatric providers
5. Understand the population of HCV-positive women, their clinical experiences, and risks associated with transmission

Mother-Infant Pair Identification Methods and Limitations

- Birth Certificate- Registry match
 - Catches post-partum
- Birth Certificate indication of HCV
 - Very unreliable (sensitivity: TBD specificity: TBD)
- Electronic Reporting of Pregnancy status
 - Only one or two labs do this
- Provider Reporting
 - unreliable

A Reportable Condition in Philadelphia



CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC HEALTH

PASSED:

BOARD OF HEALTH: May 11, 2017
LAW DEPARTMENT: May 24, 2017
RECORDS DEPARTMENT:

AMENDMENTS TO REGULATIONS GOVERNING THE CONTROL OF COMMUNICABLE AND NONCOMMUNICABLE DISEASES AND CONDITIONS

WHEREAS, Section 6-201 of the Philadelphia Health Code authorizes the Board of

Health to esta

- (c) Hepatitis C, including all positive serologic (antibody) tests, regardless of whether used as a screening, rapid, or point-of-care test, and all virologic tests, such as antigen, RNA, branched DNA (bDNA), genotype, and viral loads, including those with undetectable results.
 - (i) **Pregnancy in a person chronically or acutely infected with hepatitis C virus shall be reported to the Department in a manner and timeframe identified by the Department.**

Inform Provider and Guide Child's Testing



CITY OF PHILADELPHIA

DEPARTMENT OF PUBLIC HEALTH
500 South Broad Street
Philadelphia, PA 19146

THOMAS A. FARLEY, MD, MPH
Health Commissioner

CAROLINE JOHNSON, MD
Deputy Health Commissioner

STEVEN ALLES, MD, MS
Director, Division of Disease Control

April 4, 2018

Provider Name

Dear Healthcare Provider:

The Philadelphia Department of Public Health Division of Disease Control (DDC) believes the following patient has been exposed to Hepatitis C virus:

NAME: Child.FullName **DATE OF BIRTH:** Child.BirthDate

As a part of an initiative to enhance testing and care for pediatric Hepatitis C infection in Philadelphia, we encourage you to order the following laboratory tests:

1. **Hepatitis C RNA (CPT code: 87522)** - at or after 2 months of age
 2. **Hepatitis C RNA** - at or after 12 months of age
- (two RNA tests \geq 2 months apart must be performed to confirm the presence or lack of infection)*

OR

1. **Anti-Hepatitis C antibody**
 2. **Hepatitis C RNA** - if anti-HCV antibody positive
- (an RNA test is necessary to confirm the presence or lack of HCV infection)*

Automatic reflex testing for HCV RNA can be ordered to ensure that an RNA test is performed for any positive antibody test, from the same blood sample (CPT code: 86803)

- **Labcorp:** Test# 144028 • **Quest:** Test# 91438

If you have already tested this infant for Hepatitis C, please FAX the testing information and results to Alison Roberts at 215-685-6799. If this infant has not received testing, please note that Hepatitis C testing is recommended for all children exposed to Hepatitis C.

Any child who tests positive for Hepatitis C should be placed in the care of a specialist who can provide follow-up care and treatment. If you have any questions or concerns please contact the Perinatal Hepatitis C Program at 215-685-6849.

Materials for Patients and Providers

PERINATAL HEPATITIS C

A Guide for Prenatal Care and Pediatric Providers

Department of Public Health
CITY OF PHILADELPHIA

AT-RISK WOMEN*
Test for Hepatitis C Antibody (Hep C Ab)

Woman has been exposed to Hep C.

Test for Hep C RNA confirm infection

Hep C Ab +

Hep C Ab -

Hep C RNA (-)

Hep C RNA (+)

*Risk factors

HEP C-POSITIVE WOMEN
HEP C INFECTION

TESTING RECOMMENDATIONS

FOR HEP C RNA and test again after 12 months of age, or at least 2 months after Hep C RNA test.

FOR HEP C RNA

Test once for Hep C RNA

FOR HEP C Ab. If Hep C Ab (+) test to confirm.

WWW.PHILLYHEPATITIS.ORG

PERINATAL HEPATITIS C

For Prenatal Care and Pediatric Providers

Philadelphia Department of Public Health's Perinatal Hepatitis C Program (PHCP) was established in 2016. The program follows all Hepatitis C (Hep C) positive pregnant women through delivery until adequate follow-up testing is performed on the woman and infant. This is the only program of its type in the nation!

There is no pre- or post- exposure prophylaxis for Hep C to prevent vertical transmission.

VIEW
100% of infants born to Hep C positive women become infected.

KEY FACTS
15% of at-risk infants born 2011-2015 were tested for Hep C by 24 months of age.

RISK WOMEN SHOULD BE TESTED:
Pregnant women with known risk factors for Hep C should be screened for Hepatitis C Antibody (Hep C Ab) and Hep C RNA. Testing should be repeated before delivery if she has continued risk exposure. Risk factors include history of injection or illicit drug use, risky sexual behaviors, and tattoos from unlicensed parlors.

PRENATAL CARE PROVIDERS

If woman is Hep C Ab (+)

- Woman has been exposed to Hep C
- Test for Hep C RNA to confirm infection
- Report Hep C Ab (+) result & pregnancy to PHCP

If woman is Hep C RNA (+)

- Woman is currently infected with Hep C and there is risk of vertical transmission to child
- Refer her immediately to a Hep C specialist for access to treatment and cure
- Inform the birthing hospital and pediatrician.
- Counsel the woman on behaviors to prevent Hep C transmission to others

If woman is Hep C RNA (-)

- Woman is not currently infected with Hep C
- Counsel her on behaviors to prevent reinfection
- Repeat RNA testing if she has continued risk exposure during pregnancy.

QUICK HEP C TESTING GUIDE

	Previously Exposed to Hep C	No Exposure to Hep C
Hep C Positive	Hep C Ab (+) & Hep C RNA (+)	Hep C Ab (-) & Hep C RNA (-)

FOR MORE INFORMATION: CALL 215-685-6849 OR VISIT: WWW.PHILLYHEPATITIS.ORG

PREGNANT AND LIVING WITH HEPATITIS C?

TALK TO YOUR DOCTOR SO YOU CAN GET THE CARE YOU AND YOUR BABY NEED

Common questions for mothers with Hep C:

Is it safe to breastfeed my baby?
Yes! Hep C is not transferred through breast milk.

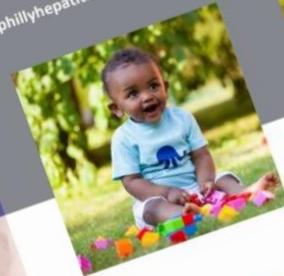
What kind of delivery should I have?
You can have a vaginal delivery or a c-section. C-sections or other types of delivery have not been found to prevent Hep C transmission.

If I hug and kiss my baby, will my baby get Hep C?
No, Hep C is NOT transmitted through saliva, coughing or sneezing. Hep C is spread through blood and unprotected sex. You can hug and kiss your baby without fear of spreading Hep C.

Other Resources

Philadelphia Department of Public Health
Ginny Robison
Perinatal Hepatitis C Coordinator
Shi.Robison@phila.gov
215-685-6849

Viral Hepatitis Program
215-685-6493
www.phillyhepatitis.org



Hepatitis C & Pregnancy

A GUIDE FOR MOTHERS WITH HEP C



Philadelphia Department of Health
Perinatal Hepatitis C Prevention Program
If you are pregnant and have tested positive for Hep C, you can get help from Philadelphia's Hepatitis C Prevention Program.

Some Key Additions

- Educating providers in-house
- Working with Social Services
- Providing support to mothers as well
- Validating activities and analysis

Thank You

Danica Kuncio, MPH

Danica.Kuncio@phila.gov

Perinatal Hepatitis C Infection in California, 2007-2014

April 5, 2018

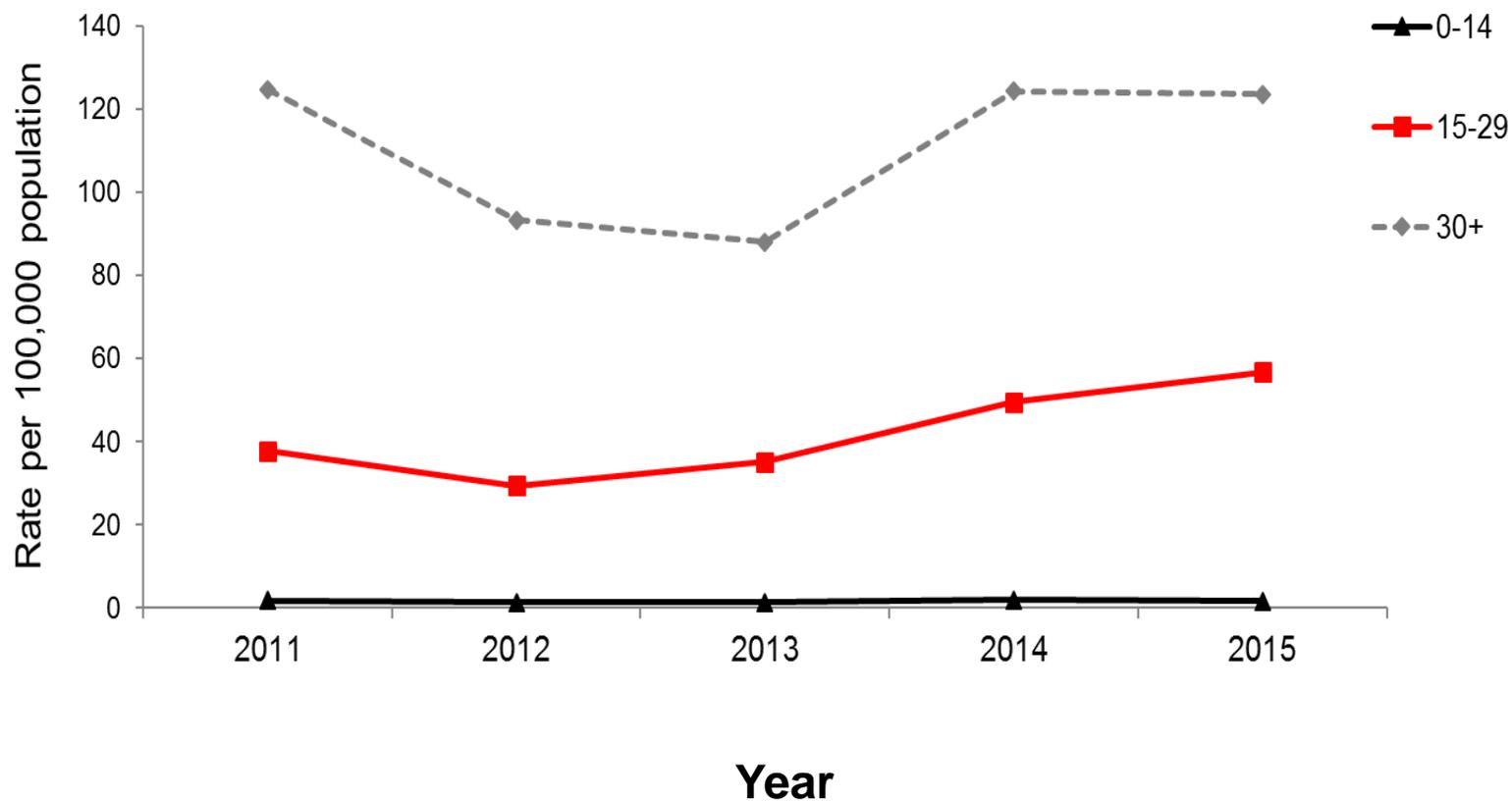
CSTE Subcommittee Call

Lauren Stockman, MPH, Epidemiologist

Office of Viral Hepatitis Prevention

California Department of Public Health, STD Control Branch

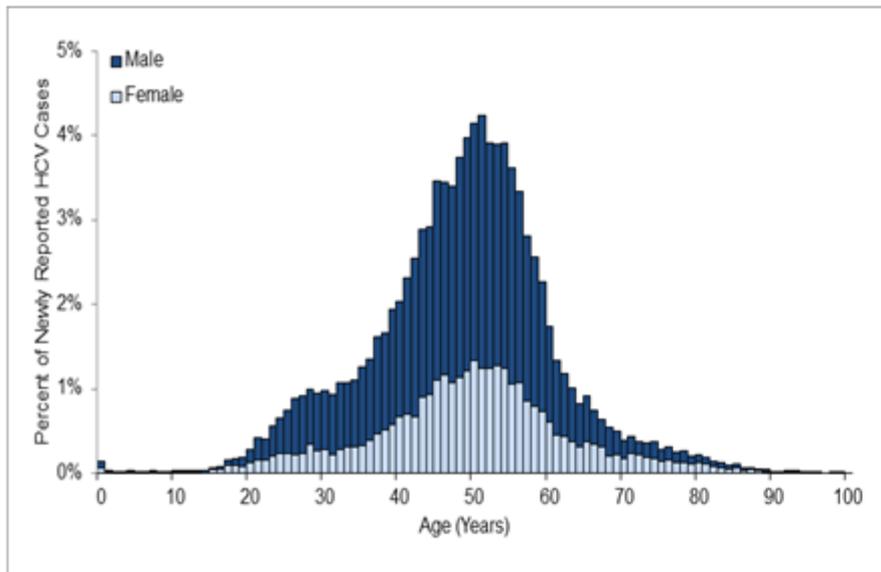
Increasing Rates of Newly Reported Chronic Hepatitis C Cases in Persons Ages 15-29 California, 2011-2015



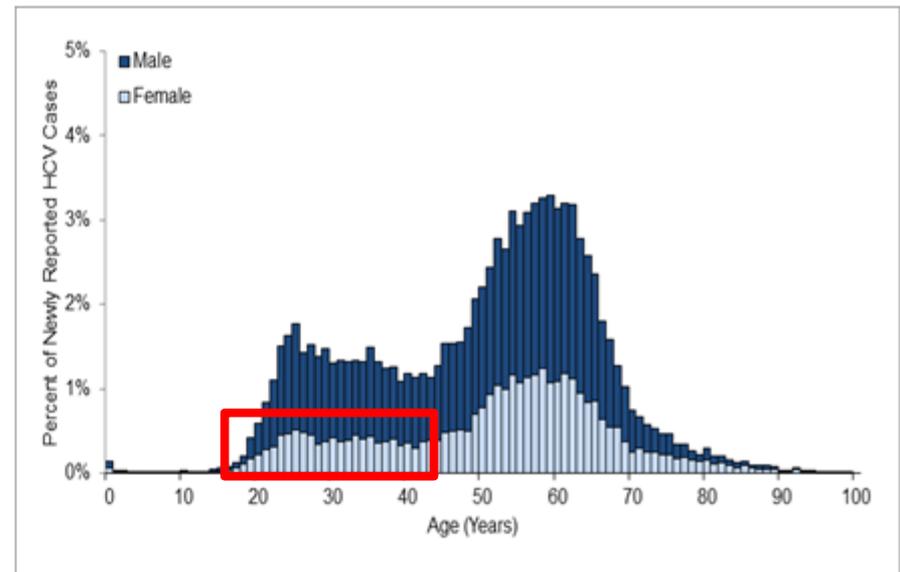
Young Women: Increasing Percentage of HCV Cases in California

Chronic Hepatitis C – Age Distribution of Newly Reported Cases, California, 2007 and 2015

2007*



2015†



*N = 41,037; excludes 547 cases with missing age or sex information.

†N = 33,454; excludes 294 cases with missing age or sex information.

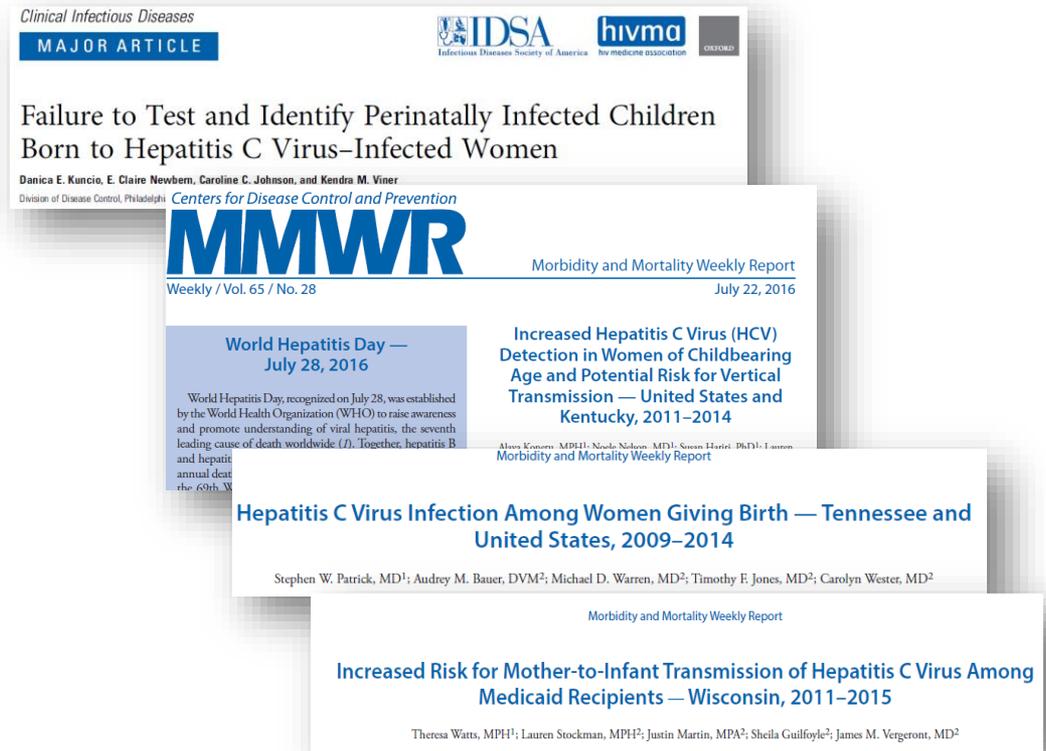
Mother-to-Child (MTC) HCV Transmission

About **6%** of infants born to women with HCV infection develop chronic infection.

- No recommendation for routine prenatal screening
- No perinatal intervention to reduce MTC HCV transmission
- No HCV treatment approved during pregnancy
- MTC is the most common route of HCV infection in children
- HCV infection presents similar to adult infection
- HCV treatment for children age ≥ 12 years

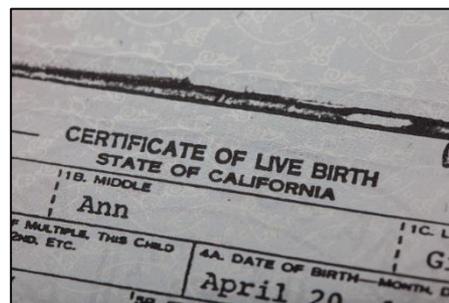
Recent Reports

- Births to women with HCV have increased.
- A significant number of infants born to women with HCV have not been identified.



Analysis for California

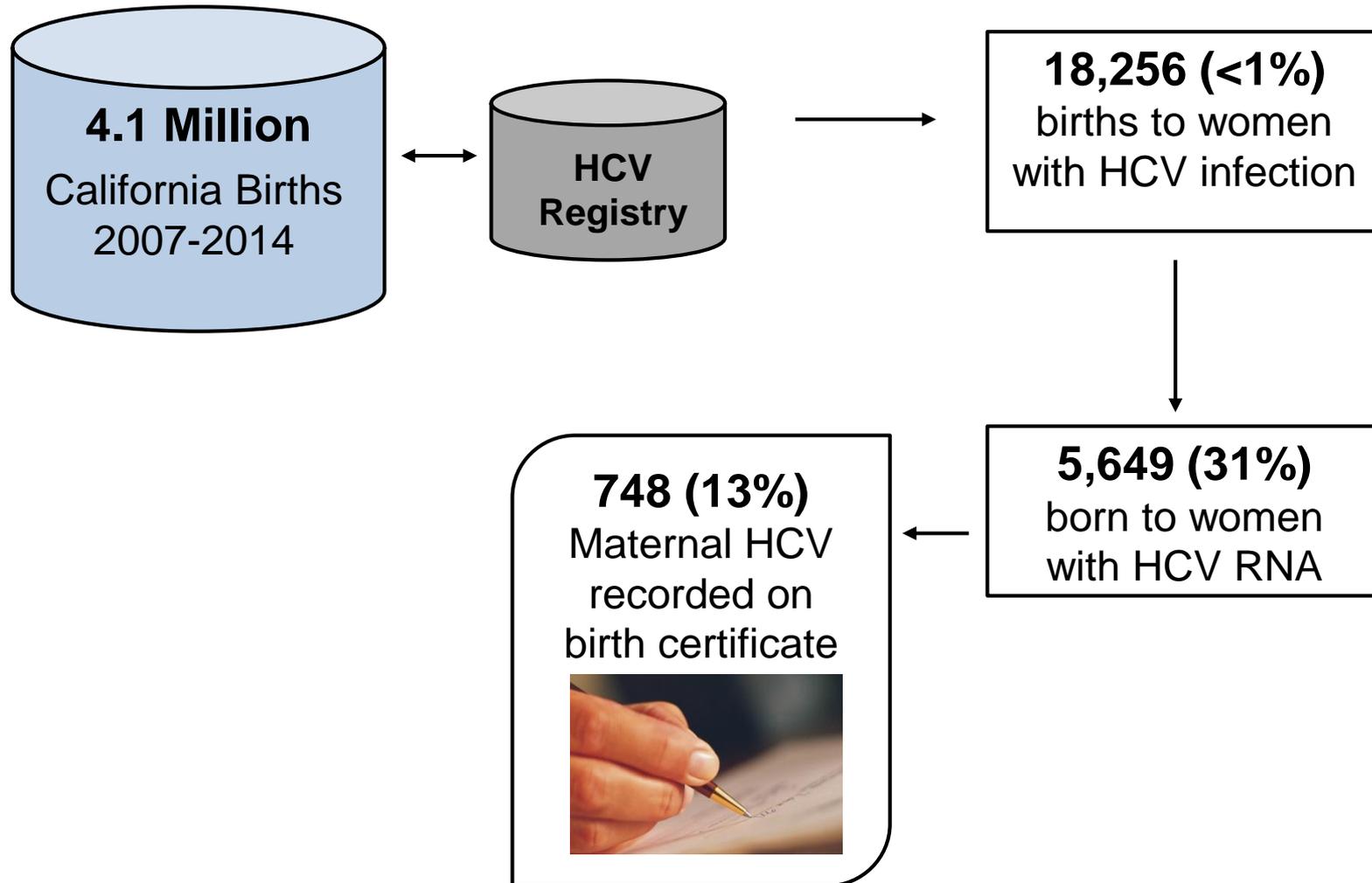
- Determine the number of California children:
 - At risk for perinatal HCV
 - Reported to California Department of Public Health (CDPH) with HCV
- Assess the accuracy of maternal HCV reported on infant birth certificates.



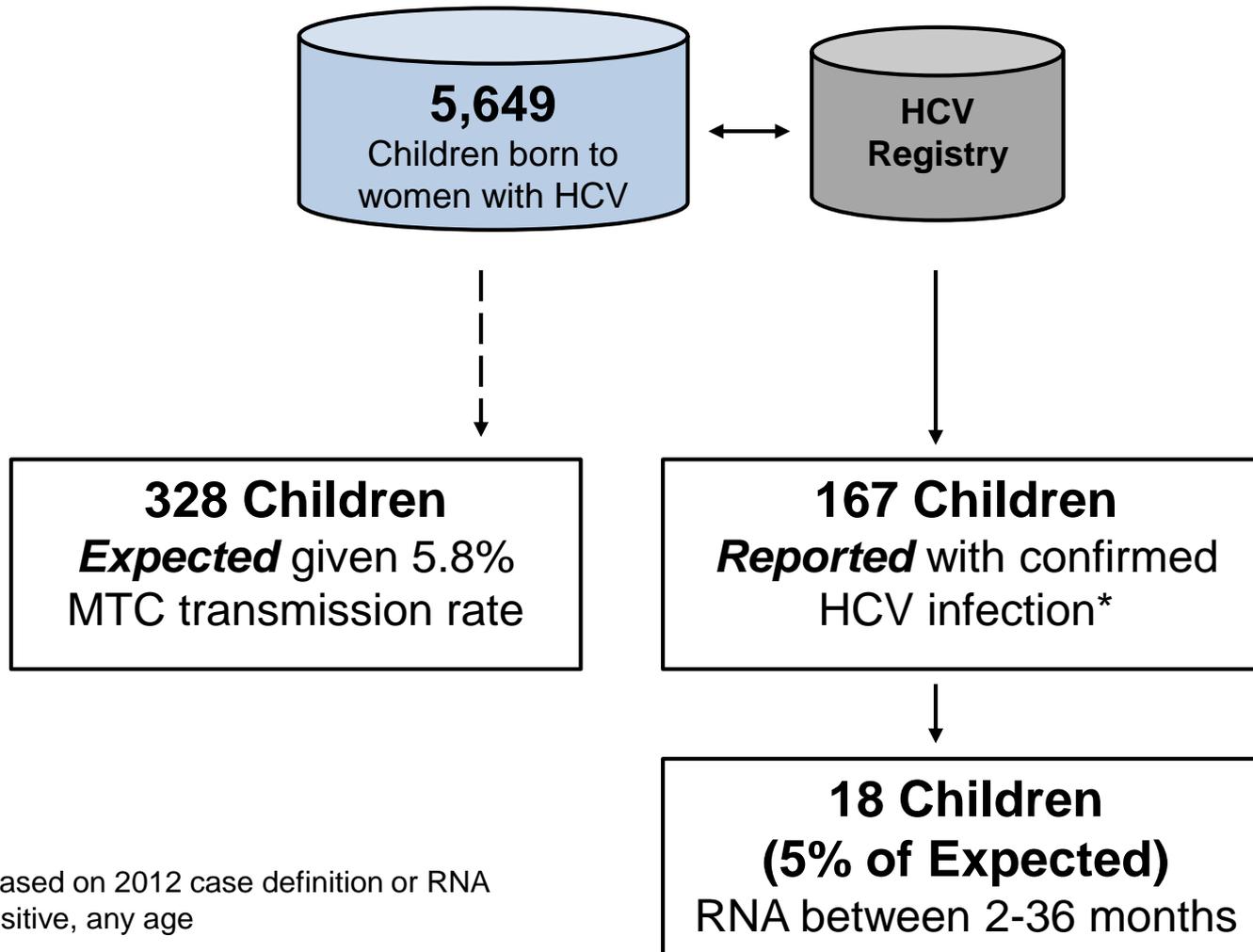
Methods

- The CA HCV registry was matched to CA birth records to identify mothers who had a live birth 2007-2014 and HCV reported in the registry.
- For all births to women who matched to the HCV registry, we checked birth certificate data for report of maternal HCV infection.
- Records of children born to women with HCV RNA were matched to the HCV registry to see if the child was reported as a chronic HCV case.

Results of Maternal Match



Results of Child Match



*Based on 2012 case definition or RNA positive, any age

Conclusions

- During 2007-2014 an estimated 5,649 infants in CA were at risk of perinatal HCV infection.
- Maternal HCV infection was under-reported on CA birth certificate data.
- Only 18 of 328 (5%) expected were reported with HCV at 2-36 months of age.

Perinatal HCV Surveillance in California

Office of Viral Hepatitis Prevention issued a letter to Communicable Disease Controllers



State of California—Health and Human Services Agency
California Department of Public Health



KAREN L. SMITH, MD, MPH
Director and State Public Health Officer

EDMUND G. BROWN JR.
Governor

DATE: October 17, 2017

TO: COMMUNICABLE DISEASE CONTROLLERS AND OTHER INTERESTED PARTIES

SUBJECT: NEW COUNCIL OF STATE AND TERRITORIAL EPIDEMIOLOGISTS (CSTE) CASE DEFINITION: PERINATAL HEPATITIS C

I am writing to inform you of a new nationally notifiable disease: “Perinatal hepatitis C.” This letter describes the California Department of Public Health (CDPH)’s plans for monitoring this disease and offers preliminary guidelines for local health departments (LHDs) on perinatal hepatitis C surveillance.

Recent increases in hepatitis C rates among... associated instances of mother to...

Perinatal HCV Surveillance in California

Perinatal HCV case follow-up by local health departments (LHDs) is **optional**. Ideas for LHDs include:

- Ask CDPH for **line lists** of infants with positive HCV antibody but no known RNA test result.
- Contact clinicians who report HCV to **encourage confirmatory testing** at 2-36 months.
- Share with clinicians **recommendations for clinical management** of HCV in children.

Perinatal HCV Surveillance in California

- Local health departments are continuing to report perinatal HCV as chronic HCV in the CA reportable disease system, CalREDIE.
- CDPH will use SAS programs to identify reports that meet the Perinatal HCV case definition with SAS.
- CDPH will work with CalREDIE to report Perinatal HCV to CDC by end of 2018.

Thank you!

Contact Information

Lauren Stockman, MPH

Epidemiologist

Office of Viral Hepatitis Prevention

STD Control Branch

California Department of Public Health

Email: *lauren.stockman@cdph.ca.gov*



Massachusetts Department of Public Health
Bureau of Infectious Disease and Laboratory Sciences

Perinatal HCV Response in Massachusetts

Shauna Onofrey, MPH

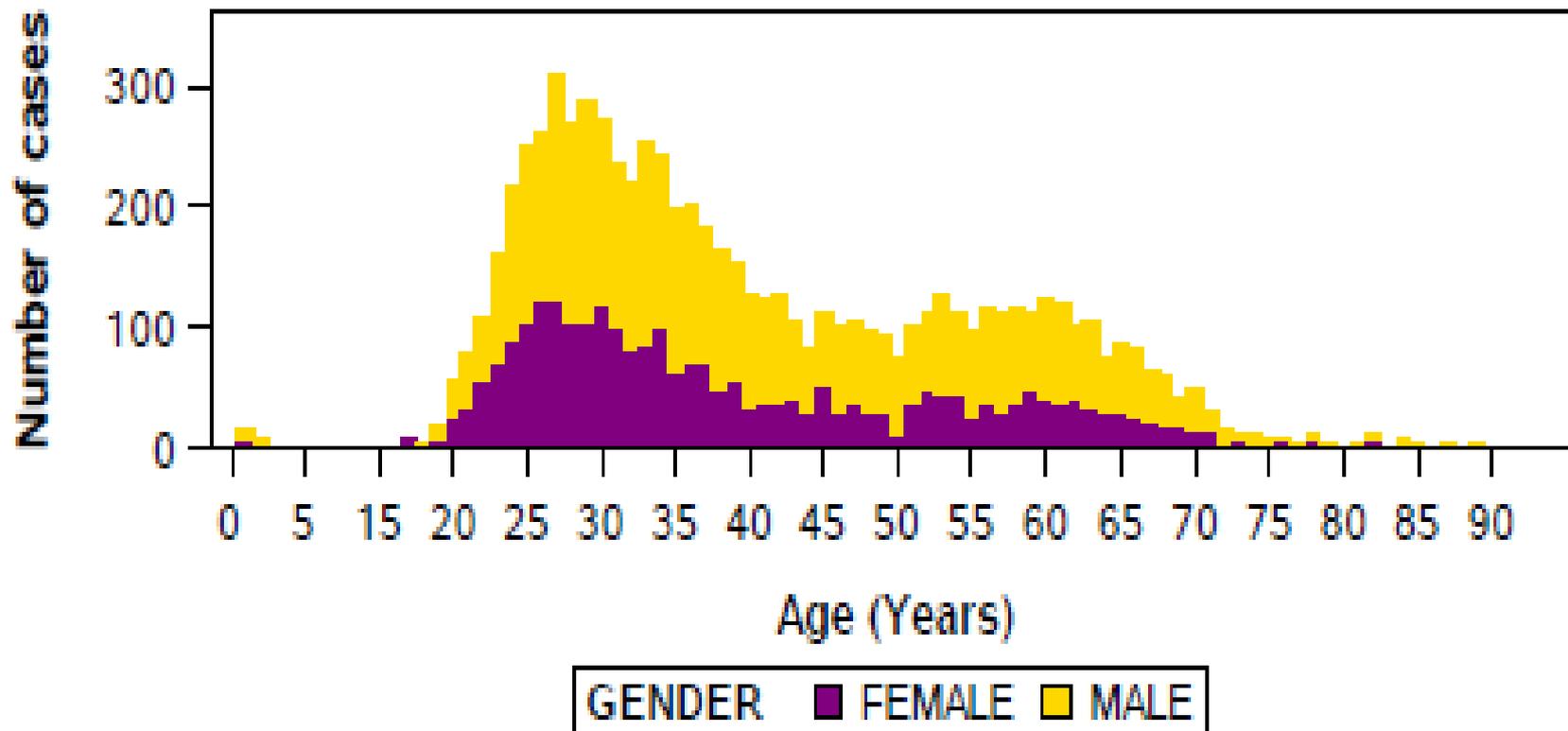
Epidemiologist

April 5, 2018

Hepatitis C in Massachusetts

- See 8,000-10,000 newly identified cases annually
- Have been getting negative RNA results since 2013
 - Revoking cases with EIA+, RNA- since 2016
- Data stored in MAVEN
- Epidemic of HCV in youth/young adults identified in 2007
 - Male/Female for youth had been 50%, now closer to 45% female

Number of Confirmed and Probable HCV Cases Reported in MA by Age and Gender - 2016



N=7444

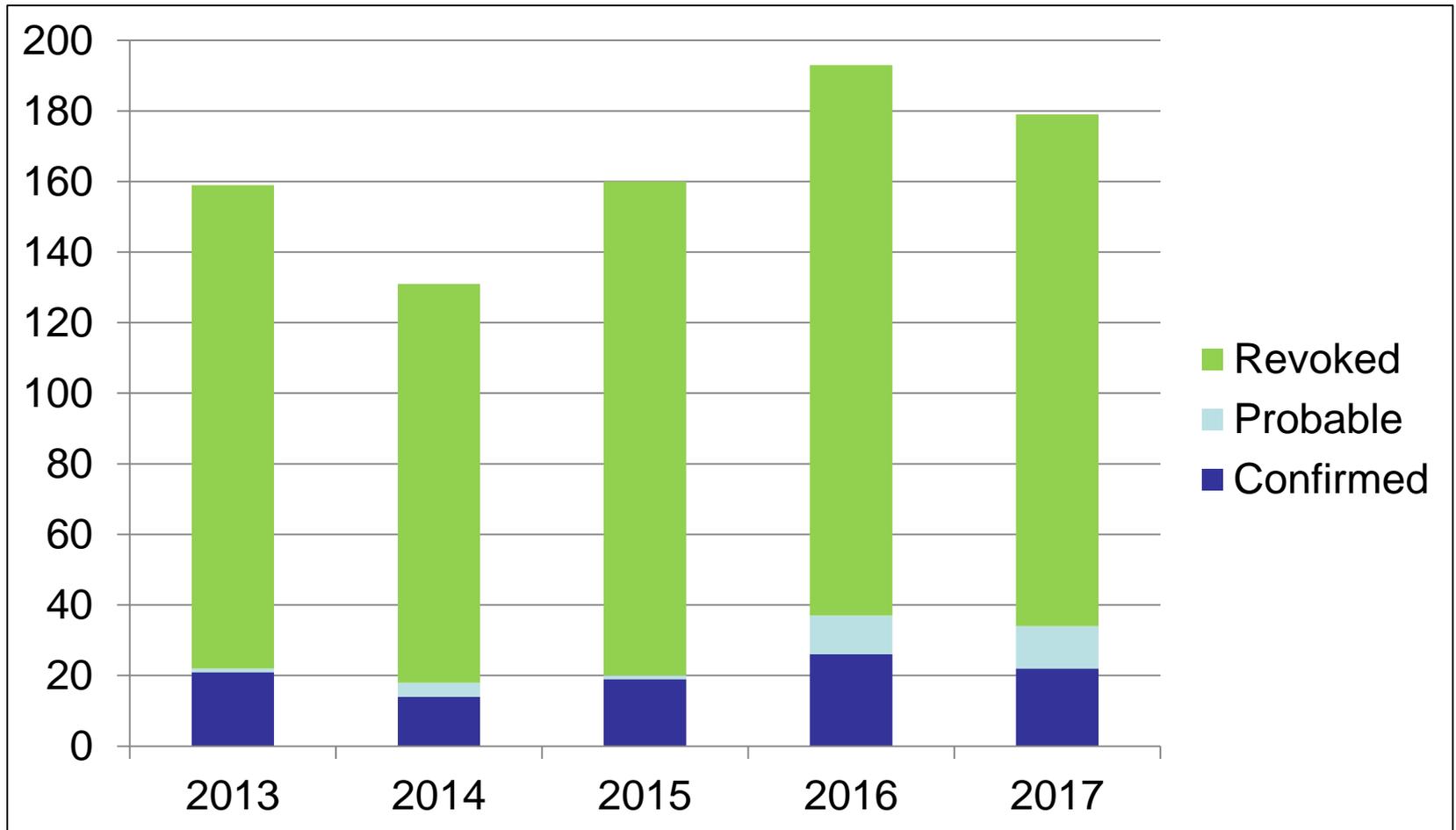
248 cases with missing age and/or gender were excluded from analysis

Data are current as of Nov 13, 2017 and are subject to change

Activities Prior to Case Definition

- 2012-2015 employed interns over 3 summers
 - Explored testing patterns, reasons for testing, and availability of negative RNA results
 - Explored use of Immunization Registry (MIIS) to identify mothers
- Attempted to match with birth registry, but were met with resistance.

HCV cases under age 5 years by year of lab and classification (N: 822)



Reported HCV cases under 5 years of age 2013-2017

- 822 Cases reported. 102 confirmed
- 761 (92%) first reported under the age of 18 months
- Almost even distribution of gender
- Only 3 revoked cases went on to have additional positives
 - We have not looked to see if this is due to a lack of testing

Reported HCV cases under 5 years of age 2013-2017

- Race and Ethnicity are largely unknown
- County of residence is not distributed as expected. People living closer to Boston may have more access to testing for infants.
 - Confirmed case distribution closer to what we would expect.

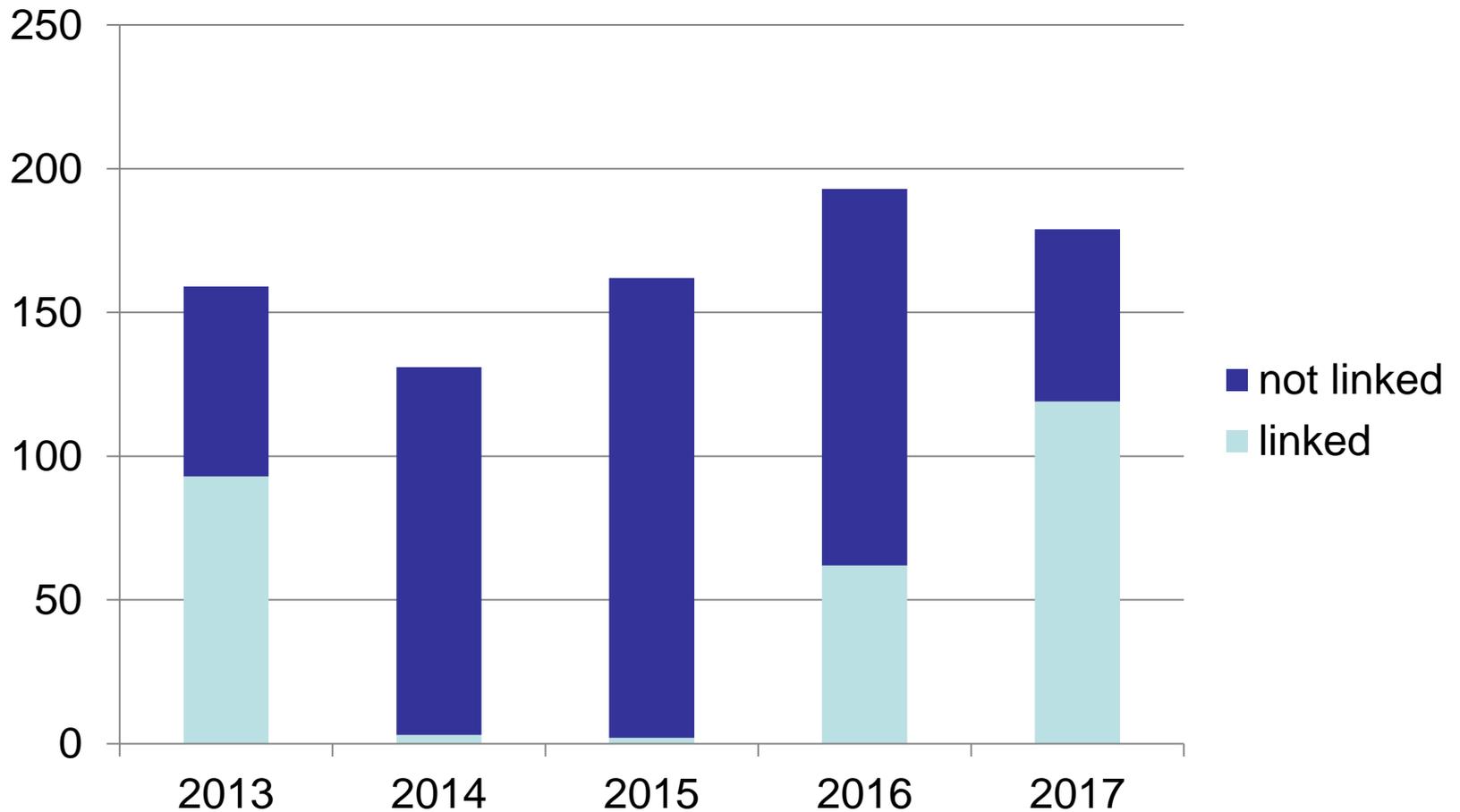
Recent Changes

- Created a workflow to identify new cases reported under the age of 5.
- Established a 'perinatal' classification in MAVEN to identify cases.
 - These cases will be sent to CDC with completion of the MMG, anticipated this summer
- Established a protocol for case review that includes identifying the mother through MIIS.

Matching Mothers

- We have matched 279 infants to mothers know to have HCV using the MIIS
 - Match even if revoked
 - 4 mothers matched are revoked, 23 probable.
- 2017: Mothers IDed by infant status
 - 15/22 (68%) confirmed
 - 1/12 (8%) Probable
 - 103/145 (71%) Revoked

Matching Mothers



Unanswered Questions

- How should our response to these cases differ from our response to acute HCV
 - Should we be doing follow up even if the case is revoked to identify the mother?
 - Should we be following up with providers about ab testing prior to 18 months?
- What proportion of infants possibly exposed are being tested/reported?