



CHAIR'S CHALLENGE

UNITE TO END THE EPIDEMICS 2017-2018

The Philadelphia Perinatal Hepatitis C Program: Using Data to Drive Innovation

TARGET POPULATION: Pregnant women living with hepatitis C (HCV); prenatal care providers, OB/GYNs, and pediatricians

LOCATION: Philadelphia, Pennsylvania

PROGRAM DESIGN: Data matching for patient identification and case management; patient and provider education

ESTIMATED COST: Programmatic costs are solely derived from PDPH staff time

FUNDING SOURCE: Centers for Disease Control and Prevention's Viral Hepatitis Surveillance Grant

SUMMARY

The Philadelphia Department of Public Health (PDPH) launched a Perinatal Hepatitis C Program in January 2016 in response to the increasing incidence of HCV infection among pregnant women, driven by the opioid epidemic. The program successfully highlights the risks of HCV exposure while also identifying the need for education amongst pediatric providers regarding HCV testing methods.

BACKGROUND

The incidence of HCV infection is increasing among young people, including women of childbearing age, in large part due to the rising opioid epidemic. Infection of pregnant women poses a concern given the risk of perinatal transmission from mother to infant, of whom 5.8% will become chronically infected. No interventions are currently available to prevent vertical transmission of HCV; however, testing of infants born to women living with HCV and expedited post-delivery treatment of infected mothers are important steps towards ensuring the best care for these populations. Meanwhile, new and effective direct-acting

antivirals (DAAs) have not yet been approved for children.

CORE ACTIVITIES

PDPH Study:

National attention for perinatal HCV has historically been very limited. In 2014 PDPH utilized data from birth records, the PDPH HCV registry, the PDPH immunization registry, negative HCV testing data, and hospital medical records to measure: the number of HCV-positive women giving birth; the number and proportion of infants being tested for HCV; the number of HCV-positive infants; the number of untested infants; and the estimated

number of unidentified HCV-positive infants in Philadelphia during 2011 - 2013. PDPH established that one-percent of infants in Philadelphia were born to HCV-positive women, but only 15% of these infants were adequately tested for HCV. The majority of the expected five% of perinatally exposed infants who become HCV-positive were unidentified by pediatric providers.

Perinatal Hepatitis C Program (PHCP)

Launch:

In January 2016, PDPH took action to improve identification of HCV positive pregnant women and their children through formation of a formal PHCP. This project is the first attempt by a United States health department to actively identify and promote testing for children born to HCV-positive women and has served as an example for other jurisdictions that are seeking to respond to the rising rates of perinatal HCV transmission. The PHCP identifies HCV positive pregnant women and contacts them to assess their knowledge of perinatal transmission, encourage them to seek care for HCV, and request permission to coordinate post-natal follow up between their prenatal providers and pediatricians. PDPH staff also work to ensure that prenatal and pediatric providers are aware of pregnant women's HCV status and educated about perinatal HCV risk and national screening guidelines. To ensure all infants born to HCV-positive women are appropriately tested, PDPH staff provide ongoing follow-up with pediatricians and infected mothers. Additional activities include educating prenatal providers about the urgency to screen all at-risk pregnant women for HCV, and encouraging communication between prenatal, obstetric, and pediatric clinical providers regarding HCV infections.

While some prenatal providers are providing universal screening, many women with known risk factors are untested during pregnancy. In addition, infants born to HCV positive women require testing to identify if transmission occurred, but many pediatric providers are unaware of these testing guidelines or of mothers' HCV statuses. To better inform prenatal, obstetric, and pediatric providers, PDPH has presented its findings to local providers,

sent a provider health alert about the program, proposed a regulation to the Board of Health that requires pregnancy in HCV positive women to be reported to PDPH, and created perinatal HCV-specific educational brochures for patient and provider distribution. The proposed Board of Health regulation has since been passed in July 2017.

DATA

The PHCP utilized more than six methods to capture HCV positive pregnancies and deliveries in the first year of the program. As of June 1, 2017, the PHCP identified 490 HCV positive pregnant women, 227 of whom were confirmed to have a current HCV infection. All women with current HCV infections were contacted, and their child's provider was notified of perinatal transmission risk and guided on testing methods. Testing for infants was collected, if available. Only one-percent of mothers refused participation in the program. Specific outcomes of the PHCP include:

- At least 20% of pediatric providers were unaware of the need to test exposed infants for HCV
- PHCP staff have conducted five multi-provider education sessions regarding perinatal HCV and the PHCP, as well as outreach to more than 50 pediatric and prenatal providers
- At least 20% of providers contacted changed the testing practices within their facility after working with the PHCP
- Preliminary data indicate that 40% of infants born have been tested appropriately for HCV, an increase of at least 25% from PDPH's 2014 study

EVALUATION

This program has not undergone a formal evaluation aside from preliminary counts of providers contacted by the PHCP for education and initial assessments of the proportion of infants followed by PHCP who have received HCV testing by June 1, 2017. The success of the program will be best measured once all children have past the maximum common age (i.e., 18 months) for testing.

OUTCOMES

The PHCP has highlighted that perinatal exposures and vertical transmission of HCV is continuing to occur in Philadelphia. Education for pediatric providers regarding HCV testing methods has proved necessary, specifically surrounding which tests are appropriate and at what age they can be performed.

FUNDING & COST

All programmatic costs are for staff time. A project coordinator is allocated to the PHCP for mother-infant pair case management and provider education activities. An epidemiologist provides program management, mother-infant pair identification, and data analysis activities in kind.

STRENGTHS

- This program is the first of its kind in the country and is guiding other health departments interested in setting up similar perinatal HCV prevention initiatives
- The PHCP model works with providers to create lasting clinical responsiveness for HCV testing in mothers and children
- The program increases the number of at-risk infants who are appropriately tested for HCV and identifies HCV-infected infants who otherwise would have missed detection

LIMITATIONS

- Women who are HCV-positive are often transient, and thus early interventions are key for the PHCP's success
- Many children are not in the care of birth mothers, complicating contact with providers and mother
- PDPH did not receive CDC funding for viral hepatitis surveillance past June 2017; additional funding will need to be obtained to continue this work

STAKEHOLDERS

This project relies on the collaboration of prenatal and pediatric providers as well as HCV-positive female residents of Philadelphia.

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