



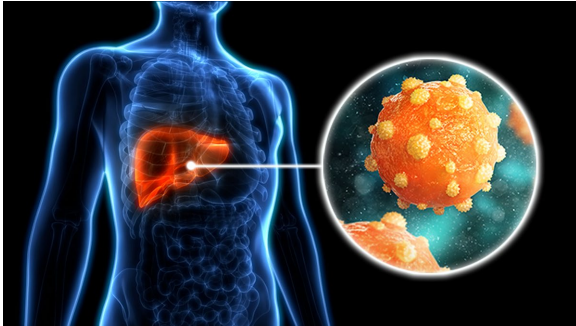
Modernized and Visualized: Transforming Birth Hospital Immunization Reporting in Connecticut

Sosensky P, Holbert N, Durante A, Mavani D
Session 5B / Closing Gaps in Birth and Maternal
Immunization Data
AIRA Annual Meeting | Pittsburgh, PA - 2026

Background

Hepatitis B Birth Dose

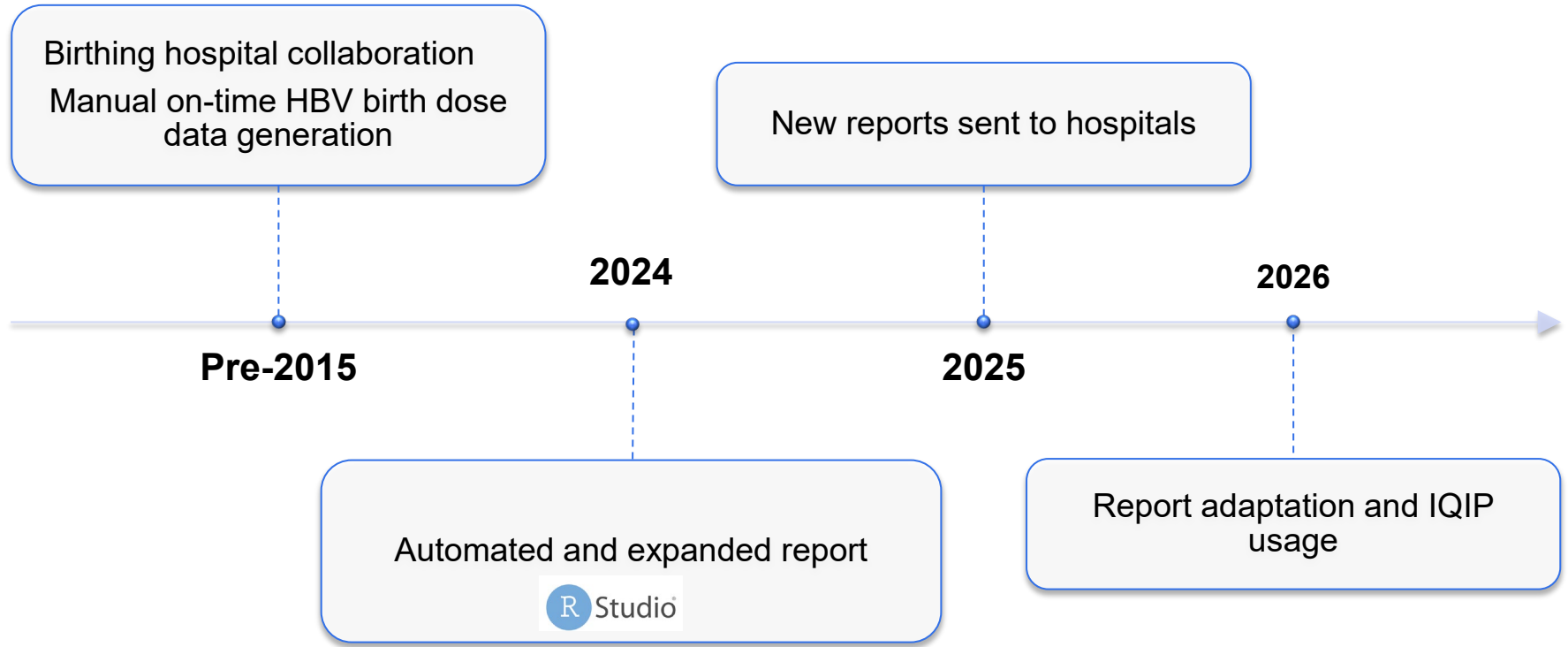
HBV infection



Chronic hepatitis B virus (HBV) infection can cause liver cirrhosis and cancer especially if infection is acquired early in life.

The HBV birth dose ensures that infants are protected from the start.

Timeline of Historic to Current Reporting



On-Time Birth Dose Calculation



Considered eligible for HBV birth dose if birth weight is ≥ 2000 grams

Historic Reporting Process

Data Gathering

IIS and vital records data collection

Analysis

Manual merging of IIS and vital records

Reporting

Sent a MS Word table embedded table in an email

Hello IAPs,

****Please do not forward the attachments - as they have *all* the birthing hospitals' Hep B birth dose rates.****

IAPs should pull out *their own IAP area hospital(s)* and use this email language below for each hospital you cover with Kaitlin.Roberts@ct.gov with 2023 birth cohort and 5 yr trend data.

Hello _____,

The Department of Public Health Immunization Program completed analysis of the hepatitis B birth dose

- The statewide rate was 86.9%.
- *__Insert Name of__* Hospital's rate was ___%.

Here is your 5-year hepatitis B birth dose trend.

(insert with your hospital's rates from the 2nd attachment in this chart)

HOSPITAL			
Birth Cohort Year	Hep B Given	Total Births	Hep B Rate %
2019			
2020			
2021			
2022			
2023			

Methods

Goals of Report Modernization

Presentation

Add compelling visualizations to motivate improvement in:

On-time HBV vaccination

Data quality

Visually appealing, brief and concise

Content

Expanded to include both HBV birth dose and RSV monoclonals
Data interpretation
Supporting documentation

Production

Automate report production to:
Increase efficiency
Become more sustainable

Modernization Steps

Data Source
Modification

Vital records and IIS connection

Expansion

Inclusion of RSV monoclonal

Redesign

Both text and visualizations

Automation

New, automated report process
SQL → R Markdown

Companion Guide

Corresponding measures and methods

Implementation

New Birth Hospital Report

2025 CT Birth Hospital Annual Immunization Report

Hospital A

This report was prepared by the CT DPH Immunization Program based on information reported to CT WIZ by 04/01/2025.

It shows the number of infants that were immunized for respiratory syncytial virus (RSV) at your facility during the 2024-2025 RSV season. It also shows the percentage of infants born at Hospital A in 2024 that received an on-time hepatitis B vaccine dose.

Respiratory Syncytial Virus Immunization

Children born during the RSV season (October - March) whose mother does not receive the RSV vaccine at least 14 days before delivery *can be at risk for severe RSV disease*. They can be protected if nirsevimab is administered within the first week of life, ideally during the birth hospitalization stay.

Between October 2024 and March 2025, Hospital A has immunized 541 infants born at your facility against RSV. It is not known how many infants were protected as a result of their mothers being immunized while pregnant because infant and maternal records are not linked in CT WIZ.

On-Time Hepatitis B Birth Dose Rates in 2024

To protect newborns from hepatitis B infection, the Centers for Disease Control and Prevention *recommends* that medically stable infants with a birth weight of at least 2,000 grams receive a first dose of hepatitis B vaccine *within 24 hours* of birth. In this report, a hepatitis B birth dose is considered on-time if it was administered by the end of the first full day of life (day 0 or 1).

Figure 1 compares birth and on-time immunization data for children born at Hospital A in 2024 to statewide CT data. Figure 2 shows the percentage of children born at Hospital A with a birth weight of ≥ 2000 grams that were immunized on-time from 2020 to 2024 with CT data for comparison. Figure 3 shows the day the hepatitis B vaccine was administered to infants at your facility.

The Immunization Action Coalition's *Hepatitis B Birth Dose Honor Roll* recognizes U.S. birthing institutions that have attained an on-time birth dose coverage rate of 90% or greater and have met specific additional criteria. We encourage all providers to strive for at least this 90% coverage rate and join the growing number of hospitals making a positive impact. You can learn more [here](#).

Figure 1: Births and On-Time Hepatitis B Vaccine Administration – Hospital A and Statewide CT Births, 2024

	Hospital A	Connecticut
Number of births in 2024	2469	33509
Number of births ≥ 2000 grams	2422	32618
Number that received hepatitis B vaccine on time	1918	27208
Percent that received hepatitis B vaccine on time	79.2%	83.4%

Figure 2: On-Time Hepatitis B Vaccine Administration Trend – Hospital A and Statewide CT Births (≥ 2000 grams), 2020-2024

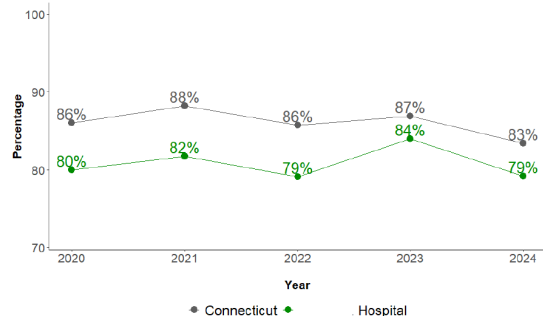
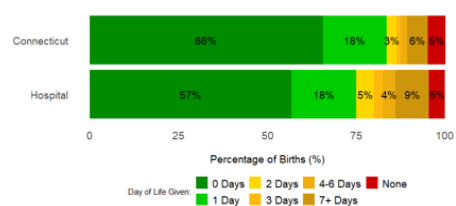


Figure 3: Day of Hepatitis B Vaccine Administration – A Hospital and Statewide CT Births (≥ 2000 grams), 2024



Concise one-page report with text, one table, and two figures.

On-Time HBV Birth Dose

Figure 1: On-Time Hepatitis B Vaccine Administration – Hospital A and Statewide CT Births (≥ 2000 grams), 2024

	Hospital A	CT
Number of births in 2024	5686	33509
Number of births ≥ 2000 grams	5487	32618
Number that received hepatitis B vaccine on time	4115	27208
Percent that received hepatitis B vaccine on time	75%	83.4%

Figure 2: On-Time Hepatitis B Vaccine Administration Trend - Hospital A and Statewide CT Births (≥ 2000 grams), 2020-2024

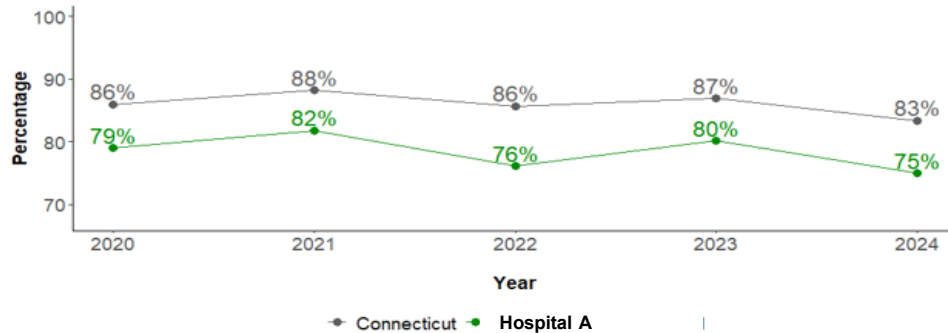
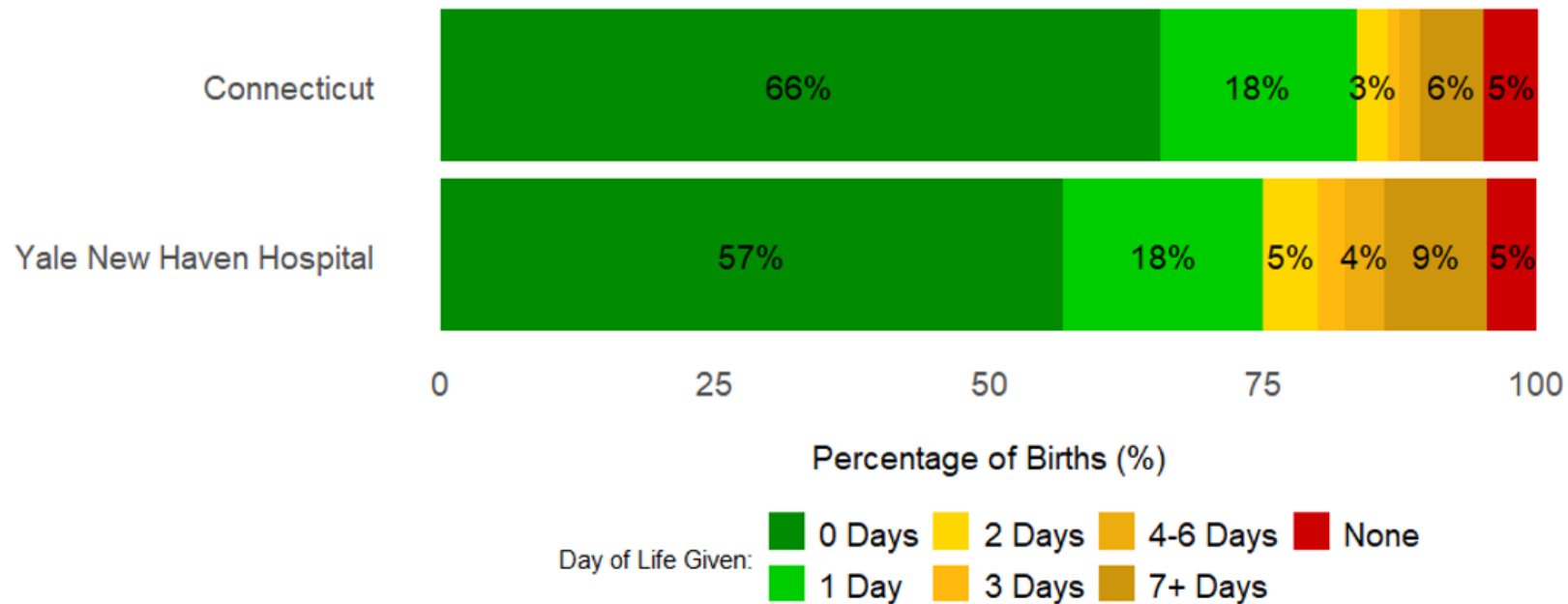


Figure 3: Day of Hepatitis B Vaccine Administration – A Hospital and Statewide CT Births (≥ 2000 grams), 2024



RSV Monoclonal Immunization Content

Respiratory Syncytial Virus Immunization

Children born during the RSV season (October - March) whose mother does not receive the RSV vaccine at least 14 days before delivery *can be at risk for severe RSV disease*. They can be protected if nirsevimab is administered within the first week of life, ideally during the birth hospitalization stay.

Between October 2024 and March 2025, Hospital A has **immunized 1417 infants born at your facility against RSV**. *It is not known how many infants were protected as a result of their mothers being immunized while pregnant because infant and maternal records are not linked in CT WiZ.*

Modernized Report Rollout

Develop companion guide

Train staff that meet annually with birth hospitals on how to interpret and use new report

Integrate new report into existing annual birth hospital visits

Embed the report into other quality improvement programs in hospitals

Survey field workers about use of the new report with birth hospitals

Outcomes

Modernization Goals and Outcomes

Presentation

- ✓ Visually-appealing
- ✓ Brief
- ✓ Concise

Content

- ✓ Flexible
- ✓ Reproducible

Production

- ✓ Sustainable
- ✓ Efficient

Hospital Survey Feedback

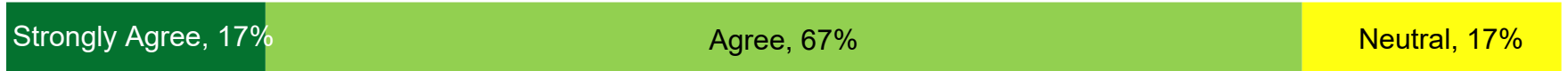
My hospital(s) liked the report.



My hospital(s) needed little assistance to understand their report data.



My hospital(s) appreciated the inclusion of RSV data.



6 of 10 IAP staff completed the survey (60% response rate)

Future Directions



Integration of report into IQIP for birthing hospitals
(Spring 2026)



Evaluation of report for IQIP Assessment
(Summer/Fall 2026)



Implementation of additional metrics and figures
(Spring 2027)

Questions and Discussion

Thank you for your time and attention.

Questions?

Peri Sosensky, MPH

Connecticut Department of Public Health

peri.sosensky@ct.gov

Acknowledgments:

Connecticut Immunization Program, Connecticut Immunization Action Plan staff, and partnering birthing hospitals