Mining the Texas Birth Registry for Perinatal Hepatitis B Case Information

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Peri Hep B Birth Match Overview

• The Goal
• The Process
• The Numbers
• Future Enhancements
• Your Feedback
The Goal:
Enroll All Texas Hepatitis B Positive Pregnancies in PHBPP
The Goal

**CDC Estimated and PHBPP Enrolled Cases**

- Each icon represents 100 HepB Pregnancies
- CDC Estimate for Texas = 1,194
- Average PHBPP enrollment = 650
PHBPP Match Process

1. VSU File with one year of Texas births
2. Select births with Hepatitis B infection during pregnancy
   - Match Fields: Mom’s First Name, Mom’s Last Name, Mom’s Date of Birth
3. Export 2 years of moms from PHBPP database
4. Update PHBPP database with new cases
   - Region/Local Follow-up
5. Excel Application: Fuzzy Look-up
   - Visually Inspect: Infant Name, Infant DOB, Mother’s Address, County of Birth
6. Birth records with Hep B infection not in the PHBPP database
   - Compare to previous matches
   - Deduplicate: Remove birth records previously identified as negative by PHBPP
7. Birth record files sent to regions
The Process

Using outside data source to find cases

Pre-Match: Data Collection

Step 1: Match process

Step 2: Field Prep
Texas Vital Statistics Process

Birth Registry
Infections Present and/or Treated During Pregnancy (check all that apply)

- Gonorrhea
- Syphilis
- Chlamydia
- None of the above
PHBPP Match Process

VSU File with one year of Texas births

Select births with Hepatitis B infection during pregnancy

Export 2 years of moms from PHBPP database

Match Fields:
- Mom’s First Name
- Mom’s Last Name
- Mom’s Date of Birth

Excel Application: Fuzzy Look-up

Visually Inspect:
- Infant Name
- Infant DOB
- Mother’s Address
- County of Birth

Birth records with Hep B infection not in the PHBPP database
PHBPP Process: Identifying Cases

Birth records with Hep B infection not in the PHBPP database → Compare to previous matches → Deduplicate: Remove birth records previously identified as negative by PHBPP → Birth record files sent to regions → Region/Local Follow-up → Update PHBPP database with new cases
PHBPP Match Process

VSU File with one year of Texas births

Select births with Hepatitis B infection during pregnancy

Export 2 years of moms from PHBPP database

Match Fields:
- Mom’s First Name
- Mom’s Last Name
- Mom’s Date of Birth

Update PHBPP database with new cases

Region/Local Follow-up

Birth record files sent to regions

Visually Inspect:
- Infant Name
- Infant DOB
- Mother’s Address
- County of Birth

Excel Application: Fuzzy Look-up

Birth records with Hep B infection not in the PHBPP database

Compare to previous matches

Deduplicate: Remove birth records previously identified as negative by PHBPP

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The Numbers

Does the VSU match get the Program closer to its goal?

• Records requiring follow up
• Amount of cases attributable to the VSU match
  o What amount makes the match a worthy effort?
• Process evaluation: identifying areas for improvement
2017 PHBPP Match Numbers

382,910 births

427 HepB Infections

639 moms 569 infants

186 matches

307 for follow-up
VSU Identified Infants

307 Birth Records

151 Newly Enrolled Moms
Process Evaluation

• Return on investment
• Feedback loop
  • 132 infants identified by 2017 birth certificates with no status update
    • We keep these on the list for follow-up if no status received
• Data collection process improvement
Future Directions

• Reverse match – using our database to validate birth data
  • Inform VSU about possible data quality issues
• Cross reference matches with NEDSS labs
• Enhancement to matching program: automation
Process Feedback

It’s your turn…

• Share your success stories!
• Any pain points with process?
Thank you!

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