MEET YOUR MATCH
The Importance of Vital Record Matching in the Realm of Timely Newborn Screening

Minnesota Newborn Screening Program

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Why Match?

• Provides reasonable denominator
• Allows for follow-up of missing specimens or refusal paperwork
• Updates critical information for more efficient follow-up
Matching is most effective when...

- ... it is timely!

- However...

- We must work within statutory confines on birth registration timelines
Vital Record Statutes

• MN statute requires birth record to be filed with the state registrar for each live birth within 5 days (*for births occurring in or en route to a facility*)

• Births outside a facility have ~1 year

• Registration system (*MRC*) is via a secure web-based application
Matching in Minnesota

• **Current**
  – “View” into Vital Record Database
  – Real-time availability as certificates are registered

• **New**
  – Utilize PHIN MS for real-time data transfer into LIMS
LIMS performs query to match birth certificate against NBS specimens

Infant’s DOB
Infant’s Birth Time
Mother’s First Name
Mother’s Last Name

Does Data Match?

Yes
Birth certificate number added to patient record (automatic)

No
Non-matched records are manually reviewed

Match Found?

Yes
Birth certificate number added to patient record (manual)

No
Hospital/Midwife contacted and follow-up process initiated
69,200 birth certificates filed

- 164 deceased
- 327 (0.5%) unmatched
- 139 (0.2%) refused

117 hospital births
212 out-of-hospital births
2014

- Notification of potential miss: Median = 13 days past DOB
- Specimen received: Median = 17 days past DOB
- 99.7% of infants with known screening/refusal status
June-Dec 2015 Initiatives

• Increased follow-up for refusal paperwork
  – Calls to Submitter and Notices to Primary Care
  – Increased notifications to Submitters

• Active engagement of midwifery groups
  – Specific communication to group on options and availability of fee-waived screening

• Altered protocol to reduce time to notification of potentially missed infants
69,065 birth certificates filed

- 170 deceased
- 234 (0.34%) unmatched
- 206 (0.3%) refused

- 91 hospital births
- 143 out-of-hospital births
**2015**

**Hospital births**

- 91 hospital births
- 58 transferred out of state (screening confirmed)
  - 4 eventually screened
  - 7 refused
- 12 “missed”
  - 7 refused
  - 1 unscreened
  - 19 repeats received; 2 unscreened

**Out-of-hospital births**

- 143 out-of-hospital births
  - 7 refused; 136 unknown status

- Notification of potential miss: Median = 8 days past DOB
- Specimen received: Median = 16 days past DOB
- 99.8% of infants with known screening/refusal status
Next Steps

• Continue work with remaining midwifery practices
  – 57% decrease in 2nd half of 2015 in missing specimens
  – Parental options appealing to this population

• Continue reduction in time of notification to hospitals with increased notifications

• Electronic demographics/lab orders may help improve timely matching/follow-up
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