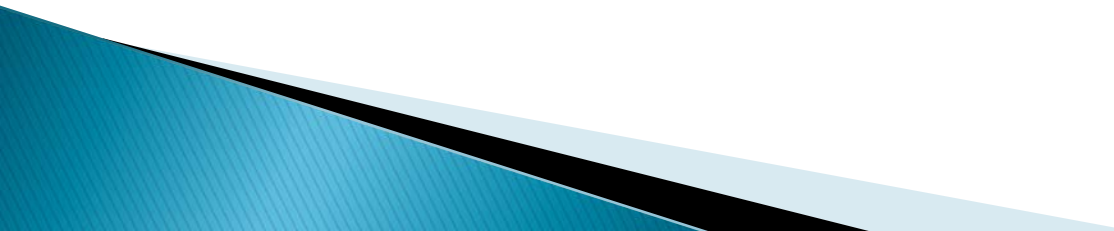


Administrative Data Projects in Progress

Amy Metcalfe



Overview

- ▶ Conception Cohort
 - ▶ International Comparisons of Late Preterm Birth
 - ▶ Systematic Review of Validated Case Definitions for Acute Myocardial Infarction
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Conception Cohort

▶ Project Objectives

- Examine whether a comprehensive first trimester screening program for fetal anomalies can accurately triage patients into high and low risk streams of prenatal care
- Examine the cost of prenatal screening programs when all subsequent follow-up visits are accounted for

Conception Cohort

▶ Methods

- Used linked clinical and administrative data to create a database that contains information on every health care contact that occurred
 - 3 months prior to pregnancy
 - Duration of pregnancy
 - 3 months post-partum (for mother and live born infants)

Conception Cohort

▶ Data Sources

- Congenital anomalies registry (ACASS)
- Delivery record (APHP)
- Emergency room (ACCS)
- IVF data
- Hospital admission/discharge data (DAD)
- Laboratory tests (CLS)
- Out-patient physician billing claims
- Medical genetics data
- Prenatal screening and diagnostic data
- Ultrasound data

Conception Cohort

▶ Preliminary Results

◦ Overview

- 6,038 pregnancies (6,114 fetuses)
- 5% of pregnancies were identified from a single data source
- Fetal demise rate is approximately 18%

◦ Agreement


- Generally, excellent agreement between data sources on key pregnancy outcomes (preterm birth, number of fetuses, low birth weight, stillbirth)
- Notable exception: presence/absence of congenital anomalies
 - Rate in the Discharge Abstract Database is about 5 times higher than expected

Conception Cohort

▶ Proposed Next Steps

- Meet with clinical colleagues from the congenital anomalies registry to explore definitions and coding differences
- Assess comorbidity status for participants
- Assemble trajectories of care

Late Preterm Birth

- ▶ Preterm Birth International Consortium (PREBIC)
 - ▶ Use administrative data to examine international variation in rates and risk factors for late preterm birth (34–36 weeks gestational age)
 - ▶ Current collaborators from Australia, Canada, Scotland, USA
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Validity of AMI Case Definitions

- ▶ Systematic Review
- ▶ Heterogeneity of validated case definitions using ICD-9 codes
 - This impacts both hospital admission rates and in-hospital mortality rates
 - Generally, when case definitions included codes that weren't specific to AMI, the sensitivity of the case definition was increased, but specificity was decreased
 - Code 410 used in isolation had the best performance characteristics
- ▶ No validated case definitions using exclusively ICD-10 codes