MICHIGAN BIRTH DEFECTS REGISTRY: DOCUMENTATION PATTERNS FOUND ON REVIEW OF INPATIENT MEDICAL RECORDS FOR BIRTH DEFECTS CASES

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BACKGROUND

The Michigan Birth Defects Registry (MBDR) is a statewide system of passive surveillance, active since 1992. Michigan has ~125,000 live births annually. The MBDR processes ~9,000 case reports each year.

One goal of the Michigan Birth Defects Program is to expand and evaluate the effectiveness of activities to improve access to health services for children with birth defects and their families. We endorse the concept of Medical Home to provide children with medical care that is accessible, continuous, comprehensive, family centered, coordinated, compassionate and culturally effective. Although there is some national level data available for analysis concerning access to a Medical Home, state level data are lacking.[1]

OBJECTIVE

Explore the documentation of important health information - primary healthcare provider, targeted family health history information and prenatal diagnosis - in admission records of young children (0-2yrs) with birth defects reported to the MBDR.

METHODS

Information was abstracted from the medical records of cases reported to MBDR from year 2003 hospital admissions. The MBDR's Quality Improvement Coordinator, as one component of the 2006 Quality Assurance Audit, recorded chart documentation for four items (Figure A). Reported cases originated from seven reporting facilities providing varying levels of medical care, from minor obstetrical care to tertiary care.

Figure A

Survey Items

1) Is the primary care provider documented? (N,Y)
2) Is the primary care provider type specified?
   - Not specified
   - Pediatric
   - Family Practice
   - University-based Pediatric
   - University-based Family Practice
   - Local Health Department (LHD)
   - Other provider (e.g., Nurse Practitioner)
3) Is the family history documented? (N,Y)
   - Y -documentation minimal
   - Y -documentation of pertinent positive and negative family history. Family history of same/similar* birth defect *not specified*.
   - Y -documentation of pertinent positive and negative family history. Family history *negative* for same/similar* birth defect.
   - Y -documentation of pertinent positive and negative family history. Family history *positive* for same/similar* birth defect.
4) Is there documentation of prenatal testing?
   - N -no documentation of prenatal testing
   - Y -birth defect not identified
   - Y -birth defect identified**

*Same diagnostic category
**Score if partial diagnosis made (e.g., cardiac defect identified, additional defects not identified)

RESULTS

- 4437 birth defects cases contributed to the MBDR by audited facilities
- 575 cases (13.0%) abstracted for quality assurance
- 100 cases (17.7 %) excluded due to some (demographic or diagnostic) reporting error
- 473 cases sampled for specific documentation

Cases Sampled

- Most of the reports reviewed, 88% (n=415), came from inpatient admissions
- More males than females (55%, n=258 vs. 45%, n=214) were among the cases reviewed
- More cases of multiple defects than single defects (55%, n=259 vs. 45%, n=214) were reviewed

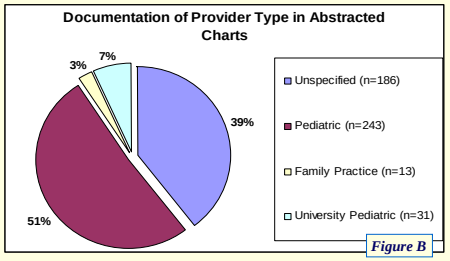

Figure B

Primary Provider

- Primary care provider was documented in most charts (98%, n=462)
- The most common provider type was Pediatric (Fig. B)

Prenatal Testing

- In most cases, 82%, prenatal testing was not documented
- When noted, the birth defect was found on prenatal testing slightly more often than not (11% vs. 7%), Fig. C

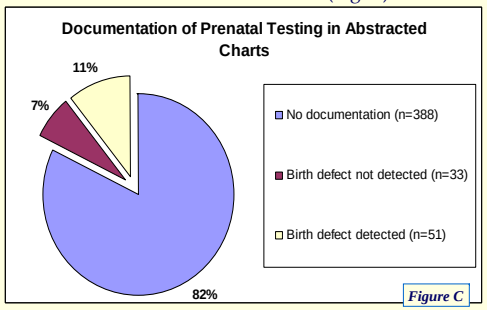

Figure C

PUBLIC HEALTH IMPLICATIONS

- Lack of targeted family history information suggests a need for greater awareness of the utility of this important screening tool.
- Limited documentation concerning prenatal testing may be a symptom of a gap in the system of healthcare services for mother and child. There appears to be a need for more attention to the impact of prenatal diagnosis on a family's adjustment to their child's condition.

Family History

- Nearly 2/3 of charts contained some family history documentation (65%, n=305)
- Targeted family history information concerning the presence or absence of the reported birth defect in additional family members was uncommon (15%, n=72)
- Overall, 7% (n=35) of the cases were documented to have a positive family history (Fig. D)

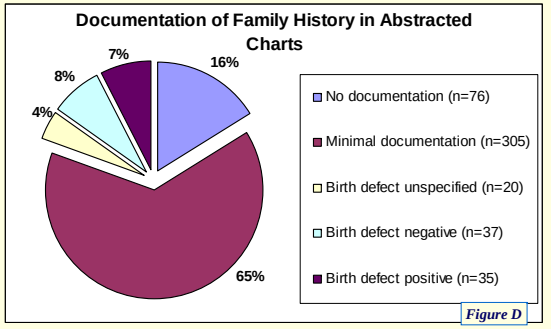

Figure D

- Family history was less likely to be recorded for outpatient admissions. (Fig. E)

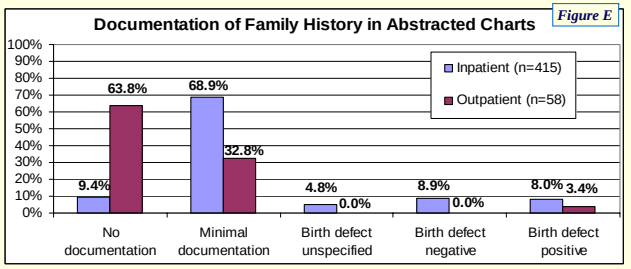

Figure E

CONCLUSIONS

- Documentation of primary provider was found in most medical records reviewed.
- Our findings show a lack of consistent, targeted, family health history documentation.
- Documentation of prenatal testing was uncommon among the cases reviewed. This may be due to the perception that it is not relevant to a child's postnatal medical care, or other factors. This issue warrants further evaluation

LIMITATIONS

- Due to small sample size, detailed analysis of items (e.g., by facility type, admission type, or birth defect) and/or determination of significance was not possible.
- Lack of a comparison group (e.g., normal infants, or other at-risk population) is another limiting factor.

REFERENCE

1. Medical Home: A Role in Reducing Parent Stress, Michael Paustian, MS. MDCH Dvision of Genomics, Perinatal Health and Chronic Disease Epidemiology. Data Source: 2003 National Survey of Children's Health.