Identifying Pregnant Women for Targeted Outreach to Improve Oral Health

July 2016

OBJECTIVE

To determine the effectiveness of using administrative data from the HUSKY Program's medical administrative services organization to identify pregnant women for targeted oral health outreach.

METHODS

As part of a larger project for HUSKY Program performance monitoring, we linked Connecticut birth records with HUSKY Program enrollment data to identify pregnant women who gave birth while enrolled in the program in 2011 and in 2012. First, we examined four administrative files from late 2011, mid-year 2012 (two files) and early 2013, provided for the HUSKY Program's dental services administrator by the HUSKY medical services administrator. We searched each of these files for matches with pregnant women identified in the linked birth files for 2011 and 2012. Second, we combined the four files to produce an *unduplicated* count of pregnant women who appeared in these extracts. For this analysis, we did not include 529 "possible births" that were identified by the Department of Social Services *after* the data linkage took place, and the 85 records that matched with those provided by the medical services administrator.[1] We determined the number and percentage of known pregnant women, based on the linked files for births in 2011 and 2012, who were identified by the medical services administrator for oral health outreach.

RESULTS

In 2011, there were 14,805 mothers identified in the linked birth-HUSKY enrollment file who gave birth while they had coverage in the HUSKY Program or other Medicaid; in 2012, there were 14,081 mothers. Among the 26,625 records for pregnant women identified by the medical services administrator at four points in time, we were able to match an average of 80 percent of the records in any one extract with mothers identified in the linked 2011 and 2012 files (Table 1). It is likely that identifying information for any one pregnant mother appeared in more than one extract.[2]

Among the 16,670 *unduplicated* records, matches were found for 11,832 mothers (71.0%); 4,838 (29.0%) did not match with linked records (Table 2). Records for 13 percent of mothers were matched for 2011 and 70 percent of mothers in 2012. The percent of records that could be matched varied, depending on the year the mother gave birth and the date of the extract.

For mothers who gave birth in 2012, the best sources for matching were the end-of-year 2011 file and the two mid-year 2012 files.

Table 1. Matching Rate for Each CHNCT Extract

	Records for pregnant women identified by the HUSKY medical services administrator	Records that matched with mothers identified in the 2011 and 2012 linked birth-HUSKY datasets
CHNCT extract:		
REC_2011-12-13	**3,047**	**2,760 (90.6%)**
REC_2012-05-04	**7,314**	**6,556 (89.6%)**
REC_2012-07-11	**8,112**	**7,094 (87.5%)**
REC_2013-01-18	**8,152**	**4,537 (55.7%)**

Note: The four extracts from CHNCT contain a *duplicated* count of pregnant mothers; mothers who gave birth in August 2012, for example, may appear in the late-2011 extract as well as both mid-year extracts in 2012. These extracts were searched for "possible births" in 2012; there were 85 records that matched.
Source: Connecticut Voices for Children analysis of data obtained from the HRSA-funded Perinatal and Infant Oral Health Quality Improvement Project, 2016.

Table 2. Matching Rate for Combined CHNCT Extracts (with unduplicated count of mothers)

	2011	2012
Mothers who gave birth while enrolled in HUSKY Program or other Medicaid (linked files)	**14,805**	**14,081**
Unduplicated count of mothers identified by CHNCT	**16,670**	
Mothers with matching records in linked file and CHNCT extracts	**1,997 (13.4%)**	**9,835 (69.8%)**

Note: Based on unduplicated count of mothers in the four files from CHNCT.
Source: Connecticut Voices for Children analysis of data obtained from the HRSA-funded Perinatal and Infant Oral Health Quality Improvement Project, 2016.

CONCLUSION

Oral health outreach and care coordination during the perinatal period is dependent on timely identification of newly pregnant women. In a program such as the HUSKY Program where medical and dental health services are administered separately, cooperation between contractors can be helpful. The HUSKY medical services administrator can identify newly pregnant women by relying on clients who report pregnancies, maternity care providers who report new patients, and systematic reviews of claims data for pregnancy-related services.

These findings show that it is possible for the medical services administrator to identify almost 70 percent of pregnant women. This methods of case identification is somewhat better than searching claims for prenatal vitamin prescriptions (62.0% of expectant mothers identified during pregnancy) or for maternity care (66.7% of expectant mothers identified during pregnancy).

_____

Acknowledgements

Prepared by:
MaryAlice Lee, Ph.D.
Connecticut Voices for Children

_____

[1] Records for "possible births" were not considered part of the match for this project because they could not be verified as actual births based on the more rigorous record linkage procedure.
[2] For example, records for a mother who gave birth in August 2012 may have been included in the end-2011 file and both mid-2012 files.