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Evaluating the Manitoba Infant Feeding Database: Linking an infant feeding data repository with total population administrative data

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Introduction

Breastfeeding during the first two years of life supports optimal maternal and child health. Few linkable databases capture infant feeding data beyond hospital discharge. The Manitoba Infant Feeding Database (MIFD), a novel initiative started in 2015, records infant feeding practices at vaccination visits and is linkable with administrative data.

Objectives and Approach

Our objective was to evaluate the data quality and staff experiences with implementing the MIFD. The MIFD records whether the infant was exclusively or partially breastfeeding at each visit; it also records the infant's age when (a) something other than human milk was first introduced and (b) the infant stopped breastfeeding entirely. Personal Health Identification Numbers (PHINs), birthdate, and postal code are used to link infant feeding information with administrative health records. Two authors independently reviewed the proportion of complete data fields and data fields with potential transcription errors. A survey was developed to assess experiences with implementing the MIFD.

Results

A total of 950 (out of 2500) records were randomly selected and reviewed, equating to 13,258 data fields. Data were 98.5% complete (n=13,064/13,258). Baby's PHIN, mother's PHIN, and relationship to the baby had 95.4%, 96.0%, and 97.6% complete data, respectively. Almost all records (95.5%) had complete data for personal identifiers. Transcription had to be verified in 13.5% of MIFD data fields. The survey response rate was 78.4%. Nearly all felt that the MIFD data collection tool was easy to use (96.6%). 65% felt faxing the data to a central office was convenient. Most (93.1%) of respondents were happy to continue with the MIFD system. A 0.7 FTE is required to verify feeding data from all births in the province (N=15,000).

Conclusion/Implications

The MIFD is a sustainable and viable system for collecting and storing infant feeding information which can be linked with administrative health and social data. Having breastfeeding information after hospital discharge which can be linked with administrative data will facilitate the evaluation of programs aimed at supporting breastfeeding.