



# 2007 CDC National Survey of Maternity Practices in Infant Nutrition and Care (mPINC)

## Introduction

Evidence shows that several specific practices in intrapartum medical care settings can significantly affect breastfeeding rates and duration of breastfeeding among women. Birth facility policies and practices that create a supportive environment for breastfeeding begin prenatally and continue through discharge. In 2007, the Centers for Disease Control and Prevention (CDC), in collaboration with Battelle Centers for Public Health Research and Evaluation, completed a national survey of maternity care feeding practices and policies, entitled the Maternity Practices in Infant Nutrition and Care (mPINC) Survey, at all facilities in the United States and Territories providing intrapartum care. The survey was sent to all U.S. hospitals (n=3,143) and birth centers (n=138) with registered maternity beds, with a request that it be completed by the person at the birth facility who had the most knowledge regarding the facility's maternity and infant feeding practices. Data were obtained from a total of 2,690 (82%) of the facilities and are being analyzed. CDC plans to repeat the survey to assess changes over time.



## Questionnaires

Two versions of the questionnaire were developed that were identical in content but that contained minor differences in wording to reflect the relevant type of staff and type of birth facility (hospital versus birth center; hereafter birth facilities) being surveyed. The survey contained 52 questions regarding the birth facility's maternity practices, training, personnel, policy, and facility characteristics. Questions included a variety of response options, including yes/no, ordinal responses (e.g., few, some, many, most), percentages, lists of program components (e.g., elements of a worksite lactation program), or reasons for a given practice (e.g., why mothers and infants are separated).

You can download the questionnaires here:

- [Birth Center Survey](#) (PDF-356k)
- [Hospital Survey](#) (PDF-156k)

## Results

Survey results have been analyzed by creating summary scores based on 34 questions related to maternity and infant feeding practices. Scores were categorized into one of seven maternity care practice domains: labor and delivery; postpartum breastfeeding assistance; postpartum contact between mother and infant; postpartum feeding of breastfed infants; breastfeeding support upon discharge; staff breastfeeding training and education; and structural and organizational factors related to breastfeeding.


Responses to specific items on the survey were scored according to an algorithm developed and reviewed by experts in the field denoting the evidence and best practices to promote breastfeeding within the health care setting. Scores were calculated for each item, then item scores were averaged to create a score for each of the 7 domains noted above, and averages of the domain scores were used to create a total mPINC score. Possible scores ranged from 0—100, with higher scores denoting better maternity care practices. Details on the mPINC scoring algorithm, including rationale and explanations, can be found at [Overview of the mPINC Scoring Algorithm](#).

Results from the survey indicate that birth facilities in most states are not providing maternity care that is fully supportive of breastfeeding. In addition, the southern region of the U.S., typically the region with the lowest breastfeeding rates (see **Map 1: Percent of Children Ever Breastfed by State among Children Born in 2004**), has the lowest maternity care practices scores. More information on the current status of maternity care practices nationally, as well as by state, can be found in the June 13, 2008, MMWR article, **Breastfeeding-Related Maternity Practices among Hospitals and Birth Centers – United States, 2007**.

In addition to providing an overview of maternity care practices within the U.S., facility-specific benchmark reports are being provided to each facility that completed a survey. The benchmark reports compare a facility's individual scores on each of the maternity practice domains and the total score with those of facilities in their state and with facilities of a similar size (i.e., number of births annually) nationally. These reports will help facilities identify maternity care practices they can change to better support breastfeeding. Aggregate state-level data will be shared with state health departments to facilitate their work with hospitals and birth centers in improving breastfeeding care.

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Page Located on the Web at <http://www.cdc.gov/breastfeeding/data/mpinc/index.htm>

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