



PREVENTION OPPORTUNITIES UNDER THE BIG SKY

BIRTH RECORDS: INFORMATION FOR INDIVIDUALS, CLINICIANS AND PUBLIC HEALTH

Information from birth records has a wide variety of uses. Because essential legal relationships including nationality, name and family ties are inextricably linked to these records, registration of birth is required and the information is maintained by a government agency. In Montana this agency is the Department of Public Health and Human Services. While confidentiality of individual birth records is strictly maintained, aggregated data from birth records provides essential information to identify the need for current services for babies and mothers and future services for the Montana population. The value of birth records relies on the accuracy and completeness of the information recorded. This issue of *Montana Public Health* highlights information from birth records including some data collected for the first time in 2008.

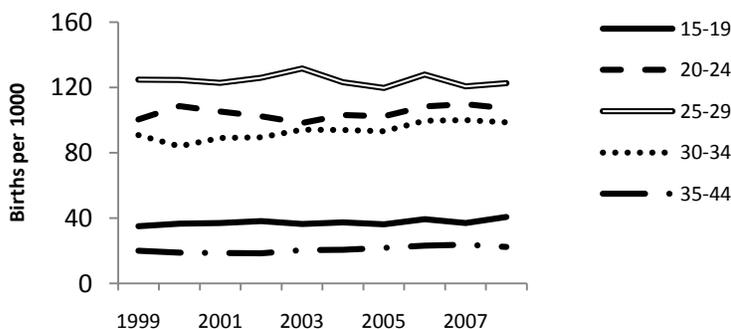
Births and birth rates The number of births to Montana resident women increased from 10,779 in 1999 to 12,595 in 2008. During this period the crude birth rate (births per 1000 persons) increased from 12.0 to 13.0, and the general fertility rate (births per 1000 women aged 15 to 44) from 59.8 to 69.5. The highest age-specific birth rates were in women aged 25 to 29 (average from 1999-2008, 124.3 per 1000) and 20 to 24 (average, 104.5 per 1000). The birth rate for women aged 30-34 increased about 9% during this period (from 90.7 to 98.7 per 1000), while the birth rate for women over 35 did not change substantially. (Figure 1) The birth rate in teenage women had declined steadily during the 1990s, but there has been no further decline since 2000.

Report" available at
<http://www.dphhs.mt.gov/statisticalinformation/vitalstats/index.shtml>

Examples of information pertaining to medical and public health practice Important medical and public health issues can be monitored with information from birth records. Here are some examples:

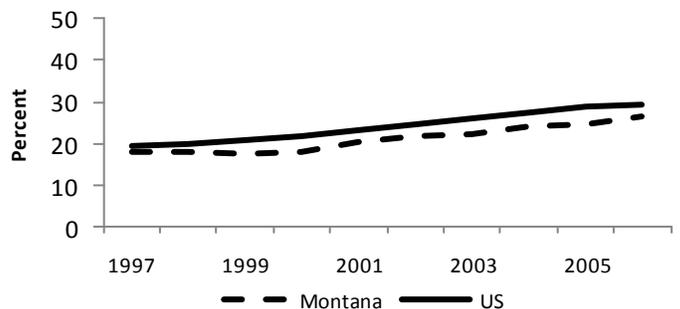
C-section deliveries The proportion of singleton births delivered by cesarean section has increased in the U.S. and in Montana.¹ (Figure 2) In 2008, the proportion in Montana was 27%.

Figure 1. Live birth rates per 1000 women in selected age groups, Montana, 1999-2008



In 2008, 86% of births were to white mothers and 13% to American Indian mothers; and 37% were to unmarried women (increased from 30% in 1999). Many additional data about births in Montana are available in the "2008 Montana Vital Statistics Annual

Figure 2. Rate of delivery by cesarean section for singleton births, Montana and U.S., 1997-2006



Smoking in pregnancy In 2005 the prevalence of smoking during pregnancy was higher in Montana (18%) than in the U.S. (12%).² In Montana in 2008, the prevalence of smoking in pregnancy was highest for women aged 18-19 (30%) and for those 20-24 and 15-17 (both 24%). Smoking during pregnancy significantly

increases the risk of low birth weight and preterm birth.³

Weight gain during pregnancy In 2009 the Institute of Medicine (IOM) revised the guideline for weight gain during pregnancy.⁴ The recommended weight gain in this guideline depends on the prepregnancy height and weight of the woman, i.e. a body mass index (BMI) measure.

Beginning in 2008 Montana birth records include the height as well as the pre and final pregnancy weight of the mother. (Previously only the amount of weight gain was recorded.) This information allows comparison of weight gain in pregnancy of Montana mothers to the 2009 IOM guidelines. Recently, 2008 and 2009 birth records were used to establish the baseline (prior to dissemination of the IOM revised guideline) for pregnancy weight gain of Montana mothers.⁵ Subsequent assessments will use this baseline to monitor compliance with the IOM guideline. (Table)

Table. Weight gain among Montana women delivering singleton babies in 2008-2009 compared to 2009 IOM weight gain recommendations

Pregpregnancy wt. (BMI)	Mothers' weight gain* compared to IOM guideline	
	(more)	(less)
Underweight (BMI less than 18.5 kg/m ²)	25%	32%
Normal weight (BMI 18.5-24.9)	38%	23%
Overweight (BMI 25.0-29.9)	62%	13%
Obese (BMI 30.0 or more)	53%	23%

*percent of mothers who gained more or less than guideline

NOTE: In 2008-2009, 16% of the 18,811 singleton birth records used for this analysis did not have the new variables, prepregnancy weight and height, recorded.

Recommendations to health care providers

- Assure that complete, accurate information is recorded on birth records.
- Urge each pregnant woman to make choices that protect her health and the health of her fetus, including regular prenatal care, not smoking, not drinking alcohol.
- Counsel women of childbearing age to make choices that allow planned, wanted and healthy pregnancies, including use of family planning services and taking multivitamins that contain folic acid.

For more information, contact Dianna Frick, Maternal and Child Health Epidemiologist, 406-444-6940 or dfrick@mt.gov.

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1400 Broadway
Helena, MT 59620-2951

Anna Whiting Sorrell, Director, DPHHS
Steven Helgerson, MD, MPH, State Med. Officer
Jane Smilie, MPH, Administrator, PHSD