

PREMATURITY

IDAHO RESIDENTS • 2004-2008

The premature or preterm birth of a baby is a growing public health concern because of the immediate and long-term risk to the health of both the mother and the baby.¹ Babies born between 37 and 42 weeks gestation are considered full term babies, while those born before 37 weeks gestation are defined as preterm. Babies born with less than 37 weeks of gestation are significantly more likely to have complications at birth as well as serious, long-term health concerns.¹ In the United States (U.S.), approximately 12.7 percent of babies are born prematurely.¹ From 2004 to 2008, 10.8 percent of Idaho resident mothers gave birth to a preterm baby (12,970 births). Of these preterm babies, 13.6 percent were born before 32 weeks gestation (1,758 births).

Preterm (or premature) Infant
Infant born before 37 completed weeks of gestation

Late Preterm Infant
Infant born between 34 and 36 completed weeks of gestation

Mid-Preterm Infant
Infant born between 32 and 33 completed weeks of gestation

Very Preterm Infant
Infant born before 32 completed weeks of gestation

WHEN ARE MOST PREMATURE BABIES BORN?

From 2004 to 2008:

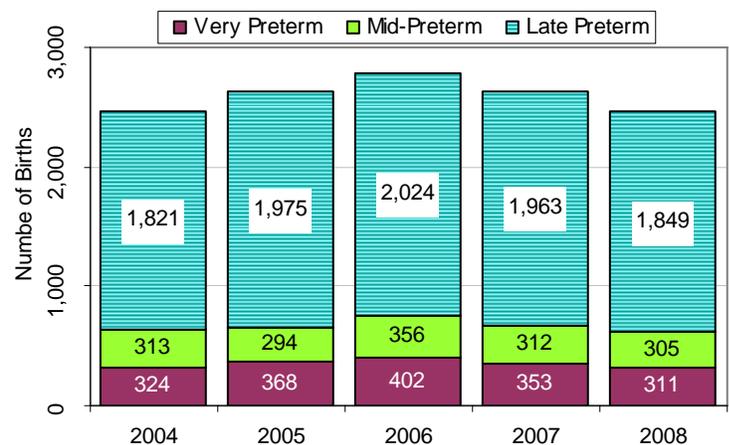
- One in 9 babies born to Idaho resident mothers (10.8%) were born before 37 completed weeks of gestation. Of these babies:
 - 1 in 7 were born very preterm (13.6%)
 - 3 in 4 were born late preterm (74.3%)

Although a higher percentage of babies were born late preterm – the highest risk for perinatal morbidity and mortality exists for those born with less than 34 weeks of gestation.¹

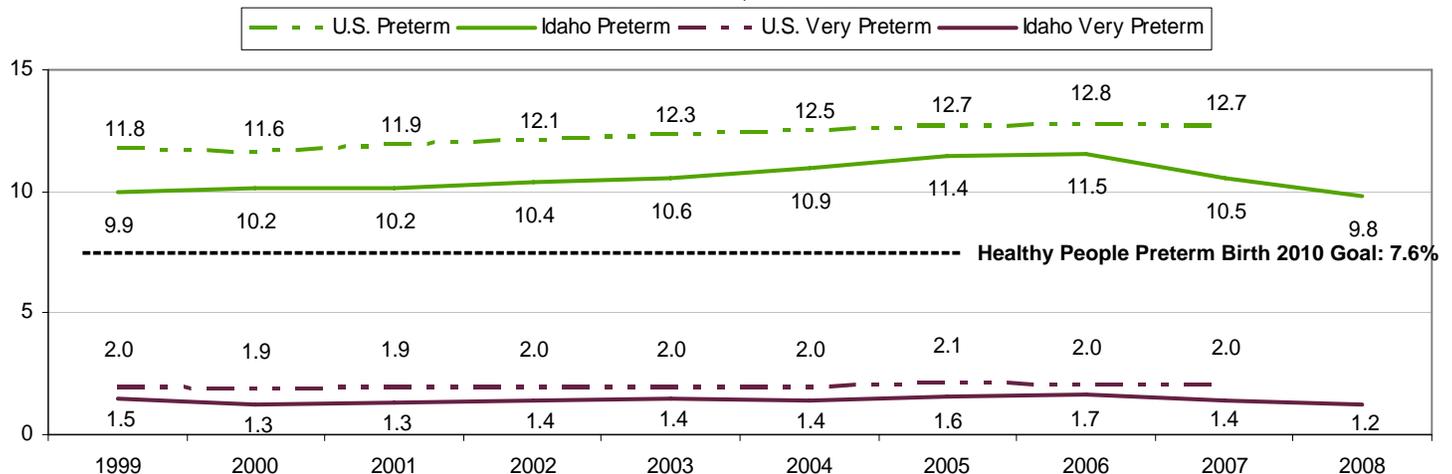
WHAT ARE RECENT TRENDS IN PREMATURE BIRTHS?

The percent of preterm babies born in Idaho is significantly lower than the U.S. In Idaho, the trend for preterm births increased significantly from 1999 to 2006. More recently, from 2006 to 2008, there was a significant decline in the rate for Idaho's preterm births (14.8 percent decrease from 11.5 in 2006 to 9.8 in 2008). Similarly, trends for very preterm births follow those of preterm births.

Idaho Resident Live Births
 Preterm Births by Gestational Age and Birth Year
 2004-2006

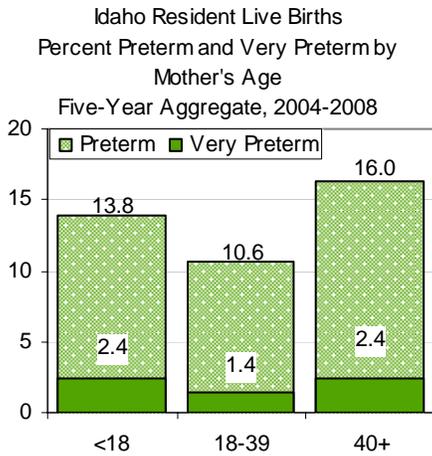


U.S. and Idaho Resident Live Births
 Percent Preterm and Very Preterm Births
 Ten-Year Trend, 1999-2008



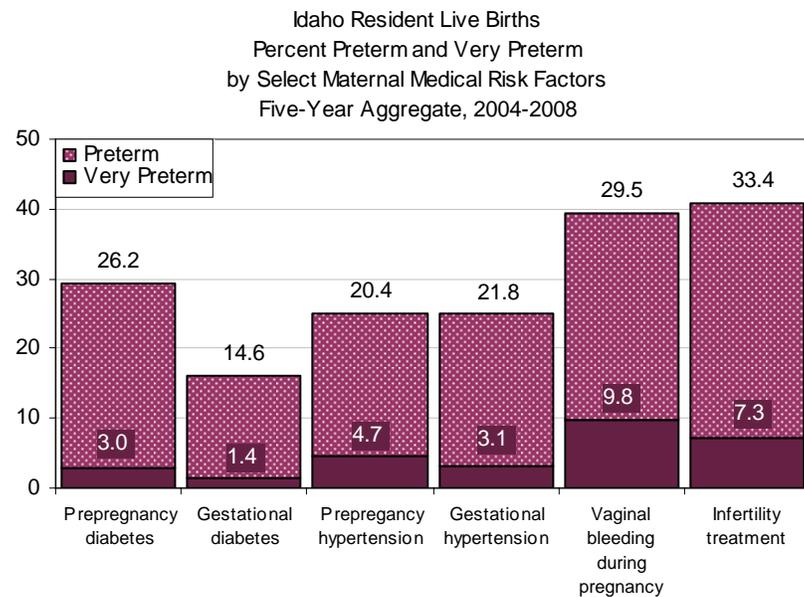
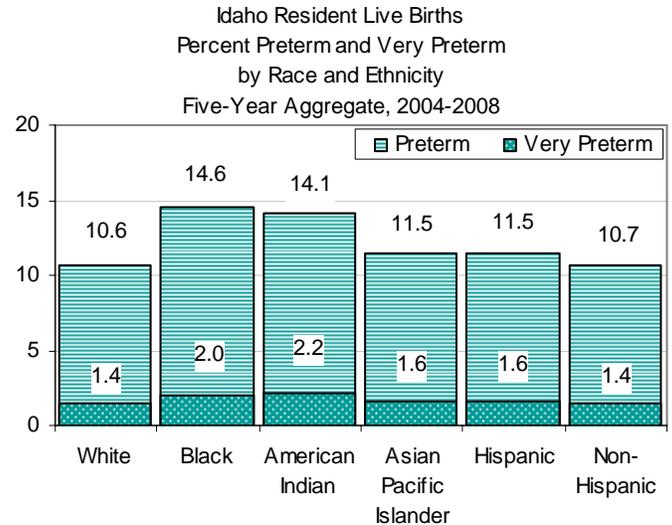
Source – U.S. Data: 1999-2007; United States Department of Health and Human Services (US DHHS), Centers of Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS), Division of Vital Statistics (DVS), Natality (computer data file), CDC WONDER On-line Database January 2010. U.S Data for 2008 is not available at this time.

WHICH WOMEN ARE AT INCREASED RISK FOR PREMATURE BIRTH?



Preterm birth rates vary based on the mother's race, ethnicity, and age. Of mothers who gave birth from 2004 to 2008, those mothers aged 40 and over had the highest percentage of preterm births. These women were significantly more likely to deliver preterm than women aged 18 to 39. Women under age 18 also had a percentage significantly higher than moms aged 18 to 39 for preterm and very preterm birth.

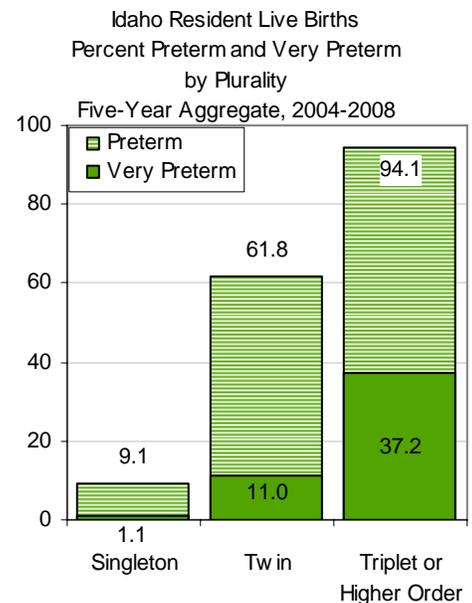
Black and American Indian/Alaska Native women had the highest percentages of preterm and very preterm births for Idaho (14.6% and 14.1%, respectively) – a difference significant only between them and white mothers. Hispanic mothers have a significantly higher percentage of preterm births than non-Hispanic moms. White and non-Hispanic women have the lowest percentage of preterm births (10.6% and 10.7%, respectively).



Mothers with prepregnancy diabetes or prepregnancy hypertension had higher percentages of very preterm births over moms with gestational diabetes or hypertension, respectively. The percentage of preterm births to moms with prepregnancy diabetes was 79.5 percent higher than for gestational diabetes. Note: Medical risk factors are not mutually exclusive categories. Co-occurring diseases may affect percentages of preterm births.

Women delivering twins, triplets, or higher order babies have a higher percentage of preterm and very preterm births than those giving birth to single babies. Nearly all (94.1 percent) of triplet or higher order babies were born preterm. Thirty-seven percent (37.2%) of these babies were born very preterm – more than twice as many as those born twins. Approximately 1 out of 10 twins and 1 out of 3 triplets or higher order multiples were born very preterm, compared with 1 out of 100 singletons.

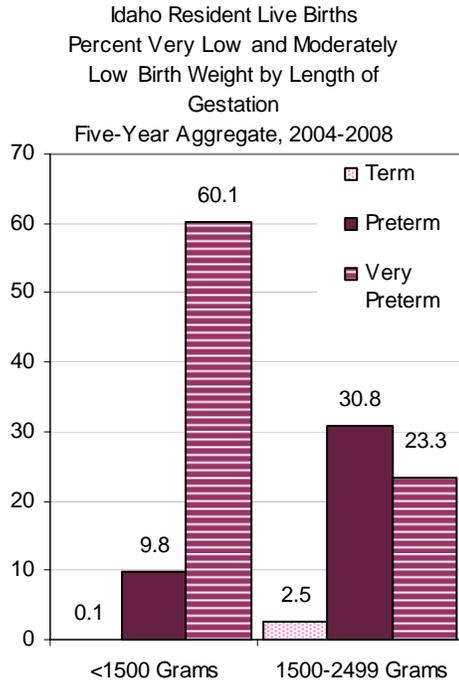
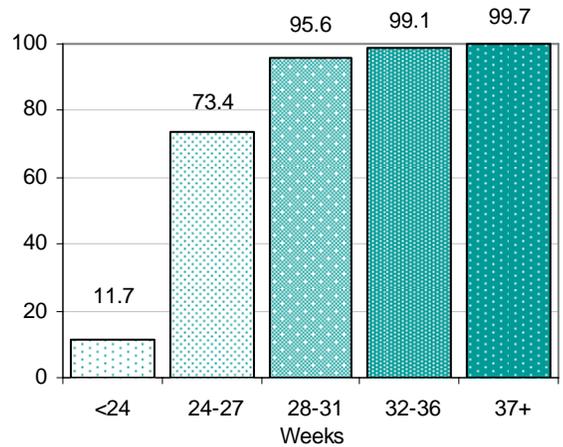
Mothers who reported a maternal risk factor had an increased risk for delivering their babies either preterm or very preterm over women who did not report experiencing a risk factor. Idaho women who reported using infertility treatment or who experienced vaginal bleeding during pregnancy had the highest percentages of preterm birth. Those women experiencing vaginal bleeding during pregnancy had the highest percentage of very preterm births – 2.5 percent higher than any other maternal medical risk factor except use of infertility treatment.



WHAT ARE THE RISKS OF PREMATURE BIRTH?

From 2004 to 2008, less than 1 out of every 10 babies born before 24 weeks gestation survived past their first year. Of babies born between 24 and 27 weeks gestation, nearly one in four did not survive past the first year. At 28-31 weeks gestation the survival rate increases to 95.6 percent and that rate increases another 3.6 percent to a rate of 99.1 for babies born at 32-36 weeks. Babies born full term had the highest survival rate of 99.7 percent.

Idaho Resident Live Births
Survival Rates by Length of Gestation
Five-Year Aggregate, 2004-2008

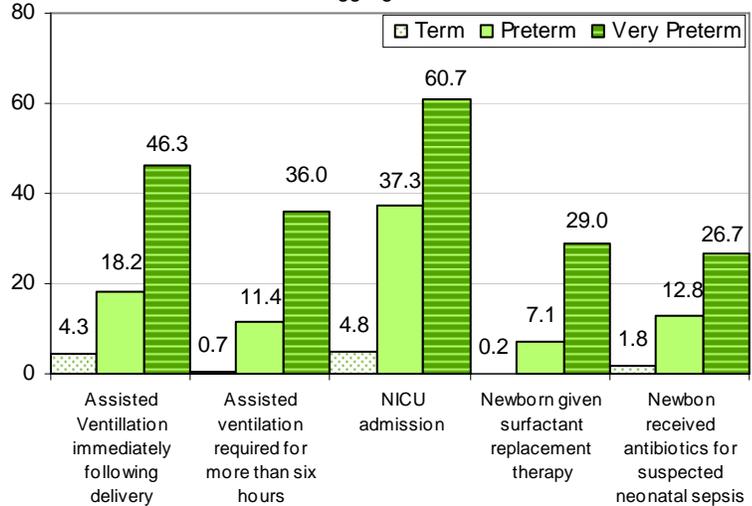


Sixty percent (60.1%) of very preterm babies born from 2004 and 2008 weighed less than 1,500 grams at birth. By comparison, less than one percent (0.1%) of term babies born during this same time period weighed less than 1,500 grams. Approximately one-third (30.8 percent) of preterm babies born from 2004 and 2008 were born weighing between 1,500 and 2,499 grams.

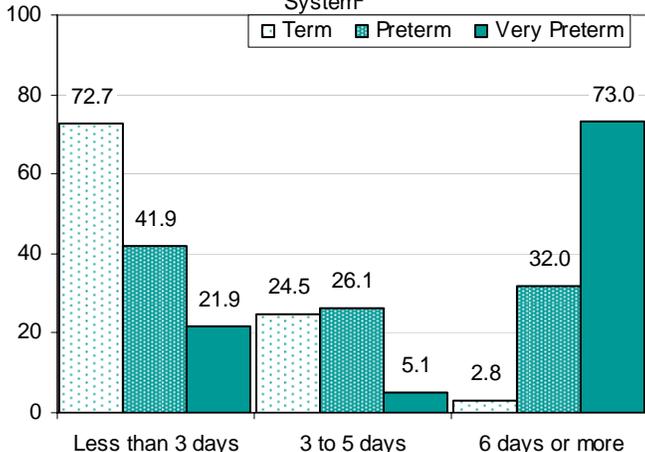
A higher percentage of preterm infants had abnormal conditions at birth that needed medical attention than infants born full term. Forty-six percent (46.3%) of

very preterm infants required assisted ventilation immediately following delivery and 36.0 percent required assisted ventilation for more than six hours after birth. From 2004 to 2008, 37.3 percent of preterm babies born to Idaho resident mothers were admitted to a Neonatal Intensive Care Unit (NICU). Nearly twice as many very preterm babies (60.7%) were admitted to the NICU during this same time period.

Idaho Resident Live Births
Length of Gestation by Select Abnormal Conditions
Five-Year Aggregate 2004-2008



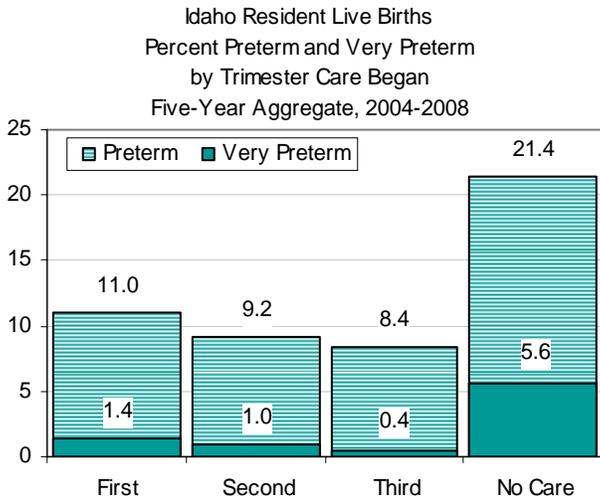
Idaho Resident Live Births
Length of Hospital Stay by Length of Gestation
Three-Year Aggregate, 2006-2008
Source: Pregnancy Risk Assessment Tracking System²



Preterm and very preterm babies are more likely to have a longer stay in the hospital after birth than term babies. Seventy-three percent (73.0 %) of very preterm babies had a hospital stay after birth of six or more days – this is more than double that for preterm babies (32.0%). The percentages for 3 to 5 days of hospital stay are the lowest for both preterm and very preterm babies. Preterm babies, from 2006 to 2008 were more likely (41.9 percent) to have a hospital stay less than 3 days than very preterm babies (21.9 percent).

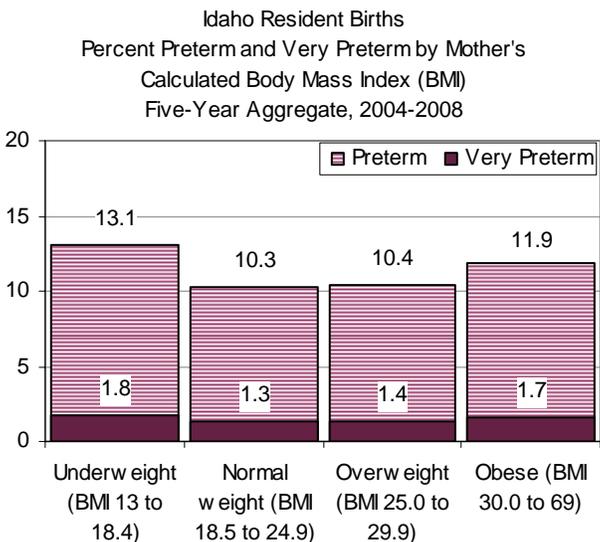
WHAT ARE CONTRIBUTING FACTORS TO PRETERM BIRTHS?

According to the U.S. Department of Health and Human Services, tobacco use during pregnancy is associated with spontaneous abortion and preterm delivery.³ A total of 12.5 percent of mothers smoked during their pregnancy from 2004 to 2008. Among babies born very preterm, 17.4 percent of the mothers smoked during their pregnancy. This is compared with 12.3 percent for babies born to term.

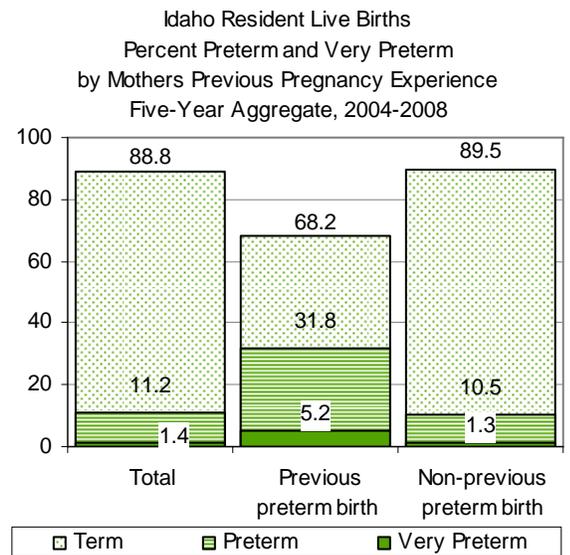
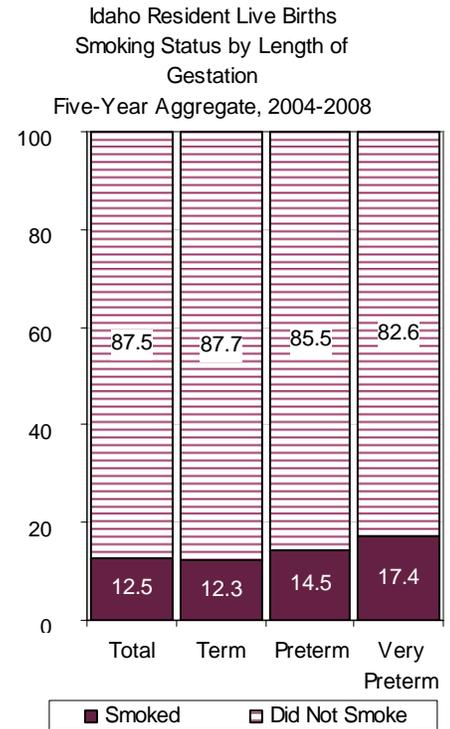


A woman may be able to reduce her risk of preterm delivery by seeking early and regular prenatal care.³ Women who did not receive prenatal care were more than twice as likely to deliver preterm and more than three times as likely to deliver very preterm, when compared with women who did receive prenatal care (1.3 and 10.4, respectively).

Of mothers with a previous pregnancy, 88.8 percent had a full term baby in this pregnancy; 11.2 percent had a preterm birth in this pregnancy; and 1.4 percent had a very preterm baby in this pregnancy. From 2004 to 2008, 31.8 percent of mothers with a previous preterm birth had another preterm birth. The highest percentage of very preterm births (5.2 percent) was to those moms with a previous preterm birth.



From 2004 to 2008, the highest percentages of preterm and very preterm babies were born to mothers who were underweight. Of mothers whose pre-pregnancy BMI was less than 18.5, 13.1 percent gave birth to a preterm baby and 1.8 percent were very preterm. The second highest percentages of preterm and very preterm babies were born to mothers who were obese (11.9 and 1.7 percent, respectively).



References:

1. Martin, J.A., et al. Births: Final Data for 2007. Nation Vital Statistics Reports, volume 58, number 24, August 2010.
2. The Pregnancy Risk Assessment Tracking System (PRATS) is a representative sample of Idaho resident adult mothers (18+ years of age at time of birth) who gave birth (live birth) in Idaho. Analysis was conducted on an aggregate dataset (2006, 2007 and 2008) and was weighted to reflect the mid-year population estimates. Non-hospital births were excluded from analysis. Source: Idaho Pregnancy Risk Assessment Tracking System (PRATS), 2006-2008. Idaho Department of Health and Welfare, Division of Public Health, Bureau of Vital Records and Health Statistics, April 2010.
3. U.S. Department of Health and Human Services. 2004. *Surveillance for Disparities in Maternal Health-Related Behaviors – Selected States, Pregnancy Risk Assessment Monitoring System (PRAMS), 2000-2001*. Morbidity and Mortality Weekly Report. 53 (SS-4):1-13.

Idaho Department of Health and Welfare, Bureau of Vital Records and Health Statistics (October 2010).

Costs associated with this fact sheet are available from Idaho Department of Health and Welfare. HW-1206

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