

Prenatal Health Objectives

EARLY PRENATAL CARE

The national *Healthy People 2010* objective (16-6)¹ for prenatal care (PNC) is to increase the proportion of pregnant women who receive early and adequate care to 90%. Early PNC is care begun in the first 3 months (first trimester) of pregnancy. The 2010 target is identical to the 2000 target. In Jefferson County and Colorado the percentage of women entering PNC early in pregnancy rose steadily over the decade (Figure 7). Jefferson County mothers achieved the 2010 goal in 1997-99.

Figure 7. Percent mothers obtaining early PNC, Jefferson County and Colorado, 1990-2000

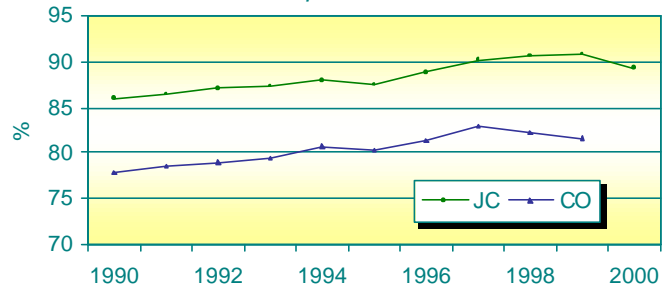
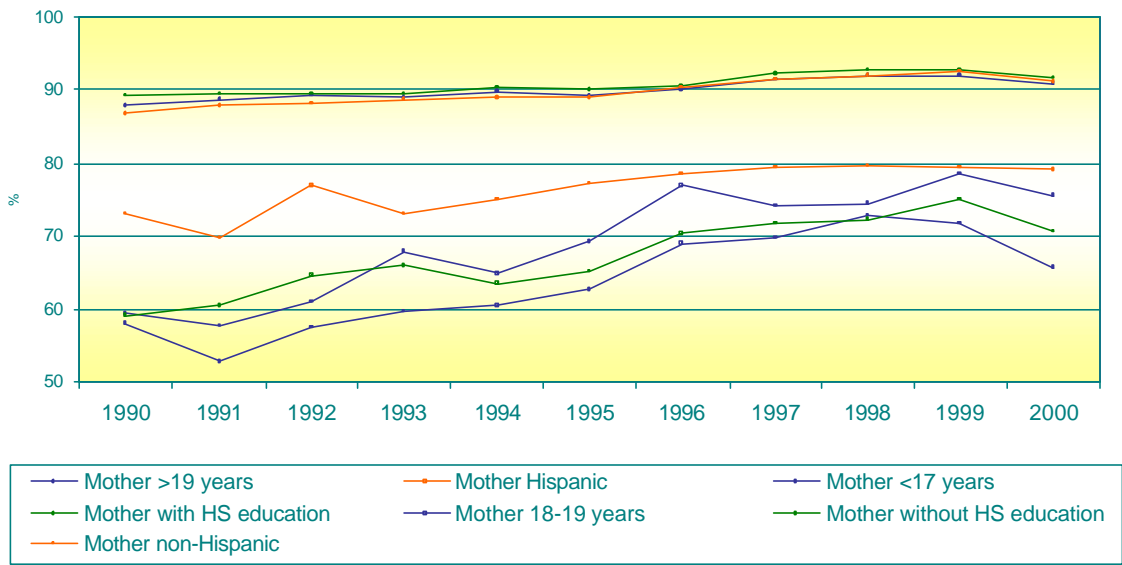


Figure 8. Percent mothers entering early PNC, by ethnicity, age and education, Jefferson County, 1990-2000



Maternal ethnicity, age and educational attainment were important predictors of entry into early PNC (Figure 8). Non-Hispanic and older mothers tended to enter early PNC more frequently than Hispanic and younger mothers. Those with a high school education or better also entered early care more frequently.

Although the county attained the 2010 goal in the late 1990s, there were small areas within the county that did not (Figures M4a and M4b). Mothers in areas of Lakewood, Arvada, Pleasant View, Edgewater, Broomfield and Westminster were less likely to obtain early care. There was considerable improvement between the earlier and latter halves of the decade. In the earlier half there were many areas with rates as low as 60%. By 1996-2000, no census tract rate was lower than 70%.

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MATERNAL CIGARETTE SMOKING

The *Healthy People 2010*¹ goal (16-17) for abstinence from cigarette smoking by pregnant women is 98%. In Colorado data are collected from birth mothers on the number of cigarettes smoked per day during pregnancy. For this study, a mother was considered abstinent from smoking if she reported not smoking during pregnancy (i.e., 0 cigarettes per day). A mother was considered non-abstinent if she reported smoking 1 or more cigarettes per day during pregnancy.

Smoking abstinence rates among Jefferson County mothers were similar to those reported nationally. In 1997 the national smoking abstinence rate was 87%, and in Jefferson County it was 89.8%. Abstinence among mothers in Jefferson County improved substantially over the decade, from 82.8% in 1990 to 92.3% in 2000.

There were significant differences in smoking abstinence by ethnicity, age, educational attainment and marital status. Smoking abstinence rates were higher among Hispanic mothers than non-Hispanic mothers (Figure 9), however, in the late 1990s the gap between the two groups was closing.

Adolescent mothers (<20 years of age) tended to have lower abstinence rates than older mothers. However, abstinence rates among adolescent mothers rose more rapidly than those among older mothers over the 11-year period (Figure 10).

Figure 9. Percent mothers abstinent from smoking, by ethnicity, Jefferson County, 1990-2000

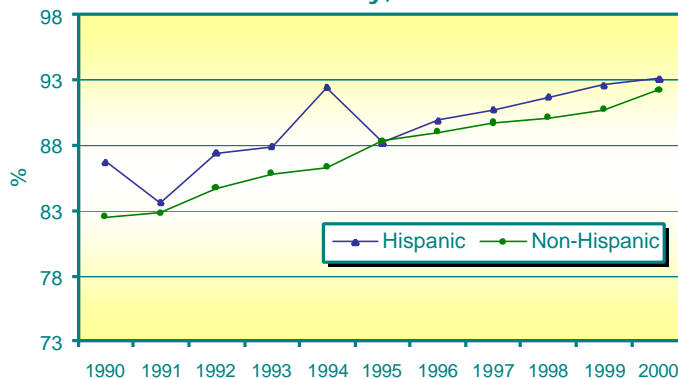


Figure 10. Percent mothers abstinent from smoking, by age group, Jefferson County, 1990-2000

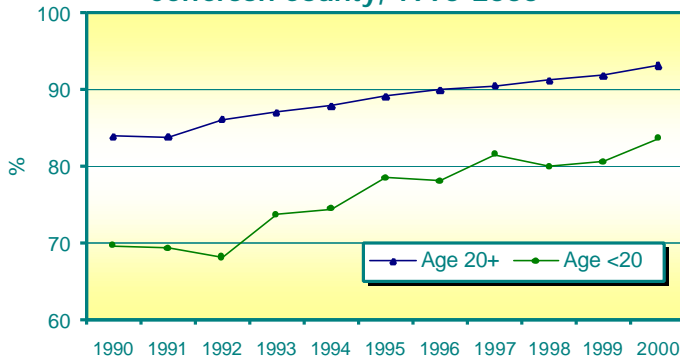
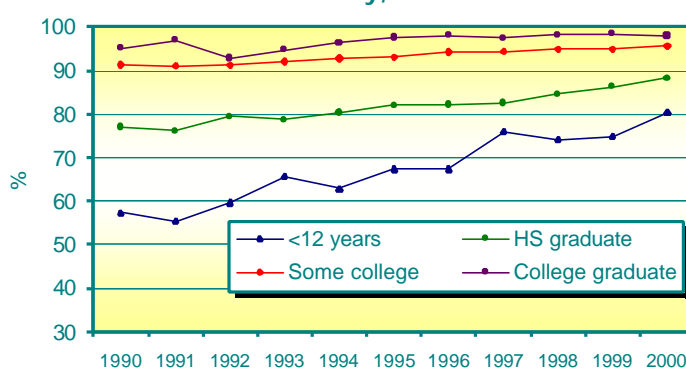


Figure 11. Percent mothers abstinent from smoking, by educational attainment, Jefferson County, 1990-2000



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Mothers lacking a high school education tended to have very low smoking abstinence rates, and this group showed the greatest improvement over the decade (Figure 11). Mothers with a college education attained the 98% 2010 goal for smoking abstinence in 1998-99. In 1997 smoking abstinence relative to education among Jefferson County mothers was nearly identical to the national rate (Table 1).

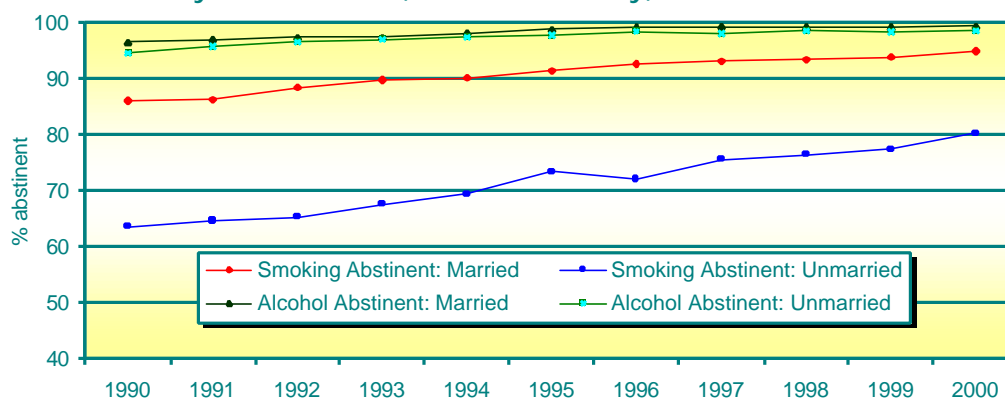
Table 1. Smoking abstinence relative to educational attainment among Jefferson County and U.S. mothers, 1997

Educational attainment	% Mothers abstaining from smoking during pregnancy	
	Jefferson County	U.S.*
Less than 12 years	76	77
High school graduate	82.5	83
Some college	91	94
College graduate	97.5	98

*1997 baseline data for the *Healthy People 2010* objective (16-17)¹ for smoking abstinence during pregnancy.

Smoking abstinence was also associated with marital status (Figure 12), as unmarried mothers were much more likely to smoke during pregnancy than married mothers. Smoking abstinence improved among both married and unmarried mothers throughout the decade.

Figure 12. Smoking and alcohol abstinence during pregnancy by marital status, Jefferson County, 1990-2000



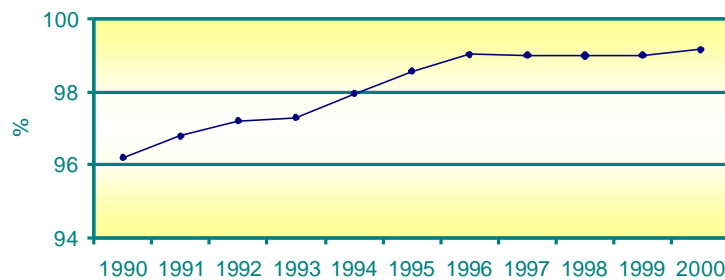
There was variation in smoking abstinence among mothers by location in the county (Figure M5a and M5b). Abstinence rates were lowest in areas of Golden/Pleasant View, Arvada, Edgewater and Lakewood, although all areas showed improvement.

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MATERNAL ALCOHOL USE

The *Healthy People 2010* objective (16-17) for alcohol consumption is for 94% of mothers to be abstinent from consuming alcohol-containing beverages during pregnancy. In Colorado data are collected from birth mothers on the number of alcohol-containing beverages consumed per week during pregnancy. For this study, mothers were considered abstinent if they reported no alcohol consumption (0 alcohol-containing beverages per week). A mother was considered non-abstinent if she reported consuming 1 or more alcohol-containing beverages per week.

Figure 13. Percent mothers abstinent from alcohol during pregnancy, Jefferson County 1990-2000



Jefferson County mothers have exceeded the 2010 goal throughout the decade (Figure 13). The abstinence rate for all mothers for the period was 98.1%. There was a steady increase in abstinence between 1990 and 1996, and since 1996 the percentage has remained at 99% or higher. There was a minor effect of marital status on alcohol abstinence (Figure 12) such that unmarried mothers tended to have slightly lower alcohol-abstinence rates than married mothers.

There were several areas of the county that did not meet the 2010 target (Figure M6). Over 4% of mothers in several census tracts in the western portion of the county reported consuming at least 1 alcohol-containing beverage per week.

Mothers in many areas had alcohol-abstinence rates that exceeded the 2010 target. Those areas included portions of Broomfield/Westminster, western Arvada, census tracts southwest of Simms and Bowles Avenues, and the mountainous region of southern Jefferson County.

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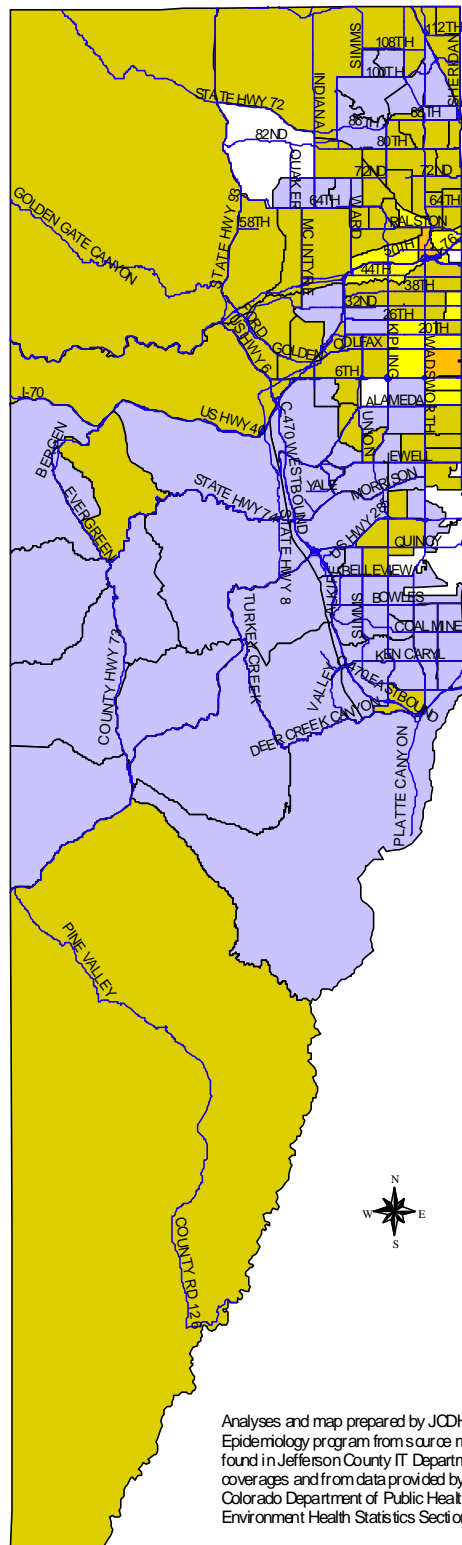
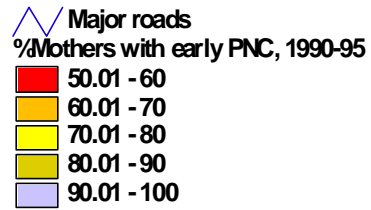


Figure M4a. Percent mothers entering prenatal care in first trimester

Jefferson County
1990-95



Analyses and map prepared by JCDHE Epidemiology program from source material found in Jefferson County IT Department coverages and from data provided by the Colorado Department of Public Health and Environment Health Statistics Section

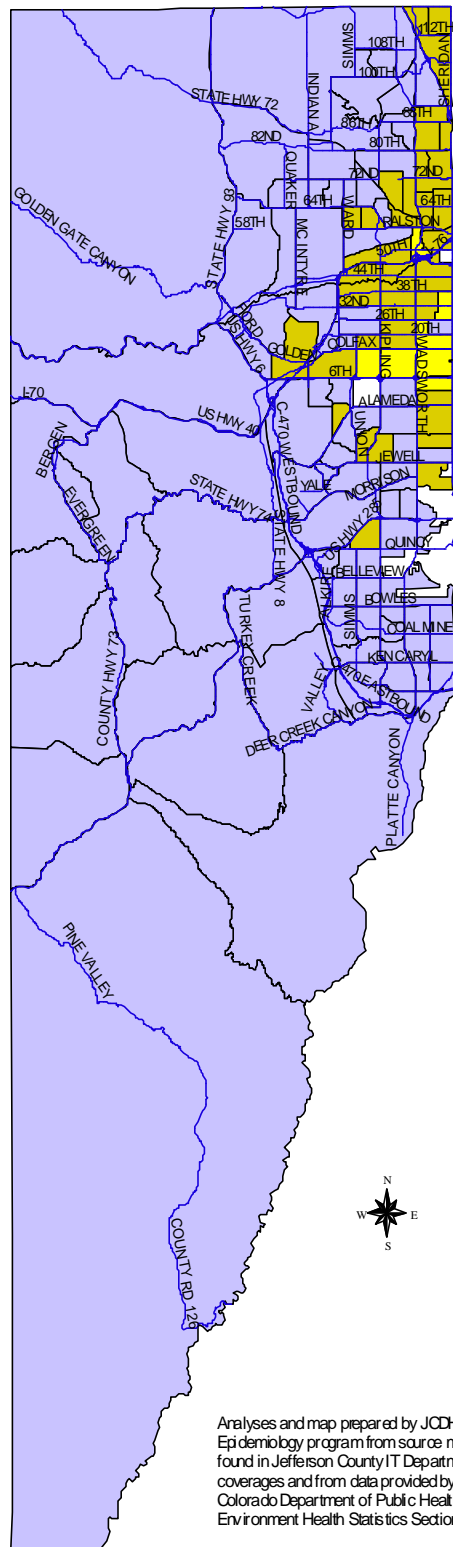
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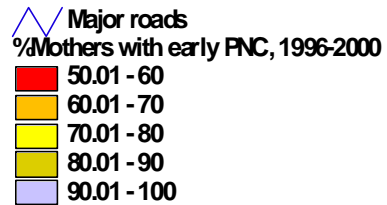
Prenatal Health Objectives



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Figure M4b. Percent
mothers entering
prenatal care in the
first trimester

Jefferson County
1996-2000



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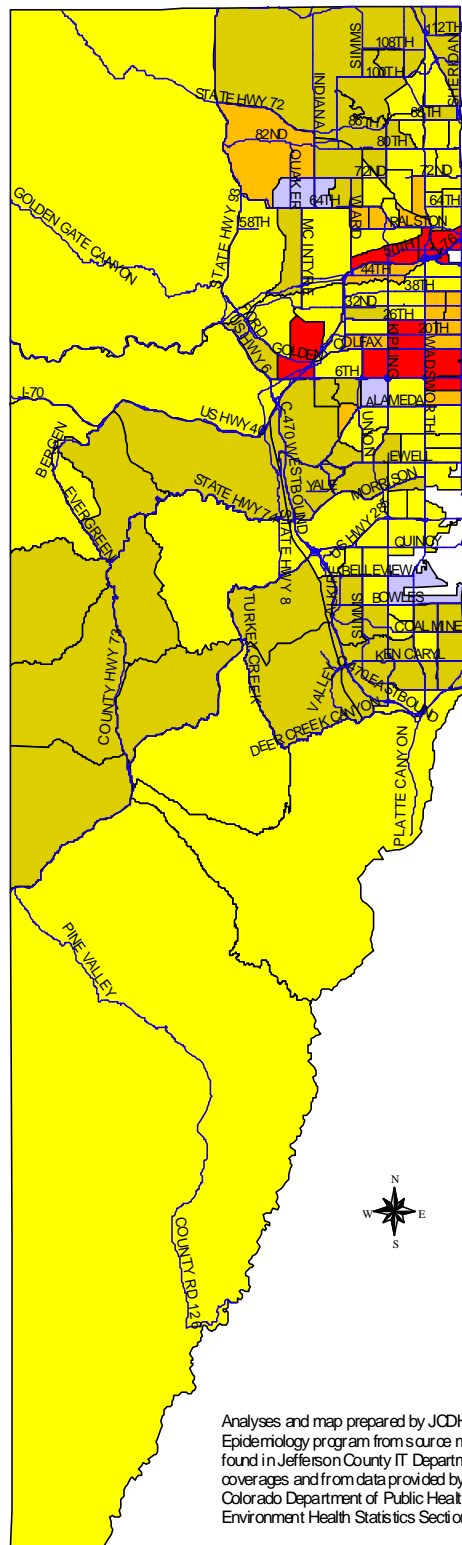
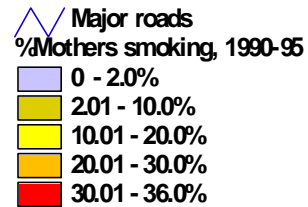


Figure M5a. Percent mothers reporting smoking ≥ 1 cigarette per day during pregnancy

Jefferson County
1990-95



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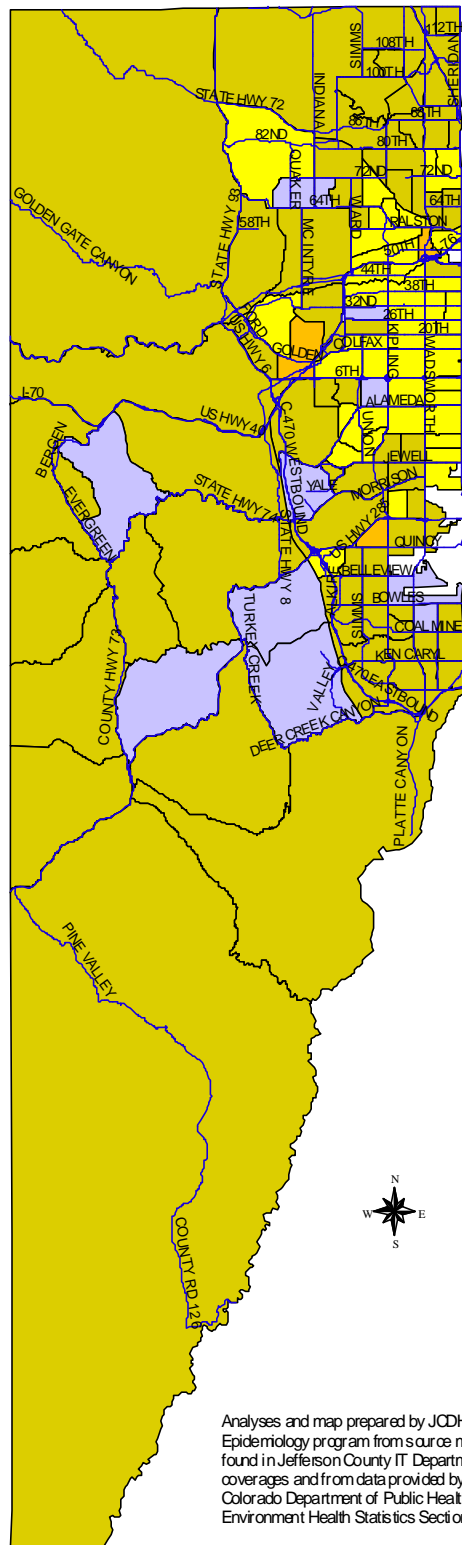
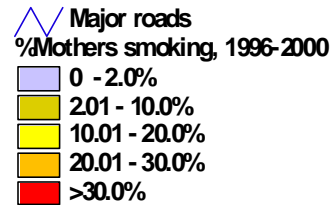


Figure M5b. Percent mothers reporting smoking ≥ 1 cigarette per day during pregnancy

Jefferson County
1996-2000



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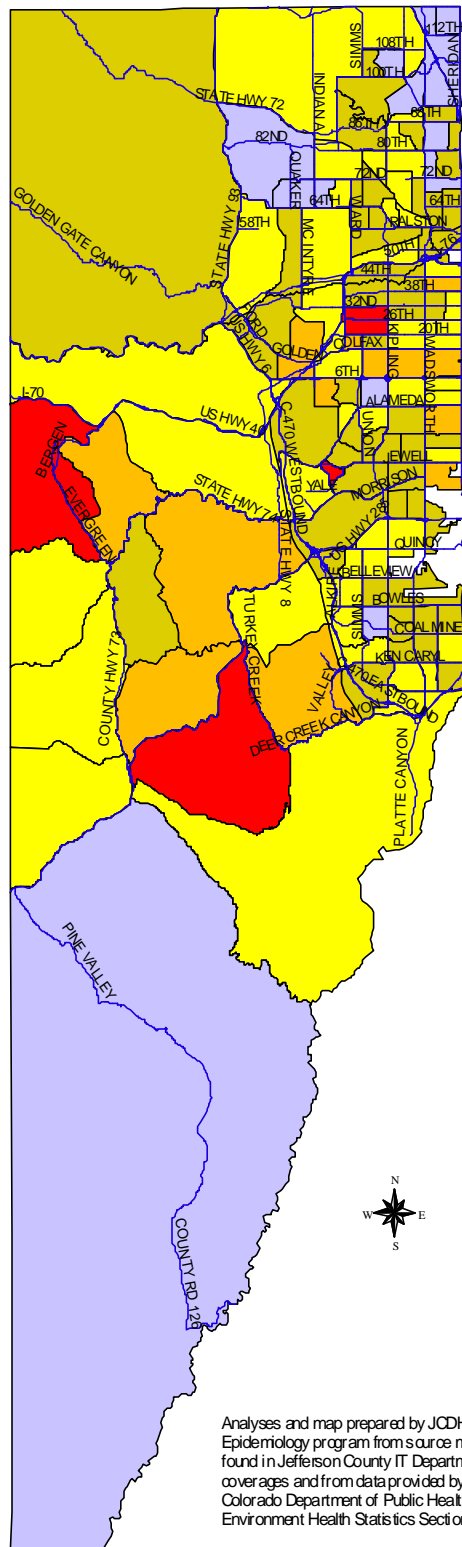


Figure M6. Percent mothers reporting consuming ≥ 1 alcohol-containing beverage per week

Jefferson County
1990-2000

- Major roads
- %Maternal alcohol consumption, 1990-2000
 - 0 - 1.0%
 - 1.01 - 2.0%
 - 2.01 - 3.0%
 - 3.01 - 4.0%
 - 4.01 - 5.0%

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