

PRECONCEPTION HEALTH IN MICHIGAN

DOMAIN: CHRONIC CONDITIONS

SUB-DOMAIN: DIABETES

INDICATOR: PERCENTAGE OF WOMEN WHO HAVE EVER BEEN TOLD BY A HEALTH CARE PROVIDER THAT THEY HAD DIABETES, NOT INCLUDING GESTATIONAL DIABETES

SUMMARY

DATA SOURCE: BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)
 RELIABILITY: HIGH¹
 VALIDITY: MODERATE¹
 HP 2020 OBJECTIVE: D-1 REDUCE THE NUMBER OF NEW CASES OF DIAGNOSED DIABETES IN THE POPULATION (7.2 CASES PER 1,000)

The risk of major congenital malformations in pregnancies complicated by pregestational diabetes is higher than for the general population.² Although any organ system may be affected, the most common congenital anomalies affect the heart, brain and spine. Furthermore, preconception glycemic control has been shown to reduce perinatal mor-

Table 1. **Ever told they have diabetes^a** by age group and race, Michigan BRFSS 2008

Demographic Characteristics	Ever told they have Diabetes	
	%	95% Confidence Interval
Total	2.8	(2.0-3.9)
Age		
18 - 24	0.8	(0.2-3.0)
25 - 34	1.5	(0.7-3.1)
35 - 44	5.3	(3.6-7.7)
Race		
White	2.5	(1.7-3.7)
Black	3.7	(1.9-7.0)
Other	4.0	(0.9-16.2)

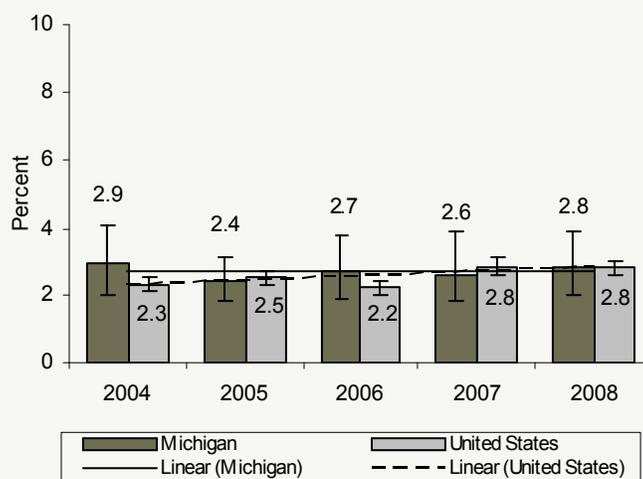
tality and congenital malformations.^{2,3} The Select Panel on Preconception Care workgroup and other groups recommend that all women of reproductive age with diabetes be counseled about diabetes control prior to pregnancy.²

In 2008, 2.8% of Michigan women of reproductive age reported that they had been told that they have diabetes by a health care provider, the same as the national rate for the same period (Figure 1). From 2004 to 2008, the prevalence of self-reported diabetes among Michigan women decreased 3%, while it increased 22% nationally. Although disparities based on demographic characteristics were evident, none were significant except for age (Table 1, Figures 2-3).

The prevalence of self-reported diabetes was significantly higher among:

- Women ages 35 to 44 years compared to younger women.

Figure 1. Trend of self-reported **diabetes^a** among women 18-44: US average vs. Michigan, BRFSS 2004-2008



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Figure 2. Prevalence of self-reported **diabetes**^a among MI women by educational attainment or household income, Michigan BRFSS 2008

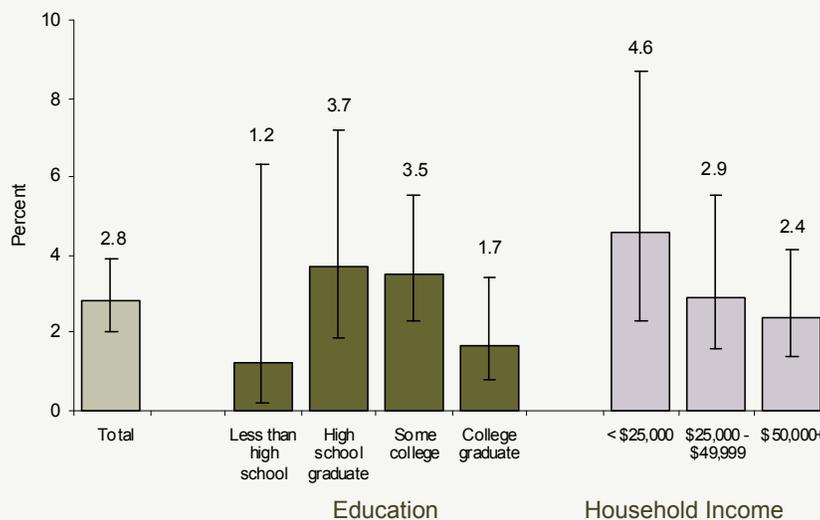
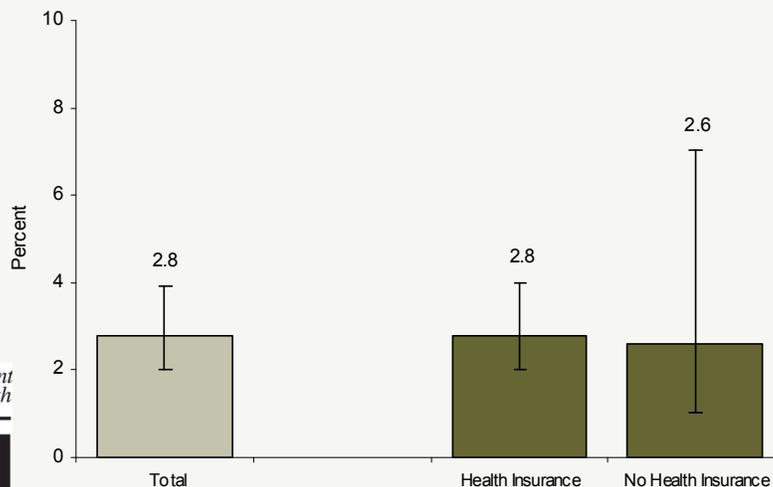


Figure 3. Prevalence of self-reported **diabetes**^a among MI women by health insurance coverage, Michigan BRFSS 2008



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TABLE & FIGURE FOOTNOTES

^a Among adult women aged 18-44 years, the proportion who reported that they were ever told by a doctor that they have diabetes. Women who had been told they have prediabetes or who had diabetes only during pregnancy were classified as not having been diagnosed.

REFERENCES

1. Nelson DE, Holtzman D, Bolen J, Stanwyck CAT & Mack KA (2001) Reliability and validity of measures from the Behavioral Risk Factor Surveillance System (BRFSS). *Sozialund Praventivmedizin*, 46 (Suppl 1), S3-S42.
2. Dunlop AL, Jack BW, Bottalico JN et al. The clinical content of preconception care: women with chronic medical conditions. *Am J Obstet Gynecol* 2008; 199 (6Suppl B): S310-327.
3. Charron-Prochowinik D, Hannan MF, Fischl AR, Slocum JM. Preconception planning: Are we making progress? *Current Diabetes Reports* 2008; 8(6): 294-298.

Michigan Department
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PRECONCEPTION HEALTH IN MICHIGAN

DOMAIN: CHRONIC CONDITIONS

SUB-DOMAIN: HYPERTENSION

INDICATOR: PERCENTAGE OF WOMEN WHO HAVE EVER BEEN TOLD BY A HEALTH CARE PROVIDER THAT THEY HAD HYPERTENSION, NOT INCLUDING HYPERTENSION DURING PREGNANCY

SUMMARY

DATA SOURCE: BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)
 RELIABILITY: HIGH¹
 VALIDITY: MODERATE¹
 HP 2020 OBJECTIVE: HDS-5.1 REDUCE THE PROPORTIONS OF ADULTS WITH HYPERTENSION (26.9%)

Women with hypertension (HTN), commonly referred to as high blood pressure, who become pregnant may be at risk of worsening HTN, pre-eclampsia and eclampsia, as well as poor birth outcomes.² Thus far no well designed studies have evaluated the effects of preconception health screening or interventions aimed at addressing HTN. Nevertheless, the Select Panel on Preconcep-

Table 1. Ever told they have hypertension^a by age group and race, Michigan BRFSS 2009^b

Demographic Characteristics	Ever told they have High Blood Pressure	95% Confidence Interval
Total	9.4	(7.8-11.3)
Age		
18 - 24	5.4	(2.8-10.0)
25 - 34	6.5	(4.2-9.7)
35 - 44	14.8	(12.1-18.0)
Race		
White	8.4	(6.7-10.5)
Black	15.2	(10.4-21.8)
Other	8.9	(4.3-17.7)

tion Care workgroup and other groups recommend that women of reproductive age with chronic HTN be counseled about their risk of complications for both the woman and her infant.²

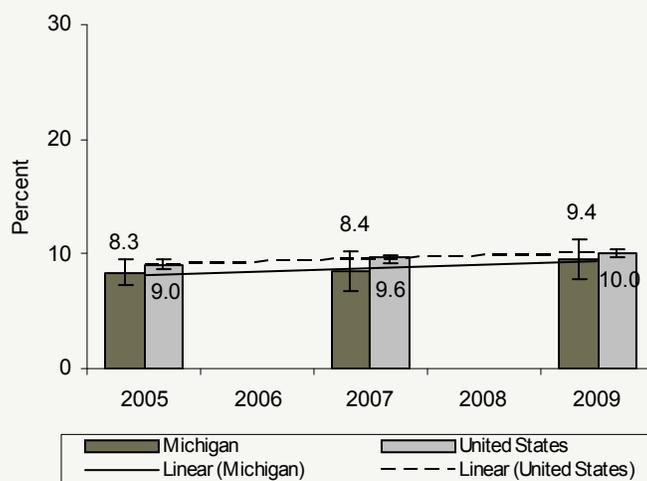
In 2009, 9.4% of Michigan women of reproductive age reported that they had been told that they have

high blood pressure by a health care provider, nearly the same as the national rate for the same period (Figure 1). From 2005 to 2009, the prevalence of self-reported hypertension among Michigan women increased 13%, while it increased 11% nationally. Although disparities based on demographic characteristics were evident, none were significant except for age (Table 1, Figures 2-3).

The prevalence of self-reported hypertension was significantly higher among:

- Women ages 35 to 44 years compared to younger women.

Figure 1. Trend of self-reported hypertension^a among women 18-44: US average vs. Michigan, BRFSS 2005-2009^b



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Figure 2. Prevalence of self-reported **hypertension**^a among MI women by educational attainment or household income, Michigan BRFSS 2009^b

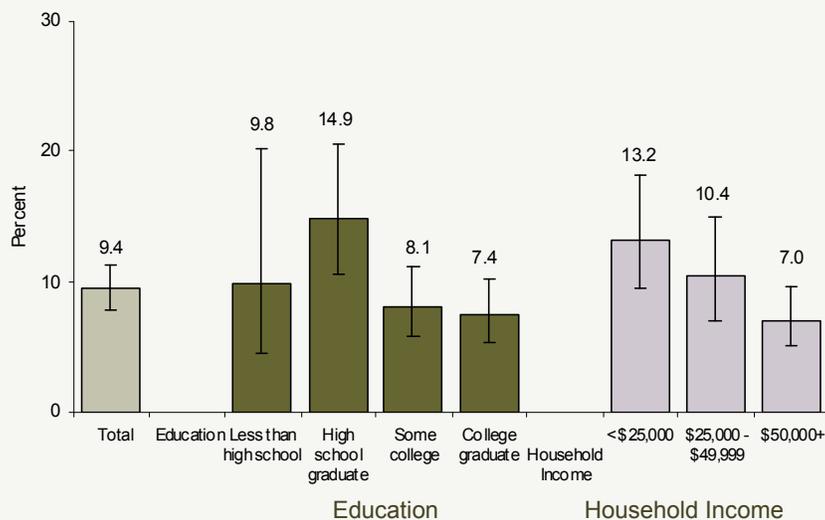
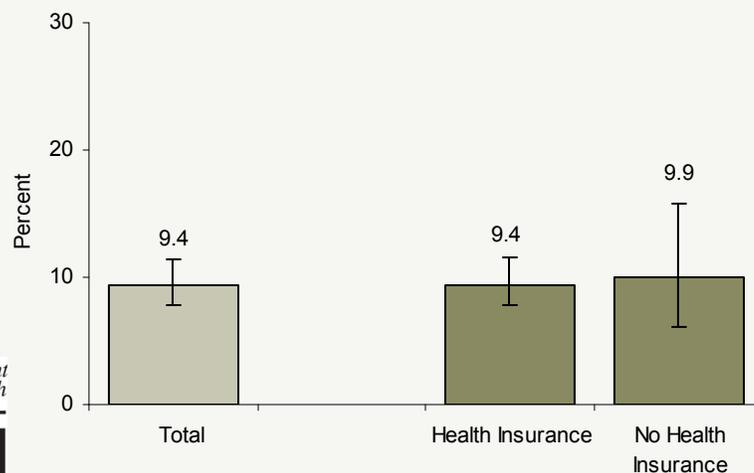


Figure 3. Prevalence of self-reported **hypertension**^a among MI women by health insurance coverage, Michigan BRFSS 2009^b



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TABLE & FIGURE FOOTNOTES

^a Among adult women aged 18-44 years, the proportion who reported that they were ever told by a doctor that they have high blood pressure (HBP). Women who had HBP only during pregnancy or who were borderline hypertensive were considered to not have been diagnosed.

^b Indicator available in odd-numbered years only, thus 2009 data is used for two-way frequency analysis

REFERENCES

1. Nelson DE, Holtzman D, Bolen J, Stanwyck CAT & Mack KA (2001) Reliability and validity of measures from the Behavioral Risk Factor Surveillance System (BRFSS). *Sozialund Preventivmedizin*, 46 (Suppl 1), S3-S42.
2. Dunlop AL, Jack BW, Bottalico JN et al. The clinical content of preconception care: women with chronic medical conditions. *Am J Obstet Gynecol* 2008; 199 (6Suppl B): S310-327.

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PRECONCEPTION HEALTH IN MICHIGAN

DOMAIN: CHRONIC CONDITIONS

SUB-DOMAIN: ASTHMA

INDICATOR: PERCENTAGE OF WOMEN WHO CURRENTLY HAVE ASTHMA

SUMMARY

DATA SOURCE: BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)
 RELIABILITY: UNKNOWN¹
 VALIDITY: UNKNOWN¹
 HP 2020 OBJECTIVE: RD-1 TO RD 7.8 RELATED OBJECTIVES TO CURRENT ASTHMA (I.E. HOSPITALIZATIONS, ER VISITS, PATIENT EDUCATION, ETC.)

Asthma worsens during pregnancy for approximately 30% of pregnant women with asthma and poorly controlled asthma has been found to be associated with maternal and infant complications.² However, complication rates among women with well-controlled asthma are similar to non-asthmatic women.²

The Select Panel on Preconception Care

Figure 1. Trend of self-reported **current asthma**^a among women 18-44: US average vs. Michigan, BRFSS 2004-2008

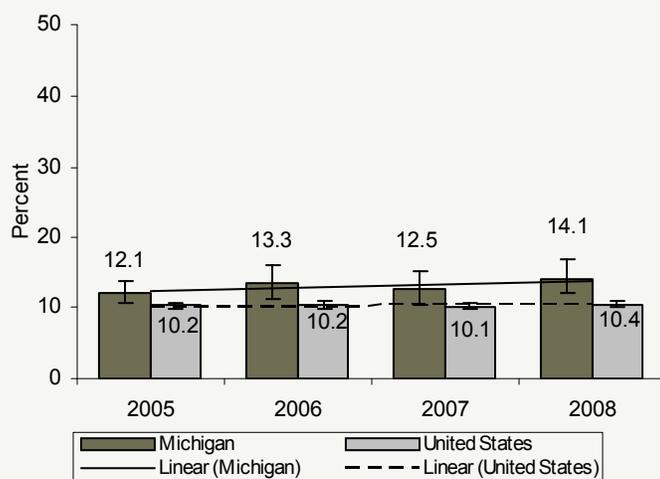


Table 1. **Current asthma**^a by age group and race, Michigan BRFSS 2008

Demographic Characteristics	Current Asthma	
	%	95% Confidence Interval
Total	14.1	(11.9-16.7)
Age		
18 - 24	17.0	(11.9-23.6)
25 - 34	15.2	(11.2-20.2)
35 - 44	11.3	(9.1-14.0)
Race		
White	13.4	(11.1-16.0)
Black	18.3	(11.5-27.9)
Other	14.0	(7.1-25.3)

workgroup and other groups recommend that all women of reproductive age with asthma be counseled regarding the potential of asthma control worsening during pregnancy and the importance of achieving control prior to pregnancy.²

In 2008, 14.1% of Michigan women of reproductive age reported that they currently have asthma, higher than the national rate

(Figure 1). From 2005 to 2008, the prevalence of asthma among Michigan women increased 17%, compared to a 2% increase nationally. Although disparities based on demographic characteristics were evident, none were significant except for education (Table 1, Figures 2-3).

The prevalence of self-reported current asthma was significantly higher among:

- Women with less than a high school education compared to college graduates.

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SUB-DOMAIN: ASTHMA

INDICATOR: PERCENTAGE OF WOMEN WHO CURRENTLY HAVE ASTHMA

Figure 2. Prevalence of self-reported **current asthma**^a among MI women by educational attainment or household income, Michigan BRFSS 2008

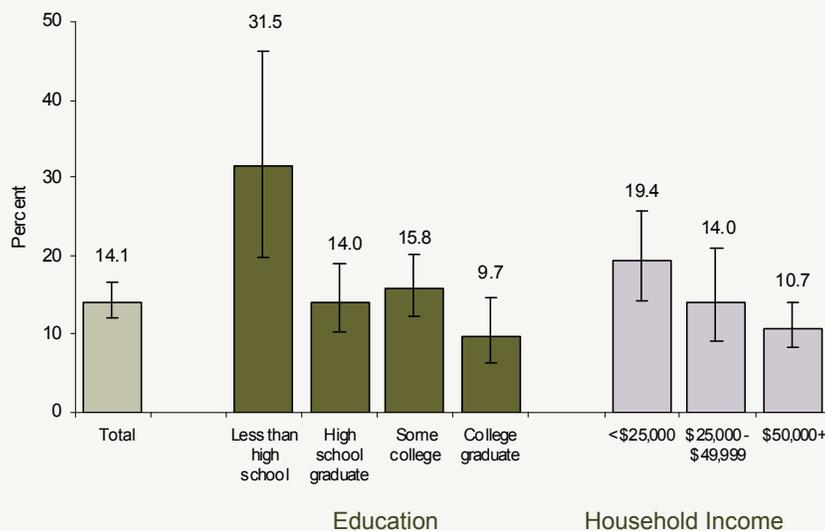
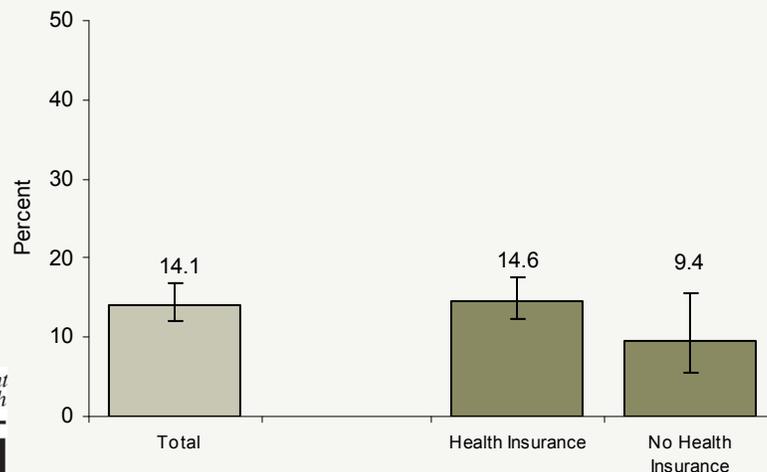


Figure 3. Prevalence of self-reported **current asthma**^a among MI women by health insurance coverage, Michigan BRFSS 2008



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TABLE & FIGURE FOOTNOTES

^a Among adult women aged 18-44 years, the proportion who reported that they were ever told by a doctor, nurse, or other health care professional that they had asthma and they still have asthma.

REFERENCES

1. Core State Preconception Health Indicators: a voluntary, multi-state selection process. November 2009.
2. Dunlop AL, Jack BW, Bottalico JN et al. The clinical content of preconception care: women with chronic medical conditions. *Am J Obstet Gynecol* 2008; 199 (6Suppl B): S310-327.

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