

A Health Needs Assessment Study of the Minority Population in Marshall County

by the

Indiana Minority Health Coalition

Indiana Minority Health Coalition

Nancy Jewell, MPA, President/CEO

In Staff Support

Frank Lloyd, Jr., MD, Executive Director

Calvin Roberson, Jr., MHA, MPH, Research Director

Anita Ohmit, MPH, Data Analyst

Layla Baker, MPH, Research Assistant

Natalie Duncan, BA, Research Assistant

Indiana University

School of Medicine

Department of Family Medicine

Bowen Research Center

Robert M. Saywell, Jr., Ph.D., M.P.H. Consultant

Terrell W. Zollinger, Dr. P.H., Consultant

Wambui G. Gathirua MPH., CHES, Research Assistant

May 2005

TABLE OF CONTENTS

Executive Summary..... 3

Introduction..... 5

Purpose..... 6

Methods..... 7

Existing Health Indicator (Secondary) Data 8

Results.....9

Overview of Existing Health Indicators (Secondary) Data 10

Birth Data..... 11

Weight Gain During Pregnancy..... 25

Prenatal Care..... 27

Leading Causes of Death..... 28

Conclusions.....31

EXECUTIVE SUMMARY

Executive Summary

This report presents results of a community health needs assessment for minority populations in Marshall County, directed by the Indiana Minority Health Coalition with technical assistance from the Indiana University Bowen Research Center. Initial project planning activities began in 2003, with most of the data collected in 2004. The purpose of this needs assessment study is to:

- Perform a community-based health needs assessment of minority populations in Marshall County
- Identify the real health-related issues of minority groups across age, gender, socio-economic, and geographic categories
- Examine the wide spectrum of factors impacting the health and well being of the minority populations in the Marshall County

Data for the health assessment were collected from existing data containing health indicators.

Existing data from birth and death certificates, and hospitalizations that have health indicators were gathered and analyzed for minority groups. The analysis of these existing data for Marshall County indicated that disparities exist by race and ethnic group. It also revealed that most rates need to be improved to meet the Healthy People 2010 Objectives. The Black population in Marshall County is disproportionately affected when comparing the health indicators among racial groups.

INTRODUCTION

Introduction

This report presents the results of a community needs health assessment for minority populations in Marshall County, directed by the Indiana Minority Health Coalition. Technical assistance was provided by the Indiana University Bowen Research Center staff. Initial project planning activities began in 2003, with most of the data collected in 2004.

The community health needs assessment activities and results presented here represent an important stage of a comprehensive, ongoing process that will be refined and updated in the coming months and years. A “community health needs assessment” is a systematic, collaborative, data-driven approach to assessing the health needs of populations in a defined geographic area. Information provided by the targeted populations is essential in this process to accurately measure the community values and perspectives. Assessing community health needs is a dynamic process that supports broad-based identification and verification of priorities; intervention development and implementation; and ongoing program evaluation, refinement, and improvement.

Purpose

The purpose of this needs assessment study was to:

- Perform a community-based health assessment of minority populations in Marshall County
- Identify the real health-related issues of minority groups across age, gender, socio-economic, and geographic categories
- Examine the wide spectrum of factors impacting the health and well being of the minority populations in the Marshall County

From the earliest discussions, this needs assessment was designed to be comprehensive in scope, committed to provide critical information to decision makers to help elucidate the health concerns of minority residents in Marshall County. The process was designed to provide essential data about health needs and related issues which could be used to develop targeted action plans to improve the health status of minorities. More importantly, it is hoped this project will become a vehicle to mobilize neighborhoods, consumers, health care providers, and service delivery systems to positively impact the health of minority residents in Marshall County, and, thus, build a healthier community.

METHODS

Methods

The community health needs assessment incorporated multiple components. These components involved obtaining and analyzing existing data (including birth and death certificates) that contain health indicators for minority groups. This report also provides supporting documentation (technical information, supporting exhibits, and data collection tools) for the benefit of readers who have a technical interest in the epidemiological and analytical methods used and who may want to perform additional analyses of the data.

Existing Health Indicator (Secondary) Data:

Existing data from birth and death certificates were analyzed to provide quantitative measures for comparison between race and ethnic groups. This information was readily available and considered to be generally valid and reliable. These data sources are also “population-based,” meaning that all births and deaths are included, rather than a sample. Thus, using this information to assess health needs among minority population will be very useful and powerful. This component will provide quantitative measures that can be compared across racial and ethnic groups as well as between Marshall County and the State as a whole. In addition, these measures can be compared to national targets.

Data about births and deaths were provided by the Indiana State Department of Health, based on births and deaths reported in calendar year 2003. Two primary levels of comparison were made: comparisons among racial groups (Whites, Blacks, Asians/Pacific Islanders, and American Indians/Alaskan Natives) and comparisons between ethnic groups (Hispanics/Latinos and non-Hispanics). Comparisons are also presented between the populations in Marshall County and those in the State of Indiana. The graphs also show the target goals presented in the Healthy People Year 2010 Objectives for the Nation for health indicators where applicable.

Birth measures are shown on the graphs for those health indicators where at least 20 births occurred in the study year among individuals in the specific minority group. Low birth weight births were defined as those where the baby weighed less than 2500 grams. Very low birth weight births were defined as those where the baby weighed less than 1500 grams. Preterm births were defined as those where the delivery occurred at less than 37 weeks of gestation, early preterm births were defined as those where the delivery occurred at less than 32 weeks of gestation.

Death measures are shown on the graphs for those health indicators where at least 20 deaths occurred in the study year among individuals within the specific minority group. The top five leading causes of death were compared by race and ethnic group category in Marshall County.

RESULTS

Overview of Existing Health Indicator (Secondary Data Analysis)

Analysis of existing data for Marshall County (birth, morbidity and mortality data) indicated disparities exist in Marshall County by race and ethnic group. In addition, most rates need to be improved to meet the Healthy People 2010 objectives, the benchmarks provided by the U.S. government. Unfortunately, no comparisons could be made for Asian and Pacific Islanders (APIs), Blacks and American Indians/Alaska Natives (AIANs) in Marshall County because less than 20 incidents occurred in the study year among individuals in the specific minority group for the specific outcome of interest.

Comparisons for Marshall County are based on the differences between specific indicators and the Healthy People 2010 objective, comparison to all births in the county and to the respective racial or ethnic group in Indiana. Any values with less than 1% (<1%) difference are considered similar and values equal to or greater than 1% difference were listed as having a lower or greater difference. The 1% difference rule does not apply when comparing indicators with the Healthy People 2010 objective.

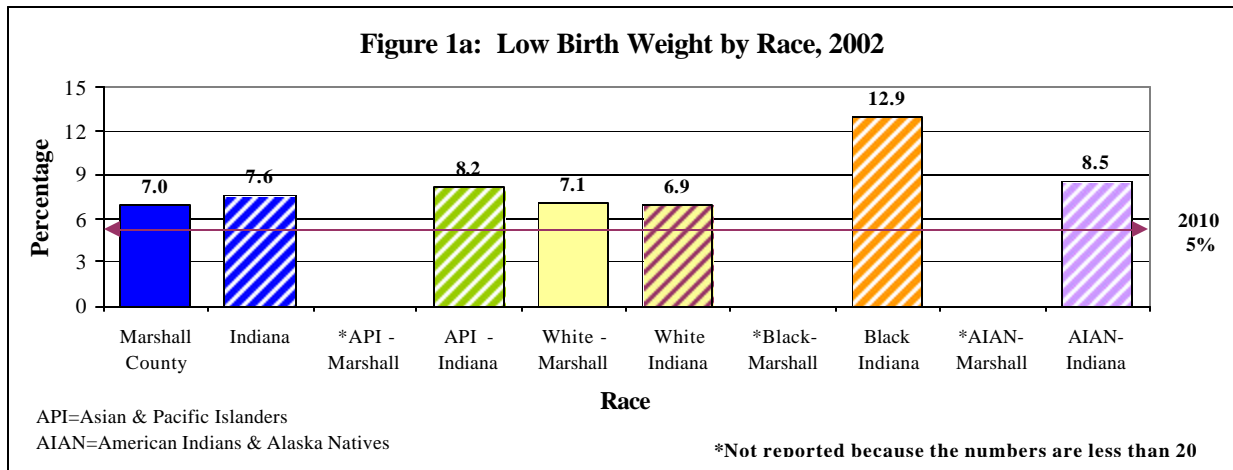
Hispanics in Marshall County are disproportionately affected when comparing the health indicators among ethnic groups. There is room for improvement in very low birth weight, early preterm births, pregnancy complications, Cesarean deliveries, births to single mothers, and low weight gain during pregnancy. Furthermore, fewer Hispanic women receive prenatal care during the first trimester and more Hispanic women receive less than adequate prenatal care. These indicators that need improvement do not meet the Healthy People 2010 objective and/or have higher percentages in comparison to all Non-Hispanic births in the county.

The age-adjusted death rate and deaths by cause for APIs, AIANs, Blacks and Hispanics in Marshall County could not be compared due to the small numbers. Diseases of the heart are the leading cause of death in Marshall County.

Birth Data:

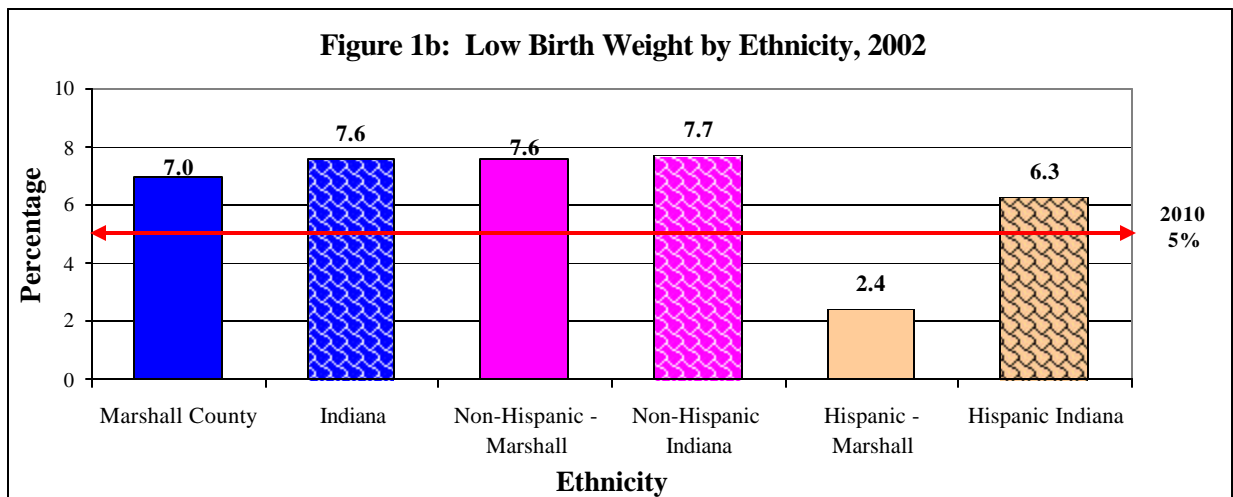
Low Birth Weight (LBW) by Race (Figure 1a):

- The percentage of low birth weight deliveries for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



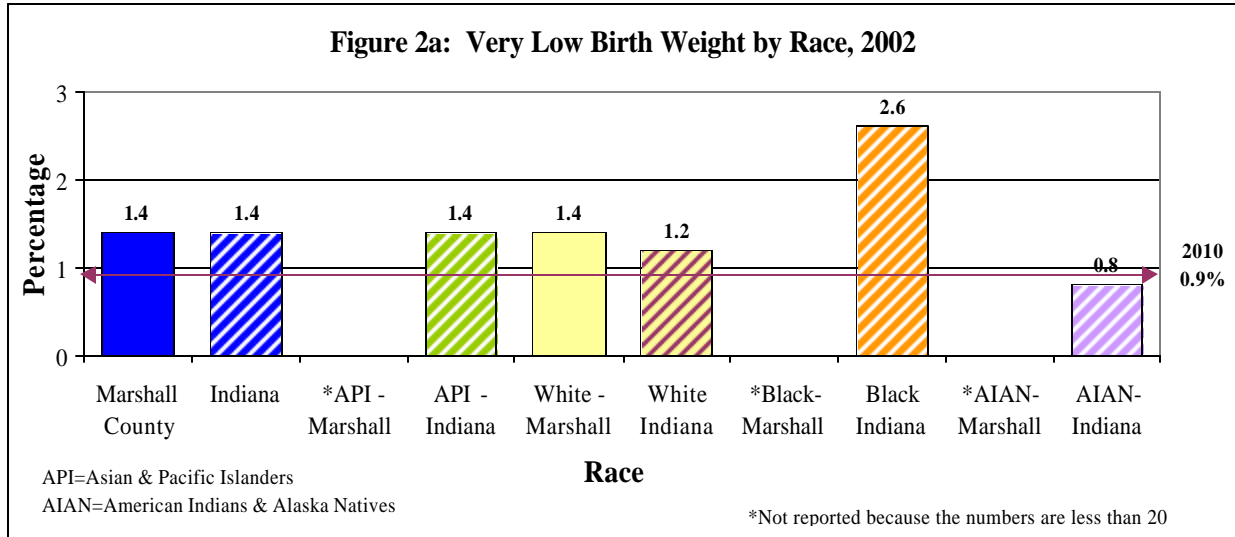
Low Birth Weight (LBW) by Ethnicity (Figure 1b):

- The percentage of low birth weight deliveries for Hispanics in Marshall County was lower than the Healthy People 2010 objectives.
- The percentage of low birth weight deliveries for Hispanics in Marshall County was lower than the percentage for Non-Hispanic births in Marshall County.
- The percentage of low birth weight deliveries for Hispanics in Marshall County was lower than the percentage for all Hispanic births in Indiana.



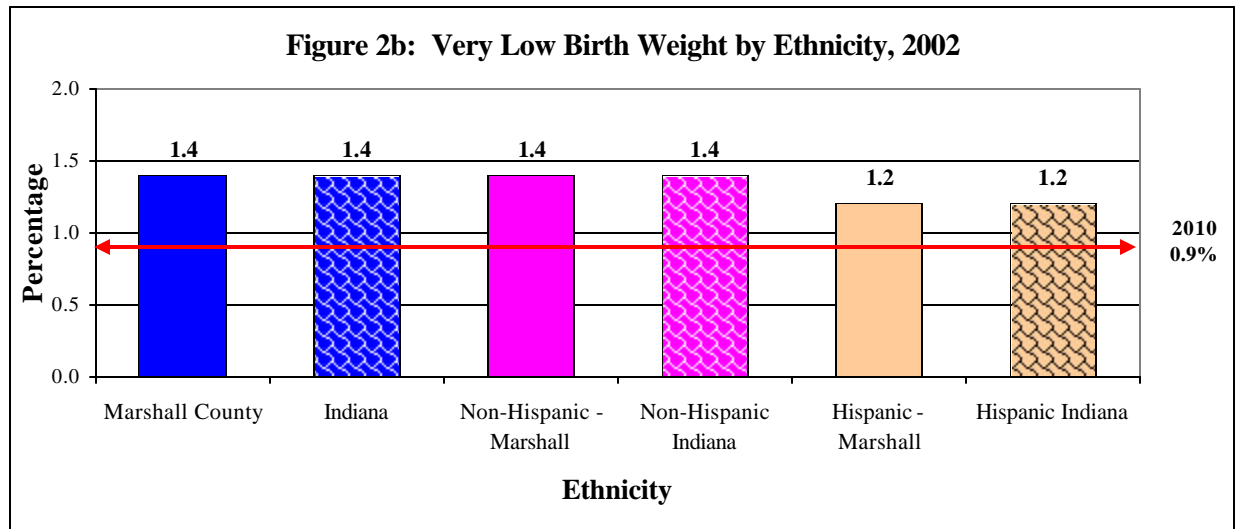
Very Low Birth Weight (VLBW) by Race (Figure 2a):

- The percentage of very low birth weight deliveries for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



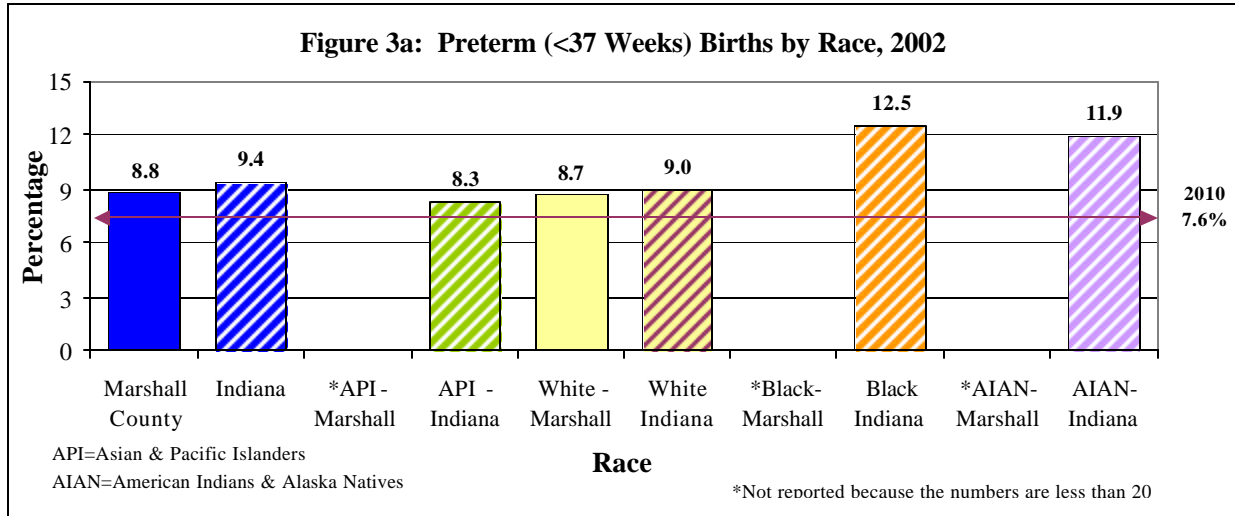
Very Low Birth Weight (VLBW) by Ethnicity (Figure 2b):

- The percentage of very low birth weight deliveries for Hispanics in Marshall County was higher than the Healthy People 2010 objectives.
- The percentage of very low birth weight deliveries for Hispanics in Marshall County was similar to the percentage for Non-Hispanic births in Marshall County.
- The percentage of very low birth weight deliveries for Hispanics in Marshall County was equal to the percentage for all Hispanic births in Indiana.



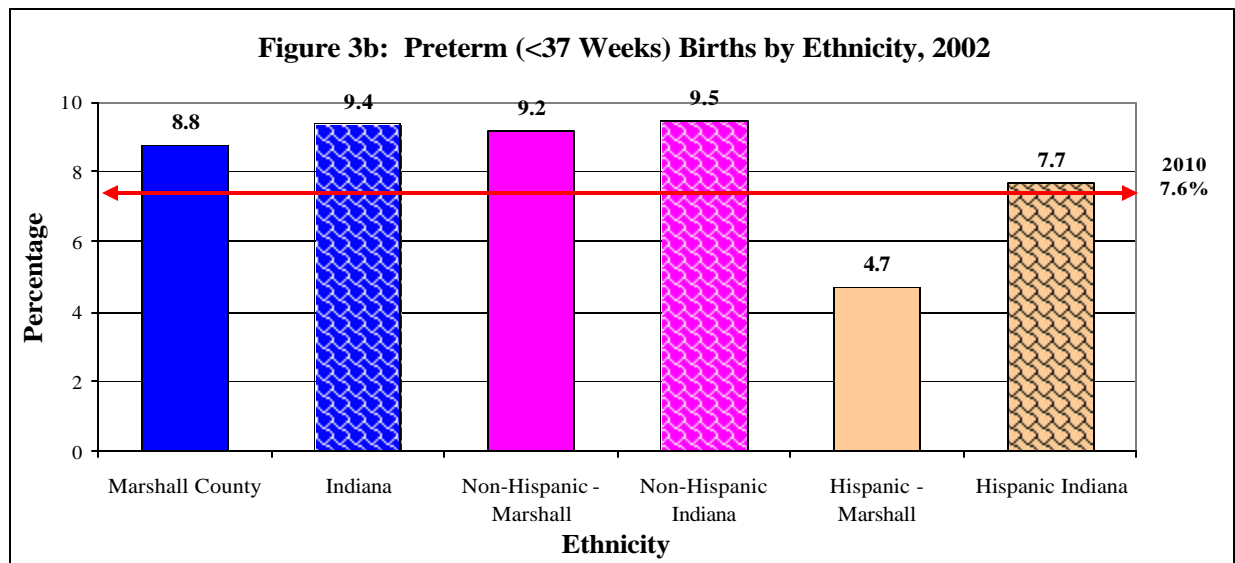
Preterm (< 37 weeks) Births by Race (Figure 3a):

- The percentage of preterm births for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



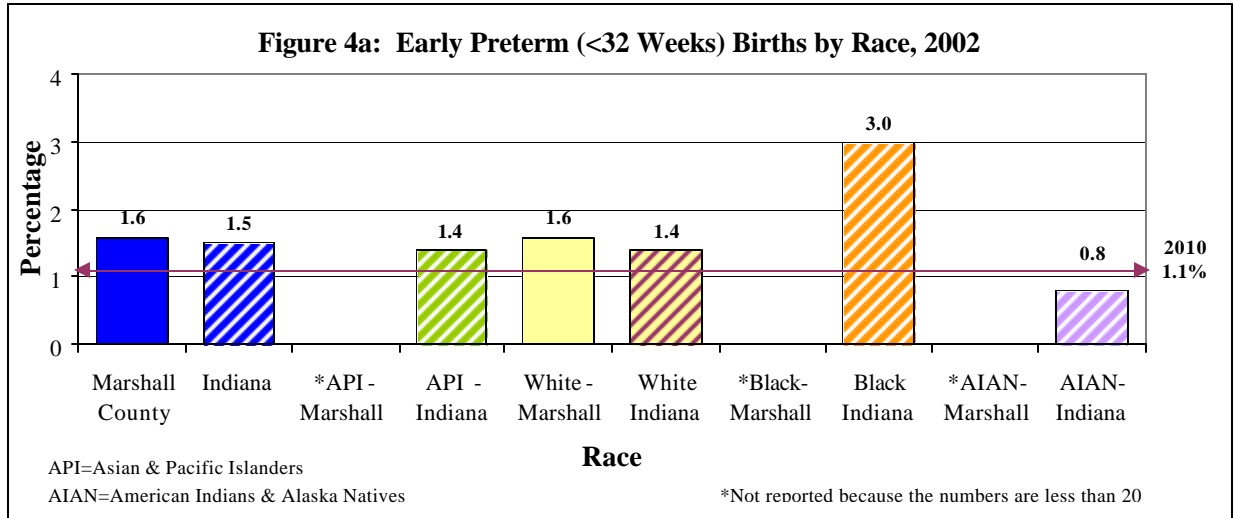
Preterm (< 37 weeks) Births by Ethnicity (Figure 3b):

- The percentage of preterm births for Hispanics in Marshall County was lower than the Healthy People 2010 objectives.
- The percentage of preterm births for Hispanics in Marshall County was lower than the percentage for Non-Hispanic births in Marshall County.
- The percentage of preterm births for Hispanics in Marshall County was lower than the percentage for all Hispanic births in Indiana.



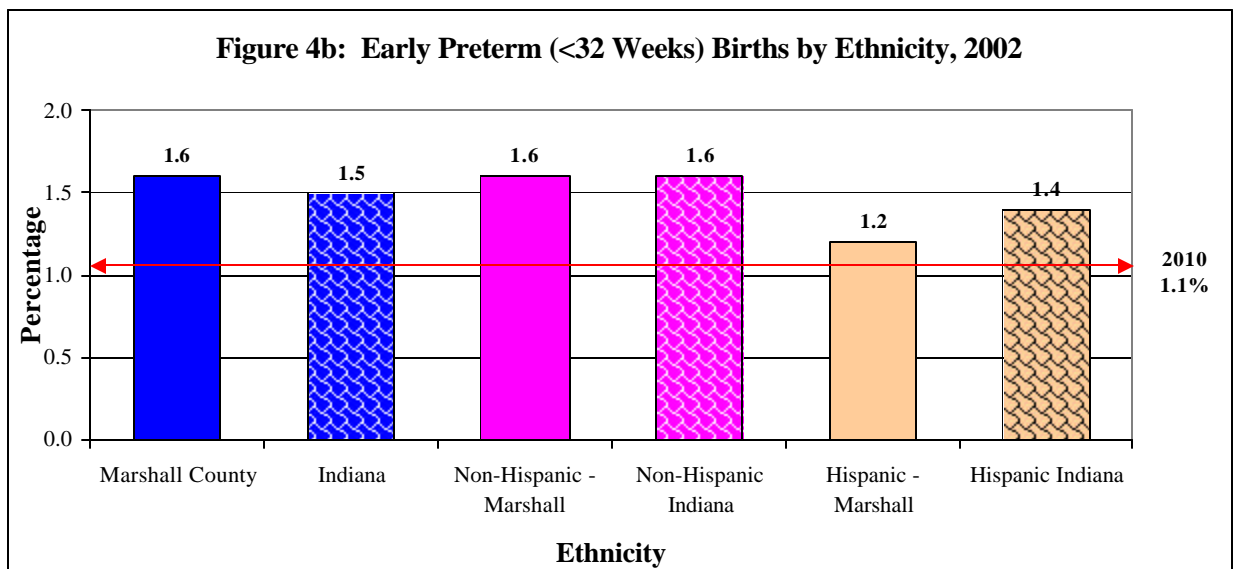
Early Preterm (< 32 weeks) Births by Race (Figure 4a):

- The percentage of early preterm births for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



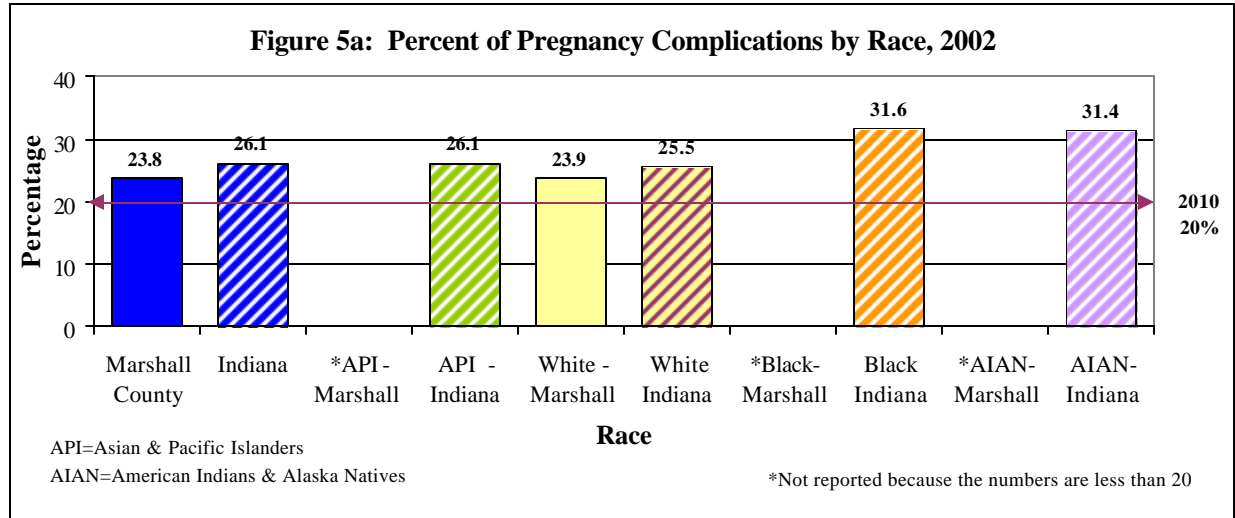
Early Preterm (< 32 weeks) Births by Ethnicity (Figure 4b):

- The percentage of early preterm births for Hispanics in Marshall County was higher than the Healthy People 2010 objectives.
- The percentage of early preterm births for Hispanics in Marshall County was similar to the percentage for Non-Hispanic births in Marshall County.
- The percentage of early preterm births for Hispanics in Marshall County was similar to the percentage for all Hispanic births in Indiana.



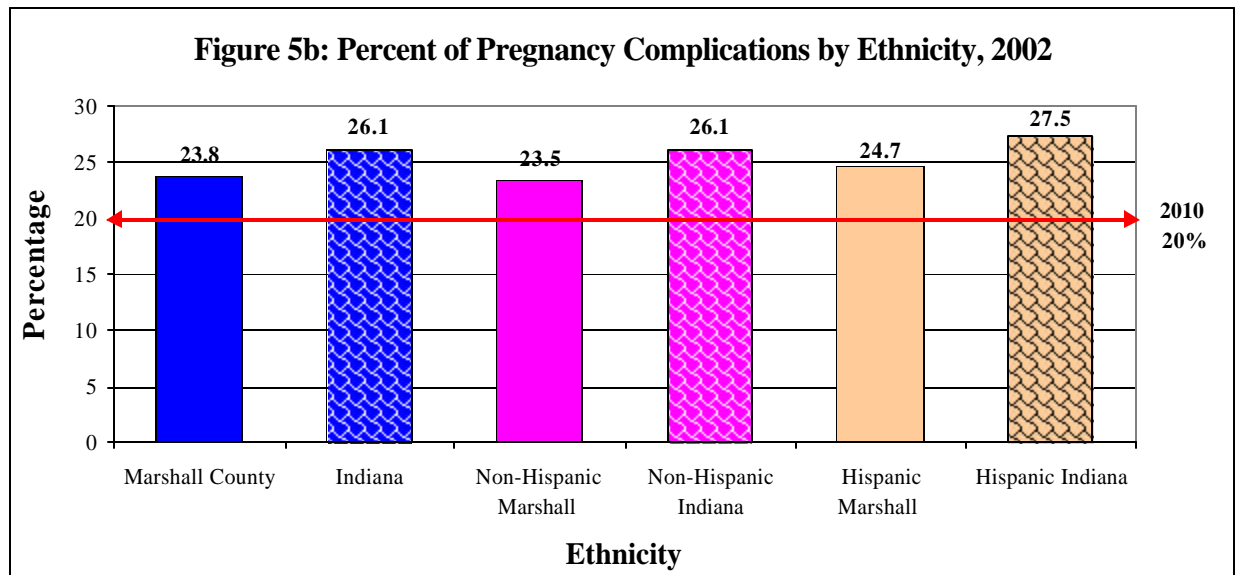
Percent of Pregnancy Complications by Race (Figure 5a):

- The percentage of pregnancy complications for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



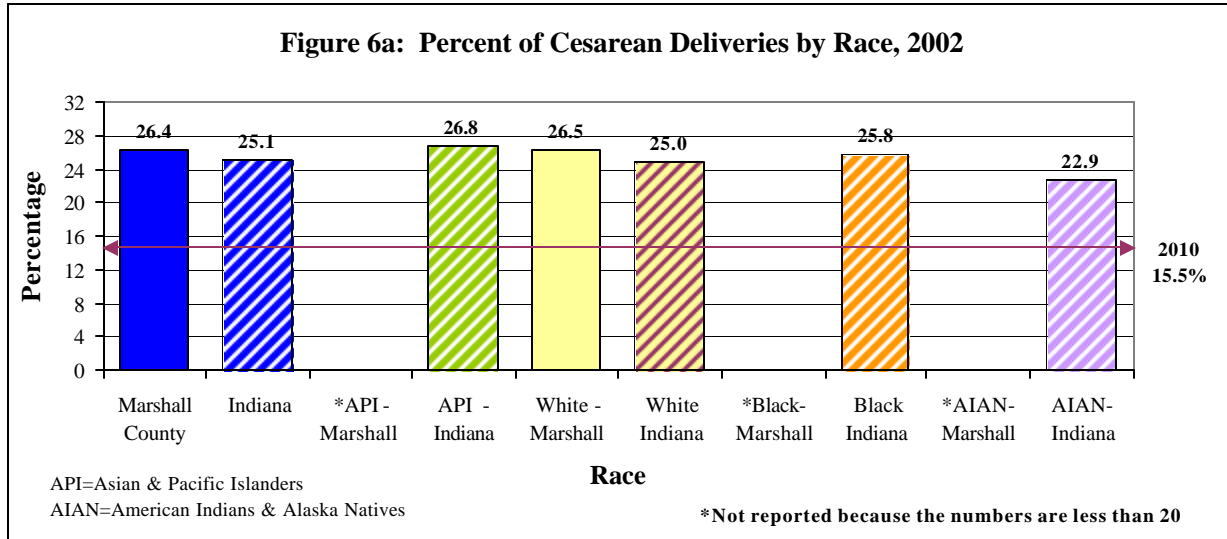
Percent of Pregnancy Complications by Ethnicity (Figure 5b):

- The percentage of pregnancy complications for Hispanics in Marshall County was higher than the Healthy People 2010 objectives.
- The percentage of pregnancy complications for Hispanics in Marshall County was higher than the percentage for Non-Hispanic births in Marshall County.
- The percentage of pregnancy complications for Hispanics in Marshall County was lower than the percentage for all Hispanic births in Indiana.



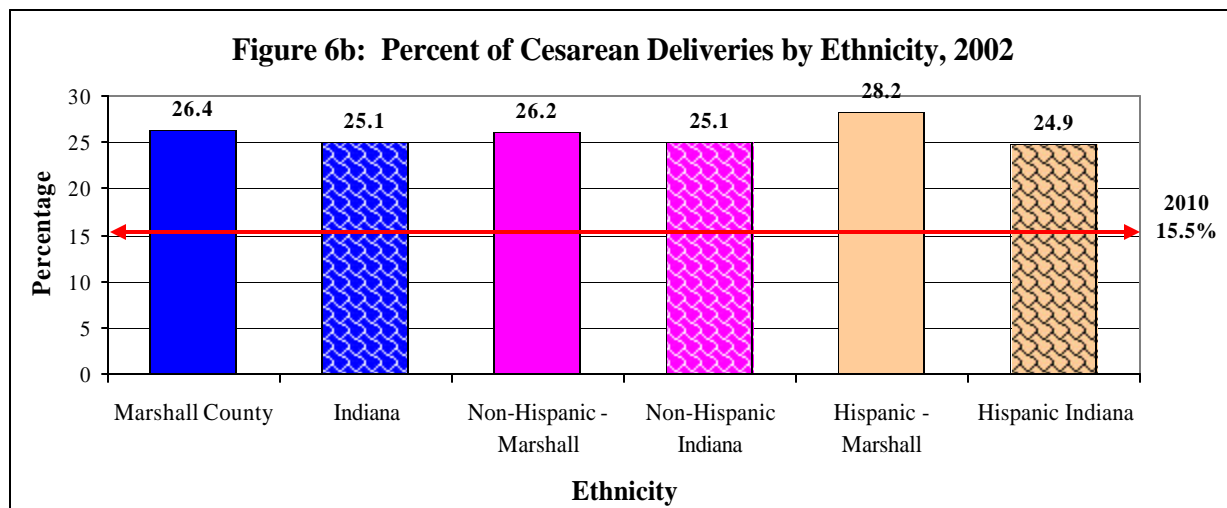
Percent of Cesarean Deliveries by Race (Figure 6a):

- The percentage of Cesarean deliveries for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



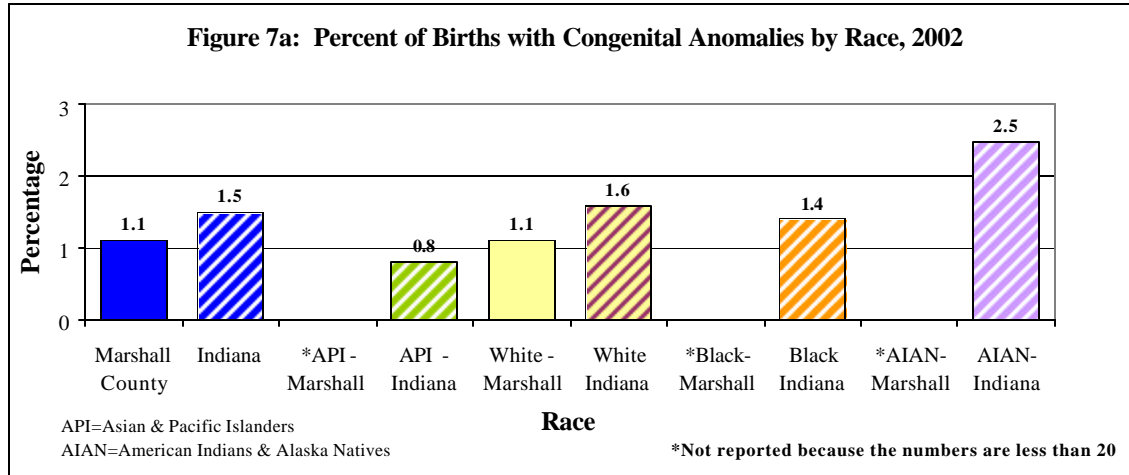
Percent of Cesarean Deliveries by Ethnicity (Figure 6b):

- The percentage of Cesarean deliveries for Hispanics in Marshall County was higher than the Healthy People 2010 objectives.
- The percentage of Cesarean deliveries for Hispanics in Marshall County was higher than the percentage for Non-Hispanic births in Marshall County.
- The percentage of Cesarean deliveries for Hispanics in Marshall County was higher than the percentage for all Hispanic births in Indiana.



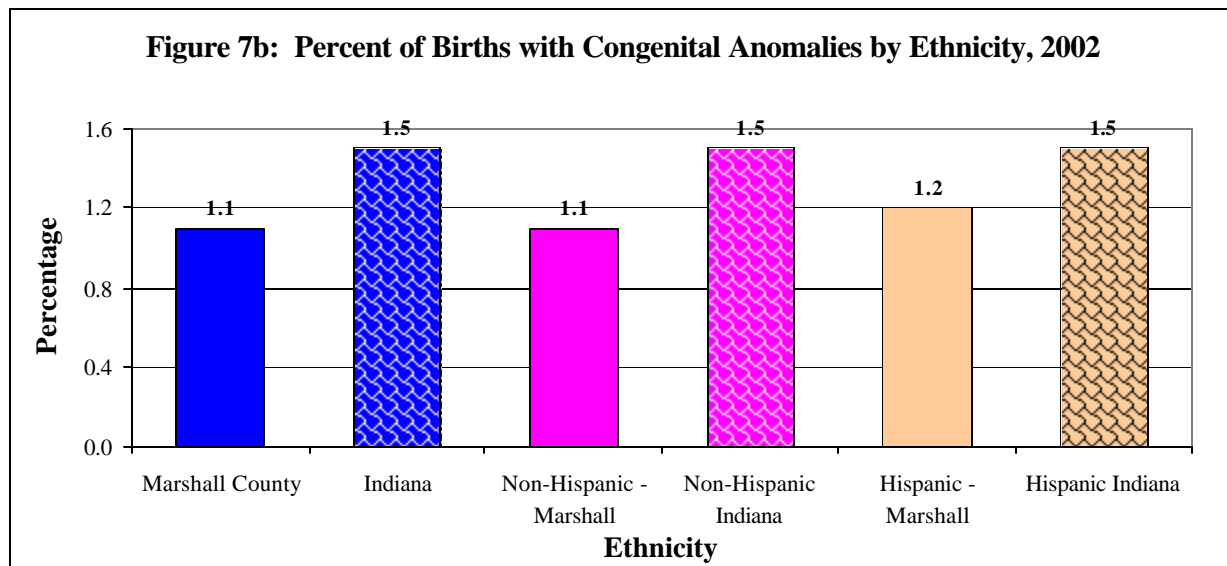
Percent of Births with Congenital Anomalies by Race (Figure 7a):

- The percentage of congenital anomalies for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



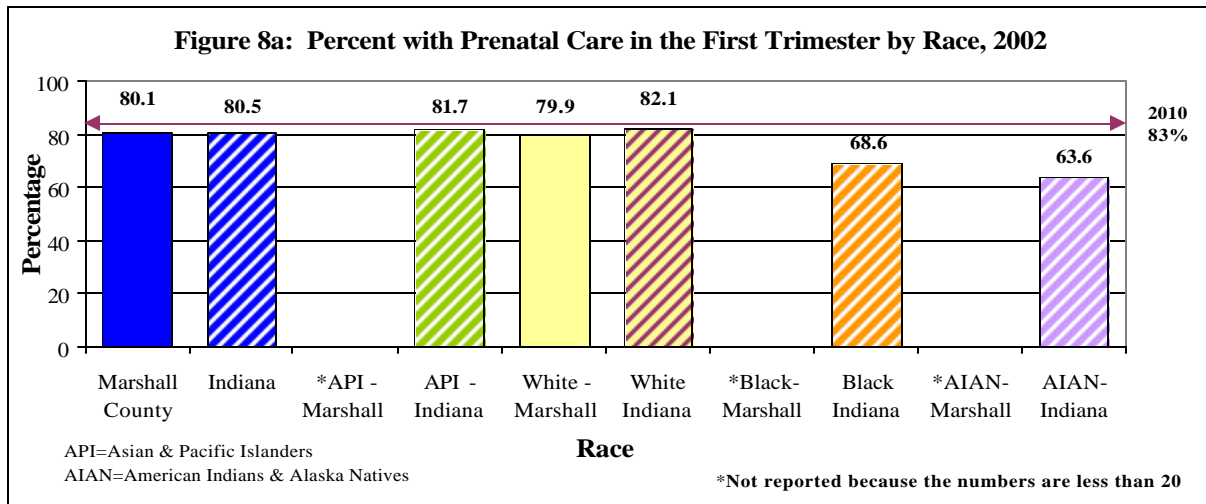
Percent of Births with Congenital Anomalies by Ethnicity (Figure 7b):

- The percentage of congenital anomalies for Hispanics in Marshall County was similar to the percentage for Non-Hispanic births in Marshall County.
- The percentage of congenital anomalies for Hispanics in Marshall County was similar to the percentage for all Hispanic births in Indiana.



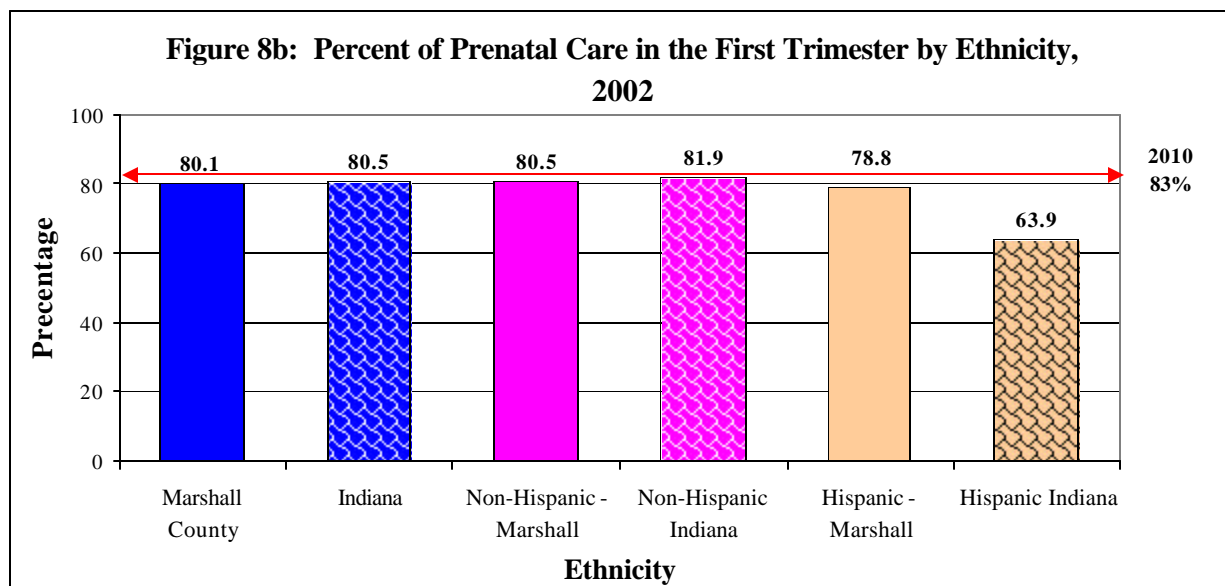
Percent of Prenatal Care in the First Trimester by Race (Figure 8a):

- The percentage of prenatal care in the first trimester for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



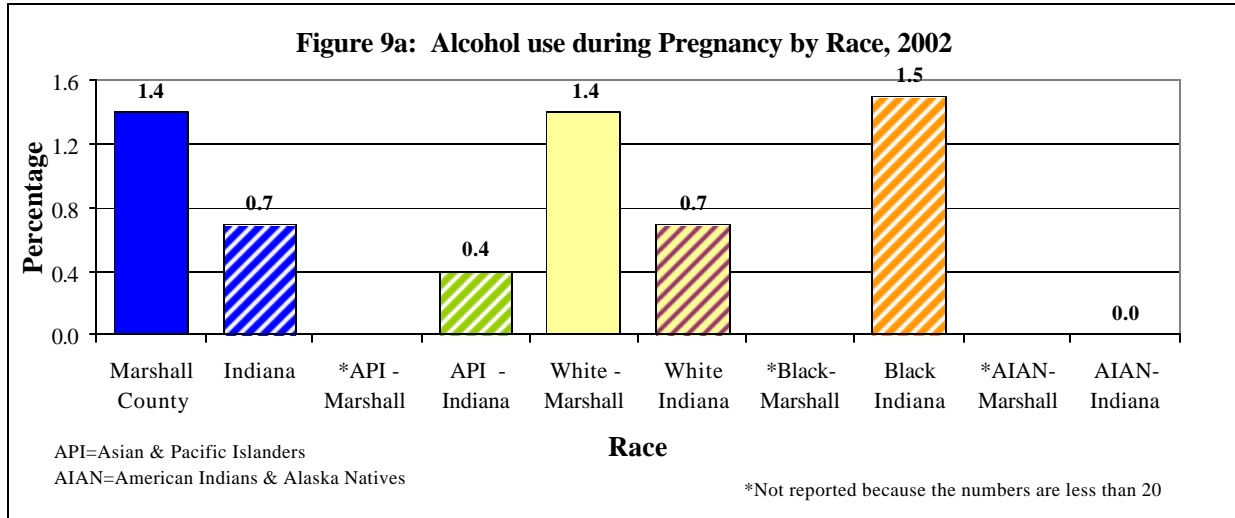
Percent of Prenatal Care in the First Trimester by Ethnicity (Figure 8b):

- The percentage of prenatal care in the first trimester for Hispanics in Marshall County was below the Healthy People 2010 objectives.
- The percentage of prenatal care in the first trimester for Hispanics in Marshall County was lower than the percentage for Non-Hispanic births in Marshall County.
- The percentage of prenatal care in the first trimester for Hispanics in Marshall County was higher than the percentage for all Hispanic births in Indiana.



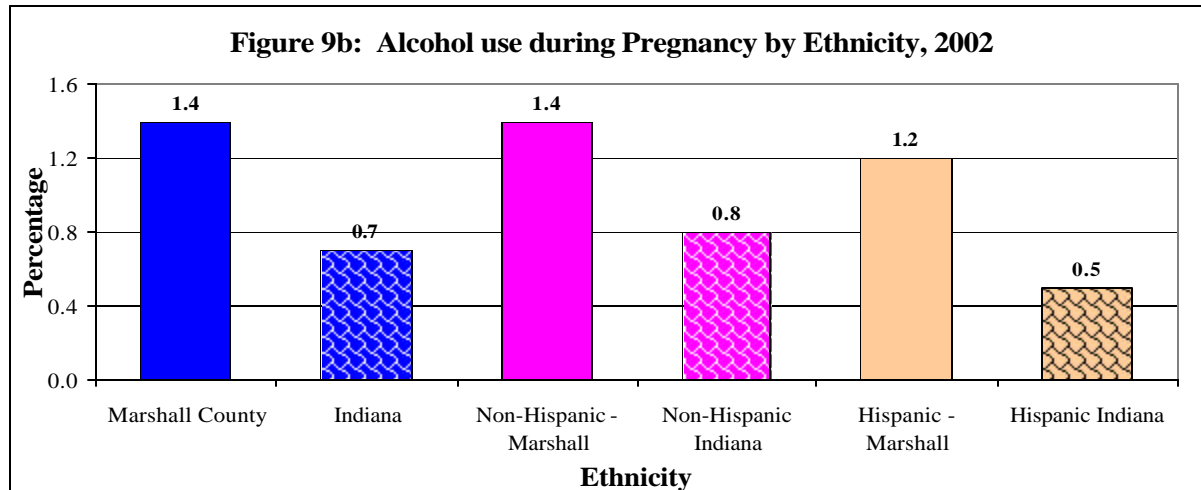
Alcohol Use during Pregnancy by Race (Figure 9a):

- The percentage of alcohol use during pregnancy for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



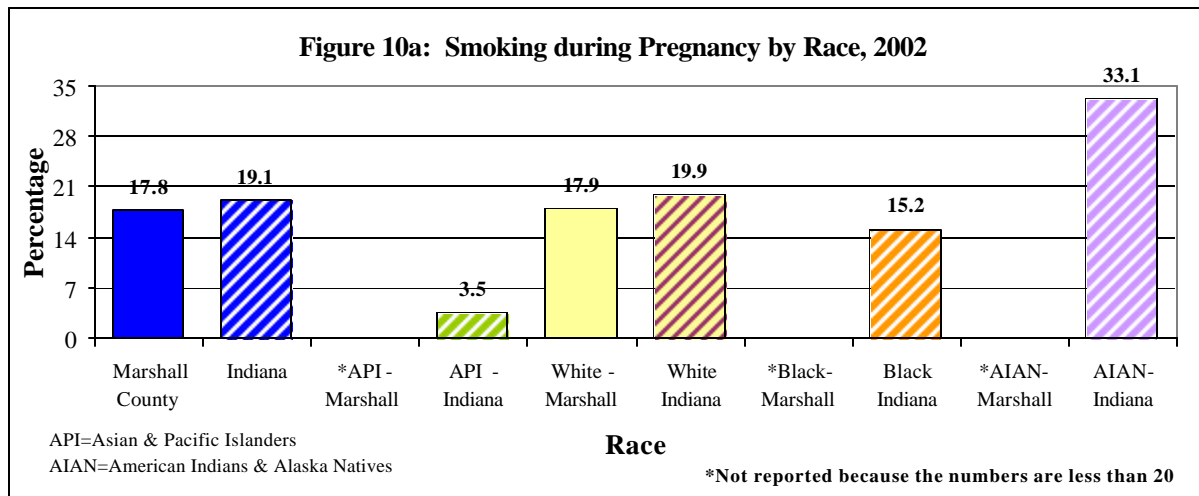
Alcohol Use during Pregnancy by Ethnicity (Figure 9b):

- The percentage of alcohol use during pregnancy for Hispanics in Marshall County was similar to the percentage for Non-Hispanic births in Marshall County.
- The percentage of alcohol use during pregnancy for Hispanics in Marshall County was similar to the percentage for all Hispanic births in Indiana.



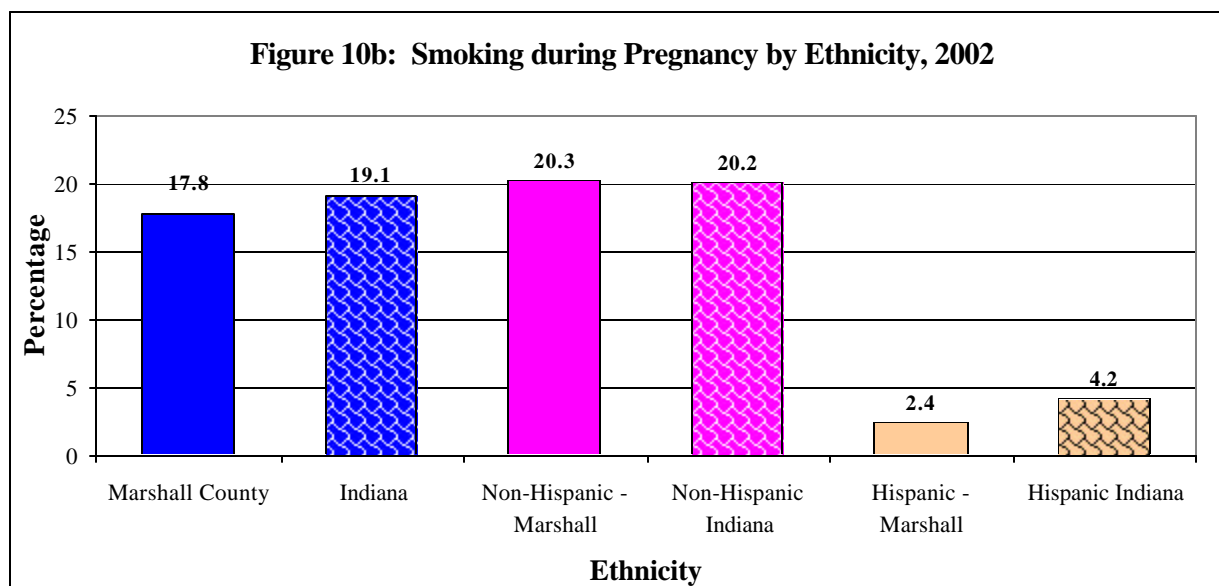
Smoking during Pregnancy by Race (Figure 10a):

- The percentage of smoking during pregnancy for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



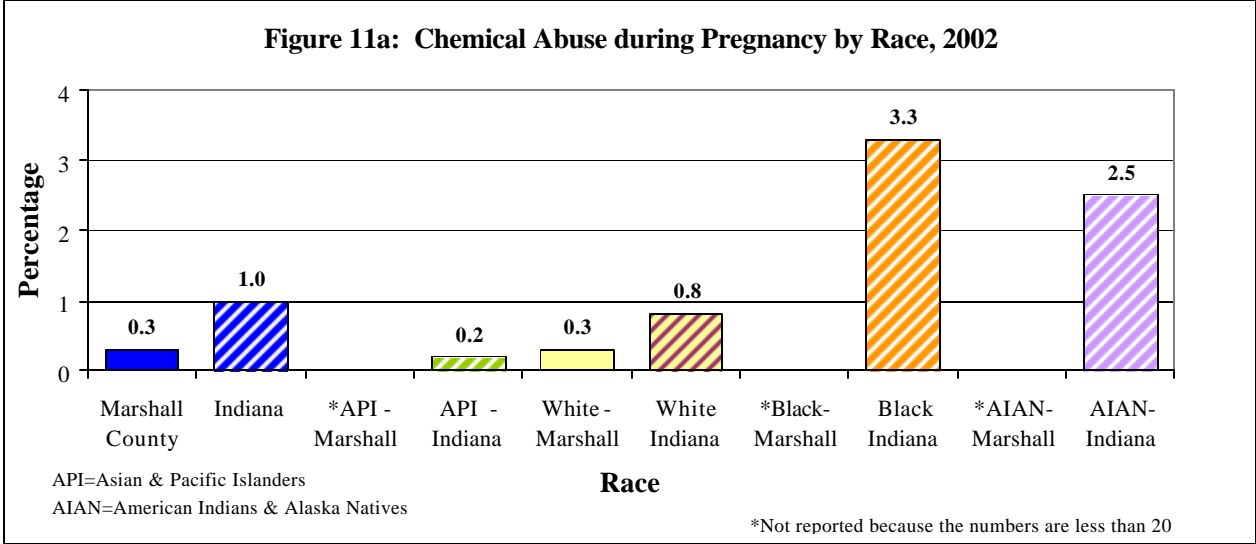
Smoking during Pregnancy by Ethnicity (Figure 10b):

- The percentage of smoking during pregnancy for Hispanics in Marshall County was lower than the percentage for Non-Hispanic births in Marshall County.
- The percentage of smoking during pregnancy for Hispanics in Marshall County was lower than the percentage for all Hispanic births in Indiana.



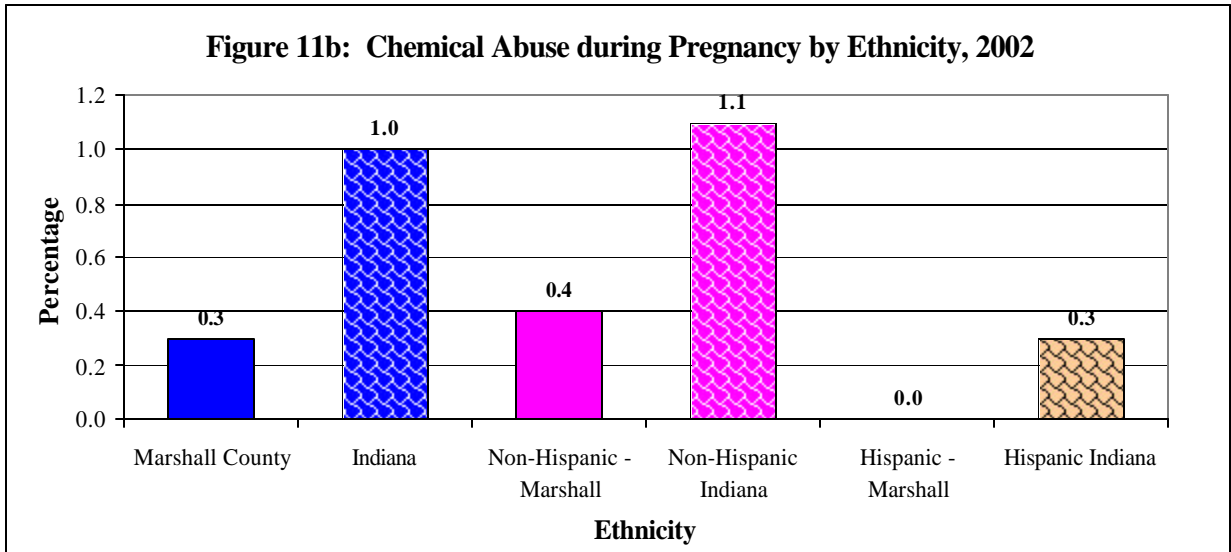
Chemical Abuse during Pregnancy by Race (Figure 11a):

- The percentage of chemical abuse during pregnancy for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



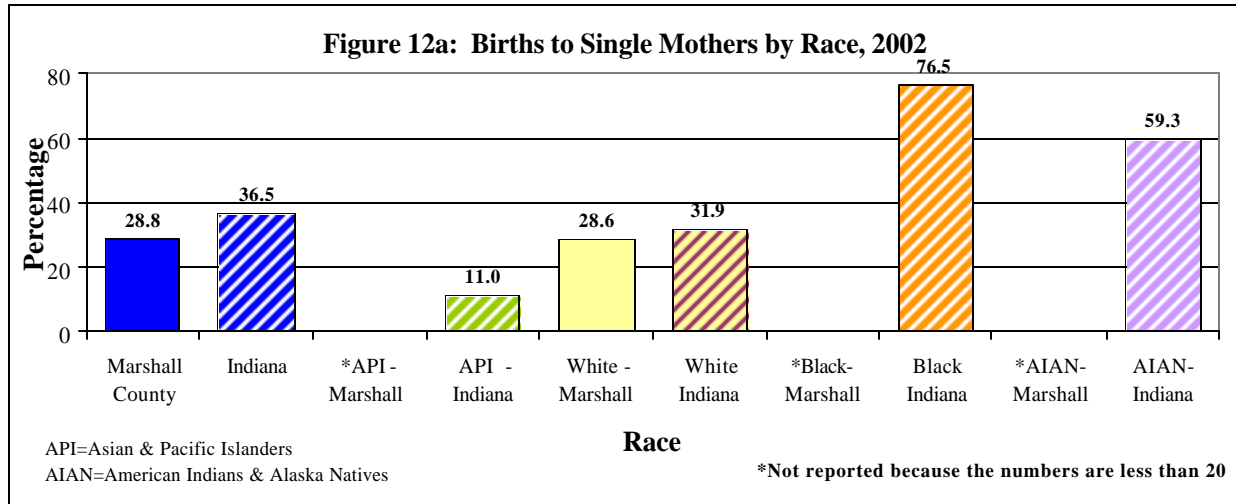
Chemical Abuse during Pregnancy by Ethnicity (Figure 11b):

- The percentage of chemical abuse during pregnancy for Hispanics in Marshall County was similar to the percentage for Non-Hispanic births in Marshall County.
- The percentage of chemical abuse during pregnancy for Hispanics in Marshall County was similar to the percentage for all Hispanic births in Indiana.



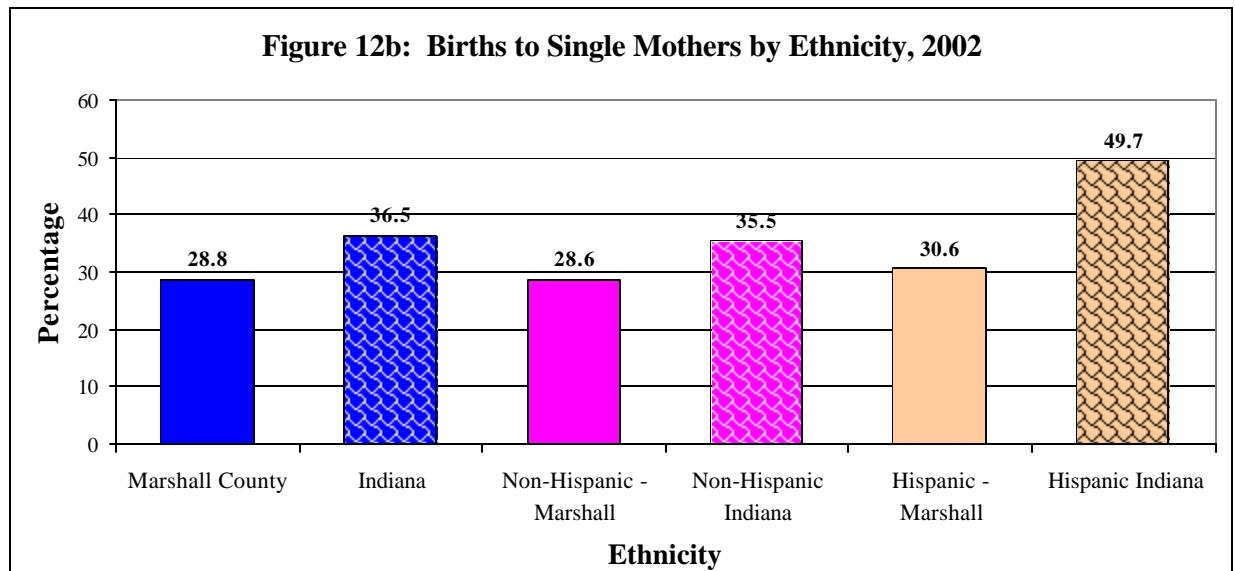
Births to Single Mothers by Race (Figure 12a):

- The percentage of births to single mothers for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



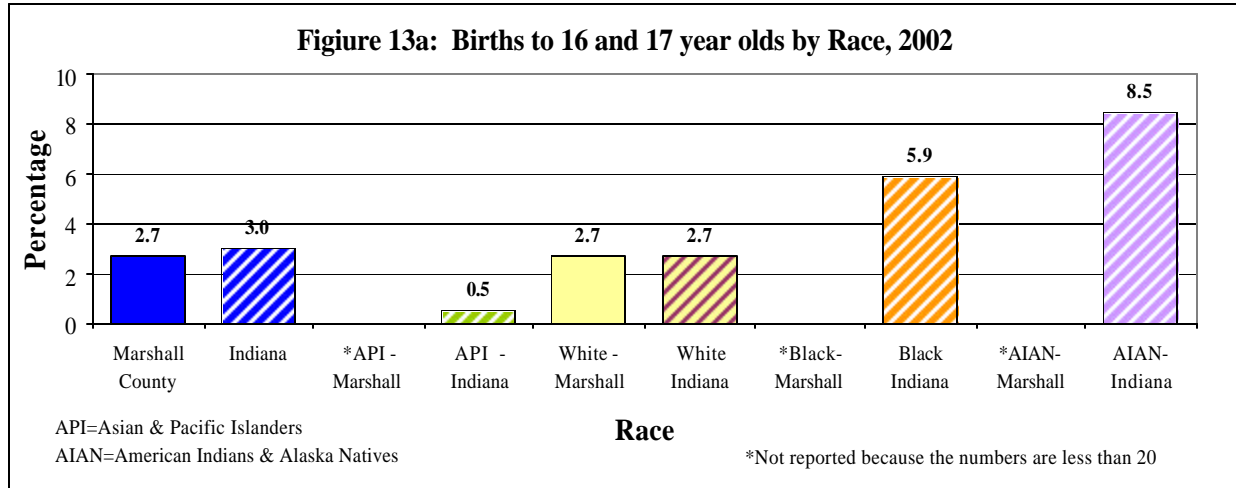
Births to Single Mothers by Ethnicity (Figure 12b):

- The percentage of births to single mothers for Hispanics in Marshall County was higher than the percentage for Non-Hispanic births in Marshall County.
- The percentage of births to single mothers for Hispanics in Marshall County was lower than the percentage for all Hispanic births in Indiana.



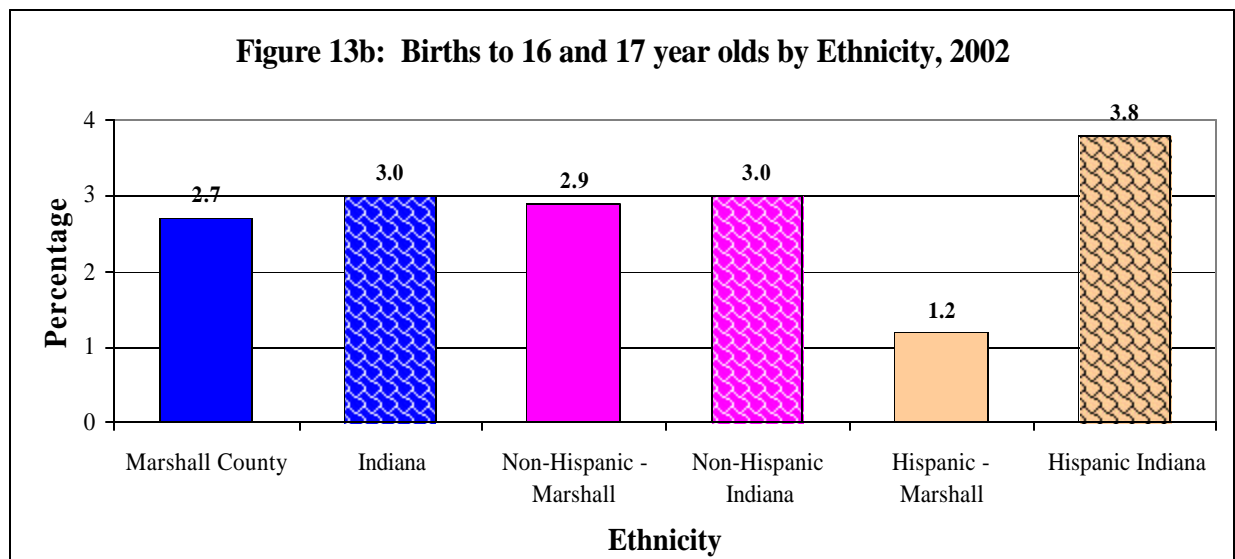
Births to 16 and 17 Year olds by Race (Figure 13a):

- The percentage of births to 16 and 17 year olds for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



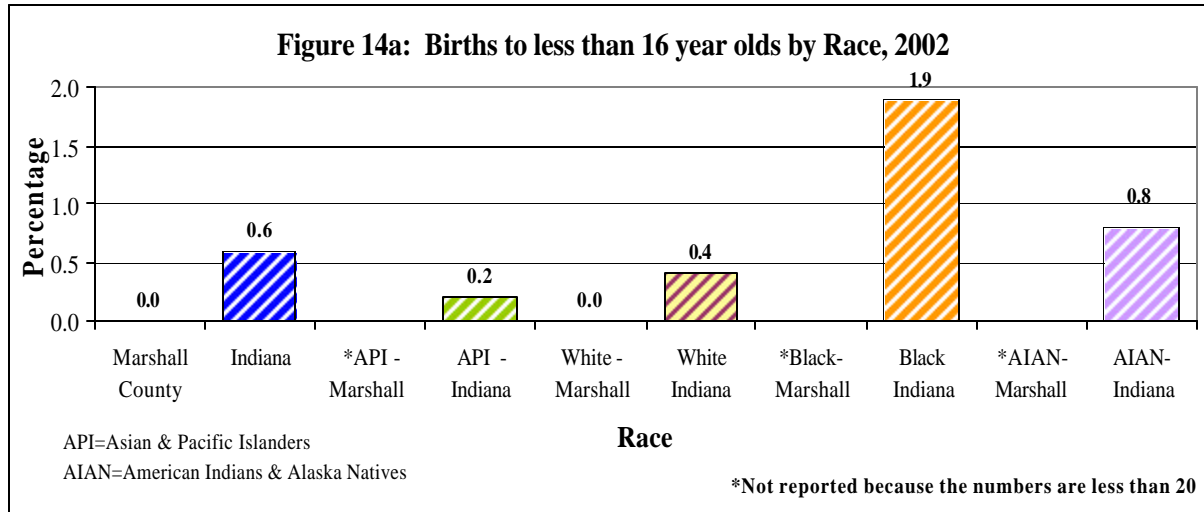
Births to 16 and 17 Year olds by Ethnicity (Figure 13b):

- The percentage of births to 16 and 17 year olds for Hispanics in Marshall County was lower than the percentage for Non-Hispanic births in Marshall County.
- The percentage of births to 16 and 17 year olds for Hispanics in Marshall County was lower than the percentage for all Hispanic births in Indiana.



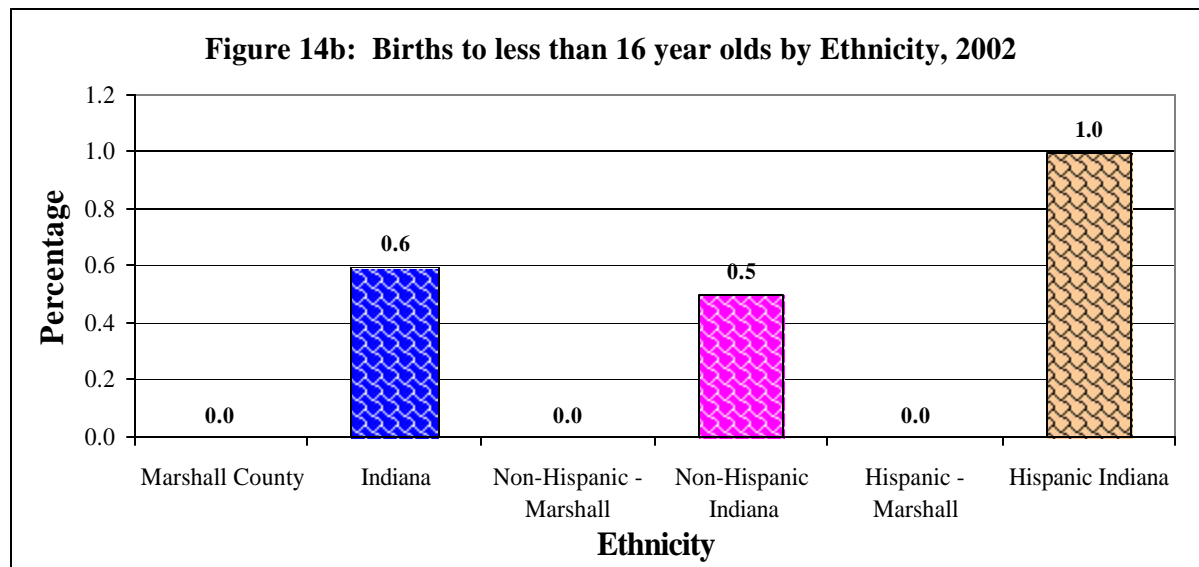
Births to Less than 16 Year olds by Race (Figure 14a):

- The percentage of births to less than 16 year olds for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



Births to Less than 16 Year olds by Ethnicity (Figure 14b):

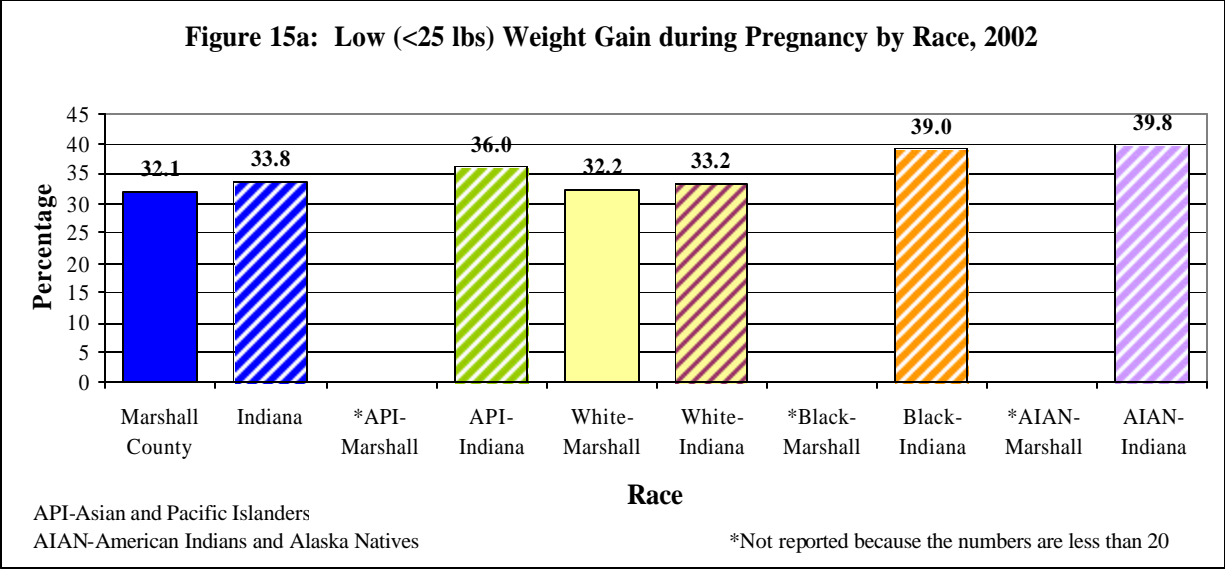
- The percentage of births to less than 16 year olds for Hispanics in Marshall County was similar to the percentage for Non-Hispanic births in Marshall County.
- The percentage of births to less than 16 year olds for Hispanics in Marshall County was lower than the percentage for all Hispanic births in Indiana.



Weight Gain during Pregnancy:

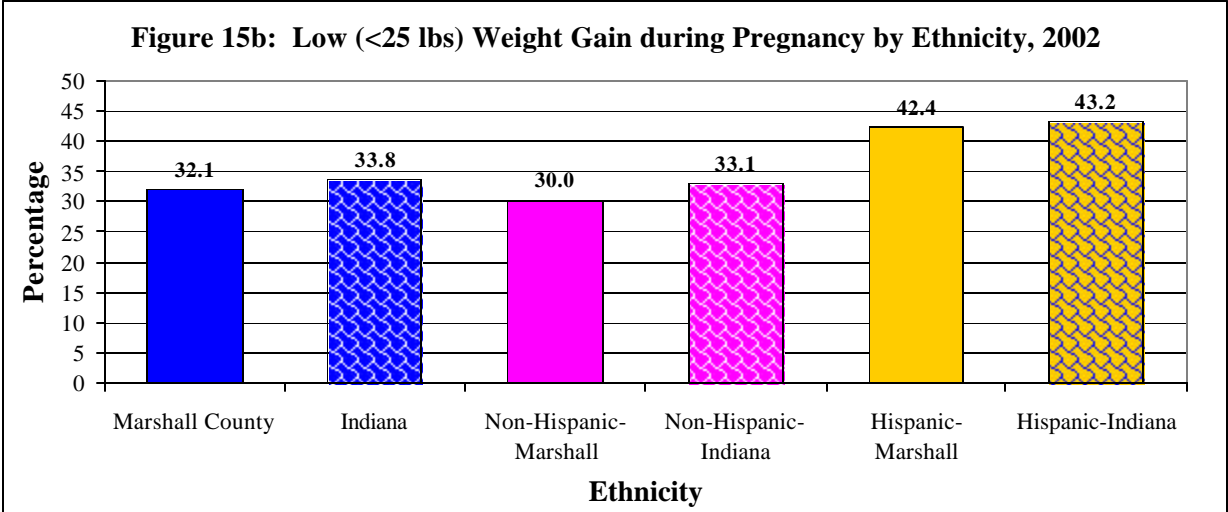
Low (<25 lbs) Weight Gain (LWG) during Pregnancy by Race (Figure 15a):

- The percentage of LWG during pregnancy for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



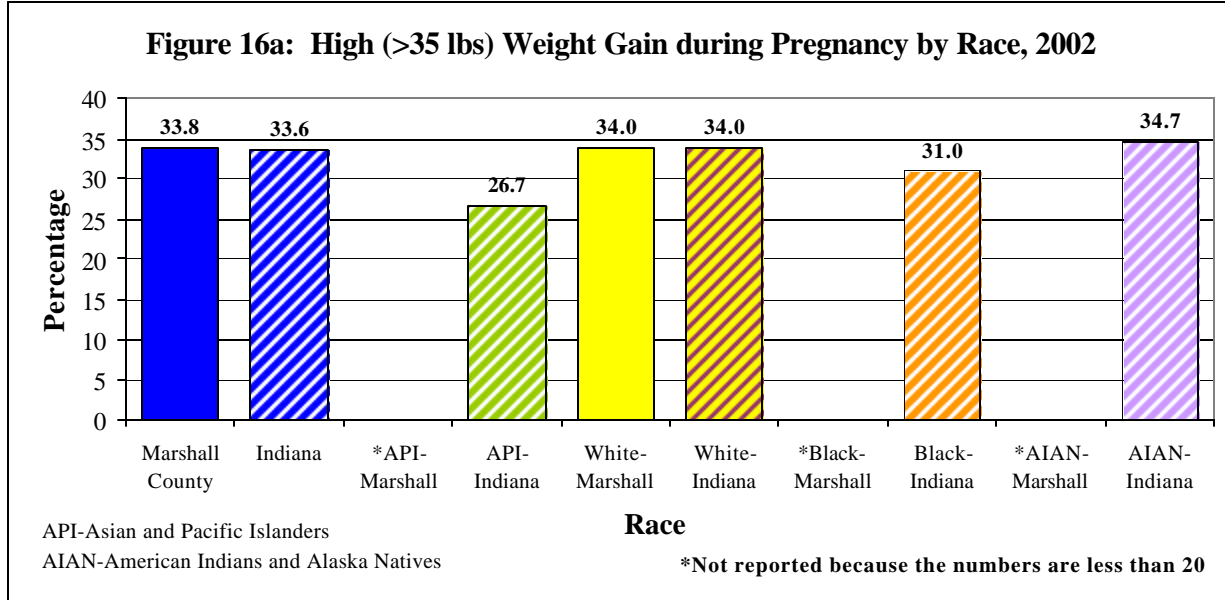
Low (<25 lbs) Weight Gain (LWG) during Pregnancy by Ethnicity (Figure 15b):

- The percentage of LWG during pregnancy for Hispanics in Marshall County was higher than the percentage for Non-Hispanic births in Marshall County.
- The percentage of LWG during pregnancy for Hispanics in Marshall County was similar to the percentage for all Hispanic births in Indiana.



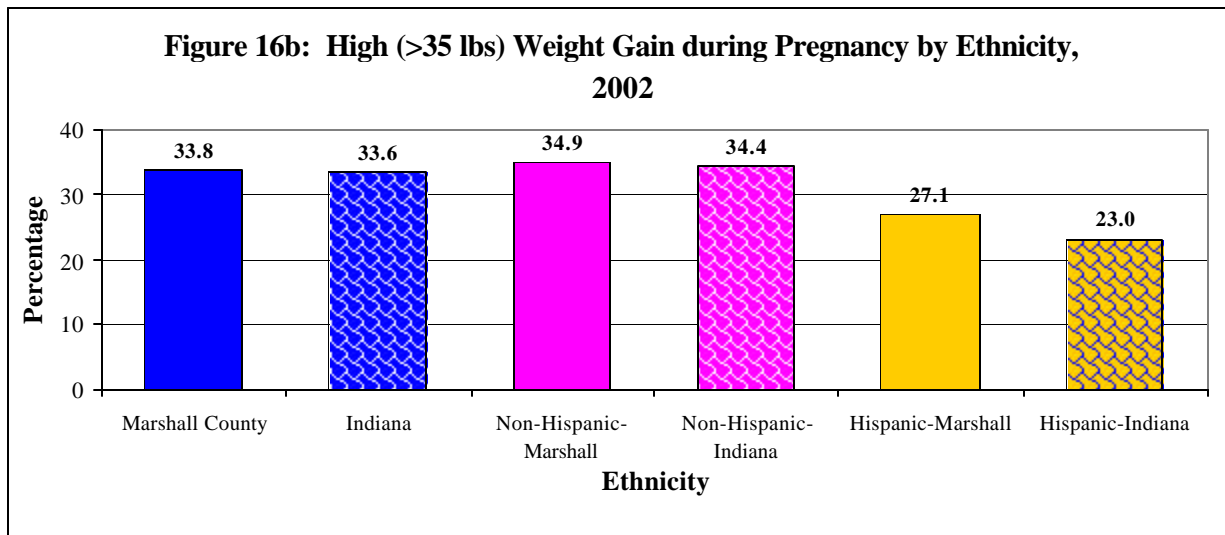
High (>35 lbs) Weight Gain (HWG) during Pregnancy by Race (Figure 16a):

- The percentage of HWG during pregnancy for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



High (>35 lbs) Weight Gain (HWG) during Pregnancy by Ethnicity (Figure 16b):

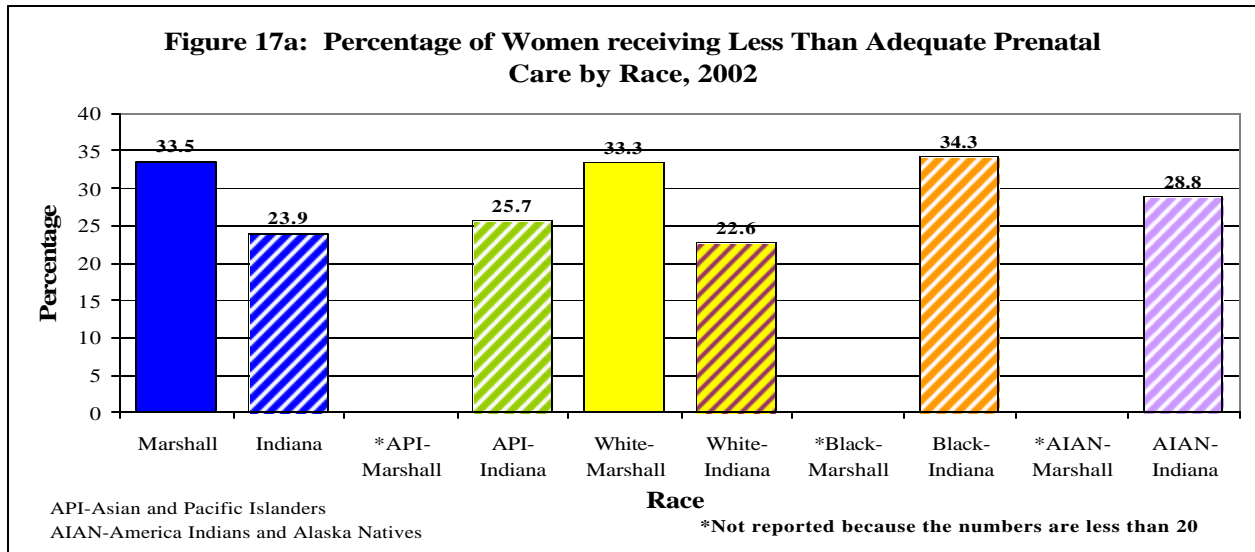
- The percentage of HWG during pregnancy for Hispanics in Marshall County was lower than the percentage for Non-Hispanic births in Marshall County.
- The percentage of HWG during pregnancy for Hispanics in Marshall County was higher than the percentage for all Hispanic births in Indiana.



Prenatal Care:

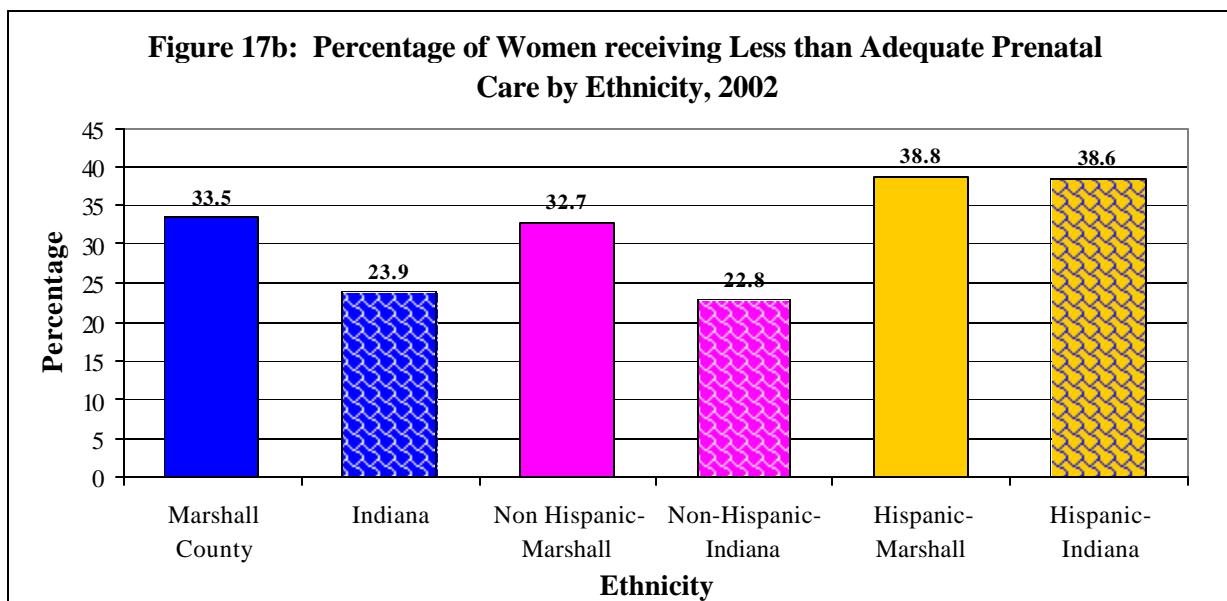
Percentage of Women Receiving Less than Adequate Prenatal Care by Race (Figure 17a):

- The percentage of Women receiving less than adequate prenatal care for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of births.



Percentage of Women Receiving Less than Adequate Prenatal Care by Ethnicity (Figure 17b):

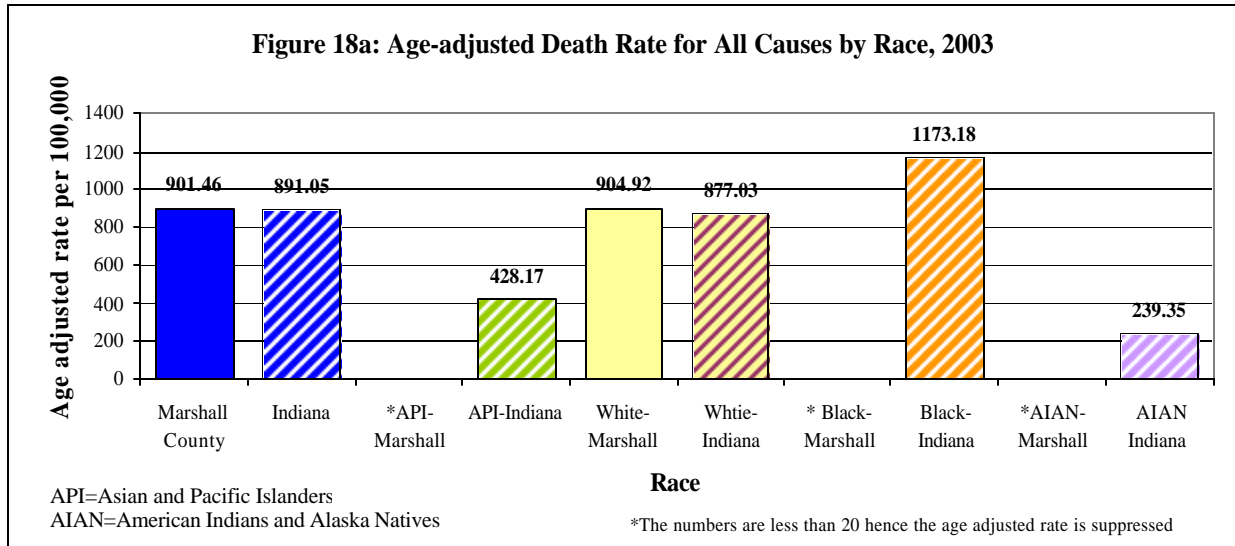
- The percentage of Women receiving less than adequate prenatal care for Hispanics in Marshall County was higher than the percentage for Non-Hispanic births in Marshall County.
- The percentage of Women receiving less than adequate prenatal care for Hispanics in Marshall County was similar to the percentage for all Hispanic births in Indiana.



Leading Causes of Death:

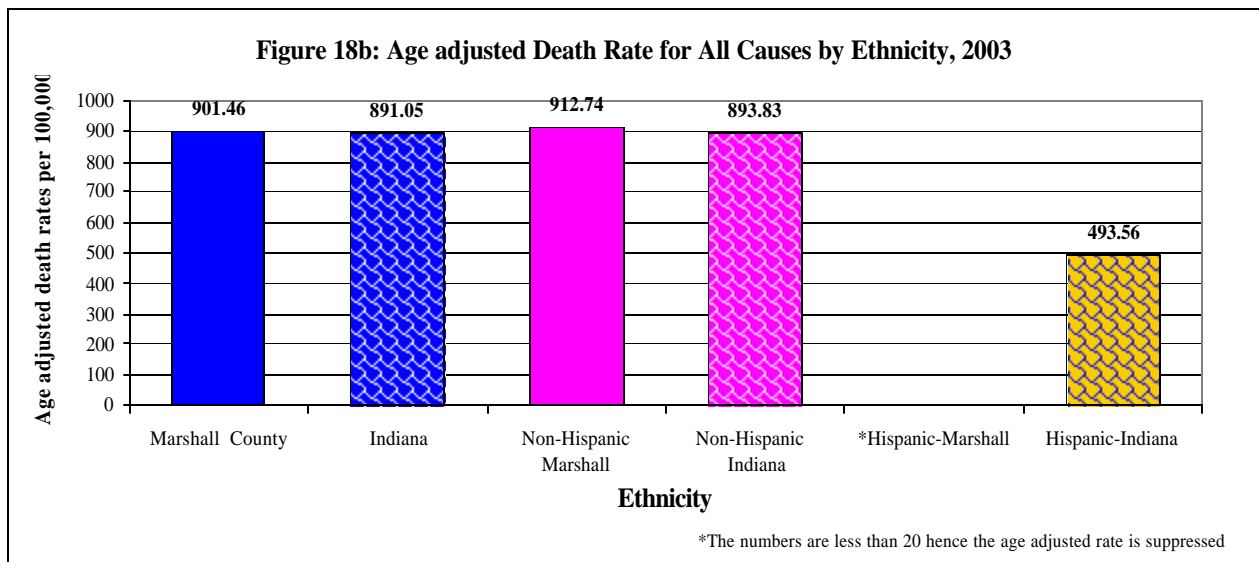
Age-adjusted Death Rate for All Causes by Race (Figure 18a):

- The age-adjusted death rate for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of deaths.



Age-adjusted Death Rate for All Causes by Ethnicity (Figure 18b):

- The age-adjusted death rate for Hispanics in Marshall County could not be compared due to the small number of deaths.



Five Leading Causes of Death by Race (Figure 19a):

- Deaths by cause for APIs, Blacks, and AIANs in Marshall County could not be compared due to the small number of deaths.
- Diseases of the heart are the leading cause of death in Marshall County.

Figure 19a: Five Leading Causes of Death by Race, 2003						
Leading Cause of Death by Race, 2003	Indiana State N=55,123	Marshall County				
		ALL Races N=449	Asian and Pacific Islanders N=1	White N=447	Black N=0	American Indians & Alaska Natives N=1
#1	Diseases of the Heart N=15,180	Diseases of the Heart N=148	N/A	Diseases of the Heart N=147	N/A	N/A
#2	Malignant Neoplasms N=12,771	Malignant Neoplasms N=108	N/A	Malignant Neoplasms N=108	N/A	N/A
#3	Cerebrovascular Diseases N=3,674	Cerebrovascular Diseases N=35	N/A	Cerebrovascular Diseases N=35	N/A	N/A
#4	Chronic Lower respiratory disease N=3,127	Chronic Lower respiratory disease N=28	N/A	Chronic Lower respiratory disease N=28	N/A	N/A
#5	Accidents N=2,086	Accidents N=25	N/A	Accidents N=24	N/A	N/A

** = 'Number' is suppressed if under 5.

N/A = Not applicable.

Leading Causes of Death by Ethnicity (Figure 19b):

- Diseases of the heart are the number one cause of death in Indiana and in Marshall County.
- Deaths by cause for Hispanics in Marshall County could not be compared due to the small number of deaths.

Figure 19b: Five Leading Causes of Death by Ethnicity, 2003				
Leading Cause of Death by Ethnicity, 2003	Indiana State (All Causes) N=55,123	Marshall County		
		ALL Ethnic Groups N= 449	Non-Hispanic N= 446	Hispanic N= 2
#1	Diseases of the Heart N=15,180	Diseases of the Heart N=148	Diseases of the Heart N=148	N/A
#2	Malignant Neoplasms N=12,771	Malignant Neoplasms N=108	Malignant Neoplasms N=108	N/A
#3	Cerebrovascular Diseases N=3,674	Cerebrovascular Diseases N=35	Cerebrovascular Diseases N=35	N/A
#4	Chronic Lower respiratory disease N=3,127	Chronic Lower respiratory disease N=28	Chronic Lower respiratory disease N=28	N/A
#5	Accidents N=2,086	Accidents N=25	Accidents N=24	N/A

** = 'Number' is suppressed if under 5.

N/A = Not applicable.

CONCLUSIONS

Conclusions

This report documents that health disparities exist by race and ethnic group within Marshall County. There were fewer than 20 birth and death incidents for Asian and Pacific Islanders (API), Blacks and American Indians/Alaska Natives (AIAN), therefore it was impossible to make any comparisons.

Hispanics in Marshall County are disproportionately affected when comparing the health indicators among ethnic groups. There is room for improvement in very low birth weight, early preterm births, pregnancy complications, Cesarean deliveries, births to single mothers, and low weight gain during pregnancy. Furthermore, fewer Hispanic women receive prenatal care during the first trimester and more Hispanic women receive less than adequate prenatal care. These indicators that need improvement do not meet the Healthy People 2010 objective and/or have higher percentages in comparison to all Non-Hispanic births in the county.

The age-adjusted death rate and deaths by cause for APIs, AIANs, Blacks and Hispanics in Marshall County could not be compared due to the small numbers. Diseases of the heart are the leading cause of death in Marshall County.

It is hoped that the findings in this report will provide the catalyst to bring communities together to discuss existing differences in health indicators and ultimately to better develop strategies to reduce them so that all Marshall County residents can achieve the highest possible level of health status. In addition, this report can be used by policy makers, providers and program administrators to focus interventions on those areas that are of most concern to the minority population.

Monitoring of health indicators (secondary health data) over time will allow health policy makers, providers, and program funding agencies to note positive or negative changes that have occurred and will permit them to react more quickly to remedy undesired direction. Achieving a major reduction in racial and ethnic differences in health indicators will not be achieved in the short term; incremental changes (both desirable and undesirable) can be demonstrated best through continued annual monitoring. Documentation of progress made (success) is the key to continuing successful programs; documentation of movement in the wrong direction can and should lead to more timely interventions. Current information is the basic foundation from which interventions can be developed and implemented.