

Indiana University School of Medicine, Department of Public Health

Hispanic Health in Indiana

Prepared as a Briefing for Internal Planning

Acknowledgement

Preparation of this report was sponsored in part by a grant to the Indiana University School of Medicine, Department of Public Health, from the Walther Cancer Foundation, Inc. Its contents are solely the responsibility of the author(s) and do not necessarily represent the official views of the Walther Cancer Foundation, Inc.

Contents

Introduction	1
Socioeconomic Background for the Hispanic Population of Marion County	1
Overview of Hispanic Health in Indiana.....	2
Leading Causes of Death.....	2
Cancer Incidence and Mortality.....	2
Birth Outcomes	5
Health Risks among Youth	5
Health Outcomes and Risk Factors among Adults.....	6
Selected Health Disparities among Hispanic Residents of Indiana.....	12
Appendices	13
Table 1. Marion County School Enrollment by Race/Ethnicity, 2000-2009	13
Table 2. Characteristics of the Population in Indiana, by Race, Ethnicity and Nativity: 2009.....	14
Table 3. Cancer Incidence and Mortality Rate Comparisons, 2003-2007	16
Table 4. Indiana Youth Risk Behavior Study, 2009	20
Table 5. Indiana Behavioral Risk Factor Surveillance System, 2010.....	23
Table 6. Anxiety & Depression Module Results, Indiana BRFSS, 2010	24

Introduction

In February 2011, Behavioral Health Science faculty members were approached by representatives of La Plaza regarding potential collaborations to improve the health and well-being of their clients, Hispanic residents of the greater Indianapolis area. These faculty members subsequently requested a data profile that would provide context within which they could identify areas of greatest need among Hispanic residents and opportunities for community-based collaborations. This report is intended as an internal briefing for planning purposes.

Socioeconomic Background for the Hispanic Population of Marion County

Between 2000 and 2010, the Hispanic population of Marion County increased 154%, while the Hispanic population of the state of Indiana overall increased 82% [Retrieved 7/29/11 from the Pew Hispanic Center at <http://pewhispanic.org/states/?stateid=IN>]. More Hispanic residents live in Marion County (84,466) than in any other county in Indiana, representing over 20% of the state's total Hispanic population (389,707) and approximately 9% of the total county population. Nearly 30% of the state's Hispanic residents live within the extended Indianapolis Metropolitan Statistical Area (MSA).

Correspondingly, enrollment of Hispanic students in Marion County schools (public and non-public) increased steadily from 2000 (3,723) to 2009 (16,315), such that Hispanic students comprised 10% of all Marion County students in 2009 [Table 1]. [Retrieved 7/29/2011 Kids Count Data Center, Annie E. Casey Foundation at <http://datacenter.kidscount.org>]

Table 2 summarizes characteristics of the 2009 Indiana population by Race and Ethnicity [Retrieved 7/29/11 from the Pew Hispanic Center at <http://pewhispanic.org/states/?stateid=IN>]. The Hispanic population of Indiana differs from the Non-Hispanic population in a number of ways that may impact the type of health concerns they have, as well as their ability to access and utilize health services:

- The median age of Hispanic residents is 25 years, younger than the median age for whites (39) and blacks (30);
- 39% of Hispanic residents have not received a high school diploma in contrast to 12% of non-Hispanic residents;
- Annual Personal Earnings of Hispanics (\$18,700) are less than for whites (\$28,000) and blacks (\$20,000);
- 32% of Hispanic residents are uninsured, compared to 12% of whites and 21% of blacks;
- 68% of all Hispanic residents in Indiana (age 5 and older) speak a language other than English at home and less than one-third report being able to speak English very well;
- 45% of foreign-born Hispanic residents came to the U.S. since 2000.

Services that support the health and well-being of Hispanic residents may be insufficient to meet both the unique needs of the Hispanic community and brisk pace of growth in this segment of the population.

Within that context, the following sections present a review of available secondary data to gain understanding of health risk factors and health needs in the Hispanic community of Marion County.

Overview of Hispanic Health in Indiana

Leading Causes of Death

The ten leading causes of death among Indiana's Hispanic population are shown in the table below, compared with corresponding age-adjusted rates for these causes of death in the total state population. [Retrieved 7/29/2011 from Indiana State Department of Health, Indiana Mortality Report, 2007 at <http://www.in.gov/isdh/reports/mortality/2007/toc.htm>] Age-adjusted mortality rates for cancer, heart disease, stroke, accidents, and perinatal conditions are all lower than that observed in the population overall. While these rates are age-adjusted to the year 2000 standard million, the much younger age distribution of Hispanic residents in Indiana likely plays a role. It is noteworthy that the only cause for which the Hispanic mortality rate exceeds the total population's mortality rate is assault (homicide). Cancer accounts for the greatest number of deaths, followed by heart disease.

Ten Leading Causes of Death among Hispanics, 2007		Hispanic		Total Population
Cause of Death	Number	Age-Adjusted Rate	Age-Adjusted Rate	
Malignant neoplasms (cancer)	91	78.02		192.77
Diseases of the heart	74	70.38		203.47
Accidents (unintentional injuries)	67	22.35		38.11
Certain conditions originating in the perinatal period	29	4.77		5.37
Assault (homicide)	23	7.03		5.87
Cerebrovascular diseases (stroke)	22	20.26		44.50
Congenital malformations, deformations, and chromosomal abnormalities	16	**		3.20
Diabetes mellitus	15	**		23.42
Intentional self-harm (suicide)	12	**		12.32
Nephritis, nephrotic syndrome and nephrosis (kidney disease)	9	**		19.38
Chronic liver disease and cirrhosis	9	**		7.30
ALL CAUSES	465	304.96		808.06

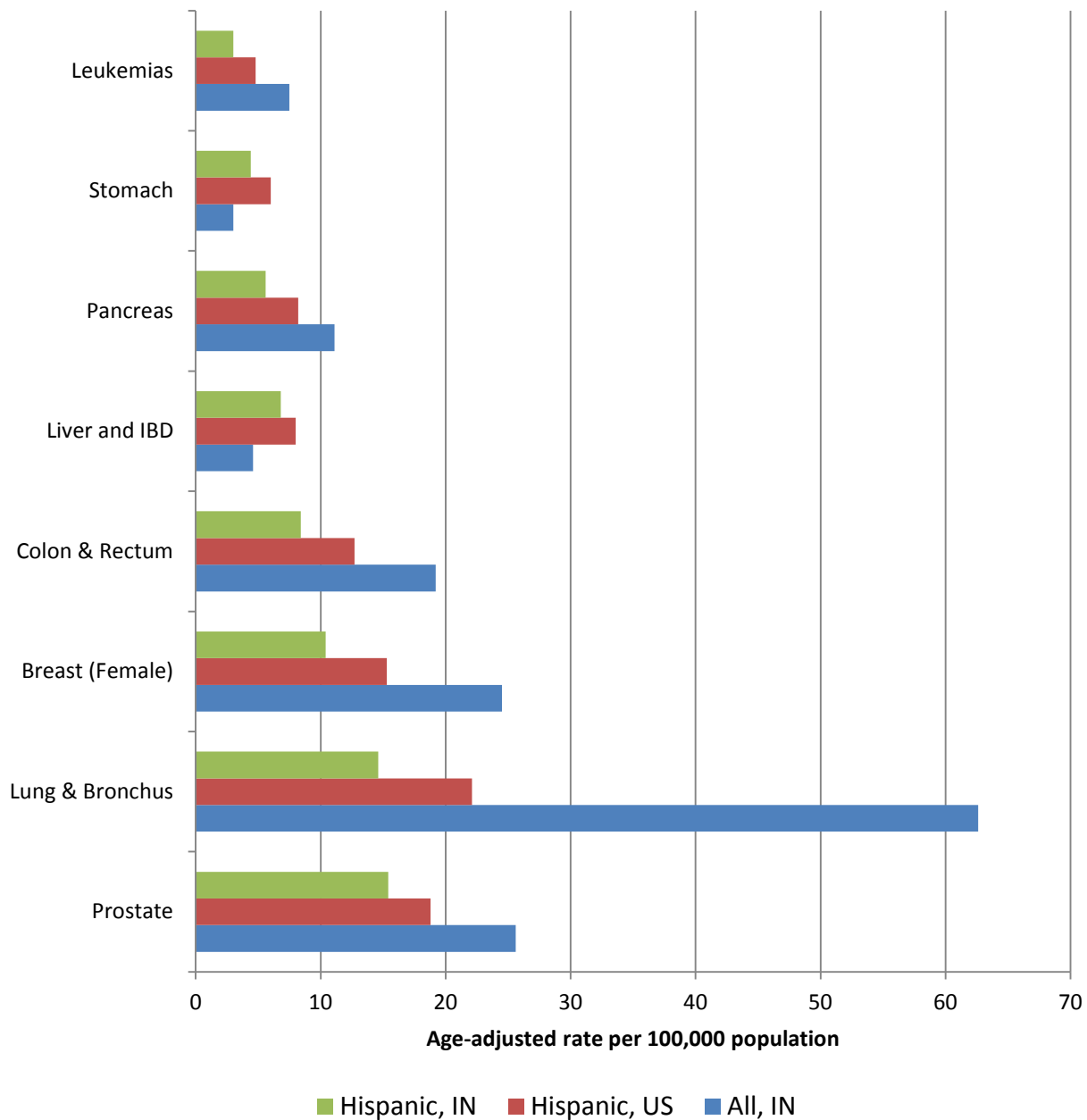
**Numerator is less than 20, and the rate is unstable.

Source: Indiana State Department of Health, Indiana Mortality Report, 2007

Cancer Incidence and Mortality

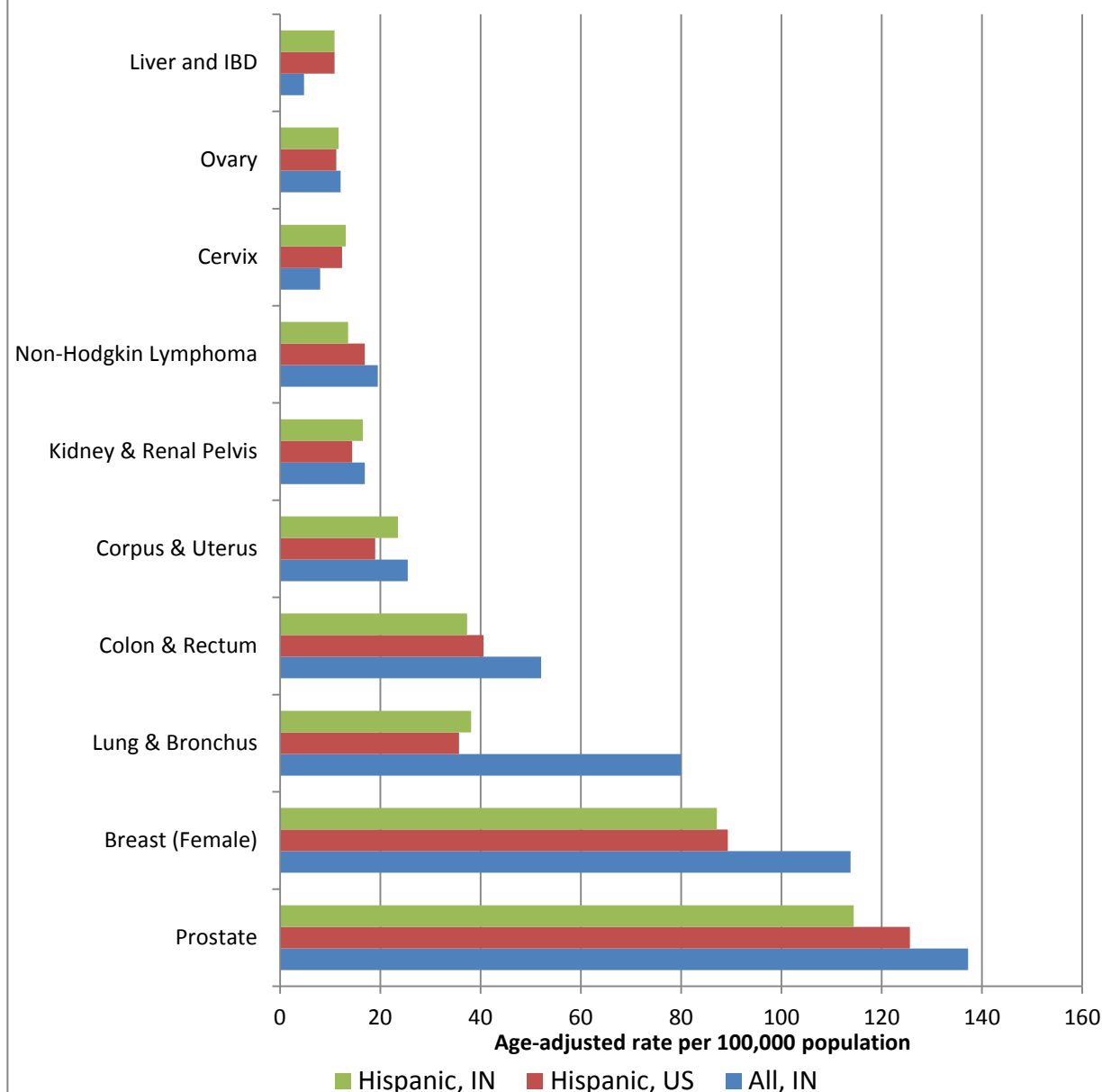
As shown above, cancer is the leading cause of death among Indiana's Hispanic population. Cancer sites with the highest mortality rates among Hispanics in Indiana are shown below, along with comparative age-adjusted rates for US Hispanics and for all persons in Indiana. The following chart demonstrates that cancer mortality rates are lower for nearly all these cancer sites than those observed for US Hispanics or all residents of Indiana. Exceptions to this pattern are the higher mortality rates for cancer of the stomach and liver & IBD than are observed among all Indiana residents as a group.

Figure 1. Cancer Mortality Rate Comparison for Leading Causes of Cancer Death among Hispanics in Indiana, 2003-2007



It is also beneficial to assess cancer incidence rates for areas in which preventive efforts may be strengthened. The following chart shows the top ten sites of cancer incidence among Hispanics in Indiana compared to comparative age-adjusted rates for US Hispanics and for all persons in Indiana.

Figure 2. Cancer Incidence Rate Comparison for Leading Cancer Sites among Hispanics in Indiana, 2003-2007



The most common cancers occurring among Indiana Hispanics are prostate, breast, lung, and colorectal cancers; these are also the leading causes of cancer for U.S. residents at large. Incidence rates among Hispanics in Indiana are notably higher than those in the Indiana population at large for cancers of the liver and cervix. Indiana Hispanics also have higher rates than US Hispanics for cancers of the lung, corpus & uterus, and kidney & renal pelvis. Tables 3a-3d in the Appendix provide detailed incidence and mortality rate comparisons separately for male and female Hispanics.

Birth Outcomes

Due to the relatively young median age of Indiana's Hispanic population, birth outcomes represent an area of heightened interest. The most current report issued by the Indiana State Department of Health is based upon 2007 births. [Retrieved 7/29/2011 from Indiana State Department of Health, Indiana Natality Report – 2007, Table 38 at <http://www.in.gov/isdh/reports/natality/2007/index.htm>] The table below shows the percent of Hispanic births compared to Non-Hispanic births with selected outcomes of interest. Certain of these outcomes are strongly favorable among Hispanic mothers, such as a much lower smoking rates and higher participation in breastfeeding. However, fewer Hispanic mothers have received first trimester prenatal care, and more are unmarried.

Live Births with Reported Outcomes	Non-Hispanic	Hispanic
Low Birthweight	8.6%	7.2%
Very Low Birthweight	1.5%	1.3%
Preterm (<37 weeks)	11.0%	9.4%
Prenatal Care – First Trimester	69.5%	49.5%
Smoked During Pregnancy	20.1%	4.1%
Unmarried Parents	40.9%	56.2%
Mothers under 20 Years Old	11.0%	13.2%
Breastfeeding upon Discharge	66.0%	77.9%

Health Risks among Youth

The Youth Risk Behavior Survey (YRBS) is conducted among a sample of 9-12th grade high school students throughout Indiana and other states in the U.S. every other year to learn more about their health and well-being. Topics include, alcohol and drug use, tobacco use, sexual behaviors, dietary behaviors and physical activity, and unintentional injuries and violence. [See Table 3] Survey results are not reported separately for Marion County.

A review of the 2009 YRBS results shows that the Hispanic high school students of Indiana are faring better than their U.S. Hispanic counterparts and/or white students in Indiana on many measures. Results also point out a few areas of concern.

- Significantly fewer Hispanic youths in Indiana reported ever **drinking alcohol** than Hispanic youths throughout the U.S. (68.4% vs 76.6%), and significantly fewer Hispanic youths in Indiana (16.1%) reported binge-drinking than Hispanic youths throughout the U.S. (24.2%) or white peers in Indiana (27.5%).
- Generally speaking, fewer Hispanic youths in Indiana engaged in **illicit drug use** than their U.S. counterparts, with the exception of use of glue/aerosol/inhalants and cocaine. They were significantly less likely to have ever used methamphetamines, but more reported having tried marijuana than white youths in Indiana.
- While significantly more Hispanic youths in Indiana (64.6%) have tried **cigarette smoking** than their U.S. counterparts or white peers (both at 51.0%), significantly fewer Hispanic youths in Indiana reported smoking cigarettes regularly (on 20 or more days of the past month) than white youth in Indiana (5.7% vs

13.2%). Similarly, fewer Hispanic youths in Indiana reported using chewing tobacco, snuff, or dip in the past month than white youths in Indiana (5.6% vs 12.1%).

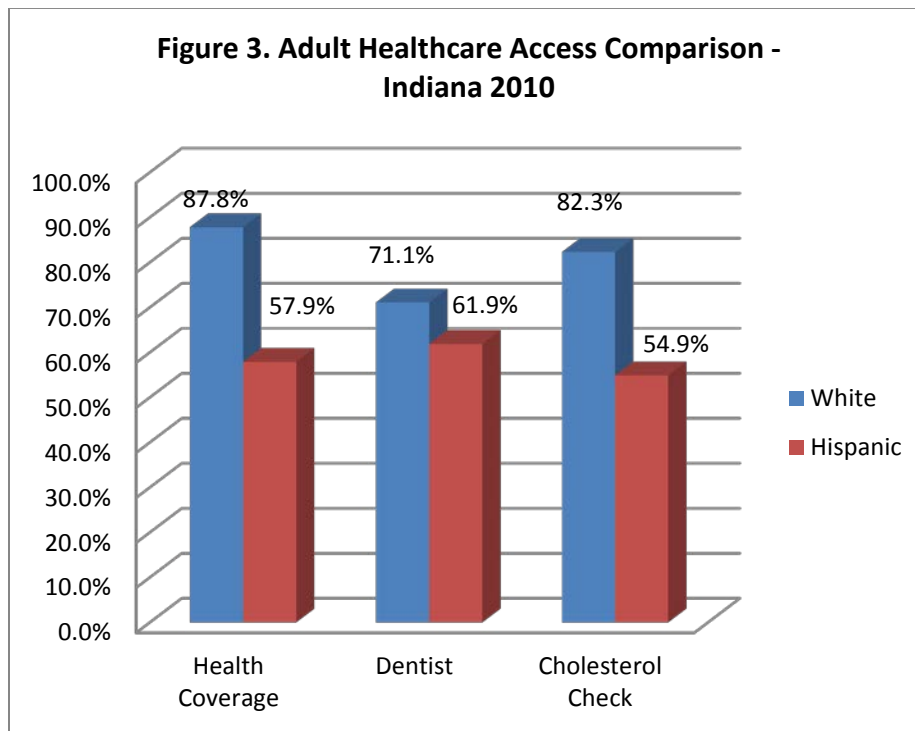
- Some concerning differences in **sexual behavior** were also noted. More Hispanic youth in Indiana reported having sex for the first time before the age of 13 compared to their white peers in Indiana (8.1% vs 2.7%). A higher percentage of Hispanic youths in Indiana reported having never been taught in school about AIDS or HIV infection than white youth in Indiana (18.6% vs 7.7%).
- Regarding **energy-balance**, there were several counter-balancing findings. A higher percentage of Hispanic youth in Indiana (19.3%) were obese, based on their self-reported height & weight, than Hispanic youth nationally (15.1%) and white youth in Indiana (11.4%). Similarly, more Hispanic youth in Indiana (61.1%) reported *not* attending physical education classes in an average school week than Hispanic youth throughout the U.S. (39.5%), and more Hispanic youths in Indiana (83.5%) failed to consume fruits and vegetables five times per day than did Hispanic youth throughout the U.S. (78.0%). However, fewer Hispanic youths in Indiana (16.6%) reported drinking (non-diet) soda or pop daily in the past week than Hispanic youths throughout the U.S. (28.1%) or white youths in Indiana (32.4%), and fewer Hispanic youths in Indiana (30.8%) reported watching television for 3 or more hours per day on an average school day than Hispanic youth throughout the U.S. (41.9%).
- Among all measures of **unintentional injuries and violence**, only three differences were statistically significant: fewer Hispanic youths in Indiana drove a car when drinking alcohol (18.9% vs 34.2% U.S.), fewer rode with a driver who had been drinking alcohol (3.8% vs 9.4% U.S.), and fewer were threatened or injured with a weapon on school property in the past year (5.4% vs 9.1% U.S.). Other differences, while not statistically significant, may have practical importance: 1) More Hispanic youths in Indiana reported not going to school because they felt unsafe at school or on their way to or from school than their white peers (7.0% vs 2.8%), and 2) More Hispanic youths in Indiana reported being in a physical fight at school in the past year than their white peers (11.2% vs 8.7%) as well as being injured in a physical fight (5.8% vs 2.3%). Despite fewer Hispanic youths in Indiana reporting seriously considering attempting suicide than their white peers (13.7% vs 16.7%), they were just as likely to have actually attempted suicide in the past year (9.5% vs 8.5%).

Health Outcomes and Risk Factors among Adults

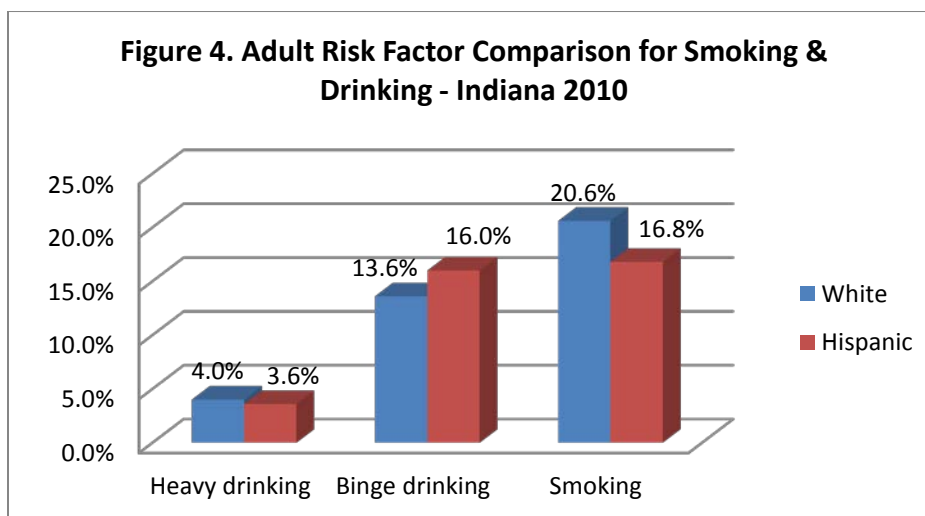
Similarly, health measures and risk factors are surveyed among adults in Indiana and all 50 states of the U.S. once yearly as part of the Behavioral Risk Factor Surveillance System, the largest telephone survey in the world. Survey results, stratified by ethnicity, are not available at the city/county level, so data shown here are representative of the state of Indiana on the whole. Despite oversampling Hispanic respondents, the low number of Hispanic respondents overall creates wide confidence intervals. **In the 2010 Indiana survey, only 250 of 10,036 participants (2.5%) were Hispanic, so all results must be interpreted cautiously.** Some apparent differences, while not statistically significant, may still represent areas of opportunity to consider in planning health interventions.

Survey results were compared between Hispanic respondents and white respondents in the following health areas: 1) Health & Access, 2) Risk Factors, 3) Chronic Disease, 4) Cancer Screening, and 5) Mental Health. Table 4 in the appendix summarizes results of the BRFSS across these measures. Highlights are discussed below.

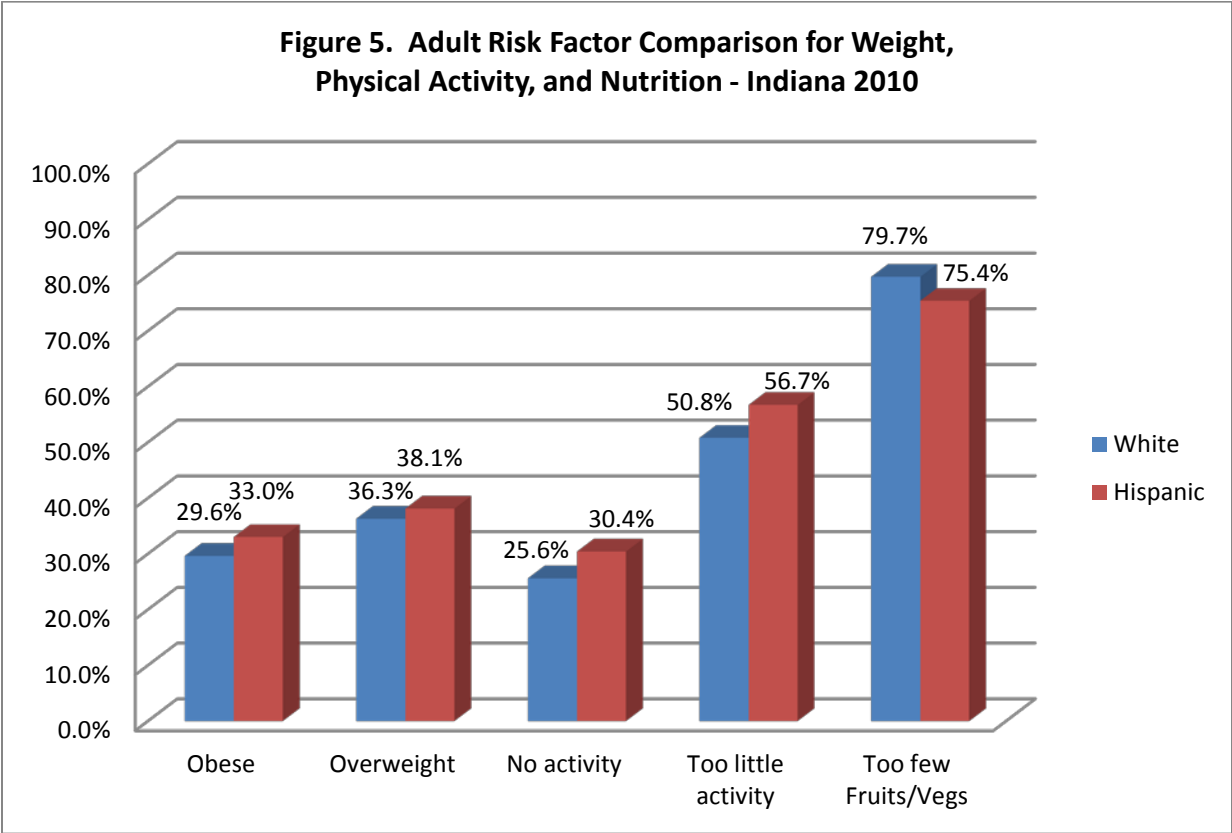
First, in the area of **Health & Access**, the rates of health care coverage and blood cholesterol checks were significantly lower among Hispanic respondents than in white respondents (Figure 1). Similarly, the percentage of Hispanic adults who had visited a dentist for any reason in the past year was lower than that observed for all Indiana adults. Fortunately, 82.5% of Hispanic respondents in Indiana rated their health as good or better, which is comparable to white respondents (84.7%).



Risk factor measures assessed by the BRFSS include heavy and binge drinking, smoking, physical inactivity, obesity and overweight, and inadequate fruit/vegetable consumption. Fewer Hispanic adults are current smokers than all adults statewide, but slightly more are binge drinkers (Figure 2).

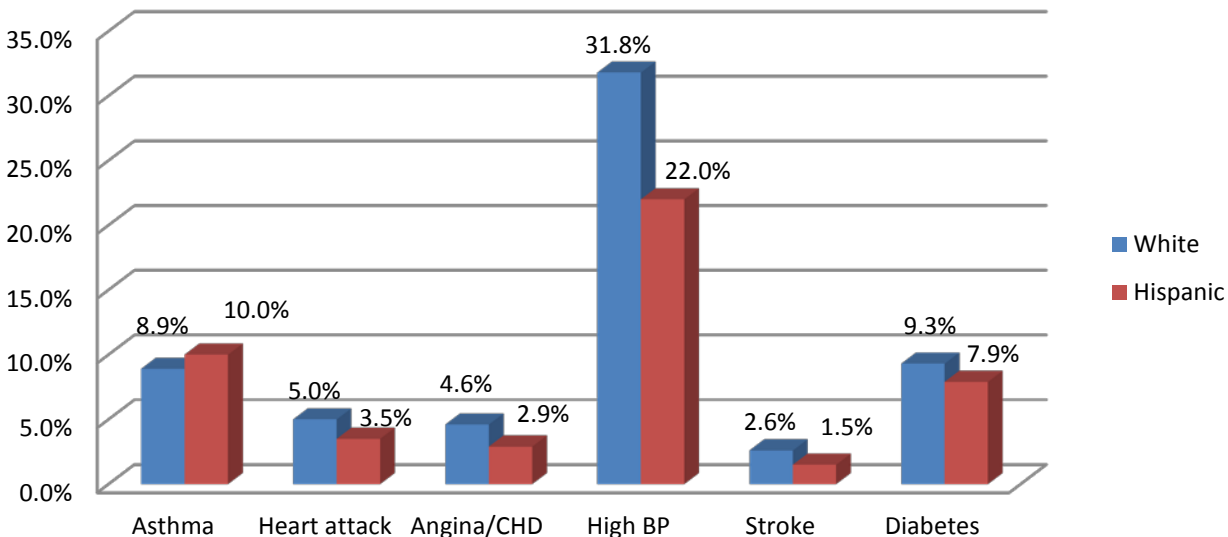


Risk factors related to energy balance overall are unfavorable for Hispanic adults in Indiana: Compared to white adults, a greater percentage of Hispanic adults are overweight and obese, and more report being completely physically inactive and/or failing to meet the recommended level of physical activity (Figure 3). On the positive side, fewer Hispanic adults report not eating five or more daily servings of fruits/vegetables.



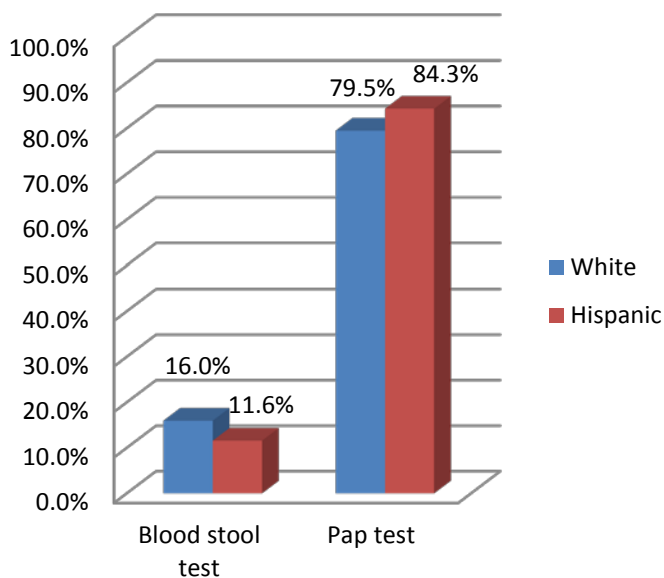
The prevalence of **chronic disease** among Hispanic respondents to the survey was similar or lower than reported by white adults in the state, with the exception of those who currently have asthma (Figure 4). This may be, in part, due to the younger age distribution of Hispanic residents in our state.

Figure 6. Comparison of Adult Prevalence of Chronic Disease - Indiana 2009-2010



Unfortunately, Hispanic rates for **cancer screening** on most measures surveyed were not reportable due to the unreliability of small cell sizes in the Indiana sample. Compared to white adults in Indiana, fewer Hispanic adults aged 50+ reported having had a blood stool test within the past two years (Figure 5). In contrast, more Hispanic women aged 18+ reported having had a pap test within the past 3 years than did white women.

Figure 7. Comparison of Cancer Screening Rates - Indiana 2010



In the area of **mental health**, three questions are asked yearly as part of the Indiana BRFSS. These results are not published on the internet site, but can be obtained by downloading the public use data files and conducting analysis. The table below shows comparison of white and Hispanic adult respondents for these three core questions. Hispanic respondents are *less* likely to report that they get the social and emotional support needed, but are just as likely to say they are satisfied with their life. White and Hispanic respondents are similar in the percentage who report having none vs some days in the past month when their “mental health was not good.”

Core Mental Health Questions, 2010 BRFSS	White	Hispanic
How often do you get the social and emotional support you need?		
Always or Usually	83.4%	70.9%
Sometimes	10.2%	15.5%
Rarely or Never	6.4%	13.5%
In general, how satisfied are you with your life?		
Satisfied or very satisfied	94.4%	97.8%
Dissatisfied or very dissatisfied	5.6%	2.2%
Now, thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?		
None	64.8%	65.9%
1-14 Days	25.1%	27.0%
15-30 days	10.1%	7.2%

Additional questions are periodically asked using the Anxiety and Depression Optional Module, which was implemented by Indiana in 2010. These results were also obtained by downloading the public use data files and analyzing independently.

Respondents were asked if a doctor or other health care provider had EVER told them that they...

- have an **anxiety disorder** (including acute stress disorder, anxiety, generalized anxiety disorder, obsessive-compulsive disorder, panic disorder, phobia, posttraumatic stress disorder, or social anxiety disorder)?
- have a **depressive disorder** (including depression, major depression, dysthymia, or minor depression)?

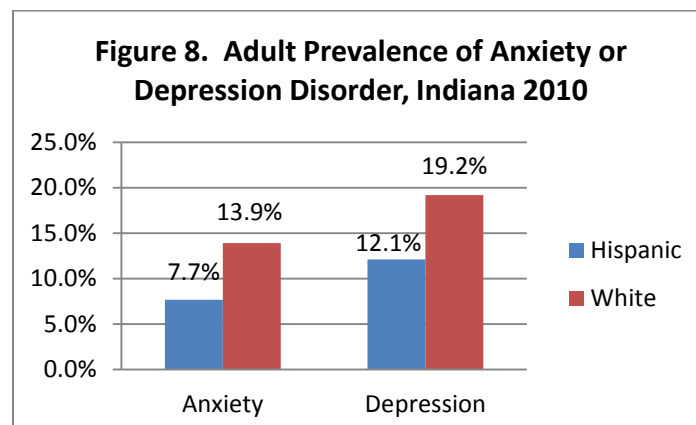
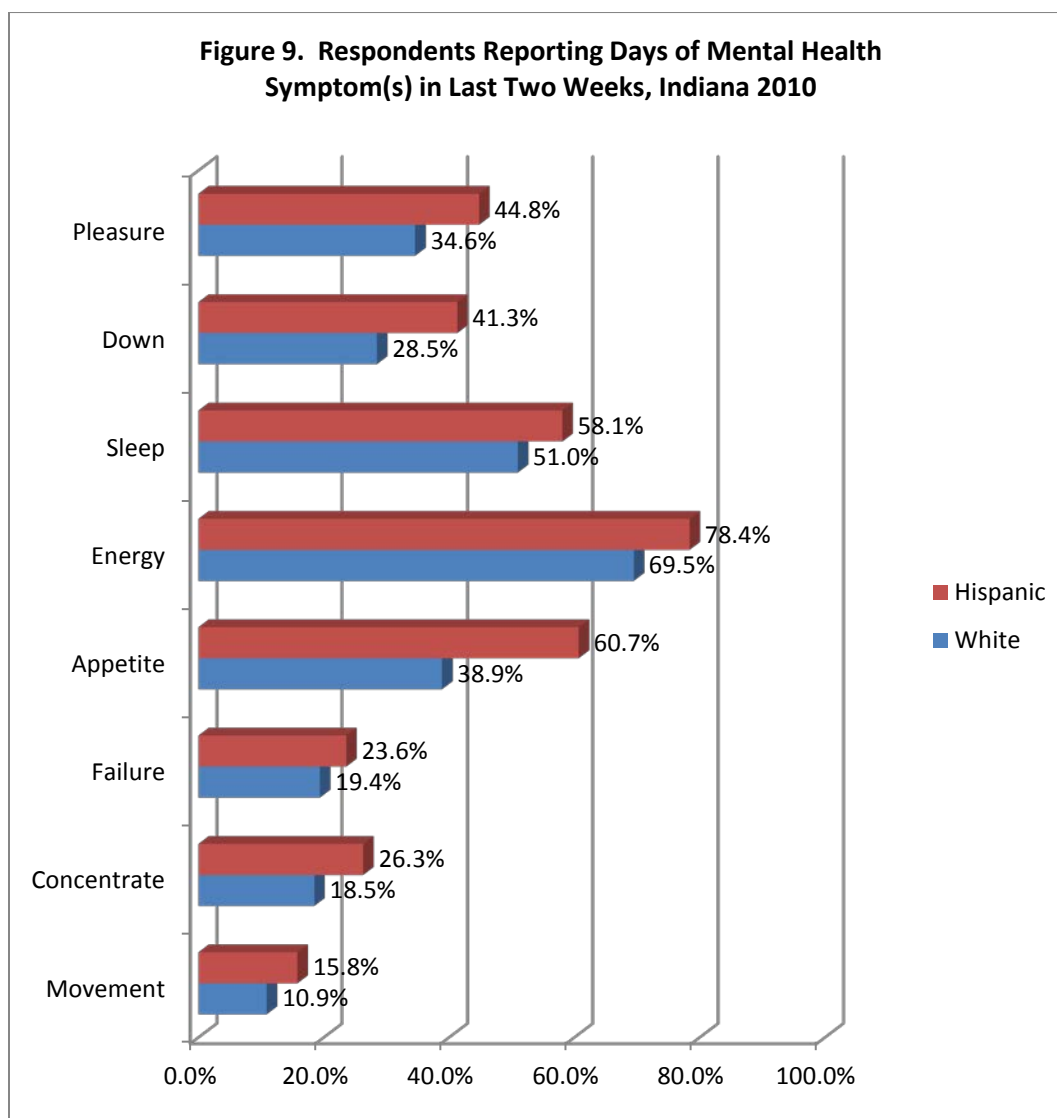


Figure 6 demonstrates that fewer Hispanic respondents than white respondents report having been diagnosed with an anxiety or depressive disorder, yet this may reflect reduced access to care rather than better mental health.

Eight of the nine questions from the Patient Health Questionnaire-9 (PHQ-9) were also asked as part of the Anxiety and Depression Module. The ninth question of the PHQ-9 is not included (“thoughts that you would be better off dead or of hurting yourself in some way”). The full wording of these eight questions is shown in Appendix Table 6, along with the percentage of respondents who reported experiencing the stated symptom(s) on no days, 1-7 days, or 8-14 days of the last two weeks. Figure 7 below demonstrates, across these 8 questions, the comparative percentage of Hispanic vs white respondents who reported experiencing symptoms on *some* days (1-14). For every question, a higher percentage of Hispanic than white respondents reported having symptom days. Symptom areas in which the greatest differences were observed were those involving appetite (21.8% higher in Hispanics), feeling down/depressed/hopeless (12.8% higher in Hispanics) and having little interest or pleasure in doing things (10.2% higher).



Selected Health Disparities among Hispanic Residents of Indiana

In 2010, reports were prepared for the Stakeholders of the State Master Research Planning Committee regarding racial/ethnic disparities in the areas of Chronic Disease, Access, and Mental Health & Addictions. Data were drawn from publicly available sources such as the BRFSS and YRBS, including many of the measures mentioned previously in this briefing. To stabilize rates and specifically address the smaller sample sizes of the Hispanic subgroup, rolling 3-year averages were used. Rate ratios, a commonly used method for assessing disparities, were calculated to compare rates observed among Hispanics to that observed among the white reference population. Rate ratios greater than 1.0 indicate a higher/excess occurrence, while ratios less than 1.0 indicate a lower/favorable occurrence. Rate ratios were considered “similar” unless there was >10% difference. While the full report can be provided upon request, key findings are noted below.

Regarding **health care access**, Hispanic residents of Indiana had:

- 61% higher rate of reporting that they could not see a doctor due to cost than white adults in Indiana
- 152% higher rate of being uninsured than white adults in Indiana

Regarding **chronic disease** measures, Hispanic residents of Indiana had:

- 12% higher prevalence of youth obesity than white youth
- Lower prevalence of hypertension, heart attacks, and strokes than white adults

Regarding **mental health & addictions**, Hispanic residents of Indiana had:

- 18% higher rate of reporting days in the past month when mental health was not good than white adults in Indiana
- 32% higher rate of reporting days in the past 2 weeks with depressive symptoms than white adults in Indiana
- Fewer Hispanic adults reported having been diagnosed with a depressive disorder or receiving treatment for a mental health condition
- 24% higher rate of youths reporting sadness or hopelessness that impeded usual activities than among white youths in Indiana
- 65% higher rate of youth suicide attempts than among white youths in Indiana
- 19% higher prevalence of heavy drinking than in white adults in Indiana
- 23% higher prevalence of adult smoking than in white adults in Indiana

Appendices

Table 1. Marion County School Enrollment by Race/Ethnicity, 2000-2009

Race	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Asian	2,075	2,087	2,107	2,119	2,009	2,252	2,090	2,177	2,312	2,572
Black	47,437	48,552	49,814	50,910	52,376	53,116	53,781	54,316	54,701	54,790
Hispanic	3,723	4,869	6,124	7,372	8,924	10,455	12,132	13,567	14,999	16,315
Indian	255	262	249	290	306	289	338	308	296	296
Multi-Race	3,116	3,597	4,454	4,941	5,456	6,171	6,512	7,456	7,890	8,544
White	97,535	96,043	94,830	93,829	91,373	89,708	86,354	85,331	81,432	82,409
Total	154,141	155,410	157,578	159,461	160,444	161,991	161,207	163,155	161,630	164,926

Definitions: Enrollment by race is for all schools (public and non-public) and includes PK, PG and secondary ungraded. Since non-public schools do not have a mapping code, they may not be contained in this database. Please contact data@iyi.org for more information.

Data Source: Indiana Department of Education, Analysis by Indiana Business Research Center

Data Provided by: Indiana Youth Institute

Table 2. Characteristics of the Population in Indiana, by Race, Ethnicity and Nativity: 2009

(thousands, unless otherwise noted)

	ALL ¹	NON-HISPANICS		HISPANICS		
		White	Black	All	Native born	Foreign born
Total	6,423	5,308	563	349	216	133
Gender						
Male	3,157	2,608	265	187	111	76
Female	3,266	2,700	298	162	105	57
Age						
Median (in years)	36	39	30	25	14	33
Age Groups						
Younger than 5	444	327	46	47	46	1
5-17	1,143	881	120	88	75	13
18-29	1,077	863	107	68	32	36
30-39	835	654	80	70	26	44
40-49	905	771	76	35	14	21
50-64	1,194	1,056	86	29	16	13
65 and older	826	756	48	11	7	5
Marital Status (ages 15 and older)						
Married	2,623	2,334	114	110	42	67
Never married	1,480	1,122	216	89	49	40
Divorced/separated/widowed	1,004	856	97	31	16	15
Fertility (women ages 15 to 44)						
Total number of women	1,289	1,034	133	75	37	38
Women who had a birth in the past 12 months	92	71	9	9	3	6
Unmarried women ² who had a birth in the past 12 months	35	23	8	3	2	2
School Enrollment (ages 5 to 18)						
K-12	1,123	867	119	85	73	***
Educational Attainment (ages 25 and older)						
Less than high school diploma	557	415	59	67	16	52
High school diploma or equivalent	1,487	1,302	112	52	25	27
Some college	1,207	1,030	118	35	23	11
Bachelor's degree or more	939	836	44	21	11	9
Median Annual Personal Earnings (in dollars)						
All (ages 16 and older with earnings)	\$26,200	\$28,000	\$20,000	\$18,700	\$20,000	\$18,000
Full-time, year-round workers	\$38,000	\$40,000	\$30,000	\$26,000	\$32,000	\$22,000
Persons in Poverty³						
Younger than 18	304	166	71	48	42	6
18-64	518	358	87	51	16	35
65 and older	60	48	9	2	1	1
Insured, all ages	5,504	4,653	446	238	175	62
Uninsured, all ages	919	655	116	111	41	70
Insured, younger than 18	1,450	1,117	153	112	104	8

(thousands, unless otherwise noted)

	ALL ¹	NON-HISPANICS		HISPANICS		
		White	Black	All	Native born	Foreign born
Uninsured, younger than 18	136	91	13	23	17	6
Persons in Households by Type of Household⁴						
In family households	5,224	4,310	440	306	194	113
In married-couple households	3,939	3,440	180	205	128	77
In non-family households	1,009	853	93	36	18	18
Citizenship						
Citizen	6,247	5,275	556	250	216	34
Non-citizen	176	33	7	99	---	99
Language (ages 5 and older)						
Speaks only English at home	5,534	4,827	501	98	91	6
Does not speak only English at home	445	154	15	204	79	125
Speaks English very well	264	115	13	95	61	34
Speaks English less than very well	181	38	3	109	18	91
Hispanic Origin						
Mexican	---	---	---	274	167	107
Central American	---	---	---	23	9	13
South American	---	---	---	10	3	7
Caribbean	---	---	---	29	26	3
Other Hispanic	---	---	---	13	10	3
Year of Entry (foreign-born Hispanics only)						
Before 1990	---	---	---	---	---	28
1990 to 1999	---	---	---	---	---	44
2000 or later	---	---	---	---	---	60

¹Includes groups not shown separately, such as Asians, Native Americans and people of mixed race. ²Unmarried women includes those who were never married, divorced or widowed. ³For detailed information on how poverty status is determined, see <http://usa.ipums.org/usa-action/variableDescription.do?mnemonic=POVERTY>. Due to the way in which the IPUMS assigns poverty values, these data will differ from those that might be provided by the U.S. Census Bureau. ⁴The household population excludes persons living in institutions, college dormitories and other group quarters. Note: Analysis is based on the following number of observations: all 65,850, non-Hispanic white 56,349, non-Hispanic black 4,444, Hispanic all 3,024, Hispanic native born 1,986, Hispanic foreign born 1,038. The symbol *** indicates insufficient number of observations to provide a reliable estimate. Source: Pew Hispanic Center tabulations of the 2009 ACS (1% IPUMS sample). More information on the source data and sampling error is available at <http://usa.ipums.org/usa/design.shtml> and http://www.census.gov/acs/www/methodology/methodology_main/.

Table 3. Cancer Incidence and Mortality Rate Comparisons, 2003-2007

Table 3a. Indiana and U.S. Age-Adjusted Cancer Incidence and Mortality Rates for Hispanic Females

2003-2007	Incidence Rates ^b				Mortality Rates ^b			
Cancer Site ^a	Indiana Hispanic Females	U.S. Hispanic Females	IN/US Incidence Ratio		Indiana Hispanic Females	U.S. Hispanic Females	IN/US Mortality Ratio	
Breast	87.1	89.3	0.98		10.4	15.3	0.68	*
Cervix	13.1	12.4	1.06		~	3.1	NA	
Colon & Rectum	34.6	34.5	1.00		9.0	10.5	0.86	
Corpus & Uterus	23.5	19.0	1.24		~	3.0	NA	
Kidney & Renal Pelvis	15.0	10.9	1.38		~	2.4	NA	
Leukemias	8.8	8.2	1.07		~	3.9	NA	
Lung & Bronchus	34.3	26.8	1.28	*	8.9	14.4	0.62	*
Non-Hodgkin Lymphoma	13.4	14.9	0.90		~	4.4	NA	
Ovary	11.7	11.2	1.04		~	6.0	NA	
Thyroid	15.2	14.7	1.03		~	0.6	NA	
All Cancer Sites	335.8	326.7	1.03		70.9	102.2	0.69	*

^a Includes the top ten sites for incidence and mortality among Hispanic females in Indiana.

^b Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. standard population.

*Indicates a statistically significant difference in the rate between Indiana Hispanic females and Indiana females of all races, based upon 95% confidence intervals.

~Rate is suppressed; fewer than 16 cases reported

Source: U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2007 Incidence and Mortality Web-Based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2010. Available at www.cdc.gov/uscs.

Table 3b. Age-Adjusted Cancer Incidence and Mortality Rates for Hispanic Females Compared to All Females in Indiana

2003-2007	Incidence Rates ^b				Mortality Rates ^b			
Cancer Site ^a	Indiana Hispanic Females (HF)	Indiana Females - All Races	HF/All Incidence Ratio		Indiana Hispanic Females (HF)	Indiana Females - All Races	HF/All Mortality Ratio	
Breast	87.1	113.8	0.77	*	10.4	24.5	0.42	*
Cervix	13.1	8.0	1.64	*	~	2.6	NA	
Colon & Rectum	34.6	45.2	0.77	*	9.0	15.7	0.57	*
Corpus & Uterus	23.5	25.5	0.92		~	4.5	NA	
Kidney & Renal Pelvis	15.0	12.5	1.20		~	3.3	NA	
Leukemias	8.8	9.2	0.96		~	5.8	NA	
Lung & Bronchus	34.3	63.9	0.54	*	8.9	47.6	0.19	*
Non-Hodgkin Lymphoma	13.4	17.0	0.79		~	6.0	NA	
Ovary	11.7	12.1	0.97		~	8.9	NA	
Thyroid	15.2	12.9	1.18		~	0.4	NA	
All Cancer Sites	335.8	416.1	0.81	*	70.9	166.7	0.43	*

^a Includes the top ten sites for incidence and mortality among Hispanic females in Indiana.

^b Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. standard population.

*Indicates a statistically significant difference in the rate between Indiana and US Hispanic females, based upon 95% confidence intervals.

~Rate is suppressed; fewer than 16 cases reported

Source: U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2007 Incidence and Mortality Web-Based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2010. Available at www.cdc.gov/uscs.

Table 3c. Indiana and U.S. Age-Adjusted Cancer Incidence and Mortality Rates for Hispanic Males

2003-2007	Incidence Rates ^b				Mortality Rates ^b			
Cancer Site ^a	Indiana Hispanic Males	U.S. Hispanic Males	IN/US Incidence Ratio		Indiana Hispanic Males	U.S. Hispanic Males	IN/US Mortality Ratio	
Colon & Rectum	34.6	34.5	1.00		7.3	15.6	0.47	*
Kidney & Renal Pelvis	18.2	18.7	0.97		~	5.2	NA	
Leukemias	10.3	11.7	0.88		~	6.0	NA	
Liver & IBD	14.8	16.4	0.90		8.2	11.3	0.73	
Lung & Bronchus	42.8	47.7	0.90		20.8	32.5	0.64	*
Myeloma	7.8	6.5	1.20		~	3.3	NA	
Non-Hodgkin Lymphoma	13.6	19.3	0.70	*	~	6.3	NA	
Pancreas	7.2	11.3	0.64		6.0	9.1	0.66	
Prostate	114.4	125.6	0.91		15.4	18.8	0.82	
Stomach	11.4	14.1	0.81		~	8.0	NA	
Urinary Bladder	13.6	20.4	0.67	*	~	3.9	NA	
All Cancer Sites	362.1	420.6	0.86	*	101.4	150.4	0.67	*

^a Includes the top ten sites for incidence and mortality among Hispanic males in Indiana.

^b Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. standard population.

*Indicates a statistically significant difference in the rate between Indiana and US Hispanic males, based upon 95% confidence intervals.

~Rate is suppressed; fewer than 16 cases reported

Source: U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2007 Incidence and Mortality Web-Based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2010. Available at www.cdc.gov/uscs.

Table 3d. Age-Adjusted Cancer Incidence and Mortality Rates for Hispanic Males Compared to All Males in Indiana

2003-2007	Incidence Rates ^b				Mortality Rates ^b			
Cancer Site ^a	Indiana Hispanic Males (HM)	Indiana Males - All Races	HM/All Incidence Ratio		Indiana Hispanic Males (HM)	Indiana Males - All Races	HM/All Mortality Ratio	
Colon & Rectum	34.6	45.2	0.77	*	7.3	24.0	0.30	*
Kidney & Renal Pelvis	18.2	22.3	0.82		~	6.7	NA	
Leukemias	10.3	15.6	0.66		~	10.7	NA	
Liver & IBD	14.8	7.5	1.97	*	8.2	6.8	1.21	
Lung & Bronchus	42.8	102.4	0.42	*	20.8	83.9	0.25	*
Myeloma	7.8	7.4	1.05		~	4.9	NA	
Non-Hodgkin Lymphoma	13.6	22.9	0.59	*	~	10.0	NA	
Pancreas	7.2	13.3	0.54	*	6.0	13.1	0.46	*
Prostate	114.4	137.2	0.83	*	15.4	25.6	0.60	*
Stomach	11.4	7.9	1.44		~	4.3	NA	
Urinary Bladder	13.6	37.2	0.37	*	~	7.7	NA	
All Cancer Sites	362.1	552.7	0.66	*	101.4	249.4	0.41	*

^a Includes the top ten sites for incidence and mortality among Hispanic males in Indiana.

^b Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. standard population.

*Indicates a statistically significant difference in the rate between Indiana Hispanic males and Indiana males of all races, based upon 95% confidence intervals.

~Rate is suppressed; fewer than 16 cases reported

Source: U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2007 Incidence and Mortality Web-Based Report*.

Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2010. Available at www.cdc.gov/uscs.

Table 4. Indiana Youth Risk Behavior Study, 2009

Alcohol and Other Drug Use	Hispanic Youth (IN)	Hispanic Youth (US)	Significant Difference?	White Youth (IN)	Significant Difference?
Ever had at least one drink of alcohol on at least 1 day during their life	68.4%	76.6%	Yes, better	70.8%	No
Drank alcohol for the first time before age 13 years, other than a few sips	25.9%	27.1%	No	18.9%	No
Had at least one drink of alcohol on at least 1 day (of past 30 days)	33.1%	42.9%	No	40.2%	No
Had five or more drinks of alcohol in a row within a couple of hours on at least 1 day (of past 30 days)	16.1%	24.2%	Yes, better	27.5%	Yes, better
Ever used marijuana one or more times during their life	39.5%	39.9%	No	35.4%	No
Tried marijuana for the first time before age 13 years	8.5%	10.3%	No	6.6%	No
Used marijuana one or more times (in the past 30 days)	16.1%	21.6%	No	20.9%	No
Ever used any form of cocaine one or more times during their life	7.0%	9.4%	No	6.8%	No
Used any form of cocaine one or more times during the past 30 days (for example, powder, crack, or freebase)	4.5%	4.3%	No	2.5%	No
Ever sniffed glue , breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during their life	14.4%	14.0%	No	14.4%	No
Ever used heroin one or more times during their life (also called "smack", "junk", or "China white")	1.7%	3.3%	No	2.5%	No
Ever used methamphetamines one or more times during their life (also called "speed", "crystal", "crank", or "ice")	1.9%	5.7%	Yes, better	4.4%	No
Ever used ecstasy one or more times during their life (also called "MDMA")	5.5%	8.2%	No	8.7%	No
Ever used steroid pills or shots without a doctor's prescription one or more times during their life	2.7%	3.9%	No	3.2%	No
Ever used a needle to inject any illegal drug into their body one or more times during their life	1.6%	3.1%	No	2.6%	No
Offered, sold, or given an illegal drug by someone on school property during the past 12 months	26.0%	31.2%	No	25.1%	No

(continued)

Table 4 continued. Indiana Youth Risk Behavior Study, 2009

Tobacco Use	Hispanic Youth (IN)	Hispanic Youth (US)	Significant Difference?	White Youth (IN)	Significant Difference?
Ever tried cigarette smoking - even one or two puffs	64.6%	51.0%	Yes, worse	51.0%	Yes, worse
Smoked a whole cigarette for the first time before age 13 years	14.6%	12.6%	No	11.6%	No
Smoked cigarettes on at least 1 day (during past 30 days)	23.2%	18.0%	No	25.3%	No
Smoked cigarettes on 20 or more days (during past 30 days)	5.7%	4.2%	No	13.2%	Yes, better
Ever smoked at least one cigarette every day for 30 days	13.0%	8.6%	No	18.2%	No
Used chewing tobacco, snuff, or dip on at least 1 day (of past 30 days)	5.6%	5.1%	No	12.1%	Yes, better
Smoked cigars, cigarillos, or little cigars on at least 1 day (of past 30 days)	15.3%	12.7%	No	17.5%	No
Smoked cigarettes; smoked cigars, cigarillos, or little cigars; or used chewing tobacco, snuff, or dip on at least 1 day (of past 30 days)	27.3%	20.8%	No	31.2%	No
Sexual Behaviors					
Ever had sexual intercourse	51.2%	49.1%	No	48.1%	No
Had sexual intercourse for the first time before age 13 years	8.1%	6.7%	No	2.7%	No
Had sexual intercourse with four or more persons during their life	13.2%	14.2%	No	12.0%	No
Had sexual intercourse with at least one person during the past 3 months	38.3%	34.6%	No	36.4%	No
Were never taught in school about AIDS or HIV infection	18.6%	16.8%	No	7.7%	No
Dietary Behaviors					
Ate fruits and vegetables less than five times per day (during past 7 days)	83.5%	78.0%	Yes, worse	84.8%	No
Drank a can, bottle, or glass of (non-diet) soda or pop at least one time per day (during the past 7 days).	16.6%	28.1%	Yes, better	32.4%	Yes, better
Overweight (students who were in the \geq 85th percentile but < 95th percentile for body mass index, by age and sex)	18.1%	19.6%	No	14.9%	No
Obese (students who were in the \geq 95th percentile for body mass index, by age and sex)	19.3%	15.1%	No	11.4%	No
Physical Activity					
Physically active at least 60 minutes per day on less than 5 days (doing any kind of physical activity tht made them breathe hard some of the time during the 7 days before the survey)	56.9%	66.9%	No	58.0%	No
Physically active at least 60 minutes per day on less than 7 days (as above)	75.4%	84.4%	No	76.4%	No
Did not participate in at least 60 minutes of physical activity on any day (as above)	22.3%	23.9%	No	17.2%	No
Did not attend physical education classes in an average week (when they were in school)	61.1%	39.5%	Yes, worse	66.1%	No
Watched television 3 or more hours per day on an average school day	30.8%	41.9%	Yes, better	25.6%	No

Table 4 continued. Indiana Youth Risk Behavior Study, 2009

Unintentional Injuries and Violence	Hispanic Youth (IN)	Hispanic Youth (US)	Significant Difference?	White Youth (IN)	Significant Difference?
Rarely or never wore a seat belt	8.0%	8.8%	No	6.5%	No
Rode with a driver who had been drinking alcohol one or more times (during past 30 days)	18.9%	34.2%	Yes, better	22.9%	No
Drove when drinking alcohol one or more times (during past 30 days)	3.8%	9.4%	Yes, better	11.4%	Yes, better
Carried a weapon on school property on at least 1 day (of past 30 days)	5.6%	5.8%	No	5.7%	No
Did not go to school because they felt unsafe at school or on their way to or from school on at least 1 day (during past 30 days)	7.0%	8.1%	No	2.8%	No
Threatened or injured with a weapon on school property one or more times (during past 12 months)	5.4%	9.1%	Yes, better	5.2%	No
In a physical fight on school property one or more times (during past 12 months)	11.2%	13.5%	No	8.7%	No
Bullied on school property (during past 12 months)	20.2%	18.5%	No	23.4%	No
Felt sad or hopeless almost every day for 2 or more weeks in a row so that they stopped doing some usual activities (during past 12 months)	28.5%	31.6%	No	27.8%	No
Seriously considered attempting suicide (during past 12 months)	13.7%	15.4%	No	16.7%	No
Made a plan about how they would attempt suicide (during past 12 months)	9.6%	12.2%	No	12.7%	No
Attempted suicide one or more times (during past 12 months)	9.5%	8.1%	No	8.5%	No
Suicide attempt resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse (during past 12 months)	2.8%	2.2%	No	2.9%	No
Carried a weapon on at least 1 day (of past 30 days)	12.2%	17.2%	No	19.3%	No
Carried a gun on at least 1 day (of past 30 days)	7.0%	5.1%	No	7.1%	No
In a physical fight one or more times (during past 12 months)	34.4%	36.2%	No	27.3%	No
Injured in a physical fight one or more times (during past 12 months)	5.8%	4.7%	No	2.3%	No
Hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend (during the past 12 months)	12.3%	11.5%	No	11.4%	No
Ever physically forced to have sexual intercourse (when they did not want to)	9.3%	8.4%	No	10.5%	No

Table 5. Indiana Behavioral Risk Factor Surveillance System, 2010

	Year	Health Question	White Indiana Respondents	White - CI	Hispanic Indiana Respondents	Hispanic - CI
Health & Access	2010	How is your general health? (Percentage responding good or better)	84.7	(83.7-85.7)	82.5	(76.7-88.2)
	2010	Do you have any kind of health care coverage? (Yes)	87.8	(86.7-89.0)	57.9	(48.4-67.4)
	2010	Visited the dentist or dental clinic within the past year for any reason	71.1	(69.7-72.5)	61.9	(52.7-71.1)
	2009	Adults who have ever had their blood cholesterol checked	82.3	(80.8-83.8)	54.9	(45.5-64.4)
Risk Factors	2010	Heavy drinkers (adult men having more than 2 drinks per day and adult women having more than one drink per day)	4.0	(3.4-4.7)	3.6	(0.0-8.6)
	2010	Binge drinkers (males having 5 or more drinks or females having 4 or more drinks on one occasion)	13.6	(12.5-14.8)	16.0	(7.5-24.5)
	2010	Adults who are current smokers	20.6	(19.3-21.9)	16.8	(9.6-23.9)
	2010	During the past month, did you participate in any physical activities? (Those who said NO)	25.6	(24.3-27.0)	30.4	(22.2-38.6)
	2009	Adults who did NOT have 30+ minutes of moderate physical activity on 5 or more days per week, or vigorous physical activity for 20+ minutes on 3 or more days per week	50.8	(49.1-52.5)	56.7	(46.9-66.5)
	2010	Adults who are obese by BMI calculation	29.6	(28.2-31.0)	33.0	(23.8-42.1)
	2010	Adults who are overweight by BMI calculation	36.3	(34.7-37.8)	38.1	(28.4-47.7)
	2009	Adults who have NOT consumed fruits and vegetables five or more times per day	79.7	(78.4-81.0)	75.4	(66.3-84.5)
Chronic Disease	2010	Adults who have ever been told they have asthma	13.5	(12.4-14.5)	15.9	(10.2-21.6)
	2010	Adults who have been told they currently have asthma	8.9	(8.1-9.8)	10.0	(5.5-14.6)
	2010	Ever told you had a heart attack (myocardial infarction)?	5.0	(4.5-5.5)	3.5	(1.4-5.6)
	2010	Ever told you had angina or coronary heart disease?	4.6	(4.2-5.1)	2.9	(0.8-5.1)
	2009	Adults who have been told they have high blood pressure	31.8	(30.5-33.2)	22.0	(15.2-28.8)
	2010	Ever told you had a stroke?	2.6	(2.3-3.0)	1.5	(0.2-2.8)
	2010	Have you ever been told by a doctor that you have diabetes?	9.3	(8.6-10.0)	7.9	(3.5-12.2)
Cancer Screening	2010	Adults aged 50+ who have had a blood stool test within the past two years	16.0	(14.9-17.2)	11.6	(4.1-19.0)
	2010	Adults aged 50+ who have ever had a sigmoidoscopy or colonoscopy	63.6	(62.0-65.2)	N/A*	
	2010	Men aged 40+ who have had a PSA test within the past two years	53.7	(51.1-56.3)	N/A*	
	2010	Women aged 50+ who have had a mammogram within the past two years	74.7	(72.9-76.4)	N/A*	
	2010	Women aged 18+ who have had a pap test within the past 3 years	79.5	(77.6-81.3)	84.3	(75.7-92.9)

*NA= Not available if the unweighted sample size for the denominator was <50 or the CI half-wide was >10 for any cell

Table 6. Anxiety & Depression Module Results, Indiana BRFSS, 2010

PHQ-9 Questions 2010 Indiana BRFSS Module –Anxiety & Depression	White			Hispanic		
	None	1-7 Days	8-14 Days	None	1-7 Days	8-14 Days
Over the last 2 weeks, how many days have you had little interest or pleasure in doing things?	65.4%	28.0%	6.7%	55.2%	36.3%	8.5%
Over the last 2 weeks, how many days have you felt down, depressed, or hopeless ?	71.5%	23.4%	5.2%	58.7%	35.5%	5.8%
Over the last 2 weeks, how many days have you had trouble falling asleep or staying asleep or sleeping too much?	49.0%	34.5%	16.5%	41.9%	41.4%	16.7%
Over the last 2 weeks, how many days have you felt tired or had little energy ?	30.5%	50.0%	19.6%	21.6%	60.0%	18.4%
Over the last 2 weeks, how many days have you had a poor appetite or eaten too much?	61.1%	28.7%	10.2%	39.3%	43.7%	17.0%
Over the last 2 weeks, how many days have you felt bad about yourself or that you were a failure or had let yourself or your family down?	80.6%	14.4%	5.0%	76.4%	16.4%	7.2%
Over the last 2 weeks, how many days have you had trouble concentrating on things, such as reading the newspaper or watching TV?	81.5%	13.0%	5.5%	73.7%	20.8%	5.5%
Over the last 2 weeks, how many days have you moved or spoken so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you were moving around a lot more than usual?	89.1%	7.0%	3.9%	84.2%	13.0%	2.7%

