

The Health of Women, Infants, and Children: A Life Course Approach among Medicaid and Comparative Populations

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EXECUTIVE SUMMARY

MEDICAID: Over the study period, 2004-2015, health insurance coverage through Medicaid became increasingly important for Ohio's women and children, particularly for women of childbearing age, 19 to 44 years. For example, approximately 16% of women aged 19 to 25 years were enrolled in Medicaid in 2004, increasing to 33% in 2015. For young children, ages 0 to 5 years, Medicaid covered 33% of these children in 2004, increasing to 50% in 2015. For Medicaid-income eligible groups in 2015, 74% of children and 59% of women were enrolled in Medicaid.

WOMEN'S HEALTH OUTCOMES

Health and health behaviors: In 2015, women were less likely to be in fair/poor health, less likely to have a mental health-related impairment, and less likely to be smoking (compared with 2004). Mean age of birth increased, as teen pregnancy declined. Rates of hypertension and gestational diabetes, as well as obesity experienced by pregnant women increased. These patterns were seen overall and in Medicaid-insured women. An income gradient in health was observed, greater income was associated with better health. Older women (45 to 64 years) were more likely to be in fair/poor health, to be obese, and more likely to smoke, compared to women 19 to 25 years of age.

Health services utilization: In 2015, women were more likely to use emergency room (ER) care than in 2004. This patterns held for Medicaid-insured women. Older women (45 to 64 years) were less likely to use the ER than 19 to 25 years.

Access: In 2015, women were less likely to have a usual source of care than in 2004. Older women (45 to 64 years) were more likely to have a usual source of care

INFANT AND CHILD HEALTH OUTCOMES

Health: Children were less likely to be in fair/poor health in 2015, compared with 2004. Hispanic children experienced fair/poor health more frequently than other race/ethnicity groups. Medicaid and uninsured children have higher prevalence of fair/poor health in 2015. Infants in 2014 were less likely to be born preterm (compared with 2006).

Health Behaviors: In 2015, 40% of 10 to 12 year olds and 34% of adolescents were overweight/obese; over 35% of Medicaid-insured children, uninsured children and other insured children were overweight/obese. However, the odds of being overweight or obese in 2015 were no greater than in 2004. Half of 1 to 5 year olds consumed one or more sugar-sweetened beverages per day.

Health services utilization: Well child visits were more likely in 2015 than in 2004, overall and in the Medicaid-insured group. ER visits were mixed with reduced use in 2008 and 2012, and increased use in Medicaid-insured children in 2015.

Access: Children were less likely to have a usual source of care in 2015 compared with 2004. This held for Medicaid insured children also.

Visit www.grc.osu.edu/OMAS for additional information about OMAS, including the data and electronic version of this chartbook.

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BACKGROUND

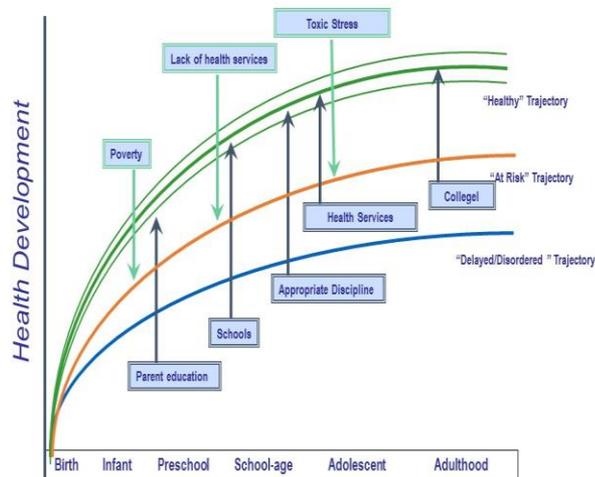
The health of Ohio women, infants, and children is rated at or near the bottom in numerous state comparisons. There is interest from multiple sectors in improving these outcomes and the opportunity to do so has never been greater. The health care delivery system is undergoing unprecedented change in focus and design, with a major shift towards prevention and wider access to care.¹ Research has provided a robust evidence-base and a new paradigm for understanding health that is rooted in a life course approach that links midlife chronic disease with risk and protective factors over the life course, beginning with gestation, and continuing through childhood, adolescence, young adulthood and midlife.² Building on this science, the Maternal and Child Health Bureau recommends new models to guide the nation's approach to maternal and child health. Their Populations Health and Life Course Health Development (PH-LCHD) Model is the guiding framework for this project.³

The PH-LCHD implicates the social determinants of health⁴ and the health system in the health rating of women, infants and children. During the period studied, Ohio experienced economic changes that exacerbated a primary social determinant--poverty--as the general economy passed through the Great Recession. The unemployment rate

increased significantly between 2008 and 2010.⁵ Although unemployment then fell steadily to 4.8 in 2015, other economic indicators did not demonstrate the same level of recovery. For example, the poverty rate rose from 12.5% in 2004 to a high of 16.3% in 2012, but by 2015 it was still 15.8%⁶, which was significantly higher than at the start of the study period. Perhaps owing to the nature of the jobs created in the recovery from the recession, a greater percentage of Ohioans were poor in 2015 than in 2004. At the level of the health system, the study period saw the passage of the Affordable Care Act (ACA) and the state's expansion of eligibility for the Medicaid program. The uninsured rate rose through 2012 to 12.3% but fell to 8.4% by the end of 2015. Ohio's Medicaid program implemented small expansions of coverage in 2006 (pregnant women up to 200% FPL), 2008 (foster children up to age 21), 2010 (presumptive eligibility for children), and 2012 (presumptive eligibility for pregnant women), and the number of enrollees grew during most of the study period. After 2013, the eligibility expansion under the ACA accounted for a substantial increase in enrollees. Approximately 600,000 Ohioans gained Medicaid coverage between late 2013 and October 2015.⁷

OBJECTIVES

Life Course Health Development:
Reducing Risk & Optimizing Protective Factors



This project builds on these developments by assessing the current health and the changing health of Ohio's women, infant and children over the last decade using a life course model⁸ (at left). Two subgroups are specifically examined: age groups and those insured through Medicaid. There are 3 objectives:

- Determine the current (i.e., 2015) health outcomes (health rating, health services utilization, access) of Ohio women, infant and children, overall and by age and health insurance, controlling for region, race/ethnicity, and poverty status.
- Determine how the health outcomes (health rating, health services utilization, access) of Ohio women, infant and children have changed over the last decade, overall and by age and health insurance, controlling for region, race/ethnicity, and poverty status.
- Using obesity and smoking as behaviors of interest, demonstrate how a life course framework can influence our understanding of prevention and health promotion.

METHODS: Sample and Measures

SAMPLE & DATA SOURCES:

This project uses data from: the Ohio Medicaid Assessment Survey (OMAS); Ohio birth certificates (OBC) and the National Survey of Children's Health (NSCH).

OMAS/OFHS: The OMAS uses a probability-based design, which allows for inference to be made for the entire state or region. This design allows for inference to be made for the entire state or region. The OMAS (and earlier versions entitled the Ohio Family Health Survey (OFHS)) were completed via telephone. We use data from five rounds: 2004 (N=39,953), 2008 (N=50,944), 2010 (N=10,278), 2012 (N=22,929), and 2015 (N=42,876). In 2015, the complex sampling design involved two sampling frames (landline and cell phone) with oversampling of African-Americans, Hispanic surnames, and Asian surnames to increase the precision of the estimates for these groups. Other years were completed using a similar sampling strategy.

Ohio Birth Certificates (OBC): OBC from 2006 and 2014 were used. Because Ohio adopted the 2003 revised National Center for Health Statistics birth certificate in 2006, 2006 was selected as the baseline year for these analyses.

National Survey of Children's Health (NSCH): The National Survey of Child Health (NSCH) was completed in 2003/2004, 2007 and 2012. Results reported here are from the Ohio 2012 data as the data of greatest interest (conditions, Adverse Childhood Experiences, scores (ACE), protective factors) were only collected in the 2012 round. The NSCH is the only nationally-representative survey that considers children's health and well-being within family and community contexts. Data in the NSCH provide more in-depth information on child and family conditions. By supplementing the OMAS with these data we fill gaps in key child health-related outcomes.

MEASURES: *Health outcomes* examined are health rating health conditions, health behaviors (overweight/obesity, smoking), utilization (emergency room, well child care), and access (usual source of care). Demographics considered in the analysis were age, race/ethnicity, geographic region, poverty status, and health insurance type.

METHODS: Analysis

Descriptive Statistics:

Prevalence estimates and standard errors were calculated for each of the major variables. Because of the life course approach, we focus on reporting results by ages, and because of the Medicaid focus, we report results by insurance type. In childhood the age groups are newborn, infant (0 to <1 year), early childhood (1 to 5 years), mid-childhood (6 to 11 years), adolescence (12 to 17 years); and for women's health the groups are young adults (19 to 25 years), adults (26 to 44 years), and midlife (45 to 64 years).

Methods for the cross-sectional analyses:

Linear and logistic regression models were used to examine whether the outcomes of interest varied by demographic and socioeconomic factors.

Methods for the time trend analyses:

Logistic regression models were used to estimate the odds of the outcomes (e.g., Fair/Poor child health) in later years relative to the odds of the outcome in 2004; where data were not available in 2004, 2008 was the comparison. Odds ratios less than 1 indicate that the odds are smaller and odds ratios greater than 1 indicate that the odds of the outcome are larger than the reference group.

Survey weighting methods:

Descriptive and cross-sectional analyses using the 2015 OMAS data utilized the strata and weights provided. The time trend analyses use the strata and weights provided for each of the five survey years and treat survey year as a hyper strata because the strata were not constant throughout the period of interest.

Section I: Results

CHILD HEALTH

Age categories are:

Infants (0 to <1 year)

Young children (1 to 5 years)

School aged (6 to 11 years)

Adolescents (12 to 17 years)

Outline of Section I:

Newborn Health: OBC

2015 Snapshot of Child Health: OMAS

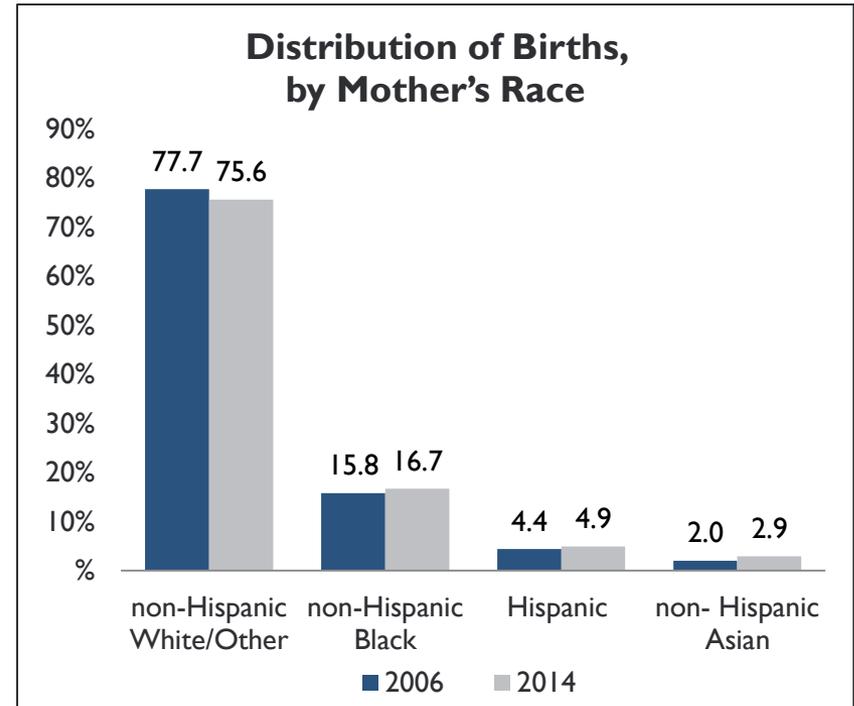
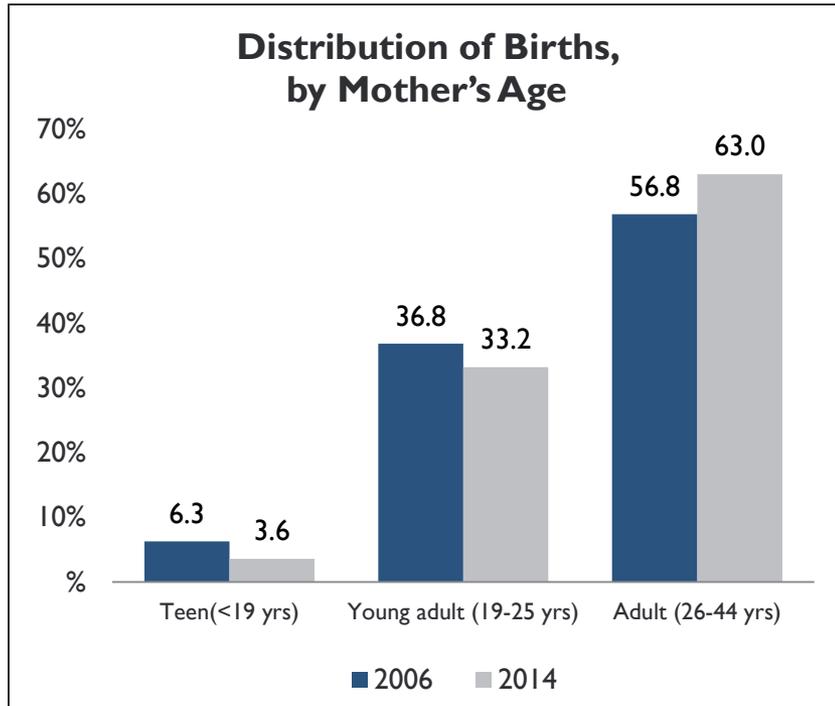
Time differences in child health factors (OMAS)

- Health rating
- ER visits
- Well child care
- Usual source of care

2012 Snapshot of Child Health: NSCH

- Health Conditions
- Protective Factors
- ACE Results

I.I Distribution of Births, 2006 and 2014 by Mother's Age and Race/Ethnicity

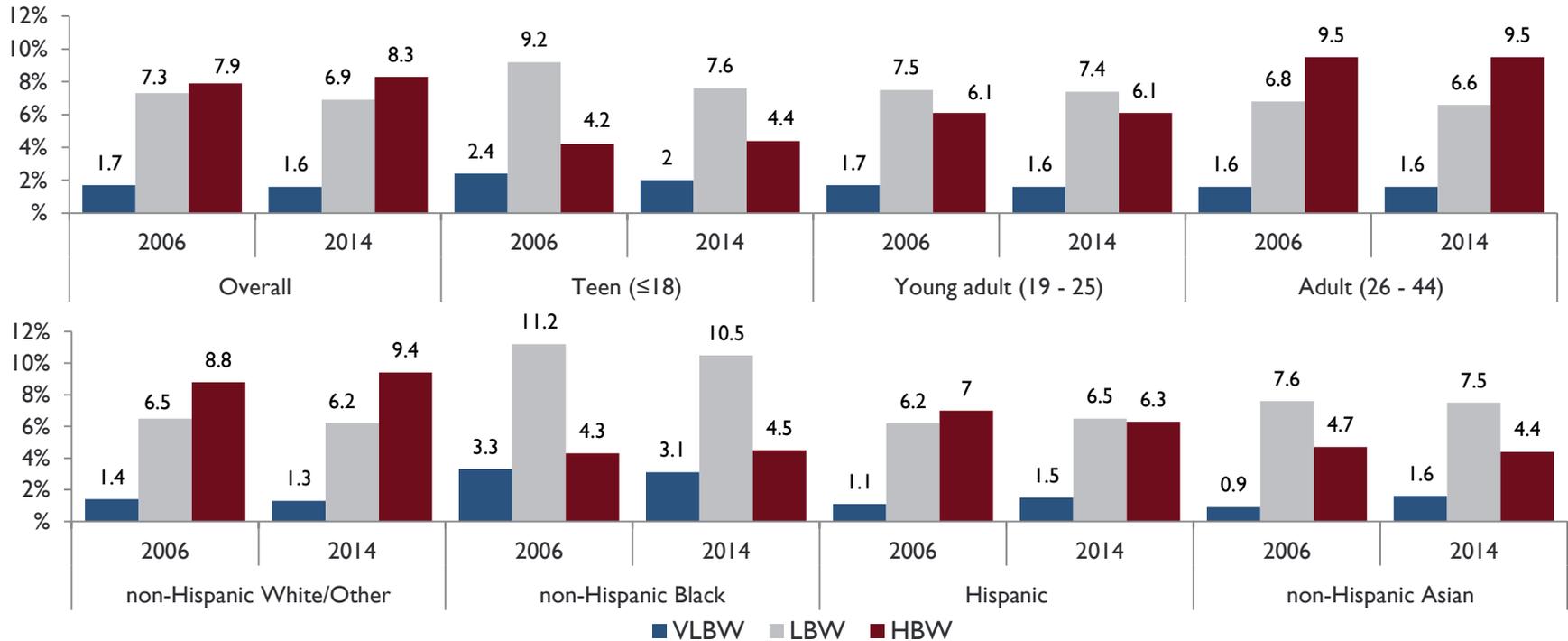


Overall, the total number of births in the state of Ohio decreased from 154,123 births in 2006 to 143,510 births in 2014. Births among teen and young adult mothers decreased between 2006 and 2014 while births among adult women ages 26 to 44 increased. The mean age of mothers increased from 27.0 to 27.8 between 2006 and 2014. The proportion of births among non-Hispanic White/Other mothers decreased between 2006 and 2014. The proportion of births among all other racial/ethnic groups increased.

Data Source: OBC 2006, 2014

1.2 Birth Weight Categories of Infants Born in 2006 and 2014 by Mother's Age and Race/Ethnicity

2006 AND 2014 COMPARISON

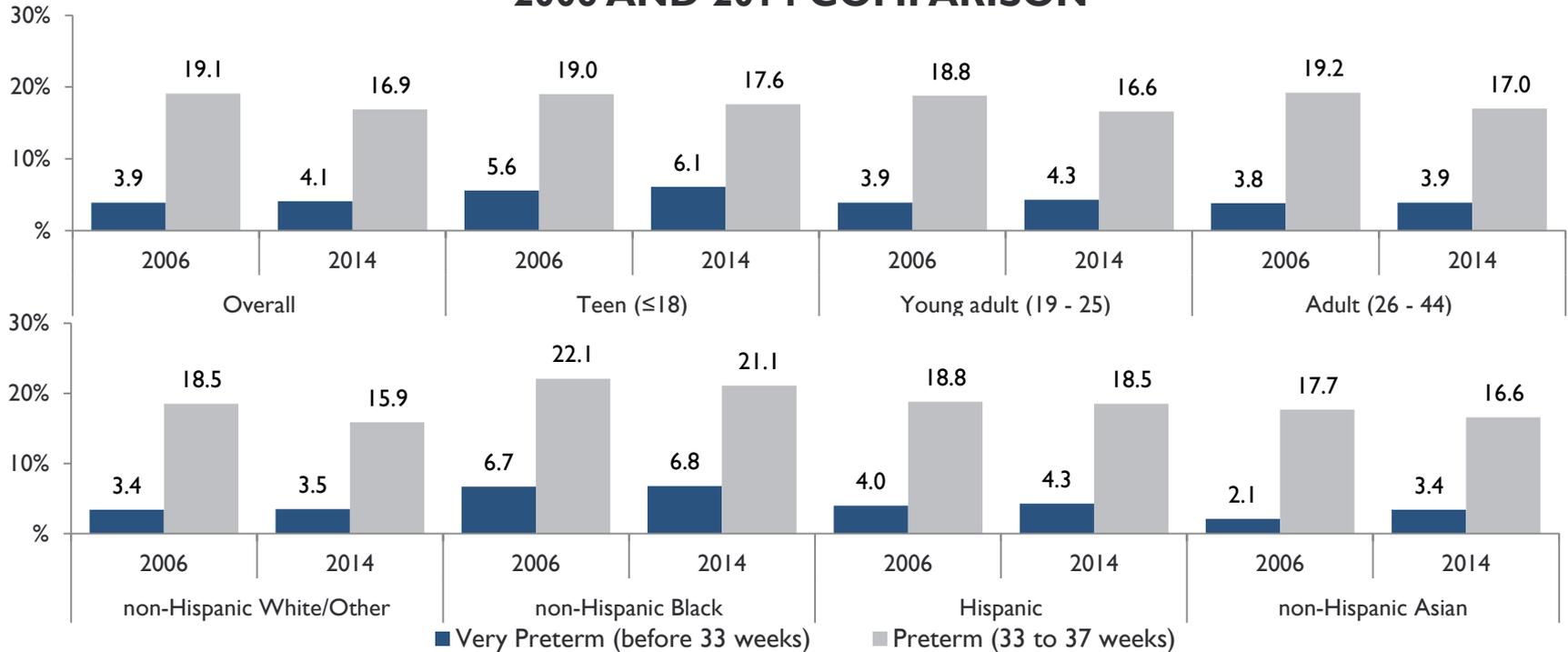


Infants born to teen mothers experienced greater occurrence of low birth weight (LBW, defined as ≥ 1500 grams and < 2500 grams; VLBW, defined as < 1500 grams). High birth weight (HBW, defined as ≥ 4000 grams) occurred more often in adult-aged mother (26 to 44 years). There was a greater occurrence of low birth weight babies born to Black mothers compared to all other races/ethnicities. HBW occurred most often in White/Other mothers. LBW birth decreased and HBW increased between 2006 and 2014 among all groups except Hispanics.

Data Source: OBC 2006, 2014

1.3 Preterm and Very Preterm Outcomes in 2006 and 2014 by Mother's Age and Race/Ethnicity

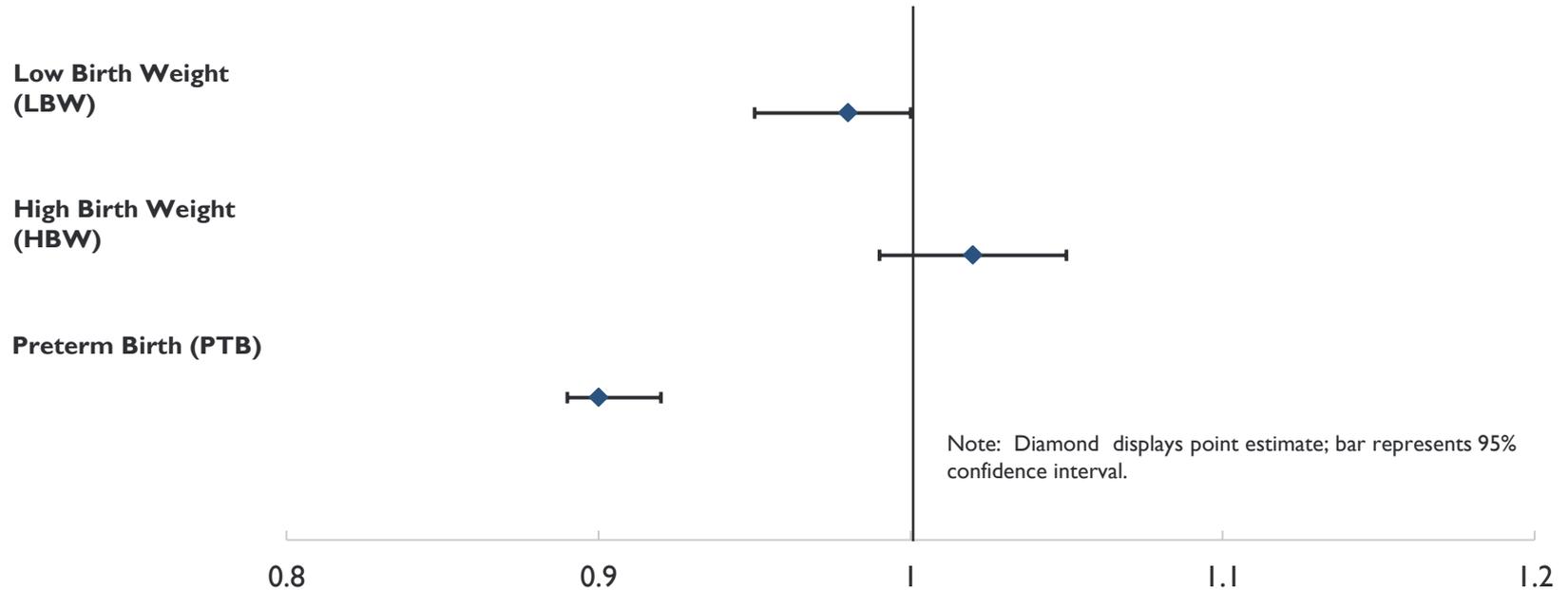
2006 AND 2014 COMPARISON



Gestational age was calculated using ODH's estimates of combined clinical and calculated gestational age. The percentage of births that were preterm or very preterm was similar across all age groups of the mothers. The greatest occurrence of preterm births occurred among Black mothers. Between 2006 and 2014, preterm births decreased in every age and race/ethnicity group while the very preterm births remained the same or increased.

Data Source: OBC 2006, 2014

Adverse Birth Outcome: Comparison 2014 with 2006*

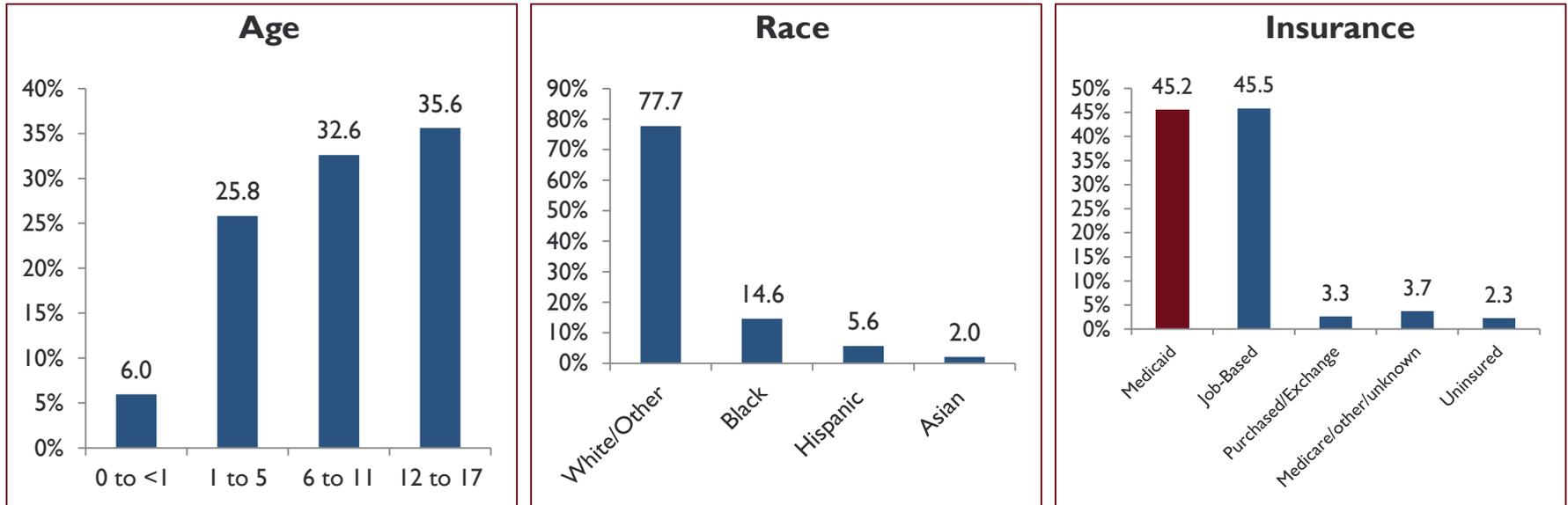


In 2014, infants were less likely to be born preterm, controlling for maternal age (as a continuous variable), race, education and region. There was no difference in the odds of LBW or HBW in 2014 when compared to 2006. Other findings show that Blacks were more likely to have LBW and PTB. Increased education lowered the risk of LBW and PTB, but raised the risk for HBW; there were some geographic differences in each of the birth outcomes. LBW was less likely in all non-metro regions compared to the metro area; infants born to rural dwellers (compared to metro) were more likely to be of HBW, and PTB was more likely in Appalachia when compared to metro region.

*Odds ratios from logistic regression models controlling for region, race/ethnicity, mother's age and education

Data Source: OBC 2006, 2014

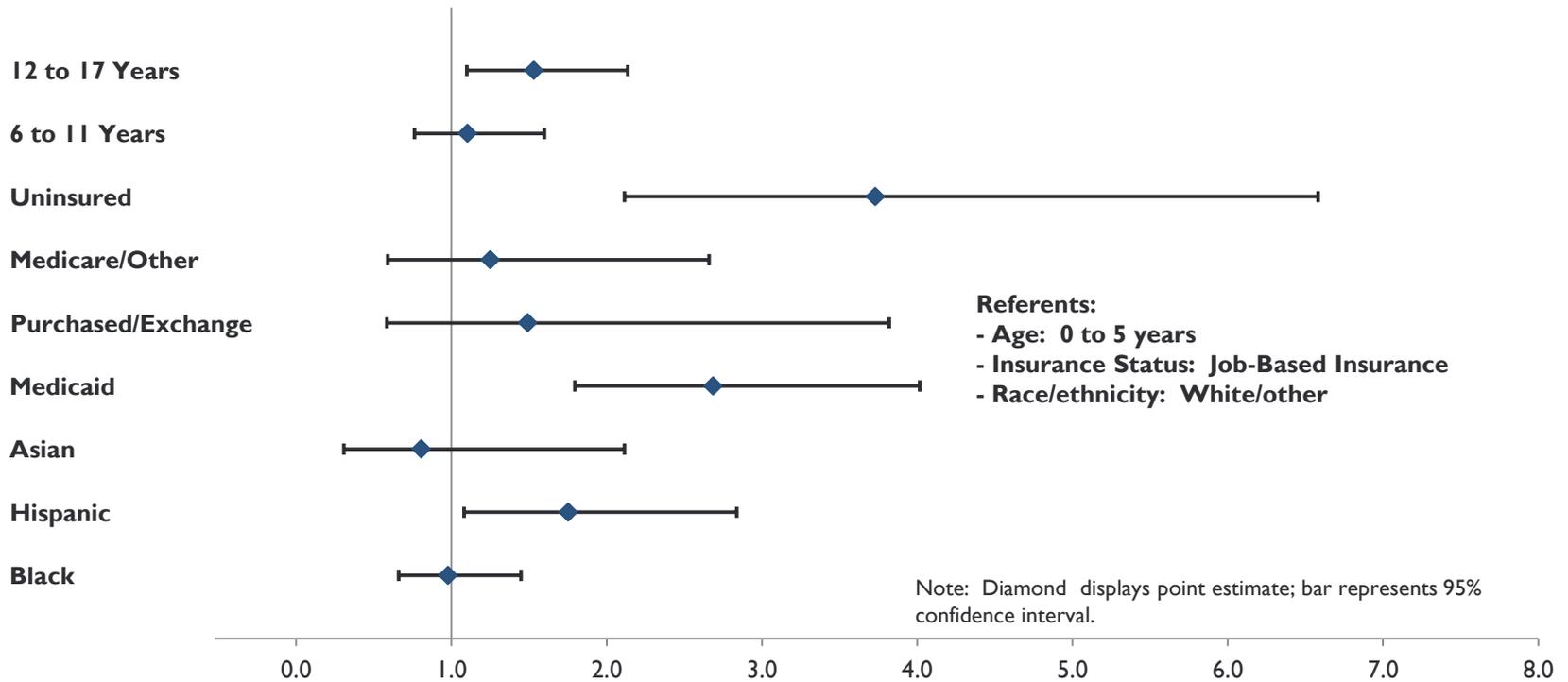
1.5 2015 Snapshot of Child Health: Distribution of Children by Age, Race, and Insurance Type



The majority of the children were between the ages of 6 to 17 years (69%), were White/Other (78%) and were either enrolled in Medicaid (45%) or obtained coverage through their parent's employer (46%).

Data Source: 2015 OMAS Data

I.6 Child Health: Association of Fair/Poor Health Rating with Demographics*

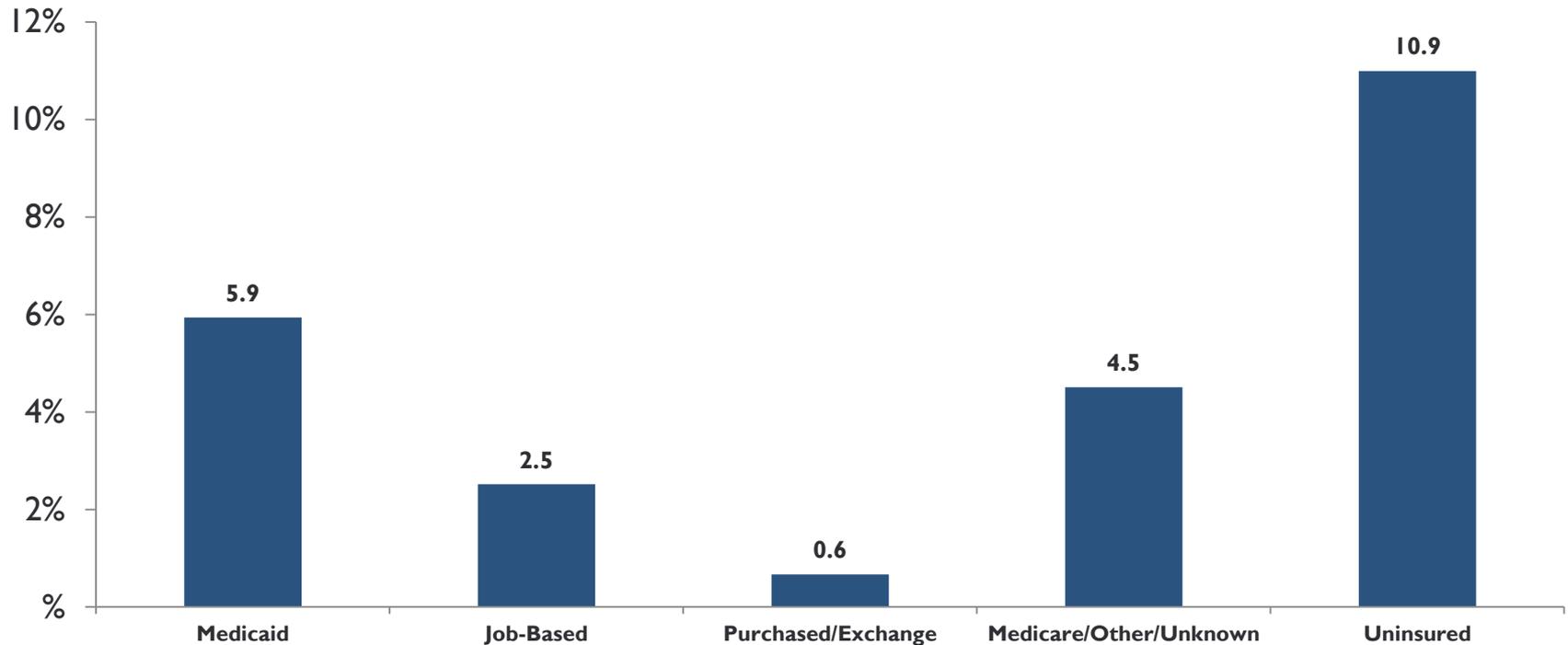


Children insured by Medicaid or uninsured were more likely to be in fair/poor health than children enrolled through a parent’s job based insurance. Older children were more likely to be in fair/poor health when compared to younger children; Hispanic children were more likely to be in fair/poor health.

*Odds ratios from logistic regression models controlling for: region, race/ethnicity, poverty level and gender

Data Source: 2015 OMAS Data

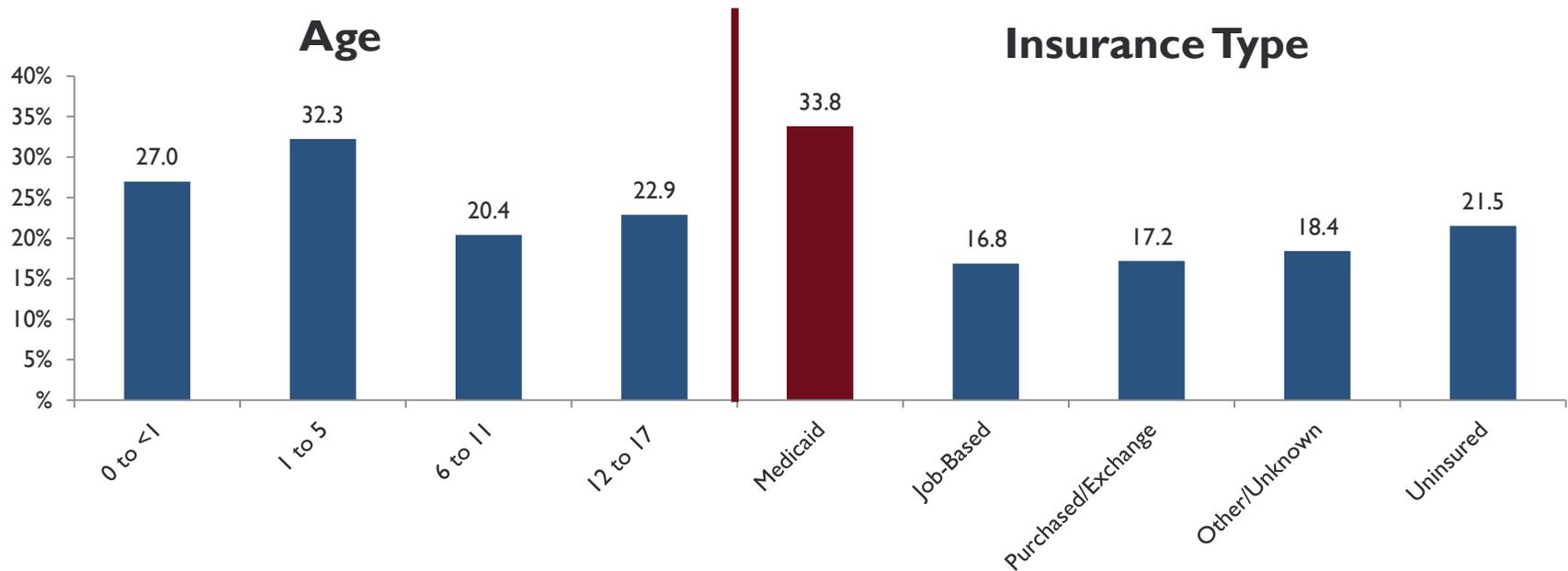
1.7 2015 Snapshot of Child Health: % in Fair/Poor Health among Children Income Eligible for Medicaid by Insurance Type



This slide is restricted to children in families income-eligible for Medicaid and shows health rating in this group by insurance type. For children income eligible for Medicaid, 74% were insured through Medicaid.

Data Source: 2015 OMAS Data

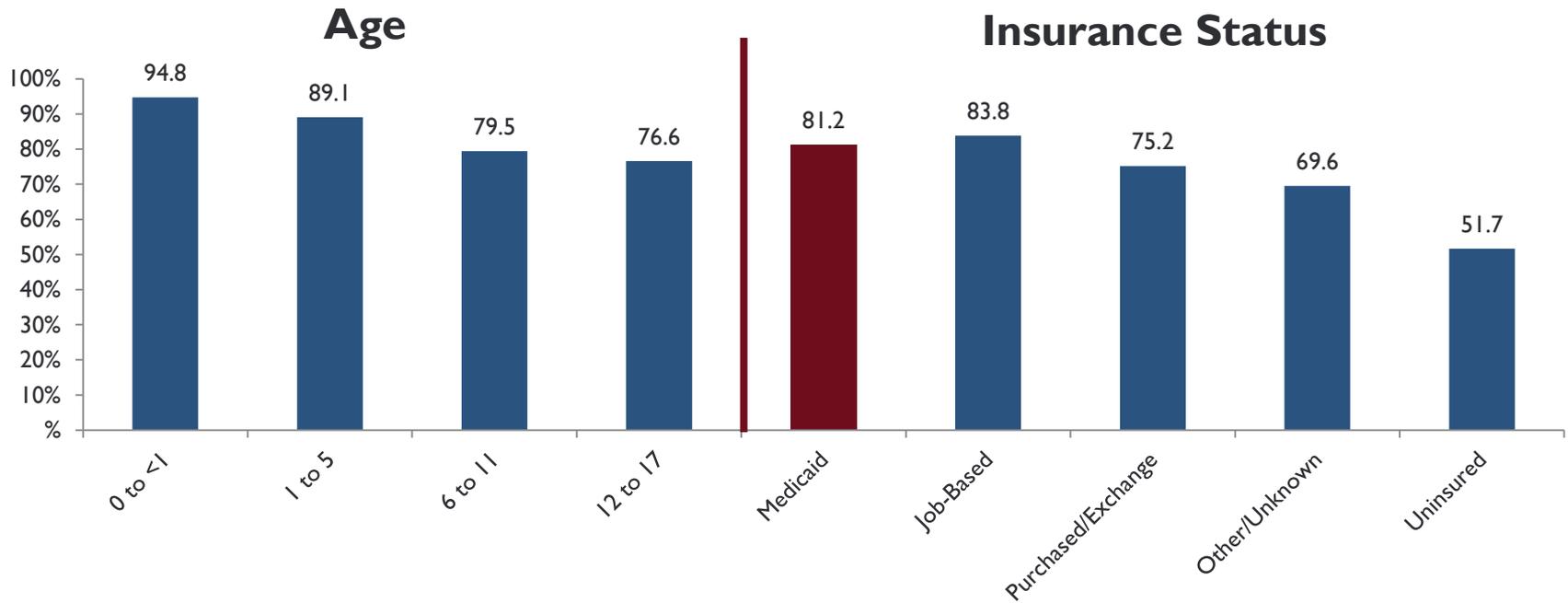
I.8 2015 Snapshot of Child Health: Emergency Room (ER) Utilization by Age and Insurance Type



Infants and young children and those enrolled in Medicaid had the greatest utilization of emergency room (ER) services. Younger children (0 to 5 years) were more likely to utilize the ER (59%). About 34% of children insured through Medicaid utilized the ER compared to 17% of children insured through a job-based plan or insured through purchased/exchange plan. Additionally (not in graph) 20% of Medicaid eligible, but not enrolled children, had ER utilization.

Data Source: 2015 OMAS Data

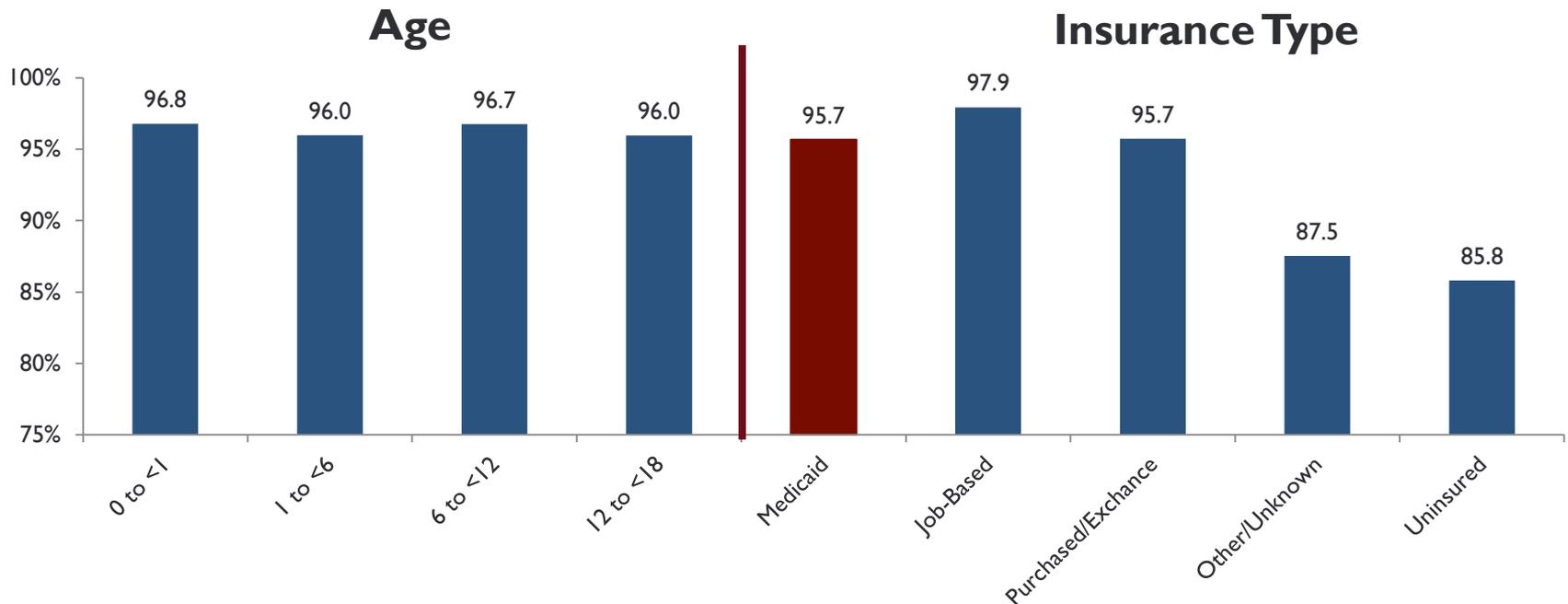
1.9 2015 Snapshot of Child Health: Well Child Visit by Age and Insurance Type



Younger children had higher use of well-child visits, with use decreasing for older youth. Those enrolled in Medicaid or insured through job-based coverage had higher utilization of well-child visits compared to those with purchased/exchange insurance, those with other types of insurance and those uninsured. Additionally (not in graph) 76% of Medicaid income-eligible, but not enrolled children, had a well child visit.

Data Source: 2015 OMAS Data

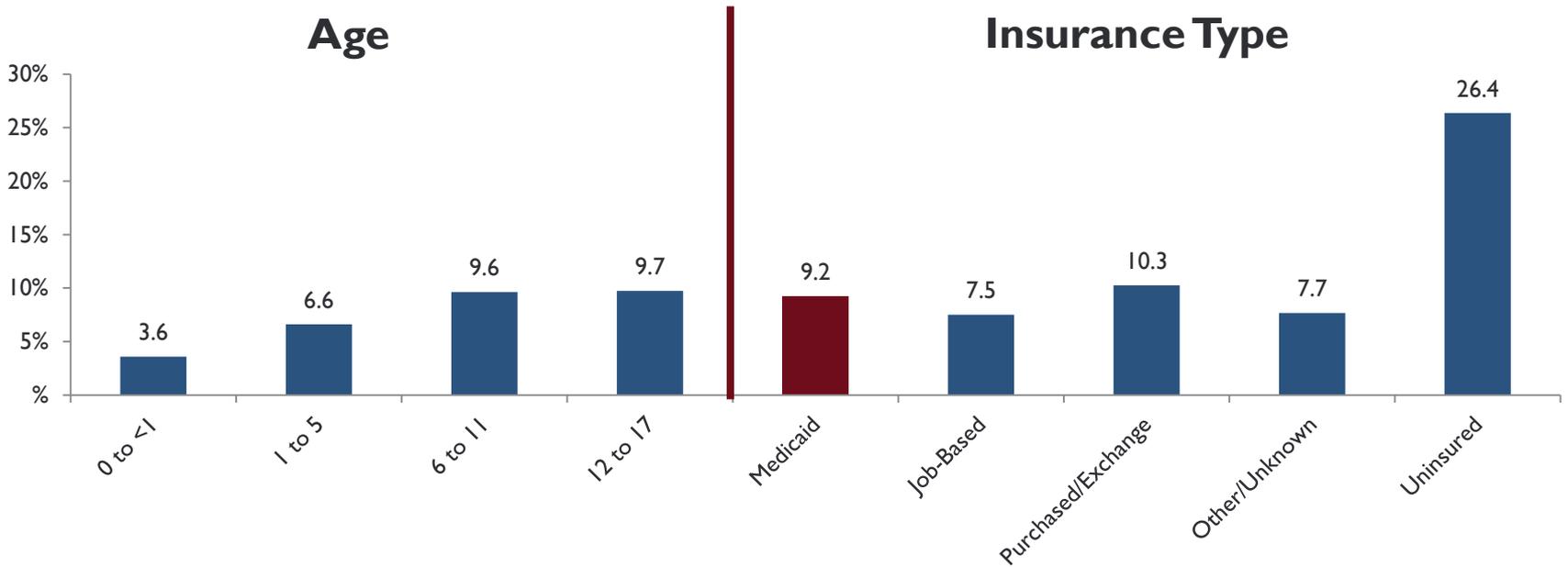
1.10 2015 Snapshot of Child Health: Usual Source of Care by Age and Insurance Type



Approximately 3-4 % of children were without a usual source of care and this did not vary by the age of the child. Access to a usual source of care varied by insurance type, with uninsured children having the least access to a usual source of care.

Data Source: 2015 OMAS Data

1.10 2015 Snapshot of Child Health: Unmet Health Needs by Age and Insurance Type



The percentage of children with a reported unmet health care need increased with the child's age. For all insurance types the percentage of children with an unmet health care need was 10% or less, except among the uninsured. Additionally (not reported in graphs), 15% of children income-eligible for Medicaid, but not enrolled in Medicaid had an unmet health need.

Data Source: 2015 OMAS Data

Child Outcomes over Time: 2004 to 2015

The next series of slides report the findings of the time trend developed from multiple years of the Ohio Medicaid Assessment Surveys. These results are reported for the overall sample and for Medicaid-insured children only. The referent for year is 2004. The referent for age is children ages 0 to 5 years (young children). The referent for insurance status is job-based insurance. Measurement of variables is described below.

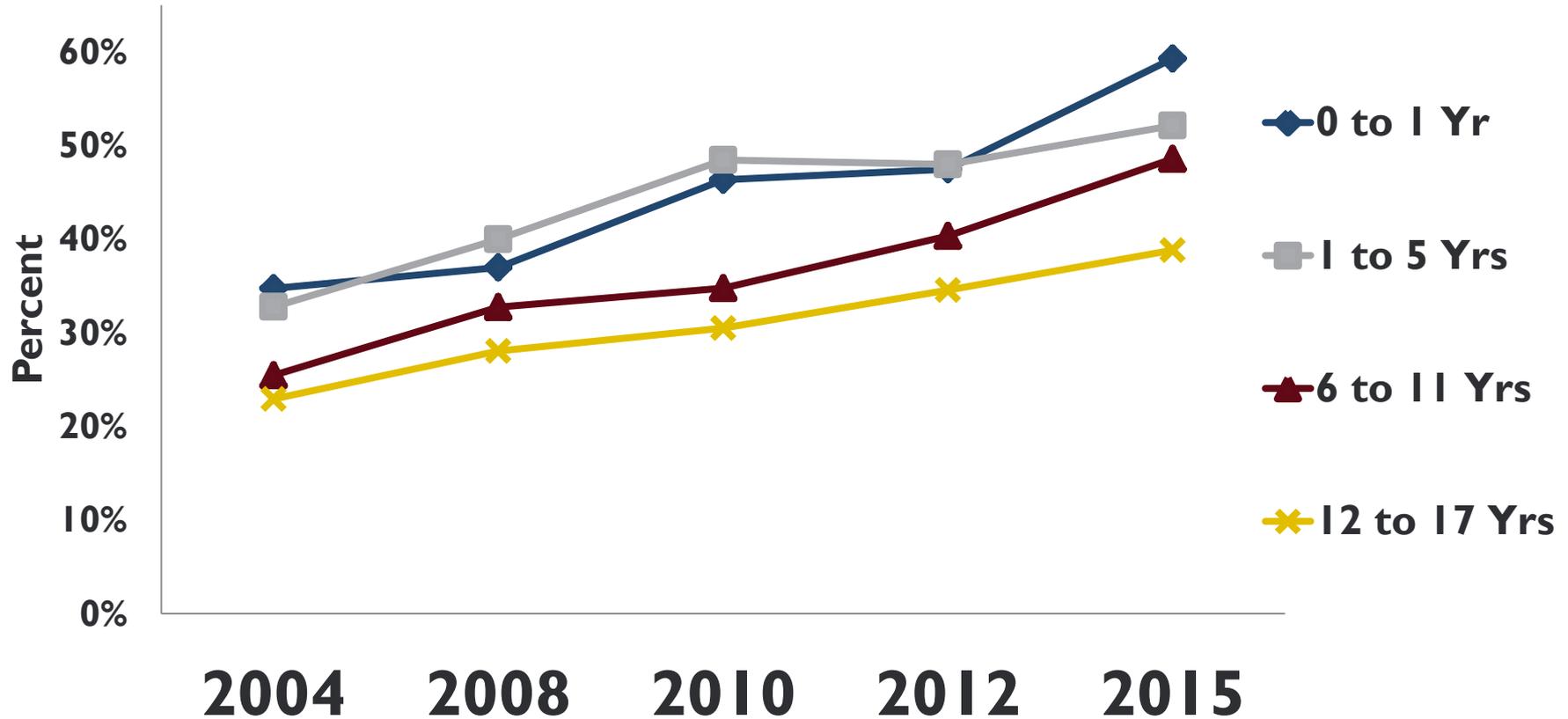
Child Health Rating: The health of the child was measured using a question that asks the respondent to “rate the health of the child”, with the following options: excellent, very good, good, fair, poor. For the analysis the measure was collapsed into two outcomes: excellent, very good or good versus fair or poor.

Health Care Utilization: We report on health care utilization using two important indicators within the past 12 months: having a well child visit and having an ER visits.

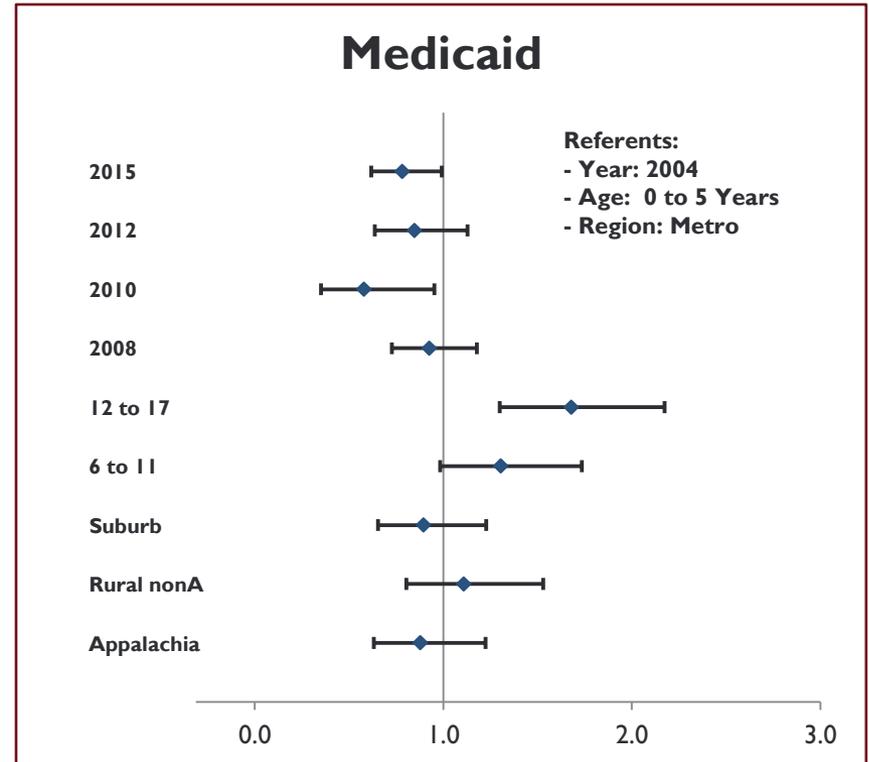
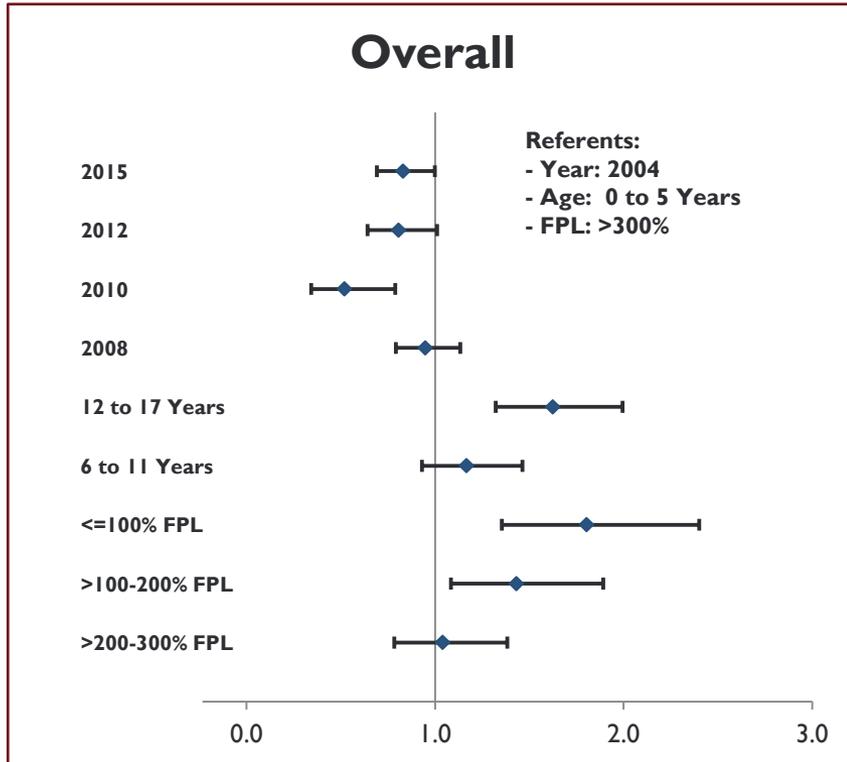
Access: This measure was taken from a question that asks the proxy-respondent if the child had a usual source of care.

Appendix Tables B through E detail the full logistic regression models that examine outcomes as a function of year, age, race/ethnicity, region, poverty, and insurance status. There are three models for each outcome (full sample, Medicaid only, job-based plans).

Medicaid Enrollment by Year and Age



I.12 Time Trend: Fair/Poor Health—Full Sample and Medicaid-insured Children Only*

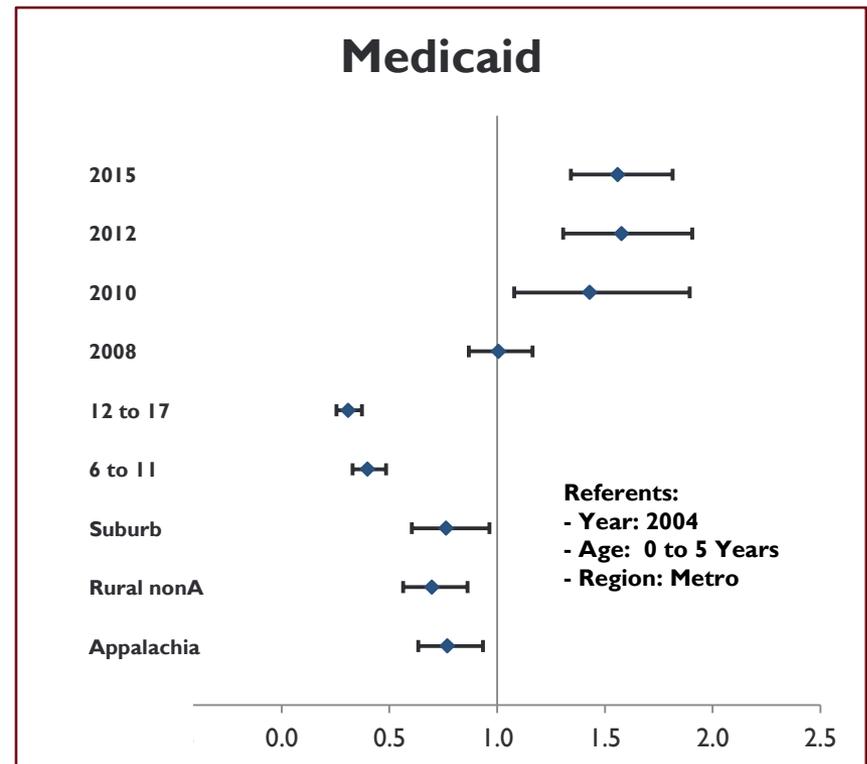
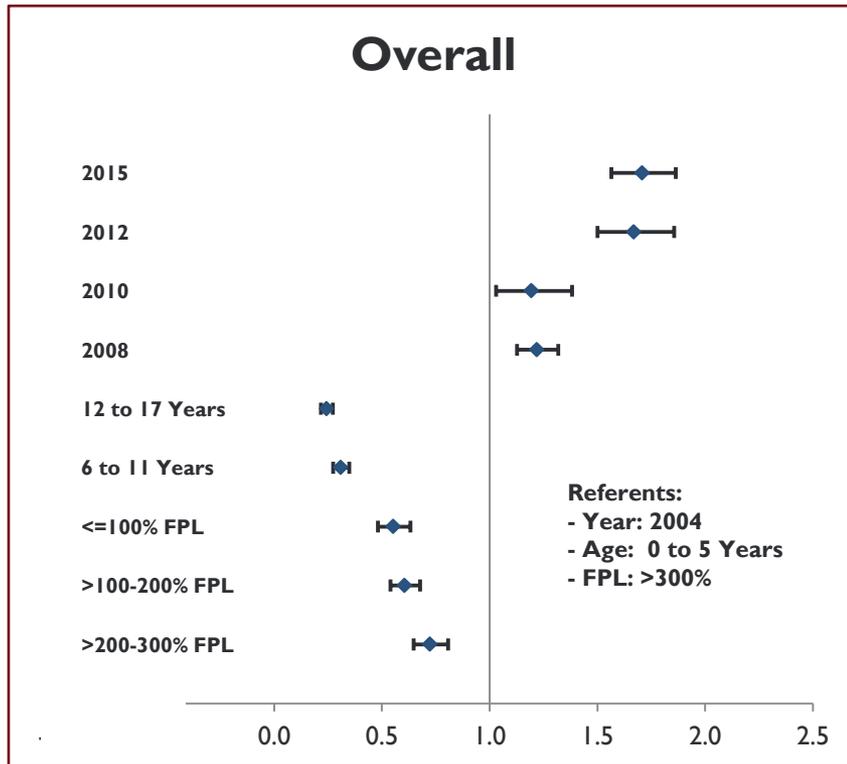


Children in 2015 and 2010 were less likely to be in **fair/poor health**, compared with 2004. This pattern was also seen in children enrolled in Medicaid. Reporting of fair/poor health was more likely in adolescents, compared to the youngest age group, overall and in the Medicaid-insured group. There was an income gradient noted in the overall sample, with worse health as income declined.

* Odds ratios from logistic regression models controlling for region, race/ethnicity, insurance type, FPL

Data Source: 2004-2015 OMAS Data

I.13 Time Trend: Well Child Visit—Full Sample and Medicaid-Insured Children Only*

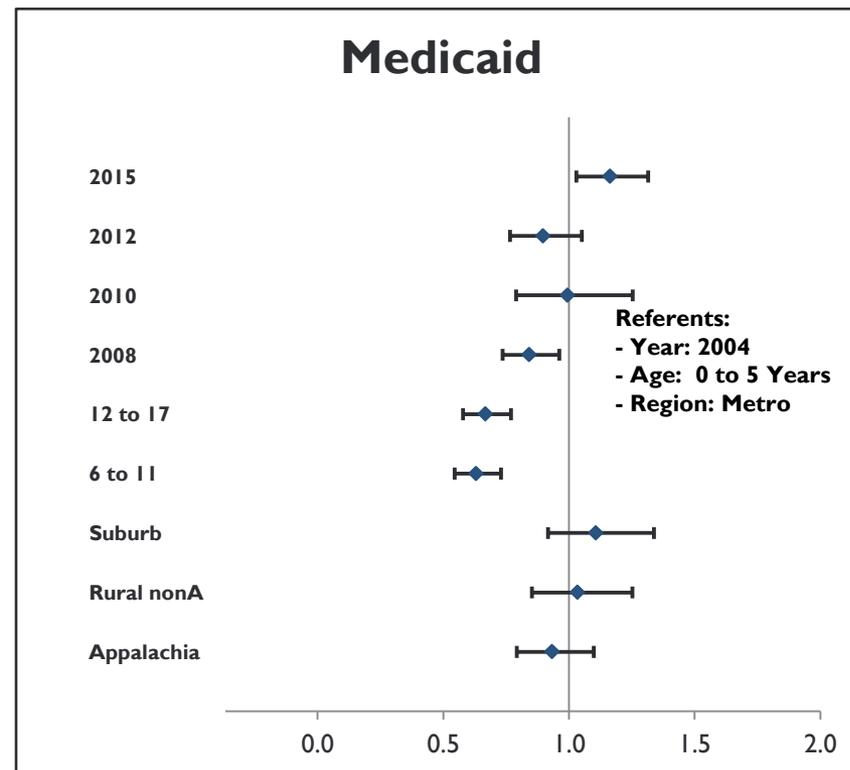
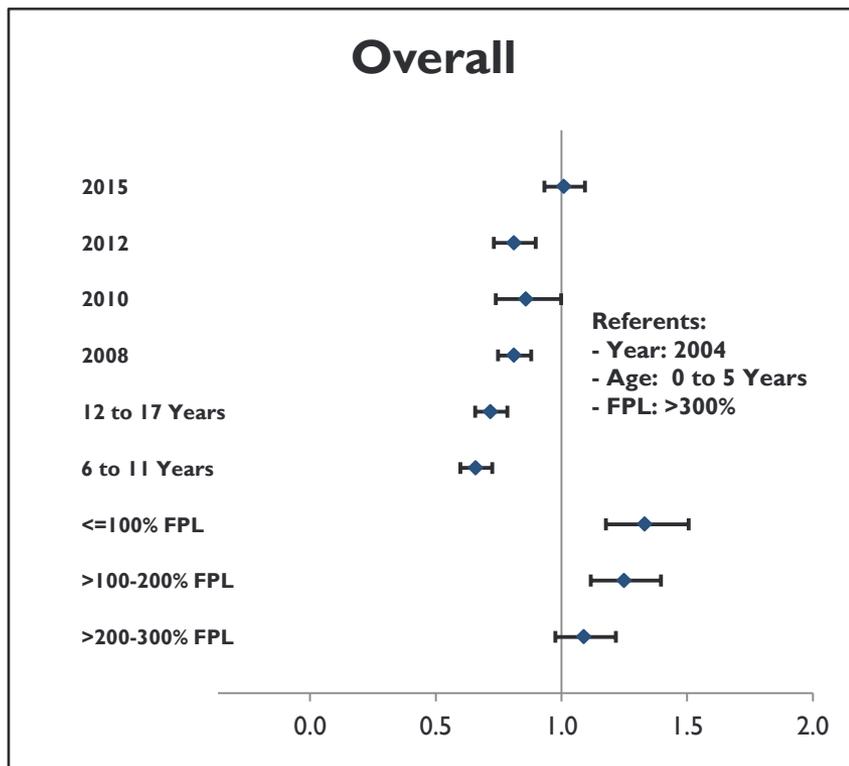


Children in 2015, 2012, 2010, and 2008 were more likely to have a **well child care visit** compared with 2004. Findings were similar in Medicaid-insured group except for 2008. Older children were less likely to have a well child visit and there was a decreased likelihood of a well child visit as income decreased. For Medicaid insured children suburban, rural, and Appalachian children were all less likely to have a well child visit when compared with the metro region.

* Odds ratios from logistic regression models controlling for region, race/ethnicity, FPL

Data Source: 2004-2015 OMAS Data

1.14 Time Trend: ER Visits—Full Sample and Medicaid-Insured Children Only*

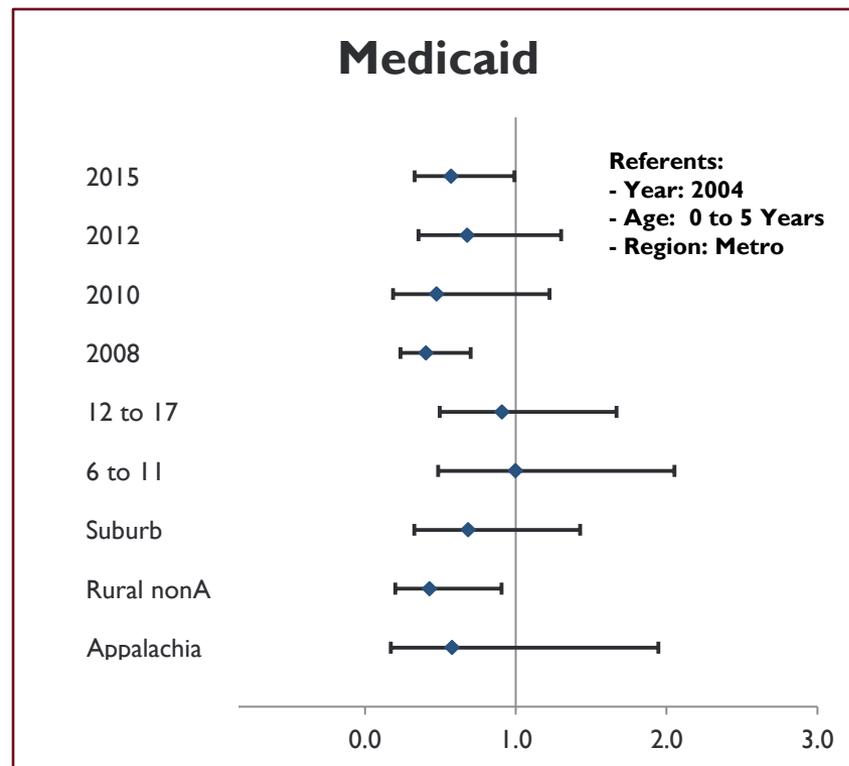
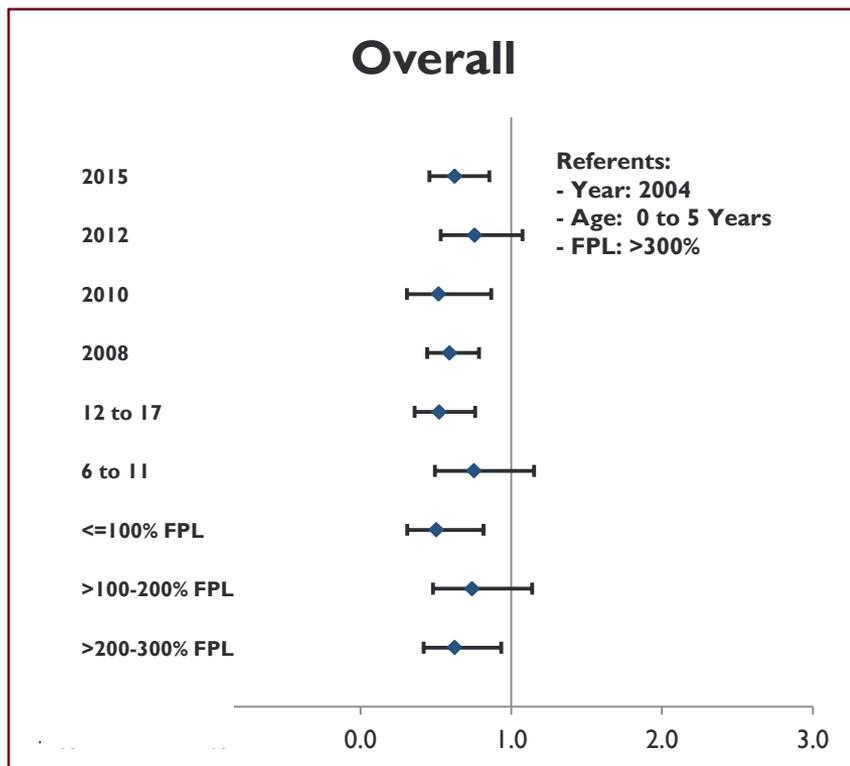


Children in 2008, 2010, and 2012 were less likely have had an **ER visit**, compared to 2004. There was no difference in 2015. Medicaid-insured children were more likely to have had an ER visit in 2015 compared with 2004, no more likely in 2010 and 2012, and less likely in 2008. Older children were less likely to have an ER visit; and poorer children more likely to have an ER visit. Patterns were similar for children insured through Medicaid.

*Odds ratios from logistic regression models controlling for region, race/ethnicity, FPL

Data Source: 2004-2015 OMAS Data

I.15 Time Trend: Usual Source of Care—Full Sample and Medicaid-Insured Children Only*

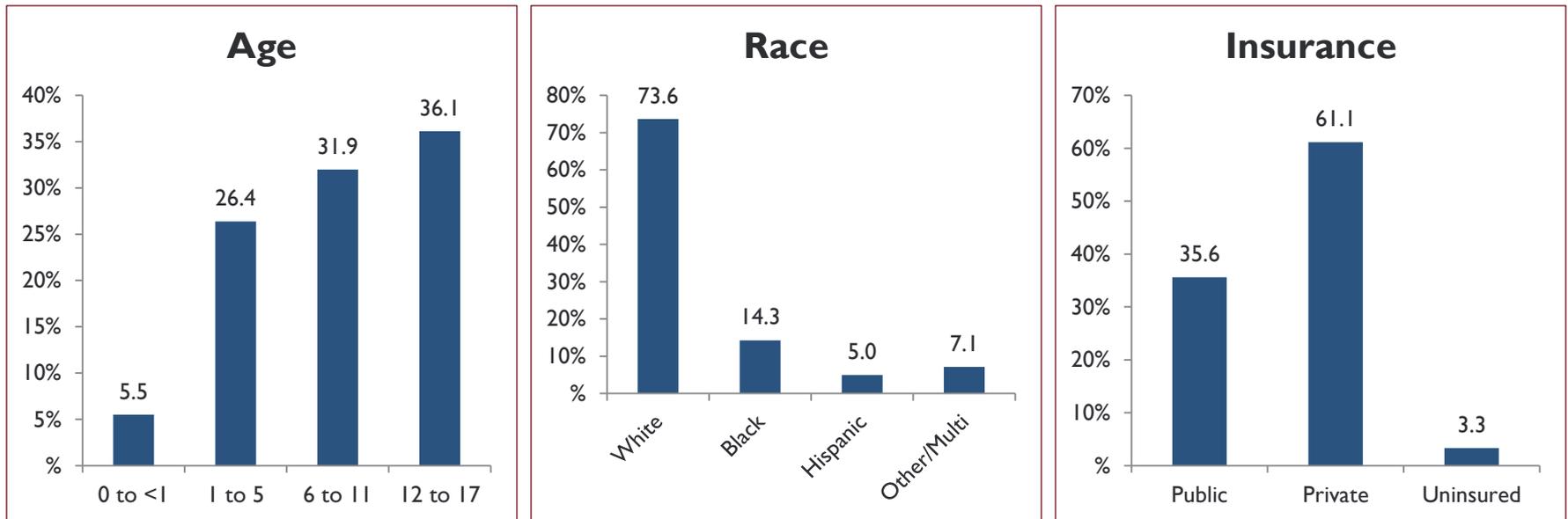


Children in 2015, 2010, and 2008 were less likely to have an **usual source of care** than in 2004. Older children were less likely to have an usual source of care. These patterns were similar for Medicaid-insured children, with Medicaid insured children less likely to have a usual source of care in 2015 and 2008 compared to 2004.

*Odds ratios from logistic regression models controlling for region, race/ethnicity, FPL

Data Source: 2004-2015 OMAS Data

I.16 NSCH 2012: By Age, Race, and Insurance Type



The majority of youth were 6 to 17 years, were White (74%) and were enrolled in a private form of health insurance (61%).

Data Source: 2012 NSCH Data

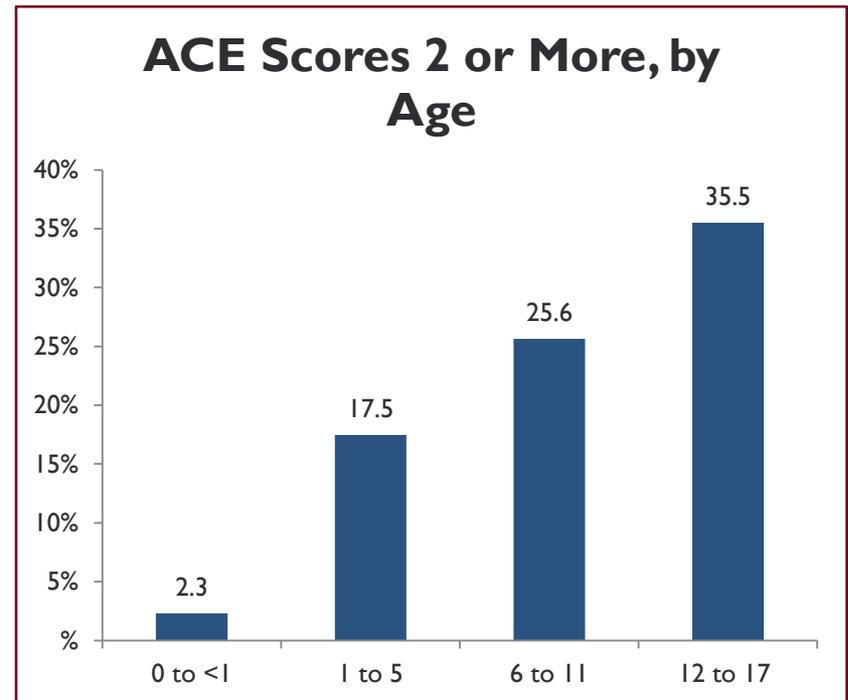
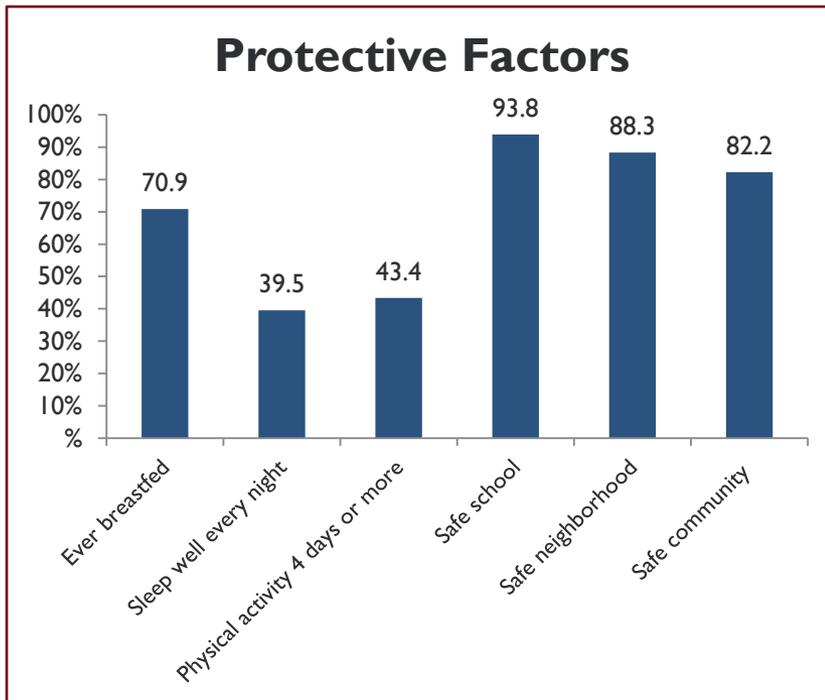
1.17 NSCH 2012: Select Health Conditions by Age

Health Conditions - Yes	Overall		0 to <1 Years		1 to 5 Years		6 to 11 Years		12 to 17 Years	
	%	SE%	%	SE %	%	SE %	%	SE %	%	SE %
ADHD	10.3	1.2			2.1	1.2	12.3	2.1	13.5	2.0
Anxiety disorder	3.8	0.7			1.6	1.1	2.7	0.9	6.1	1.4
Asthma	8.5	1.0			7.3	1.7	9.8	1.9	9.3	1.6
Autism	2.1	0.4			0.1	0.1	3.4	1.0	2.1	0.7
Behavior Problems	4.0	0.7			1.6	0.8	5.1	1.3	4.6	1.4
Depression	3.2	0.7			0.2	0.2	2.6	1.1	5.6	1.4
Developmental Delay	3.7	0.7			3.0	1.3	4.5	1.2	3.4	0.9
Learning disability	10.0	1.2			1.7	0.9	8.2	1.7	15.5	2.2
Muscular-Skeletal	2.6	0.6	2.7	2.4	0.6	0.3	1.1	0.7	5.4	1.3
Speech	4.7	0.7			5.4	1.7	6.2	1.4	2.9	0.9

ADHD and learning disabilities were experienced by approximately 10% of all children. Asthma followed third, with a prevalence of 8.5%. In most conditions, there was an increased prevalence with increased age of the child. In adolescence, over 13% of children identify as having ADHD, and 15.5% of adolescents reported having a learning disabilities.

Data Source: 2012 NSCH Data

I.18. A Child's Contexts by Protective Factors and ACE Scores



The protective factors were safe school, safe neighborhood, safe community, sleep well every night, and physical activity at least 4 days per week. Prevalence of protective factors ranged widely. While parents reported that only 40% of their children slept well nightly, 94% attended a safe school. The ACEs results shows that as children age, they “accumulate” more risk. By age 12 to 17 years over 36% of children have experienced 2 or more ACEs, placing them at high risk for a wide range of possible adverse health conditions.

Data Source: 2012 NSCH Data

Key Findings: Children

- Medicaid-insured Children: In 2015, 45% of children were insured through Medicaid. This is the highest rate of Medicaid coverage of children over the study period. In 2015, 2.3% of children were uninsured. Of children income-eligible for Medicaid in 2015, 74% were enrolled; the 26% eligible, but not enrolled are a heterogeneous group, with most insured through another mechanisms; only 3% remain uninsured.
- The health of children 0 to 17 years shows that overall and for Medicaid-insured children there was a decreased likelihood of being in fair/poor health in 2015, compared with 2004. Hispanic children experienced fair/poor health more frequently than the other race/ethnicity groups in all age groups. Medicaid and uninsured children had higher prevalence of fair/poor health in 2015. Prevalence of various health conditions, overall and by age groups was explored using the NSCH data. These results suggest that ADHD, learning disabilities and asthma are the three most common conditions reported.
- Health Care Utilization: Well child visits were more likely in 2015 than in 2004. This was also seen in 2010 and 2012 and occurred both within Medicaid-only and the overall group. Well child care was more likely in younger children when compared with adolescents. ER visits were mixed; with reduced use in 2008 and 2012 and no difference in 2010 for both overall and Medicaid-insured children and increased use in Medicaid-insured children in 2015.
- Access: Overall, children were less likely to have a usual source of care. This pattern was similar for Medicaid-insured children also, with Medicaid insured children less likely to have a usual source of care in 2015 and 2008 compared to 2004.
- Risk and Protective factors The protective factors were safe school, safe neighborhood, safe community, sleep well every night, physical activity at least 4 days. The ACE results showed that as children age, they “accumulated” more risk so that by age 12 to 17 years over 35% have experienced 2 or more adverse events, placing them at high risk for a wide range of possible adverse health conditions.
- General Health of Newborns: In 2014, infants were less likely to be born preterm, controlling for race, education and region. There was no difference in the odds of low birth weight or high birth weight in 2014 when compared to 2006. Other findings show that Blacks were more likely to have LBW and PTB; while increased education lowers the risk of LBW and PTB, but raised the risk for HBW. There were some geographic differences in each of the birth outcomes: LBW births less likely in all regions compared to the metro area; infants born to rural dwellers (compared to metro) more likely to be of HBW births, and preterm births were more likely in Appalachia region when compared to metro region.

Section II: Results

WOMEN'S HEALTH :

Age Categories are:

Young Adults (19 to 25 years)

Adult Women (26 to 44 years)

Mid-life women (45 to 64 years)

Outline of Section II:

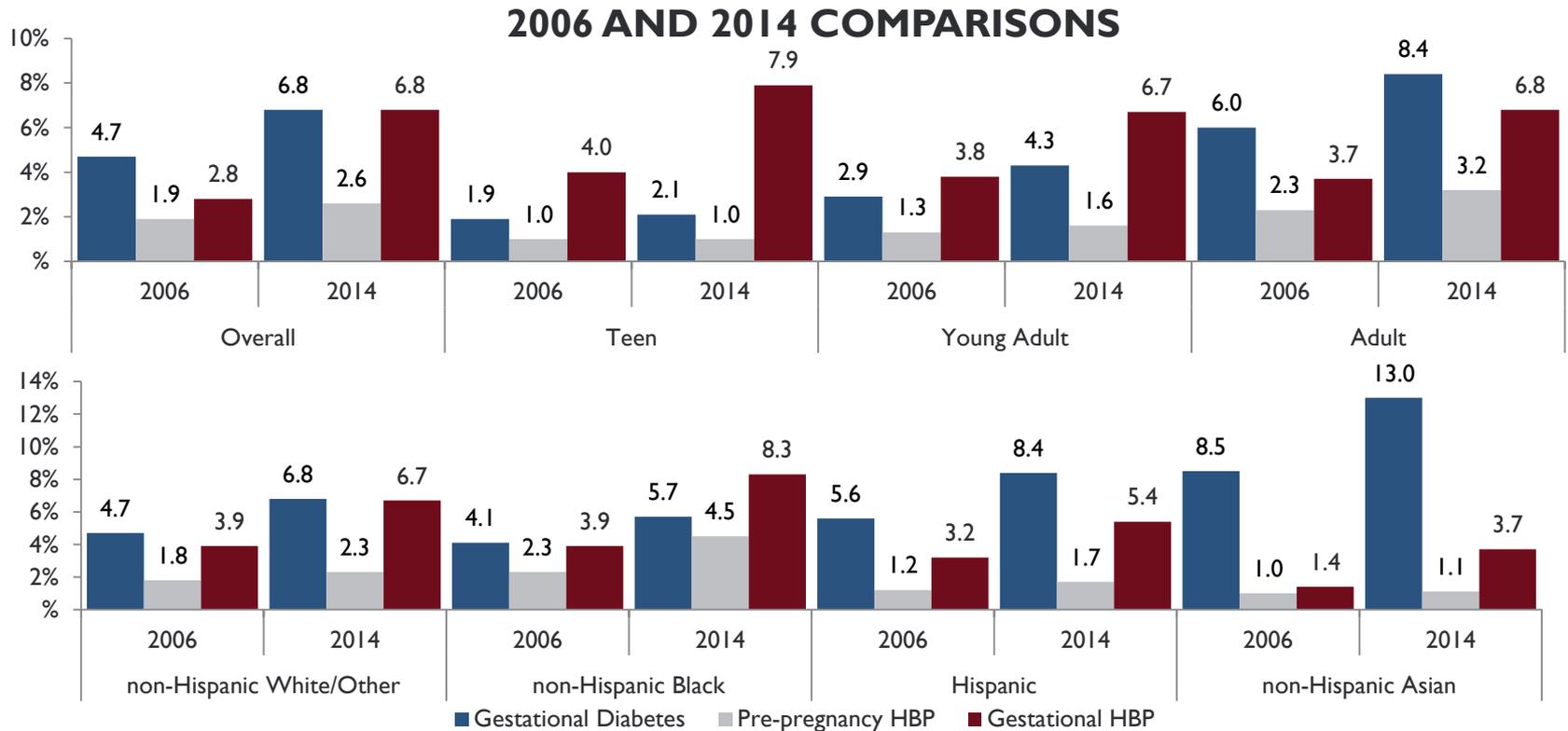
Maternal Health: OBC

2015 Snapshot of Women's Health:
OMAS

Time Trend for women's health factors,
OMAS, multiple survey years

- Health rating: overall fair/poor
- Mental health
- ER visits
- Usual source of care

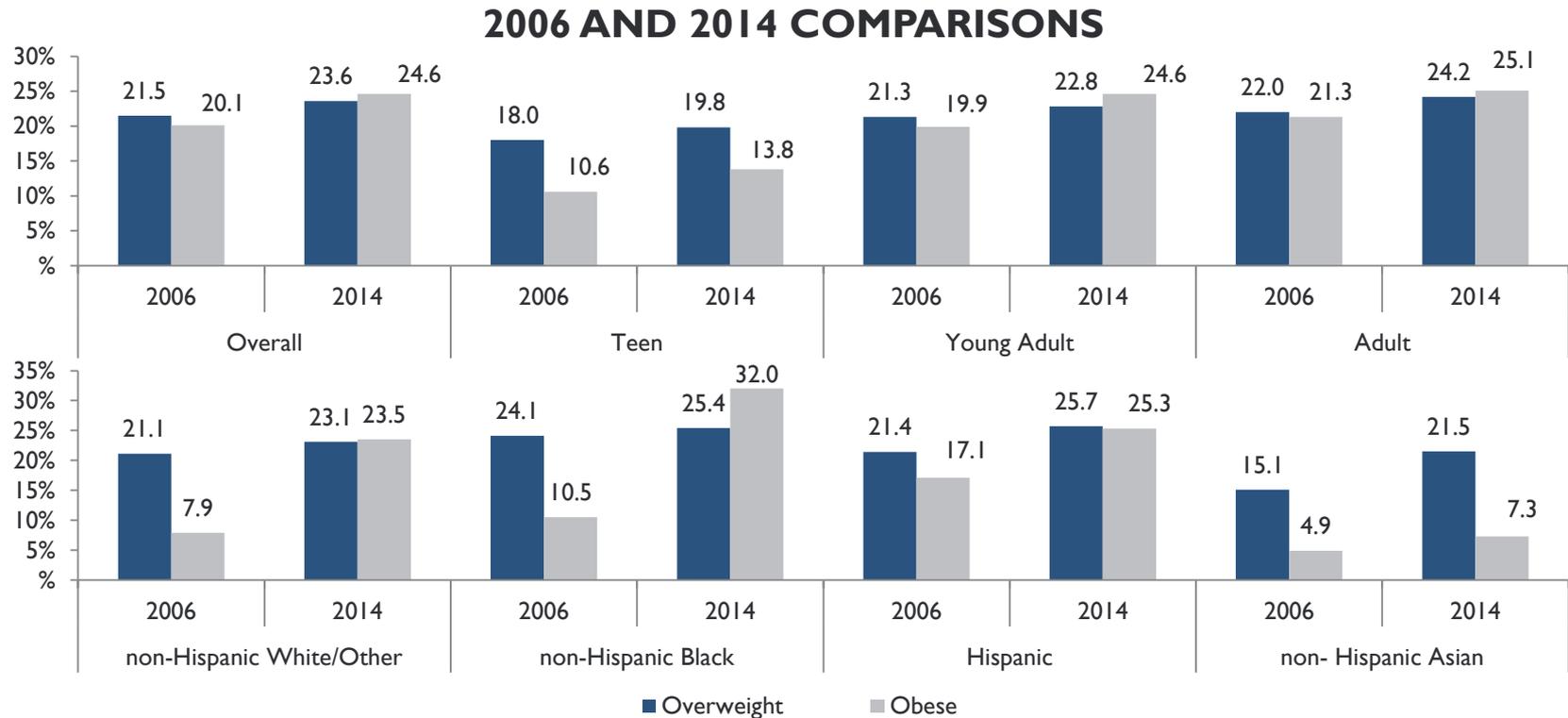
2.1 Maternal Health Conditions by Year, Maternal Age, and Race



In general there were increases in all conditions between 2006 and 2014, with gestational diabetes most prevalent in adult mothers (26 to <45 years) and hypertension more prevalent in younger mothers (19 to 25 years). Asian mothers experienced the highest incidence of gestational diabetes compared to mothers of all other races/ethnicities.

Data Source: OBC 2006, 2014

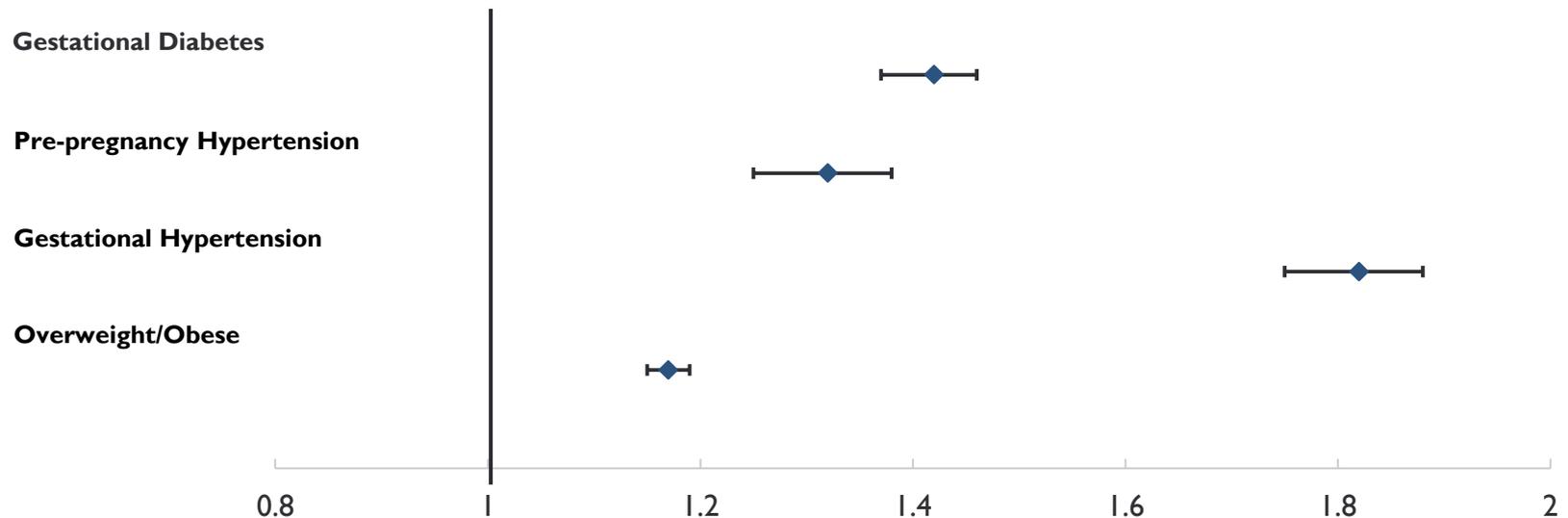
2.2 Pre-Pregnancy BMI by Year, Maternal Age, and Race



Pre-pregnancy overweight (body mass index, ≥ 25 and < 30) and obesity (BMI ≥ 30) rates increased in all subgroups from 2006 to 2014. In 2014, 49% of the mothers were either overweight or obese.

Data Source: OBC 2006, 2014

2.3 Diabetes, Hypertension, and Overweight/Obesity in Pregnant Women*

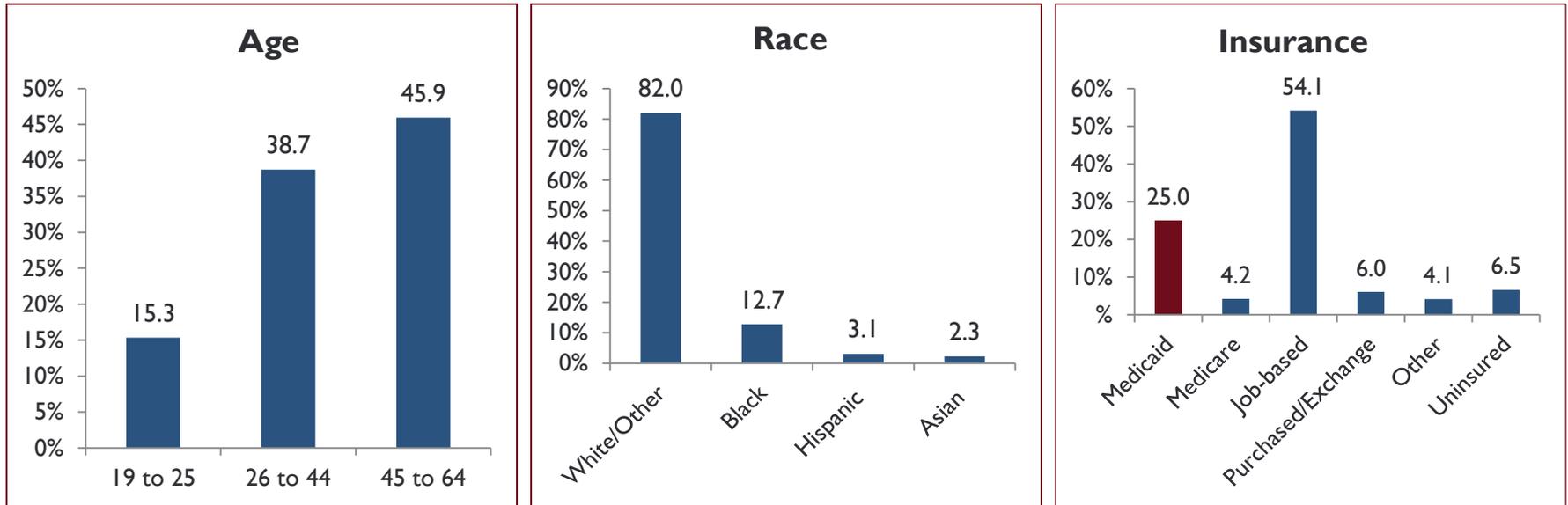


These results suggest that pregnant women in 2014 compared to 2006 were more likely to experience gestational diabetes, pre-pregnancy hypertension, gestational hypertension and be either overweight or obese (controlling for age, race/ethnicity, education, and region).

*Odds ratios from logistic regression models controlling for region, race/ethnicity, mother's age and education

Data Source: OBC 2006, 2014

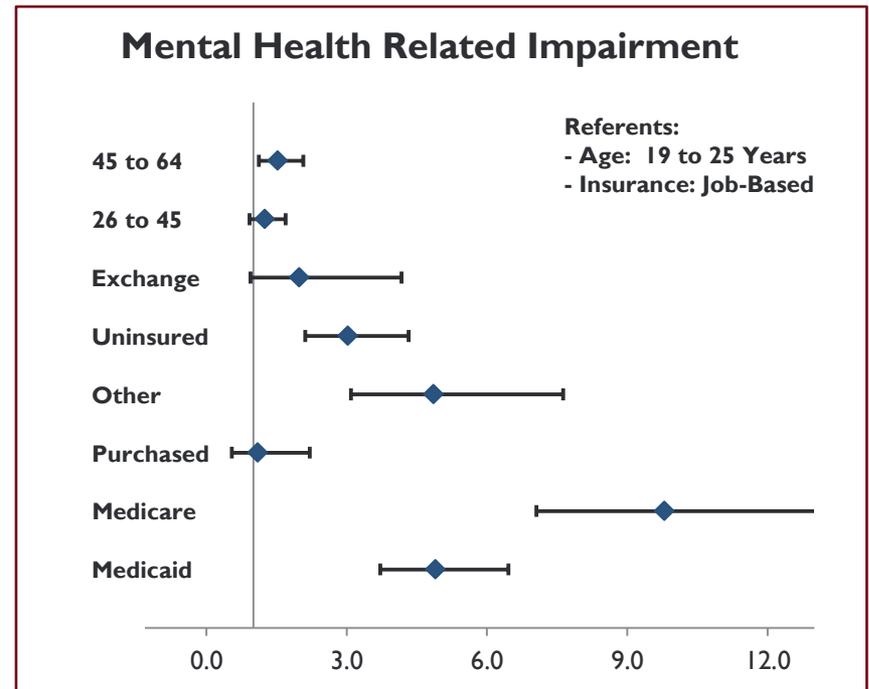
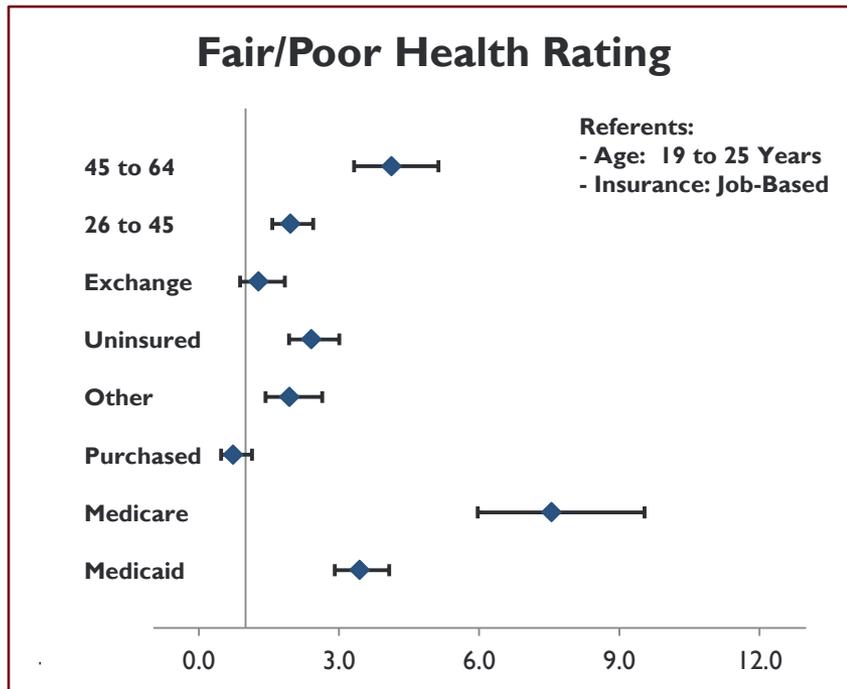
2.4 2015 Snapshot of Women's Health: Distribution by Age, Race, and Insurance Type



Within the 2015 OMAS population, the highest percentage of women was between the ages of 45 to <65 years (46%), White/Other (82%) and were enrolled in Job-based insurance (54%). Of the women eligible for Medicaid, 59% were enrolled. The remaining 41% were either insured in another plan or uninsured.

Data Source: 2015 OMAS Data

2.5 2015 Snapshot of Women's Health: General Health and Mental Health Related Impairment*

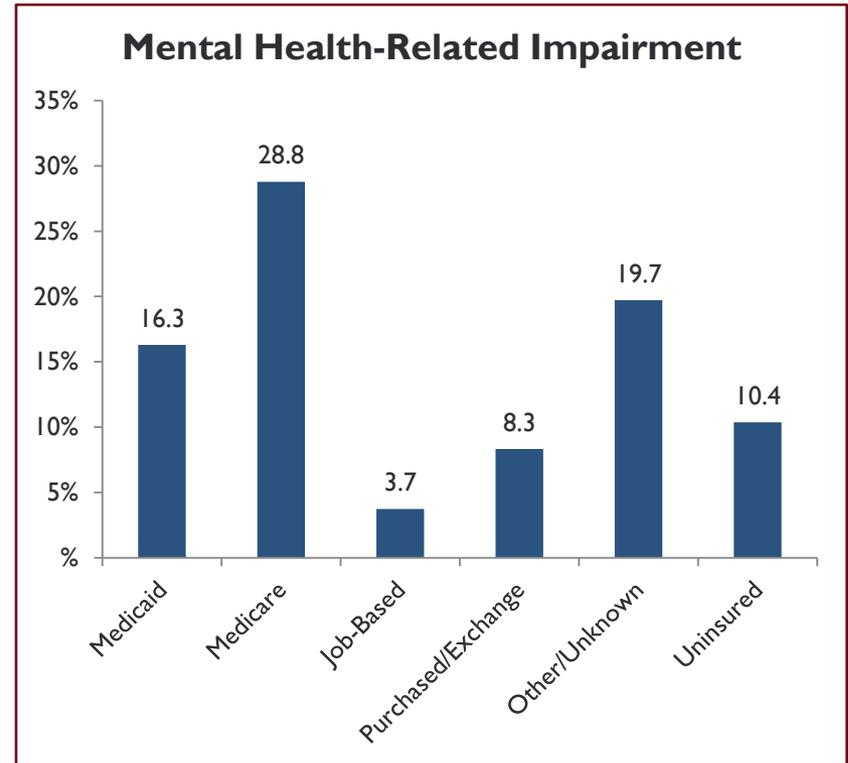
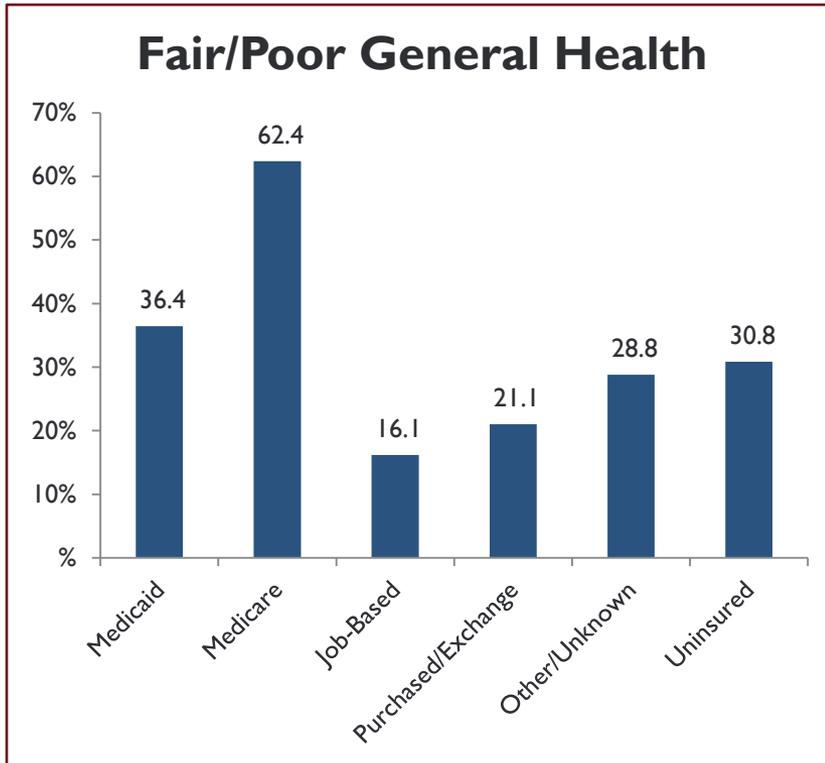


Women's general and mental health worsened with aging, with women in the 45 to 64 age group in worse health than those aged 19 to 25 years. Health also varied by insurance type, with those who are uninsured, other insured, or insured with Medicare or Medicaid in worse health when compared to those insured through job-based coverage.

*Odds ratios from logistic regression models controlling for race, region, and poverty level

Data Source: 2015 OMAS Data

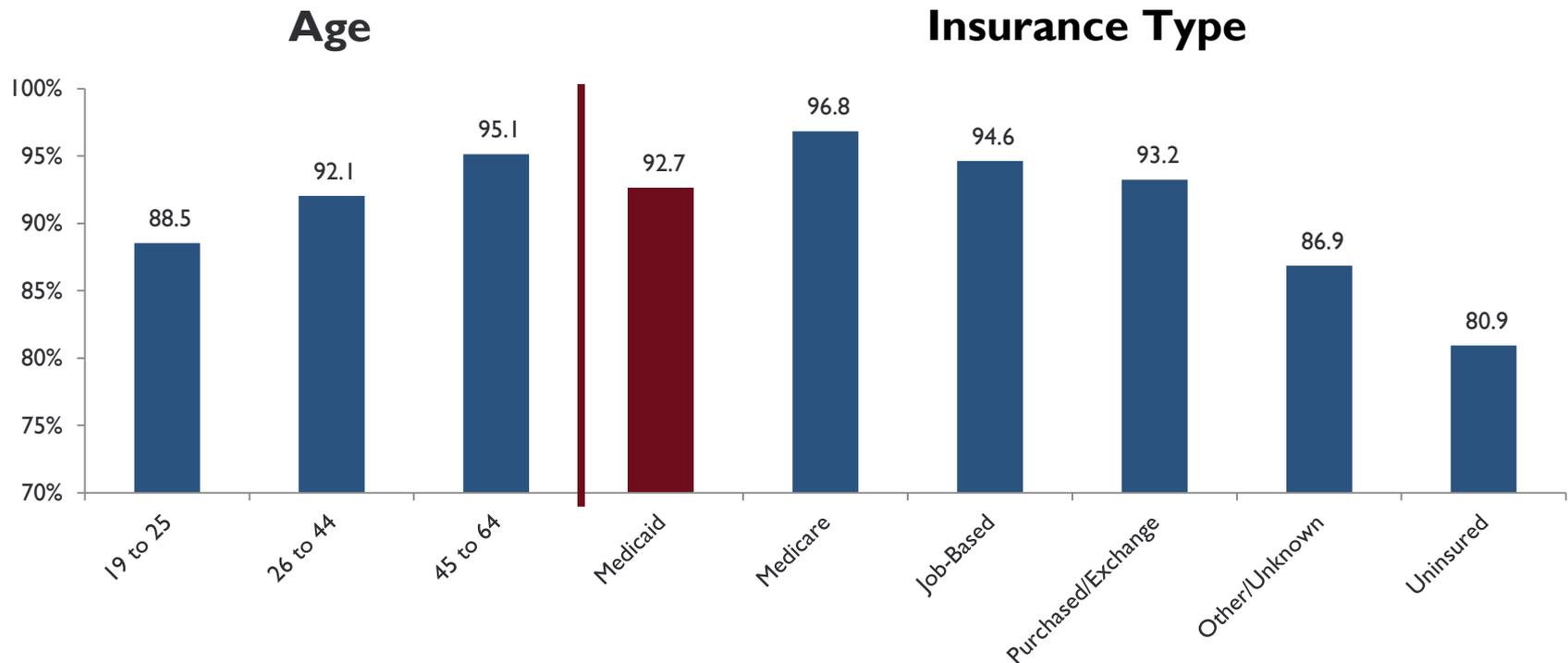
2.6 2015 Snapshot of Women's Health: Fair/Poor General Health and Mental Health-Related Impairment among Women Income-Eligible for Medicaid



General and mental health varied by insurance type, with those insured through job-based coverage having the best general and mental health, and those on Medicare with the worst general and mental health. It is important to note that of the women Medicaid-eligible, 59% were enrolled in Medicaid, while 6% were covered by Medicare, 17% were covered through a job-based plan, 3% through a purchased/exchange plan, 4% through another/unknown insurance type, and 4% were uninsured.

Data Source: 2015 OMAS Data

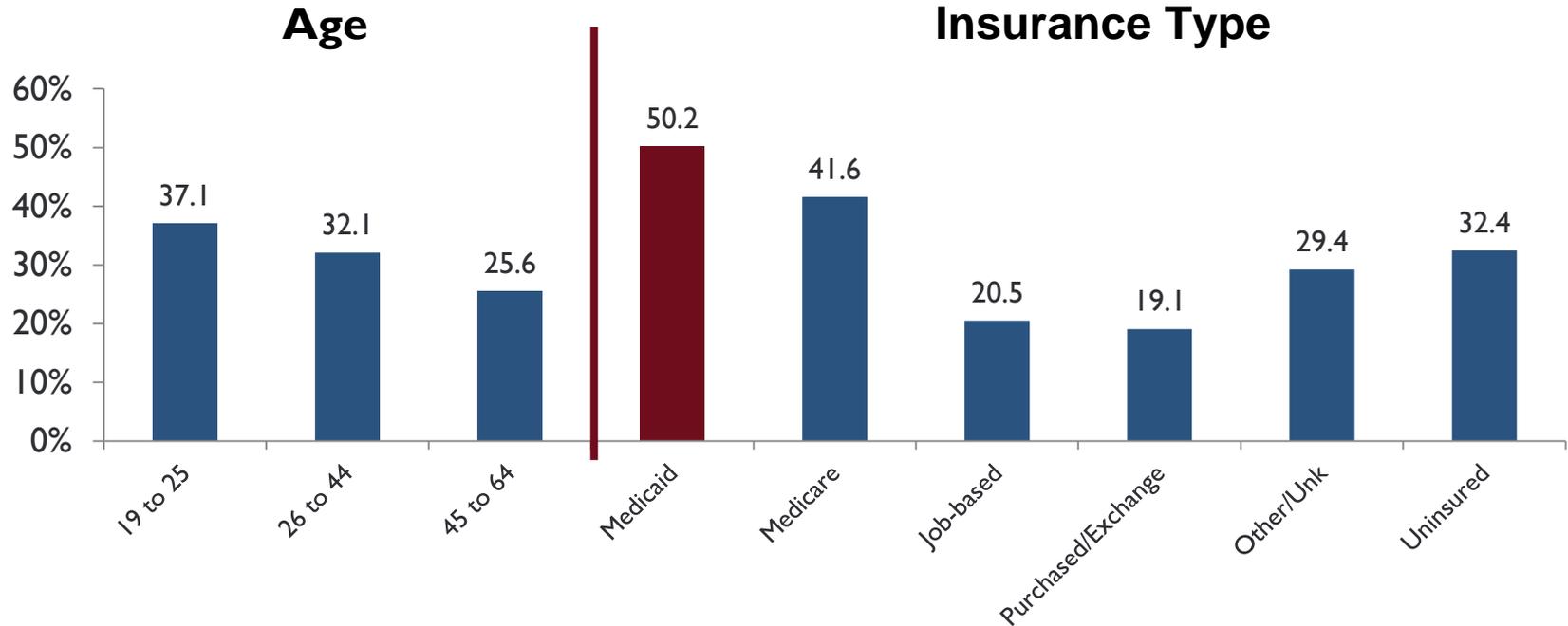
2.7 2015 Snapshot of Women's Health: Usual Source of Care by Age and Insurance Type 2015



Having a usual source of care was lowest among the youngest age group, and increased with age. Job-Based and Medicare insured individuals have a higher percentage of having a usual source of care. Uninsured individuals had the lowest percentage of having a usual source of care. Among those eligible for Medicaid but not enrolled, 89% had a usual source of care.

Data Source: 2015 OMAS Data

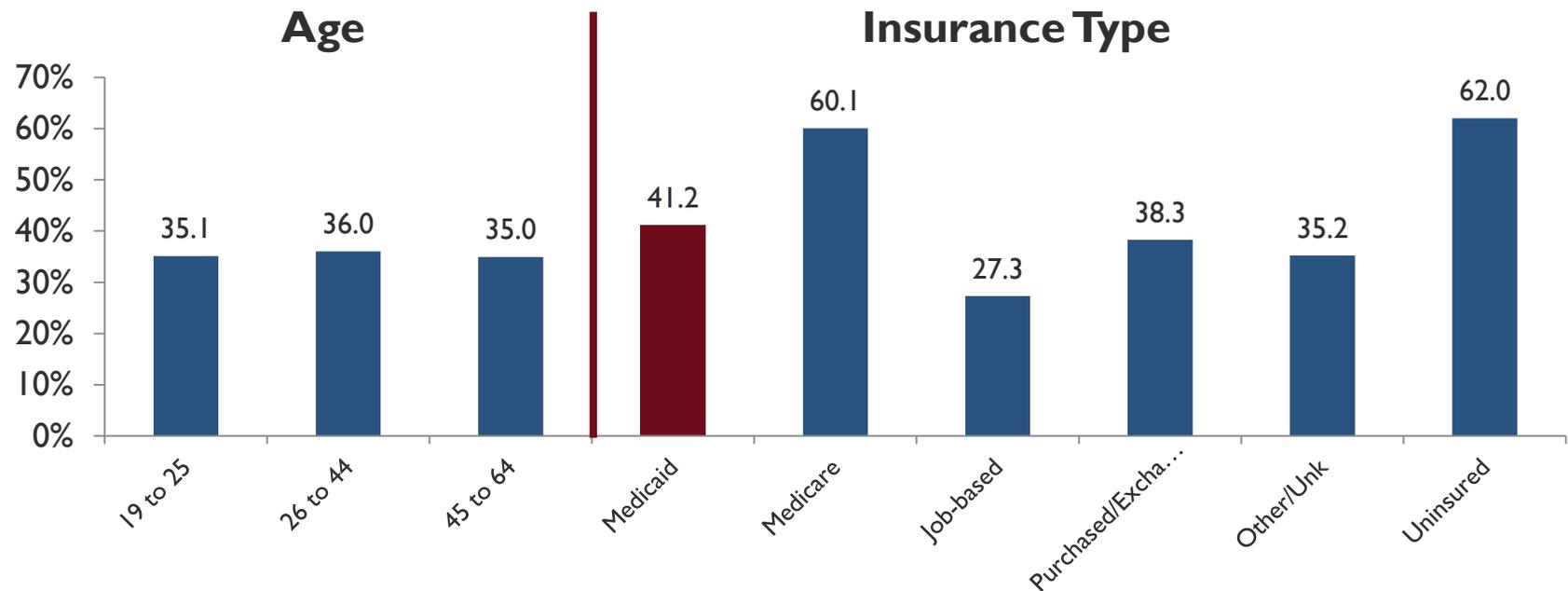
2.8 2015 Snapshot of Women's Health: Emergency Room (ER) Utilization by Age and Insurance Type



Emergency room (ER) utilization in the past 12 months was highest among the youngest age group and decreased with age. Medicaid and Medicare insured individuals had higher ER use than persons insured through other insurance types. Among those eligible for Medicaid but not enrolled, 35% utilized the ER at least once in the past 12 months.

Data Source: 2015 OMAS Data

2.9 2015 Snapshot of Women's Health: Unmet Health Needs by Age and Insurance Type



Over one-third of all women report having an **unmet health need in the past 12 months**. These rates vary by insurance type with over 62% of the uninsured, 60% of Medicare-insured, and 41% of those enrolled on Medicaid reporting an unmet health care need. Among those eligible for Medicaid but not enrolled, 46% did not receive needed medical care in the past 12 months.

Data Source: 2015 OMAS Data

Women's Outcomes over Time: 2004 to 2015

The next series of slides report the findings of the outcomes over time developed from multiple years of the OMAS. These results are reported for the overall sample and for Medicaid-insured women only. The referent for year is 2004. The referent for age is the young adult, 19 to 25 years, that is, the odds of being in better/worse health in relation to young adults. The referent for insurance status is Job-based insurance. All models included controls for region, race/ethnicity, and poverty status.

Health - General Health Rating: a self-report measure that is answered as excellent, very good, good, fair, poor. For the analysis the measure was collapsed into two outcomes (excellent, very good, good) and (fair/poor). The outcome reported is the odds of being in fair/poor health.

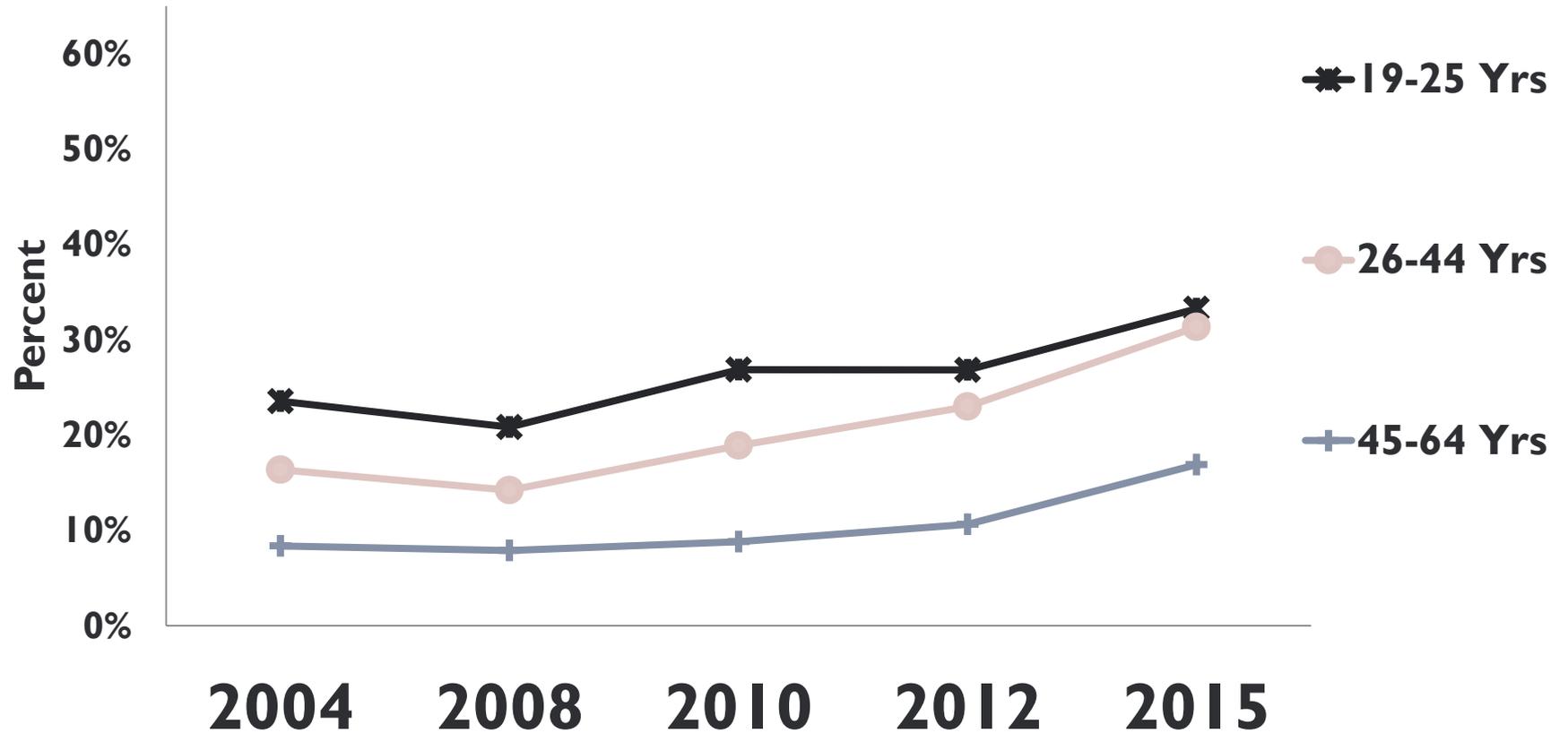
Mental health: a self-report measure indicating 14 or more days where mental health interferes with functioning. We report the odds of mental health-related impairment.

Health Care Utilization: ER visit in the last 12 months is used as a measure of utilization. We report the odds of having a having an ER visit.

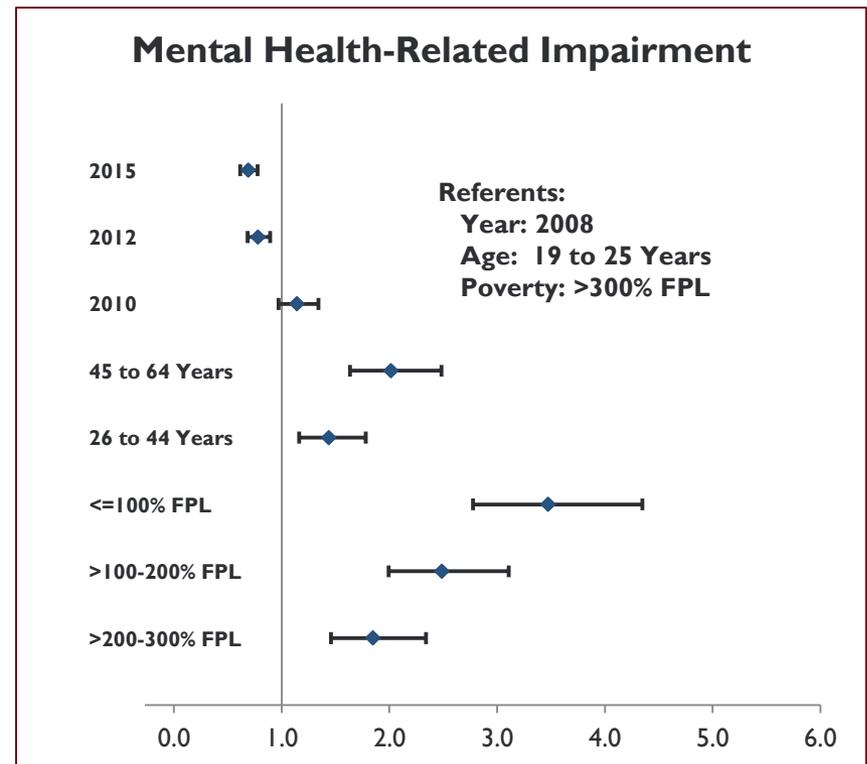
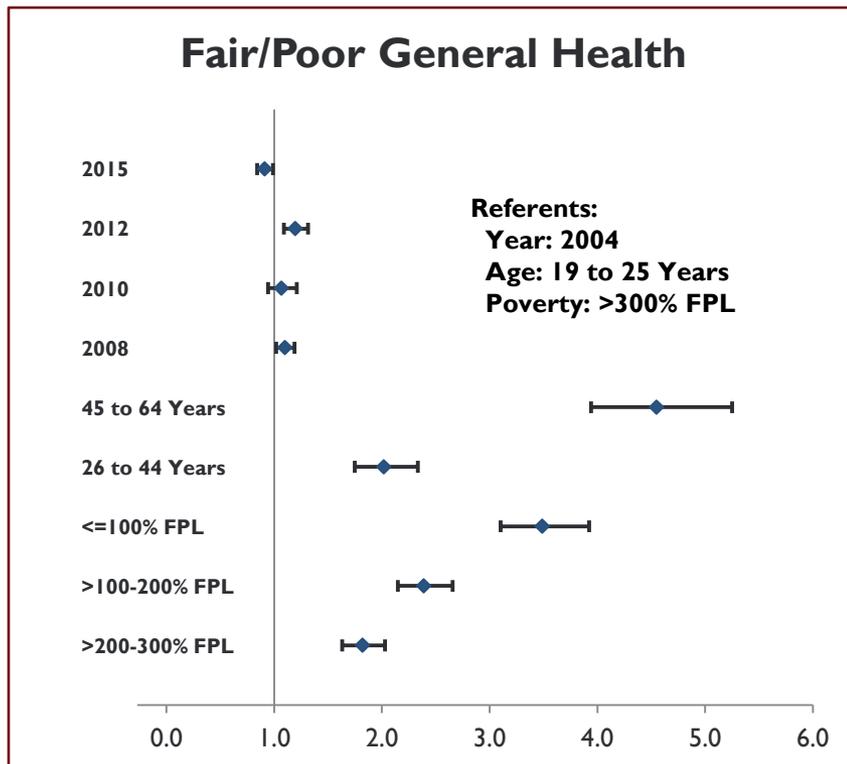
Access/Unmet Need: We report unmet health need in 2015 and this measure was taken from a question which asks if they have had an unmet health care need in the past 12 months. Usual source of care is reported for all years and was from a question asking the respondent about a usual source of care.

Appendix Tables F through L detail the full logistic models that examine outcomes as a function of year, age, race/ethnicity, region, poverty, and insurance status. There are three models for each outcome (full sample, Medicaid only, job-based plans).

Medicaid Enrollment by Year and Age



2.11 Time Trend: Fair/Poor General Health and Mental Health-Related Impairment by Year, Age, and Poverty Status*

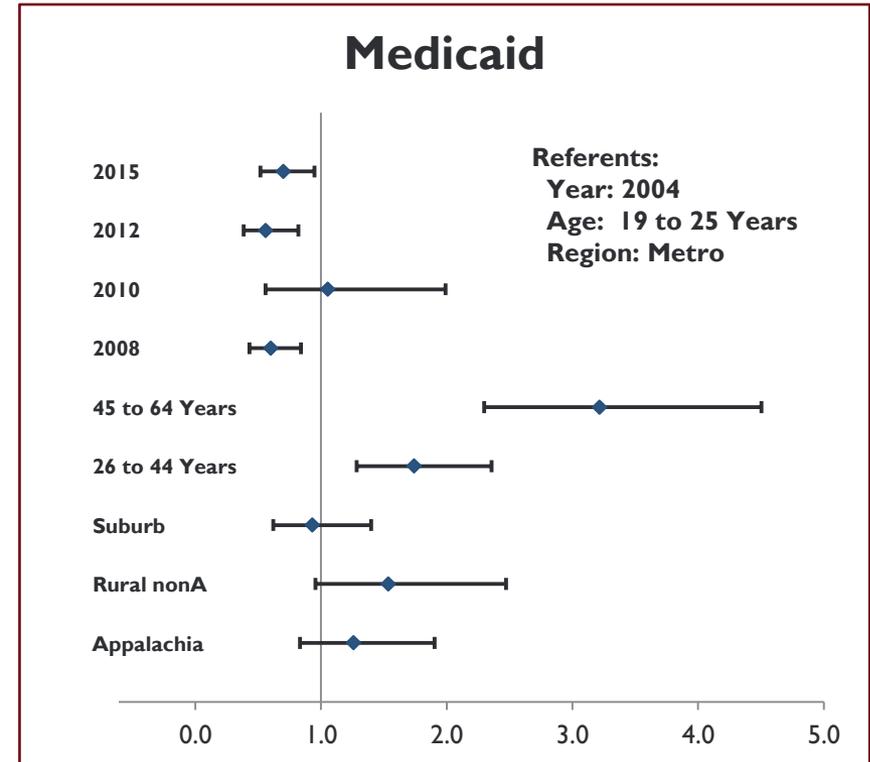
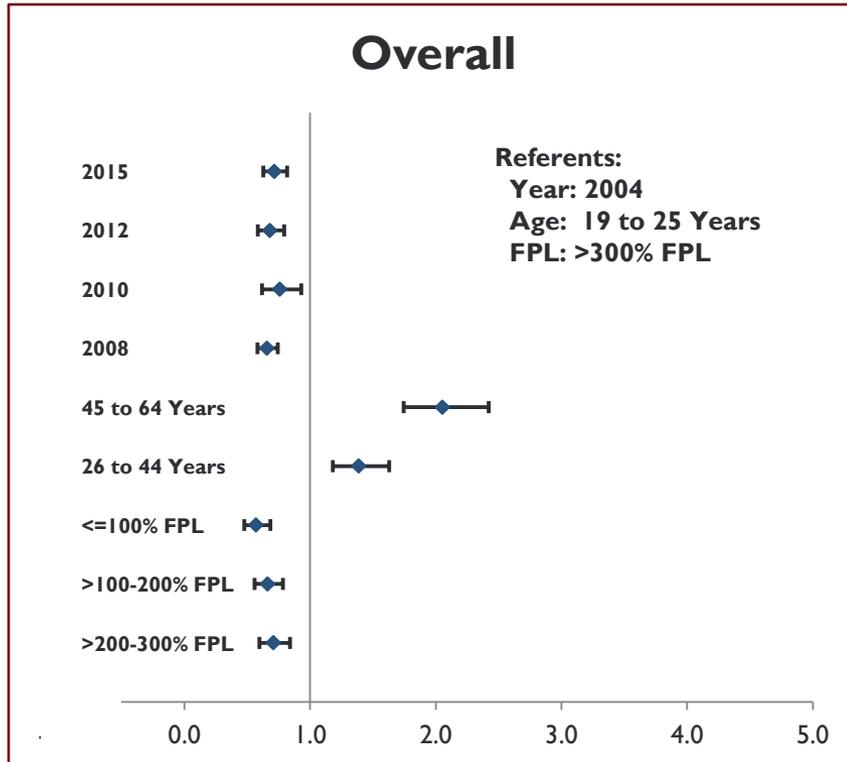


Women's general health has improved. Women were less likely to be in fair/poor health in 2015 compared to 2004. Older women were in worse health than younger women (age 19 to 25 years). There was a clear income gradient in health, with higher incomes linked to better health. Similar results were seen for mental health-related impairment, with improvement noted in 2015 and 2012 compared with 2004.

*Odds ratios from logistic regression models controlling for region, race/ethnicity

Data Source: 2004-2015 OMAS Data

2.12 Time Trend: Usual Source of Care—Full sample and Medicaid-Insured Women Only *

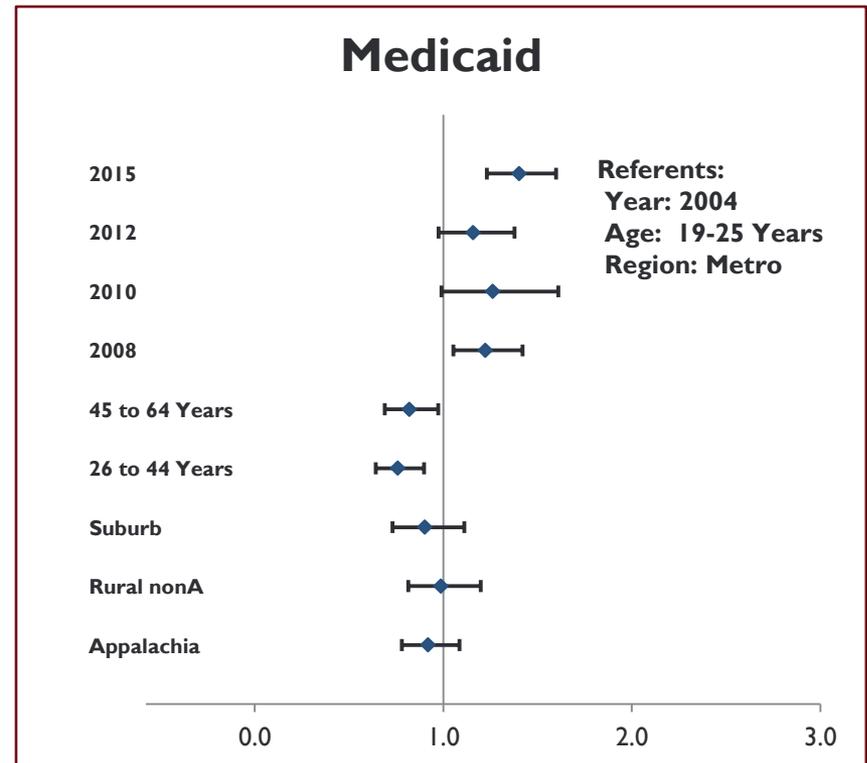
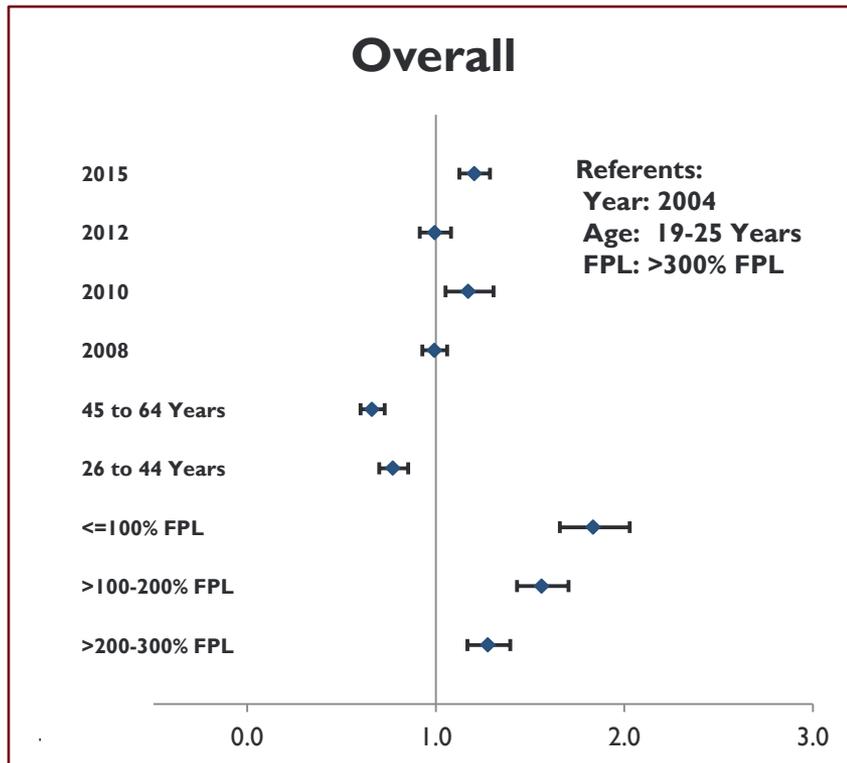


Women in 2015, 2012, 2010, and 2008 were less likely to have a **usual source of care** compared with 2004. This same pattern occurred among Medicaid-insured women except in 2010. Older women were more likely to have a usual source of care than women 19 to 25 years of age.

*Odds ratios from logistic regression models controlling for: region, race/ethnicity, and poverty level

Data Source: 2004-2015 OMAS Data

2.13 Time Trend: ER visit by Year—Full Sample and Medicaid-Insured Women Only*



Women in 2015 and 2010 were more likely to have an **ER visit** in the past 12 months compared to 2004 but no more likely to have a visit in 2012 and 2008. Medicaid-insured women were more likely to have had an ER visit in 2015 and 2008, and no more likely in 2010 and 2012. Older women were less likely to have an ER visit than younger women and poorer women were more likely to have an ER visit than wealthier women. Patterns were similar for women insured through Medicaid.

*Odds ratios from logistic regression models controlling for region, race/ethnicity, and poverty level

Data Source: 2004-2015 OMAS Data

Key Findings: Adult Women

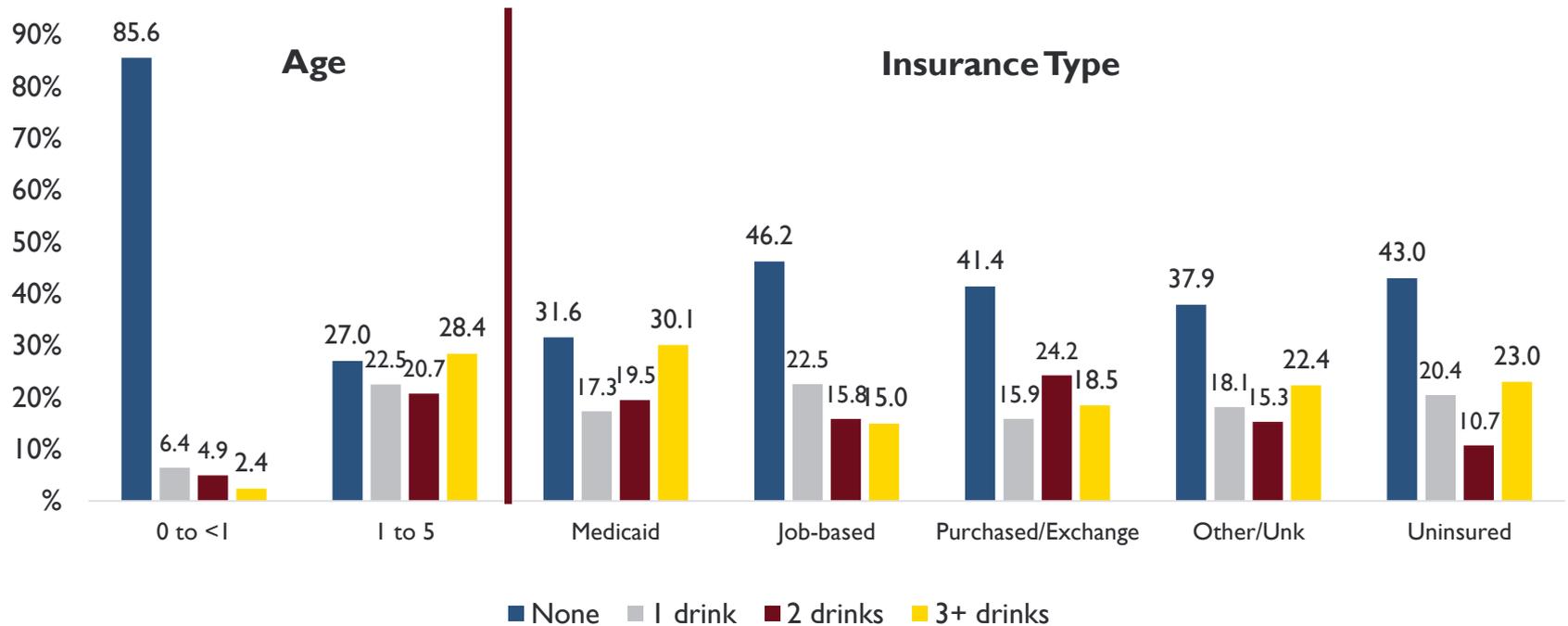
- Medicaid-insured Women: In 2015, 25% of women aged 19 to 64 years were insured through Medicaid, and 54% through a job-based plan while 7% were uninsured. Of Medicaid eligible women, 59% were enrolled in Medicaid, 6% were covered by Medicare, 17% were covered through a job-based plan, 3% through a purchased/exchange plan, 4% through another/unknown insurance type, and 4% were uninsured.
- General Health and Mental Health: In 2015, approximately 25% of women aged 45 to 64 reported that they were in fair/poor health; while approximately 10% of women aged 19 to 25 reported being in fair to poor health. This is clearly seen in the increased odds of reporting fair/poor health (approximately 4 times more likely) when compared with the younger group. The direction of the effect was the same for mental health-related impairment, but the odds were somewhat smaller (approximately twice as likely). Persons insured through Medicaid also experienced worse general and greater mental health-related impairment compared to those with job-based coverage.
- Health of Pregnant Women: Results were mixed. On the positive side, there were fewer births to teen moms in 2014 compared with 2006. The average maternal age at birth increased. Smoking during pregnancy decreased over the study period. Other health indicators that were compared were not in the preferred direction. These data suggest that women are coming to pregnancy at an increased weight and experience increased comorbidities (gestational diabetes and hypertension) during the pregnancy. These comorbidities are concerning as they are known risk factors for poorer outcomes for both the woman and infant.
- Health Behaviors: *Smoking:* Improvement in smoking rates were seen in all age categories and all insurance types. The 26 to 44 year old women were at greatest risk to be a current smoker, as were women either uninsured or insured through Medicaid. *Overweight/obesity:* Analyses suggest adult women overall were more likely to be overweight/obese in 2015 than in 2008. For Medicaid-insured women that was not the case; there was no difference in the odds of overweight/obesity for 2015 when compared with 2008.
- Health Care Utilization: ER use continued at concerning levels, with over a quarter of all women reporting an ER visit in the past 12 months in 2015. The use of the ER declined with age, but ER use remained high across all insurance types, with rates of over 50% for Medicaid-insured women.
- Access and unmet needs: Considerable challenges remain for all groups in obtaining needed health care. This may be particularly true for those aged 19 to 25 years. In 2015, over one-third of all women report having an unmet health need in the past 12 months. And women were less likely to have a usual source of care in 2015 than in 2004. These findings may indicate issues with access to providers.

Section III: Health Behaviors Through a Life Course Lens

Health Behaviors:
Overweight/Obesity
Smoking

Outline of Section III:
Prevalence of child intake of sugar sweetened
beverages (SSB)
Snapshot of 2015 child overweight/obesity
Child time trends in overweight/obesity
Snapshot of 2015 adult women's overweight/obesity
Adult women's time trends in overweight/obesity
Table of obesity risk across life course
Snapshot of 2015 Smoking Patterns
Smoking time trend
Health Behavior: Summary

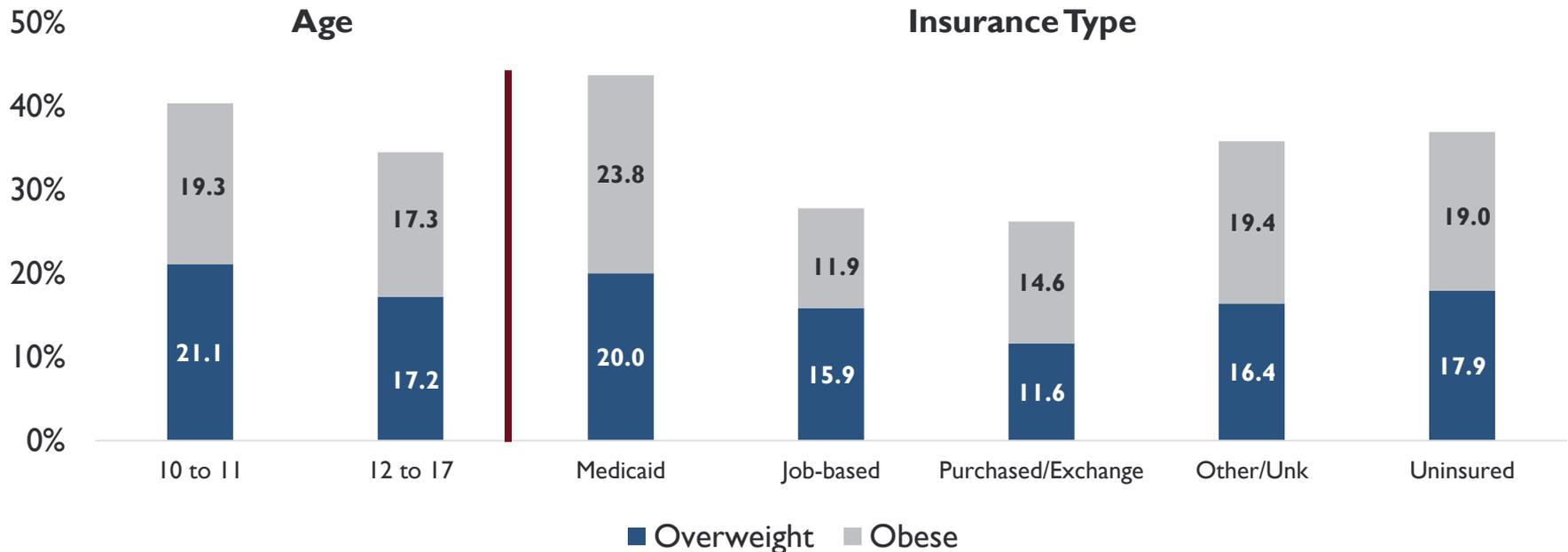
3.1 2015 OMAS: Sugar Sweetened Beverages by Age (0 to 5) and Insurance Type



Approximately 27% of 1 to 5 year olds consumed no sugar sweetened beverages daily. There was a range of consumption by insurance type, with more than **50% of all children are consuming at least one** of these beverages on a daily basis.

Data Source: 2015 OMAS Data

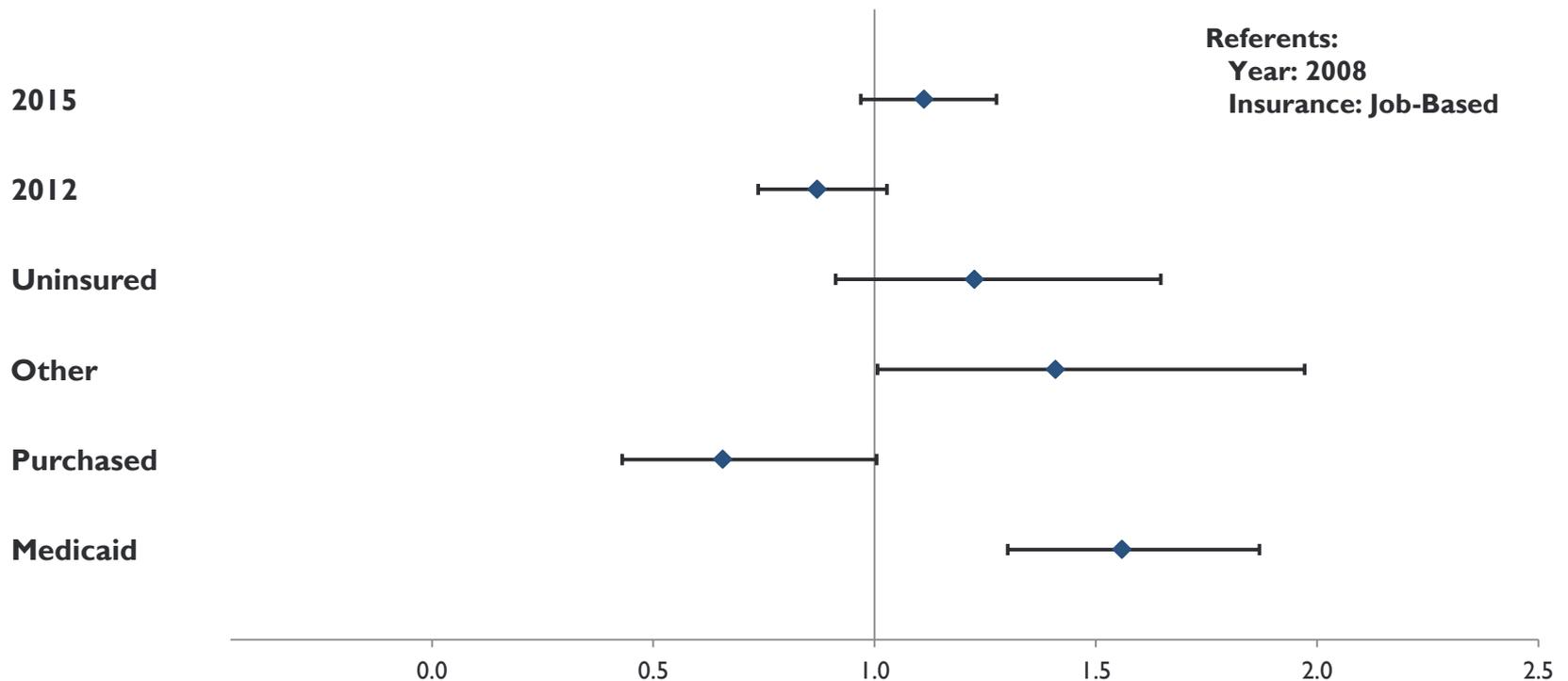
3.2 2015 OMAS: Child Overweight and Obese Status by Age and Insurance Type



These results show children aged 10 to 11 were more overweight or obese than children ages 12 to 17 years; as children age into adolescence there was some improvement. About 44% of Medicaid-insured children, 37% of uninsured children, and 35% of children insured through other/unknown were overweight/obese in 2015.

Data Source: 2015 OMAS Data

3.3 Time trend: Overweight or Obese by Year and Insurance Type (12-17 year olds)*

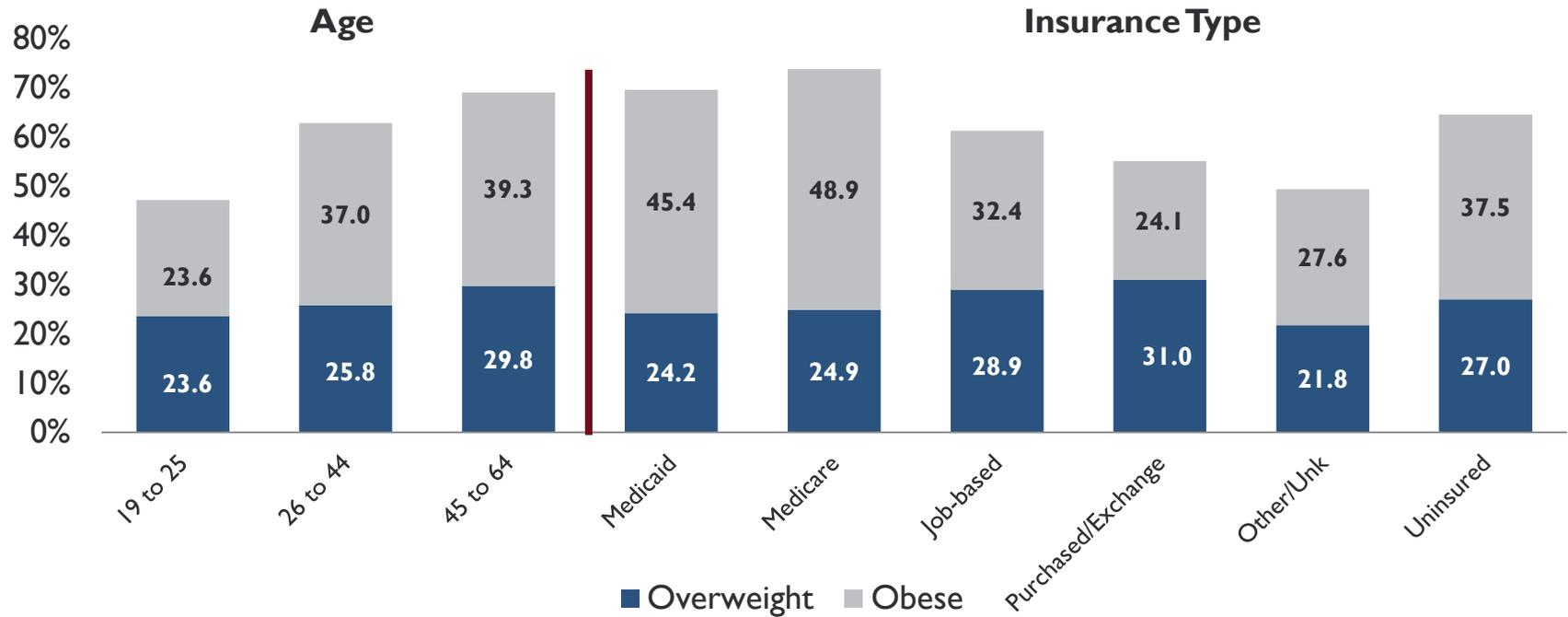


These results compare 2012 and 2015 data with 2008 and suggest that the overall rates and rates for Medicaid-insured children have not changed from the base year of 2008.

*Odds ratios from logistic regression models controlling for: region, race/ethnicity, and poverty level

Data Source: 2008-2015 OMAS Data

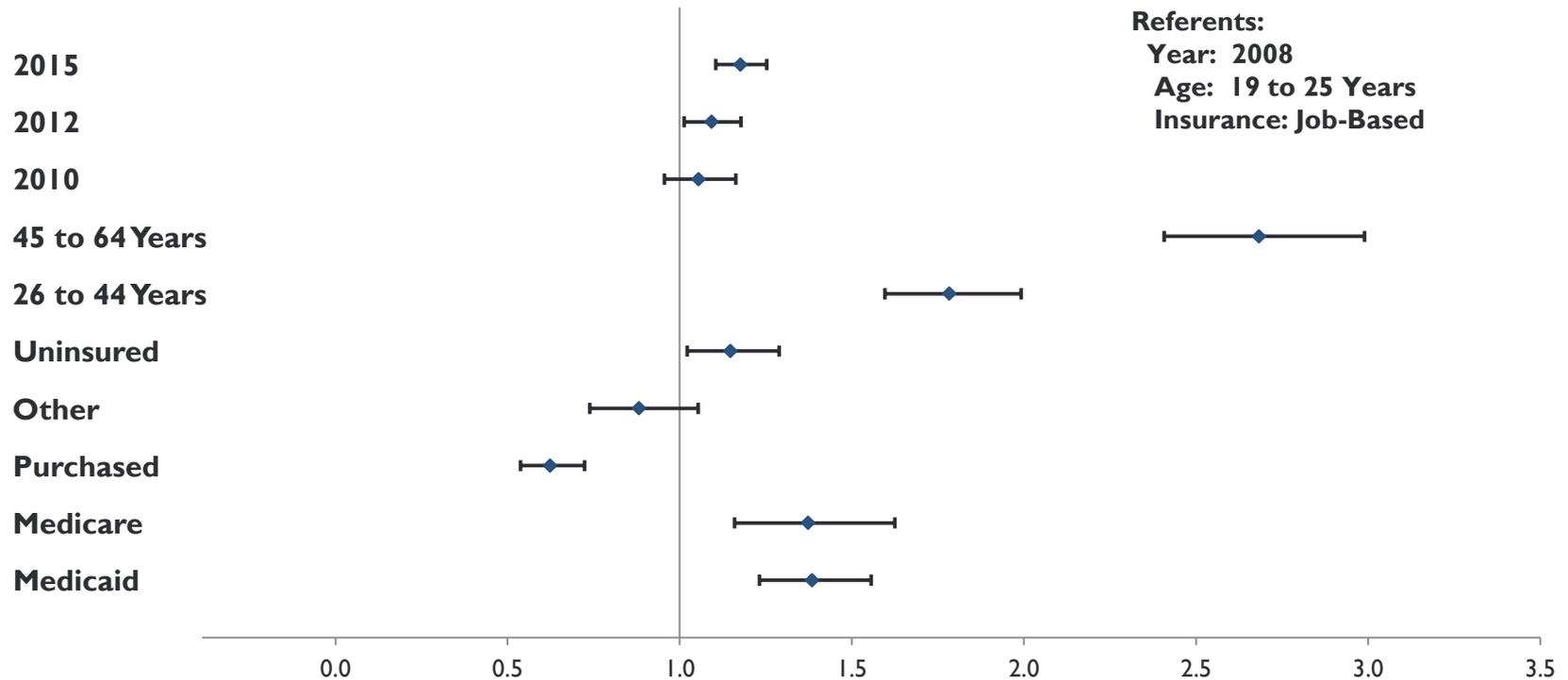
3.4 OMAS 2015: Women's Overweight and Obese Status by Age and Insurance Type



These results show that as women age, overweight and obesity increased, with 69% of women ages 45 through 64 years reported being overweight or obese. Overweight and obesity varied by insurance type, but at least half of all women in each insurance category fell into an overweight or obese category.

Data Source: 2015 OMAS Data

3.5 Trend Analysis: Overweight/Obesity by Year, Age, and Insurance Type*



Women were more likely to be overweight or obese in 2015 and 2012 than in 2008. Older women, uninsured women, and women insured by Medicare, or Medicaid were more likely to be overweight or obese than their counterparts who were younger or who had job-based insurance.

*Odds ratios from logistic regression models controlling for: region, race/ethnicity, and poverty level

Data Source: 2008-2015 OMAS Data

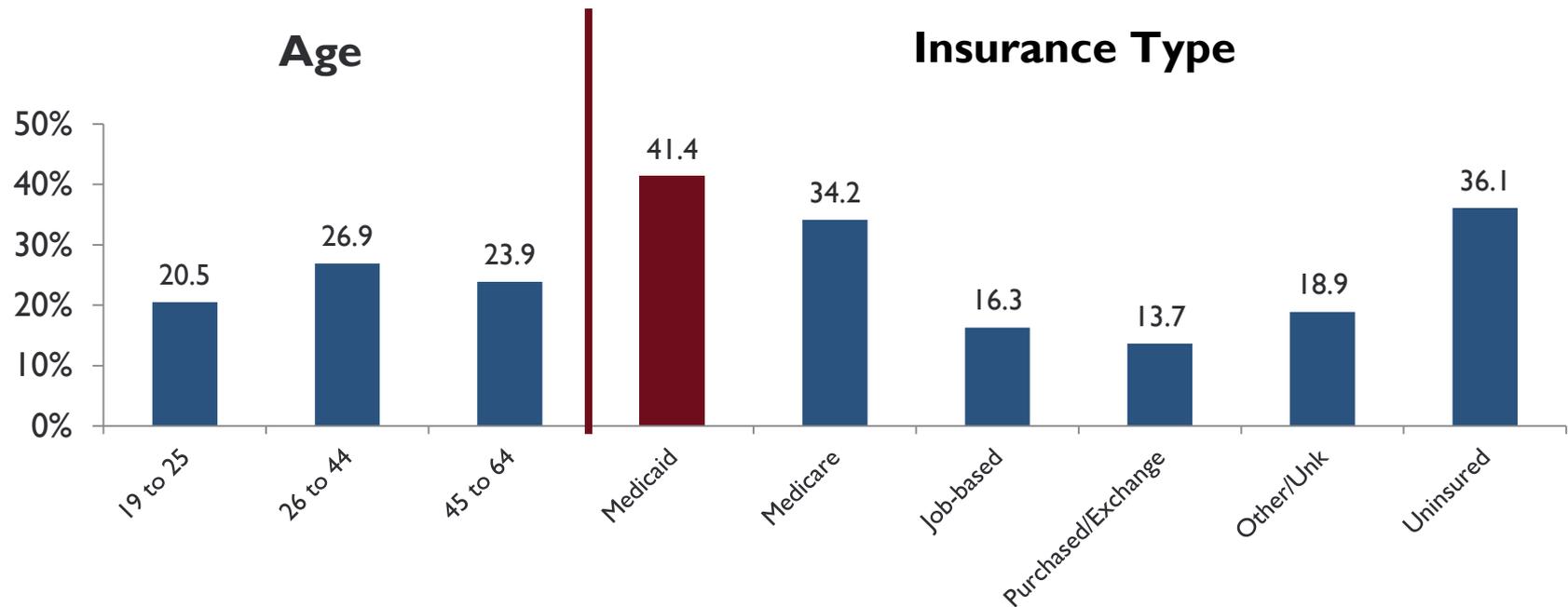
3.6 Obesity Risk Factors Through a Life Course Lens

Preconception	Newborn	Early Childhood (1 to 5 years)	School-Age (6 to 12 years)	Adolescents (12 to 17 years)	Adult Women (19 to 64 years)
<ul style="list-style-type: none"> ❖ 41.6% mothers overweight/obese in 2006, increasing to 48.2% in 2014 ❖ GDM prevalence was 4.6% in 2006, increased to 6.8% in 2014 ❖ Smoking rates in 2006 24.3% dropping to 21.3% in 2014 . 	<ul style="list-style-type: none"> ❖ LBW=9.0% in 2006; 8.5% in 2014 ❖ HBW =7.9%; in 2006; 8.3% in 2014 ❖ PTB=19.1% in 2006 and 16.9% in 2014 ❖ VPTB=3.9% in 2006 and 4.1% in 2014 	<ul style="list-style-type: none"> ❖ Over 50% of all children ages 1 to 5 years consume at least one SSB a day. 	<ul style="list-style-type: none"> ❖ 40% of 10 to 12 years were overweight or obese ❖ Activity levels: 4+ a week: 43.4% ❖ Adequate sleep: 65.4% 	<ul style="list-style-type: none"> ❖ 34% of adolescents were overweight/obese in 2015 ❖ Activity levels: 4+ days a week: 43.4% ❖ Adequate sleep: 53.6% 	<ul style="list-style-type: none"> ❖ Weight increases with age; in 2015, 69% of women in the oldest category were either overweight or obese compared to 47% of young adult women. ❖ GDM increased during the study period *Trend suggests that overweight and obesity is continuing to rise overall

These summary measures suggest that not only were overweight and obesity rates a current problem for adult Ohio women, but that the risks for overweight and obesity in children were on the rise. At birth, almost half of the children born in 2014 were born to overweight or obese women and the rates of GDM and high birth weight were on the rise. Health behaviors in children remain suboptimal, with high intake of sugar sweetened beverages, inadequate activity, inadequate sleep, and high stress levels.

Data Sources: OBC 2006, 2014 and 2004-2015 OMAS Data

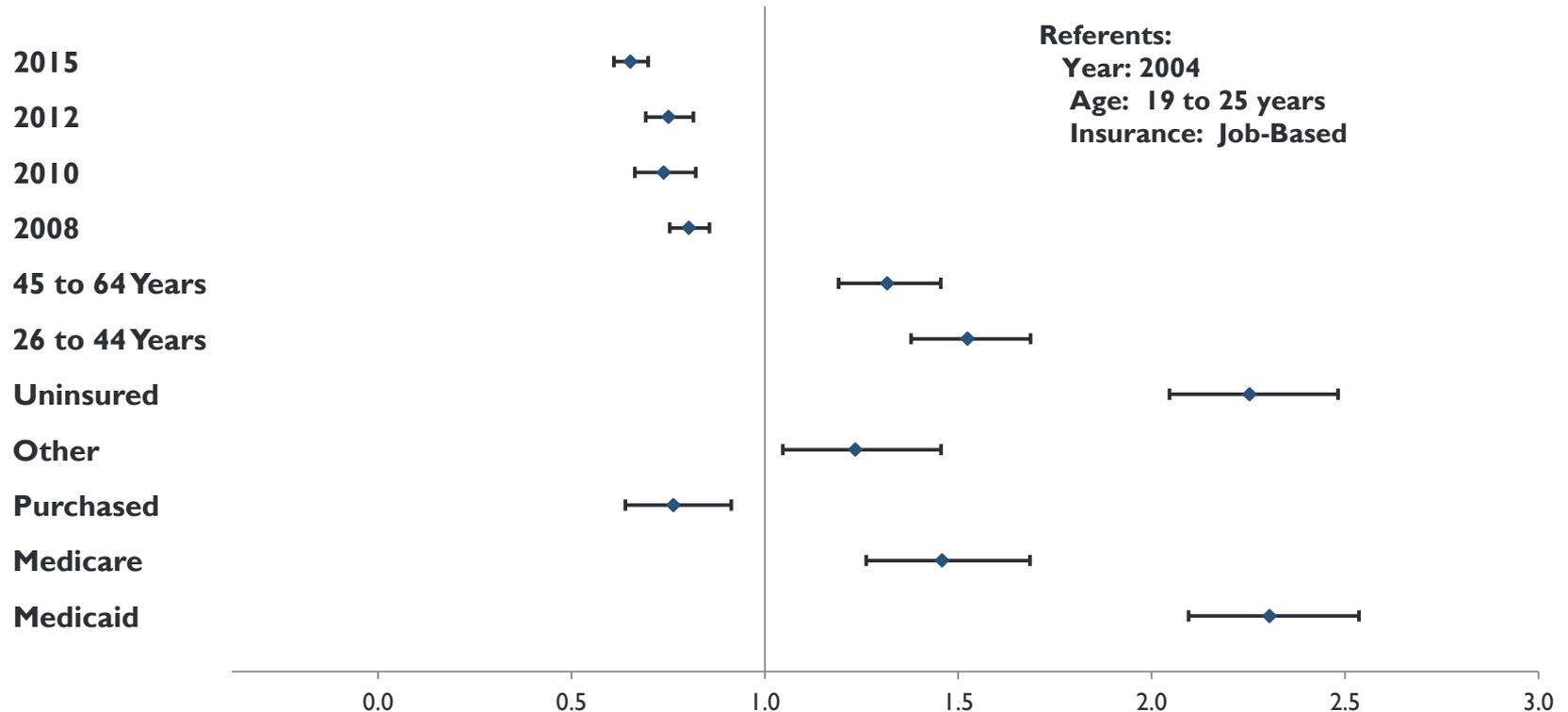
3.7 2015 Snapshot of Women's Health: Current Smoking Status by Age and Insurance Type



Smoking varied by age and insurance type. Women ages 26 to 44 and those who were Medicaid-insured or uninsured reported the highest prevalence of smoking. Among those eligible for Medicaid but not enrolled, 30% identified as current smokers compared to women with job-based insurance.

Data Source: 2015 OMAS Data

3.8 Trend Analysis: Smoking by Year, Age, and Insurance Type*



Women in 2015 were less likely to be smokers than in 2004. This was true in all comparison years. Older women were more likely to be smokers compared with women 19 to 25 years and women who were uninsured or on Medicaid were the most likely to smoke compared to women with job-based insurance.

*Odds ratios from logistic regression models controlling for region, race/ethnicity, and poverty level

Data Source: 2004-2015 OMAS Data

Key Findings: Health Behaviors -- Overweight, Obesity and Smoking

OVERWEIGHT and OBESITY:

Overall, these data suggest that overweight and obesity will remain a considerable public health concern for some time to come. Taken through a life course lens, the risks for overweight and obesity begin in utero. These data suggest increasing long term risk for Ohio children, as children born in 2014 are more likely to be exposed to gestational diabetes than in 2004 (a known risk factor for obesity and type 2 diabetes), and women are coming to pregnancy heavier in 2014 than in 2006 (another risk for childhood obesity)¹⁰.

The child BMI data indicate that children ages 10 to 12 are overweight or obese in greater proportion than children in adolescent. This is consistent with developmental changes and entry into puberty. Over 35% of Medicaid-insured children, uninsured children and other insured children were overweight or obese in 2015. However, there may be some leveling off of rates, as the odds of being overweight or obese in 2015 were no greater than in 2004. The data suggest that SSB also continues to be a concern, as these results show that at least 50% of 1 to 5 year olds are consuming one or more SSB daily.

Overweight and obesity continues to pose a significant health risk for adult women. As women age, their rates of overweight and obesity continue to rise.

A 45 to 64 year old woman is approximately 2.5 times more likely to be overweight/obese than a woman aged 19 to 25 years.

Time patterns suggest that adult women overall were more likely to be overweight or obese in 2015 than in 2008. For Medicaid-insured women that was not the case; there was no difference in the odds of overweight/obesity in 2015 when compared with 2008.

SMOKING:

These analyses confirm other national estimates that document a decrease in smoking rates. Smoking in women has decreased from 2004. However, these figures capture cigarette smoking only, and do not account for e-cigarette use. Adult women, ages 26 to 44 years are the most likely to smoke, followed by women 45 to 64 years. These results also confirm well-established trends with respect to economic conditions of those who smoke, as these results show those on Medicaid and the uninsured more likely to smoke. From the birth certificate data we also saw a drop in smoking from 2006 to 2014. This is a notable drop as the consequences of smoking have intergenerational effects, placing the fetus at increased risk for adverse birth outcomes, as well as other adverse health outcomes throughout childhood¹¹.

Conclusions

- **Medicaid insurance** has become an increasingly important coverage option for women and children in Ohio. Medicaid covered approximately 45% of Ohio children and 25% of adult women in 2015.
- There are opportunities to improve the health of women prior to **pregnancy** and given the risks identified here, efforts need to continue to address metabolic health (healthy weight, reduction of diabetes risk factors). Childbearing aged young women now are enrolled in Medicaid at higher numbers, with opportunities to focus on health promotion by these newly covered young women. However, adolescents (12 to 17 year olds) and young adults (19 to 25) have the less access. Policy makers may need to investigate ways to incentivize providers and young women to receive preventive care during these two critical life course periods.
- **Overall health** seems to be improving, with better ratings in infants, women and children in later years, compared with earlier years. This is also true for Medicaid insured women and children. Mental health was also better overall and for Medicaid insured women when comparing 2015 to 2008. Age differences were noted in both children and adults, with older groups in worse health. Opportunities exist to think of promotion and risk reduction by age.
- Health Systems (ER use, usual source of care, well child visits): Hints from these data suggest that capacity for care may be limited, as ER visits were up and less access to a usual source of care for women and children.
- Health behaviors: Overweight and obesity will remain a considerable public health concern for some time to come. Taken through a life course lens, the risks for overweight and obesity begin in utero. These data suggest increasing long term risk for Ohio children, as children born in 2014 are more likely to be exposed to gestational diabetes than in 2006 and women are coming to pregnancy heavier in 2014 than in 2006.
- Smoking cessation efforts should recognize the most likely ages of smoking women (26 to 44 years) and provide targeted messages to this group. Smoking rates in pregnant women should remain a target of cessation efforts.

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13. Table M: Relevant variables

Table A: Adverse Birth Outcome: Comparison 2014 with 2006

Category	Factor	Low Birth Weight OR (95% CI)	High Birth Weight OR (95% CI)	Preterm Birth OR (95% CI)
Year	2006	(ref)	(ref)	(ref)
	2014	0.98 (0.96, 1.01)	1.02 (0.99, 1.05)	0.90 (0.88, 0.91)
Age	(Continuous Variable)	1.02 (1.02, 1.02)	1.03 (1.03, 1.03)	1.02 (1.02, 1.02)
Race	White	(ref)	(ref)	(ref)
	Black	1.75 (1.69, 1.81)	0.56 (0.53, 0.59)	1.50 (1.46, 1.54)
	Hispanic	0.86 (0.80, 0.92)	0.81 (0.75, 0.87)	1.07 (1.03, 1.12)
	Asian	1.17 (1.07, 1.28)	0.43 (0.38, 0.48)	1.02 (0.96, 1.08)
Mother's Education	Less than High School	(ref)	(ref)	(ref)
	High School	0.88 (0.84, 0.91)	1.12 (1.06, 1.17)	0.92 (0.90, 0.95)
	Some College	0.71 (0.68, 0.74)	1.33 (1.37, 1.40)	0.83 (0.80, 0.85)
	Bachelor's Degree	0.56 (0.54, 0.59)	1.41 (1.34, 1.49)	0.68 (0.65, 0.70)
	Graduate/Professional Degree	0.57 (0.54, 0.61)	1.34 (1.26, 1.43)	0.66 (0.63, 0.68)
Region	Metropolitan	(ref)	(ref)	(ref)
	Appalachian	0.94 (0.90, 0.98)	1.00 (0.95, 1.05)	1.07 (1.04, 1.10)
	Rural	0.88 (0.85, 0.92)	1.10 (1.06, 1.14)	0.94 (0.91, 0.97)
	Suburban	0.90 (0.87, 0.94)	0.96 (0.92, 0.99)	0.98 (0.95, 1.01)

Table B: Fair/Poor Health: Children, Full Sample, Medicaid-insured, Job-Based Plans

Category	Factor	Full Sample OR (95% CI)	Medicaid-insured OR (95% CI)	Job-Based Plans OR (95% CI)
Year	2004	(ref)	(ref)	(ref)
	2008	0.95 (0.79, 1.13)	0.93 (0.73, 1.18)	1.06 (0.77, 1.45)
	2010	0.52 (0.34, 0.79)	0.58 (0.35, 0.95)	0.39 (0.15, 1.01)
	2012	0.81 (0.64, 1.01)	0.85 (0.64, 1.13)	0.63 (0.39, 1.02)
	2015	0.83 (0.69, 1.00)	0.78 (0.62, 0.99)	0.95 (0.66, 1.36)
Age	0-5	(ref)	(ref)	(ref)
	6-11	1.17 (0.93, 1.46)	1.31 (0.98, 1.74)	0.65 (0.43, 0.99)
	12-17	1.62 (1.32, 2.00)	1.68 (1.30, 2.17)	1.22 (0.82, 1.81)
Race	White	(ref)	(ref)	(ref)
	Black	1.29 (1.03, 1.61)	1.20 (0.92, 1.55)	2.03 (1.30, 3.18)
	Hispanic	1.58 (1.14, 2.18)	1.45 (1.01, 2.08)	2.42 (0.82, 7.16)
	Asian	0.87 (0.50, 1.52)	0.51 (0.15, 1.71)	1.36 (0.61, 3.06)
Region	Metropolitan	(ref)	(ref)	(ref)
	Appalachian	0.86 (0.65, 1.13)	0.88 (0.63, 1.22)	1.12 (0.61, 2.07)
	Rural/nonA	1.01 (0.78, 1.30)	1.11 (0.80, 1.53)	1.09 (0.69, 1.72)
	Suburban	0.92 (0.73, 1.16)	0.90 (0.65, 1.23)	1.02 (0.70, 1.51)
Insurance	Job-based	(ref)		
	Medicaid	3.25 (2.54, 4.16)		
	Purchased	1.31 (0.69, 2.48)		
	Other	2.74 (1.74, 4.31)		
	Uninsured	2.48 (1.79, 3.45)		
Poverty	300+	(ref)	(ref)	(ref)
	200-300	1.04 (0.78, 1.38)	0.64 (0.38, 1.08)	1.14 (0.79, 1.62)
	100-200	1.43 (1.08, 1.89)	0.73 (0.49, 1.10)	1.62 (1.07, 2.44)
	<100	1.80 (1.35, 2.40)	1.05 (0.71, 1.53)	1.13 (0.58, 2.19)

Table C: Well-Child Visit: Children, Full Sample, Medicaid-insured, Job-Based Plans

Category	Factor	Full Sample OR (95% CI)	Medicaid-insured OR (95% CI)	Job-Based Plans OR (95% CI)
Year	2004	(ref)	(ref)	(ref)
	2008	1.22 (1.13, 1.32)	1.01 (0.87, 1.17)	1.39 (1.26, 1.55)
	2010	1.19 (1.03, 1.38)	1.43 (1.08, 1.89)	1.14 (0.94, 1.38)
	2012	1.67 (1.50, 1.86)	1.58 (1.31, 1.91)	1.74 (1.50, 2.01)
	2015	1.71 (1.57, 1.86)	1.56 (1.34, 1.81)	1.92 (1.70, 2.16)
Age	0-5	(ref)	(ref)	(ref)
	6-11	0.31 (0.27, 0.35)	0.40 (0.33, 0.48)	0.21 (0.18, 0.25)
	12-17	0.24 (0.22, 0.27)	0.31 (0.25, 0.37)	0.18 (0.15, 0.21)
Race	White	(ref)	(ref)	(ref)
	Black	1.06 (0.92, 1.22)	1.03 (0.84, 1.25)	1.10 (0.86, 1.41)
	Hispanic	0.93 (0.76, 1.14)	0.87 (0.64, 1.17)	1.14 (0.83, 1.56)
	Asian	0.73 (0.55, 0.97)	0.51 (0.27, 0.97)	0.95 (0.66, 1.37)
Region	Metropolitan	(ref)	(ref)	(ref)
	Appalachian	0.64 (0.57, 0.72)	0.77 (0.63, 0.93)	0.55 (0.47, 0.65)
	Rural/nonA	0.61 (0.54, 0.67)	0.70 (0.56, 0.86)	0.55 (0.48, 0.64)
	Suburban	0.80 (0.71, 0.89)	0.76 (0.60, 0.96)	0.78 (0.68, 0.89)
Insurance	Job-based	(ref)		
	Medicaid	1.18 (1.05, 1.32)		
	Purchased	0.65 (0.53, 0.81)		
	Other	0.83 (0.68, 1.01)		
	Uninsured	0.29 (0.25, 0.35)		
Poverty	300+	(ref)	(ref)	(ref)
	200-300	0.72 (0.65, 0.81)	1.06 (0.74, 1.51)	0.68 (0.60, 0.77)
	100-200	0.60 (0.54, 0.68)	0.89 (0.67, 1.20)	0.56 (0.48, 0.64)
	<100	0.55 (0.48, 0.63)	0.72 (0.54, 0.97)	0.66 (0.50, 0.87)

Table D: ER Visit: Children, Full Sample, Medicaid-insured, Job-Based Plans

Category	Factor	Full Sample OR (95% CI)	Medicaid-insured OR (95% CI)	Job-Based Plans OR (95% CI)
Year	2004	(ref)	(ref)	(ref)
	2008	0.81 (0.75, 0.88)	0.84 (0.74, 0.96)	0.81 (0.73, 0.90)
	2010	0.86 (0.74, 1.00)	0.99 (0.79, 1.25)	0.76 (0.61, 0.95)
	2012	0.81 (0.73, 0.90)	0.90 (0.77, 1.05)	0.77 (0.66, 0.89)
	2015	1.01 (0.93, 1.09)	1.16 (1.03, 1.31)	0.88 (0.78, 0.99)
Age	0-5	(ref)	(ref)	(ref)
	6-11	0.66 (0.60, 0.73)	0.63 (0.55, 0.73)	0.73 (0.64, 0.83)
	12-17	0.72 (0.66, 0.78)	0.67 (0.58, 0.77)	0.81 (0.71, 0.91)
Race	White	(ref)	(ref)	(ref)
	Black	0.84 (0.74, 0.94)	0.80 (0.68, 0.93)	1.00 (0.82, 1.22)
	Hispanic	1.00 (0.83, 1.19)	0.90 (0.71, 1.15)	1.05 (0.79, 1.40)
	Asian	0.54 (0.39, 0.76)	0.67 (0.36, 1.25)	0.52 (0.33, 0.81)
Region	Metropolitan	(ref)	(ref)	(ref)
	Appalachian	0.99 (0.88, 1.10)	0.93 (0.79, 1.10)	1.16 (0.98, 1.37)
	Rural/nonA	0.96 (0.86, 1.07)	1.03 (0.85, 1.25)	0.94 (0.82, 1.07)
	Suburban	1.08 (0.96, 1.20)	1.11 (0.92, 1.34)	1.11 (0.96, 1.28)
Insurance	Job-based	(ref)		
	Medicaid	2.01 (1.82, 2.23)		
	Purchased	0.73 (0.57, 0.93)		
	Other	1.29 (1.07, 1.56)		
	Uninsured	1.12 (0.91, 1.39)		
Poverty	300+	(ref)	(ref)	(ref)
	200-300	1.09 (0.98, 1.22)	1.03 (0.78, 1.36)	1.08 (0.94, 1.22)
	100-200	1.25 (1.12, 1.40)	1.23 (0.97, 1.55)	1.24 (1.07, 1.45)
	<100	1.33 (1.18, 1.51)	1.35 (1.08, 1.69)	1.03 (0.78, 1.35)

Table E: Overweight/Obesity: Children, Full Sample, Medicaid-insured, Job-Based Plans

Category	Factor	Full Sample OR (95% CI)	Medicaid-insured OR (95% CI)	Job-Based Plans OR (95% CI)
Year	2008	(ref)	(ref)	(ref)
	2012	0.87 (0.74, 1.03)	0.96 (0.73, 1.27)	0.77 (0.61, 0.96)
	2015	1.11 (0.97, 1.28)	0.93 (0.74, 1.17)	1.20 (1.00, 1.45)
Race	White	(ref)	(ref)	(ref)
	Black	1.35 (1.11, 1.63)	1.13 (0.86, 1.47)	1.87 (1.39, 2.52)
	Hispanic	1.57 (1.22, 2.02)	1.73 (1.15, 2.60)	1.60 (1.11, 2.30)
	Asian	0.24 (0.12, 0.47)	0.02 (0.00, 0.15)	0.35 (0.17, 0.74)
Region	Metropolitan	(ref)	(ref)	(ref)
	Appalachian	1.21 (1.01, 1.45)	1.02 (0.77, 1.34)	1.54 (1.20, 1.98)
	Rural/nonA	1.19 (0.98, 1.44)	1.23 (0.84, 1.80)	1.30 (1.03, 1.65)
	Suburban	0.96 (0.80, 1.16)	0.99 (0.70, 1.42)	1.02 (0.80, 1.29)
Insurance	Job-based	(ref)		
	Medicaid	1.56 (1.30, 1.87)		
	Purchased	0.66 (0.43, 1.00)		
	Other	1.41 (1.01, 1.97)		
	Uninsured	1.23 (0.91, 1.65)		
Poverty	300+	(ref)	(ref)	(ref)
	200-300	1.47 (1.22, 1.76)	1.19 (0.70, 2.04)	1.47 (1.19, 1.82)
	100-200	1.82 (1.51, 2.20)	1.51 (0.98, 2.31)	1.68 (1.31, 2.15)
	<100	1.71 (1.37, 2.13)	1.42 (0.93, 2.17)	1.90 (1.27, 2.83)

Table F: Diabetes, Hypertension, and Overweight/Obese in Pregnant Women

Category	Factor	Gestational Diabetes OR (95% CI)	Pre-pregnancy Hypertension OR (95% CI)	Gestational Hypertension OR (95% CI)	Overweight/Obese OR (95% CI)
Year	2006	(ref)	(ref)	(ref)	(ref)
	2014	1.42 (1.38, 1.47)	1.32 (1.26, 1.39)	1.82 (1.76, 1.89)	1.17 (1.15, 1.19)
Age	(Continuous Variable)	1.09 (1.09, 1.09)	1.10 (1.09, 1.10)	1.00 (1.00, 1.00)	1.05 (1.04, 1.05)
Race	White	(ref)	(ref)	(ref)	(ref)
	Black	0.92 (0.88, 0.97)	1.91 (1.79, 2.04)	1.17 (1.11, 1.22)	1.70 (1.66, 1.73)
	Hispanic	1.32 (1.23, 1.42)	0.72 (0.62, 0.84)	0.87 (0.79, 0.94)	1.30 (1.25, 1.35)
	Asian	1.89 (1.74, 2.04)	0.48 (0.38, 0.61)	0.50 (0.43, 0.58)	0.46 (0.44, 0.49)
Mother's Education	Less than High School	(ref)	(ref)	(ref)	(ref)
	High School	1.27 (1.20, 1.35)	1.22 (1.12, 1.34)	1.29 (1.22, 1.37)	1.21 (1.18, 1.24)
	Some College	1.26 (1.19, 1.33)	1.16 (1.06, 1.27)	1.45 (1.37, 1.54)	1.20 (1.17, 1.23)
	Bachelor's Degree	0.85 (0.79, 0.91)	0.73 (0.66, 0.81)	1.24 (1.16, 1.33)	0.69 (0.67, 0.71)
	Graduate/Professional Degree	0.77 (0.72, 0.83)	0.62 (0.55, 0.70)	1.13 (1.04, 1.23)	0.54 (0.53, 0.57)
Region	Metropolitan	(ref)	(ref)	(ref)	(ref)
	Appalachian	1.04 (0.98, 1.10)	1.21 (1.11, 1.32)	1.17 (1.11, 1.23)	1.16 (1.13, 1.20)
	Rural	0.97 (0.93, 1.02)	0.99 (0.91, 1.07)	0.96 (0.91, 1.02)	1.13 (1.10, 1.16)
	Suburban	0.85 (0.81, 0.89)	0.95 (0.88, 1.02)	0.86 (0.82, 0.91)	0.99 (0.97, 1.01)

Table G: Fair/Poor Health: Women, Full Sample, Medicaid-insured, Job-Based Plans

Category	Factor	Full Sample OR (95% CI)	Medicaid-insured OR (95% CI)	Job-Based Plans OR (95% CI)
Year	2004	(ref)	(ref)	(ref)
	2008	1.10 (1.02, 1.19)	0.60 (0.43, 0.84)	1.02 (0.91, 1.15)
	2010	1.07 (0.94, 1.21)	1.05 (0.56, 1.99)	1.06 (0.87, 1.29)
	2012	1.20 (1.09, 1.31)	0.56 (0.38, 0.82)	1.17 (1.00, 1.36)
	2015	0.91 (0.84, 0.99)	0.70 (0.52, 0.95)	0.88 (0.77, 1.00)
Age	19-25	(ref)	(ref)	(ref)
	26-44	2.02 (1.75, 2.33)	1.74 (1.28, 2.36)	1.21 (0.92, 1.60)
	45-64	4.55 (3.94, 5.25)	3.22 (2.30, 4.50)	2.30 (1.76, 3.00)
Race	White	(ref)	(ref)	(ref)
	Black	1.17 (1.06, 1.30)	1.40 (0.96, 2.06)	1.72 (1.47, 2.02)
	Hispanic	1.53 (1.23, 1.89)	0.90 (0.55, 1.46)	2.48 (1.69, 3.62)
	Asian	0.48 (0.32, 0.70)	0.95 (0.36, 2.48)	0.58 (0.36, 0.93)
Region	Metropolitan	(ref)	(ref)	(ref)
	Appalachian	1.13 (1.03, 1.25)	1.26 (0.83, 1.90)	1.36 (1.15, 1.60)
	Rural/nonA	0.96 (0.87, 1.07)	1.54 (0.96, 2.47)	1.10 (0.94, 1.30)
	Suburban	0.90 (0.80, 1.00)	0.93 (0.62, 1.40)	1.01 (0.86, 1.19)
Insurance	Job-based	(ref)		
	Medicaid	3.47 (3.10, 3.88)		
	Medicare	6.88 (5.93, 7.98)		
	Purchased	0.78 (0.63, 0.97)		
	Other uninsured	1.75 (1.46, 2.11) 2.62 (2.34, 2.93)		
Poverty	300+	(ref)	(ref)	(ref)
	200-300	1.82 (1.63, 2.03)	0.54 (0.28, 1.04)	1.90 (1.66, 2.17)
	100-200	2.39 (2.15, 2.66)	0.89 (0.50, 1.59)	2.55 (2.20, 2.95)
	<100	3.49 (3.10, 3.92)	0.73 (0.42, 1.25)	3.52 (2.82, 4.39)

Table H: Mental health-related impairment: Women, Full Sample, Medicaid-insured, Job-Based Plans

Category	Factor	Full Sample OR (95% CI)	Medicaid-insured OR (95% CI)	Job-Based Plans OR (95% CI)
Year	2004			
	2008	(ref)	(ref)	(ref)
	2010	1.14 (0.97, 1.34)	0.87 (0.65, 1.15)	1.40 (0.99, 1.99)
	2012	0.78 (0.68, 0.89)	0.64 (0.52, 0.80)	0.94 (0.70, 1.25)
	2015	0.69 (0.62, 0.78)	0.56 (0.47, 0.67)	0.72 (0.56, 0.93)
Age	19-25	(ref)	(ref)	(ref)
	26-44	1.44 (1.16, 1.78)	1.89 (1.38, 2.60)	0.69 (0.42, 1.13)
	45-64	2.01 (1.63, 2.48)	3.28 (2.40, 4.47)	0.79 (0.49, 1.29)
Race	White	(ref)	(ref)	(ref)
	Black	0.75 (0.63, 0.88)	0.60 (0.48, 0.76)	1.40 (0.94, 2.07)
	Hispanic	0.65 (0.45, 0.94)	0.81 (0.45, 1.48)	0.99 (0.52, 1.89)
	Asian	0.30 (0.16, 0.58)	0.33 (0.13, 0.79)	0.53 (0.19, 1.47)
Region	Metropolitan	(ref)	(ref)	(ref)
	Appalachian	1.00 (0.85, 1.17)	0.88 (0.70, 1.11)	1.13 (0.79, 1.62)
	Rural/nonA	0.90 (0.75, 1.07)	1.05 (0.79, 1.39)	1.22 (0.84, 1.77)
	Suburban	0.85 (0.71, 1.02)	0.98 (0.73, 1.32)	0.73 (0.50, 1.05)
Insurance	Job-based	(ref)		
	Medicaid	4.76 (3.90, 5.80)		
	Medicare	7.44 (5.94, 9.31)		
	Purchased	1.09 (0.75, 1.59)		
	Other uninsured	3.23 (2.40, 4.34) 4.15 (3.38, 5.10)		
Poverty	300+	(ref)	(ref)	(ref)
	200-300	1.85 (1.46, 2.34)	1.33 (0.66, 2.71)	2.31 (1.67, 3.19)
	100-200	2.49 (1.99, 3.11)	1.47 (0.82, 2.65)	2.83 (1.98, 4.03)
	<100	3.47 (2.78, 4.35)	2.04 (1.15, 3.63)	2.20 (1.35, 3.58)

Table I: Usual Source of Care: Women, Full Sample, Medicaid-insured, Job-Based Plans

Category	Factor	Full Sample OR (95% CI)	Medicaid-insured OR (95% CI)	Job-Based Plans OR (95% CI)
Year	2004	(ref)	(ref)	(ref)
	2008	0.66 (0.58, 0.74)	0.60 (0.43, 0.84)	0.60 (0.49, 0.73)
	2010	0.76 (0.62, 0.93)	1.05 (0.56, 1.99)	0.61 (0.44, 0.85)
	2012	0.68 (0.58, 0.79)	0.56 (0.38, 0.82)	0.61 (0.47, 0.80)
	2015	0.72 (0.63, 0.82)	0.70 (0.52, 0.95)	0.62 (0.51, 0.76)
Age	19-25	(ref)	(ref)	(ref)
	26-44	1.39 (1.18, 1.63)	1.74 (1.28, 2.36)	1.52 (1.16, 2.01)
	45-64	2.05 (1.74, 2.42)	3.22 (2.30, 4.50)	2.62 (1.98, 3.47)
Race	White	(ref)	(ref)	(ref)
	Black	1.27 (1.06, 1.53)	1.40 (0.96, 2.06)	1.10 (0.81, 1.49)
	Hispanic	0.81 (0.61, 1.08)	0.90 (0.55, 1.46)	0.47 (0.27, 0.83)
	Asian	0.66 (0.47, 0.92)	0.95 (0.36, 2.48)	0.60 (0.38, 0.95)
Region	Metropolitan	(ref)	(ref)	(ref)
	Appalachian	1.30 (1.10, 1.55)	1.26 (0.83, 1.90)	1.44 (1.07, 1.93)
	Rural/nonA	1.15 (0.96, 1.37)	1.54 (0.96, 2.47)	1.07 (0.82, 1.39)
	Suburban	1.06 (0.90, 1.25)	0.93 (0.62, 1.40)	1.14 (0.89, 1.45)
Insurance	Job-based	(ref)		
	Medicaid	1.03 (0.85, 1.25)		
	Medicare	1.63 (1.13, 2.36)		
	Purchased	0.91 (0.68, 1.21)		
	Other uninsured	0.88 (0.65, 1.21) 0.24 (0.21, 0.29)		
Poverty	300+	(ref)	(ref)	(ref)
	200-300	0.71 (0.60, 0.84)	0.54 (0.28, 1.04)	0.74 (0.60, 0.92)
	100-200	0.66 (0.56, 0.78)	0.89 (0.50, 1.59)	0.62 (0.48, 0.78)
	<100	0.57 (0.47, 0.68)	0.73 (0.42, 1.25)	0.60 (0.43, 0.85)

Table J: ER Visit: Women, Full Sample, Medicaid-insured, Job-Based Plans

Category	Factor	Full Sample OR (95% CI)	Medicaid-insured OR (95% CI)	Job-Based Plans OR (95% CI)
Year	2004	(ref)	(ref)	(ref)
	2008	0.99 (0.93, 1.06)	1.22 (1.05, 1.42)	0.93 (0.85, 1.01)
	2010	1.17 (1.05, 1.31)	1.26 (0.99, 1.61)	1.13 (0.97, 1.31)
	2012	0.99 (0.92, 1.08)	1.16 (0.97, 1.38)	0.96 (0.85, 1.08)
	2015	1.20 (1.13, 1.29)	1.40 (1.23, 1.60)	1.10 (1.00, 1.21)
Age	19-25	(ref)	(ref)	(ref)
	26-44	0.77 (0.70, 0.85)	0.76 (0.64, 0.90)	0.69 (0.59, 0.81)
	45-64	0.66 (0.60, 0.73)	0.82 (0.69, 0.97)	0.59 (0.51, 0.69)
Race	White	(ref)	(ref)	(ref)
	Black	1.02 (0.94, 1.12)	0.86 (0.74, 1.01)	1.23 (1.08, 1.40)
	Hispanic	1.03 (0.86, 1.25)	1.36 (0.97, 1.91)	1.11 (0.82, 1.50)
	Asian	0.40 (0.30, 0.53)	0.25 (0.11, 0.54)	0.44 (0.30, 0.64)
Region	Metropolitan	(ref)	(ref)	(ref)
	Appalachian	0.98 (0.90, 1.07)	0.92 (0.78, 1.09)	1.03 (0.91, 1.17)
	Rural/nonA	0.98 (0.89, 1.07)	0.99 (0.81, 1.20)	1.05 (0.93, 1.18)
	Suburban	0.96 (0.88, 1.05)	0.90 (0.73, 1.11)	1.02 (0.91, 1.15)
Insurance	Job-based	(ref)		
	Medicaid	2.46 (2.23, 2.70)		
	Medicare	2.22 (1.93, 2.55)		
	Purchased	0.70 (0.59, 0.83)		
	Other uninsured	1.15 (0.97, 1.36) 1.44 (1.30, 1.60)		
Poverty	300+	(ref)	(ref)	(ref)
	200-300	1.28 (1.17, 1.40)	1.58 (1.08, 2.31)	1.33 (1.20, 1.47)
	100-200	1.56 (1.43, 1.70)	1.70 (1.27, 2.27)	1.52 (1.35, 1.71)
	<100	1.83 (1.66, 2.03)	2.00 (1.52, 2.64)	1.64 (1.36, 1.99)

Table K: Smoking: Women, Full Sample, Medicaid-insured, Job-Based Plans

Category	Factor	Full Sample OR (95% CI)	Medicaid-insured OR (95% CI)	Job-Based Plans OR (95% CI)
Year	2004	(ref)	(ref)	(ref)
	2008	0.80 (0.75, 0.86)	0.95 (0.82, 1.10)	0.73 (0.67, 0.80)
	2010	0.74 (0.66, 0.82)	0.76 (0.59, 0.97)	0.63 (0.54, 0.73)
	2012	0.75 (0.69, 0.81)	0.96 (0.81, 1.14)	0.68 (0.60, 0.77)
	2015	0.65 (0.61, 0.70)	0.75 (0.66, 0.86)	0.58 (0.53, 0.64)
Age	19-25	(ref)	(ref)	(ref)
	26-44	1.52 (1.38, 1.69)	1.40 (1.18, 1.67)	1.45 (1.23, 1.72)
	45-64	1.32 (1.19, 1.46)	1.17 (0.98, 1.40)	1.34 (1.14, 1.59)
Race	White	(ref)	(ref)	(ref)
	Black	0.67 (0.61, 0.73)	0.49 (0.42, 0.58)	0.84 (0.73, 0.97)
	Hispanic	0.42 (0.34, 0.52)	0.58 (0.40, 0.84)	0.60 (0.45, 0.80)
	Asian	0.12 (0.07, 0.21)	0.08 (0.03, 0.23)	0.14 (0.07, 0.27)
Region	Metropolitan	(ref)	(ref)	(ref)
	Appalachian	1.07 (0.98, 1.16)	0.89 (0.76, 1.05)	1.11 (0.99, 1.25)
	Rural/nonA	1.03 (0.95, 1.13)	0.87 (0.71, 1.07)	1.11 (0.99, 1.25)
	Suburban	1.06 (0.98, 1.16)	1.08 (0.87, 1.32)	1.01 (0.90, 1.13)
Insurance	Job-based	(ref)		
	Medicaid	2.31 (2.10, 2.54)		
	Medicare	1.46 (1.26, 1.69)		
	Purchased	0.76 (0.64, 0.91)		
	Other uninsured	1.23 (1.05, 1.46)		
Poverty	300+	(ref)	(ref)	(ref)
	200-300	1.62 (1.49, 1.76)	0.96 (0.65, 1.42)	1.75 (1.59, 1.93)
	100-200	2.20 (2.01, 2.40)	1.57 (1.17, 2.11)	2.51 (2.25, 2.81)
	<100	2.53 (2.29, 2.79)	2.04 (1.54, 2.70)	2.18 (1.82, 2.62)

Table L: Overweight/Obese: Women, Full Sample, Medicaid-insured, Job-Based Plans

Category	Factor	Full Sample OR (95% CI)	Medicaid-insured OR (95% CI)	Job-Based Plans OR (95% CI)
Year	2004			
	2008	(ref)	(ref)	(ref)
	2010	1.05 (0.96, 1.16)	0.93 (0.70, 1.25)	1.03 (0.91, 1.17)
	2012	1.09 (1.01, 1.18)	0.93 (0.76, 1.14)	1.08 (0.98, 1.19)
	2015	1.18 (1.10, 1.25)	0.98 (0.84, 1.15)	1.21 (1.12, 1.31)
Age	19-25	(ref)	(ref)	(ref)
	26-44	1.78 (1.60, 1.99)	1.71 (1.39, 2.11)	1.94 (1.64, 2.30)
	45-64	2.68 (2.41, 2.99)	2.49 (2.00, 3.10)	2.84 (2.40, 3.36)
Race	white	(ref)	(ref)	(ref)
	black	2.18 (1.95, 2.43)	1.54 (1.26, 1.90)	2.53 (2.15, 2.97)
	hispanic	1.33 (1.06, 1.66)	1.26 (0.83, 1.91)	1.25 (0.89, 1.76)
	asian	0.32 (0.25, 0.40)	0.68 (0.33, 1.42)	0.28 (0.20, 0.38)
Region	metropolitan	(ref)	(ref)	(ref)
	appalachian	1.22 (1.11, 1.34)	1.10 (0.89, 1.36)	1.22 (1.08, 1.37)
	rural/nonA	1.18 (1.07, 1.29)	1.54 (1.19, 1.99)	1.09 (0.98, 1.23)
	suburban	1.07 (0.97, 1.17)	0.89 (0.67, 1.17)	1.12 (1.00, 1.25)
Insurance	Job-based	(ref)		
	Medicaid	1.38 (1.23, 1.56)		
	Medicare	1.37 (1.16, 1.63)		
	Purchased	0.62 (0.54, 0.72)		
	Other	0.88 (0.74, 1.05)		
	uninsured	1.15 (1.02, 1.29)		
Poverty	300+	(ref)	(ref)	(ref)
	200-300	1.28 (1.16, 1.40)	0.82 (0.51, 1.31)	1.36 (1.22, 1.51)
	100-200	1.30 (1.18, 1.43)	1.14 (0.80, 1.61)	1.31 (1.15, 1.49)
	<100	1.28 (1.14, 1.43)	1.16 (0.84, 1.61)	1.18 (0.95, 1.46)

Table M: Relevant Variables

Population	Data Set	Variable Name	Variable Description
Child	OMAS	i90a_imp	Age
Child	OMAS	race5_c_imp	Race/Ethnicity
Child	OMAS	P148_imp	Gender imputed
Child	OMAS	region	Region
Child	OMAS	i_type_c_imp	Insurance
Child	OMAS	I125_imp	General health
Child	OMAS	bmi_c	Body Mass Index
Child	OMAS	ervt_c	ER visits in the past 12 months
Child	OMAS	M130	Well-child care in the past 12 months
Child	OMAS	usual_c	Usual place of care
Child	OMAS	hlthnd_c_10	Getting needed medical care

Table O: Relevant Variables (Cont).

Population	Data Set	Variable Name	Variable Description
Child	OMAS	Sugar_1, sugar_2	Sugar sweetened beverages
Adult	OMAS	s14_imp_85	Age
Adult	OMAS	race5_a_imp	Race/Ethnicity
Adult	OMAS	s15_imp	Gender imputed
Adult	OMAS	region	Region
Adult	OMAS	d30	General Health (good vs. not good)
Adult	OMAS	d30i	Number of days mental health kept from work./activities in past 30 days
Adult	OMAS	smoke_stat	Tobacco use (current)
Adult	OMAS	bmi_a	BMI
Adult	OMAS	ervt_a	ER visits in the past 12 months

Table O: Relevant Variables (Cont).

Population	Data Set	Variable Name	Variable Description
Adult	OMAS	usual_a	Have a usual place of care
Adult	OMAS	hlthnd_a_10	Getting needed medical care