Maternal, Child, and Family Health Data Book

Multnomah County, Oregon

Updated
September 2014

Multnomah County
Health Department

Executive Summary

Effective public health interventions and policies are founded in, and guided by, reliable data. Good data and deliberate planning, when combined with community wisdom and meaningful community input, create a sound foundation for improving community health.

The goal of the Multnomah County *Maternal, Child, and Family Health Data Book* is to provide and highlight data that can be used to design, implement, monitor and evaluate maternal, child, and family programs and interventions throughout Multnomah County. This report provides policy makers, public health professionals, healthcare providers, and community members with critical data on health issues affecting women, their children, and their families before, during, and after pregnancy.

Role of Multnomah County Health Department

A core function of a public health department is to monitor the health status of individuals and groups in order to identify and address community health problems. One way the Multnomah County Health Department fulfills this function is through public health surveillance – the continuous gathering and analysis of data to describe a population's health in order to help prevent illness and promote health. Surveillance provides data that are needed for:

- Monitoring trends and patterns
- Identifying emerging health issues
- Developing and evaluating interventions
- Setting research priorities
- Monitoring quality of care
- Identifying underserved populations
- Planning services[1]

In Multnomah County, maternal, child, and family health surveillance is conducted using three primary data sources: vital statistics (e.g., birth and death records) and two large Centers for Disease Control and Prevention-sponsored health surveys: the Pregnancy Risk Assessment Monitoring System (PRAMS) and the two-year follow-up survey, PRAMS-2. To learn more about these data sources, please see the *Technical Notes* section.

Local health departments, including the Multnomah County Health Department,

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play a vital role in advancing the effective use of public health data to drive policies and improve services for mothers, children, and families, including:

- Advocating for strong health policies
- Convening community discussions
- Leading, supporting and participating in community partnerships
- Educating the public
- Providing clinical care to children and adults in need
- Enforcing health regulations

Data Book Development

This data book was developed through a collaborative, cross-disciplinary process within the Health Department. The indicators used were selected from data across 51 potential indicators. Each indicator was stratified by seven demographic groupings: maternal race, ethnicity, age, education, Medicaid status at time of birth (Oregon Health Plan - OHP), marital status, and foreign-born status. Collective expertise was used to select data results that were statistically significant and had a story to tell, as well as to identify key findings and themes for each chapter.

The data in this data book was organized, analyzed, and interpreted using the Maternal, Child Health Life Course Framework.[2] The framework is an updated and broader way of looking at health, over a life span – not as disconnected stages unrelated to each other, but as an integrated whole. The framework suggests that a complex interplay of biological, behavioral, psychological, social, and environmental factors contribute to health outcomes across the course of a person's entire life.[3]

Healthy People 2020

Some indicators in the book are measured using Healthy People 2020 (HP2020) a set of ten-year national health goals for health promotion and disease prevention. The goals were created by the U.S. Department of Health and Human Services for communities to reach by 2020. Wherever Healthy People 2020 targets exist within an indicator, those targets are noted. Because of the unique life course approach to organizing the data, several indicators do not have HP 2020 targets associated with them.

Data Limitations

Though the data in this report provide a reasonably good picture of the health of mothers, children and families in Multnomah County, some significant gaps remain. Additional data that would contribute to this picture include: information on

hospitalizations and emergency department visits; adolescent health indicators; community cohesion and neighborhood characteristics; the male health experience before, during, and after pregnancy; mental health; and more social determinants of health (those economic and social conditions under which people live that determine their health). In addition, more information is needed about households other than two-biological-parent households, including single-parent, lesbian/gay/bisexual/trans, and intergenerational households

Data that is currently available may also fail to reflect community-level concepts of health and well-being. More work must be done to engage communities in the development of comprehensive, culturally sensitive data sets. Further, since surveillance is focused on giving us a snapshot of health at a point in time, more resources are needed to explain trends in certain health burdens.

Community Snapshot

Finally, while the data give the community an important *snapshot* of information about maternal and child health in Multnomah County, they do not provide much information on trends due to a relatively new data source (PRAMS-2) and the unique set of indicators used. However, these data can serve as a baseline against which future progress can be measured.

Summary of Key Findings

Disparities

Overall, women of color, women with lower income, women with less education, and their children are experiencing more disparities than their counterparts. Chapter 1 summarizes the dire health disparities experienced by groups of recent mothers including Black/African American mothers, American Indian/Alaska Native mothers, mothers on the Oregon Health Plan and mothers with less than a high school education. For example, relative to their counterparts, all of these groups have higher proportions of unintended pregnancy, lower proportions of early and adequate prenatal care, and higher proportions of postpartum depression.

Family Planning

A woman's ability to limit and space her pregnancies has a direct impact on her own health and well-being, as well as on the outcome of each pregnancy and her child's health and well-being.
- Four out of ten pregnancies resulting in a live birth in Multnomah County were unplanned. Sixty-two percent of recent mothers reported that their pregnancies were intended.

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- Younger women, women with less education, and unmarried mothers were significantly less likely to have had an intended pregnancy resulting in a live birth compared to their counterparts.
- Women of color were less likely to have had an intended pregnancy resulting in a live birth than non-Latina White women.

Preconception Health

Good pre-pregnancy health is important for healthy birth outcomes. Healthy babies begin with healthy mothers.

- The percentage of women in Multnomah County who abstain from smoking and drinking before pregnancy is below the Healthy People 2020 target.
- Approximately 1 in 5, or 20 percent, of recent mothers reported smoking before pregnancy. This percentage is higher than the Healthy People target of less than 15 percent.
- About 3 in 5, or 60 percent, of recent mothers drank alcohol before pregnancy. The Healthy People target is less than 44 percent.
- While smoking before pregnancy was most common among some women of color, younger women, and those on the Oregon Health Plan (OHP), regular drinking and binge drinking were most common among non-Latina White, older, and non-OHP recent mothers.

Pregnancy Health

Once a woman becomes pregnant, her health and well-being have a significant effect on the health of her developing fetus. Healthy behaviors during pregnancy contribute to positive outcomes during birth for both a mother and her baby.

- Only 7 out of 10, or 70 percent, of recent mothers in Multnomah County received early and adequate prenatal care. The HP2020 target is 77.6 percent.
  - Women with lower income, foreign-born women, women with less education, younger women and women of color were all less likely to have received early and adequate prenatal care
- Nearly 18 percent of all recent mothers reported symptoms of depression during pregnancy.
  - Women with less education, women with lower income, and women of color were more likely than average to have reported these symptoms during pregnancy.
  - Nearly 33 percent, or one in three Black/African American recent mothers reported symptoms of depression during pregnancy.

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Morbidity and Mortality

The morbidity and mortality data (the prevalence of disease, disability, poor health, and death) includes indicators of mother and baby health such as preterm birth, low birth weight and infant mortality. This data is comparable to previous surveillance and can be used to assess trends.

- Overall, about 15 percent of babies were born with a health issue – were delivered at low birthweight, were pre-term, had a newborn condition or congenital anomaly, or were admitted to the Neonatal Intensive Care Unit (NICU).
  - Women of color had higher rates of births with one of these poor outcomes, with 21.3 percent of Black/African American recent mothers experiencing poor outcomes.
- Black/African American recent mothers had the highest proportion of low birthweight babies and preterm births.
- American Indian/Alaska Native recent mothers, along with Black/African American recent mothers, were nearly two times more likely than their non-Latino White counterparts to have an infant die in the first year of life.

Postpartum Health

Postpartum health indicators provide a glimpse into a woman's health after birth as it affects her ability to bond with and care for her new infant.

- Overall, about 1 in 10 recent mothers reported feeling symptoms of postpartum depression; however, the percentages varied dramatically by race/ethnicity and education level.
  - About 1 in 5 women with less than high school education, Black/African American women, and American Indian/Alaska Native women reported experiencing symptoms.
- Proportions of initiating breastfeeding in Multnomah County are high across all racial and ethnic, income, and education levels, and are universally higher than the HP2020 target for breastfeeding initiation.

Child Growth and Development

Ensuring that children are healthy and ready to learn at age five is a goal that drives many early childhood services. Indicators in this section include those that help create a safe, healthy, and stimulating environment for children to learn and grow.

- Screen time exposure varied dramatically by race and ethnicity, maternal education level and household income.
- Thirty-five percent of two-year-olds living in higher-income households had no screen time, while only six percent of those living in lower-income households had no screen time.

- About 7 in 10 toddlers were read to daily by a parent or guardian. This exceeds the HP2020 goal, but major disparities exist by maternal race and ethnicity, age, education, and household income.

Family, Home, and Community

The homes, families, and communities in which children grow and develop help shape them into healthy adults.

- For about 10 percent of infants, only the mother's name is included on the birth certificate. A named father is a common proxy for measuring father involvement.
- More than half of two-year-olds received childcare either from a licensed facility or from someone other than the parents.
- Current data are limited to households with both male and female biological parents. More data are needed on other households, including single-parent, lesbian/gay/bisexual/trans, and inter-generational households.

CONCLUSIONS

Individual choice is only a part of what determines health outcomes for mothers and children. An individual's choice is significantly influenced by the environments in which families live, play, work and learn. Social determinants of health — including socioeconomic status; discrimination by race, ethnicity, gender, and/or class; access to health care and other services; as well as other social and environmental stressors — are factors influencing the data and disparities outlined in this report.

In order for Multnomah County women, children and their families to achieve health and well-being – and for the community to reach the national goals – these factors must be acknowledged and addressed.

References

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How to Use this Data Book

This data book is divided into seven main chapters that are loosely organized by the stages of the life course: family planning; preconception health; pregnancy health; morbidity and mortality; postpartum health; child growth and development; and home, family and community factors. In addition, there is a chapter focused on the current demographics of Multnomah County residents, as well as a chapter on health disparities. The diagrams below show how to interpret the disparities and life course indicator charts.

Health Inequities and Disparities Chapter Data

	Better than	Worse than
Unintended pregnancy		1.2
Smoking before pregnancy		2.5
Late or inadequate prenatal care		1.5
Low birth weight		1.3
Postpartum depression	n/a	
Not read to daily by a family member		2.7

0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0
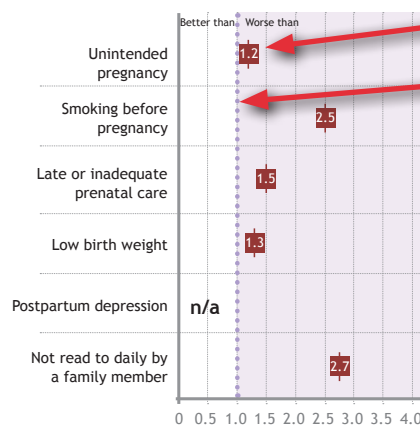
Description of the denominator

The value of 1.0 (purple line) on the chart represents no difference between the two groups being compared. If the value in the box is greater (to the right) of the line, then the group being compared is worse off than the other ("referent") group. If the value in the box is to the left of the line, then the group being compared is better off than the other ("referent") group.

Life Course Indicator Data

Percent of recent mothers who were obese (BMI ≥30) before pregnancy, Multnomah County.
Data Source: PRAMS, 2009-2010

Indicator name and data source.

Multnomah County	Oregon	HP2020 Target
16.0%	21.1%	≤30.5%

HP = Healthy People NWS-9: <30.5% of persons aged 20 years and older are obese.
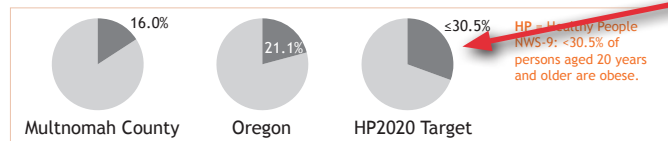
Pie charts show the prevalence for this indicator for Multnomah County compared to Oregon and the Healthy People target.

35+	8.3
25-34	* 18.2
20-24	* 21.7
<20 yrs	Ref 5.2
Asian/PI	Ref 11.8
AI/AN	* 34.8
Hispanic/Latino	16.2
Black/AA	* 25.3
NH White	14.6

HP

0   10   20   30   40
Among women with a live birth
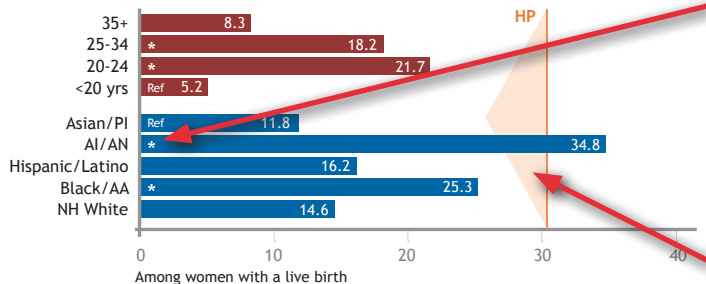
The asterisk indicates that the difference between that group and the referent group, "ref," is statistically significant at the 95% confidence level. The referent group is either the best or worst group.

The shaded arrow behind the bar graph indicates the direction from the HP2020 target line that is "good" for the indicator.

How to Use this Data Book

Multnomah County Health Department encourages the use of the data in this book to improve the health of women, children, and families in Multnomah County. This could mean applying the narratives in conversations with friends or colleagues; using the figures in presentations; using the data to inform programming or service decisions; or discussing the data implications with your political representative.

Please note: The Technical Notes section of this book contains important background information regarding the data sources and the analytic methods that were employed. Understanding the data limitations and surveillance methods is important to correctly interpreting and using the data.

Demographic Information

Population Composition by Race/Ethnicity Groupings, Multnomah County, Oregon.

Data Sources: 2009-2011 American Community Survey 3-Year Estimates

	Multnomah County		Oregon	
	Count	%	Count	%
Total Population	**737,743**		**3,839,598**	
Race/Ethnicity*				
Non-Latino White	532,164	72.1	3,007,822	78.3
Black/African-American	51,516	7.0	98,989	2.6
Hispanic/Latino (of any race)	80,483	10.9	452,447	11.8
American Indian/ Alaska Native	16,944	2.3	108,882	2.8
Asian/Pacific Islander	66,216	9.0	213,686	5.6

all races may not add up to the total population

Population Composition by Maternal, Child, and Male Health Groupings, Multnomah County, Oregon.

Data Sources: 2009-2011 American Community Survey 3-Year Estimates, Vital Statistics 2010-2011

	Count	%
Total Population	**737,743**	
Children 0-4 years	46,416	6.3%
Children 5-9 years	43,633	5.9%
Adolescents 10-14 years	37,548	5.1%
Women of Childbearing Age 15-44 years	170,847	23.2%
Teen Women 15-19 years	20,144	2.7%
Adult Women 20-44 years	150,704	20.4%
Men of Childbearing Age 15-44 years	173,239	23.5%
Teen Men 15-19 years	20,789	2.8%
Adult Men 20-44 years	152,450	20.7%

Demographic Information

Total Births by Maternal Characteristics, Multnomah County, Oregon.

Source: Vital Statistics 2010-2011

	Count	%
Total births	**18,917**	
Maternal Race/Ethnicity		
Non-Latino White	11,937	63.1
Black/African-American	1,579	8.3
Hispanic/Latino	2,938	15.5
American Indian/ Alaska Native	409	2.2
Asian/Pacific Islander	1,830	9.7
Other * (* 3 and more races selected or unknown/missing)	224	1.2
Materal Age		
<20 years	1,075	5.7
20-24 years	3,210	17.0
25-34 years	10,500	55.5
35+ years	4,131	21.8
Maternal Education		
Less than high school (<HS)	3,110	16.4
High school (HS)	7,433	39.3
Beyond high school (HS+)	8,239	43.6
Marital Status		
Married	12,474	65.9
Not married	6,338	33.5
Medicaid Status		
Oregon Health Plan	7,221	38.2
Not Oregon Health Plan	11,696	61.8
Nativity		
Foreign-born	5,246	27.7
U.S.-born	13,557	71.7

What are health disparities and health inequities?

Health disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations.[1] Health disparities are captured in our data systems as differences in health outcomes.

Health inequities are the underlying causes of these disparities and stem from a variety of social factors such as income inequality, economic forces, educational quality, environmental conditions, individual health behavior choices, and access to health care. According to the National Association of City and County Health Officials (NACCHO), "health inequities result from an unequal structuring of life chances, based on growing social and economic inequality."[2] In other words, the differences in experiences and opportunities associated with an individual's social situation can lead to differences in health that certain people and communities are experiencing.

This chapter summarizes the recurring health disparities experienced by the following groups of recent mothers, as seen throughout the data used for this report:

- Women of Black/African-American race compared to non-Latina White women.
- Women of American Indian/Alaska Native race compared to non-Latina White women.
- Women with OHP insurance at the time of labor compared to non-OHP.
- Women with less than a high school education compared to those with greater than a high school education.

The disparities data are shown on a ratio scale using prevalence data for each group for the following indicators: unintended pregnancy (Chapter 2), smoking before pregnancy (Chapter 3), late/inadequate prenatal care (Chapter 4), low birthweight (Chapter 5), postpartum depression (Chapter 6), and not read to daily by a family member (Chapter 8).

Why are inequities important?

The Northwest Health Foundation points out in its *Case for Equity*, "We have a shared fate—as individuals within a community and communities within a society. All communities need the ability to shape their own present and future. Equity is both the means to healthy communities and an end that benefits us all."[3]

Communities of color, immigrants and refugees, and other minority groups are bearing the negative consequences of poor housing, exposure to pollutants, and unequal educational and economic systems that lead to persistent negative

health outcomes and disparities (some of which are highlighted in this chapter).

Health inequities are unfair and avoidable. As Multnomah County becomes increasingly diverse, government agencies, health organizations, and community partners have an ethical and a fiscal responsibility to assure the wellness of *all* people in our communities. In doing so, we can uncover and understand the conditions that make people healthy or unhealthy. This understanding enables us to allocate resources appropriately and justly, build partnerships with non-traditional allies, and work with communities experiencing inequities to ensure lifelong health for everyone.

References

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2. Hofrichter R and Bhatia, R. eds. Tackling health inequities through public health practice,2nd edition. New York: Oxford University Press; 2010.

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Comparison of Black/African-American vs. non-Latina White women on measures of maternal, child, and family health using a ratio scale based on prevalence.
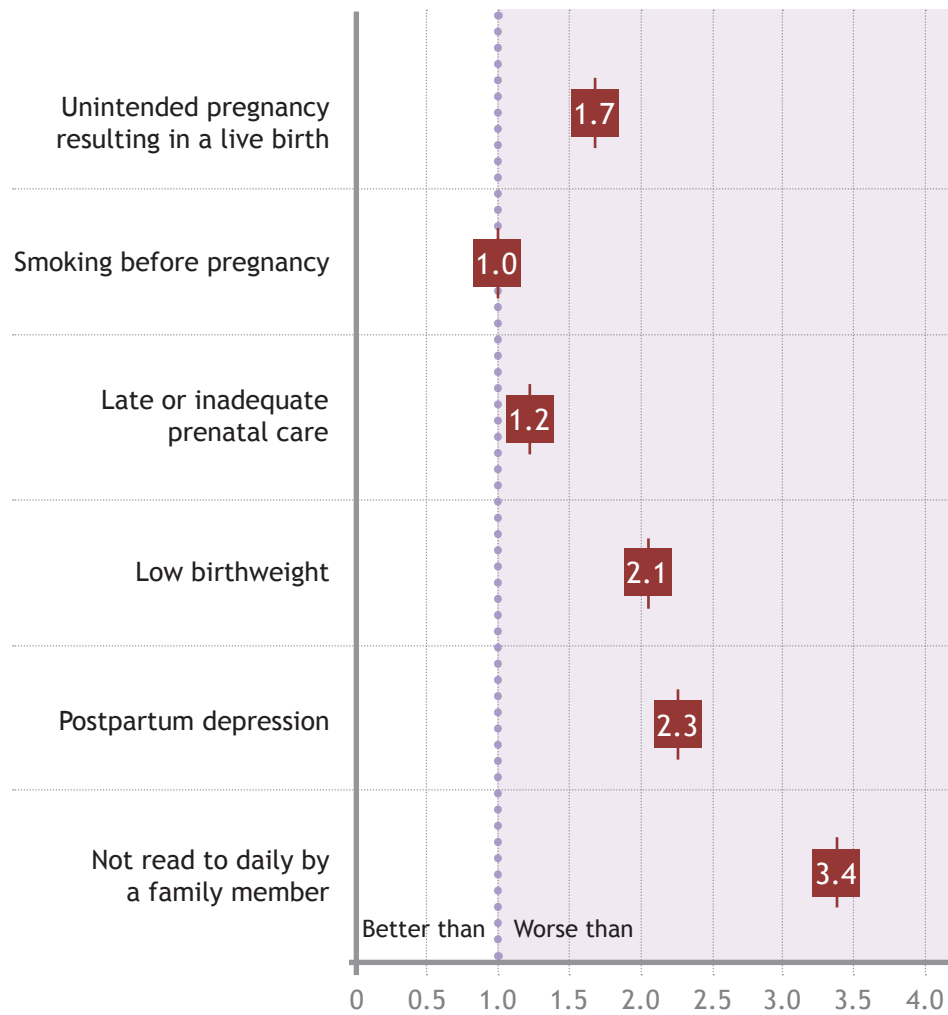
Comparison of American Indian/Alaska Native women vs. non-Latina White women on measures of maternal, child, and family health using a ratio scale based on prevalence.

Measure	Ratio
Unintended pregnancy resulting in a live birth	1.4
Smoking before pregnancy	2.0
Late or inadequate prenatal care	1.1
Low birthweight	1.1
Postpartum depression	3.0
Not read to daily by a family member	2.5

Better than | Worse than

0   0.5   1.0   1.5   2.0   2.5   3.0   3.5   4.0
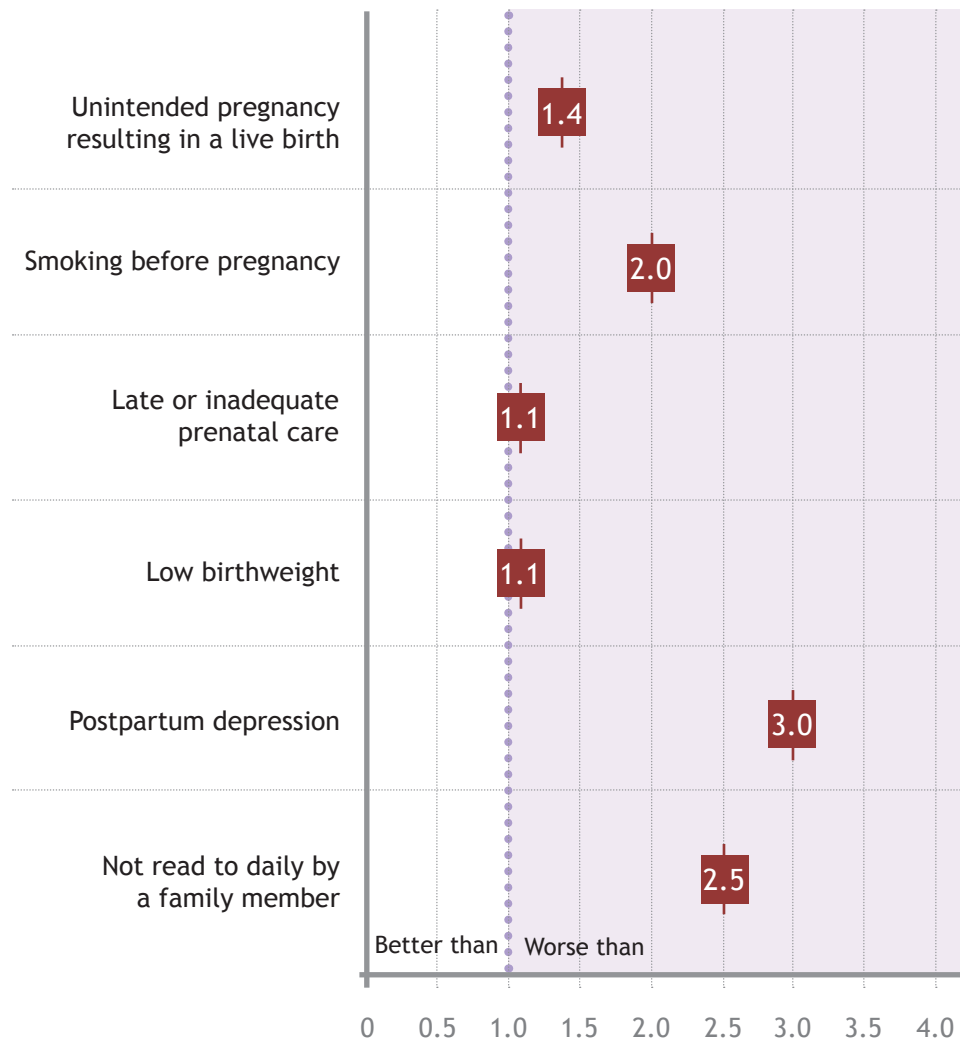
Comparison of women on OHP vs. non-OHP on measures of maternal, child, and family health using a ratio scale based on prevalence.

Measure	Value
Unintended pregnancy resulting in a live birth	1.2
Smoking before pregnancy	2.5
Late or inadequate prenatal care	1.5
Low birthweight	1.3
Postpartum depression	n/a
Not read to daily by a family member	2.7

Better than | Worse than

0   0.5   1.0   1.5   2.0   2.5   3.0   3.5   4.0
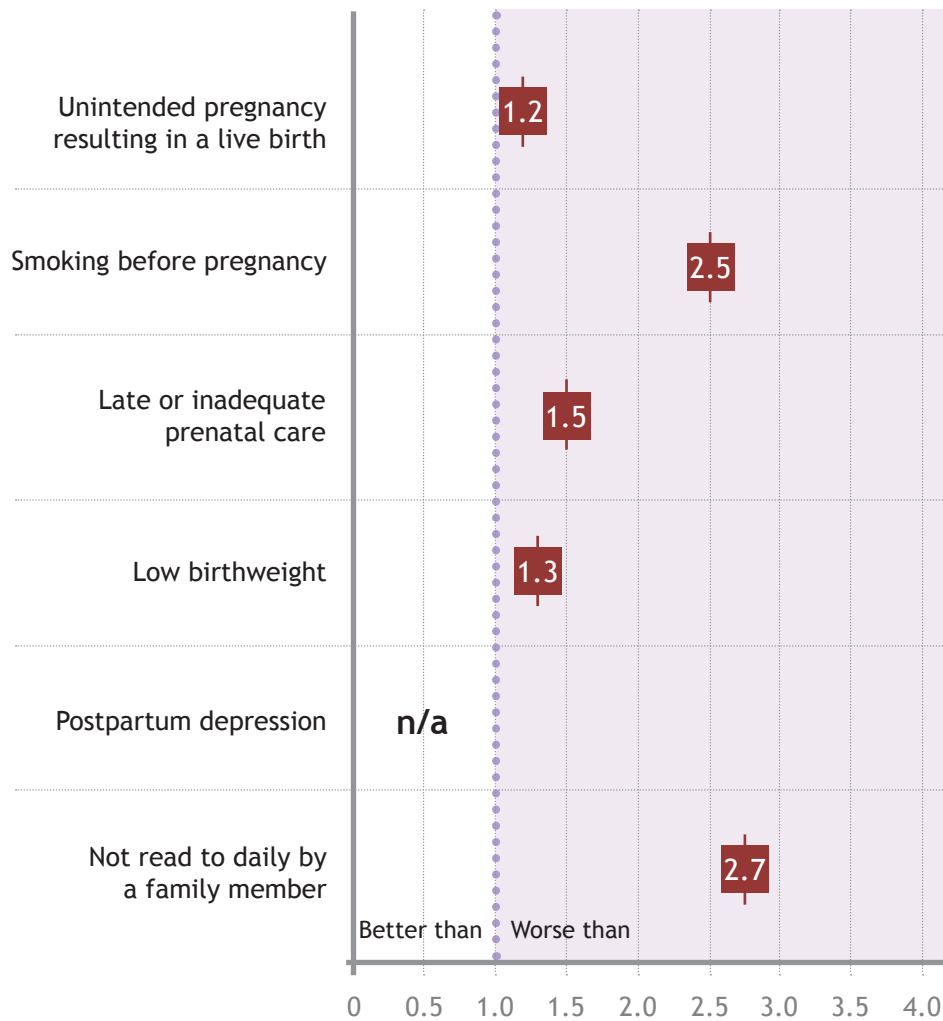
Comparison of women with less than a high school education vs. women with high school education or more on measures of maternal, child, and family health using a ratio scale based on prevalence.

Unintended pregnancy resulting in a live birth	1.7
Smoking before pregnancy	n/a
Late or inadequate prenatal care	1.9
Low birthweight	1.3
Postpartum depression	2.6
Not read to daily by a family member	3.6

Better than | Worse than

0   0.5   1.0   1.5   2.0   2.5   3.0   3.5   4.0
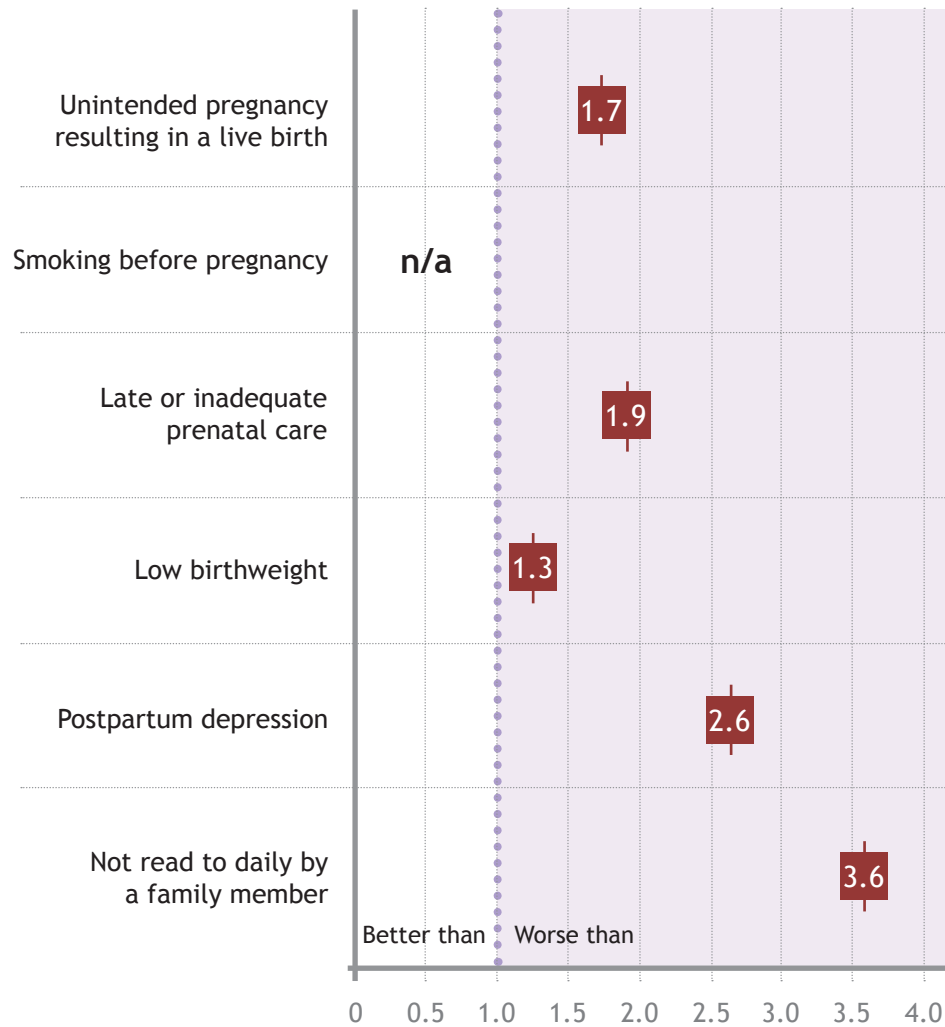
2 Family Planning

What is family planning?

Family planning is one of the great public health achievements of the twentieth century.[1] It allows individuals and couples to choose and attain their desired number of children, as well as the spacing and timing of their births.

Family planning is accomplished through the use of contraceptive methods and the treatment of infertility. A woman's ability to limit and space her pregnancies has a direct impact on her own health and well-being, as well as on the outcome of each pregnancy and her child's health and well-being.

The indicators used to track family planning in Multnomah County include: prevalence of intended pregnancies, contraception use, birth spacing, and teen births. The data came from birth records and the Pregnancy Risk Assessment Monitoring System (PRAMS) survey.

Why is family planning important?

Raising a child requires significant amounts of time and social, financial, and community resources. Unintended pregnancies are associated with inadequate or delayed prenatal care, smoking or drinking during pregnancy, having a low birthweight infant, the reduced likelihood of breastfeeding, delayed physical and mental development, poor mother-child attachment, and maternal depression.[2,4,5,6]

Teen births are of particular importance because very few teens have the resources needed to ensure a healthy pregnancy and a good outcome for their children. Research shows that once a teen becomes pregnant, she is more likely than other young women to drop out of school and live in poverty.[3]

In addition, although timing may not be everything, research suggests that a birth-to-pregnancy spacing of at least 18 months could help reduce the risk of adverse birth outcomes.[3] Researchers have found that infants born to women who conceived less than six months after giving birth had a 40% increased risk for being born prematurely and a 61% increased risk of low birthweight, compared with infants born to mothers who waited 18 months to two years between pregnancies.[3]

Giving babies the best chance for a healthy life requires that parents have access to safe housing, living wage jobs, medical care and good support systems to help care for and parent their children. People's ability to plan and space pregnancies is a vital component to having all children in our community be born healthy and achieve their highest potentials.

Key Findings

In Multnomah County:

► Only about half of recent mothers who did not plan on getting pregnant were using a birth control method.

► 4 out of 10 pregnancies that resutled in a live birth were unplanned.
  • Sixty-two percent of recent mothers reported that their pregnancies were intended.
  • Recent mothers who were younger, less educated, or unmarried were significantly less likely to have had an intended pregnancy, compared to their counterparts.

• Women of color had lower proportions of intended pregnancy than non-Latina White women.

► Among women who had a recent repeat birth, about 30% were spaced less than 18 months from a previous birth. The Healthy People 2020 target for this indicator is 30% or less.

► The average birth-to-pregnancy spacing among teen mothers was 16 months, compared to 39 months among all women who had a repeat birth.

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Percent of recent mothers who reported that their pregnancy was intended, Multnomah County.
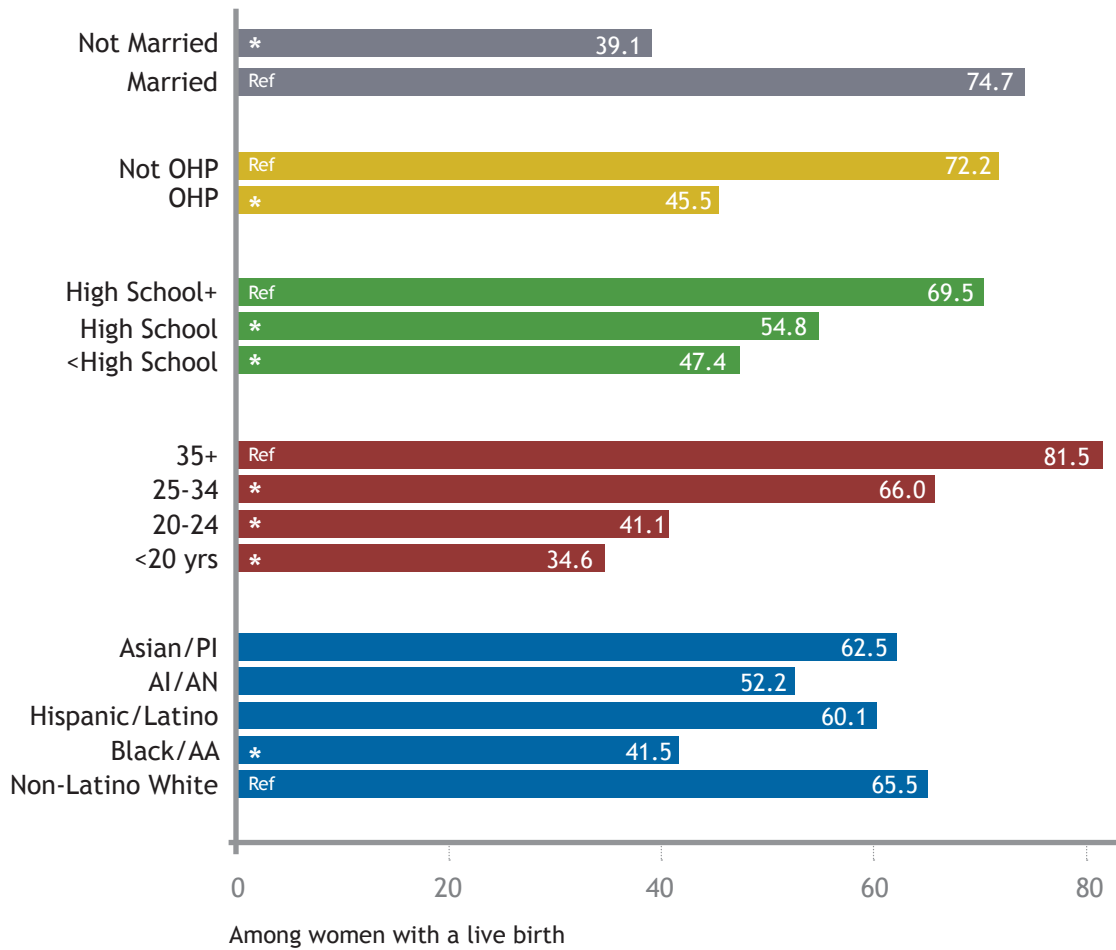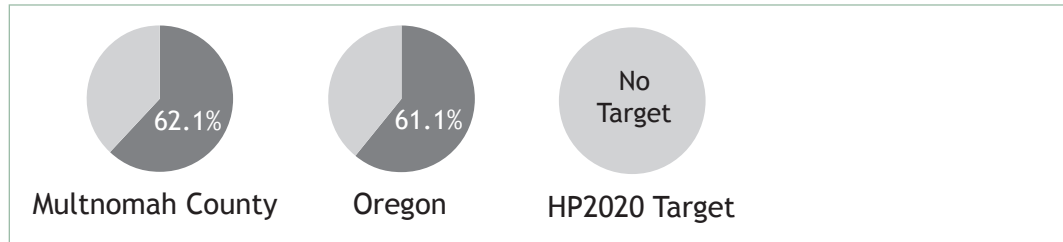
Data Source: PRAMS, 2009-2010

62.1% Multnomah County

61.1% Oregon

No Target HP2020 Target

Not Married	* 39.1
Married	Ref 74.7
Not OHP	Ref 72.2
OHP	* 45.5
High School+	Ref 69.5
High School	* 54.8
<High School	* 47.4
35+	Ref 81.5
25-34	* 66.0
20-24	* 41.1
<20 yrs	* 34.6
Asian/PI	62.5
AI/AN	52.2
Hispanic/Latino	60.1
Black/AA	* 41.5
Non-Latino White	Ref 65.5

Among women with a live birth

Percent of recent mothers who were using contraception when they got unintentionally pregnant, Multnomah County.

Data Source: PRAMS, 2009-2010

51.4%

51.7%

≥91.3%

Multnomah County   Oregon   HP2020 Target

HP = Healthy People FP-6: 91.3% at risk of unintended pregnancy used contraception at most recent sexual intercourse.

HP

Asian/PI	* 34.5
AI/AN	52.2
Hispanic/Latino	Ref 62.3
Black/AA	* 45.9
Non-Latino White	52.0

0   20   40   60   80   100

Among women with a live birth from an unintended pregnancy
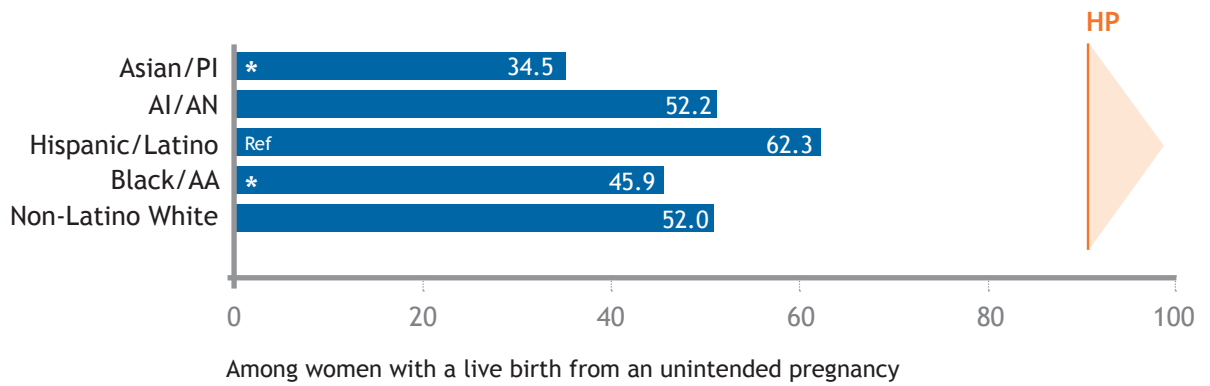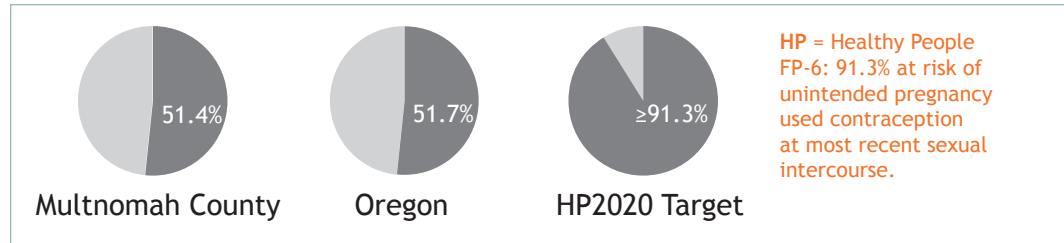
Percent of births conceived within 18 months of a previous birth, Multnomah County.

Data Source: Vital Statistics, 2010-2011

29.7% — Multnomah County

29.3% — Oregon

≤29.8% — HP2020 Target

HP = Healthy People FP-5: ≤29.8% of pregnancies conceived within 18 months of a previous birth.

	Value
Not OHP	Ref 28.4
OHP	* 31.2
Asian/PI	31.3
AI/AN	28.4
Hispanic/Latino	Ref 22.6
Black/AA	* 34.4
Non-Latino White	* 31.1

Among women having a second or higher birth
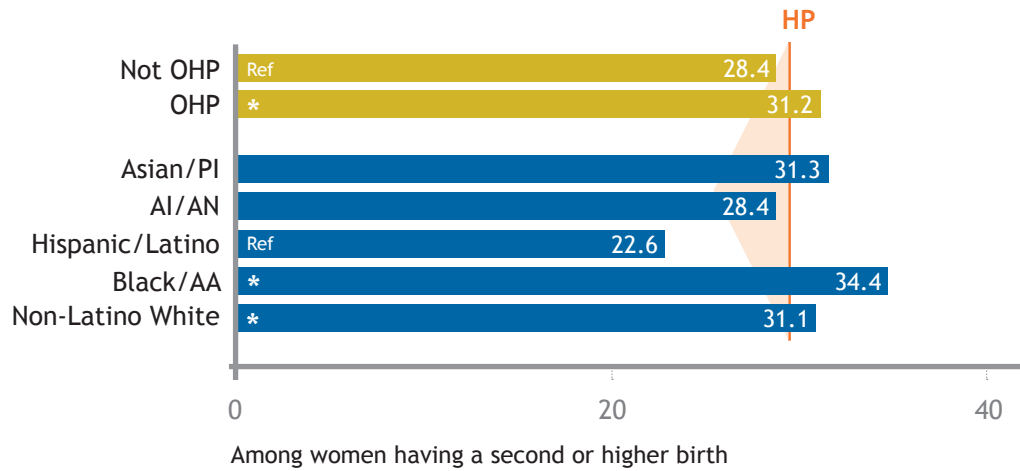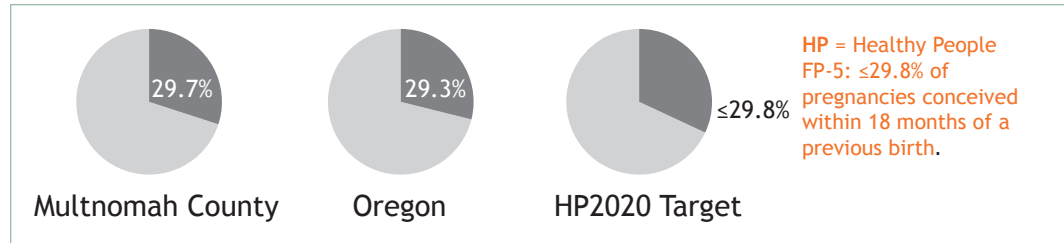
Prevalence of multiparous women who had a birth-to-pregnancy spacing of less than 18 months, Multnomah County.

	<6 mos	6-11 mos	12-17 mos
Asian/PI	5.8	10.9	14.5
AI/AN	6.0	14.7	7.8
Hispanic/Latino	3.8	7.3	11.5
Black/AA	8.3	13.6	12.5
Non-Latino White	3.9	11.1	16.0

Among women having a second or higher birth
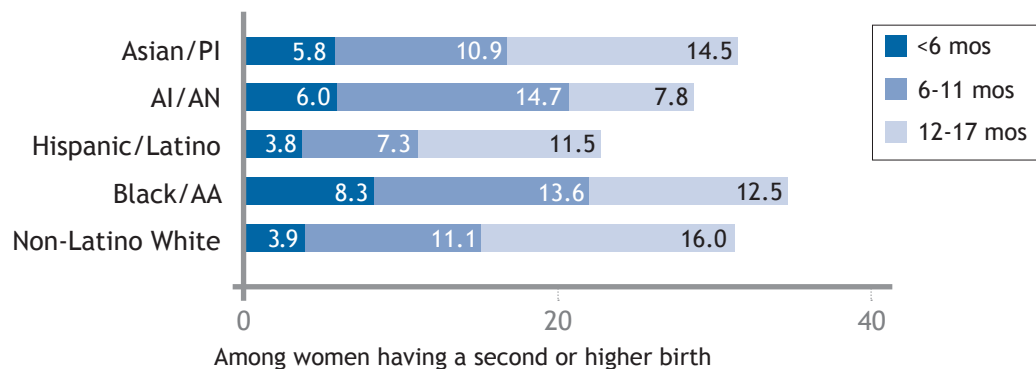
Prevalence of repeat teen births, Multnomah County.

Data Source: Vital Statistics, 2010-2011

17.5%   15.7%

Multnomah County   Oregon   HP2020 Target

No Target

Category	Value
Not OHP	* 9.9
OHP	Ref 20.2
High School+	* 15.7
High School	16.1
<High School	Ref 18.5
Asian/PI	12.3
AI/AN	21.6
Hispanic/Latino	Ref 22.4
Black/AA	16.1
Non-Latino White	* 14.4

Among teen women (<20 years) with a live birth
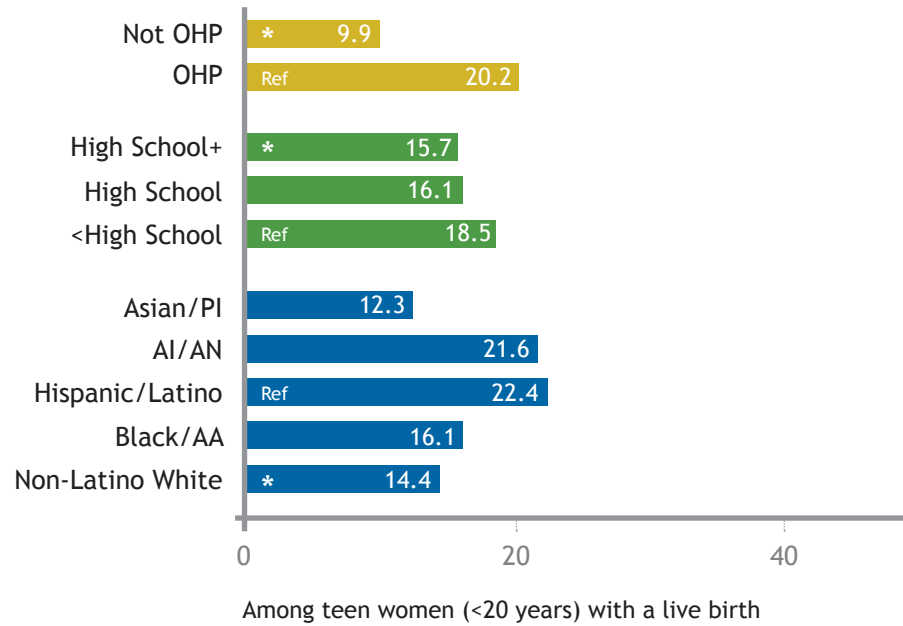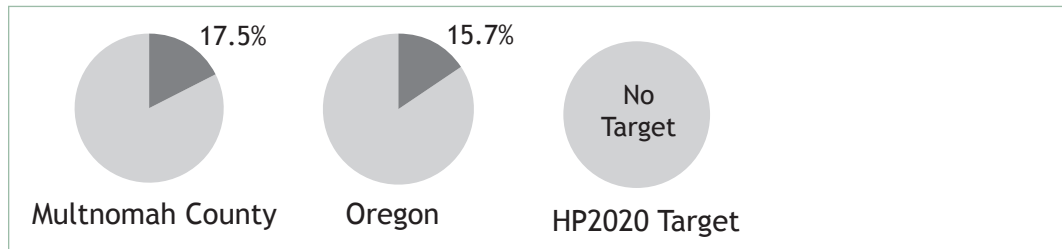
3 Preconception Health

What is preconception health?

Preconception health, also known as pre-pregnancy health, includes the things women and men can do before and between pregnancies to increase the chances of having a healthy baby. Preconception health includes understanding how health conditions and risk factors can affect a woman or her unborn baby if she becomes pregnant.

Due to limitations of the available data sources, this report focuses on preconception health for women only. The indicators analyzed include smoking and alcohol use before pregnancy; taking folic acid to prevent birth defects; and the prevalence of obesity prior to pregnancy. Data for preconception health were obtained from the PRAMS survey.

Why does preconception health matter?

By age 25, about half of all women in the U.S. have experienced at least one birth, and approximately 8 out of 10 U.S. women have given birth by age 44.[1] Good pre-pregnancy health is important for healthy birth outcomes. A healthy population begins with healthy babies, and healthy babies begin with healthy mothers.

The United States Public Health Service recommends that all women of childbearing age who are capable of becoming pregnant should consume 0.4 mg of folic acid per day. This can reduce their risk of having a baby affected with spina bifida or other defects of the brain, spine, or spinal cord.[2]

In addition to having proper nutrition and abstaining from substance use, a woman who starts a pregnancy at a healthy weight can increase her chance of having a healthy baby. Research shows that maternal pre-pregnancy obesity is associated with the risk of developmental delay in early childhood among those born moderately preterm.[3] Further, women who were exposed to stress even before becoming pregnant have been shown to be at increased risk for adverse birth outcomes, including infant mortality.[4]

Both individual behaviors and our environments — where we live, play, work and learn — play a significant role in pre-pregnancy health promotion. Promoting population health by ensuring that communities have access to fresh fruits and vegetables, the opportunity to safely engage in physical activity, and access to quality health care services can help improve the chances that women are healthy before they conceive.

Key Findings

In Multnomah County:

▶ Slightly more than 1 in 3 recent mothers reported taking a daily multivitamin or folic acid in the month prior to getting pregnant. Overall, this meets the Healthy People 2020 target for this measure. However, significant disparities exist by race/ethnicity, age, education, and Medicaid status.

▶ The percentage of women in Multnomah County who *abstain* from smoking and drinking in the months before pregnancy is below the Healthy People 2020 target.
  - Approximately 1 in 5, or 20%, of recent mothers reported smoking before pregnancy, which is higher than the Healthy People target of less than 15%.
  - About 3 in 5, or 61%, of recent mothers drank alcohol before pregnancy, which is substantially higher than the Healthy People target of less than 44%.

▶ Smoking before pregnancy was most prevalent among American Indian/Alaska Native recent mothers (52%) and least common among Latina and Asian/Pacific Islander recent mothers (about 6%).

▶ Smoking before pregnancy was more common among some women of color, younger women, and those on OHP.

▶ Regular drinking and binge drinking (having 5 or more drinks in a sitting) before pregnancy were most common among recent mothers who were non-Latina White, older, and not on OHP.

▶ The prevalence of being obese before pregnancy was highest among American Indian/Alaska Native recent mothers (34%), and lowest among Asian/Pacific Islander recent mothers (11%).

References

1. U.S. Census Bureau Population Division. Table 2: annual estimates of the population by selected age groups and sex for the United States: April 1, 2000, to July 1, 2004. Washington, DC: U.S. Census.

2. Centers for Disease Control. Recommendations for the use of folic acid to reduce the number of cases of spina bifida and other neural tube defects. MMWR 1992;41.

3. Kerstjens JM, de Winter AF, Sollie KM, Bocca-Tjeertes IF, Potijk MR, Reijneveld SA, Bos AF. Maternal and pregnancy-related factors associated with developmental delay in moderately preterm-born children. Obstet Gynecol. 2013 Apr;121(4):727-33.

4. Class QA, Khashan AS, Lichtenstein P, Langstrom N, D'Onofrio BM. Maternal stress and infant mortality: The importance of the preconception period. Psychol Sci. 2013 May 7.

Multivitamin/Folic Acid Intake

Percent of recent mothers who took a daily multivitamin/folic acid before pregnancy, Multnomah County.

Data Source: PRAMS, 2009-2010

35.6%

Multnomah County

32.1%

Oregon

≥33.1%

HP2020 Target

HP = Healthy People MICH-16.2: ≥33.1%% females delivering a recent live birth took multivitamins/folic acid everyday in month prior to pregnancy.

HP

Category	Value
Not OHP	Ref 43.2
OHP	* 22.0
High School+	Ref 45.0
High School	* 24.7
<High School	* 19.6
35+	Ref 44.2
25-34	41.1
20-24	* 18.3
<20 yrs	* 16.5
Asian/PI	Ref 39.8
AI/AN	* 24.5
Hispanic/Latino	29.9
Black/AA	* 21.8
Non-Latino White	38.2

Among women with a live birth

Percent of recent mothers who smoked before pregnancy, Multnomah County.

Data Source: PRAMS, 2009-2010

21.7% Multnomah County

26.1% Oregon

<14.6% HP2020 Target

HP = Healthy People MICH-16.3: <14.6% of recent mothers smoked in the 3 months prior to pregnancy.

HP

Group	Value
Not OHP	Ref 13.6
OHP	* 36.4
High School+	Ref 15.8
High School	* 34.8
<High School	26.8
35+	Ref 11.6
25-34	19.4
20-24	* 35.4
<20 yrs	27.4
Asian/PI	6.0
AI/AN	* 52.1
Hispanic/Latino	Ref 5.6
Black/AA	* 27.1
Non-Latino White	* 26.8

0   10   20   30   40   50   60

Among women with a live birth

Percent of recent mothers who drank alcohol before pregnancy, Multnomah County.

Data Source: PRAMS, 2009-2010

61.0% — Multnomah County

56.8% — Oregon

<43.6% — HP2020 Target

HP = Healthy People MICH-16.4: 43.6% of recent mothers drank alcohol in the 3 months prior to pregnancy.

		HP
Not OHP	*	70.7
OHP	Ref	43.3
High School+	*	74.2
High School	*	53.0
<High School	Ref	29.6
35+	*	68.3
25-34	*	64.3
20-24	*	56.7
<20 yrs	Ref	26.0
Asian/PI		34.0
AI/AN	*	64.5
Hispanic/Latino	Ref	24.4
Black/AA	*	48.6
Non-Latino White	*	76.4

0   10   20   30   40   50   60   70   80

Among women with a live birth

Binge Drinking

Preconception Health

Percent of recent mothers who engaged in binge drinking[†] before pregnancy, Multnomah County.

Data Source: PRAMS, 2009-2010

24.1%
21.5%
No Target

Multnomah County
Oregon
HP2020 Target

35+   16.4
25-34   *   29.8
20-24   *   23.7
<20 yrs   Ref   6.3

Asian/PI   10.8
AI/AN   22.2
Hispanic/Latino   Ref   10.4
Black/AA   *   20.5
Non-Latino White   *   30.5

0   10   20   30   40

Among women with a live birth
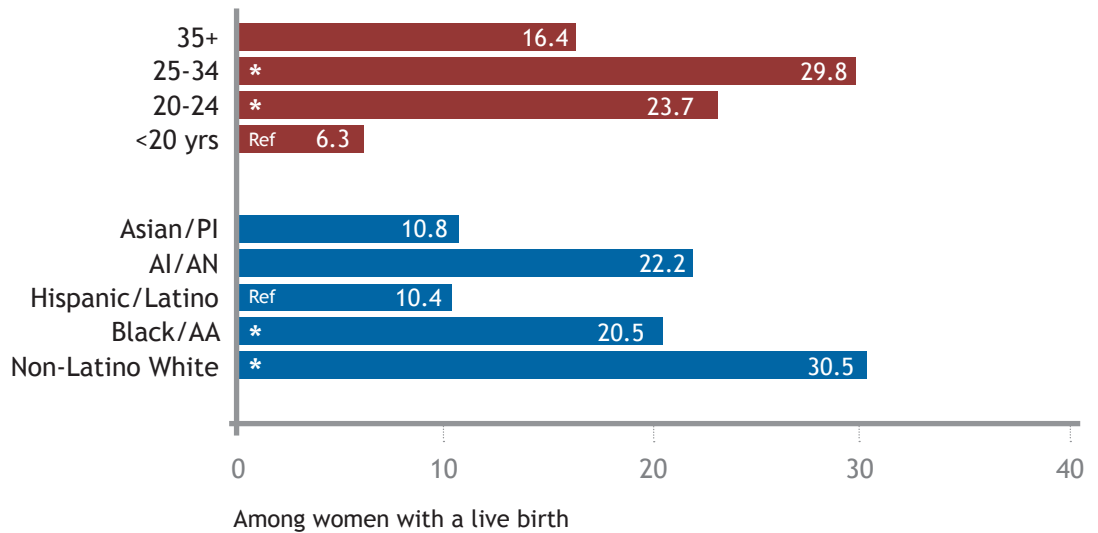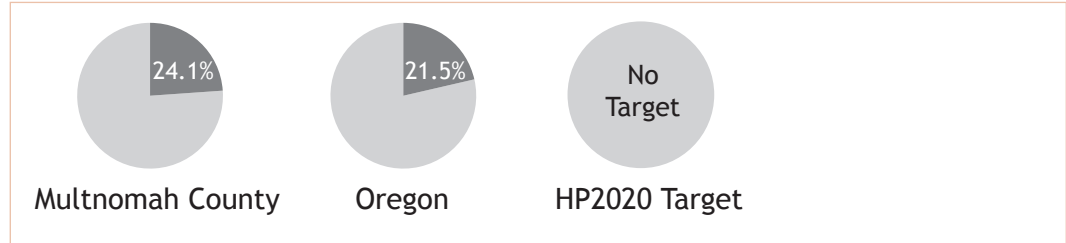
[†] Binge drinking is defined as having 5+ drinks in one sitting.

Weight Before Pregnancy
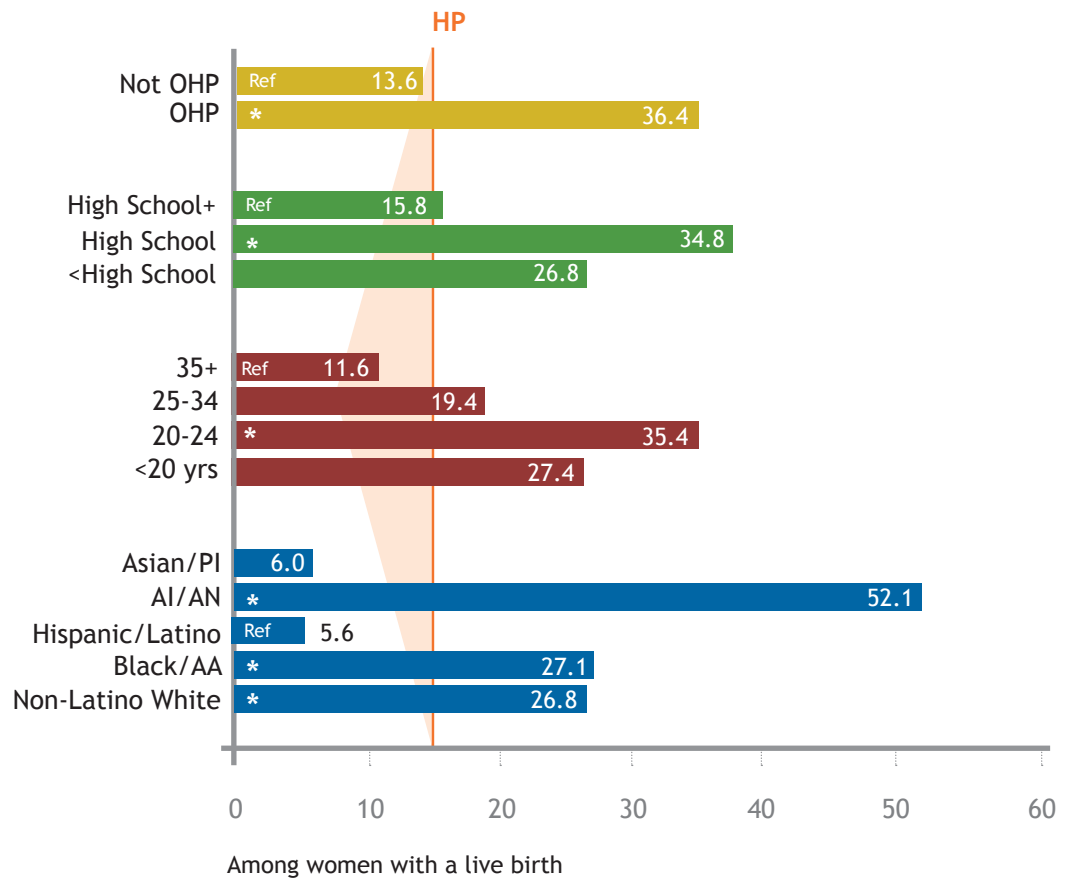
Preconception Health

Percent of recent mothers who were obese (BMI ≥30) before pregnancy, Multnomah County.

Data Source: PRAMS, 2009-2010

15.5% 21.1% ≤30.5%

Multnomah County   Oregon   HP2020 Target

HP = Healthy People NWS-9: <30.5% of persons aged 20 years and older are obese.

35+	8.3
25-34 *	18.1
20-24 *	19.8
<20 yrs Ref	5.2
Asian/PI Ref	11.3
AI/AN *	34.2
Hispanic/Latino	16.2
Black/AA *	25.4
Non-Latino White	14.0

HP

0   10   20   30   40

Among women with a live birth
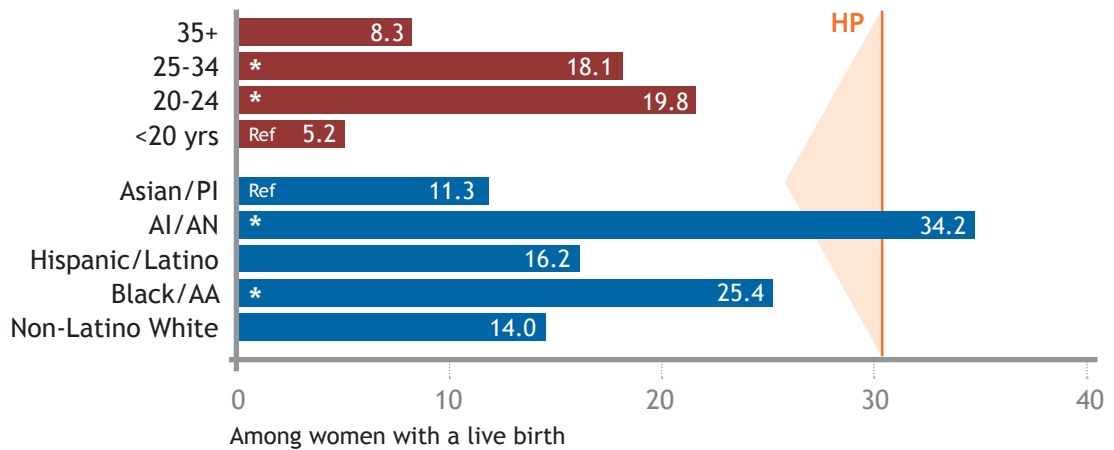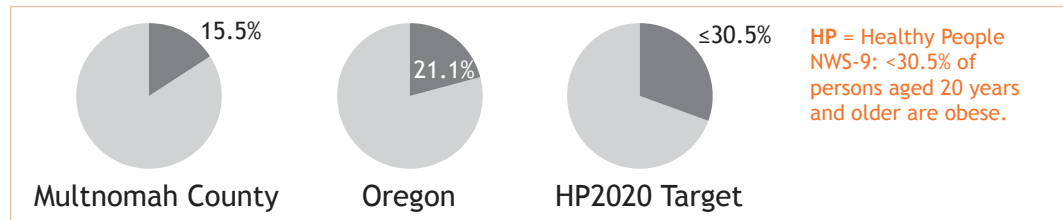
Percent of recent mothers who were at normal weight (BMI of 18.5 - 24.9) before pregnancy, Multnomah County.

Data Source: PRAMS, 2009-2010

57.0% 50.9% ≥53.4%

Multnomah County   Oregon   HP2020 Target

HP = Healthy People MICH-16.5: ≥53.4% of recent mothers had a normal weight (a BMI of 18.5-24.9) prior to pregnancy.

Asian/PI Ref	62.7
AI/AN *	42.4
Hispanic/Latino *	48.6
Black/AA *	43.3
Non-Latino White	60.3

HP

0   10   20   30   40   50   60   70

Among women with a live birth
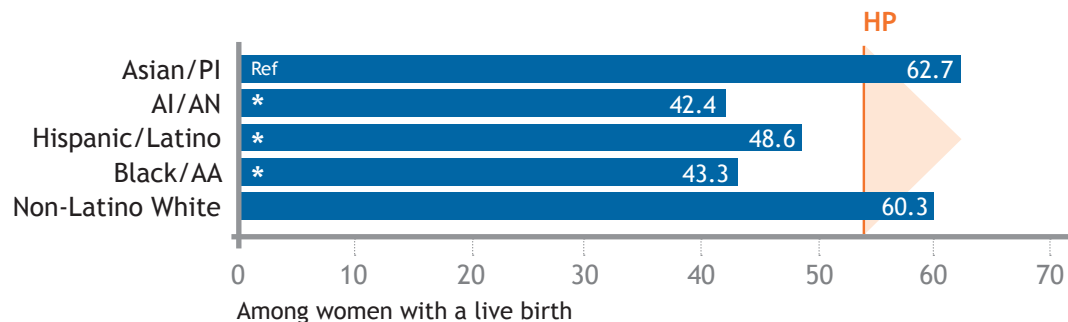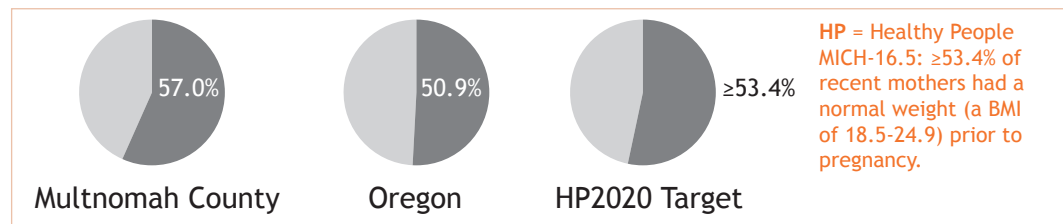
4 Pregnancy Health

What is pregnancy health?

Pregnancy health includes the health-related behaviors and conditions that occur during pregnancy and up to labor and delivery. The pregnancy health indicators in this report include smoking; alcohol and tobacco abstinence; healthy weight gain; receipt of early and adequate prenatal care; and prevalence of depression during pregnancy. The data sources for this chapter were birth records and the PRAMS survey.

Why is pregnancy health important?

Once a woman becomes pregnant, her health and well-being have a significant effect on the health of her developing fetus. Engaging in healthy behaviors during pregnancy such as eating well, seeking prenatal care early, managing chronic conditions such as diabetes, and being physically active can contribute to positive outcomes during birth for both a mother and her baby.

Women experiencing poor health during pregnancy are more likely to have a baby that is born too early or too small. These babies are at risk for life-long health issues like diabetes and heart disease.[1, 2, 3]

While good prenatal care can identify problems early and help involve and assure parents of the baby's development, a healthy pregnancy also depends on other factors. It is important for a woman and her family to have access to resources and health-promoting community assets. Supports such as access to full-service grocery stores, adequate transportation, and a safe neighborhood, as well as access to culturally-specific support systems can enable women and their families to make healthier choices.

Key Findings

In Multnomah County:

► Only 7 in 10 women, or 70%, who had a recent birth received early and adequate prenatal care. Women of color were less likely to have received adequate prenatal care with 63% of Latina women, 66% of Black/African American women, and 68% of Asian/Pacific Islander women receiving early and adequate care. The HP2020 target is 77.6%.

► About 89% of all recent mothers reported abstaining from tobacco during the last three months of pregnancy. Only 85% of them abstained from alcohol during the same period.

► The majority of all recent mothers did not achieve the ideal weight gain during pregnancy as recommended by the Institute of Medicine (IOM).

• Younger women, women with less education, OHP clients, and U.S.-born women were more likely to have gained excess weight during pregnancy.

• Black/African American and American Indian/Alaska Native women were more likely to have gained excess weight than non-Latina White women.

► Almost 18% of women reported symptoms of depression during pregnancy.

• Women of color were more likely to have suffered from depression during pregnancy. African American women were the highest group, with 1 in 3 who reported experiencing symptoms of depression during pregnancy.

• OHP clients and those with less education were also more likely to have suffered from depression during pregnancy.

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1. Kajantie E, Osmond C, Barker DJ, Eriksson JG. Preterm birth--a risk factor for type 2 diabetes? The Helsinki birth cohort study. Diabetes Care. 2010 Dec;33(12):2623-5.

2. Osmond C, Kajantie E, Forsén TJ, Eriksson JG, Barker DJ. Infant growth and stroke in adult life: the Helsinki birth cohort study. Stroke. 2007 Feb;38(2):264-70.

3. Osmond C, Barker DJ. Fetal, infant, and childhood growth are predictors of coronary heart disease, diabetes, and hypertension in adult men and women. Environ Health Perspect. 2000 Jun;108 Suppl 3:545-53.

Percent of recent mothers who abstained from smoking during the last three months of pregnancy, Multnomah County.
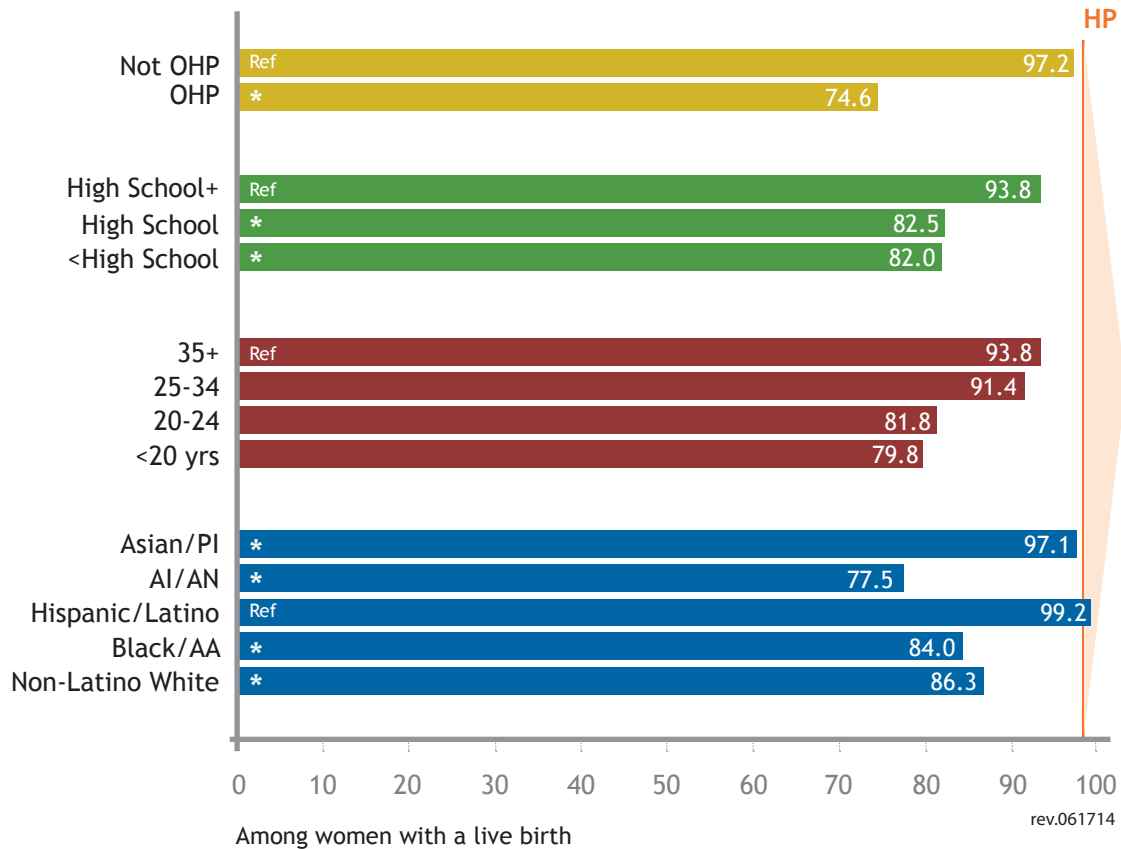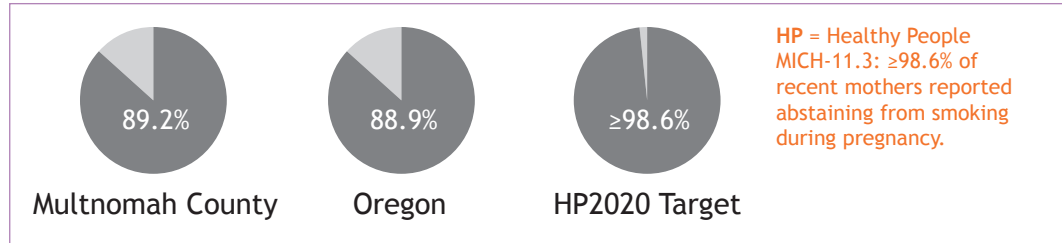
Data Source: PRAMS, 2009-2010

89.2%
Multnomah County

88.9%
Oregon

≥98.6%
HP2020 Target

HP = Healthy People MICH-11.3: ≥98.6% of recent mothers reported abstaining from smoking during pregnancy.

HP

Category	Value
Not OHP	Ref 97.2
OHP	* 74.6
High School+	Ref 93.8
High School	* 82.5
<High School	* 82.0
35+	Ref 93.8
25-34	91.4
20-24	81.8
<20 yrs	79.8
Asian/PI	* 97.1
AI/AN	* 77.5
Hispanic/Latino	Ref 99.2
Black/AA	* 84.0
Non-Latino White	* 86.3

0   10   20   30   40   50   60   70   80   90   100

Among women with a live birth

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Percent of recent mothers who smoked before pregnancy and quit while pregnant, Multnomah County.
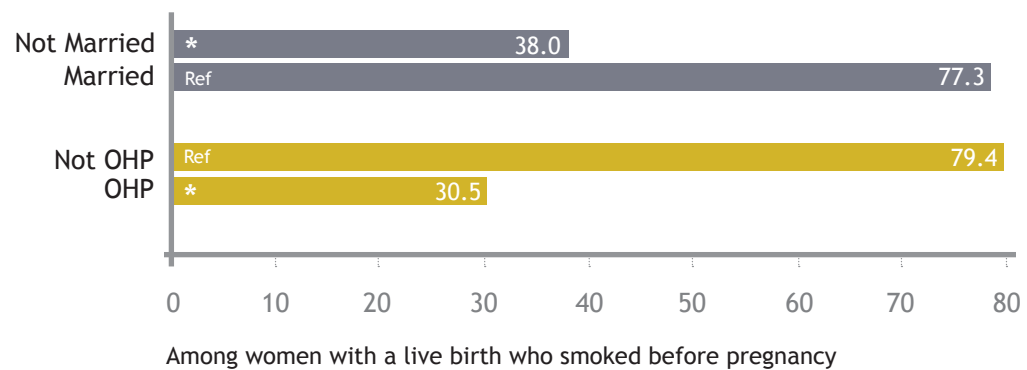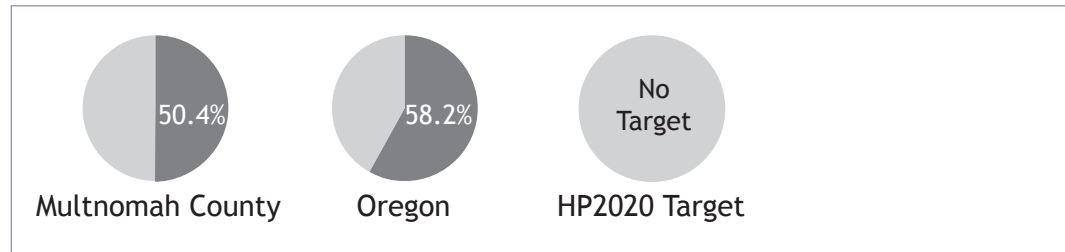
Data Source: PRAMS, 2009-2010

50.4%
58.2%
No Target

Multnomah County   Oregon   HP2020 Target

Not Married	* 38.0
Married	Ref 77.3
Not OHP	Ref 79.4
OHP	* 30.5

0   10   20   30   40   50   60   70   80

Among women with a live birth who smoked before pregnancy

Percent of recent mothers who abstained from alcohol during the last three months of pregnancy, Multnomah County.

Data Source: PRAMS, 2009-2010

85.0%
Multnomah County

92.0%
Oregon

≥98.3%
HP2020 Target

HP = Healthy People MICH-11.1: ≥98.3% of pregnant women reported abstaining from alcohol in the past 30 days.

HP

Category	Value
Not OHP	Ref 92.2
OHP	* 81.1
35+	* 79.2
25-34	82.8
20-24	* 93.8
<20 yrs	Ref 94.6
Asian/PI	93.4
AI/AN	89.5
Hispanic/Latino	Ref 95.1
Black/AA	93.6
Non-Latino White	* 80.0

0 10 20 30 40 50 60 70 80 90 100

Among women with a live birth
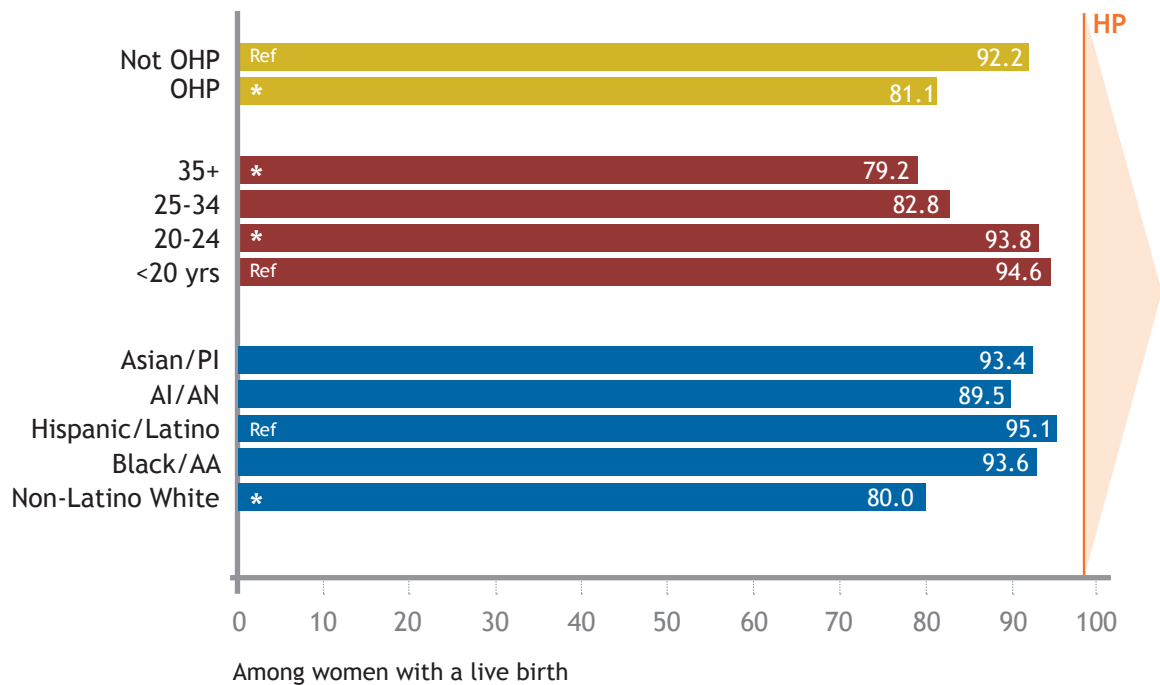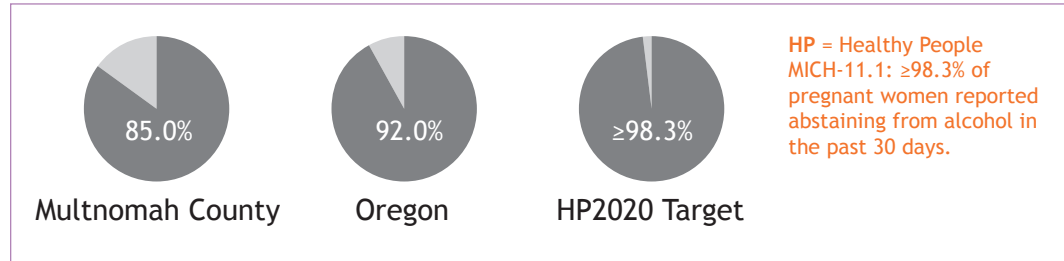
Percent of recent mothers who received early and adequate prenatal care[†], Multnomah County.

Data Source: Vital Statistics 2010-11

70.0%
Multnomah County

75.2%
Oregon

≥77.6%
HP2020 Target

HP = Healthy People
MICH 10.2: ≥77.6%
of pregnant women
received early and
adequate prenatal
care.

U.S.-Born	Ref 73.1
Foreign-Born	* 62.3
Not OHP	Ref 75.0
OHP	* 61.8
High School+	Ref 77.7
High School	* 66.4
<High School	* 58.4
35+	Ref 76.8
25-34	* 71.0
20-24	* 62.3
<20 yrs	* 56.9
Asian/PI	* 67.8
AI/AN	* 70.9
Hispanic/Latino	* 63.2
Black/AA	* 66.3
Non-Latino White	Ref 72.6

Among live births
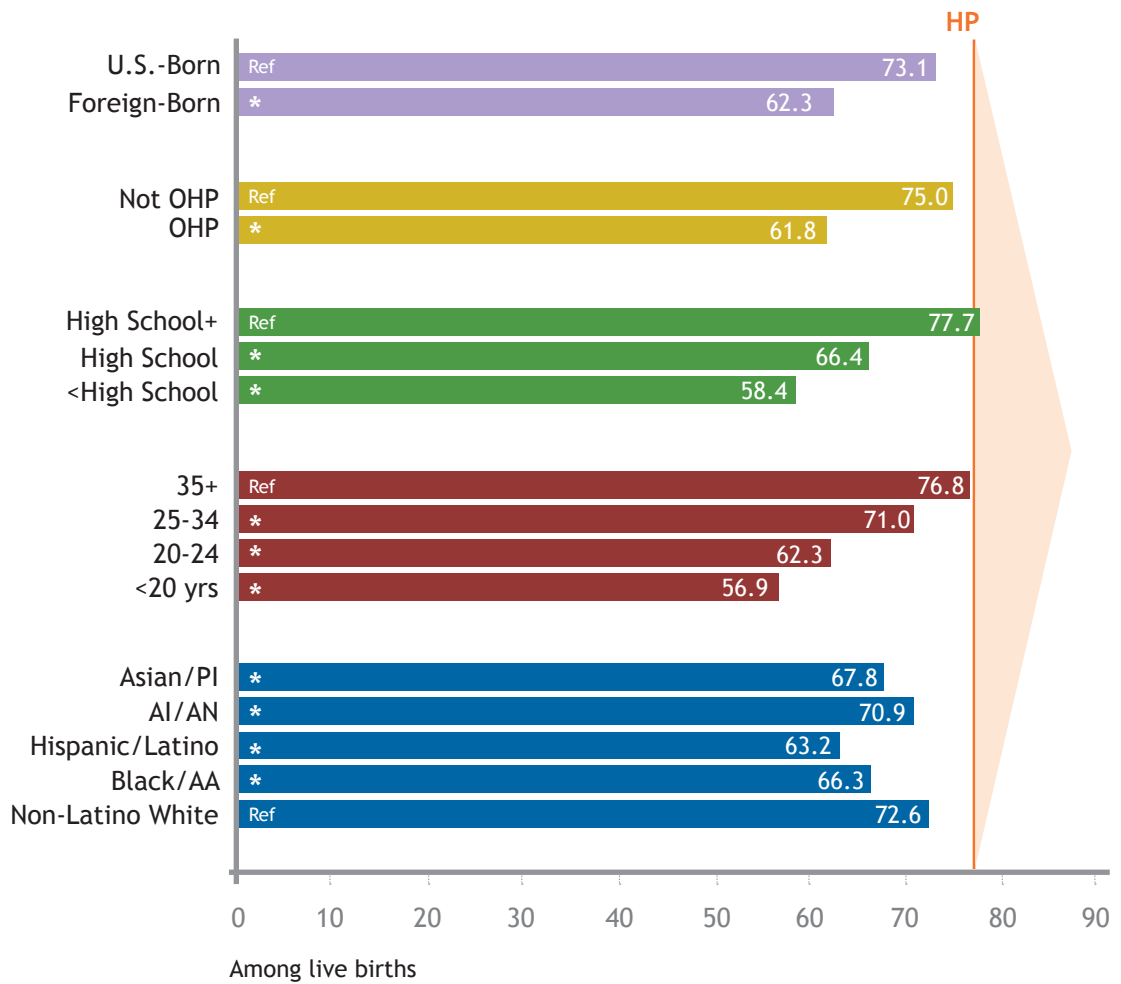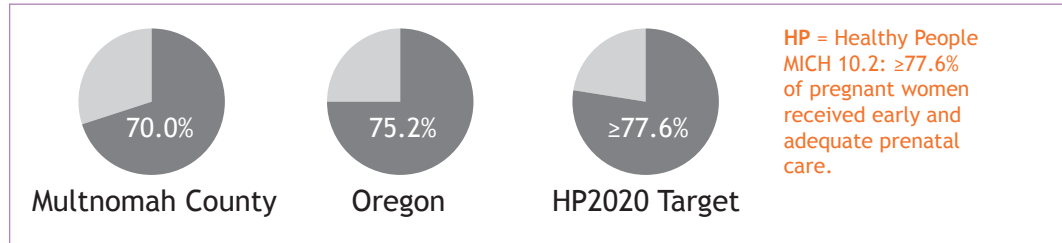
[†] Early and adequate prenatal care based on the Kotelchuck Index, also called the Adequacy of Prenatal Care Utilization (APCU) Index. More information at: http:/www.mchilibrary.info/databases HSNRCPDFs/ overview_APCUIndex.pdf.

Percent of recent mothers who achieved Institute of Medicine (IOM)-recommended weight gain[†] during pregnancy (singleton births only), Multnomah County.

Data Source: Vital Statistics, 2010-11

34.3%	32.6%	No Target
Multnomah County	Oregon	HP2020 Target

Not OHP — Ref — 36.1
OHP — * — 31.4

High School+ — Ref — 38.6
High School — * — 30.2
<High School — * — 33.2

35+ — Ref — 38.4
25-34 — * — 34.5
20-24 — * — 30.0
<20 yrs — * — 29.8

Asian/PI — 35.7
AI/AN — * — 25.5
Hispanic/Latino — 34.5
Black/AA — * — 29.9
Non-Latino White — Ref — 34.9

Among live singleton births
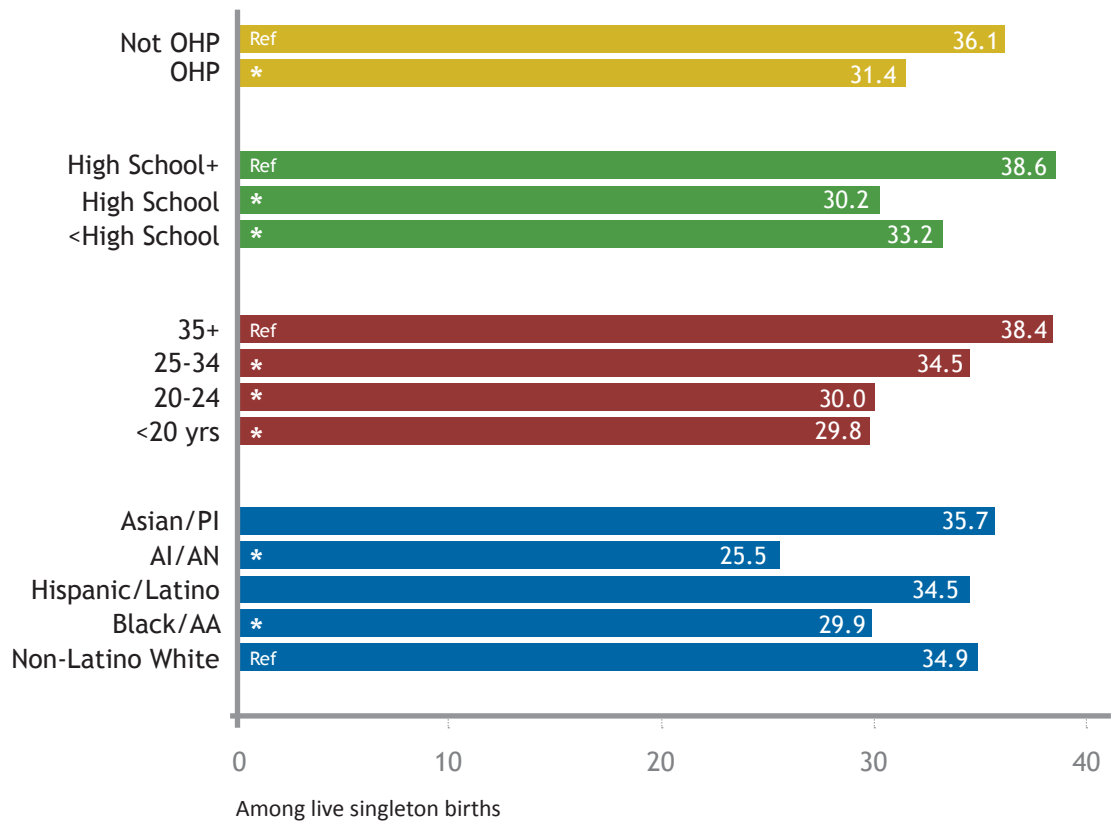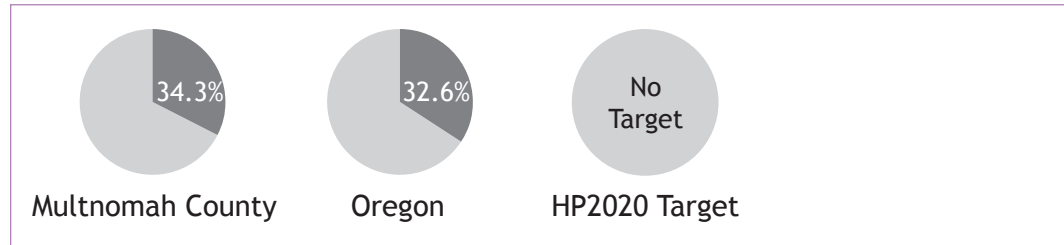
[†] See Technical Notes section for the IOM recommendations guidelines.

Percent of recent mothers who reported symptoms of depression during pregnancy, Multnomah County.

Data Source: PRAMS, 2005-2007

17.9%	18.1%
Multnomah County	Oregon	No Target — HP2020 Target

- Not OHP: Ref 13.0
- OHP: * 26.4

- High School+: Ref 10.3
- High School: * 27.0
- <High School: * 24.1

- Asian/PI: * 18.4
- AI/AN: * 25.9
- Hispanic/Latino: * 22.7
- Black/AA: * 33.4
- Non-Latino White: Ref 13.3

Among women with a live birth
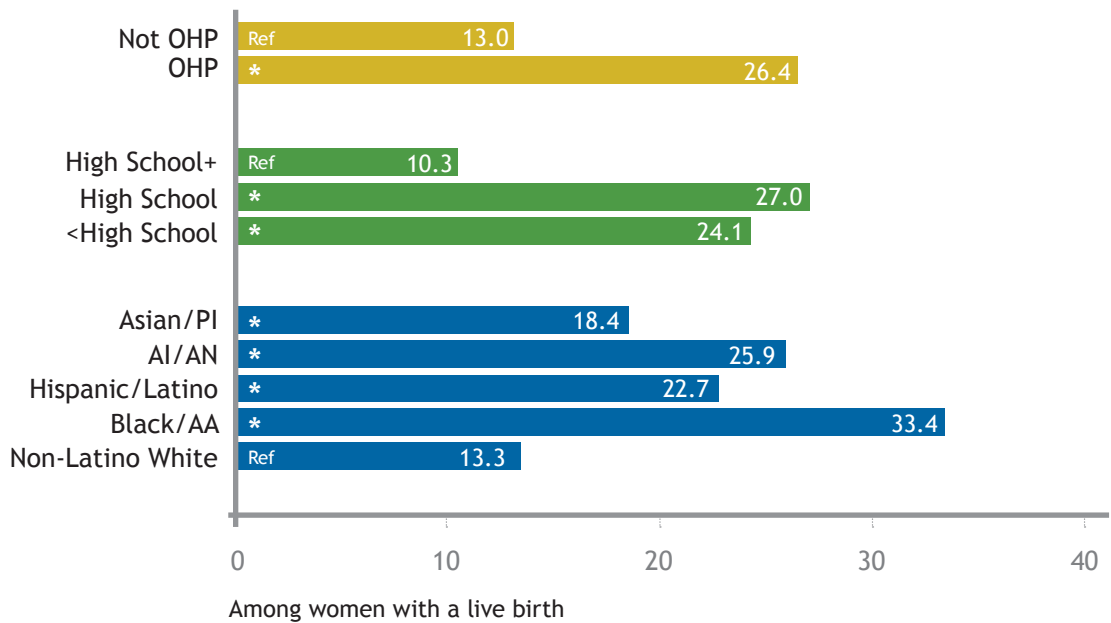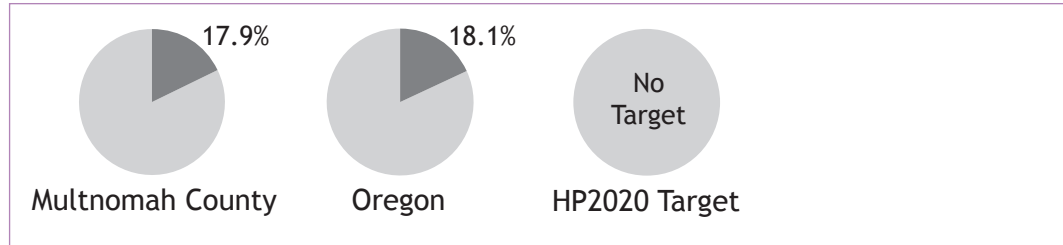
5 | Morbidity and Mortality

What is morbidity and mortality?

Morbidity and mortality describe the prevalence of negative birth outcomes, newborn health conditions, and infant deaths after birth or during the first year of life.

There are a number of indicators that are used to track morbidity and mortality. They include the overall prevalence of women who were considered medically high-risk during their pregnancy; the prevalence of low-risk Cesarean deliveries; repeat Cesarean births; and the prevalence of low birthweight (<2,500 grams), preterm delivery (<37 weeks), small for gestational age, and admittance to the Neonatal Intensive Care Unit (NICU); as well as infant mortality.

Being at low risk for a Cesarean delivery is defined by the Healthy People 2020 Initiative as a first-time birth where the infant is term (at least 37 weeks), is a singleton (not a multiple birth), and is presented head first (vertex presentation). An infant that is small for gestational age is defined as having a birthweight that is below the tenth percentile for that gestational age. The data for this chapter were derived from birth and death records.

Why are morbidity and mortality important?

Nationally and internationally, the infant mortality rate is a widely used indicator for the health status of a nation or jurisdiction. The infant mortality rate is defined as the number of deaths occurring in the first year of life per 1,000 live births.

Despite our wealth, the United States has the 28th lowest infant mortality rate among industrialized countries.[1] While a variety of conditions can cause infant death, the majority of babies die because they are born with a serious birth defect, are born too small and/or too early, are victims of sudden infant death syndrome (SIDS), or are affected by maternal complications of pregnancy.[2] Babies who start life with a low birthweight or who are born prematurely have increased risk for delayed growth and development, and chronic conditions later in life if they survive their first year.[3, 4, 5]

The health of a baby at birth is greatly influenced by factors outside of the medical care setting. The social, physical, and economic environments in which the pregnant woman lives, works, and grows can either help or hinder her making healthy personal choices. Resources that enhance quality of life can have a significant influence on population health outcomes. Examples of these resources include safe and affordable housing, access to education, public safety, availability of healthy foods, quality local emergency/health services, and environments free of life- and health-threatening toxins.

Key Findings

In Multnomah County

▶ More than 1 in 4 women (about 27%) who were considered low risk for having a Cesarean section (first birth, single baby, with a head first presentation) ended up delivering their babies by Cesarean. This is slightly higher than the prevalence for Oregon (25%). The Healthy People 2020 target is less than 24%.

▶ Overall, approximately 15% of babies were born with a health issue – they were delivered at low birthweight, were preterm, had a newborn condition, had a congenital anomaly, or were admitted to the Neonatal Intensive Care Unit.

▶ More than 1 in 5, or 21%, of babies who were born to Black/African American women had a poor birth outcome.

▶ About 6% of all babies were born with a low birthweight (<2,500 grams) and 8% were born preterm (<37 weeks). While this puts Multnomah County in good standing when measured against the Healthy People 2020 targets for low birthweight (7.8%) and preterm births (11.4%), significant disparities exist by race/ethnicity, education, age, and OHP status.

• Black/African American women were two times as likely to have a low birthweight baby as non-Latina White women.

• Infants born to women with less education or who were on OHP were more likely to be low birthweight or be born preterm than infants of women with higher education and who were not on OHP.

▶ Infants born to Black/African American and Asian/Pacific Islander women were the most likely to be small for gestational age.

▶ More than 100 infant deaths, or 5.5 deaths per 1,000 live births, occurred during the surveillance period. The majority of infant deaths occurred during the neonatal period (first 28 days of life).

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5. Osmond C, Barker DJ. Fetal, infant, and childhood growth are predictors of coronary heart disease, diabetes, and hypertension in adult men and women. Environ Health Perspect. 2000 Jun;108 Suppl 3:545-53.

Percent of births to women who had a previous poor birth outcome or chronic condition[†], Multnomah County.

Data Source: Vital Stats, 2010-2011
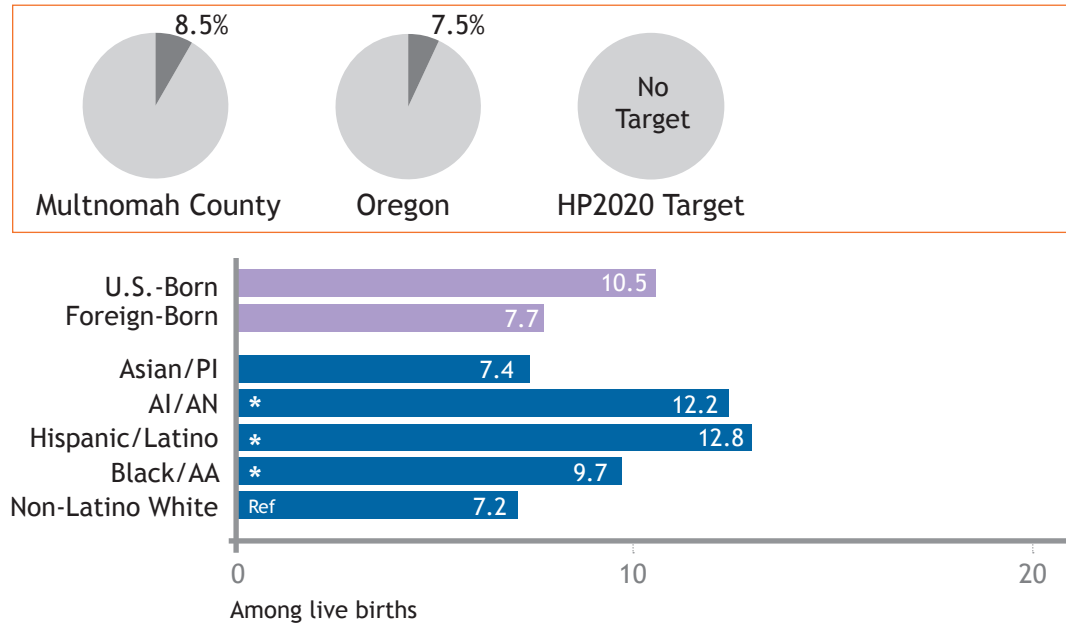
8.5%	7.5%	No Target
Multnomah County	Oregon	HP2020 Target

U.S.-Born — 10.5
Foreign-Born — 7.7

Asian/PI — 7.4
AI/AN — * 12.2
Hispanic/Latino — * 12.8
Black/AA — * 9.7
Non-Latino White — Ref 7.2

0   10   20

Among live births

[†] The woman had at least one of these risk factors: previous preterm birth, previous poor birth outcome, pre-pregnancy diabetes or hypertension.

Percent of births that resulted in a poor outcome[†], Multnomah County.

Data Source: Vital Statistics 2010-2011

15.3%	15.0%	No Target
Multnomah County	Oregon	HP2020 Target

Asian/PI — * 16.7
AI/AN — * 17.9
Hispanic/Latino — 14.5
Black/AA — * 21.3
Non-Latino White — Ref 14.2

0   10   20   30

Among live births
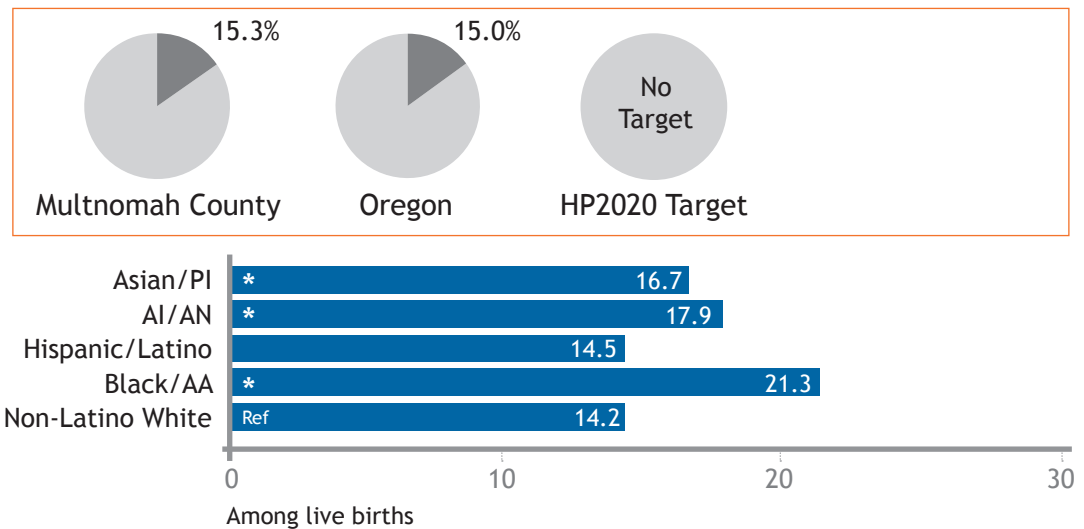
[†] Infant was born with a newborn condition, congenital anomaly, low birth weight, preterm, or was admitted to the NICU.

Low Birthweight

Morbidity and Mortality

Percent of births that were low birthweight (<2,500 grams), Multnomah County.

Data Source: Vital Statistics 2010-2011

6.3%   6.2%   ≤7.8%

Multnomah County   Oregon   HP2020 Target

HP = Healthy People
MICH-8.1: ≤7.8% of live
births are lowbirth weight.

HP

Category	Value
Not OHP	Ref 5.7
OHP	* 7.3
High School+	Ref 5.6
High School	* 6.6
<High School	* 7.5
35+	* 7.7
25-34	Ref 5.5
20-24	6.4
<20 yrs	* 8.1
Asian/PI	* 7.8
AI/AN	6.0
Hispanic/Latino	5.9
Black/AA	* 11.3
Non-Latino White	Ref 5.5

0   2   4   6   8   10   12

Among live births
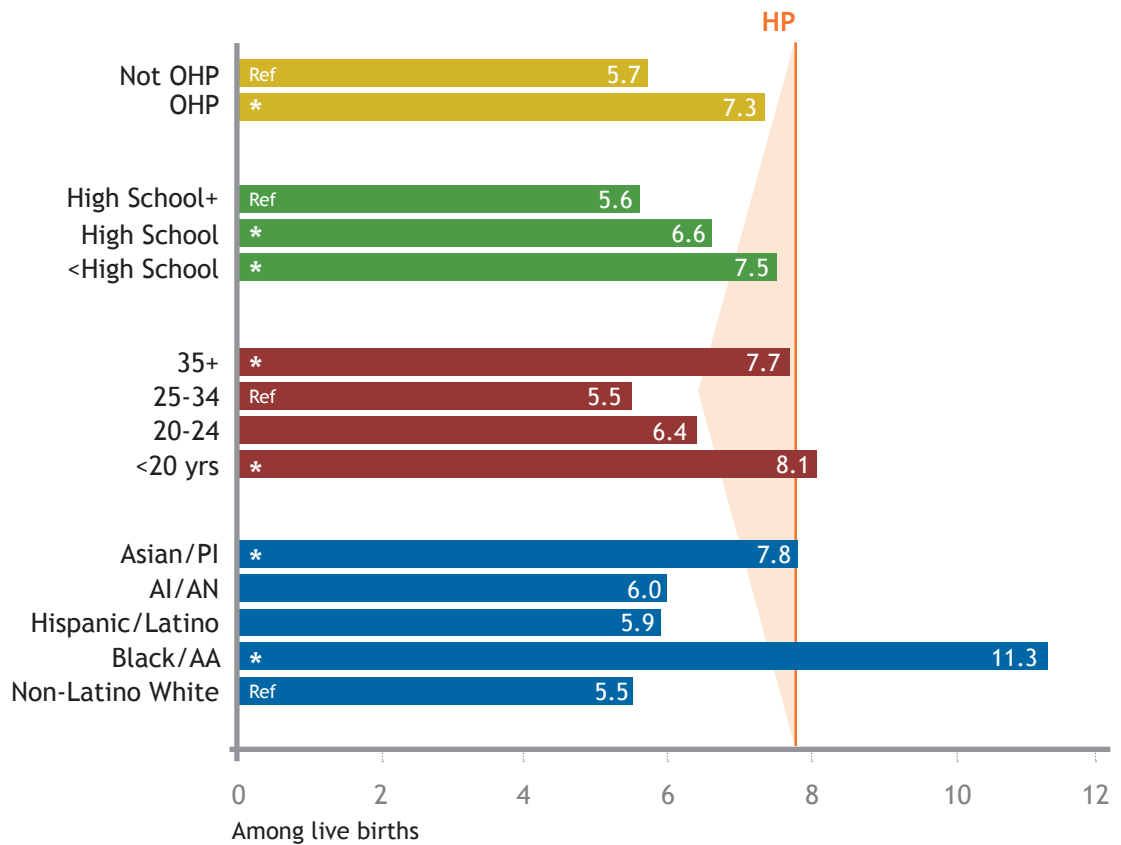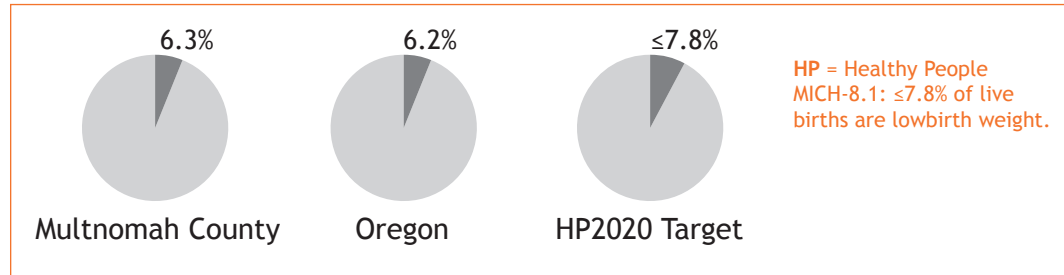
Preterm Births

Morbidity and Mortality

Percent of births that were delivered preterm (<37 weeks), Multnomah County.

Data Source: Vital Statistics 2010-2011

7.6% Multnomah County

7.7% Oregon

≤11.4% HP2020 Target

HP = Healthy People MICH-9.1: ≤11.4% of live births are preterm.

Not OHP	Ref 7.1
OHP	* 8.3
High School+	Ref 6.8
High School	* 8.1
<High School	* 8.5
35+	* 9.0
25-34	Ref 6.9
20-24	7.6
<20 yrs	* 8.5
Asian/PI	8.2
AI/AN	8.9
Hispanic/Latino	7.1
Black/AA	* 11.2
Non-Latino White	Ref 7.1

HP

Among live births

0 2 4 6 8 10 12
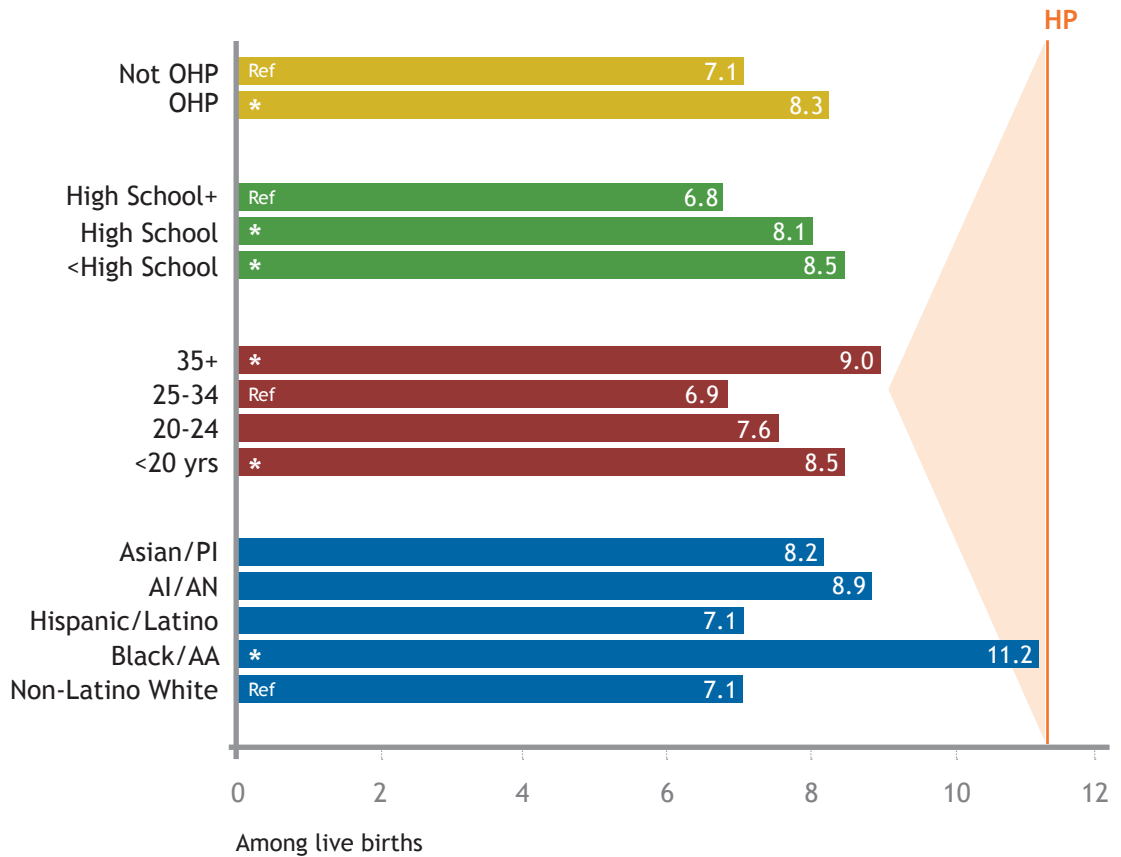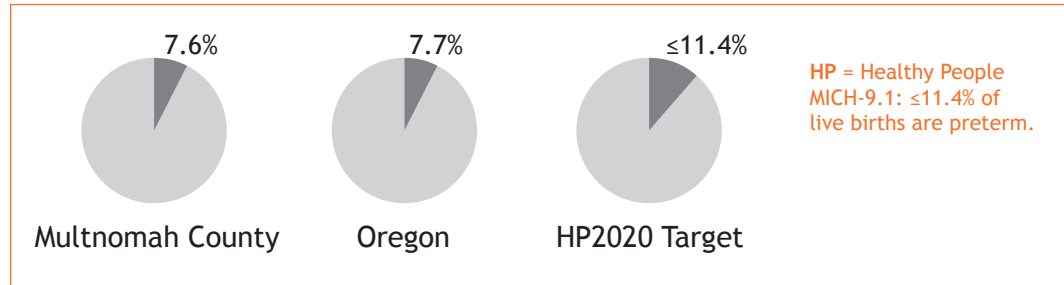
Percent of births that were small for gestational age (SGA), Multnomah County.

Data Source: Vital Statistics 2010-2011

8.7% **Multnomah County**

8.1% **Oregon**

No Target **HP2020 Target**

Category	Value
Not OHP	Ref 8.2
OHP	* 10.5
High School+	Ref 7.9
High School	* 9.8
<High School	* 10.8
35+	8.5
25-34	Ref 8.3
20-24	* 10.6
<20 yrs	* 14.6
Asian/PI	* 13.6
AI/AN	9.0
Hispanic/Latino	* 9.7
Black/AA	* 10.6
Non-Latino White	Ref 8.2

Among live singleton births
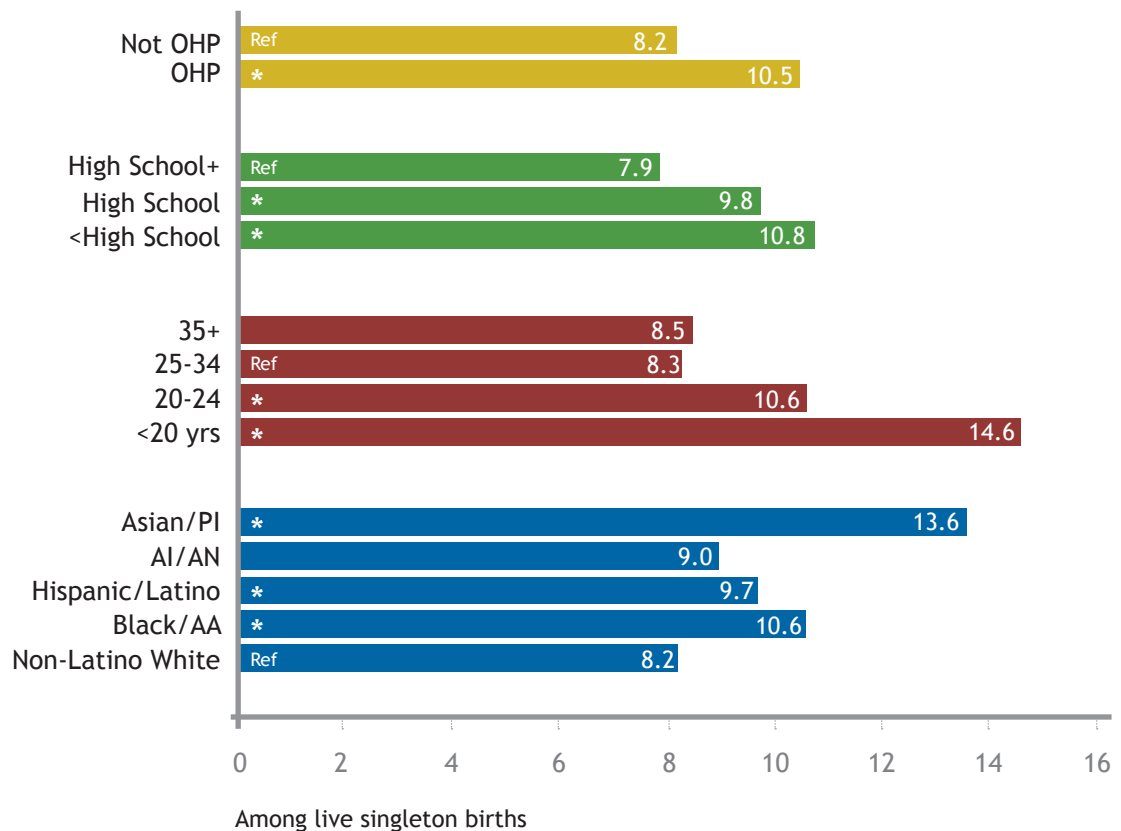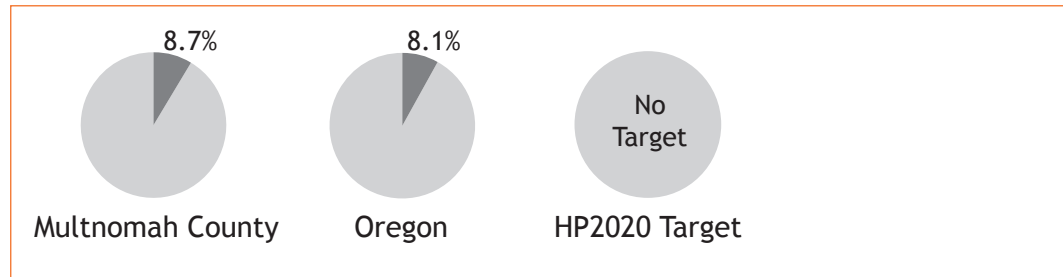
Infant Deaths

Morbidity and Mortality

Number of infant deaths, Multnomah County.

Data Source: Vital Statistics 2009-2010

5.3	4.8	≤6
Multnomah County	Oregon	HP2020 Target

HP = Healthy People
MICH-1.3: ≤ 6.0 infant deaths per 1,000 live births.

HP

	Rate
Multnomah County	5.3
Oregon	4.8
Not OHP	4.5
OHP	6.7
High School+	4.0
High School	6.4
<High School	6.3
35+	5.2
25-34	4.2
20-24	7.3
<20 yrs	8.9
Asian/PI	3.7
AI/AN	10.1
Hispanic/Latino	3.4
Black/AA	10.1
Non-Latino White	5.3

Rate per 1,000 live births
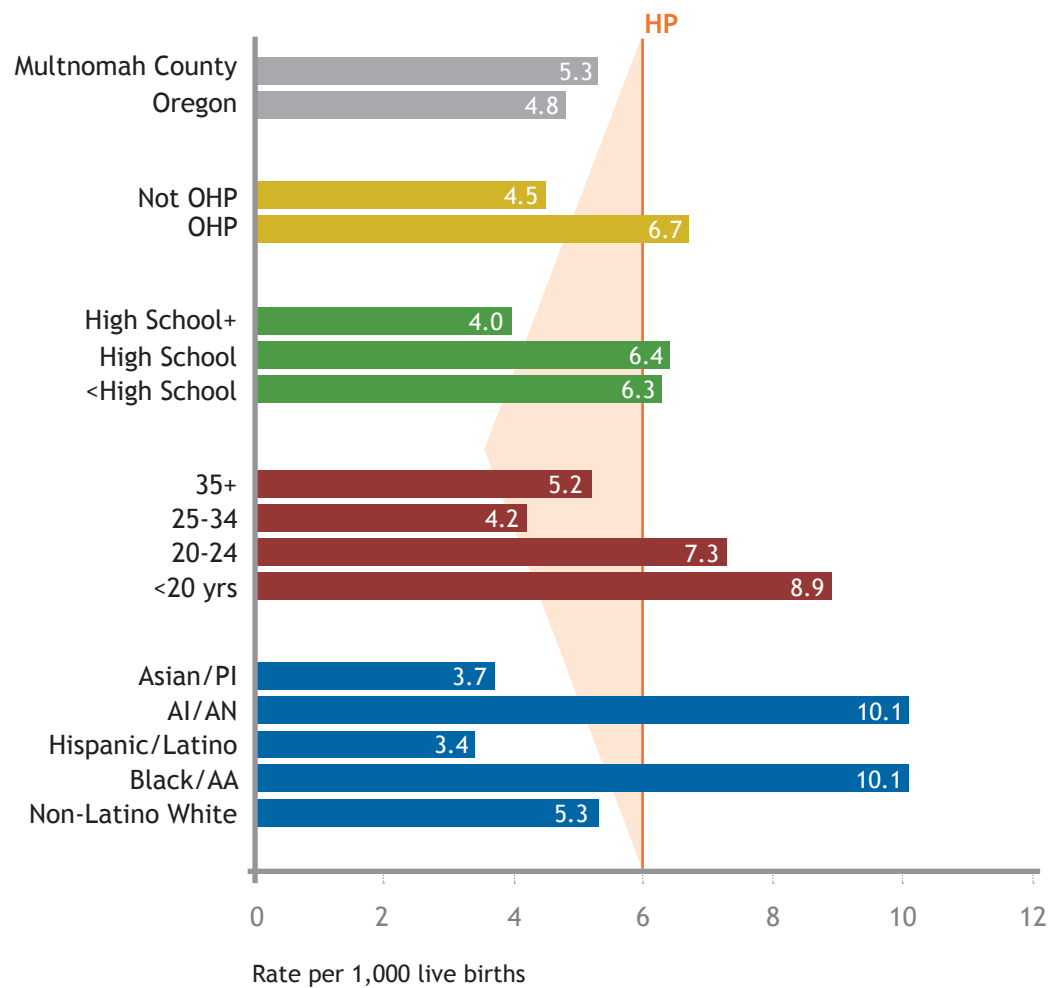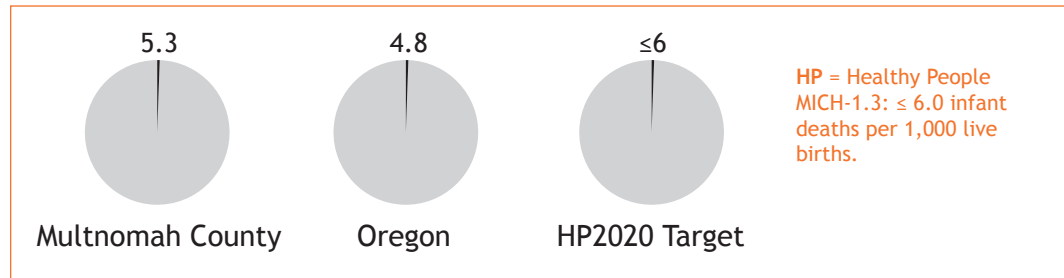
Percent of births that resulted in a stay in the Neonatal Intensive Care Unit, Multnomah County.

Data Source: Vital Statistics 2010-2011

7.8%   6.9%

Multnomah County   Oregon   No Target

Multnomah County   Oregon   HP2020 Target

Category	Value
Not OHP	Ref 7.1
OHP	* 8.9
High School+	Ref 7.3
High School	7.9
<High School	* 8.8
35+	* 8.6
25-34	7.7
20-24	Ref 6.9
<20 yrs	* 8.6
Asian/PI	8.4
AI/AN	* 11.5
Hispanic/Latino	8.0
Black/AA	* 10.4
Non-Latino White	Ref 7.1

Among live births
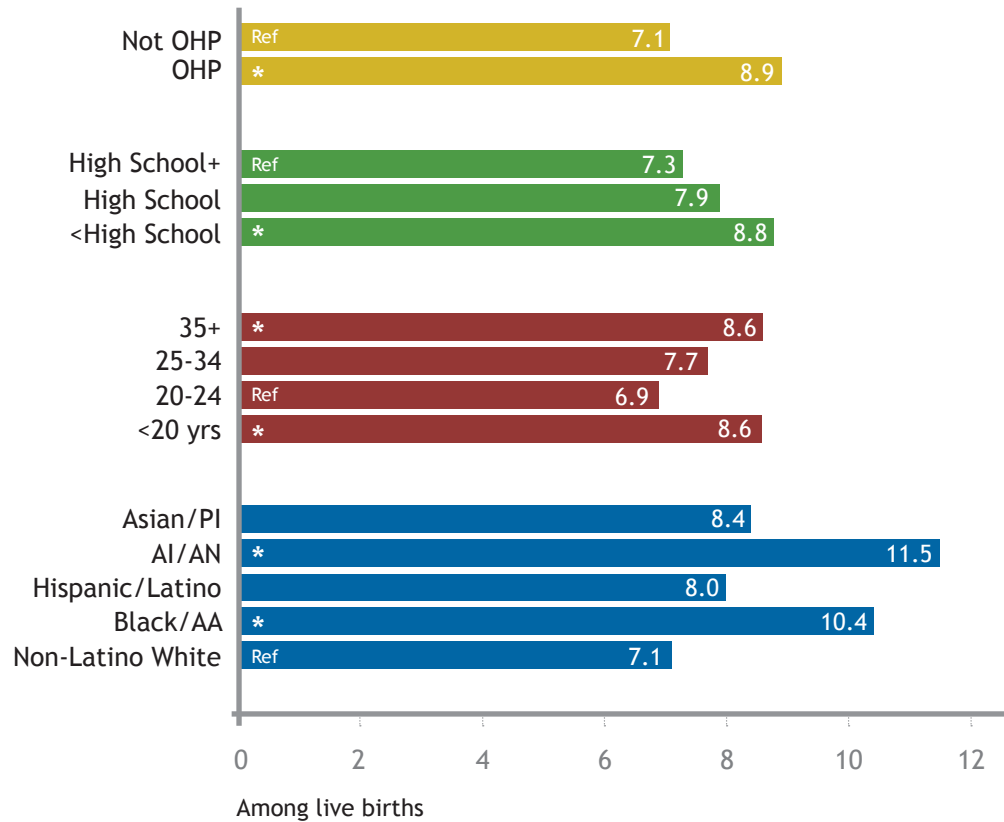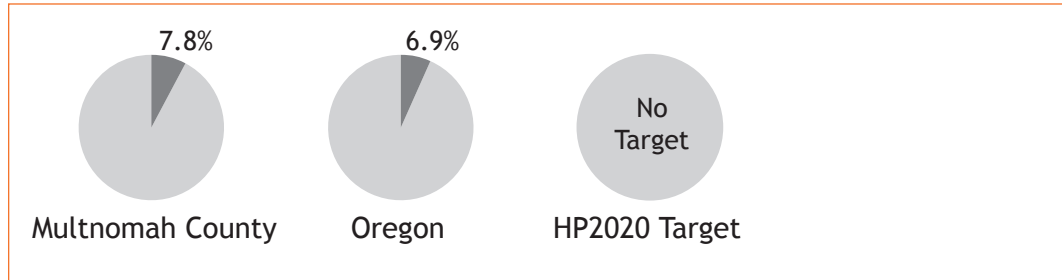
Low-Risk Cesarean Delivery

Morbidity and Mortality

Percent of Cesarean deliveries among low-risk[†] women having a first birth, Multnomah County.
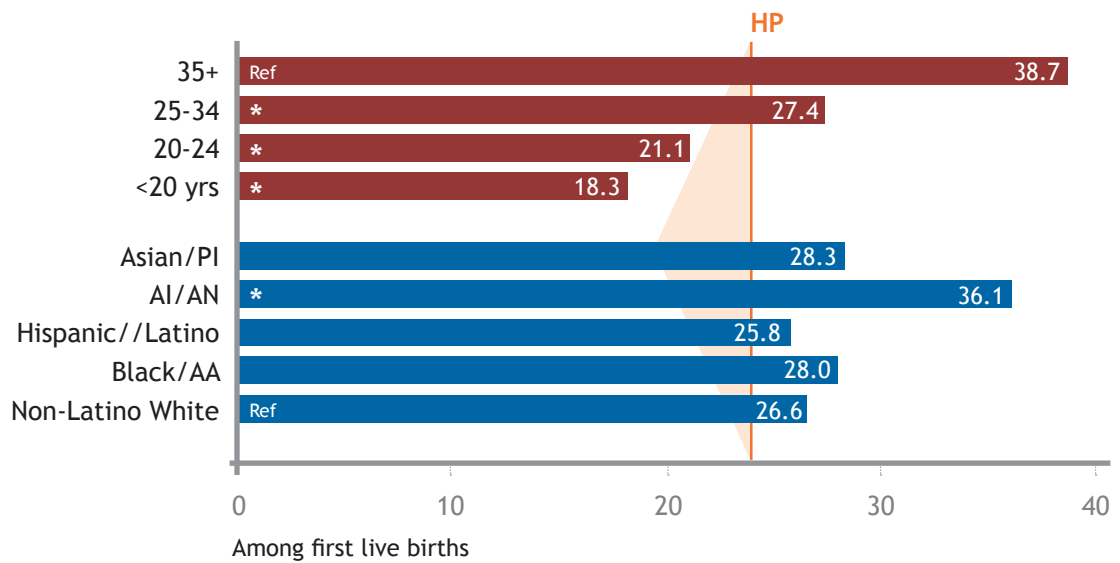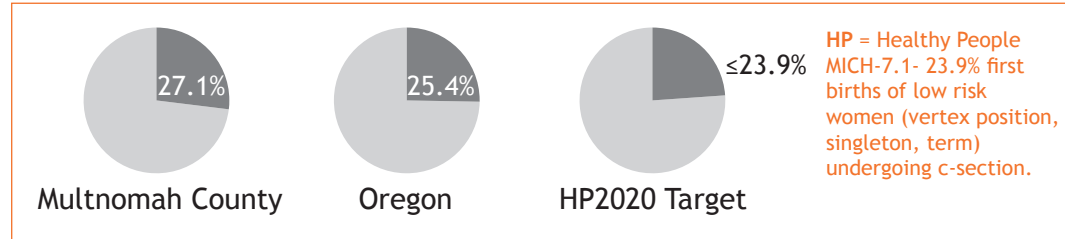
Data Source: Vital Statistics 2010-2011

27.1%

Multnomah County

25.4%

Oregon

≤23.9%

HP2020 Target

HP = Healthy People MICH-7.1- 23.9% first births of low risk women (vertex position, singleton, term) undergoing c-section.

HP

35+	Ref 38.7
25-34	* 27.4
20-24	* 21.1
<20 yrs	* 18.3
Asian/PI	28.3
AI/AN	* 36.1
Hispanic//Latino	25.8
Black/AA	28.0
Non-Latino White	Ref 26.6

0   10   20   30   40

Among first live births

[†] Infant is term (at least 37 weeks), is a singleton (not a multiple birth), and is presented head first (vertex presentation).

5 Repeat Cesarean
Morbidity and Mortality

Percent of Cesarean deliveries among low-risk[†] women that had a previous Cesarean delivery, Multnomah County.

Data Source: Vital Statistics 2010-2011

77.8%
Multnomah County

86.5%
Oregon

≤81.7%
HP2020 Target

HP = Healthy People MICH 7.2: 81.7% low risk women with previous c-section undergoing another.

Group	Value
Asian/PI	* 85.4
AI/AN	* 83.6
Hispanic//Latino	Ref 71.9
Black/AA	* 79.4
Non-Latino White	* 78.4

HP

0 10 20 30 40 50 60 70 80 90

Among women with a previous Cesarean delivery

[†] Infant is term (at least 37 weeks), is a singleton (not a multiple birth), and is presented head first (vertex presentation).

6 Postpartum Health
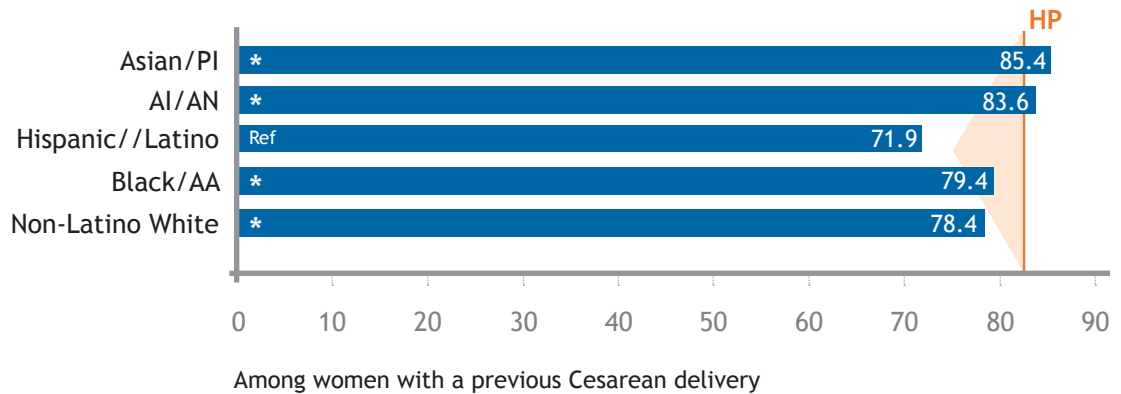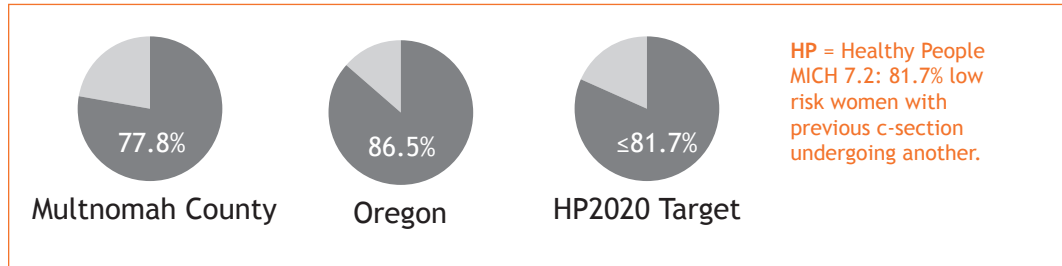
What is postpartum health?

Postpartum health describes the health status and well-being of women after a recent live birth.

The indicators in this chapter include prevalence of postpartum depression; household rules regarding indoor smoking; whether infants are put to sleep on their backs, the recommended position; and prevalence of breastfeeding initiation. The primary data sources for postpartum health were birth records and the PRAMS survey.

Why is postpartum health important?

Although the birth of a baby may bring exhilaration and feelings of new beginnings, it can also be a time of great stress. There are enormous changes for the new mother and her family. Postpartum health indicators provide a glimpse into a woman's health and habits that may affect her ability to bond with and care for her new infant.

In Oregon and Multnomah County, 1 in 10 recent mothers reported experiencing symptoms of postpartum depression. Studies on new mothers show that those with symptoms of depression possess more negative perceptions of themselves as mothers and of their babies.[1] They also have less verbal interaction and play less frequently with their infants.[2]

In turn, infants of mothers with symptoms of depression showed less secure attachment to their mothers, and experienced more anxiety and other negative emotional outcomes. According to another study, the effects of the mother's depressive symptoms on children's cognitive and emotional development could last as long as 14 years.[3]

Depression in men is seldom discussed and data is, unfortunately, not readily available. However, a 2010 study found that up to 14% of U.S. men feel depressed in the months following the birth of their child.[4]

One of the best things that a woman can do for herself and her baby in the postpartum period is to breastfeed. Studies show that *not* breastfeeding is consistently a risk factor for postpartum depression.[5,6] In addition, breastmilk contains all the vitamins and nutrients that babies need in the first six months of life and strengthens babies' immune systems.[7]

As in other stages of pregnancy and child rearing, community-level factors can contribute to a mother's mental and physical health following the birth of her baby. These include lifetime stressors such as living in poverty or being a victim/survivor of violence. They also include the quality of her employment, her relationships, her social support systems, and her housing status.

Key Findings

In Multnomah County:

▶ Overall, about 1 in 10 recent mothers reported feeling symptoms of postpartum depression. This prevalence varied dramatically by race/ethnicity and education level.

- About 1 in 5 Black/African American and American Indian/Alaska Native recent mothers reported experiencing symptoms of postpartum depression.

▶ More than 3 in 4 recent mothers (78%) said that they put their infants to sleep on their backs. However, only slightly more than half (54%) of Black/African American women said they did.

▶ Every demographic group assessed has exceeded the Healthy People 2020 target for breastfeeding initiation (96% initiation rate in the county overall versus 82% for the Healthy People target).

References

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2. Righetti-Veltema M, Bousquet A, Manzano J. Impact of postpartum depressive symptoms on mother and her 18-month-old infant. Eur Child Adolesc Psychiatry. 2003;12:75–83.

3. Beck CT. The effects of postpartum depression on child development: A meta-analysis. Archives of Psychiatric Nursing. 1998;12:12–20.

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Postpartum Depression

Postpartum Health

Percent of recent mothers who reported symptoms of postpartum depression, Multnomah County.

Data Source: PRAMS, 2005-2007

10.9%   11.7%

Multnomah County   Oregon   No Target

Multnomah County   Oregon   HP2020 Target

Category	Value
High School+	Ref 7.8
High School	10.5
<High School	* 20.3
Asian/PI	14.5
AI/AN	23.7
Hispanic/Latino	15.2
Black/AA	18.1
Non-Latino White	Ref 8.0

0   10   20   30

Among women with a live birth
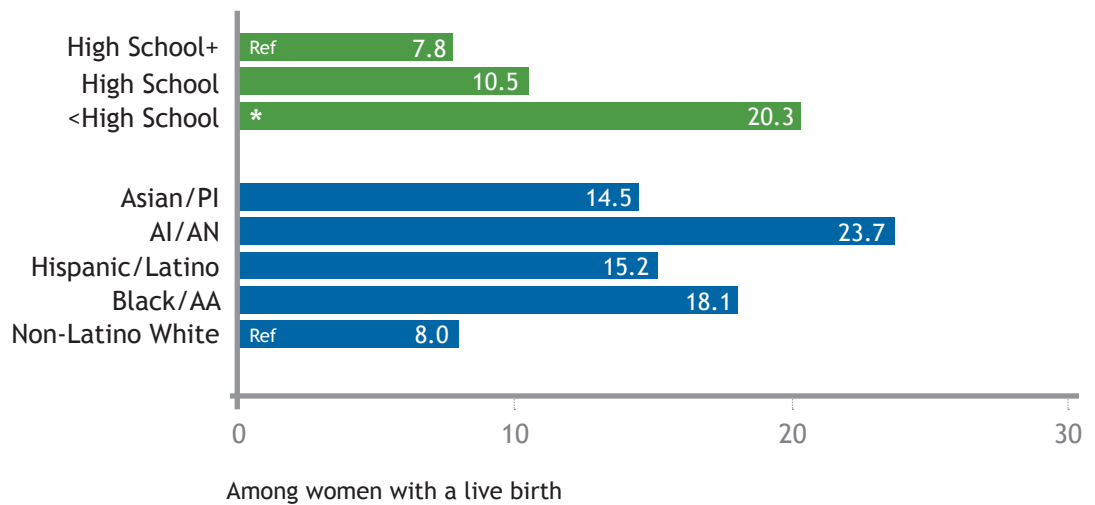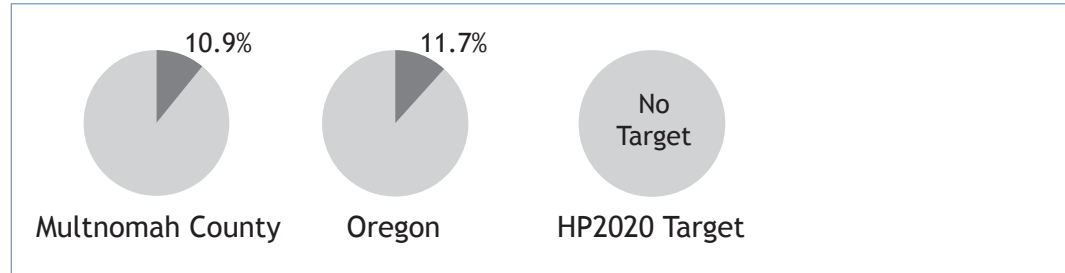
6 Household Smoking

Postpartum Health

Percent of recent mothers who reported that smoking was not allowed in their household, Multnomah County.

Data Source: PRAMS, 2009-2010

98.0%	98.4%	No Target
Multnomah County	Oregon	HP2020 Target

Category	Value
Not OHP	Ref 98.6
OHP	* 97.1
High School+	98.3
High School	Ref 99.3
<High School	* 96.0
35+	Ref 99.7
25-34	99.0
20-24	* 94.3
<20 yrs	* 96.8
Asian/PI	* 99.0
AI/AN	98.0
Hispanic/Latino	* 98.5
Black/AA	* 97.0
Non-Latino White	Ref 97.9
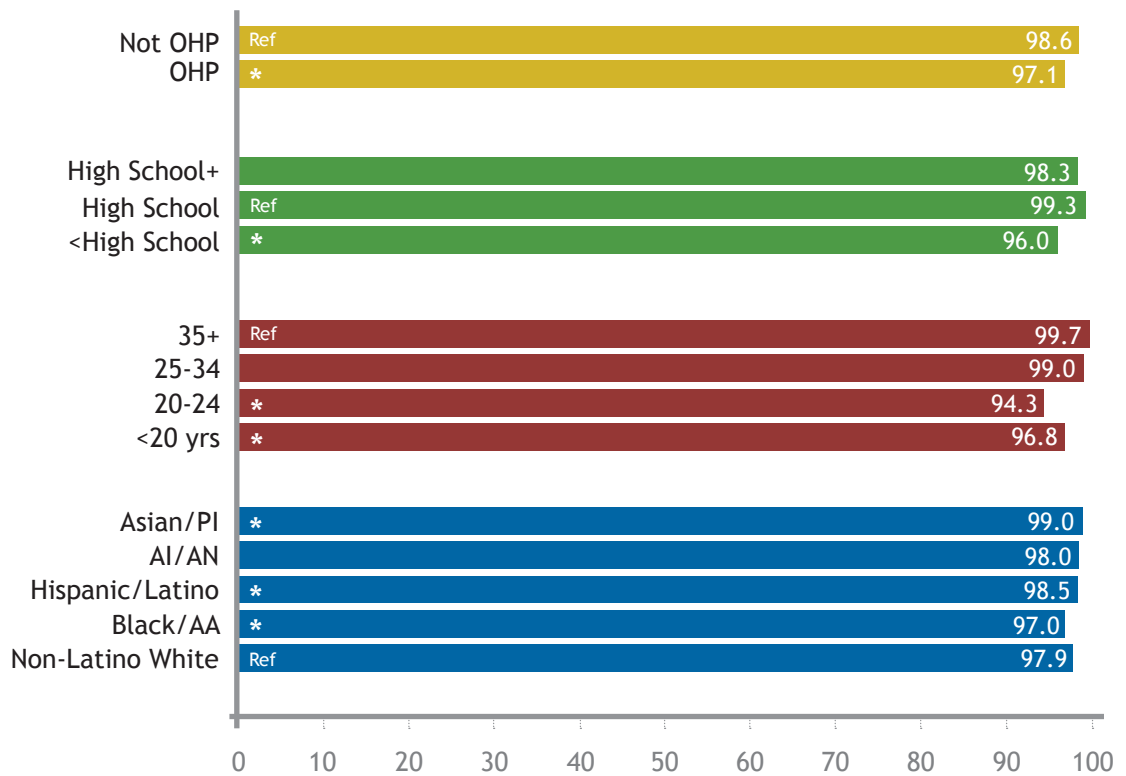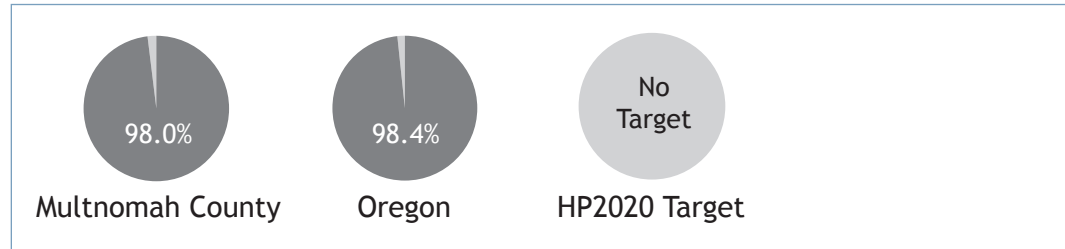
Sleep on Back

Postpartum Health

Percent of recent mothers who put their infants to sleep on their backs, Multnomah County.
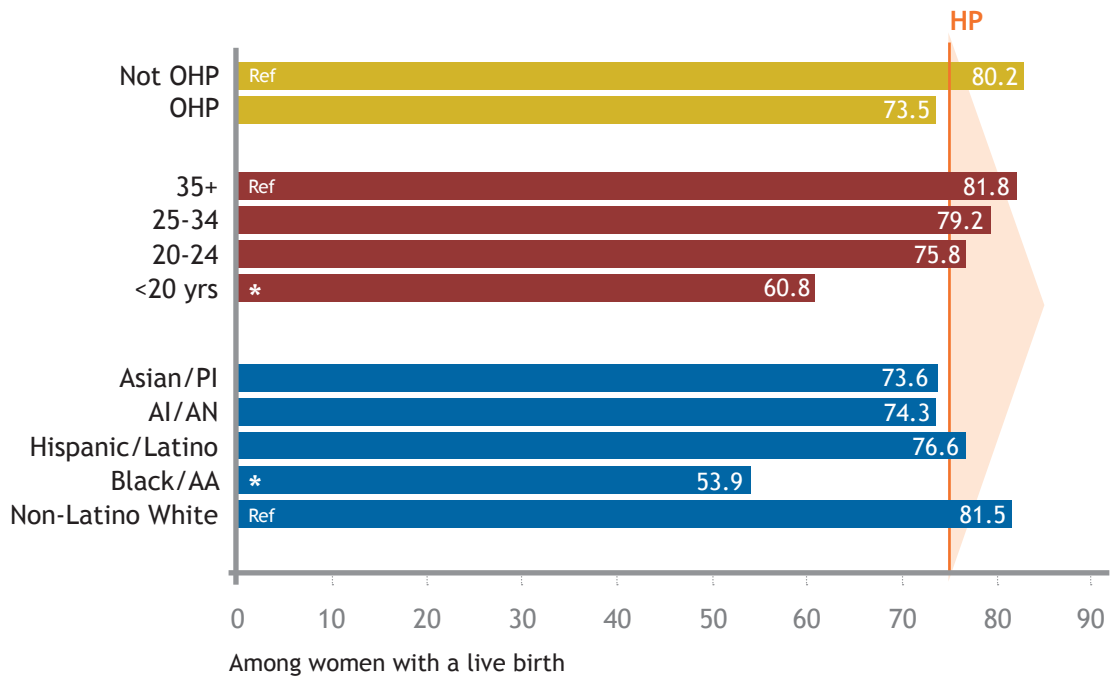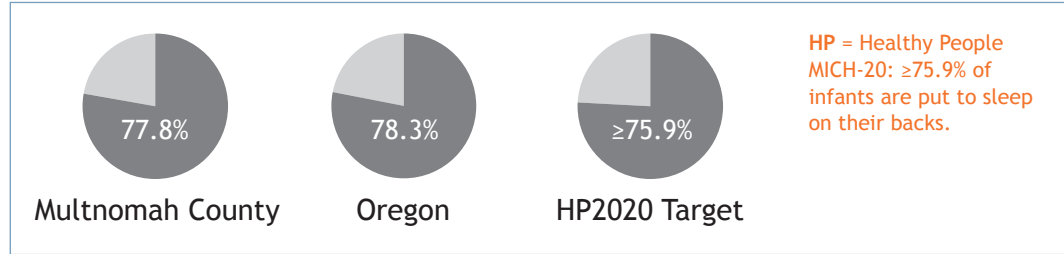
Data Source: PRAMS, 2009-2010

77.8%
Multnomah County

78.3%
Oregon

≥75.9%
HP2020 Target

HP = Healthy People MICH-20: ≥75.9% of infants are put to sleep on their backs.

HP

Category	Value
Not OHP	Ref 80.2
OHP	73.5
35+	Ref 81.8
25-34	79.2
20-24	75.8
<20 yrs	* 60.8
Asian/PI	73.6
AI/AN	74.3
Hispanic/Latino	76.6
Black/AA	* 53.9
Non-Latino White	Ref 81.5

Among women with a live birth

Percent of recent mothers who initiated breastfeeding, Multnomah County.

Data Source: PRAMS, 2009-2010

Multnomah County	Oregon	HP2020 Target
96.0%	94.4%	≥81.9%

HP = Healthy People
MICH-21: ≥81.9% of infants are ever breastfed.

HP

Not OHP	Ref 98.5
OHP	* 91.5
High School+	Ref 98.7
High School	* 94.1
<High School	* 89.7
35+	95.3
25-34	Ref 97.5
20-24	94.0
<20 yrs	* 91.8
Asian/PI	92.9
AI/AN	93.0
Hispanic/Latino	96.5
Black/AA	* 89.4
Non-Latino White	Ref 97.8

Among women with a live birth
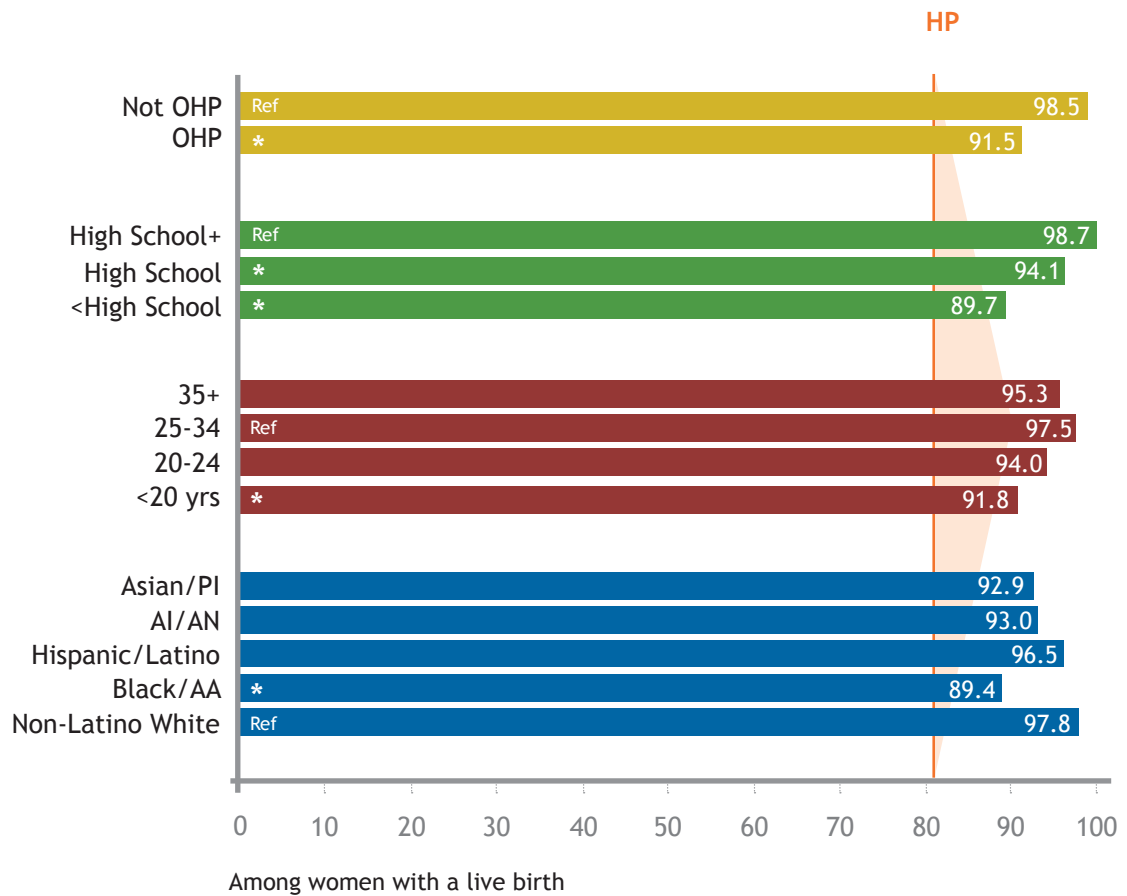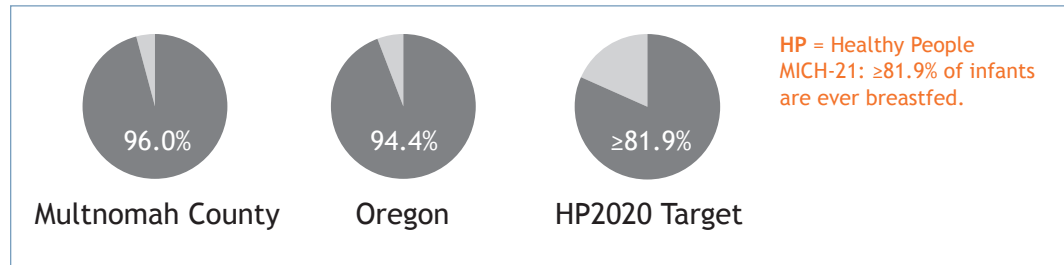
7 Child Growth and Development

What is child growth and development?

Child growth and development refers to the changes and growth that occur in children from birth to adolescence. Although every child is unique, healthy children grow and reach certain physical, cognitive and emotional developmental milestones on a predictable schedule.

In this report, the indicators used to assess child growth and development include whether the child is read to on a daily basis; how much TV and video viewing time they have; and whether a TV is present in the child's bedroom. The data for this chapter were derived from the PRAMS-2 survey, a two-year follow-up survey to PRAMS.

Why is child growth and development important?

Ensuring that children are healthy and ready to learn at age five is a goal that drives many early childhood services in Multnomah County and nationally. This includes creating a safe, healthy, and stimulating environment for children to learn and grow. For instance, children who are read to become better readers and achieve more in school, regardless of their economic and educational family backgrounds.[1]

Excessive screen time, on the other hand, has been linked to obesity, impaired childhood development, and less time for important developmental play.[2,3] The American Academy of Pediatrics recommends that children older than two years be limited to no more than two hours of "quality programming" per day, that televisions not be present in a child's bedroom, and that children under two years have no TV or internet exposure.[4]

Every environment where children spend time — home, childcare settings, and school — has an effect on child growth and development. Ensuring healthy environments can help support families in their efforts to raise healthy children.

Key Findings

In Multnomah County:

▶ 1 in 5 toddlers under the age of two had no screen time in a typical week. This is below the target set by the Healthy People 2020 goal of at least 2 in 5 toddlers having no screen time.

▶ Screen time exposure varied dramatically by race/ethnicity, maternal education level, and household income. For example, while 35% of two-year-olds living in higher income households (income greater than 185% of the federal poverty level) had no screen time, only 6% of those living in lower income households (income less than 185% federal poverty level) had no screen time.

▶ Large disparities also exist in the prevalence of two-year-olds without a TV in their bedroom. Toddlers of Latina mothers, younger mothers, mothers with less education, and mothers with lower household income were more likely to have a TV in a room where the toddler sleeps.

▶ About 7 in 10 toddlers were read to daily by a parent or guardian. This exceeds the Healthy People 2020 goal of at least 5 in 10 being read to everyday. However, major disparities exist by maternal race/ethnicity, age, education, and household income. For example, while more than 8 in 10 toddlers of non-Latina White women were read to daily, only 4 in 10 toddlers of Latina mothers were.

References

1. Wells, G. (1985). Preschool literacy-related activities and success in school. Literacy, Language, and Learning. Eds. D. Olson, A. Hildyard, and N. Torrance. New York: Cambridge University Press.

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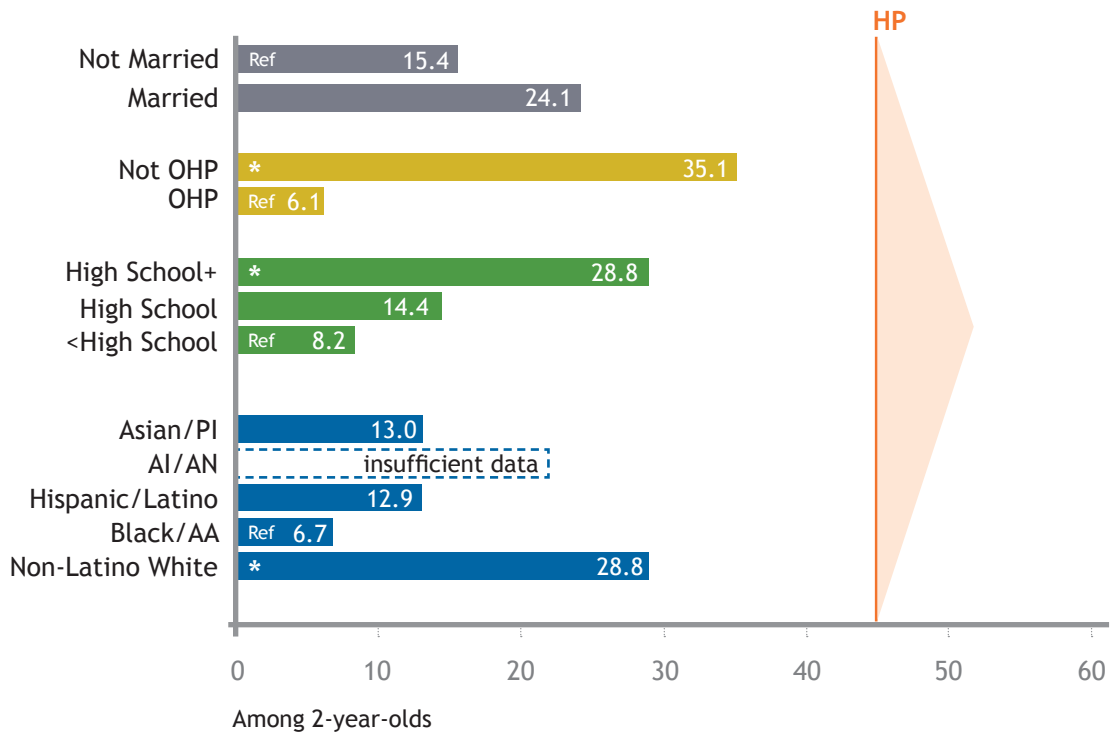
Percent of two-year-olds that have no TV or video viewing time in a typical day, Multnomah County.

Data Source: PRAMS-2, 2006-2007

21.6%   17.3%   ≥44.7%

Multnomah County   Oregon   HP2020 Target

HP = Healthy People PA-8.1: ≥44.7% of children ages 0-2 years view no TV/video on ;an average weekday.

HP

Category	Value
Not Married	Ref 15.4
Married	24.1
Not OHP	* 35.1
OHP	Ref 6.1
High School+	* 28.8
High School	14.4
<High School	Ref 8.2
Asian/PI	13.0
AI/AN	insufficient data
Hispanic/Latino	12.9
Black/AA	Ref 6.7
Non-Latino White	* 28.8

0   10   20   30   40   50   60

Among 2-year-olds

Percent of two-year-olds that have less than two hours of TV or video viewing time in a typical day, Multnomah County.
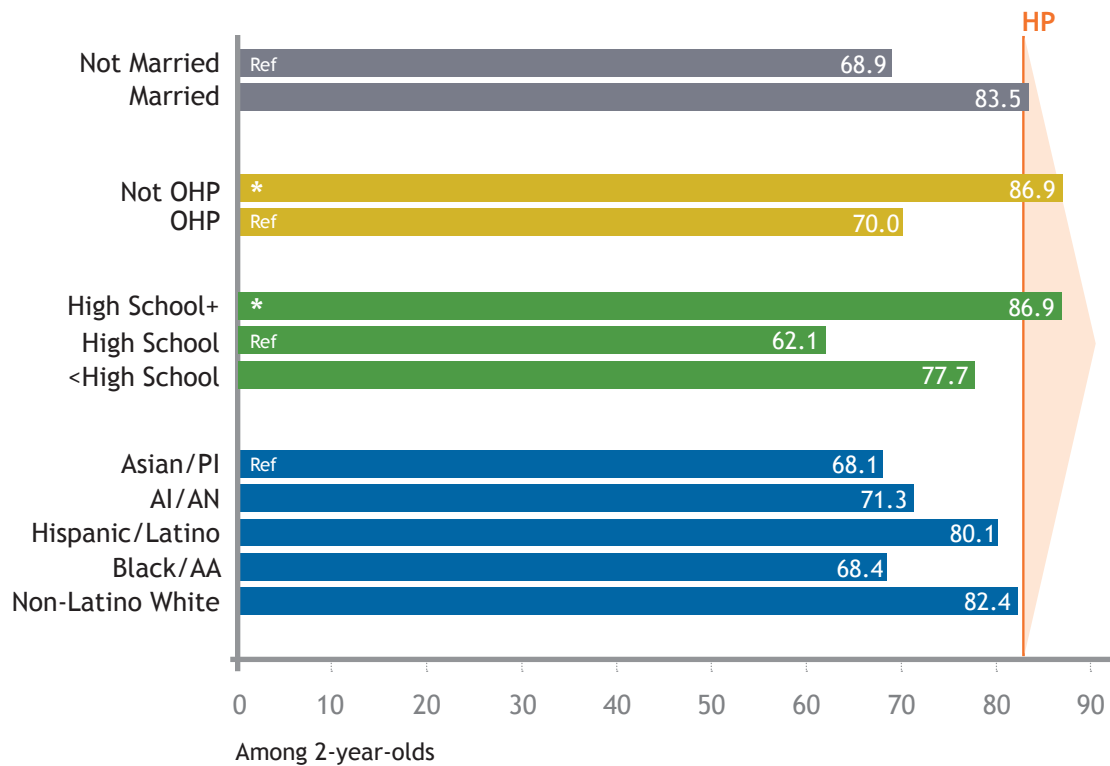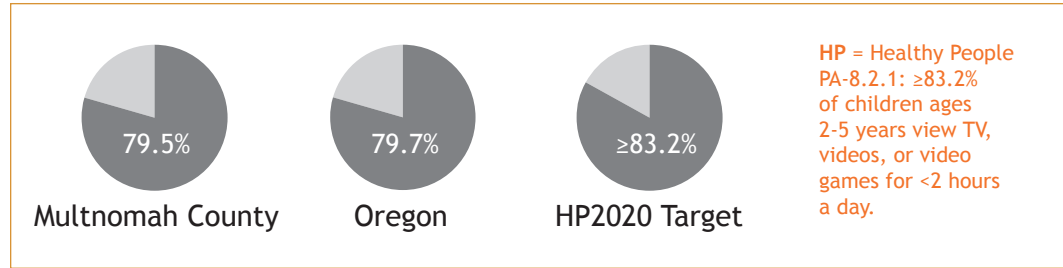
Data Source: PRAMS-2, 2006-2007

79.5%
Multnomah County

79.7%
Oregon

≥83.2%
HP2020 Target

HP = Healthy People PA-8.2.1: ≥83.2% of children ages 2-5 years view TV, videos, or video games for <2 hours a day.

HP	
Not Married	Ref 68.9
Married	83.5
Not OHP	* 86.9
OHP	Ref 70.0
High School+	* 86.9
High School	Ref 62.1
<High School	77.7
Asian/PI	Ref 68.1
AI/AN	71.3
Hispanic/Latino	80.1
Black/AA	68.4
Non-Latino White	82.4

0   10   20   30   40   50   60   70   80   90
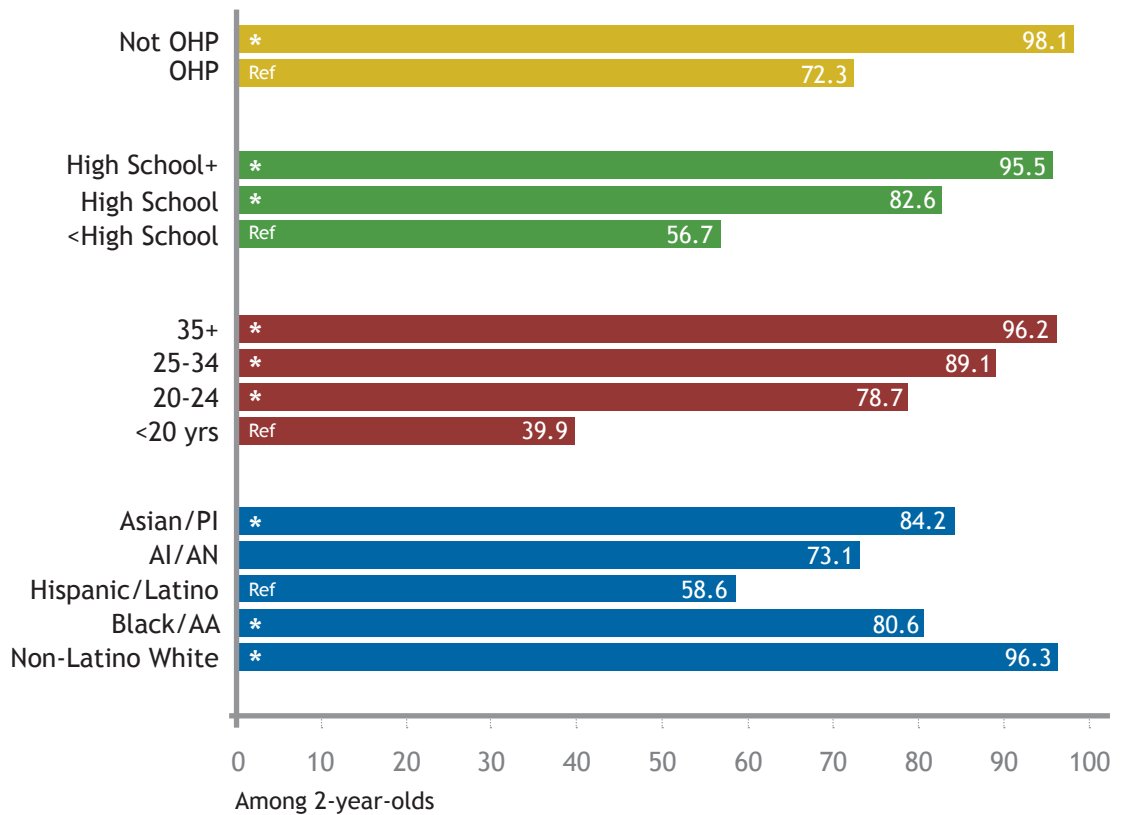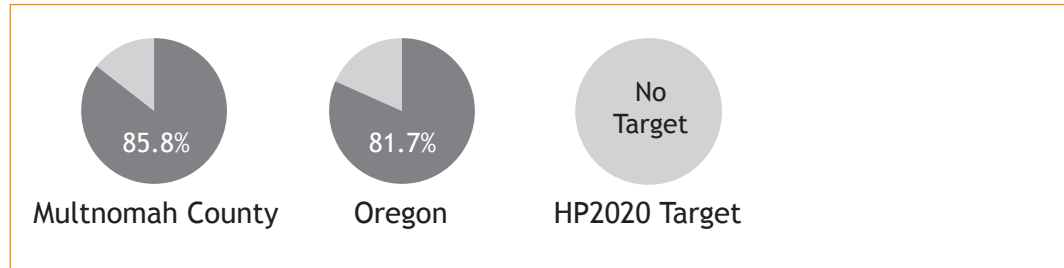
Among 2-year-olds

7 TV in Bedroom

Child Growth and Development

Percent of two-year-olds that do not have a TV in the room where they sleep, Multnomah County.

Data Source: PRAMS-2, 2006-2007

85.8%
Multnomah County

81.7%
Oregon

No Target
HP2020 Target

Category	Value
Not OHP	* 98.1
OHP	Ref 72.3
High School+	* 95.5
High School	* 82.6
<High School	Ref 56.7
35+	* 96.2
25-34	* 89.1
20-24	* 78.7
<20 yrs	Ref 39.9
Asian/PI	* 84.2
AI/AN	73.1
Hispanic/Latino	Ref 58.6
Black/AA	* 80.6
Non-Latino White	* 96.3

Among 2-year-olds

Percent of two-year-olds that are read to daily by a family member, Multnomah County.

Data Source: PRAMS-2, 2006-2007

69.2% Multnomah County

61.5% Oregon

≥52.6% HP2020 Target

HP = Healthy People EMC-2.3: ≥52.6% of children ages 0-5 years have parents who report that someone in their family read to the child everyday.

HP

Category	Value
Not OHP	* 83.2
OHP	Ref 54.6
High School+	* 83.3
High School	* 53.8
<High School	Ref 39.3
35+	* 79.7
25-34	* 72.2
20-24	60.4
<20 yrs	Ref 32.8
Asian/PI	* 55.4
AI/AN	60.8
Hispanic/Latino	* 39.6
Black/AA	* 47.3
Non-Latino White	Ref 84.4

0   10   20   30   40   50   60   70   80   90

Among 2-year-olds

8 Home, Family, and Community

What is home, family, and community?

Parents and families are babies' first and most important teachers. The home environment is all babies know for a time. Once children enter the world around them, their immediate community — neighborhoods, child care centers, parks and schools and the non-family adults that interact with them — become an extension of the home environment. The homes, families and communities in which children grow and develop help shape them into healthy adults.

The indicators in this chapter include the prevalence of paternal involvement, child outings, family meal time and child care use.

As mentioned elsewhere in this report, a major gap in the maternal and child health literature and surveillance data is that surrounding the role of fathers in households. Because a direct measure of paternal involvement does not exist in current available data sources, this report uses missing father's name on the birth certificate as a proxy for estimating father uninvolvement. This is consistent with the current practices for estimating father uninvolvement in the maternal and child health literature.[1,2] The data for this chapter were obtained from birth records and the PRAMS and PRAMS-2 surveys.

Why are home, family, and community important?

Positive early experiences provide a foundation for healthy development. Conversely, early life stressors such as violence, poor nutrition and living in unsafe housing and unsafe neighborhoods weaken that foundation.

Together, home, family and community create a continuum of experiences for a developing child that range from responsive caregiving to neglectful or abusive interactions, and from safe to unsafe places to play and learn. Children who experience early life stressors such as violence, or who grow up in resource-poor neighborhoods with little opportunity for healthy nutrition, play, and quality educational experiences, are more likely to experience health and social risks as children and adults.[3]

One indicator that serves as a proxy for the stability of the home environment is whether children are growing up in two-parent households. Numerous studies have found that children who live with their fathers are more likely to have good physical and emotional health, to have good educational attainment and to avoid drugs, violence and delinquent behavior.[4,5] Children with biological fathers present in the household were also found to be 43% more likely to earn A's in school and 33% less likely to repeat a grade.[4] Current

data are limited to households with both male and female biological parents. More data are needed on factors that support good outcomes for children raised in non-traditional households, including single-parent, lesbian, gay, bi-sexual,transgender, queer, and inter-generational households.

A mother's employment status is related to household income, ability to purchase quality childcare, and whether or not a family eats meals together. More than 70% of U.S. mothers with children younger than 18 years worked outside the home in 2012.[6] Many of their children are enrolled in some form of childcare outside of the home, where children may adopt early nutrition, physical activity, and television viewing behaviors. These behaviors can influence childhood obesity, which is a major problem among all U.S. adults and children.[7,8]

Key Findings

In Multnomah County:

► About 10% of infants had a father's name missing on their birth certificate, suggesting father uninvolvement. Infants whose mothers were Black/African American, whose mothers were younger or had less education, or whose mothers were on OHP were the most likely to have missing father's names on birth certificates.

► More than half of two-year-olds received childcare either from a licensed facility (13%) or from someone other than the parents (38%).

► About 47% of two-year-olds participated in four or more outings in the past week, such as going to the park, playground, library, or other children's program or activity

► About 83% of two-year-olds live in households where the family usually or always eats meals together.

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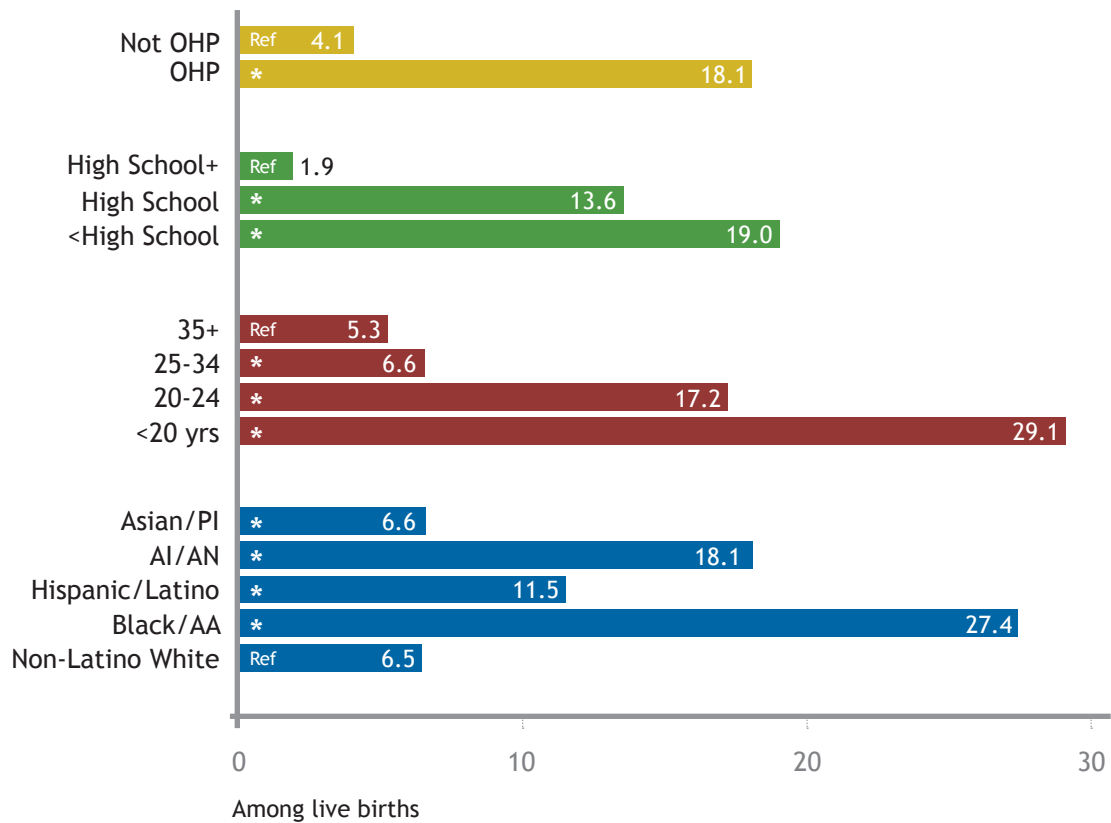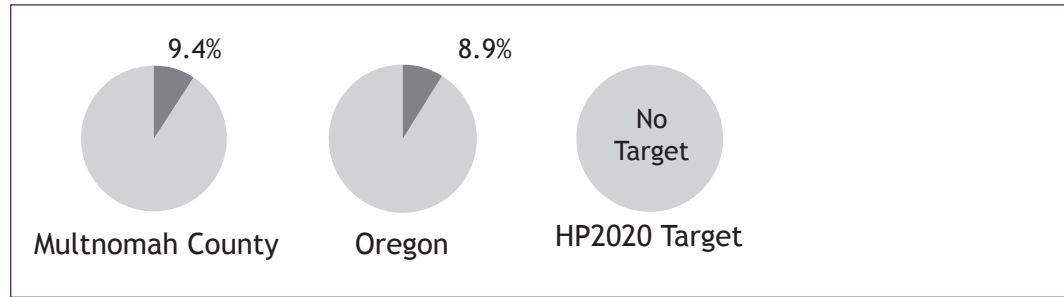
Father Uninvolvement

Home, Family, and Community

Estimated prevalence of father uninvolvement[†], Multnomah County.

Data Source: Vital Statistics 2010-2011

9.4% 8.9%

Multnomah County   Oregon   No Target

HP2020 Target

Not OHP	Ref 4.1
OHP	* 18.1
High School+	Ref 1.9
High School	* 13.6
<High School	* 19.0
35+	Ref 5.3
25-34	* 6.6
20-24	* 17.2
<20 yrs	* 29.1
Asian/PI	* 6.6
AI/AN	* 18.1
Hispanic/Latino	* 11.5
Black/AA	* 27.4
Non-Latino White	Ref 6.5

0   10   20   30

Among live births

[†] We used missing father's names on birth certificates as a proxy for father uninvolvement.

Percent of two-year-olds that had four or more outings[†] in past week, Multnomah County.

Data Source: PRAMS-2, 2006-2007

46.9%

Multnomah County

39.5%

Oregon

No Target

HP2020 Target

Category	Value
Not OHP	* 58.7
OHP	Ref 31.0
High School+	* 60.0
High School	* 31.3
<High School	Ref 19.7
35+	* 61.7
25-34	* 46.7
20-24	43.8
<20 yrs	Ref 14.9
Asian/PI	35.5
AI/AN	44.5
Hispanic/Latino	Ref 28.8
Black/AA	36.5
Non-Latino White	55.8

0   10   20   30   40   50   60   70

Among 2-year-olds
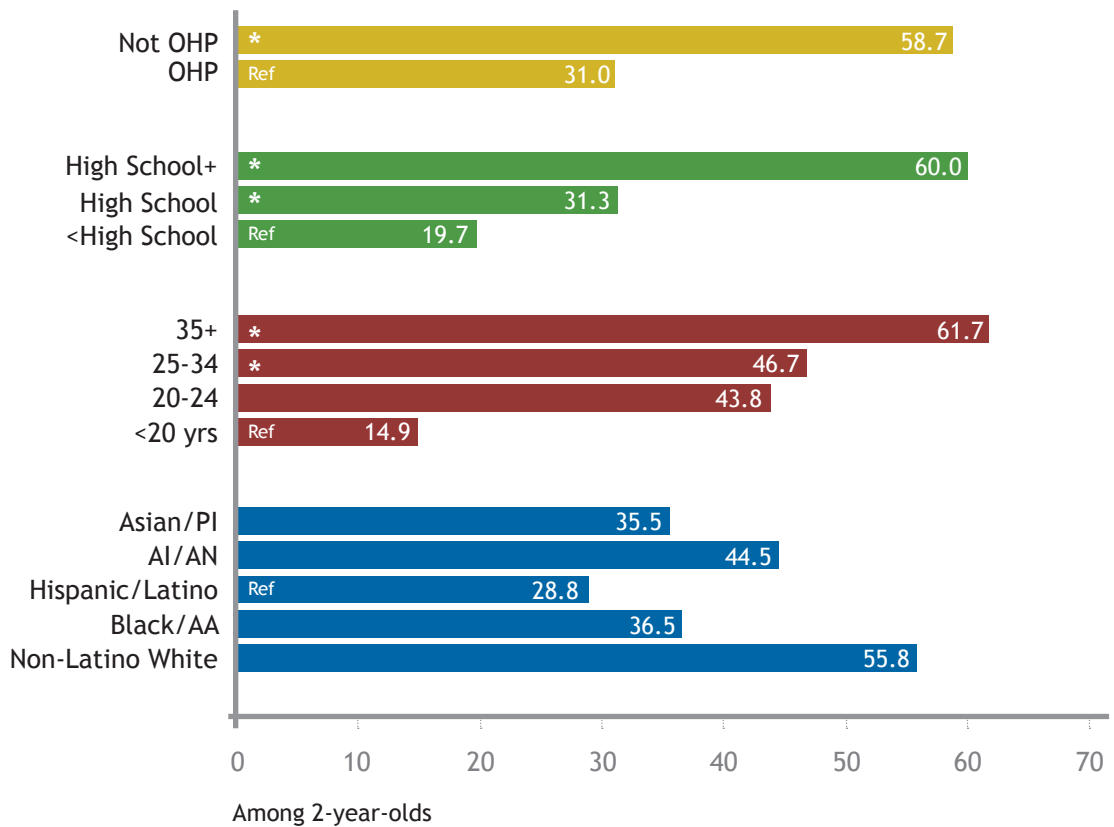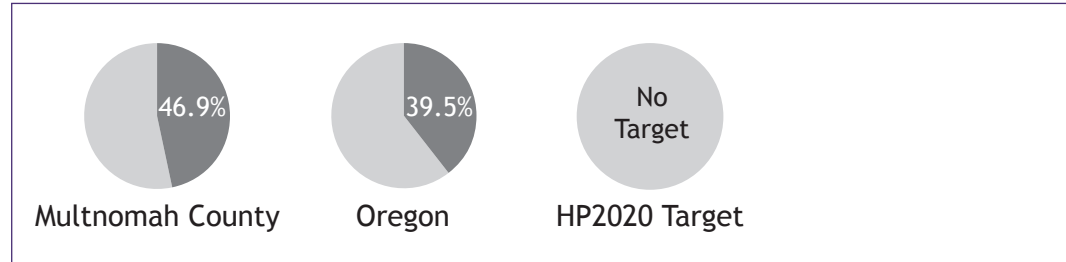
[†] Outings such as going to a park, playground, library, or other children's program or activity.

Percent of two-year-olds living in households where the family usually or always[†] eats meals together, Multnomah County.

Data Source: PRAMS-2, 2006-2007

83.4%
Multnomah County

86.5%
Oregon

No HP Target
HP2020 Target

Not Married	89.6
Married	81.5
High School+	85.2
High School	77.7
<High School	85.0
35+	77.4
25-34	83.1
20-24	91.5
<20 yrs	76.3
Asian/PI	86.6
AI/AN	90.3
Hispanic/Latino	76.2
Black/AA	86.0
Non-Latino White	84.6

0 10 20 30 40 50 60 70 80 90 100

Among 2-year-olds
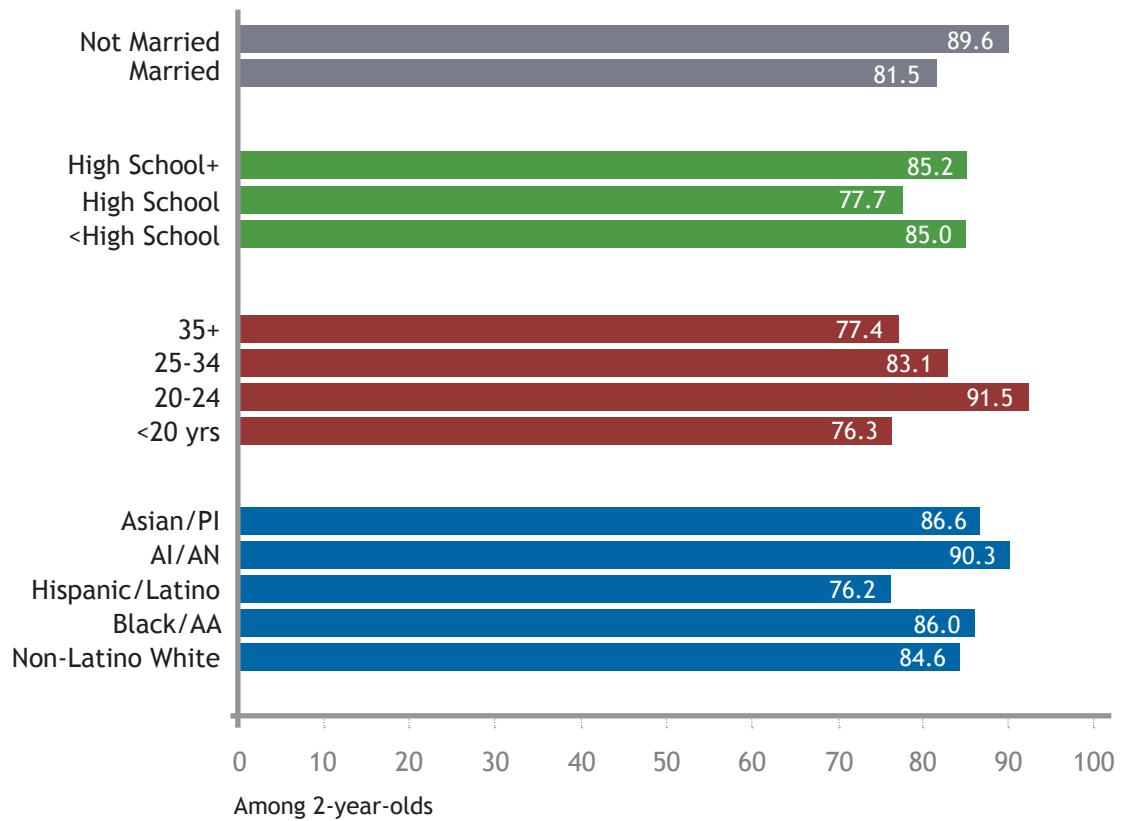
[†] Respondents could choose "always", "usually", "sometimes", or "never" to describe how often the family eats meals together.

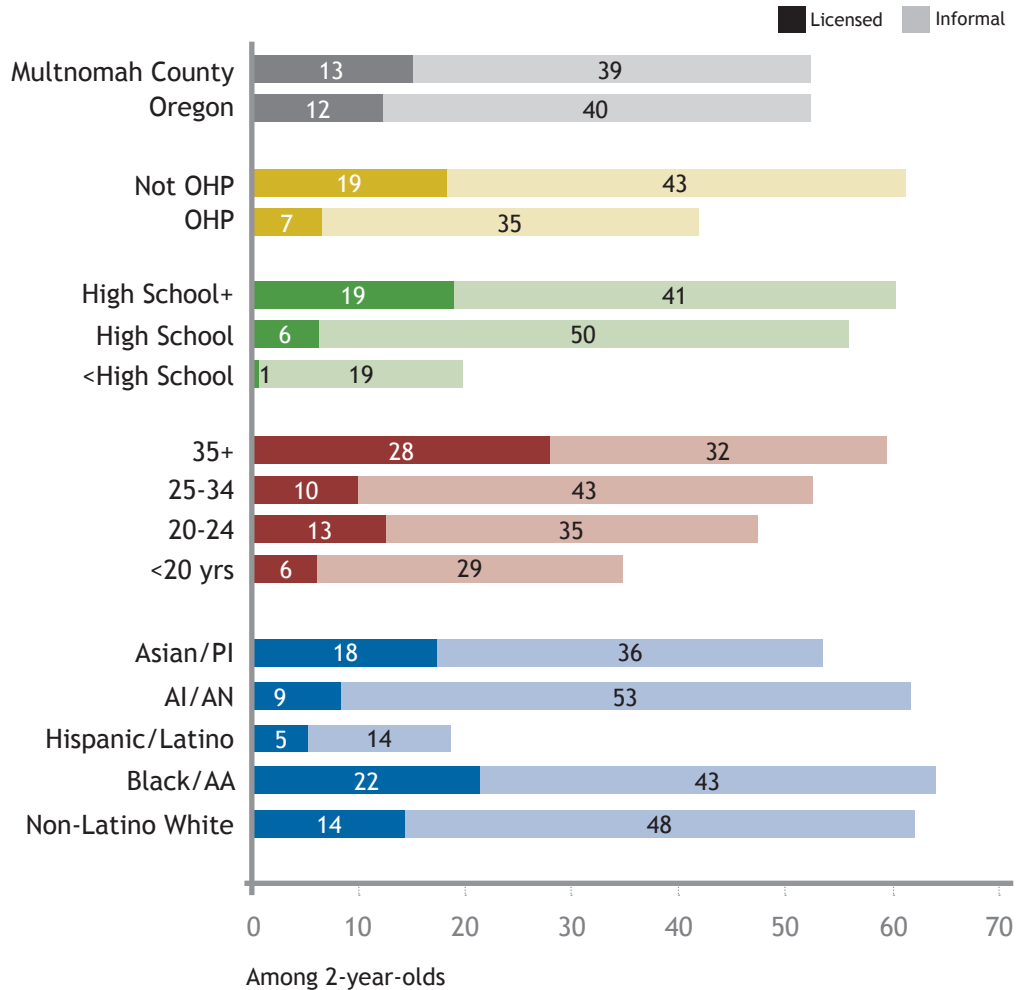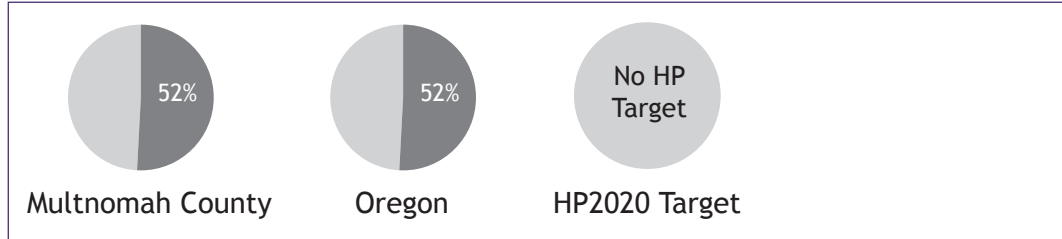**Percent of two-year-olds that are in childcare, by type of childcare setting, Multnomah County.**

Data Source: PRAMS-2, 2006-2007

Multnomah County 52%	Oregon 52%	HP2020 Target No HP Target

Licensed ■ Informal ■

	Licensed	Informal
Multnomah County	13	39
Oregon	12	40
Not OHP	19	43
OHP	7	35
High School+	19	41
High School	6	50
<High School	1	19
35+	28	32
25-34	10	43
20-24	13	35
<20 yrs	6	29
Asian/PI	18	36
AI/AN	9	53
Hispanic/Latino	5	14
Black/AA	22	43
Non-Latino White	14	48

Among 2-year-olds

Conclusions

A complex interplay of social, environmental and biological factors establishes each individual's foundation for life-long health or ill health. A healthy community depends on creating the strongest foundations possible for all mothers and their children.

While many mothers and children in Multnomah County are healthy and doing well, significant disparities based on income, education, age, and race/ethnicity can be seen throughout the life course and associated indicators. In general, women of color, women with lower income, younger women, and women with less education in Multnomah County are experiencing more adverse health issues and health outcomes than their counterparts.

Although we cannot assess trends using the data in this report, numerous other reports and studies have shown that persistent disparities exist in our county, such as those around infant mortality and adverse birth outcomes, which have not improved over time.

It is important to note that while some health outcomes rely on individual choices, the environments in which women live, play, work and learn shape available choices and have a profound impact on health. Social determinants of health — including socioeconomic status; discrimination by race, ethnicity, gender, and/or class; access to health care and other services; as well as other social and environmental stressors — are factors in the results and disparities outlined in this report. If we are to make progress in improving the health and well-being of all mothers and children in Multnomah County, these factors must be acknowledged and addressed.

Technical Notes

Race and Ethnicity

The race and ethnicity of mothers was categorized according to information provided on the infant's birth certificate. The five categories used are non-Latino White, American Indian/Alaska Native, Asian/Pacific Islander, Black/African American, and Hispanic/Latino. If a mother identified only one race and ethnicity, she was placed into that category. If a mother identified herself as multiracial, she was placed into the category with less representation in Multnomah County. For example, if a mother identified as Black/African American and non-Latino White, she would be placed into the Black/African American category since the Black/African American community is smaller than the non-Latino White community in Multnomah County. The race and ethnicity of infants is based on the race and ethnicity of their mothers only.

Family Planning Indicators

Pregnancy Intention

Percent of recent mothers who reported that their pregnancy was intended.

Numerator: Weighted number of women with a recent live birth who reported that they had wanted to be pregnant "sooner" or "[right] then" when they found out they were pregnant with their new baby.

Denominator: Weighted number of women with a recent live birth.

Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)

Contraception Use

Percent of recent mothers who were using contraception when they got unintentionally pregnant.

Numerator: Weighted number of women with a recent live birth from an unplanned pregnancy who said "yes" when asked whether she or her partner was doing anything to keep from getting pregnant.

Denominator: Weighted number of women with a recent live birth who said their pregnancies were unplanned.

Data Source: PRAMS

Birth Spacing

Percent of births that were conceived less than 18 months from a previous live birth.

Numerator: Number of births of the second or higher order where the birth was conceived less than 18 months from a previous live birth.

Denominator: Total number of births that were of the second or higher order.

Data Source: Vital Statistics

Repeat Teen Births

Percent of repeat teen births.

Numerator: Number of repeat live births to teen women <20 years of age.

Denominator: Total number of births to teen women <20 years of age.

Data Source: Vital Statistics

Technical Notes

Preconception Health Indicators

Multivitamin Intake

Percent of recent mothers who took a daily multivitamin/folic acid one month before pregnancy.

Numerator: Weighted number of women with a recent live birth who reported that they took a multivitamin, prenatal vitamin, or folic acid vitamin every day of the week during the month before pregnancy.

Denominator: Weighted number of women with a recent live birth.

Data Source: PRAMS

Smoking

Percent of recent mothers who smoked before pregnancy.

Numerator: Weighted number of women with a recent live birth who reported that they smoked any number of cigarettes on an average day during the three months before they got pregnant.

Denominator: Weighted number of women with a recent live birth.

Data Source: PRAMS

Alcohol Use

Percent of recent mothers who drank alcohol before pregnancy.

Numerator: Weighted number of women with a recent live birth who reported that they had any alcoholic drinks in an average week during the three months before they got pregnant.

Denominator: Weighted number of women with a recent live birth.

Data Source: PRAMS

Binge Drinking

Percent of recent mothers who engaged in binge drinking before pregnancy.

Numerator: Weighted number of women with a recent live birth who reported that they drank four or more alcoholic drinks in one sitting at least once during the three months before they got pregnant.

Denominator: Weighted number of women with a recent live birth.

Data Source: PRAMS

Weight Before Pregnancy

Percent of recent mothers who were obese before pregnancy.

Numerator: Weighted number of women with a recent live birth whose body mass index (BMI) was 30 and above. BMI is calculated by dividing their weight in kilograms by height in meters squared: weight (kg) / [height (m)]^2

Denominator: Weighted number of women with a recent live birth.

Data Source: PRAMS

Technical Notes

Pregnancy Health Indicators

Smoking During Pregnancy

Percent of recent mothers who smoked during the last three months of pregnancy.

Numerator: Weighted number of women with a recent live birth who reported that they smoked any number of cigarettes on an average day during the last three months of pregnancy.

Denominator: Weighted number of women with a recent live birth.

Data Source: PRAMS

Smoking Cessation

Percent of recent mothers who smoked before pregnancy and quit while pregnant.

Numerator: Weighted number of women with a recent live birth who reported that they smoked cigarettes during the three months before pregnancy, but not during the last three months of pregnancy.

Denominator: Weighted number of women with a recent live birth who reported that they smoked cigarettes during the three months before pregnancy.

Data Source: PRAMS

Alcohol Abstinence

Percent of recent mothers who abstained from alcohol during the last three months of pregnancy.

Numerator: Weighted number of women with a recent live birth who reported that they had any alcoholic drinks in an average week during the last three months of pregnancy.

Denominator: Weighted number of women with a recent live birth.

Data Source: PRAMS

Prenatal Care

Percent of recent mothers who received early and adequate prenatal care.

Numerator: Number of births where the mother initiated prenatal care during the first trimester and received an "adequate" or "adequate plus" number of prenatal visits according to the Kotelchuck Index, also called the Adequacy of Prenatal Care Utilization (APNCU) Index. The Kotelchuck index compares the number of prenatal visits to the expected number of visits for the period between when care began and the delivery date. Adequacy of prenatal care is classified as Inadequate (received <50% of expected visits), Intermediate (50%-79%), Adequate (80%-109%), Adequate Plus (110% or more).

Denominator: Total number of births.

Data Source: Vital Statistics

Technical Notes

Pregnancy Health Indicators continued

Weight Gain

Percent of women with a recent singleton live birth who achieved the Institute of Medicine (IOM)-recommended weight gain during pregnancy.

Numerator: Number of births where the mother gained weight within the range recommended by the IOM based on her pre-pregnancy body mass index:
BMI <18.5: 28-40 lbs.
BMI 18.5-24.9: 25-35 lbs.
BMI 25-29.9: 15-25 lbs.
BMI >30: 11-20 lbs.

Denominator: Total number of singleton births.

Data Source: Vital Statistics

Depression

Percent of recent mothers who reported symptoms of depression during pregnancy.

Numerator: Weighted number of women with a recent live birth who reported that:
1) she always or often felt down, depressed, or hopeless, and/or
2) she always or often had little interest or pleasure in doing things.

Denominator: Weighted number of women with a recent live birth.

Data Source: PRAMS

Technical Notes

Morbidity and Mortality Indicators

High-Risk Pregnancies
Percent of births to women who had a previous poor birth outcome or chronic condition.

Numerator: Number of births where the woman had at least one of these risk factors: previous preterm birth, previous poor birth outcome, pre-pregnancy diabetes or hypertension.

Denominator: Total number of births.

Data Source: Vital Statistics

Birth Outcomes
Percent of births that resulted in a poor outcome.

Numerator: Number of births with a newborn condition, congenital anomaly, low birthweight, born preterm, or where the infant was admitted to the NICU.

Denominator: Total number of births.

Data Source: Vital Statistics

Low Birthweight
Percent of births that were low birthweight, <2,500 grams.

Numerator: Number of births born with a birthweight under 2,500 grams.

Denominator: Total number of births.

Data Source: Vital Statistics

Preterm Births
Percent of births born <37 weeks gestation.

Numerator: Number of births born prior to 37 weeks of gestation.

Denominator: Total number of births.

Data Source: Vital Statistics

Small for Gestational Age
Percent of live births whose birth weight was at or below the 10th percentile for a given gestational age.

Numerator: Number of births whose birth weight was at or below the 10th percentile for a given gestational age.

Denominator: Total number of births.

Data Source: Vital Statistics

Technical Notes

Morbidity and Mortality Indicators continued

Infant Deaths

Rate of infant deaths per 1,000 live births.

Numerator: Number of deaths of infants less than one year of age, during a specific time period.

Denominator: Total number of births during the same time period.

Data Source: Vital Statistics

Neonatal Intensive Care Unit (NICU) Admission

Percent of births that resulted in the infant staying in the Neonatal Intensive Care Unit (NICU).

Numerator: Number of births that were admitted to the NICU, as indicated on the birth certificate.

Denominator: Total number of births.

Data Source: Vital Statistics

Low-Risk Cesarean

Percent of Cesarean deliveries among low-risk women having a first birth.

Numerator: Number of first births that were term (at least 37 weeks), a singleton (not multiple), had a vertex presentation (head first), and were delivered by Cesarean Section.

Denominator: Total number of first births that were term, a singleton, and had a vertex presentation.

Data Source: Vital Statistics

Repeat Cesarean

Percent of Cesarean deliveries among low-risk women that had a previous Cesarean delivery.

Numerator: Number of repeat births that were term (at least 37 weeks), a singleton, (not multiple), had a vertex presentation (head first), and were delivered by Cesarean Section.

Denominator: Total number of repeat births that were term, a singleton, and had a vertex presentation.

Data Source: Vital Statistics

Technical Notes

Postpartum Health Indicators

Postpartum Depression

Percent of recent mothers who reported symptoms of depression following a live birth.

Numerator: Weighted number of women with a recent live birth who experienced self-reported postpartum depression.

Denominator: Weighted number of women with a recent live birth.

Data Source: PRAMS

Household Smoking

Percent of recent mothers who reported that smoking was not allowed in their household.

Numerator: Weighted number of women with a recent live birth who reported that smoking is allowed in a) some rooms or at some times, and/or b) anywhere inside the home.

Denominator: Weighted number of women with a recent live birth.

Data Source: PRAMS

Sleep on Back

Percent of recent mothers who put their infants to sleep on their backs.

Numerator: Weighted number of women with a recent live birth who reported that they most often lay their baby down to sleep on his/her back.

Denominator: Weighted number of women with a recent live birth.

Data Source: PRAMS

Breastfeeding Initiation

Percent of recent mothers who initiated breastfeeding.

Numerator: Weighted number of women with a recent live birth who reported ever breastfeeding or pumping breast milk to feed their new baby after delivery.

Denominator: Weighted number of women with a recent live birth.

Data Source: PRAMS

Technical Notes

Child Growth and Development Indicators

No Screen Time
Percent of two-year-olds that have no TV/video viewing time in a typical day.

Numerator: Weighted number of women who reported that their two-year-old did not watch any TV or videos in a typical day.

Denominator: Weighted number of women with a two-year-old that responded to the first PRAMS survey.

Data Source: PRAMS-2

Screen Time
Percent of two-year-olds that have less than two hours of TV/video viewing time in a typical day.

Numerator: Weighted number of women who reported that their two-year-old watched TV or videos for less than two hours in a typical day.

Denominator: Weighted number of women with a two-year-old that responded to the first PRAMS survey.

Data Source: PRAMS-2

TV in Bedroom
Percent of two-year-olds that do not have a TV in the room where they sleep.

Numerator: Weighted number of women who reported that there is no TV in the room where their two-year-old sleeps.

Denominator: Weighted number of women with a two-year-old that responded to the first PRAMS survey.

Data Source: PRAMS-2

Reading to Child
Percent of two-year-olds that are read to daily by a family member.

Numerator: Weighted number of women who, when asked, "How many days in a typical week do you, or somebody in your household, read a book or story to your two-year-old," responded: seven days per week (e.g., daily).

Denominator: Weighted number of women with a two-year-old that responded to the first PRAMS survey.

Data Source: PRAMS-2

Technical Notes

Home, Family, and Community Indicators

Father Uninvolvement

Estimated prevalence of father uninvolvement (using missing father's names on the birth certificate as a proxy).

Numerator: Number of births where the father's first and last names were missing on the birth certificate.

Denominator: Total number of births.

Data Source: PRAMS-2

Child Outings

Percent of two-year-olds that had four or more outings in the past week.

Numerator: Weighted number of women who, when asked, "How many times in a typical week have you or any family member taken your two-year-old on any kind of outing, such as to a park, playground, or other children's program or activity," responded: four or more times.

Denominator: Weighted number of women with a two-year-old that responded to the first PRAMS survey.

Data Source: PRAMS-2

Family Eats Together

Percent of two-year-olds living in households where the family usually or always eats meals together.

Numerator: Weighted number of women who, when asked, "In a typical week, how many days a week does your family eat at least one meal together," responded: four or more times.

Denominator: Weighted number of women with a two-year-old that responded to the first PRAMS survey.

Data Source: PRAMS-2

Childcare

Percent of two-year-olds that are in childcare.

Numerator: Weighted number of women who, when asked, "In a typical week, what is the main type of child care used for your two-year- old," selected either a formal type (child care center, preschool, Head Start), informal (care by a non-relative or relative other than child's parents), or no child care (care by the child's parent/s).

Denominator: Weighted number of women with a two-year-old that responded to the first PRAMS survey.

Data Source: PRAMS-2

Technical Notes

Data Sources

Vital Statistics

The vital statistics data used in this report were birth and death records. Vital statistics data is compiled by the Center for Health Statistics (CHS) at the Oregon Health Authority. Through a data agreement contract, the Multnomah County Health Department receives data from CHS that contains a record for every birth and death occurring to Multnomah County residents. Birth records contain mother and father's demographic information (e.g., race, ethnicity, age, etc.), mother's health risks at the time of delivery, method of birth, and birth outcomes.

Vital records data are used throughout the state and the nation for analysis of maternal and child health trends, as well as for determining leading causes of death, low birthweight and preterm babies, mother's prenatal care utilization, and more. For more information about this data source, contact the Center for Health Statistics: http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/Pages/index.aspx

Pregnancy Risk Assessment and Monitoring Surveillance System (PRAMS)

PRAMS is a state-based health survey that is administered to women who had a live birth recently. The survey is sponsored by the Center for Disease Control and Prevention (CDC) in collaboration with the Oregon Health Authority and collects data on maternal attitudes and experiences before, during, and shortly after pregnancy. Forty states (including Oregon) and New York City currently participate in PRAMS, representing approximately 78% of all live births in the United States.

Each month, recent mothers are randomly selected from the Oregon birth certificates file and a PRAMS questionnaire is mailed to them. A series of reminder mailings and telephone interviews are attempted in order to reach women who have not returned the survey. Using this rigorous outreach method, a total of 3,430 Oregon women completed the survey in 2009 and 2010 combined. The weighted response rate for 2009 was 70.2%, and for 2010 it was 74.9%. The sample data are analyzed in a way that allows findings to be representative of all Multnomah County women who have recently had a live birth. For more details on the methodology of the PRAMS survey, please visit the CDC website: www.cdc.gov/prams/methodology.htm

Technical Notes

Data Sources continued

Pregnancy Risk Assessment and Monitoring Surveillance System 2-Year Follow-Up Survey (PRAMS-2)

   PRAMS-2 is the newest data source available for maternal and child health surveillance in Oregon. Only a handful of states nationally conduct the PRAMS-2 survey. In January 2006, Oregon PRAMS began re-interviewing women who gave birth in 2004 and who responded to the first PRAMS survey. At the time of PRAMS-2 survey, their babies were two years old. The women were asked about topics such as well childcare visits, child nutrition, social support, maternal physical activity and multivitamin use, childcare, screen time, and more. For more information about the PRAMS-2 methodology, please contact the Office of Family Health at the Oregon Health Authority:

http://public.health.oregon.gov/HealthyPeopleFamilies/DataReports/prams/Pages/index.aspx

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