

Pregnant and Parenting Youth in Foster Care in Washington State: Comparison to Other Teens and Young Women who Gave Birth

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AS PART OF THE PLANNING PHASE of a grant-funded effort to guide services for pregnant and parenting youth in foster care, the Department of Social and Health Services, Research and Data Analysis Division identified a cohort of youth in foster care placement, age 21 or younger, who were pregnant, gave birth, or fathered a child during or prior to placement in State Fiscal Years (SFY) 2008-2011. Births and pregnancies to these youth between the years 2002 – 2011 were included. General demographic, risk, and service information was described in an earlier briefing paper (September 2012).

This brief report describes risk factors and outcomes for the same cohort of youth in placement, limited to the first birth to female parents. In addition to the cohort of female youth in foster care who gave birth, we describe characteristics for three comparison groups of young women who gave birth in 2008-2009. The years 2008-2009 were selected for births for the comparison groups because nearly half (48%) the births to foster care youth in this study occurred in 2008-2009.

Four Study Groups

The following four study groups are mutually exclusive:

Foster Youth <i>TOTAL = 446</i>	Female youth in placement during SFY2008-2011, age 21 or younger who were pregnant or gave birth during or prior to out of home placement; 98% of Foster Youth were age 11-19.
Medicaid Teens <i>TOTAL = 12,531</i>	Age 11-19 who gave birth in 2008-2009 and were on Medicaid at the time of delivery.
Medicaid Young Adults <i>TOTAL = 29,157</i>	Age 20-24 who gave birth in 2008-2009 and were on Medicaid at the time of delivery.
Non-Medicaid Teens <i>TOTAL = 1,457</i>	Age 11-19 who gave birth in 2008-2009 and were not on Medicaid at the time of delivery.

The four study groups will be used to illustrate differences in demographics, risk factors, and outcomes related to age and income level, in addition to foster care placement.



Demographics: Mother's Age and Race/Ethnicity

The mother's age at the time of her child's birth and her income level are key inter-related factors associated with both pregnancy outcome and her ability to care for herself and her child. All clients in foster care are eligible for Medicaid coverage. For other pregnant youth and adults, Medicaid enrollment may be used as a marker for low income status (poverty).

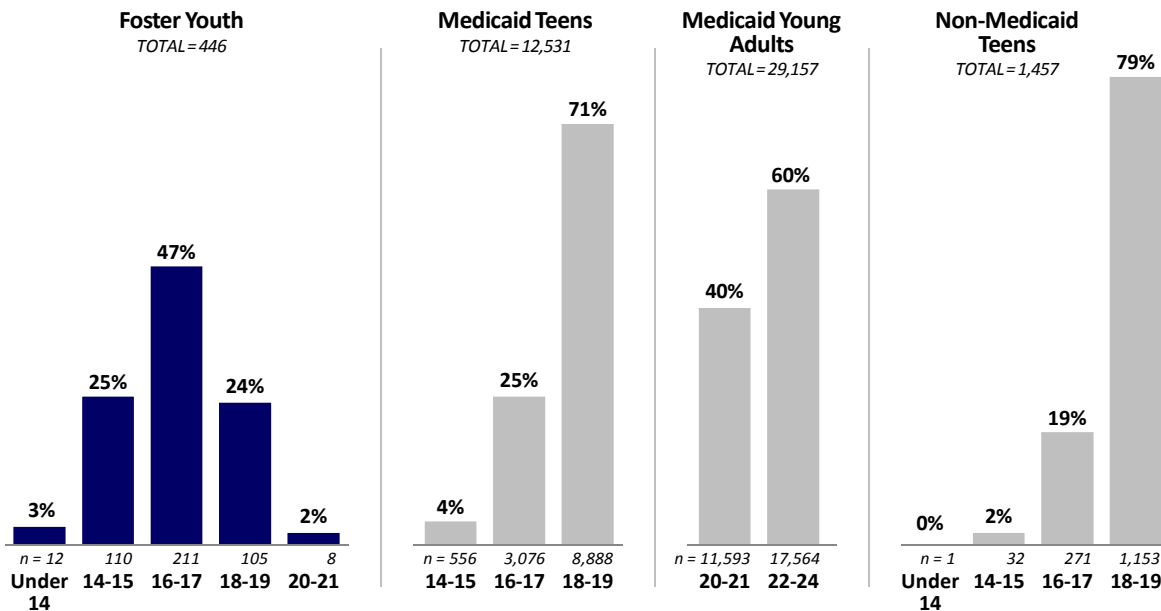
Pregnant women with family incomes at or below 185% of the Federal Poverty Level are eligible for Medicaid coverage. In 2008-2009, 90% of Washington teen mothers age 11 to 19 were enrolled in Medicaid at the time they gave birth. The average age at the time of delivery is significantly higher for Non-Medicaid mothers (average age 30.5 years old in 2011), compared to that for Medicaid mothers (average age 26.2 years old in 2011).

Our study groups include low-income teens on Medicaid (N=12,531) with higher income teens (N=1,457) who were not on Medicaid at the time of delivery. In addition, we can compare Medicaid teens (age 11-19) to young adult women (age 20-24) on Medicaid at the time of delivery.

These four study groups will be used throughout this report.

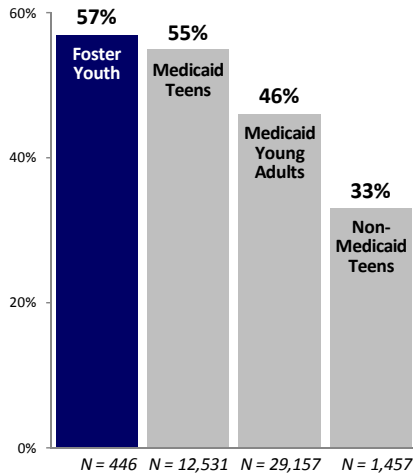
The following chart shows the age distributions for the four study groups. The three comparison groups include all Washington births in 2008-2009 that met the criteria for these groups.

Age distribution, percent within each study group



- The age distribution of Foster Youth, from less than 14 years old to 21 years old was broader than that for any other group because youth in foster care may be served up to age 21; 98% of Foster Youth were less than 19 years old.
- The majority of both Medicaid Teens and Non-Medicaid Teens (71% and 79%, respectively) were 18 – 19 years old. These two groups were older on average than the Foster Youth group.
- Medicaid Young Adults age 20 – 24 were selected as a comparison group to illustrate the influence of older age on risk factors and outcomes described below.

Mothers who were members of racial/ethnic minority groups, including Hispanic



- For both Foster Youth and Medicaid Teens, more than half the mothers were members of racial/ethnic minority groups: 57% of Foster Youth and 55% of Medicaid Teens were racial/ethnic minorities.
- For Medicaid Young Adults and for Non-Medicaid teens, the proportions of minorities were lower: 46% of Medicaid Young Adults and 33% of Non-Medicaid Teens were members of racial/ethnic minorities.

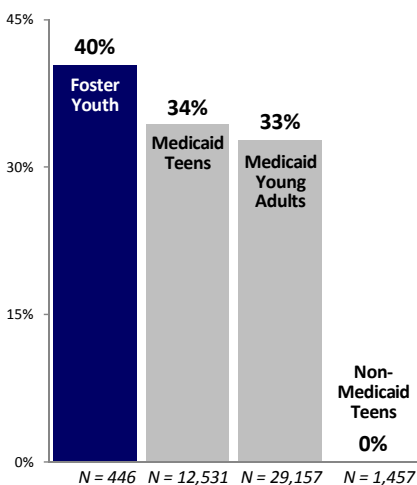
These trends are consistent with higher rates of poverty and higher teen birth rates among most racial/ethnic minorities in Washington. Hispanic teen birth rates are higher than those for any other racial/ethnic group: more than one-third (37%) of Medicaid teens were Hispanic. The proportions of African Americans and Native Americans among Foster Youth (9% and 8% respectively) were more than double the proportions in any of the three comparison groups. The proportion of Foster Youth who described themselves as belonging to more than one race (12%) was also more than double the rate for any of the comparison groups.

Other Indicators of Financial Well-Being

In addition to receiving medical insurance through Medicaid, some very low-income pregnant women are eligible to receive cash assistance through TANF. The proportion of mothers who were enrolled in TANF at the time of delivery is another way to describe the financial well-being of the study groups.

Mothers receiving TANF assistance at the time of delivery

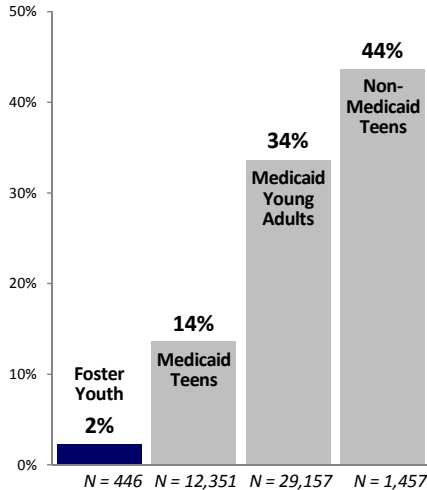
Pregnant teens may be eligible for Temporary Assistance For Needy Families (TANF); a TANF social worker makes an assessment of the teen's living situation, and the findings of this assessment determine whether or not the teen is eligible for TANF.



- The rate of TANF enrollment was higher for Foster Youth (40%) than for any of the other groups.
- The rate of TANF enrollment was similar for Medicaid Teens and Medicaid Young Adults, 34% and 33% respectively, both rates lower than that for Foster Youth.
- Higher-income, Non-Medicaid Teens were by definition not eligible for TANF. (TANF clients are entitled to Medicaid coverage.)

Mother Married at the Time of Delivery

Financial well-being is also reflected by the mother's marital status: single mothers often face greater financial hardship than mothers who are married or in stable relationships. The mother's self-reported marital status is recorded on the baby's birth certificate; marital status is not independently verified.

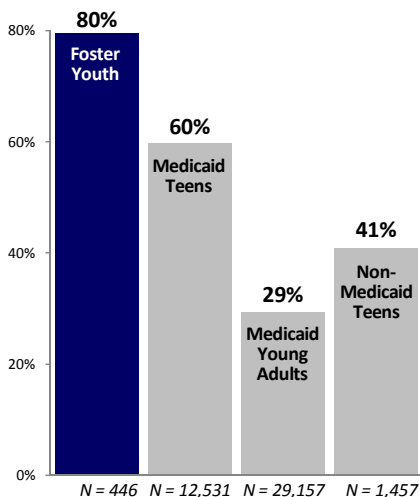


- Only two percent (2%) of Foster Youth were married at the time of delivery, compared to 14% of Medicaid Teens and 44% of Non-Medicaid Teens. One-third (34%) of young adult mothers on Medicaid (age 20-24) were married at the time of delivery.
- As is the case for educational attainment (below), the older age of Medicaid and Non-Medicaid Teens may partly explain the differences in marital status. The high proportion of married mothers among Non-Medicaid Teens is consistent with their higher income status.

Education

The mother's educational attainment is a key factor in her financial self-sufficiency and her children's prospects for success in life. Many teen mothers are simply not old enough to have completed high school at the time they give birth. Their lack of formal education may limit their wage-earning capacity and their ability to meet their child's needs. The mother's self-reported educational attainment at the time of delivery is recorded on the baby's birth certificate and is not independently verified.

Mothers with less than a High School Education at the time of delivery



- The proportion of mothers with less than a high school education at the time of delivery was higher for Foster Youth (80%) than for Medicaid Teens (60%) or Non-Medicaid Teens (41%). Young adult mothers on Medicaid (age 20-24) had the highest educational attainment, with just 29% having less than a high school education at the time of delivery.
- Age and educational attainment are closely related: it should be noted that **Foster Youth were younger on average** than Medicaid Teens and Non-Medicaid Teens. Only 25% of Foster Youth were at least 18 years old at delivery, compared to 71% of Medicaid Teens and 79% of Non-Medicaid Teens. The differences in age distribution may at least partly explain educational attainment among Foster Youth.

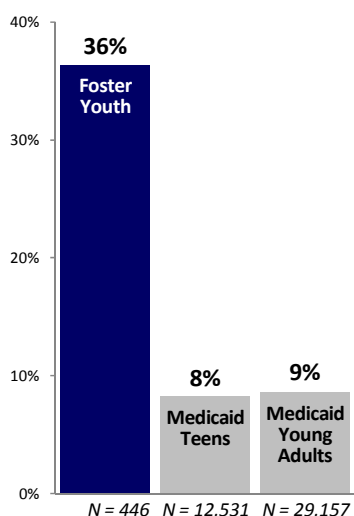
Two recent studies document the challenges foster youth face in achieving good school outcomes. Both reports differed from the study presented here in how they measured school outcomes; neither described school outcomes specifically for pregnant or parenting teens in foster care. Burley (2013)

reported the four-year graduation rate for youth in foster care was between 35 and 55%, compared to a rate of 70 to 75% for non-foster youth; foster youth had the lowest graduation rate of all at-risk students. Similarly, Coker et al. (2012) reported that Children’s Administration clients have very low average graduation and correspondingly high drop-out rates, compared to other DSHS clients. Completing high school will be more challenging for pregnant/parenting foster youth than for those without children. This highlights the need for ongoing efforts to support education for Foster Youth.

Behavioral Health Risk Factors

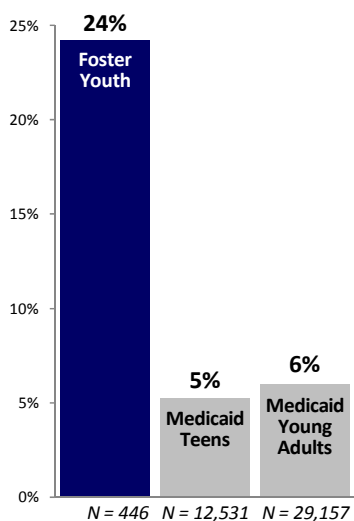
Across all income and age groups, mental health and substance abuse problems are among the strongest risk factors for poor pregnancy outcomes for both mothers and their infants, and for the children’s subsequent involvement with the child welfare system. Mental health and chemical dependency diagnoses and/or treatment information was available only for the Medicaid population, so we were not able to report mental health or substance abuse problems for Non-Medicaid Teens.

Mothers with Diagnosed Mental Health Conditions



- More than one-third (36%) of Foster Youth were diagnosed with a mental health condition. This rate (36%) of diagnosed mental health conditions was at least **four times higher** than the rates for Medicaid Teens (8%) or Medicaid Young Adults (9%).
- Diagnosed mental health conditions included psychoses, neurotic disorders, personality disorders, and intellectual disabilities (ICD-9 290-319). Prescription medicines alone (without diagnosis of a mental health condition) were deemed insufficient to assign diagnosis of a mental health condition.

Mothers with Identified Substance Abuse Problems

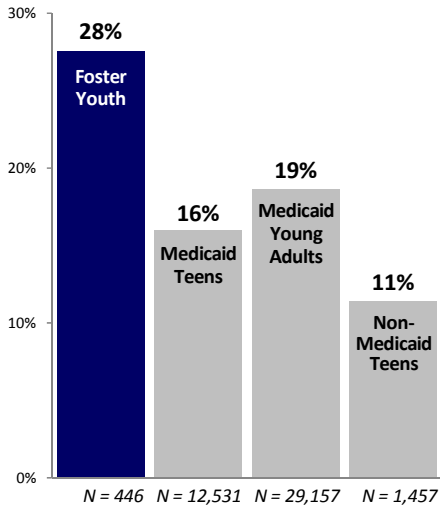


- Nearly one-quarter (24%) of Foster Youth were diagnosed with a substance abuse problem. This rate (24%) of identified substance abuse problems was at least **four times higher** than the rates for Medicaid Teens (5%) or Medicaid Young Adults (6%).
- Among Foster Youth, 16% had prenatal diagnosis or treatment for substance abuse, and 8% were diagnosed and/or treated after delivery. Overall, 7% were diagnosed during the prenatal period but did not receive treatment prenatally.

Additional Maternal Risk Factors

Maternal smoking, obesity, and lack of prenatal care represent additional risk factors for poor pregnancy outcomes. Recently, maternal smoking has been determined to contribute significantly to subsequent conduct disorder in the mother's offspring. Maternal smoking is also associated with low birth weight, increased childhood respiratory illness, and higher SIDS rates. During childhood and adolescence, maternal smoking is associated with increased hyperactivity (ADHD), increased alcohol and drug use among adolescents, decreased child IQ, and increased asthma.

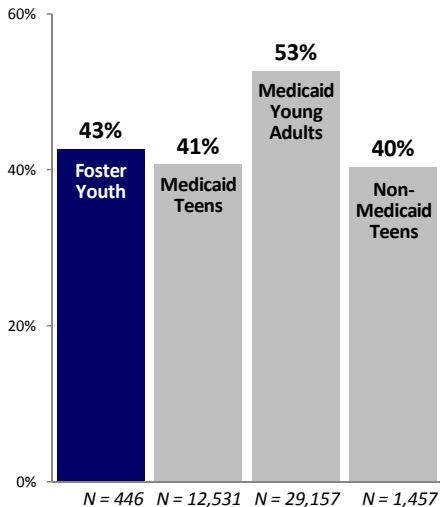
Maternal Smoking During Pregnancy



- More than one-fourth (28%) of Foster Youth smoked during pregnancy. This rate of smoking (28%) was **1.5 times** the rates for Medicaid Teens (16%) and for Medicaid Young Adults (19%) and **2.5 times** the rate for Non-Medicaid Teens (11%).

Overweight or obese prior to pregnancy

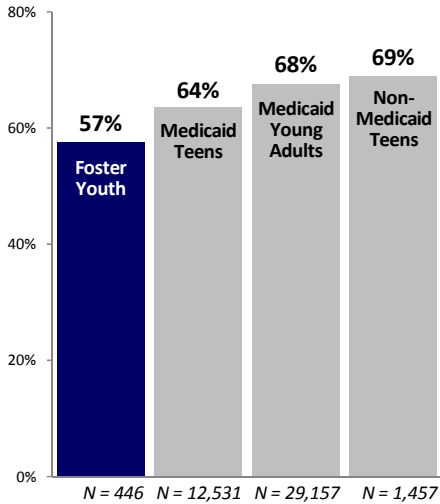
In Washington and across the nation, obesity is epidemic. Obesity is a risk to the health of pregnant women and their babies. As weight increases to the levels of overweight and obese, risks for a wide range of medical conditions—such as heart disease, diabetes, high blood pressure, cancer (breast, colon, and endometrial), stroke, and respiratory problems—also increase. Health consequences of obesity occur both in the general population and among pregnant women. Obese pregnant women have higher rates of delivery by c-section and more complications during and after cesarean delivery. In addition, infants born to obese women have increased risk of still birth, prematurity, macrosomia (large for gestational age), and neural tube defects, and higher rates of childhood obesity.



- The proportion of mothers who were overweight or obese (pre-pregnancy Body Mass Index (BMI) ≥ 25) ranged from 40% among Non-Medicaid Teens, to 41% among Medicaid Teens and 43% among Foster Youth.
- Among Medicaid Young Adults, the rate of overweight or obesity (53%) was higher than that for the other three groups. Since obesity tends to increase with increasing age, and since the Medicaid Young Adult group was older than the other three groups, it is reasonable that their rate of overweight or obesity was also higher.

First Trimester Prenatal Care

The best time for a pregnant woman to begin prenatal care (PNC) is during her first trimester. Early prenatal care facilitates early detection and treatment of medical and obstetric conditions. Early prenatal care also provides an opportunity to educate women about numerous factors that affect birth outcomes such as nutrition, appropriate weight gain and exercise, as well as risks associated with smoking, alcohol and illicit drugs, and environmental hazards.



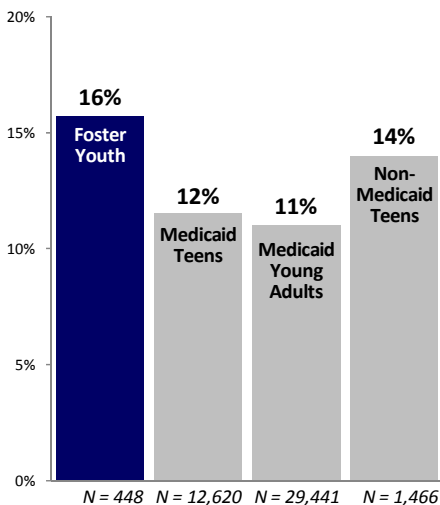
- The highest rates of first trimester prenatal care initiation occurred among Non-Medicaid Teens (69%) and Medicaid Young Adults (68%). The rate was intermediate for Medicaid Teens (64%) and lowest for Foster Youth (57%).
- The rates of first trimester prenatal care among Foster Youth were similar for those whose stay in foster care included the prenatal period and for those who entered foster care at the end of pregnancy or later.
- The *Healthy People 2020* goal is to increase the proportion of pregnant women who begin prenatal care during the first trimester to 77.9%.

Birth Outcomes

Three key birth outcomes are premature birth, low birth weight, and infant mortality. These three outcomes are inter-related and are influenced by many of the same risk factors, including poverty, maternal age, maternal smoking, chemical dependency, and mental health problems.

Premature Birth

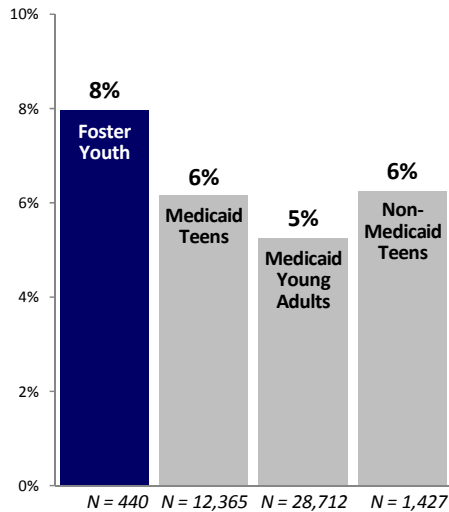
A premature baby is one who is born too early, before 37 weeks. Premature babies may have more health problems and may need to stay in the hospital longer than babies born later. They also may have long-term health problems that can affect their whole lives.



- Foster Youth had the highest rate of premature births, with 16% of their babies born before 37 weeks gestational age.
- The lowest rate of prematurity (11%) occurred among Medicaid Young Adults.
- Medicaid Teens and Non-Medicaid Teens had intermediate rates of prematurity, 12% and 14%, respectively.

Low Birth Weight Rate

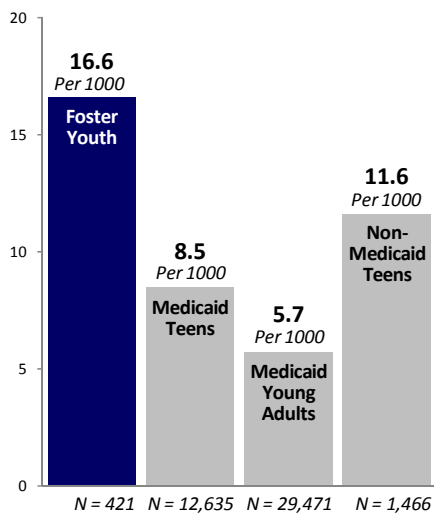
Birth weight is a primary indicator of the health of the newborn infant. Infants with birth weight of less than 2500 grams (5.5 pounds) are classified as low birth weight. Low birth weight is associated with increased risk of infant death and a wide range of disorders including neuro-developmental conditions, learning disorders, and respiratory tract infections. Low birth weight is reported for singleton liveborn infants.



- Foster Youth had the highest rate of low birth weight, with 8% of their babies born at less than 5.5 pounds.
- The lowest rate of low birth weight (5%) occurred among Medicaid Young Adults.
- The low birth weight rates for Medicaid Teens and Non-Medicaid Teens were the same, 6%.

Infant Mortality Rate (per 1000)

Infant mortality (death of a liveborn infant during the first year of life) is often used as a standard measure of a population's health. The leading causes of infant death in Washington include birth defects, SIDS (Sudden Infant Death Syndrome), and disorders related to prematurity and low birth weight.



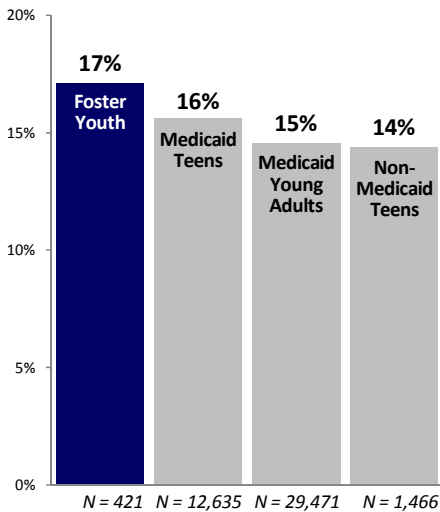
- Foster Youth had the highest rate of infant mortality: 16.6 per 1000 of their liveborn infants died before their first birthday.
- The lowest rate of infant mortality (5.7 per 1000) occurred among Medicaid Young Adults.
- The infant mortality rates for Medicaid Teens and Non-Medicaid Teens were intermediate, 8.5 per 1000 and 11.6 per 1000, respectively.

Longer-Term Outcomes for Mothers and Infants

Birth outcomes such as prematurity, low birth weight, and infant mortality primarily reflect the infant's health status at birth and over the first year of life. Many factors influencing these short-term outcomes also affect longer-term outcomes and in some cases impacts may be even greater. Longer-term outcomes available for analysis were limited in number but are important nevertheless.

One or more subsequent births within two years

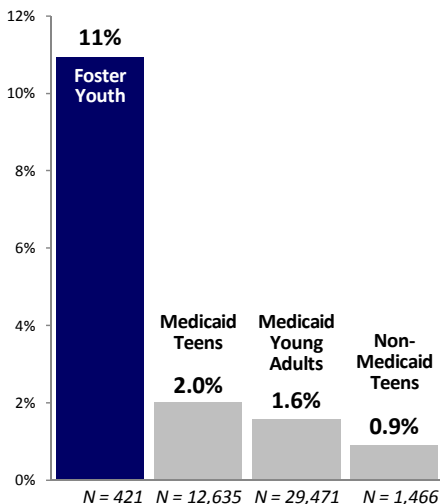
The timing between one pregnancy and the next may affect the risk of pregnancy complications. In addition, a young single mother may face many challenges in her parenting of each additional child born within a short time span. Each mother in the four study groups was followed for two years after the birth of her baby to determine whether or not she had another baby in that time frame. Mothers whose initial pregnancy resulted in fetal death (still born baby) were excluded from this analysis.



- Foster Youth had the highest rate of subsequent births, with 17% giving birth to another baby within two years.
- The lowest rate of subsequent births (14%) occurred among Non-Medicaid Teens.
- The subsequent birth rates for Medicaid Teens and Medicaid Young Adults were intermediate, 16% and 15%, respectively.

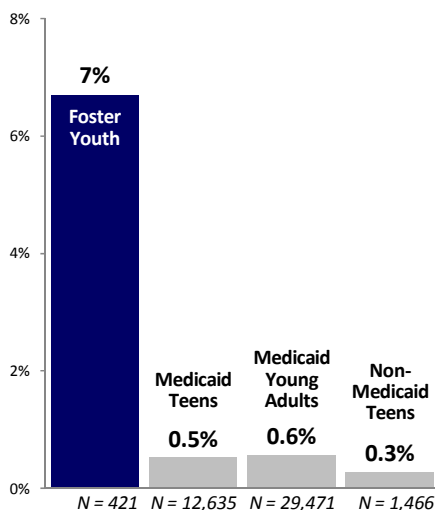
Child Protective Services referral before the age of two

Child abuse and neglect is one of the most important consequences of maternal substance abuse and mental health problems. Each child in the four study groups was followed for the first two years of life to determine whether or not a referral for child abuse or neglect was accepted. To avoid confusion between referrals for the mother and those for the child, we included CPS referrals in this analysis only if the child was identified as the victim in the referral. In some cases, both the mother and her baby may have been identified as victims in the same referral.



- The rate of accepted CPS referrals before the child turned two was dramatically higher for children born to Foster Youth.
- The rate of accepted CPS referrals for children born to Foster Youth (11%) was **more than 5 times higher** than the rates for Medicaid Teens (2%) and Medicaid Young Adults (1.6%) and **more than 10 times higher** than the rate for Non-Medicaid Teens (0.9%).

Out of home placement before the age of two, where the child has been placed



Each child in the four study groups was followed for the first two years of life to determine whether or not out of home placement was made. To avoid confusion between placements for the mother and those for the child, we included out of home placements in this analysis only if the child was identified as the victim.

- The rate of out of home placement before the child turned two was dramatically higher for children born to Foster Youth.
- The rate of out of home placement for children born to Foster Youth (7%) was **more than 10 times higher** than the rates for Medicaid Teens (0.5%) and Medicaid Young Adults (0.6%) and **nearly 25 times higher** than the rate for Non-Medicaid Teens (0.3%).

Summary

This brief report describes differences in demographics, risk factors, and outcomes for female Foster Youth who gave birth in 2002 – 2011, as compared to teen mothers on Medicaid, young adult mothers on Medicaid, and higher-income (Non-Medicaid) teen mothers. Medicaid and Non-Medicaid Teens were somewhat older overall than Foster Youth. The proportion of racial/ethnic minorities including Hispanic was highest among Foster Youth though not appreciably higher than for Medicaid Teens. Foster Youth had the highest rate of TANF enrollment at the time of delivery, the lowest educational attainment, and the lowest rate of being married at the time of their baby's birth.

Rates of diagnosed mental health conditions (36%) and substance abuse (24%) among Foster Youth were four times higher than the corresponding rates for Medicaid Teens and Young Adults. The smoking rate (28%) among Foster Youth was 1.5 times the rates for Medicaid Teens and Young Adults, and 2.5 times the rate for Non-Medicaid Teens. The rate of overweight or obesity among Foster Youth was high (43%) but not substantially higher than the rates for Medicaid Teens or Non-Medicaid Teens and lower than the rate for Medicaid Young Adults. Foster Youth had the lowest rates of first trimester entry into prenatal care; the rates of first trimester prenatal care were similar for those whose stay in foster care included the prenatal period and for those who entered foster care at the end of pregnancy or later.

The three birth outcomes included in this analysis—prematurity, low birth weight, and infant mortality—demonstrated remarkably similar patterns. While Foster Youth had the highest rates for all three adverse birth outcomes, their rates were not markedly higher than those for the three comparison groups. Similarly, Foster Youth had slightly higher rates of subsequent births within two years.

The rates of accepted CPS referrals and out of home placement during the first two years of life, where the child born to Foster Youth was identified as the victim, were dramatically higher for the Foster Youth group, with CPS referrals 5 to 10 times higher, and out of home placement 10 to nearly 25 times higher than the rates for the other three groups.

These comparisons confirm that, compared to other low-income teens, higher-income teens, and low-income young adult women, Foster Youth have high rates of key risk factors. The greatly increased rates of CPS referrals and out of home placement for children born to Foster Youth stand in stark contrast to the modestly increased rates of adverse birth outcomes. This suggests greater resilience of the biological systems (human body) compared to the combined social/emotional impacts of poverty, mental health and substance abuse problems.

DATA SOURCES

The First Steps Database (FSDB) links birth and death certificates to Medicaid-paid maternity services and Medicaid eligibility. FSDB relies on information obtained from the Health Care Authority and the Department of Health Center for Health Statistics (DOH CHS). Chemical dependency treatment encounter records from the TARGET database (DSHS DBHR) and selected records from FamLink (DSHS CA) are also included in the FSDB. Merging these data into one database allows population-based analyses of maternal and child health issues by a wide range of factors such as age, income, race and ethnicity.

MEASURES

Medicaid Status: pregnant women with family incomes at or below 185% of the Federal Poverty Level (FPL) are eligible to receive medical assistance services funded through the Medicaid program, created by Title XIX of the Social Security Act. (Effective October 1, 2013, pregnant women with family incomes at or below 193% of the FPL became eligible for Medicaid.) Medicaid women received Medicaid-funded maternity care, either prenatal care and/or delivery services.

TANF Status: some very low-income pregnant women are eligible to receive cash assistance through Temporary Assistance to Needy Families (TANF). Their family incomes are generally lower than 50% of the PFL.

Educational Attainment: the mother's level of education at the time of delivery is reported on the birth certificate. Women with unknown completed years of education were included in the denominator (range of missing values: 1.1-2.5%).

Marital Status (Married): the mother's marital status at the time of delivery is reported on the birth certificate. Women with missing marital status were included in the denominator (missing values: 0.2-0.5%).

Mental Health Conditions: Diagnosed mental health conditions including psychoses, neurotic disorders, personality disorders, and intellectual disabilities (ICD-9 290-319) were identified in the mother's Medicaid claims.

Substance Abuse: Birth certificates, Medicaid claims, and TARGET records linked at the individual level were used to identify maternal substance abuse, indicated by a diagnosis of substance (drug or alcohol) abuse listed by a provider on a claim submitted to Medicaid or an episode of treatment for substance abuse during pregnancy.

Maternal Smoking: the mother's history of smoking during pregnancy is reported on the birth certificate. The denominator includes missing values (range of missing values: 0.7-1.9%).

Overweight/Obesity (pre-pregnancy BMI ≥ 25): determination of overweight or obesity was based on the body mass index (BMI). BMI is calculated as weight in kilograms divided by the square of height in meters. The mother's height and pre-pregnancy weight are reported on the birth certificate. The denominator excludes missing values (range of missing values: 7-9%).

First Trimester Prenatal Care: is the percent of mothers who began receiving prenatal care in the first three months of pregnancy. The date of the first prenatal visit is recorded on the birth certificate. Women with unknown dates for the first prenatal visit were excluded from the denominator (range of missing values: 5-7%).

Prematurity: The infant's gestational age (GA) at birth is recorded on the birth certificate. A premature baby is one who is born too early, before 37 weeks. The best estimate of GA may be based on dates (baby's DOB – LMP), the obstetrical estimate of GA, or imputed from birth weight. The denominator includes all births.

Low Birth Weight: the percentage of singleton live born infants weighing less than 2500 grams (5.5 pounds), excluding records with unknown and out-of-range values (0.1-0.3%). The newborn baby's birth weight is recorded on the birth certificate. The denominator is limited to singleton live born infants with valid birthweights.

Infant Mortality Rate: represents the number of infants deaths during the first year of life divided by the number of live births (times 1000). The DOH CHS links death certificates for infants to their birth certificates.

Subsequent Births: The FSDB includes longitudinal linkage of birth certificates for births to the same mother. The denominator excludes mothers whose initial pregnancy ended in fetal demise (still birth).

Accepted CPS Referral: FamLink records for accepted CPS referrals were flagged if the child was identified as the victim and the referral date was before the child's second birthday.

Out of Home Placement: FamLink records for out of home placement were flagged if the child was identified as the victim and the placement date was before the child's second birthday.

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