



# The Maternal Well-Being of Washington State's TANF Population

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Report to DSHS Economic Services Administration, Office of the Assistant Secretary and the Community Services Division

TEMPORARY ASSISTANCE FOR NEEDY FAMILIES (TANF) provides temporary cash assistance to families in need. Washington State residents who are responsible for the care of children or who are pregnant and also meet income, resource, and citizenship or alien status requirements are eligible for the TANF cash grant. A substantial portion of the clients served by the TANF program every year are children and their mothers. This report focuses on the well-being of a subset of mothers and children served by TANF: mothers who give birth and their infants. This descriptive profile provides the DSHS Economic Services Administration (ESA) information on the well-being of new mothers who receive TANF and their newborns in order to identify potential service gaps and needs for this vulnerable population.

## Key Findings

### 1. Women who give birth and receive TANF have complex needs and face significant barriers to well-being.

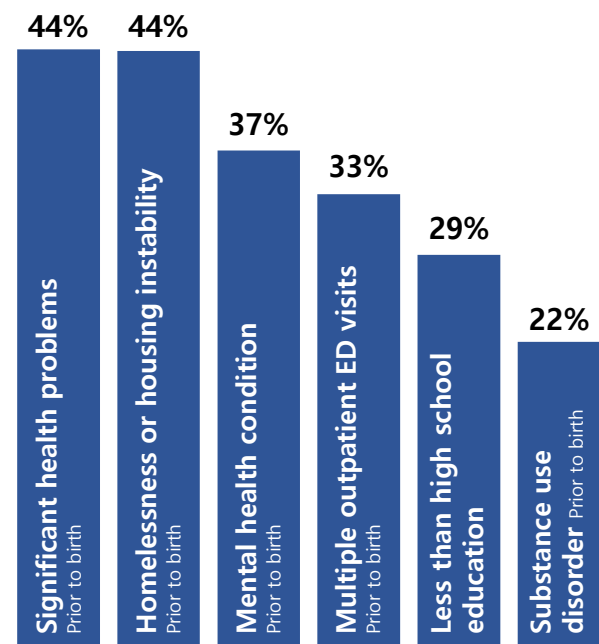
Housing instability, behavioral health conditions, low education levels, significant health problems, and high medical utilization stand out as common barriers (see Figure 1).

### 2. Services to ensure well-being for new mothers on TANF are multifaceted and require coordination across service systems and agencies.

DSHS Economic Services, the Department of Children Youth and Families, the Health Care Authority, and the Department of Health, as well as county and local-level service providers and organizations, all have an important role to play in bolstering maternal and infant well-being.

FIGURE 1  
Barriers to Well-Being among Women Who Give Birth and Receive TANF (CY 2015)

Measured in the 12 months prior to delivery  
TOTAL WOMEN = 6,921



## Study Design

The cohort for this study consisted of 6,921 women who were TANF (or State Family Assistance) recipients during any month in Calendar Year (CY) 2015 who also gave birth in CY 2015 and had a Medicaid ID. The total population of women who gave birth in CY 2015 with a Medicaid ID that could be identified (n=43,763) is referenced where appropriate for comparison purposes. A small number (about 6.5 percent) of women were not Medicaid-enrolled in the month of the delivery, but were Medicaid enrolled at some other point. Only women with a live birth were included in the cohort. Measures are reported for the first birth to the mother in the calendar year. Comparisons to the Medicaid population for every measure can be found in the Appendix. This study relied on integrated service and outcome information contained in the DSHS Integrated Client Database (ICDB) as well as birth certificate and maternal/child health information contained in the First Steps Database (FSDB).

### Overview of the TANF Program with Pregnant Women and Mothers of Infants

Women who are pregnant or are caring for a child and meet TANF income and other eligibility requirements can receive a TANF cash grant. Pregnant women on TANF are assessed by TANF workers, referred for services, and required to participate in WorkFirst activities as outlined below. WorkFirst is Washington's welfare to work program designed to help adult TANF recipients get what they need to prepare for and go to work. Pregnancy to Employment is a WorkFirst pathway to provide services that allows the parent, or parent-to-be, to look for work, or prepare for work, while meeting the family's needs.

**TANF during pregnancy.** Women already receiving TANF because they have children in the home can notify the TANF caseworker of a new pregnancy. Women who are pregnant and caring for no other children can enroll in TANF at any point of the pregnancy. All new participants in TANF are screened with the Comprehensive Evaluation to identify emergent needs, strengths, and goals. In addition, pregnant women receive a Pregnancy to Employment assessment to identify family needs and determine which WorkFirst services are appropriate. Pregnancy to Employment assessments cover the following areas: available family supports; family violence; family planning; chemical dependency; mental health; health needs; involvement with the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); documentation of involvement with a prenatal care provider or pediatrician; and WorkFirst activities a parent can engage in.

Pregnant women must participate in WorkFirst activities full-time during the first two trimesters of pregnancy unless they have a good reason to participate for fewer hours. During the third trimester, participation is based on the results of the assessment. The participant may be required to participate in mental health or drug/alcohol treatment if chemical dependency or mental health issues are identified in the assessment; if indicated they may also be required to participate in parenting education (currently in pilot locations only). If there are no identified mental health or chemical dependency issues, the participant may choose not to participate in WorkFirst activities from the start of the third trimester, though they may participate in WorkFirst activities on a voluntary basis. However, all pregnant minors must be actively participating in high school diploma or equivalency completion to continue to be eligible for TANF cash assistance.

**TANF after the child is born.** After the child is born, the new mother (or both parents in two-parent households) receives a new Pregnancy to Employment assessment to consider needs for continued services. During this assessment, participants may choose whether to take the infant exemption (up to one year, one time only) or postpartum exemption (12 weeks) or may fully participate in WorkFirst activities on a voluntary basis. The participant may be required to participate in mental health or drug and alcohol treatment or mandatory parental education (pilot sites only) based on the outcome of the assessment. Parents are reassessed annually through the Comprehensive Evaluation, and parents who take the infant exemption will receive a third Pregnancy to Employment assessment around the child's first birthday and may elect to take an additional one-year toddler exemption. In the case of minor parents, they are required to participate until their high school completion or equivalency is obtained. If there are no other mandatory participation requirements, the minor parent could take the infant exemption/post-partum exemption or the toddler exemption, once the high school or equivalency is obtained.

In some cases, TANF caseworkers may not be aware a participant is pregnant until the child is born and they are notified by the family, so the family would first have a Pregnancy to Employment assessment at that point. Parents may also enroll in TANF for the first time after the birth of their child, but as long as the child is under the age of two the family would receive a Pregnancy to Employment assessment. For the population of women whose pregnancies are known to the TANF caseworker, they can receive support during the pregnancy, while others would only be assessed and connected to community resources after the birth of their child.

## Demographics of Women Who Give Birth and Receive TANF

**Age.** Women who gave birth and received TANF in CY 2015 were on average 25 years old, while 58 percent were age 25 and younger. Women who gave birth while receiving TANF tended to be younger than the population of women giving birth on Medicaid on the whole.

**Race/ethnicity.** The population of TANF mothers giving birth was 54 percent white, 18 percent Hispanic, 11 percent African American, 8 percent more than one race, 3 percent Pacific Islander, 2 percent Asian, and 2 percent American Indian or Alaska Native.

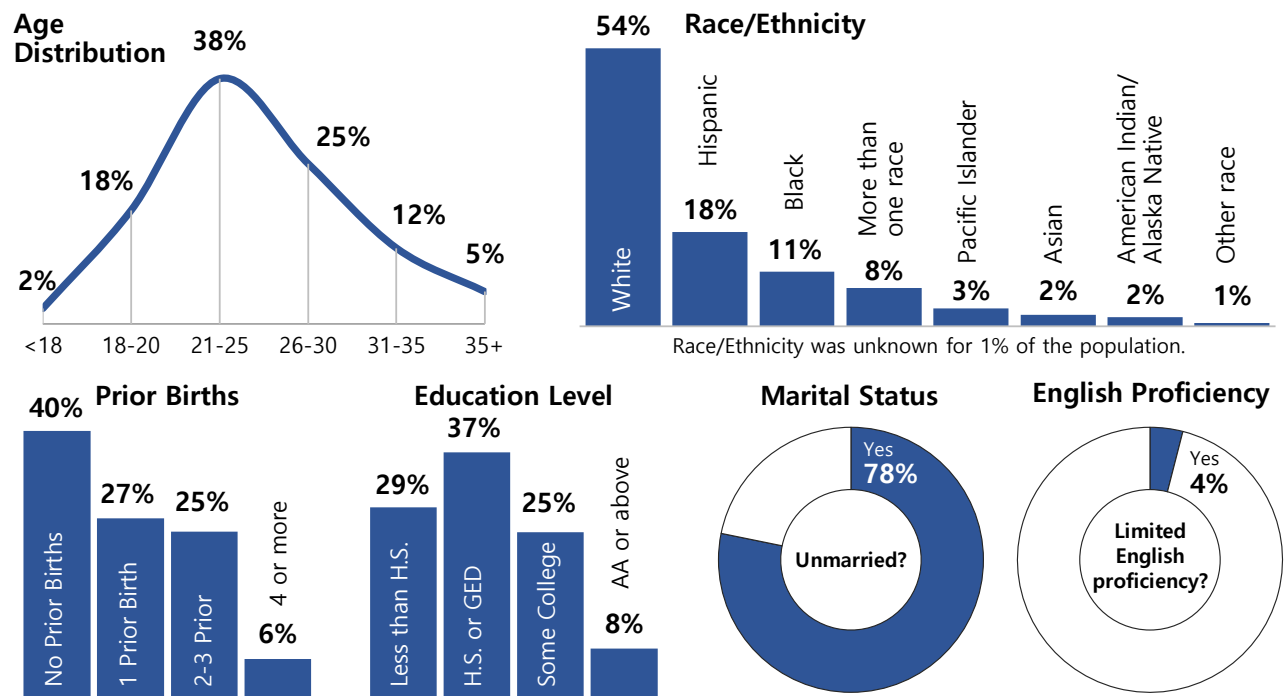
**Prior birth.** Two out of five TANF mothers giving birth (40 percent) had no previous births. TANF mothers giving birth were more likely to be first-time mothers when compared to Medicaid-enrolled deliveries overall (34 percent).

**Education level.** Twenty-nine percent of TANF mothers giving birth reported having less than high school education and 37 percent had only a high school diploma or GED. The comparable figures in the Medicaid population of mothers were 22 percent and 33 percent respectively.

**Marital status.** Seventy-eight percent of TANF mothers giving birth were unmarried, while the comparable figure in the Medicaid population was 54 percent.

**English proficiency.** Four percent of women who gave birth and received TANF were identified as speaking limited English to the extent of needing an interpreter.

FIGURE 2  
Demographic, Family, and Social Characteristics  
TOTAL WOMEN = 6,921



## Maternal Exposures Prior to Delivery

**Housing instability.** Forty-four percent of TANF mothers who gave birth had indications of homelessness or housing instability, and 12 percent were found to be literally homeless (e.g. in shelter or on the street) at some point in the 12 months leading up to their delivery. These figures were close to four times the rates of Medicaid women giving birth on the whole.

**Child welfare.** Fifteen percent of TANF mothers who gave birth had recent child welfare involvement, twice the rate of 7 percent for Medicaid mothers on the whole. Among women who already had children, 21 percent had been involved in the child welfare system in the year prior to the birth.

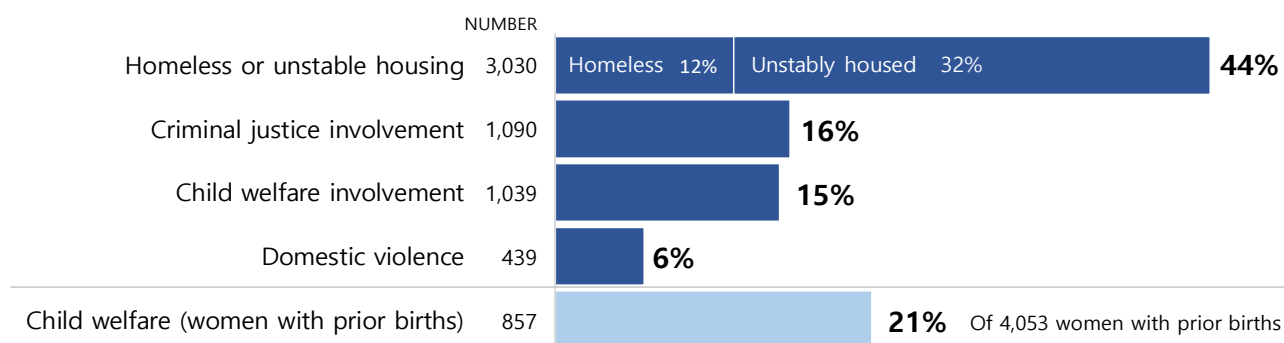
**Criminal justice.** Sixteen percent of TANF mothers had recent criminal justice involvement, nearly three times the rate of 6 percent among Medicaid mothers.

**Domestic violence.** Six percent of TANF mothers who gave birth had an indication of domestic violence.

FIGURE 3

### Maternal Exposures 12 Months Prior to Delivery

TOTAL WOMEN = 6,921



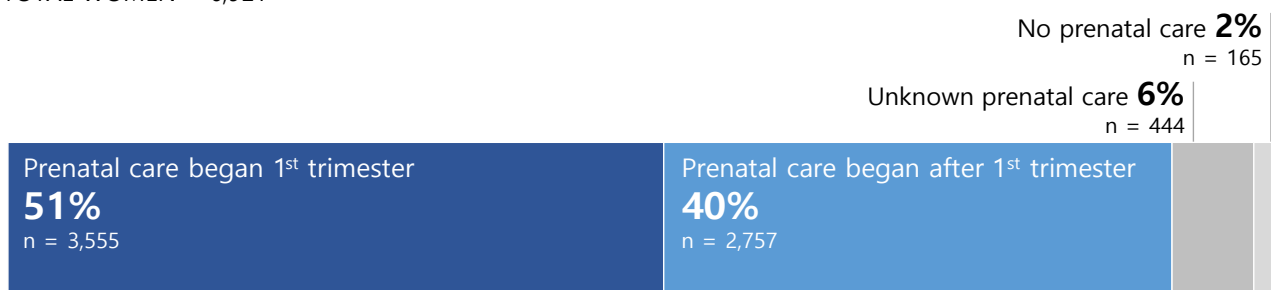
## Prenatal Care

Fifty-one percent of women on TANF who gave birth in 2015 received prenatal care in the first trimester. Eight percent had either unknown or no prenatal care. Additional analyses (not shown) found that the percent initiating prenatal care in the first trimester did not vary substantially by whether the infant was a first birth or subsequent birth for the mother.

FIGURE 4

### Initiation of Prenatal Care

TOTAL WOMEN = 6,921



NOTE: Total is slightly below 100 percent due to rounding.

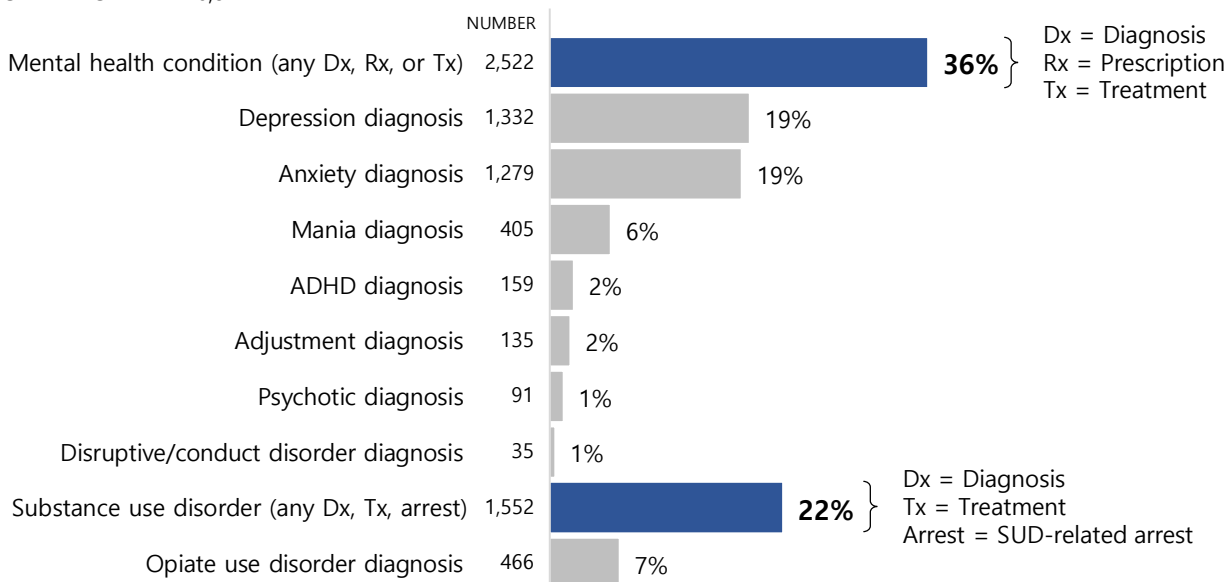
## Maternal Health Prior to Delivery

**Behavioral health.** Thirty-six percent of women who gave birth while on TANF were found to have a mental health condition prior to delivery. The most common diagnoses were depression (19 percent) and anxiety (19 percent), followed by mania/bipolar (6 percent). Twenty-two percent of women who gave birth while on TANF were found to have a substance use disorder prior to delivery while 7 percent had an identified opiate use disorder diagnosis. Rates of substance use were nearly three times as high as in the overall Medicaid population.

FIGURE 5

### Maternal Behavioral Health 12 Months Prior to Delivery

TOTAL WOMEN = 6,921

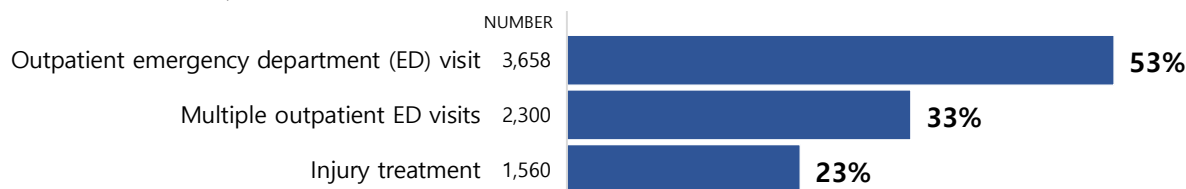


**Medical utilization.** Fifty-three percent of women who gave birth while on TANF had an outpatient emergency department visit in the 12 months prior to giving birth and 33 percent had multiple emergency department visits. This was close to twice the rate of other women who gave birth while on Medicaid. Twenty-three percent of mothers who gave birth while on TANF received treatment for an injury, which was close to twice the rate of Medicaid women. Injury treatment included both intentional and unintentional injuries and could indicate domestic violence, self-harm, or accidental injuries (e.g. car crashes or falls).

FIGURE 6

### Maternal Medical Utilization 12 Months Prior to Delivery

TOTAL WOMEN = 6,921



**Significant health problems.** Forty-four percent of TANF mothers who gave birth recently had significant health problems. The significant health problems measure indicates that an individual was diagnosed with, or prescribed medications for, chronic health conditions that would be expected to make them more costly than the average Supplemental Security Income (SSI) recipient, based on an

actuarial risk model. However, only about one percent of women who gave birth and received TANF had at least one month of disability-related medical coverage in the 12 months prior to delivery.

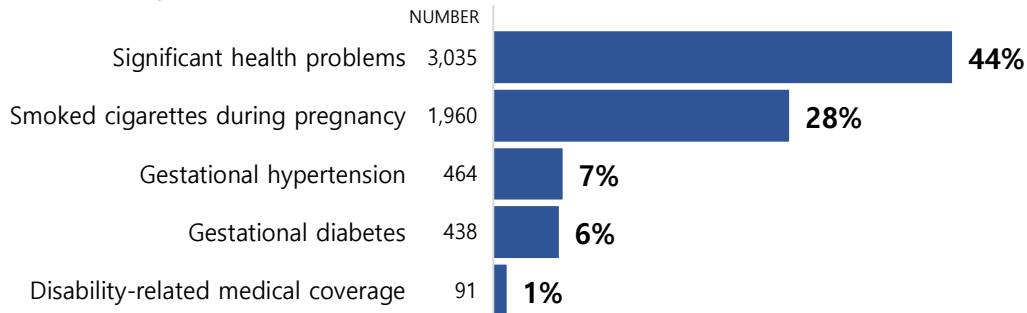
**Smoking.** Twenty-eight percent of women who gave birth while on TANF reported smoking during their pregnancy, which was over twice the rate in the broader Medicaid population of women giving birth.

**Gestational conditions.** Women giving birth while on TANF did not have higher rates of gestational diabetes (6 percent) or gestational hypertension (7 percent) than other Medicaid mothers.

FIGURE 7

### Maternal Physical Health 12 Months Prior to Delivery

TOTAL WOMEN = 6,921

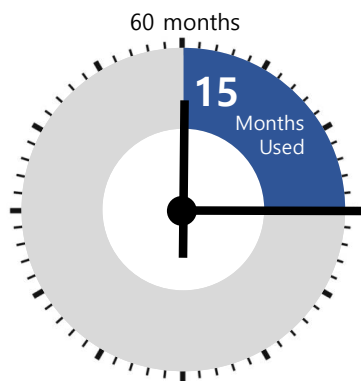


### Social Services History Prior to Delivery

FIGURE 8

#### TANF Months

TOTAL WOMEN = 6,921



**Months of TANF.** As of the month of delivery, women on TANF who gave birth had spent on average 15 months of their 60 months of TANF eligibility. Ten percent of women had spent zero months of TANF in the month they gave birth while 57 percent had expended 9 or fewer months. In Washington state, pregnant women may qualify for TANF at any stage of the pregnancy, so first-time pregnant women may already have received TANF benefits before the birth of the child.

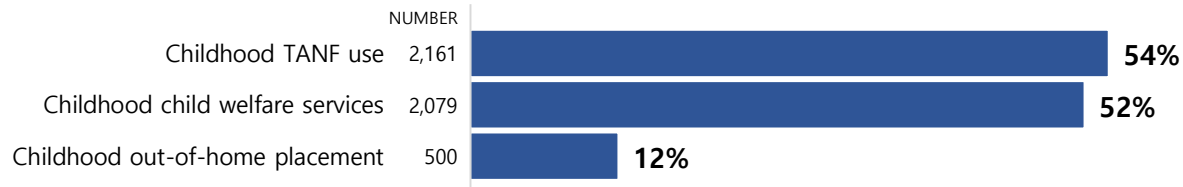
**Childhood TANF use.** To examine intergenerational poverty, the proportion of mothers 25 and younger who received TANF as children was calculated. Fifty-four percent of women under 26 had received TANF prior to age 18. The true prevalence of childhood TANF use was likely be somewhat higher, as women in the cohort age 25 and younger had birth years going back to 1989 and cash assistance data was only available back to 1997.

**Childhood child welfare involvement.** The same population of women age 25 and younger were linked to their child welfare history prior to age 18. Fifty-two percent of women age 25 and younger who gave birth on TANF had been involved in the child welfare system before age 18, as identified through any report of maltreatment or child welfare case management. Twelve percent had been placed out-of-home before age 18. However, this analysis likely undercounts child welfare involvement and out-of-home placement since the child welfare data used only goes back to 1997 while birth years of the younger age cohort go back to 1989.

FIGURE 9

## Childhood Social Service Use

Among mothers who gave birth and received TANF who were age 25 and younger (n = 4,030)



## Birth Outcomes

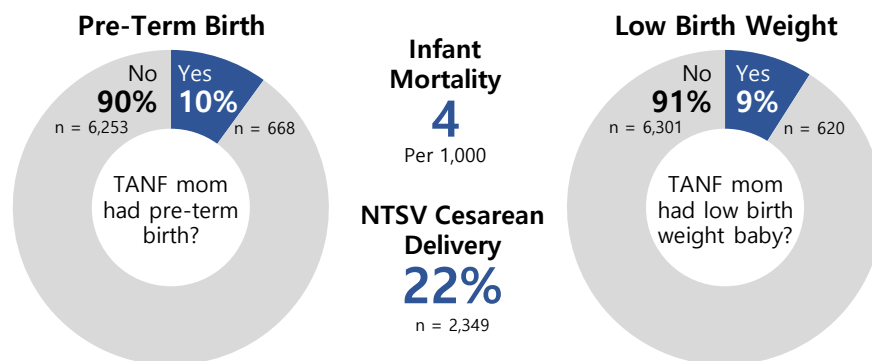
**Preterm birth, low birth weight, and infant mortality.** Ten percent of newborns born to mothers on TANF were born pre-term, nine percent of newborns were low birth weight and four per 1,000 newborns experienced infant mortality.<sup>1</sup> These rates were somewhat higher than those for the broader Medicaid population.

**Cesarean delivery.** Among low-risk births, mothers who used TANF were no more likely to experience a cesarean delivery (22 percent) than the Medicaid population as a whole.<sup>2</sup>

FIGURE 10

## Birth Outcome Measures

TOTAL WOMEN = 6,921



## Postpartum Health Outcomes<sup>3</sup>

**Subsequent birth.** Two percent of women who gave birth on TANF had another birth within 12 months. While this experience was rare in the TANF population, it was still twice as likely in mothers using TANF as compared to other women on Medicaid.

**Contraceptive care.** Twenty-seven percent of women who gave birth on TANF were provided a 'most effective' or 'moderately effective' FDA-approved method of contraception within 60 days postpartum.<sup>4</sup> The rate of contraceptive care was higher for women giving birth on TANF than for the wider Medicaid population (21 percent).

<sup>1</sup> Infant mortality rates for the TANF population reported here will not match rates reported by the Health Care Authority because of broader TANF population definitions and because only the first birth for each woman in the year was counted.

<sup>2</sup> Low-risk cesarean birth is identified as the nulliparous, term, singleton, vertex (NTSV) cesarean delivery.

<sup>3</sup> Maternal mortality was also examined; however numbers for the single year birth cohort were too small to include in the report. For a multi-year report on maternal deaths in Washington, see <https://www.doh.wa.gov/Portals/1/Documents/Pubs/140-154-MMRReport.pdf>

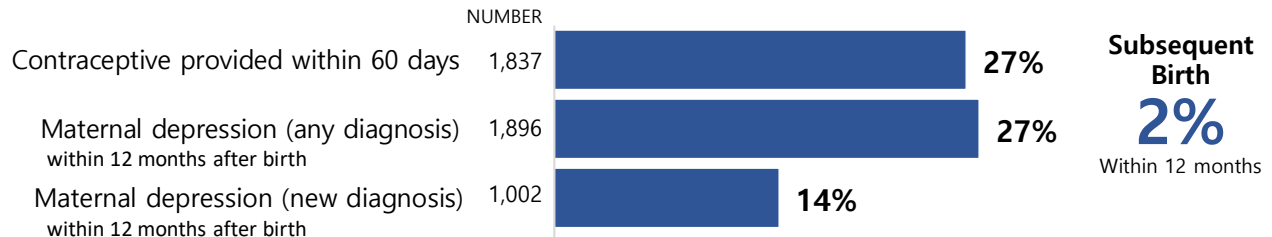
<sup>4</sup> Contraceptive care was reported as a percentage of all women who gave birth. Statewide performance measures restrict the denominator of the contraceptive care rate to women 15 to 44 who are continuously enrolled on Medicaid without third party liability coverage or dual eligibility for Medicare, and who are federally qualified, so rates reported here will differ from those reported by the Health Care Authority. See technical notes for more information on contraceptive care.

**Maternal depression.** Postpartum depression is a risk factor for adverse maternal and child health outcomes. Twenty-seven percent of women who gave birth while on TANF had any diagnosis of depression in the 12 months following their infant’s birth. Some of these women may have been experiencing ongoing depression; however, 14 percent of the all women who gave birth while on TANF were newly diagnosed in the 12 months after giving birth.

FIGURE 11

### Postpartum Health

TOTAL WOMEN = 6,921



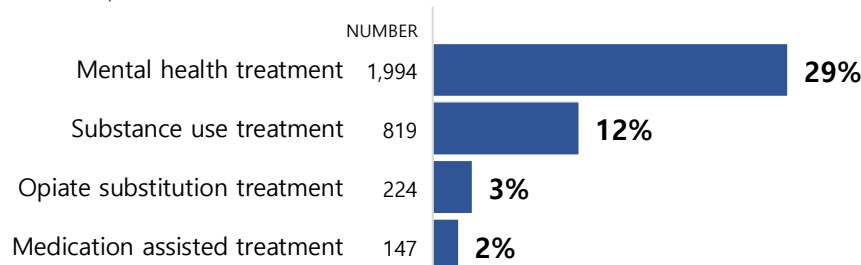
### Postpartum Medical Utilization

**Behavioral health treatment.** Twenty-nine percent of women who gave birth on TANF received mental health treatment in the 12 months after the birth of their child. Thirty-six percent had pre-existing mental health needs, as measured in the 12 months prior to the birth. Twelve percent of women who gave birth on TANF received substance use treatment in the 12 months after the birth of their child, with 22 percent of them having pre-existing substance use issues. Three percent of women who gave birth on TANF received opiate substitution treatment and two percent received medication assisted treatment (primarily buprenorphine or buprenorphine-combination medication for opiate use disorder) in the year after the birth of their child, while 7 percent had evidence of pre-existing opiate use disorder.

FIGURE 12

### Postpartum Behavioral Health Treatment 12 Months after Delivery

TOTAL WOMEN = 6,921



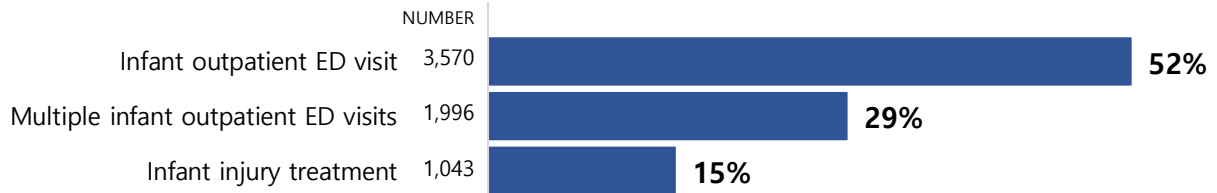
**Infant medical utilization.** Fifty-two percent of infants born to mothers on TANF received outpatient care in an emergency department in the 12 months following their birth and 29 percent experienced more than one outpatient emergency department visit in the year. Fifteen percent of infants born to mothers on TANF received an injury treatment in the year after their birth.



FIGURE 13

### Infant Medical Utilization 12 Months after Delivery

TOTAL WOMEN = 6,921 (For twins or other higher order multiples, highest utilization infant was used in calculation)



**Maternal medical utilization.** Fifty-one percent of women received outpatient emergency room treatment in the year following the birth of their child, nearly twice the rate of women who gave birth on Medicaid as a whole, and 28 percent had multiple outpatient emergency department visits in the year after the birth. Twenty-five percent received injury treatment in the year after their child’s birth.<sup>5</sup>

FIGURE 14

### Maternal Medical Utilization 12 Months after Delivery

TOTAL WOMEN = 6,921



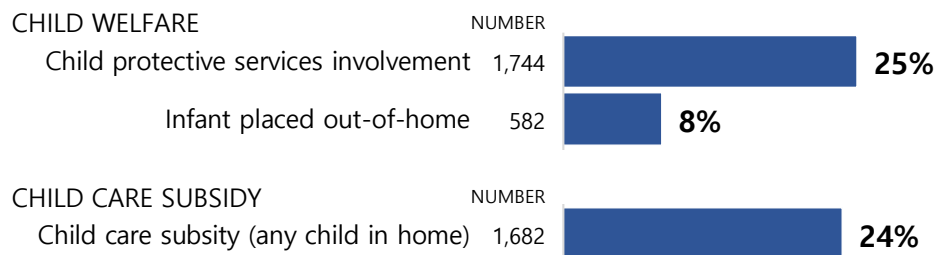
## Child and Family Services and Outcomes

**Child welfare.** Twenty-five percent mothers who gave birth while on TANF were involved in a screened in child protective services (CPS) referral in the 12 months following the delivery. This was over twice the rate of Medicaid births on the whole. Eight percent of the mothers who gave birth while on TANF had their infant placed into out-of-home care in the 12 months following the delivery, three times the rate of other Medicaid births.

FIGURE 15

### Children, Youth, and Families Services 12 Months after Delivery

TOTAL WOMEN = 6,921



**Child care subsidy.** Twenty-four percent of women who gave birth on TANF used the Child Care Subsidy Program (CCSP) in the 12 months following the birth of their child, for any child in the household. Use of CCSP suggests participation in WorkFirst employment and training activities.

<sup>5</sup> Rates in the second and third year after the birth of the infant were examined for mother’s outpatient emergency department visits and injuries in order to assess whether the rates reported here for the first year after birth were erroneously inflated due to giving birth. However, rates of outpatient emergency room use remained high at 49 percent in both the second and third year after birth, and injury treatment remained at similar levels (27 percent during the second year after birth and 26 percent during the third year after birth).

## Discussion

Women who give birth while on TANF come from diverse backgrounds and have diverse needs. Housing instability, behavioral health conditions, low education, significant health problems, and high medical utilization stand out as frequent barriers to well-being faced by women giving birth on TANF, while child welfare involvement, criminal justice involvement, and domestic violence have lower prevalence but large impacts on the women experiencing them. In addition, many of the women giving birth on TANF have experienced intergenerational poverty and family risk. Since cash assistance and child welfare data are only available back to 1997, a lifetime look at TANF/AFDC receipt and child welfare involvement would show even higher rates of intergenerational program involvement than reported here.

Major areas of need include health care—primary care, prenatal care, family planning, behavioral health care, pediatric care—and housing supports. The TANF program makes referrals in these areas, as well as for family violence. They can also require mothers to complete mental health or substance use treatment while a mother is pregnant or based on a post-partum Pregnancy to Employment evaluation. However, outside of behavioral health care, other health care may be encouraged but not required. Additionally, if no mental health or chemical dependency issue, or need for parenting education, is identified during the Pregnancy to Employment evaluation, TANF staff may not have additional contact with the parent for the year they are in an infant or toddler exemption. Service capacity issues are also likely at play: housing supports are scarce in many areas of the state and it may be difficult to find health care providers that accept Medicaid and are accepting new patients that do not have long waits for appointments. More understanding of the barriers between referral and service receipt is needed to effectively remove those barriers and reduce service gaps.

Home visiting and parent education can offer additional direct support to expectant mothers, and mothers of infants, who receive TANF.<sup>6</sup> Since home visitors and parent educators see mothers regularly, they may be able to build trust with them, identify their needs, connect them to resources, and follow up on referrals. For mothers who access medical care, medical practitioners may be another source for screening and referrals to necessary medical and non-medical services. Faith communities, ethnic or cultural communities, community centers, child care providers, K-12 schools, or other organizations where mothers frequently interact could raise awareness and promote connections to community resources as well.

TANF workers, home visitors, parent educators, health care providers, and other stakeholders in local communities should build or strengthen collaborative relationships and establish connections to community providers that also support mothers. These may include the county's coordinated entry system for homelessness, pediatric providers who take Medicaid and are accepting new patients, local foodbanks, and many others. TANF workers could play a stronger and more consistent case coordination role for new moms, connecting them to community services and supporting their needs. One single program will not be enough to support mothers giving birth on TANF, but an integrated network of supports that collectively meet the diverse needs of all new mothers could offer the best chance at a healthy start for vulnerable moms and their babies.

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<sup>6</sup> See Patton, D., Liu, Q., Lucenko, B., & Felver, B. (2018) "Home Visiting Services for TANF Families with Young Children: First Year Outcomes" DSHS Research and Data Analysis: Olympia, WA and Patton, D., Liu, Q., Lucenko, B., & Felver, B. (2017) "Home Visiting Services for TANF Families with Young Children" DSHS Research and Data Analysis: Olympia, WA.

APPENDIX

TABLE 1

Comparison of Women Who Gave Birth on TANF to All Women with Medicaid Who Gave Birth, Calendar Year 2015

| Measures   | TANF         |              | Medicaid      |              |
|--|--------------|--------------|---------------|--------------|
|  | COUNT        | PERCENT/MEAN | COUNT         | PERCENT/MEAN |
| <b>TOTAL</b>   | <b>6,921</b> | <b>16%</b>   | <b>43,734</b> | <b>100%</b>  |
| <b>Demographics (reported at delivery)</b>                 |              |              |               |              |
| Average age  |              | 25           |               | 27           |
| Under 18   | 166          | 2%           | 881           | 2%           |
| 18 to 20   | 1,224        | 18%          | 4,204         | 10%          |
| 21 to 25   | 2,640        | 38%          | 12,860        | 29%          |
| 26 to 30   | 1,728        | 25%          | 12,982        | 30%          |
| 31 to 35   | 815          | 12%          | 8,529         | 20%          |
| Over 35  | 348          | 5%           | 4,278         | 10%          |
| White  | 3,762        | 54%          | 21,749        | 50%          |
| Hispanic   | 1,270        | 18%          | 12,538        | 29%          |
| Black  | 741          | 11%          | 2,666         | 6%           |
| American Indian/Alaska Native                              | 126          | 2%           | 946           | 2%           |
| Asian  | 155          | 2%           | 2,298         | 5%           |
| Pacific Islander   | 241          | 3%           | 890           | 2%           |
| Other race   | 47           | 1%           | 281           | 1%           |
| More than one race   | 521          | 8%           | 1,988         | 5%           |
| Unknown race   | 58           | 1%           | 378           | 1%           |
| No prior births  | 2,797        | 40%          | 14,871        | 34%          |
| 1 prior birth  | 1,885        | 27%          | 12,689        | 29%          |
| 2 to 3 prior births  | 1,746        | 25%          | 12,461        | 28%          |
| 4 or more prior births                                     | 422          | 6%           | 3,360         | 8%           |
| Less than high school                                      | 1,995        | 29%          | 9,567         | 22%          |
| High school diploma or GED                                 | 2,569        | 37%          | 14,194        | 32%          |
| Some college   | 1,742        | 25%          | 11,345        | 26%          |
| Associate's degree or above                                | 532          | 8%           | 8,028         | 18%          |
| Unknown education  | 83           | 1%           | 600           | 1%           |
| Unmarried mother   | 5,413        | 78%          | 23,449        | 54%          |
| Limited English proficiency (prior 12 months)              | 267          | 4%           | 3,892         | 9%           |
| <b>Maternal Exposures (12 months pre-delivery)</b>         |              |              |               |              |
| Domestic violence  | 439          | 6%           | 635           | 1%           |
| Criminal justice involvement                               | 1,090        | 16%          | 2,470         | 6%           |
| Child welfare involvement                                  | 1,039        | 15%          | 2,995         | 7%           |
| Homeless or housing unstable                               | 3,030        | 44%          | 4,997         | 11%          |
| Homeless   | 815          | 12%          | 1,287         | 3%           |
| Child welfare involvement (of women with a previous birth) | 857          | 21%          | 2,458         | 9%           |
| <b>Maternal Health (12 months pre-delivery)</b>            |              |              |               |              |
| Mental health condition                                    | 2,522        | 36%          | 8,260         | 19%          |
| Psychotic diagnosis  | 91           | 1%           | 221           | 1%           |
| Mania diagnosis  | 405          | 6%           | 945           | 2%           |
| Depression diagnosis                                       | 1,332        | 19%          | 3,700         | 8%           |
| Anxiety diagnosis  | 1,279        | 18%          | 3,580         | 8%           |
| ADHD diagnosis   | 159          | 2%           | 403           | 1%           |

| Measures  | TANF  |              | Medicaid |              |
|---|-------|--------------|----------|--------------|
|   | COUNT | PERCENT/MEAN | COUNT    | PERCENT/MEAN |
| Disruptive/conduct disorder diagnosis                           | 35    | 1%           | 74       | 0%           |
| Adjustment diagnosis  | 135   | 2%           | 466      | 1%           |
| Substance use disorder  | 1,552 | 22%          | 3,509    | 8%           |
| Opiate use disorder   | 466   | 7%           | 913      | 2%           |
| Significant health problems                                     | 3,035 | 44%          | 12,026   | 27%          |
| Disability-related medical coverage                             | 91    | 1%           | 888      | 2%           |
| Injury treatment  | 1,560 | 23%          | 5,255    | 12%          |
| Outpatient emergency department visit                           | 3,658 | 53%          | 12,783   | 29%          |
| Multiple outpatient emergency department visits                 | 2,300 | 33%          | 6,783    | 16%          |
| Smoked cigarettes during pregnancy                              | 1,960 | 28%          | 5,167    | 12%          |
| Gestational diabetes  | 438   | 6%           | 3,549    | 8%           |
| Gestational hypertension  | 464   | 7%           | 2,737    | 6%           |
| <b>Prenatal Care (reported at delivery)</b>                     |       |              |          |              |
| Prenatal care began 1st trimester                               | 3,555 | 51%          | 27,392   | 63%          |
| Prenatal care began after 1st trimester                         | 2,757 | 40%          | 13,387   | 31%          |
| Unknown prenatal care   | 444   | 6%           | 2,378    | 5%           |
| No prenatal care  | 165   | 2%           | 577      | 1%           |
| <b>Social Services History</b>                                  |       |              |          |              |
| Cumulative months on TANF as an adult                           |       | 15           |          | 6            |
| Childhood TANF use (of mothers age 25 and younger)              | 2,161 | 54%          | 6,417    | 36%          |
| Childhood child welfare involvement                             | 2,079 | 52%          | 6,093    | 34%          |
| Childhood out-of-home placement                                 | 500   | 12%          | 1,244    | 7%           |
| <b>Birth/Delivery Outcomes</b>                                  |       |              |          |              |
| Pre-term birth  | 668   | 10%          | 3,599    | 8%           |
| Low birth weight  | 620   | 9%           | 2,930    | 7%           |
| Infant mortality (per 1,000)                                    | 27    | 4            | 127      | 3            |
| Nulliparous, term, singleton, vertex (NTSV)                     | 2,349 | 34%          | 12,582   | 29%          |
| Cesarean delivery (of NTSV)                                     | 517   | 22%          | 2,685    | 21%          |
| <b>Postpartum Health Outcomes</b>                               |       |              |          |              |
| Subsequent birth within twelve months                           | 116   | 2%           | 376      | 1%           |
| Contraceptive method within 60 days postpartum                  | 1,837 | 27%          | 9,012    | 21%          |
| Maternal depression (new diagnosis)                             | 1,002 | 14%          | 3,812    | 9%           |
| Maternal depression (any diagnosis)                             | 1,896 | 27%          | 6,091    | 14%          |
| <b>Postpartum Service Use (12 months following delivery)</b>    |       |              |          |              |
| Infant outpatient emergency department visit                    | 3,570 | 52%          | 17,209   | 39%          |
| Multiple infant outpatient emergency department visits          | 1,996 | 29%          | 7,955    | 18%          |
| Infant injury treatment   | 1,043 | 15%          | 4,884    | 11%          |
| Mental health treatment   | 1,994 | 29%          | 6,317    | 14%          |
| Substance use treatment   | 819   | 12%          | 1,549    | 4%           |
| Opiate substitution treatment                                   | 224   | 3%           | 416      | 1%           |
| Medication assisted treatment                                   | 147   | 2%           | 322      | 1%           |
| Outpatient emergency department visit                           | 3,498 | 51%          | 11,973   | 27%          |
| Multiple outpatient emergency department visits                 | 1,972 | 28%          | 5,502    | 13%          |
| Injury treatment  | 1,733 | 25%          | 5,955    | 14%          |
| <b>Child and Family Services (12 months following delivery)</b> |       |              |          |              |
| Child protective services involvement                           | 1,744 | 25%          | 4,347    | 10%          |
| Child care subsidy (any child in home)                          | 1,682 | 24%          | 5,257    | 12%          |
| Infant placed out-of-home                                       | 582   | 8%           | 1,168    | 3%           |

### STUDY DESIGN AND OVERVIEW

This study describes characteristics, service use, and outcomes for a cohort of women who gave birth and also received TANF benefits. The cohort for this study consisted of 6,921 women who were TANF (or State Family Assistance) recipients during any month in Calendar Year (CY) 2015 who also gave birth in CY 2015 and had a Medicaid ID that could be identified from eligibility data. The total population of women who gave birth in CY 2015 with a Medicaid ID (n=43,763) is included where appropriate for comparison purposes. A small number (about 6.5 percent) of women were not Medicaid-enrolled in the month of the delivery, but were Medicaid enrolled at some other point. Only women with a live birth were included in the cohort.

### DATA SOURCES AND MEASURES

This study relied on integrated service and outcome information contained in the DSHS Integrated Client Database (ICDB)<sup>7</sup> as well as birth certificate and maternal/child health information contained in the First Steps Database (FSDB). Study data was provided to the researchers as a limited dataset with all personal identifiers removed.

#### FSDB Measures

- **Maternal race/ethnicity:** The race/ethnicity categorization was created by FSDB based on self-reported measures of race and ethnicity from the birth certificate.
- **Number of prior births:** The number of prior births comes from the birth certificate and was based on the number of live-born children (whether living or dead at the time of the subsequent birth).
- **Maternal education:** The maternal education categorization was based on self-reported education level on the birth certificate. 'Less than high school' combines self-reports of '8<sup>th</sup> grade or less' and '9<sup>th</sup> to 12<sup>th</sup> grade – no diploma' while the "Associate's or higher" category combines self-reports of 'associate degree', 'bachelor's degree', 'master's degree', and 'doctoral or professional degree'.
- **Mother unmarried:** This measure comes from marital status as self-reported on the birth certificate.
- **Smoked during pregnancy:** This measure combined any self-reported smoking as reported on the birth certificate during the first, second, or third trimester.
- **Gestational diabetes:** This measure was taken directly from an indicator for gestational diabetes on the birth certificate.
- **Gestational hypertension:** This measure was taken directly from an indicator for gestational hypertension on the birth certificate.
- **Prenatal care:** The month prenatal care began was calculated based on the birth certificate date of first prenatal care visit, and was categorized as first trimester (month 1-3), after first trimester (month>3), no prenatal care, and unknown. This measure differs from the "timely prenatal care" measure reported elsewhere as it only measures first trimester prenatal care, where "timely prenatal care" measures either first trimester prenatal care or within 42 days of the start of enrollment in Medicaid.
- **Pre-term birth:** Pre-term birth was taken directly from the birth certificate reported gestational age and identifies deliveries that occurred before 37 completed weeks of gestation.
- **Low birth weight:** Low birth weight was calculated based on birth weight recorded on the birth certificate. Birth weight of less than 2,500 grams (approximately 5.5 pounds) was considered low birth weight.
- **Infant mortality:** Infant mortality was identified through linking to Department of Health death records. Infant mortality was defined as a death of an infant before the first birthday.
- **Cesarean delivery (among low risk):** FSDB identified all cesarean deliveries based on birth certificate records. Rates were reported only for a nulliparous, term, single, vertex delivery (NTSV), in other words live babies born at or beyond 37 weeks gestation to women in their first pregnancy, that were singleton (no twins or higher multiples) and in the vertex presentation (no breech or transverse positions). Deliveries via cesarean birth that were NTSV were included in the numerator for the rate, while the denominator included all NTSV births.
- **Subsequent birth within 12 months:** FSDB identified subsequent births to the mother based on birth and medical records.

<sup>7</sup> Mancuso, D. (2014) "DSHS Integrated Client Database" DSHS Research and Data Analysis: Olympia, WA.

- **Contraceptive method within 60 days postpartum:** FSDB identified women who were provided 'most effective' or 'moderately effective' FDA-approved method of contraception within 60 days postpartum based on medical claims. Most or moderately effective FDA-approved contraception methods include female sterilization, contraceptive implants, intrauterine devices or systems, injectables, oral pills, patch, ring, or diaphragm.

#### ICDB Measures

- **Maternal age:** Maternal age was based on mother's date of birth from ICDB and date of delivery from FSDB.
- **Limited English proficiency:** Limited English proficiency was based on having a primary language other than English and requesting an interpreter when applying for benefits in the Automated Client Eligibility System (ACES). Limited English proficiency was measured based on ACES records in the year prior to the birth.
- **Homelessness and housing instability:** Homelessness and housing instability were measured using living arrangement codes and address information from ACES. Homelessness includes unsheltered individuals or those living in homeless shelters, while housing instability includes those who are housed but in unstable situations, such as temporary couch surfing. Housing information was based on ACES records in the year prior to the birth.
- **Criminal justice involvement:** Criminal justice involvement was a combined measure based on arrests, convictions, or incarceration in a Washington state Department of Corrections facility in the 12 months prior to the birth.
- **Child welfare involvement:** Child welfare involvement included any accepted intake of abuse and neglect or involvement in child welfare case management or services. The measure was based on involvement of the mother in the 12 months prior to the child's birth. The measure was also calculated for the subset of women who had a previous birth.
- **Domestic violence:** Domestic violence was flagged based on domestic violence identified in the comprehensive evaluation, participation in the address confidentiality program, or being granted permission not to cooperate with Division of Child Support due to domestic violence as recorded in ACES, or based on domestic violence arrests or convictions of the mother. It was measured based on ACES, arrest, and conviction data from the 12 months prior to the birth.
- **Mental health condition:** Those with mental health conditions were identified through administrative records of mental health diagnoses, psychotropic prescriptions, and receipt of mental health treatment in the 12 months prior to birth.
- **Mental health diagnosis:** Individuals were identified who had a specific mental health diagnosis recorded in the 12 months prior to the birth based on ICD-9 and ICD-10 diagnosis codes for the following conditions:
  - Psychotic diagnosis
  - Mania diagnosis
  - Depression diagnosis
  - Anxiety diagnosis
  - ADHD diagnosis
  - Disruptive/conduct disorder diagnosis
  - Adjustment diagnosis
- **Substance use disorder:** Individuals were identified who had a substance use disorder diagnosis or accessed substance use treatment, or had a substance use-related arrest, as reported to the Washington State Patrol in the 12 months prior to the birth.
- **Opiate use disorder:** Opiate use disorder was identified through opiate use-related diagnoses recorded in the 12 months prior to the birth.
- **Outpatient emergency department visit:** The outpatient emergency department visit flag used Medicaid encounters as recorded in ProviderOne. This was measured in the 12 months before and 12 months after the birth.
- **Multiple emergency department visits:** The multiple ED visit flag identified individuals with more than one outpatient ED visit within the year, according to encounter data in ProviderOne. This was measured in the 12 months before and 12 months after the birth.
- **Injury treatment:** The injury flag identified individuals who received Medicaid-paid injury treatment based on ICD-9 and ICD-10 diagnosis codes. This was measured in the 12 months before and 12 months after the birth. Injury treatment included both intentional and unintentional injuries and could indicate domestic violence, self-harm, or accidental injuries (e.g. car crashes or falls).
- **Significant health problems:** The significant health problems measure was based on diagnoses and prescriptions which indicate costly medical conditions. Based on each individual's combination of age, gender, diagnoses, and prescriptions, he or she is given a risk score. Those with high risk scores (above average in the SSI population) are flagged as having significant health problems.

The algorithm uses 12 months of diagnosis information to assign a risk score in a single month and a 12 month window of risk scores was used in the study. If any of the 12 months had a high risk score, the client was flagged as having significant health problems. This measure corresponds to 24 months of diagnosis and prescription claims prior to the birth. Using a single month risk score would reduce estimated prevalence of significant health problems by about 5 to 7 percentage points.

- **Disability-related medical coverage:** The disability medical coverage flag identified those with at least one month of disability-related Medicaid eligibility in the year before birth.
- **Cumulative months on TANF as an adult:** TANF tics tally the number of months of the 60 month lifetime time limit an individual has expended. TANF tics were measured using benefit information from the ACES data warehouse. Adult TANF recipients who reach the 60 month time limit are ineligible for further TANF benefits, unless they qualify for a TANF time limit hardship extension category. See [WAC 388-484-0006](#) for TANF time limit extension categories and policies.
- **Childhood TANF use:** For the subset of women who were 25 years of age and younger when they gave birth, whether they had been a TANF recipient as a child was measured. The 25 year old age cutoff was used because TANF data was available only back to 1997.
- **Childhood child welfare involvement:** For the subset of women who were 25 years of age and younger when they gave birth, whether they had been involved with the child welfare system as a child, and whether they had a history of out-of-home placement, was measured. The 25 year old age cutoff was used because child welfare data was available only back to 1997.
- **Maternal depression diagnosis:** This measure identified all women with a depression diagnosis in the 12 months following the birth, whether or not there was a pre-existing diagnosis. This measure was not limited to postpartum depression-specific diagnosis codes.
- **New maternal depression diagnosis:** This measure identified women newly diagnosed with depression according to ICD-9 and ICD-10 codes contained in medical claims. New diagnosis was defined as no diagnosis in the previous 12 months, with a diagnosis in the 12 months following the birth. This measure was not limited to postpartum depression-specific diagnosis codes.
- **Mental health treatment:** The mental health treatment flag included publicly-funded mental health treatment in the 12 months following the birth.
- **Substance use treatment:** The substance use treatment flag included publicly-funded substance use treatment services in the 12 months following the birth.
- **Opiate substitution treatment:** The opiate substitution treatment flag included publicly-funded opiate substitution treatment services in the 12 months following the birth.
- **Medication assisted treatment (MAT):** The MAT flag included filled prescriptions for medications commonly used in medication-assisted substance use disorder treatment managed in a primary care setting. The medications were primarily buprenorphine or a buprenorphine-naloxone combination formulation.
- **Infant outpatient emergency department visit:** The outpatient emergency department visit flag identified publicly-funded emergency department encounters as recorded in ProviderOne for the infant in the first 12 months of life.
- **Infant multiple emergency department visits:** The multiple ED visit flag identified individuals with more than one outpatient ED visit within the year, according to encounter data in ProviderOne for the infant in the first 12 months of life.
- **Infant injury treatment:** The injury flag identifies infants who received publicly-funded injury treatment based on ICD-9 and ICD-10 diagnosis codes within the first 12 months of life.
- **Child protective services (CPS) involvement:** This measure included screened in CPS referrals (either CPS-investigation or CPS-FAR) and CPS case management services in the 12 months after birth. CPS involvement included involvement linked to either the mother, the infant, or both in the Famlink data system.
- **Family used Child Care Subsidy Program (CCSP):** This measure was based on participation in either Working Connections Child Care (WCCC) or the Season Child Care program, according to payments made in the Social Services Payment System (SSPS). The measure included payments linked to either mother or baby, so it would potentially include subsidies the mother used for other children in the home in the 12 months after the birth.
- **Infant placed out-of-home:** This measure was based on placement information in ICDB as reported in Famlink for the infant during the first 12 months of life.



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