



# Home Visiting Services for TANF Families with Young Children

## First Year Outcomes

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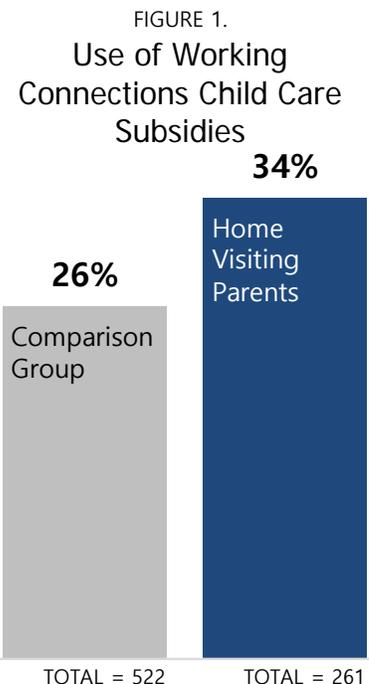
Report to the Department of Early Learning and DSHS Economic Services Administration  
Community Services Division

**T**HE TANF HOME VISITING program is a joint project of the DSHS Economic Services Administration Community Services Division (CSD), the Department of Early Learning (DEL), and Thrive Washington, intended to improve outcomes for families receiving Temporary Assistance for Needy Families (TANF). Home visiting programs serve families with children in the critical first years of life in order to strengthen the parent-child bond, develop positive parenting practices, reduce rates of child abuse and neglect, and support family well-being.

This study examines outcomes for families who enrolled in TANF Home Visiting between May 2015, when the program began, and October 2016. Outcomes for participating families during the 12 months following enrollment<sup>1</sup> are compared to outcomes for similar families who would be eligible for the program but did not live in an area where the program was available.

### Key Findings

- 1. Parents enrolled in TANF Home Visiting were more likely than comparison TANF families to engage in WorkFirst activities that prepared them for work, including education and training.** Twenty-three percent of TANF Home Visiting parents were involved in an education or training activity in the 12-month follow up period, as compared to 17 percent of the comparison group. Though parents enrolled in home visiting were equally likely to work in the follow up period, they worked fewer hours.
- 2. Parents enrolled in TANF Home Visiting were more likely to use Working Connections Child Care subsidies.** Thirty-four percent of TANF Home Visiting parents received at least one month of assistance in paying for child care services, as compared with 26 percent of the comparison group.
- 3. Fourteen percent of babies born to women enrolled in TANF Home Visiting were low birth weight.** Fifty-six percent received 6 or more well-child visits over their first 15 months of life.



<sup>1</sup> Home visiting services typically last longer than 12 months, so this study measures outcomes concurrent with program enrollment. As more time passes and data becomes available, additional follow up will become possible.

## Overview of TANF Home Visiting

Home visiting programs consist of visits to expectant parents and families with infants and young children to support the physical, social, and emotional health of the child, and family well-being. Trained staff visit families in their homes or community settings to provide support related to children's healthy development, provide information on early learning, and assist with connections to resources, services, and supports. During the study enrollment period (May 2015 to October 2016) TANF Home Visiting services were available in seven counties through the following providers:

- **Clallam County:** First Step Family Support Center
- **Grays Harbor County:** Grays Harbor County Public Health & Social Services
- **King County:** Denise Louie Education Center; Friends of Youth
- **Pierce County:** Tacoma-Pierce County Health Department
- **Spokane County:** Children's Home Society – Spokane; Spokane Regional Health District
- **Thurston County:** Community Youth Services; Thurston County Public Health & Social Services
- **Yakima County:** Yakima Valley Farm Workers Clinic; Catholic Charities of the Diocese of Yakima

Three evidence-based<sup>2</sup> models of home visiting were part of the TANF Home Visiting program:

### Parents as Teachers (PAT)

- PAT was implemented at First Step Family Support Center, Grays Harbor Public Health, Friends of Youth, Children's Home Society – Spokane, Community Youth Services, Yakima Valley Farm Workers Clinic, and Catholic Charities of the Diocese of Yakima. The PAT model includes one-on-one home visits, monthly group meetings, and developmental screenings. Parent educators also connect families to needed resources. Parent educators conduct home visits using structured visit plans and guided planning tools. Local sites offered at least 12 home visits annually, each lasting an hour, with two visits per month offered to families with two or more identified risks. PAT strives to serve families for at least two years beginning at any time from pregnancy to kindergarten entry. PAT aims to increase parent knowledge of early childhood development, provide early detection of developmental delays, prevent child abuse and neglect, and increase children's school readiness.

### Nurse-Family Partnership (NFP)

- NFP was implemented at the Tacoma-Pierce County Health Department, Spokane Regional Health District, and Thurston County Public Health. NFP is designed for first-time, low-income mothers and their children, and includes one-on-one home visits by a trained nurse. The visits begin early in pregnancy (with program enrollment no later than the 28th week of gestation) and conclude when the child turns 2 years old. NFP is designed to improve prenatal health, child health and development, and families' economic self-sufficiency.

### Early Head Start – Home Visiting (EHS-HV)

- EHS-HV was implemented at Denise Louie Education Center. EHS-HV targets low-income pregnant women and families with children birth to age 3 years, providing weekly 90-minute home visits and group socialization activities for parents and their children. EHS-HV aims to promote healthy prenatal outcomes for pregnant women, aid in the development of very young children, and promote family well-being.

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<sup>2</sup> The Federal Department of Health and Human Services (DHHS) provides information on the evidence of effectiveness of home visiting models based on the quality of research evidence. PAT, NFP, and EHS-HV meet DHHS criteria for an evidence-based program model. More information on DHHS criteria for evidence-based programs is available here: <http://homvee.acf.hhs.gov/>

## Study Design

This study examines outcomes for families enrolled in TANF Home Visiting (N = 261), and compares them to outcomes for a statistically matched comparison group of families on TANF who did not enroll in the program. In order to match the TANF Home Visiting and comparison groups, a number of baseline indicators were measured for the families enrolled in TANF Home Visiting and for a comparison pool of families who met the criteria to enroll in home visiting (i.e. who were pregnant or had a young child in the home) but who did not enroll. From the larger comparison pool, a matched comparison group that was similar on measured characteristics to the TANF Home Visiting participants was selected using propensity score matching. A list of the types of baseline factors used in the matching process are displayed in Figure 2, and a complete list of matching variables is available in the Appendix. More detail on the study design is available in the Technical Notes.

FIGURE 2.

### Study Timeline



A total of 261 parents enrolled in TANF Home Visiting. Over two-thirds (70 percent) of parents were enrolled in TANF Home Visiting through PAT. A little over one-quarter (27 percent) were enrolled in NFP programs, and the remaining 3 percent enrolled in EHS-HV. These 261 parents were matched with 522 TANF parents who did not enroll in the program, but were similar on measured characteristics (see Appendix for details).

TABLE 1.

Participation by Program Model	COUNTY	PARTICIPANTS	
		NUMBER	PERCENT
<b>Parents as Teachers</b>		<b>182</b>	<b>70%</b>
Grays Harbor Public Health	Grays Harbor	50	19%
Community Youth Services	Thurston	40	15%
Yakima Valley Farm Workers Clinic	Yakima	39	15%
Children’s Home Society – Spokane	Spokane	20	8%
Catholic Charities of the Diocese of Yakima	Yakima	18	7%
First Step Family Support Center	Clallam	9	3%
Friends of Youth	King	6	2%
<b>Nurse-Family Partnership</b>		<b>70</b>	<b>27%</b>
Thurston County Public Health	Thurston	42	16%
Tacoma-Pierce County Health Department	Pierce	17	6%
Spokane Regional Health District	Spokane	11	4%
<b>Early Head Start – Home Visiting</b>		<b>9</b>	<b>3%</b>
Denise Louie Education Center	King	9	3%
<b>TOTAL</b>		<b>261</b>	<b>100%</b>

# Outcomes of TANF Home Visiting

## TANF/WorkFirst Experiences

Parents who enrolled in TANF Home Visiting spent more months in the 12-month follow up period on TANF. On average, TANF Home Visiting parents spent 7.4 months on TANF, while comparison group parents spent 6.3 months on TANF in the 12 month follow up period. In a related measure, TANF Home Visiting parents were somewhat less likely to leave TANF for at least one month during the follow up period, but the difference was not statistically significant. Seventy-four percent of TANF Home Visiting, and 79 percent of comparison group parents left TANF for at least one month. About one-third of each group exited for some positive reason with one-quarter leaving because of increased income. About one in five parents in each group exited and then returned in the 12-month follow up period, with no differences between the intervention group and comparison group.

TABLE 2.

### TANF Receipt in the Follow-Up Period

	Intervention	Comparison	P-value
Months of TANF	7.36	6.25	<b>0.000</b>
Any exit from TANF	74%	79%	0.127
Positive exit from TANF	30%	27%	0.402
Income-related exit from TANF	25%	23%	0.556
Any return to TANF	18%	17%	0.790

During the follow up period, parents in TANF Home Visiting were somewhat more likely to take part in WorkFirst activities related to preparing for work. Activities considered preparing for work include high school or GED completion, adult basic education, vocational education, ESL instruction, work experience programs, job skills training, community service, or volunteering at childcare, preschool, or elementary school. In the outcome period, 38 percent of TANF Home Visiting parents took part in these activities while 32 percent of comparison families did so. When narrowing the definition to education and training activities (basic education, high school completion, GED, vocational education, or job skills training), TANF Home Visiting participants were more likely to take part (23 percent compared to 17 percent of comparison group members). Parents in TANF Home Visiting participate in activities related to looking for work or in work activities at higher rates than comparison parents.

TABLE 3.

### WorkFirst Progression in the Follow-Up Period

	Intervention	Comparison	P-value
Any "preparing for work" activity	38%	32%	<b>0.074</b>
Any education or training activity	23%	17%	<b>0.053</b>
Any "looking for work" activity	18%	16%	0.506
Any work activity	34%	31%	0.391

### What is a p-value?

P-values can be used to identify statistically significant differences in means or percentages between two groups. Commonly, a p-value below 0.05 is considered statistically significant. Due to a relatively small sample size, we also identify p-values below 0.08 as marginally significant.

Parents enrolled in TANF Home Visiting were somewhat less likely to be sanctioned in the follow up period, but given the sample size the difference did not reach statistical significance.

TABLE 4.

### WorkFirst Sanction in the Follow-Up Period

	Intervention	Comparison	P-value
Non-compliance sanction	8%	12%	0.088

### Employment

About the same percentage of TANF Home Visiting participants (49 percent) and comparison group members (46 percent) worked for pay during the 3-quarter follow up period. However, the TANF Home Visiting intervention group worked fewer hours during that period, and thus earned less money on average each quarter. This may be related to the increased likelihood of participation in education and training activities and slightly longer average length of stay on TANF.

TABLE 5.

### Employment and Wages in the Follow-Up Period

	Intervention	Comparison	P-value
Any employment	49%	46%	0.419
Quarterly wage (among those employed)	\$1,623.30	\$2,181.90	<b>0.008</b>
Hours worked (among those employed)	407.5	512.3	<b>0.023</b>

### Behavioral Health Treatment

In the follow up period, 31 percent of TANF Home Visiting participants received a mental health treatment service compared to 26 percent in the comparison group, but the difference was not statistically significant. Intervention and comparison group members were equally likely to have received substance use disorder treatment.

TABLE 6.

### Behavioral Health Treatment in the Follow-Up Period

	Intervention	Comparison	P-value
Mental health treatment	31%	26%	0.150
Substance use disorder treatment	17%	17%	0.946

### Child Care

The TANF Home Visiting intervention group was more likely to use Working Connections Child Care (WCCC) child care subsidies in the 12 month follow up period. Thirty-four percent of the home visiting intervention group and 26 percent of the comparison group used WCCC in the follow up period. This may be linked to increased participation in education and training activities, as well as home visitor assistance and encouragement to access child-focused benefits such as high quality child care and early learning.

TABLE 7.

### Working Connections Child Care in the Follow-Up Period

	Intervention	Comparison	P-value
Received WCCC	34%	26%	<b>0.022</b>

## Child Welfare

Parents who enrolled in TANF Home Visiting were more likely to be involved with the child welfare system in the 12 month follow up period. Thirty-five percent of TANF Home Visiting parents received any service from Children’s Administration, while 27 percent of the comparison group received a service. About one-third of TANF Home Visiting parents had an accepted CPS referral compared to one-quarter of the comparison group, but the difference was not significant. When examining child welfare involvement by quarter, there appears to have been an uptick in the first quarter after enrollment, and thereafter both groups were equally likely to be involved in child welfare services. This phenomenon, where children that begin to be routinely monitored by service providers (e.g. home visitors, health care professionals, and child care providers who are all mandated reporters) are more likely to be reported for maltreatment than non-participant children, has been referred to as the “surveillance effect.”<sup>3</sup>

TABLE 8.

### Child Welfare Involvement in the Follow-Up Period

	Intervention	Comparison	P-value
Any child welfare involvement	35%	27%	<b>0.035</b>
Accepted CPS referral	30%	24%	0.090

## Outpatient Emergency Department Care

The home visiting group and the comparison group were equally likely to have a child under the age of 5 visit the emergency department for outpatient treatment. This figure includes children who were household members as of the index month, and does not include newborns in the outcome period.

TABLE 9.

### Emergency Department Outpatient Treatment in the Follow-Up Period

	Intervention	Comparison	P-value
Any child under 5 in household had outpatient ED visit	42%	39%	0.330

## Maternal and Child Health

The home visiting intervention group and the comparison group were equally likely to have received timely prenatal care (72 percent in both groups), defined as prenatal care that began in the first trimester. Since prenatal care was likely to have begun prior to enrollment in TANF Home Visiting, the measure is more suited to be interpreted as a baseline factor.

Fourteen percent of newborns born to TANF Home Visiting enrollees were low birth weight (less than 2,500 grams), as compared to 11 percent of comparison group newborns. The difference in low birth weight was not significant, however for each group the rate was higher than all Medicaid births (7.1% in 2016 according to the First Steps Database). This may be due to higher proportions of race/ethnic groups at high risk of low birth weight enrolled in TANF Home Visiting, including African American and American Indian/Alaska Native mothers.

Fifty-six percent of newborns received 6 or more prenatal visits during their first 15 months of life, as compared to 60 percent of comparison newborns, though the difference was not significant.

<sup>3</sup> See Chaffin, M., & Bard, D. (2006). Impact of intervention surveillance bias on analyses of child welfare report outcomes. *Child Maltreatment*, 11(4), 301-312.

TABLE 10.

## First Steps Maternal and Child Health Measures

	Intervention	Comparison	P-value
Mother received timely prenatal care	72%	72%	0.975
Low birth weight	14%	11%	0.401
Six or more well child visits over first 15 months	56%	60%	0.555

## Directions for Future Research

This analysis examined first year outcomes among families who enrolled in TANF Home Visiting programs, and compared them to families who did not enroll in the TANF Home Visiting intervention. Parents in TANF Home Visiting spent more months on TANF, and were more likely to engage in WorkFirst activities that prepare them for work, including being more likely to undertake education and training. TANF Home Visiting parents were also more likely to be involved with the child welfare system, but this may be because these families interacted with more service providers (e.g. home visitors, child care workers). TANF Home Visiting families were more likely to take advantage of benefits to assist in covering the cost of child care. TANF Home Visiting families were just as likely as comparison group families to work for pay, but they worked fewer hours. TANF Home Visiting families appear to stay connected to TANF, while opting to increase skills through education and training, and work a lower number of hours.

The limitations of observational studies such as this one should be highlighted. Propensity score matching balances treatment and comparison groups on measured characteristics, but there is still risk that groups may remain unbalanced on unmeasured factors. Given the use of administrative data, only factors included in those systems could be used for matching.

All of the home visiting models that are part of TANF Home Visiting have intervention periods of at least two years. The outcomes included in this first year follow-up study took place during the same time period during which families were receiving services. To measure the true preventative impact of these programs, longer term follow up will be necessary. Additional yearly outcome studies will be able to assess longer term impacts of the program, including outcomes for families after exiting the program. Future studies will also be able to include individuals who enrolled with providers after the time period used in this study. Continued monitoring and evaluation of the program will offer more insight into the effects of TANF Home Visiting.

APPENDIX

TABLE A1.

Baseline Characteristics of TANF Home Visiting Participants and Comparison Groups

	TANF Home Visiting Group (N = 261)	Matched Comparison Group (N = 522)	Absolute Standardized Mean Difference (ASMD)*
<b>Demographics</b>			
Age	25.0	24.9	0.010
Female	98%	98%	0.026
Non-Hispanic white	49%	49%	0.000
Any minority	51%	51%	0.008
Hispanic	23%	23%	0.005
Black	15%	15%	0.005
American Indian or Alaska Native	10%	9%	0.044
Asian	6%	6%	0.023
Native Hawaiian or Pacific Islander	4%	5%	0.050
<b>Family and Household Information</b>			
Number of children under 5 years old	0.9	0.9	0.019
Number of children 5 years and older	0.2	0.2	0.012
No children in the home (due to pregnancy)	26%	26%	0.000
Youngest child under 1 year old	49%	50%	0.027
Youngest child age 1 to 4 years old	21%	20%	0.033
Pregnancy	41%	41%	0.000
Two parent assistance unit	13%	13%	0.000
Lives in urban - high density county	56%	56%	0.004
Lives in urban - medium or low density county	22%	22%	0.005
Lives in a rural or small town county	22%	22%	0.009
<b>Physical and Behavioral Health</b>			
Medicaid coverage in index month	96%	97%	0.050
Count of Medicaid months in prior 24 months	18.2	17.7	0.068
Medical risk score	0.8	0.8	0.032
Mental health condition	62%	59%	0.079
Received mental health service prior 24 months	50%	47%	0.073
Substance use disorder	42%	39%	0.054
Received SUD treatment service prior 24 months	21%	18%	0.057
Any ED outpatient visit for child under 5 prior 24 months	34%	32%	0.036
Count ED outpatient visits for child under 5 prior 24 months	1.3	1.4	0.045
Any ED outpatient visit for child over 5 prior 24 months	12%	15%	0.083
Count ED outpatient visits for child over 5 prior 24 months	0.3	0.4	0.047
<b>Family Risk Factors</b>			
Child welfare involvement prior 24 months	25%	25%	0.013
Homelessness or housing instability prior 24 months	55%	52%	0.058
Criminal justice involvement prior 24 months	20%	16%	0.054
Domestic violence prior 24 months	13%	13%	0.006

	TANF Home Visiting Group (N = 261)	Matched Comparison Group (N = 522)	Absolute Standardized Mean Difference (ASMD)*
<b>Education and Employment</b>			
Education less than high school	32%	31%	0.012
Education high school or GED	49%	50%	0.027
Education greater than high school	19%	18%	0.019
No employment prior 8 quarters	39%	34%	0.102
Number of quarters employed in prior 8 quarters	2.3	2.7	0.124
<b>TANF/WorkFirst Participation</b>			
TANF Ticks	14.9	15.1	0.013
Any previous sanction	9%	10%	0.040
Infant exemption in index month	17%	17%	0.015
Resolving mental health in index (XG)	11%	11%	0.024
Resolving SUD in index (XE)	11%	9%	0.072
Resolving family violence in index (XF)	3%	4%	0.107
Resolving homelessness in index (XH)	1%	1%	0.000
Any of the resolving activities in index month	21%	20%	0.019

\*ASMD is a measure of balance between two groups. In propensity score matching, an ASMD below 0.2 for a given mean difference is considered good balance. No factors were above 0.2 after matching.

## TECHNICAL NOTES

### STUDY DESIGN AND OVERVIEW

This report examines outcomes for parents enrolled in the TANF Home Visiting program and compares them to a propensity score matched group of parents receiving TANF who did not receive TANF Home Visiting Services. The home visiting enrollees were identified through participant logs from providers. A total of 261 parents enrolled in TANF Home Visiting between May 2015 and October 2016. Each participating parent was assigned an index month, defined as the month the parent started in the TANF Home Visiting program. Note that for reverse referrals the index month was the month in which the referral was recorded in eJAS (not the date of the earlier enrollment into the contractors program). We selected this decision rule to ensure the enrollment month coincided with the experience of receiving home visiting services and TANF concurrently.

Two TANF parents not enrolled in TANF Home Visiting were selected as a comparison for each TANF Home Visiting intervention group member using a propensity score matching algorithm implemented in R Statistical Software. No geographic restrictions were made; comparison parents were selected all eligible TANF parents across the state, but urbanicity of the county was included as a matching variable. The complete list of matching variables is available in the Appendix Table A1. We restricted the matching such that each intervention group member was matched to two comparison group members who fell into the same age group. This restriction improved overall balance on other matching factors. Balance was assessed using absolute standardized mean difference (ASMD). ASMD values below 0.2 indicate good balance; no matching factors were above 0.2 after matching.

### DATA SOURCES AND MEASURES

**Baseline factors used in matching** were measured over the 24 months prior to entering TANF Home Visiting unless otherwise noted.

- **Demographics and household characteristics:** Parent age, race/ethnicity, and gender were identified using service records in the Integrated Client Databases. Children of enrolled parents were identified using the Automated Client Eligibility System (ACES) records of children in the assistance unit and of client pregnancies. Household type (single versus two-parent) was also identified using ACES. These factors were measured as of the index month.
- **Parent self-reported education:** Self-reported years of education from the ACES data warehouse was converted into less than 12 years, 12 years or GED, and more than 12 years.

- **Parent Medicaid eligibility:** Eligibility for publicly funded medical coverage was measured in the index month, and a count of months of coverage during the prior 24 months was calculated.
- **Parent mental health condition:** Medical and mental health service records were used to identify the presence of mental illness based on diagnoses, prescriptions, and treatment records.
- **Parent mental health treatment:** Mental health treatment includes publicly-funded outpatient mental health services, tribal mental health services, and publicly-funded inpatient services.
- **Parent substance use disorder:** Probable substance use disorders were identified based on diagnoses, prescriptions, and treatment records, as well as drug and alcohol-related arrests.
- **Parent substance use treatment:** Parent substance use treatment includes publicly-funded residential, outpatient, detox, and opiate treatment program.
- **Parent significant health problems:** Parent medical risk score was calculated based on medical diagnosis and prescription groupings and their relationship to medical costs.
- **Child welfare involvement:** Any child welfare involvement was measured using Children’s Administration services recorded in the Integrated Client Databases. Child Protective Services accepted referrals were also measured.
- **Parent employment and earnings:** Employment and earnings were identified through Employment Security Department Unemployment Insurance records.
- **TANF non-compliance sanctions:** Records of TANF non-compliance sanctions were identified in ACES.
- **Months on the TANF clock:** Months on the TANF clock were identified through ACES.
- **Resolving activities while on TANF:** Indicators for whether the parent was engaged in a resolving activity through WorkFirst, including mental health, substance use, family violence, and homelessness resolution.
- **Parent homelessness or housing instability:** The homelessness indicator came from the Automated Client Eligibility System (ACES), the data system used to track client eligibility for social and health services. Parents were identified as homeless if they were identified as ‘homeless with housing’ or ‘homeless without housing,’ in ACES.
- **Parent criminal justice involvement:** This indicator includes any arrests according to Washington State Patrol arrest records, any convictions in Administrative Office of the Courts data, or any incarceration in a Department of Corrections prison.
- **Parent domestic violence:** Domestic violence was identified through domestic violence-related arrests and convictions or through identification of domestic violence in ACES or Famlink data systems.
- **County urbanicity:** The urbanicity of the county was categorized into urban – high density, urban – medium & low density, large city, and rural according to density and population.
- **Children in household visits to ER:** Indicators of whether any children under 5, or any children over 5, living in the household as of the index month received outpatient treatment in the ED during the prior 24 months.

**Outcomes** were measured over the 12-month follow up period after enrollment in TANF Home Visiting. Source include the Integrated Client Database (ICDB) and The First Steps Database, which links Washington State birth and death certificates obtained from the Department of Health Center for Health Statistics (DOH CHS) at the individual level to Medicaid-paid maternity services and Medicaid eligibility, claims and encounter data from the Health Care Authority (ProviderOne).

- **Months on TANF:** The number of months on TANF in the follow up period was measured using the ACES data warehouse
- **TANF exit:** Three types of exits were measured 1) an exit for any reason, 2) positive exit, which includes exit reasons exceeds earned income limit, excess net income, child support more than grant and receiving SSI, 3) income-related exit, which includes exceeds earned income limit and excess net income. Exit reasons come from the ACES data warehouse
- **Return to TANF:** A return to TANF was recorded if there was an exit from TANF and subsequent return to TANF within the 12 month follow up period.
- **Preparing activity:** WorkFirst component codes corresponding to preparing for work were identified. This measure indicates whether the parent took part in a preparing activity in the 12 month follow up period.
- **Education or training activity:** WorkFirst component codes corresponding to education or training were identified. This measure indicates whether the parent took part in an education or training activity in the 12 month follow up period. Component codes include BE, GE, HS, JT, VE, VU.

- **Looking for work activity:** WorkFirst component codes corresponding to looking for work were identified. This measure indicates whether the parent took part in looking for work activity in the 12 month follow up period.
- **Work activity:** WorkFirst component codes corresponding to work were identified. This measure indicates whether the parent took part in a work activity in the 12 month follow up period.
- **Non-compliance sanction:** This measure identifies parents who received a non-compliance sanction during the follow up period. Included sanction types include '40% WorkFirst sanction' and 'Non-Compliance Sanction Process'.
- **Employment, wages, and hours worked:** Using Employment Security wage data, three measures were created 1) any employment in the 3 follow up quarters, 2) average quarterly wage during the follow up quarters, among those who worked, and 3) hours worked during the 3 follow up quarters, among those who worked).
- **Mental health treatment:** Any publicly funded mental health treatment was identified using the integrated client data base.
- **Substance use disorder treatment:** Any publicly funded substance use treatment was identified using the integrated client data base.
- **Child welfare involvement:** Any child welfare involvement was measured using Children's Administration services recorded in the Integrated Client Databases. An additional measure of accepted Child Protective Services referral was also measured using the ICDB.
- **Working Connections Child Care (WCCC):** WCCC use measured using payment records in the ICDB.
- **Emergency department visit:** ED visits for outpatient services were measured for children under five in the household who were household members as of the index month.
- **Timely prenatal care:** Whether the mother received prenatal care in the first trimester or with 42 days of the start of enrollment in Medicaid was measured with birth certificates linked to claim/encounter data from ProviderOne in the First Steps Database
- **Low birth weight:** Newborns were classified as low birth weight if they weighed less than 2500 grams at birth, according to the birth certificate.
- **Well-child visits in the first 15 months of life:** Counts of well-child visits reflect the number of visits on different days identified in the first 15 months of life using the First Steps Database.



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