State of the Fox Valley Child: Birth to Five

To what extent are the Fox Valley’s youngest children safe, healthy, and ready to learn?

Fox Valley Early Childhood Coalition 2016
The Fox Valley Early Childhood Coalition is a group of community partners that have come together to achieve the vision of “A coordinated early childhood system to enable children to be safe, healthy and ready to learn in Calumet, Outagamie, and Winnebago Counties (the Fox Valley).” The coalition would like to thank many Tri-County partners for their contributions to this work, whose efforts made this report possible.

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Children are raised in families living in communities. The health of both exerts a powerful influence on the developmental health and well-being of young children. So, we preface the local findings contained in this report with important background facts.

First, the United States ranks 26th in child well-being among 29 of the world’s most advanced economies. It also ranks in the bottom third on all five global dimensions of child well-being (UNICEF Office of Research, 2013). America has the highest child mortality rate and the highest maternal mortality rate among the 34 Convention on the Organization for Economic Co-operation and Development (OECD) nations. More U.S. teenage girls become pregnant than those in 16 comparable countries. America ranks 20th in reading, 30th in math, and the American education system is ranked 26th in its ability to prepare students to compete in a changing workforce (Blanch, Shern & Steverman, 2014). The United States, with the world’s largest economy, has the second highest relative child poverty rate among 35 industrialized nations (Children’s Defense Fund, 2015). It also has the highest rates of mental illnesses and second highest rate of substance abuse problems in the world (Mental Health America ([MHA], 2016).

Wisconsin ranks 13th in the nation in child well-being and 15th in education, child health, family well-being and community well-being (Annie E. Casey Foundation [AECF], 2014). According to a report by Mental Health America (2016), Wisconsin ranks 37th in the nation for youth mental health, representing both high rates of mental illness and low access to care. Also, 11% of Wisconsin youth experienced a major depressive episode in the last year—the third worst rate in the nation. Wisconsin’s youth suicide rate has been consistently higher than the overall national rate in the last several years, with the rate in 2014 almost 40% higher than the national rate. Wisconsin ranks among the top five states with child emotional disturbances forming the basis for an individualized education plan. By comparison, the neighboring state of Minnesota ranks number one in child well-being and first in positive youth mental health (AECF, 2014; MHA, 2016).

We have important work to do as a nation, as a state, and as a local community of concerned citizens.
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Executive Summary

The purpose of this report is to answer the question “To what extent are the Fox Valley’s youngest children safe, healthy and ready to learn”? Our findings provide partial answers to this question.

Safe
Several child safety issues warrant closer examination in the Fox Valley. Rates of child abuse and neglect are highest among children ages birth to five years of age. Most often, perpetrators were a child’s parent or guardian. Winnebago and Outagamie counties have twice the incidence of Child Protective Services (CPS) reports in comparison with Calumet County. The incidence of Winnebago CPS reports exceeds that of Wisconsin. Rates of certain preventable childhood injuries related to emergency department visits are higher in the Fox Valley than in the state. This is particularly true of falls, blunt injuries (i.e. struck by or against an object or person), and emergency room visits due to overexertion. Overall, Tri-County infant mortality rates are below Wisconsin rates with the exception of Winnebago County whose infant mortality rates matches the state rate. More than 50% of homes in the Tri-County area were built before 1980, leaving many young children at risk for lead-based paint exposure.

Healthy
Child health begins prenatally and is affected by a broad range of health-related factors across a child’s development. Preterm births and low birth rates are two leading causes of infant death. In 2014 the rates of preterm births and low birth weight infants in the Fox Valley slightly exceeded state rates. Breastfeeding is an indicator of infant health and is known to have many health benefits for infants and mothers. A majority of mothers in the Fox Valley initially breastfeed their infants and continue through the first 3 months of life. Still, breastfeeding rates in the Fox Valley are below state-wide goals. Women, Infants, and Children (WIC) is a Special Supplemental Nutrition Program that provides supplemental foods and health related services to low-income pregnant women and mothers of children up to 5 years old who are found to be at nutritional risk. WIC participation rates vary greatly across the Fox Valley and the Fox Cities, with Winnebago County reporting the highest participation rates. Nevertheless, WIC participation rates in the Fox Valley are well below the state participation rate.

The Fox Valley does well with early immunizations. In fact, immunization rates of two year old children in the Tri-County area are well above the state average. Childhood obesity has more than doubled in the past 30 years. Unfortunately, we currently lack reliable estimates of overweight and obesity in Fox Valley children birth to 5 years of age. We do know nearly one third of Tri-County 4 year olds participating in WIC are overweight and obese which is similar to state rates.
Ready to Learn

Five developmental domains are widely considered indicators of school readiness: social-emotional development, cognitive development, language development and literacy, approaches to learning and physical development. In the Fox Valley we do not currently assess school readiness in all five domains of development as measured by kindergarten entry assessment. We do however assess literacy skills in children starting in 4 year old kindergarten through second grade. On average, kindergarten children in the Fox Valley exceed state benchmarks in all areas of literacy skill development. Reading proficiency in the 3rd grade is a strong predictor of high school graduation and the odds of succeeding economically later in life.

Third grade reading scores for a limited sample of students in the Tri-County area show a majority of children are reading at or below basic skill levels. In 2015, Wisconsin had a slightly higher average 4th grade reading score in comparison with students nationally. Nevertheless the state ranks 25th nationally in 4th grade reading scores, with a majority of our young students reading at or below basic skill level.

Many factors play an important role in shaping children’s readiness to learn, including early identification of developmental delays, family functioning, parent mental health, and quality child care. Although Calumet County exceeded the state benchmark for identifying young children with developmental delays and disabilities, Outagamie and Winnebago counties did not. Early adversity in a parent’s life can impact their child’s well-being and readiness for school. Winnebago County adults have the highest reported level of multiple adverse childhood experiences in the Fox Valley. Those childhood adversity rates are nearly twice the rate for adults living in Outagamie County and are above the rate for all of Wisconsin. Like the nation in general, the Fox Valley is challenged in the areas of child care availability, affordability, and quality. The issue of quality is imperative, yet high turnover rates and low child care worker wages pose barriers to achieving statewide quality benchmarks.

Several important aspects of child well-being are missing from this report due to the absence of locally available data. Excluded is the examination of:

- Known disparities in the safety, health, and school readiness in non-white populations of children and families who reside in the Fox Valley.
- The unique needs of our most vulnerable children, including children with special health care needs, children with mental, emotional, or behavioral health difficulties, and young children with special education needs.
- The extent to which all young children and their families in the Fox Valley have access to adequate primary medical care, dental and vision care, mental health services, school mental health services, and timely developmental screenings including the number of children age 5 and under receiving Early and Periodic Screening, Diagnostic and Treatment (EPSDT).
- Family health and supports, including the percentage of mothers of children age 5 and under who are screened and referred for depression, percentage of eligible families receiving home visiting services, and percentage of eligible families who receive training and support to create a literate home environment and enhance the academic achievement of their children.

It is said conclusions are only as valid as the data upon which they are based. To this we conclude the Fox Valley has far to go in establishing and monitoring population level indicators of child safety, health, and readiness to learn. Until such a goal becomes a reality we remain unable to reliably answer the question, “To what extent are the Fox Valley’s youngest children safe, healthy and ready to learn”? 
Data Development Agenda

A long-standing challenge in early childhood has been the absence of a universally accepted set of measures designed to answer the question, “Are our youngest children developing on track for success in life”? In recent years, several national groups have completed exhaustive investigations of “markers that matter” for early childhood development and learning. Those findings are the basis for the proposed data development agenda contained in this report.

Establishing a set of desired outcomes with related indicators provides, like the example provided in Table 1, is essential for tracking progress toward early childhood goals and monitoring trends in outcomes of interest. Both of which are essential activities in effective outcome-oriented, results-based early childhood initiatives.

Table 1. Sample Early Childhood Outcomes and Indicators

<table>
<thead>
<tr>
<th>Targeted Outcome</th>
<th>Children are safe, healthy and developing on track</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indicator</strong></td>
<td>Children are free from unintentional injury</td>
</tr>
<tr>
<td><strong>Indicator</strong></td>
<td>Families receive support to keep children safe and protect them from abuse and neglect</td>
</tr>
<tr>
<td><strong>Indicator</strong></td>
<td>Families have access to healthy foods</td>
</tr>
<tr>
<td><strong>Indicator</strong></td>
<td>Children have access to a consistent primary care provider</td>
</tr>
<tr>
<td><strong>Indicator</strong></td>
<td>Children with developmental concerns identified through screening who access needed treatment or services</td>
</tr>
</tbody>
</table>

Adapted from the National Results & Equity Collaborative. Turning Curves for Vulnerable Children from Birth to Age 8 Action Guide.
### Data Development Agenda

**Note:** Only check-marked items are contained in this report.

<table>
<thead>
<tr>
<th>Developmental Health</th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children reading proficiently in the 3rd grade as measured by state proficiency tests</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children ready in all five domains of development as measured by kindergarten entry assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children with undetected developmental delays or chronic health conditions at kindergarten entrance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children who have multiple risk factors (three or more demographic risk factors: living in poverty, single parent household, parent with less than a high school education, parent unemployed)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Child Measures</th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
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</thead>
<tbody>
<tr>
<td>Special Needs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children birth to 3 receiving Part C Early Intervention Services</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children birth to three with substantiated cases of abuse and neglect referred to Part C early intervention (based on CAPTA)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children ages 3 to 5 enrolled in early childhood Part B Preschool special education programs</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Children with special health care needs (CSHCN) birth to 5 who receive coordinated, ongoing, comprehensive care within a medical home or systems of care for children with special health care needs</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social-Emotional Development &amp; Mental Health</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Substantiated cases of child abuse and neglect among children birth to 5</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children birth to 5 in out-of-home placement (foster care) that had no more than two placements in a 24 month period</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children 5 years of age and younger who are expelled from child care, preschool, or 4 year old kindergarten</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young children who receive objective developmental/social emotional and mental health screenings</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Health &amp; Safety</th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children with health insurance</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Infant mortality</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Preterm and low weight births</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Young children receiving scheduled immunizations</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children under age 5 with blood lead levels at or above 5 micrograms per deciliter</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Preventable unintentional injuries in children ages 5 years or less</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children age 5 and under receiving Early and Periodic Screening, Diagnostic and Treatment (EPSDT)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of physicians and children participating in the Reach Out and Read program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children receiving regular dental care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children with chronic health problems at kindergarten entry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children who are overweight and obese</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Children hospitalized for asthma per 100,000 children five years of age or less</td>
<td></td>
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</tbody>
</table>
## Data Development Agenda

**Note:** Only check-marked items are contained in this report.

### Family & Parenting

<table>
<thead>
<tr>
<th>Item</th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children living in families with incomes at or below the federal poverty threshold</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Births to teen mothers</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Births to mothers who receive late or no prenatal care</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Parents with a high school degree or less</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mothers of children age 5 and under who are screened and referred for depression</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of eligible families receiving home visiting services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New parents receiving Welcome Baby Visits</td>
<td></td>
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</table>

### Early Care and Education

<table>
<thead>
<tr>
<th>Item</th>
<th>Calumet</th>
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<th>Winnebago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children attending early care and education centers with high quality ratings</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children ages 3 to 4 years enrolled in center-based early childhood care and education program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children age 5 and under receiving child care subsidies</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Child care centers that have access to ongoing health or mental health consultation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infants and toddlers (birth to 3) in poverty who are enrolled in Early Head Start</td>
<td></td>
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<tr>
<td>Early childhood teachers with a bachelor’s degree and specialized training in early childhood</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child care centers accredited by the National Association for the Education of Young Children (NAEYC)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children in unregulated child care</td>
<td></td>
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### Community Health

<table>
<thead>
<tr>
<th>Item</th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
</tr>
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<tbody>
<tr>
<td>Percent of families with young children paying more than 30% of their income for housing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of children living in a neighborhood in which more than 20% of the population lives in poverty</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Percent of families with young children needing and receiving emergency housing services (including domestic violence shelters)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of families of young children using food assistance programs (WIC, SNAP, CSFP, SFSP, Free and reduced lunch programs, food banks)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevalence of CSHCN, autism spectrum disorders, attention deficit disorders, mental/behavioral conditions</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Percent of families eligible for home visiting served</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of young children who receive periodic objective developmental/social emotional and mental health screenings</td>
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</tbody>
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2. Including child care centers, nursery schools, pre-school program, Heard Start programs, pre-K and 4 K programs
Fox Valley Community Profile

With a combined population over 400,000, the Fox Valley/Tri-County area includes a resident median age of 37 years, with more than 7% of the population under the age of 6 years. Fox Valley’s combination of urban and rural settings affords the region a robust and healthy economy with businesses and jobs in diverse sectors such as manufacturing, health care, finance and insurance, banking, agriculture and dairy, retail, hospitality and tourism.

Residents benefit from a strong local health care system, strong K-12 education system and excellent post-secondary education opportunities. With this strong support, the majority of the Fox Valley’s labor force has completed high school and approximately 30-40% have achieved some level of post-secondary education. The area is home to a variety of post-secondary education resources, including Lawrence University, multiple campuses within the University of Wisconsin system, and technical colleges with satellite locations.

These educational institutions are committed, vital partners in the development of the Fox Valley communities’ workforce, economy and quality of life.

Demographic Information

Demographic information is important for understanding the socio-economic landscape of the Tri-County region, including such factors as residents’ age, sex, education level, income level, marital status, average size of a family, and average age at marriage.

Birth to 5 Population

The Fox Valley region is home to approximately 28,700 young children ages birth to 5 years, approximately 51% of which are male. The birth to five population represents 7.2% of the Tri-County area population (Table 2). Of these children, 13,489 (47%) live in the cities of Appleton, Menasha, Neenah and Oshkosh (Table 3). The remaining 53% of young children live in rural areas, which has implications for service delivery and accessibility.

Table 2. Percent of birth to 5 years population by county (2010-2014)

<table>
<thead>
<tr>
<th>By County</th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
<th>Tri-County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>49,502</td>
<td>179,139</td>
<td>168,413</td>
<td>397,054</td>
</tr>
<tr>
<td>Age 0-5</td>
<td>3,758</td>
<td>13,723</td>
<td>11,226</td>
<td>28,707</td>
</tr>
<tr>
<td>% of Total Population</td>
<td>7.6%</td>
<td>7.7%</td>
<td>6.7%</td>
<td>7.2%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2010-2014 5-Year American Community Survey

Table 3. Number of children birth to 5 years by city (2010-2014)

<table>
<thead>
<tr>
<th>By City</th>
<th>Appleton</th>
<th>Menasha</th>
<th>Neenah</th>
<th>Oshkosh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>72,861</td>
<td>17,535</td>
<td>25,697</td>
<td>66,430</td>
</tr>
<tr>
<td>Age 0-5</td>
<td>5,820</td>
<td>1,556</td>
<td>2,000</td>
<td>4,113</td>
</tr>
<tr>
<td>% of Total Population</td>
<td>8.0%</td>
<td>8.9%</td>
<td>7.8%</td>
<td>6.2%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2010-2014 5-Year American Community Survey
Population Diversity
The three counties in the Fox Valley region have very similar diversity patterns. In general, just over 92% of residents living in the Tri-County area identify themselves as white. The remaining population, (listed in descending order by size) identify themselves as Hispanic/Latino, Other, Asian, African American, and American Indian/Alaska Native (Figure 1).

The urban core of the Tri-County area consists of four principal cities listed in descending order of size: Appleton, Oshkosh, Neenah and Menasha. Similar to county-level data, 90% of residents living in the Fox Cities identify themselves as white (Figure 2). Appleton, the largest of the Fox Cities, is the most diverse followed by Menasha the smallest of the Fox Cities.

Figure 1. Fox Valley Population Diversity by County (2010-2014)

Source: U.S. Census Bureau, 2010-2014 5-Year American Community Survey

Figure 2. Population Diversity of the Fox Cities (2010-2014)

Source: U.S. Census Bureau, 2010-2014 5-Year American Community Survey
**Household Composition**

A majority of young children (73%) in the Fox Valley region live in two-parent households. Calumet County has the highest percentage of two-parent households (86%), followed by Outagamie and Winnebago counties. Yet, nearly 1 in 3 children in Winnebago County and 1 in 4 children in Outagamie County live in single-parent households. While the vast majority of these children live in single-mother families (72%), more than a quarter of these very young children (28%) live in single-father families (Table 4).

Young children in single-parent households, particularly single-mother families, face serious economic challenges. Children growing up in single-mother families are among the most vulnerable children in the country and are challenged by the most significant barriers to social-emotional health, healthy development and success in school. Patterns of household composition in the Fox Cities differ from county-level patterns (Figure 3). In contrast to the Tri-County area in which 73% of children live in two-parent households, 64% of children in the Fox Cities live in a two-parent household. The majority of which are single-mother families.

In the city of Oshkosh the number of young children living in two-parent households drops to 56% followed by the cities of Appleton (64%) and Menasha (63%). In the city of Menasha, another trend emerges: children living in single-parent households are, for practical purposes, equally divided between single-mother and single-father families.

<table>
<thead>
<tr>
<th>By County</th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
<th>Tri-County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population Age 0-5</td>
<td>3,758</td>
<td>13,723</td>
<td>11,226</td>
<td>28,707</td>
</tr>
<tr>
<td>% Living with Two Parents</td>
<td>86.2%</td>
<td>73.8%</td>
<td>67.9%</td>
<td>73.1%</td>
</tr>
<tr>
<td>% Living with One Parent</td>
<td>13.8%</td>
<td>26.6%</td>
<td>32.1%</td>
<td>26.9%</td>
</tr>
<tr>
<td>% Living with Father</td>
<td>27.2%</td>
<td>28.6%</td>
<td>27.9%</td>
<td>28.2%</td>
</tr>
<tr>
<td>% Living with Mother</td>
<td>72.8%</td>
<td>71.4%</td>
<td>72.1%</td>
<td>71.8%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2010-2014 5-Year American Community Survey

**Figure 3. Percentage of Children Living in Single and Two Parent Families by City**

Source: U.S. Census Bureau, 2010-2014 5-Year American Community Survey
Family Income

While there are income variations among the cities and counties, the median household income in the Tri-County area is $58,873 (Figure 4). Of the three counties, Calumet has the highest median income ($66,250) and Winnebago the lowest ($51,949). In the Fox Cities, Appleton has the highest median income ($53,439) and Oshkosh has the lowest ($42,860). In Calumet, a significant percentage of the population makes between $75,000 and $150,000 (35.3% combined), while Oshkosh has a higher percentage in the $10,000 to $24,999 income bracket (21.8%).

Figure 4. Fox Valley Annual Household Income Distribution by County and City (2010-2014)

<table>
<thead>
<tr>
<th>County</th>
<th>Median Household Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calumet</td>
<td>$66,250</td>
</tr>
<tr>
<td>Outagamie</td>
<td>$58,421</td>
</tr>
<tr>
<td>Winnebago</td>
<td>$51,949</td>
</tr>
<tr>
<td>Tri-County</td>
<td>$58,873</td>
</tr>
<tr>
<td>Appleton</td>
<td>$53,439</td>
</tr>
<tr>
<td>Menasha</td>
<td>$46,001</td>
</tr>
<tr>
<td>Neenah</td>
<td>$52,271</td>
</tr>
<tr>
<td>Oshkosh</td>
<td>$42,860</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2010-2014 5-Year American Community Survey
Child Poverty

Although child poverty rates in the Fox Valley (12.4%) are lower than Wisconsin child poverty rates (18.2%), poverty has continued to rise across the state (Smeeding, Isaacs, & Thornton, 2015). Based on a five year estimate, 11,223 minor children in the Tri-County area live below the federal poverty threshold. Of these children 4,608 (41%) are ages 5 years and under (Figure 5). Children experience some of the highest poverty rates of any group in the United States, and the Fox Valley is no different. Poverty has a profound negative impact on children’s development, academic success, health, safety, and life achievement.

The Annie E. Casey Foundation (2015) reports “on average, families need an income of roughly twice the official poverty threshold, currently about $24,000 per year for a family of four, to cover the entire cost of basic expenses for housing, food, transportation, health care and child care” (p.1). This is the equivalent of living on approximately $33.20 per day per person in a family of four.

Figure 5. Poverty Status in the past 12 months of children under 18 years (2010-2014)

<table>
<thead>
<tr>
<th></th>
<th>Total number of Households</th>
<th>Number of households below poverty line</th>
<th>Percent of households below the poverty line</th>
<th>Number of children 6 to 17 years in households below the poverty line</th>
<th>Percent of children 6 to 17 years in households below the poverty line</th>
<th>Number of children 5 years and younger in households below the poverty line</th>
<th>Percent of children 5 years and younger in households below the poverty line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calumet</td>
<td>12,773</td>
<td>1,053</td>
<td>8.2%</td>
<td>718</td>
<td>68.2%</td>
<td>355</td>
<td>34.0%</td>
</tr>
<tr>
<td>Outagamie</td>
<td>43,092</td>
<td>4,686</td>
<td>11.0%</td>
<td>2,712</td>
<td>58.0%</td>
<td>1,974</td>
<td>42.1%</td>
</tr>
<tr>
<td>Winnebago</td>
<td>34,764</td>
<td>5,484</td>
<td>16.0%</td>
<td>3,205</td>
<td>58.4%</td>
<td>2,279</td>
<td>42.0%</td>
</tr>
<tr>
<td>Tri-County</td>
<td>90,629</td>
<td>11,223</td>
<td>12.4%</td>
<td>6,635</td>
<td>59.1%</td>
<td>4,608</td>
<td>41.0%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates
Vulnerable Populations Footprint

Two key social determinants of health (poverty and adult educational attainment) have a significant impact on child health outcomes. Figure 6 displays where vulnerable populations live in the Fox Valley area by identifying areas in which: (1) adults are living in poverty (orange), (2) adults do not have a high school diploma (purple) and, (3) areas in which adults are living in poverty without a high school diploma (red).

More specifically, the orange shading shows areas where 15% of the population is living at-or-below 100% of the Federal Poverty Level (FPL).

The purple shading shows areas where 15% the adult population has no high school diploma. The red shading shows concentrations of the population living at or below the federal poverty level without a high school diploma.

Because poverty thresholds vary by family size, further analysis is needed to identify how many children are living in the vulnerable population footprint areas. More information on how the Census determines poverty thresholds can be found at: http://www.census.gov/hhes/www/poverty.

Figure 6. Vulnerable Populations Footprint

Source: American Community Survey, 2010-2014
Unemployment
As the economy improves nationwide, so has the job market and economic vitality of the Fox Valley area. This is evident in the improving unemployment rate from 2014 to 2015 (Figure 7), however the majority of gains are in low-wage positions (Smeeding, Isaacs, & Thornton, 2015). Unemployment rates are relevant because unemployment creates financial instability and barriers to access for insurance coverage, health services, healthy food. Lack of these and other necessities contributes to poor health status.

<table>
<thead>
<tr>
<th></th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
<th>Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2014</td>
<td>4.4%</td>
<td>5.0%</td>
<td>5.7%</td>
<td>5.4%</td>
</tr>
<tr>
<td>June 2015</td>
<td>3.8%</td>
<td>4.2%</td>
<td>4.7%</td>
<td>4.6%</td>
</tr>
</tbody>
</table>


Health Insurance Status
Often, access to care and health insurance status can be indicators of a family’s or community’s needs, especially financially. When we look at the population without health insurance (Figure 8), we need to remember that this can be for many reasons, such as unemployment, underemployment, no employer health insurance, etc. In addition, it is important to note that the data presented here are out of date and do not reflect the increased number of people that have become insured under the Affordable Care Act. For more up-to-date information about health insurance status, please use the following resources:
- Covering Kids and Families http://ckfwi.org/
- ForwardHealth http://www.dhs.wisconsin.gov/forwardhealth

<table>
<thead>
<tr>
<th></th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
<th>Appleton</th>
<th>Menasha</th>
<th>Neenah</th>
<th>Oshkosh</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Population</td>
<td>4.4%</td>
<td>6.9%</td>
<td>7.2%</td>
<td>8.3%</td>
<td>7.7%</td>
<td>7.5%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Under age 18</td>
<td>2.2%</td>
<td>3.3%</td>
<td>2.3%</td>
<td>3.3%</td>
<td>1.9%</td>
<td>1.2%</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2010-2014 5-Year American Community Survey
Young children are naturally fearless and curious in the first 5 years of life; testing and trying new things.

At this age young children can walk, run, climb, jump, and explore the world around them. As a result the early years can be a very dangerous time in a child's life. Kitchens, bathrooms, stairways, and swimming pools are especially dangerous places for young children. Exposure to man-made chemicals, pollution, environmental waste, and firearms also pose serious safety threats, as do car crashes and preventable injuries, which are the leading causes of death in children under five years of age.
SAFE: At a Glance

Child Abuse and Neglect

- Winnebago and Outagamie counties have twice the incidence of Child Protective Services (CPS) reports per 1,000 Population (38.7 and 32.1 respectively) as Calumet (16.5).
- The incidence of Winnebago CPS reports (38.7) exceeds the Wisconsin rate (32.5).
- For all counties, 93% or more of the abusers were a child’s parent or guardian.

Did You Know?

More than 4 children in the U.S. die every day as a result of child abuse. That’s about a classroom a week.

Children exposed to violence in their family show the same pattern of activity in their brains as combat soldiers.

Preventable Injury

Tri-County Emergency Department Visits:

- Unintentional falls - 43%, outpacing other injury types 2:1 and higher than the Wisconsin rate of 40.6%.
- “Struck by or against” injuries – 16.4%, exceeding the Wisconsin rate of 14.9%.

Infant Mortality

- Overall, Tri-County infant mortality rates are lower than Wisconsin (5.9 per 1000 live births).
- Calumet (3.5) and Outagamie (5.1) county rates are lower than Wisconsin, Winnebago County (6.0) slightly higher than Wisconsin in infant mortality.

Lead-Based Paint Exposure

- Tri-County has a significant number of older homes built before 1980, where lead-based paint is likely still in use.
- Counties: Calumet (50%), Outagamie (55.7%), and Winnebago (63%).
- Cities: Appleton (69.8%), Menasha (67.5%), Neenah (66.6%) and Oshkosh (68.8%).

Childhood Lead Poisoning (0-6)

Blood level testing is only required for Medicaid and WIC participants and data is reported by local Health Department Jurisdiction. Of children tested:

- City of Menasha has the highest percentage of children with lead poisoning (5.5%), exceeding the Wisconsin rate of 4.5%.
- Winnebago ranks second locally in childhood lead poisoning (4.3%).
- City of Appleton and Outagamie County tied for third highest percentage of children with lead poisoning, (2.2%) each.
- Calumet County has the lowest percentage of lead poisoned children (1.9%).
Child Abuse and Neglect
The United States has one of the worst child maltreatment records among industrialized nations – losing more than four children on average every day to child abuse and neglect. Child abuse and neglect take place in a child’s social environment. Maltreatment is typically perpetrated by a close family member. The State of Wisconsin defines abuse as physical abuse, sexual abuse, emotional damage, and neglect, all of which are preventable.

Generally speaking, child neglect is the most common accusation, with physical abuse, sexual abuse, and emotional abuse following behind (Wisconsin Department of Children and Families, 2013). Many people believe that probable perpetrators of child abuse are most likely to be the babysitter, neighbor or complete stranger, but this is a myth. As shown in Figure 9, the vast majority of abusers in the Tri-County area are primary caregivers (parents and guardians).

Figure 9. Percent of Abusers that were the Child’s Parent or Guardian (2013-2014)

In Wisconsin, abuse is defined as:

Physical Abuse
Physical injury inflicted on a child by other than accidental means. Physical injury includes, but is not limited to, lacerations, fractured bones, burns, internal injuries, severe or frequent bruising or great bodily harm.

Sexual Abuse
Sexual intercourse or sexual touching of a child, sexual exploitation, forced viewing of sexual activity, or permitting, allowing or encouraging a child to engage in prostitution.

Emotional Damage
Harm to a child’s psychological or intellectual functioning which is exhibited by severe anxiety, depression, withdrawal or aggression. Emotional damage may be demonstrated by substantial and observable changes in behavior, emotional response or learning which are incompatible with the child’s age or stage of development.

Neglect
When a parent or caretaker fails, refuses or is unable, for reasons other than poverty, to provide the necessary care, food, clothing, medical or dental care which seriously endanger the physical health of the child.

Source: Calumet, Outagamie, Winnebago Counties. eWISACWIS. 2013-2014.
**State of the Fox Valley Child: Birth to Five**

**Child Abuse and Neglect**

A child is considered to be a victim when an allegation of abuse is substantiated. The substantiation process is complex and begins with a Child Protective Services (CPS) referral which is either screened-out or screened-in for further investigation. A CPS report is created for each child who is identified in a screened-in referral as an alleged victim of child maltreatment or threatened maltreatment. All screened-in referrals subsequently receive a CPS Initial Assessment. The number of unique screened-in referrals can be smaller than the number of CPS maltreatment reports because one referral may include information about multiple children and each child in the referral is counted as a unique CPS report. For example, a referral from a community reporter may allege maltreatment against three children in a family. For purposes of this report, the CPS agency received one referral through the reporter’s phone contact with the CPS county agency; however, three CPS reports were created as there were three children who each had one or more maltreatment allegations. Table 5 shows the number of CPS maltreatment reports per 1,000 children by county. In Wisconsin, out of a population of 1,000 children approximately 33 were involved in a report of alleged maltreatment in 2014. In the Tri-County area, those rates were 38.7, 32.1 and 16.5 for Winnebago, Outagamie and Calumet counties respectively.

<table>
<thead>
<tr>
<th>County</th>
<th>2014 Child Population (Ages 0-7)</th>
<th>Number of CPS Reports</th>
<th>CPS Reports per 1,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calumet</td>
<td>12,572</td>
<td>208</td>
<td>16.5</td>
</tr>
<tr>
<td>Outagamie</td>
<td>43,921</td>
<td>1,412</td>
<td>32.1</td>
</tr>
<tr>
<td>Winnebago</td>
<td>35,311</td>
<td>1,366</td>
<td>38.7</td>
</tr>
<tr>
<td>State</td>
<td>1,300,189</td>
<td>42,300</td>
<td>32.5</td>
</tr>
</tbody>
</table>


**Figure 10. Victims of Substantiated Maltreatment, Percentage Age 0-4 (2013 and 2014)**

Nationwide, victimization rates are highest among the youngest population of children. Patterns of child abuse and neglect in the Fox Valley are similar to national trends in that nearly 40% of substantiated maltreatment occurs in children birth to 4 years of age.

<table>
<thead>
<tr>
<th></th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
<th>Tri-County</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>43.3%</td>
<td>29.3%</td>
<td>40.4%</td>
<td>36.4%</td>
</tr>
<tr>
<td>2014</td>
<td>40.0%</td>
<td>29.8%</td>
<td>44.4%</td>
<td>38.7%</td>
</tr>
</tbody>
</table>

Source: Calumet, Outagamie, Winnebago Counties. eWISACWIS. 2013-2014.
Preventable Injury

Preventable injuries in the United States are the number one cause of death among children birth to 19. One-fourth of these children need medical attention, and as much as to 90% of these injuries are preventable.

For young children (birth to 4 years) in the Tri-County region, falls continue to be a significant cause of injury. Roughly 43% of Tri-County emergency department visits are due to a fall, and outpace other types of injury nearly two to one (Figure 11).

A more detailed look at the data shows the Fox Valley region exceeds the Wisconsin state average for children being treated, in emergency departments, for falls from furniture. A comparison of regional, state, national and international data confirms unintentional falls as the leading cause of non-fatal injury globally in children 4 years old and under (Center for Disease Control and Prevention [CDC], 2012a). The financial costs of fall-related injuries can be significant, and may be staggering considering a lifetime impact for a child living with a disability.

The second single most likely cause of injury in the Tri-County region is “struck by or against” and is defined as an injury that occurs when the child is being hit by or hits a human, animal or inanimate object. In the Tri-County region, 16.4% of emergency department visits are assigned to this category, which again, exceeds the Wisconsin state average of 14.9%.

Whether it is falls, struck by or against or a lesser injury category - childhood injury continues to be a major public health problem yet is still largely preventable. “Child injuries are preventable, and improvements in the safety of children can be achieved if there is an effort by various stakeholders to adopt and promote effective interventions – strategies that can save lives and money” (CDC, 2012b, p. 13).
Preventable Injury

Figure 11. Leading Causes of Injury-Related Emergency Department Visits, Age 0-4 (2010-2014)

<table>
<thead>
<tr>
<th>Safe</th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
<th>Tri-County</th>
<th>Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls</td>
<td>39.0%</td>
<td>43.5%</td>
<td>42.9%</td>
<td>43.0%</td>
<td>40.6%</td>
</tr>
<tr>
<td>Struck by or against object or person</td>
<td>15.7%</td>
<td>16.5%</td>
<td>16.5%</td>
<td>16.4%</td>
<td>14.9%</td>
</tr>
<tr>
<td>Natural or environmental factors</td>
<td>8.5%</td>
<td>5.5%</td>
<td>6.7%</td>
<td>6.2%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Cutting or piercing objects</td>
<td>3.7%</td>
<td>4.5%</td>
<td>4.6%</td>
<td>4.5%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Overexertion</td>
<td>4.5%</td>
<td>4.1%</td>
<td>3.9%</td>
<td>4.0%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Fire, heat, chemical burns</td>
<td>2.2%</td>
<td>2.7%</td>
<td>2.8%</td>
<td>2.7%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Poisoning</td>
<td>2.6%</td>
<td>2.7%</td>
<td>2.7%</td>
<td>2.7%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Motor vehicle traffic crash (occupant)</td>
<td>3.0%</td>
<td>2.5%</td>
<td>2.0%</td>
<td>2.3%</td>
<td>2.3%</td>
</tr>
<tr>
<td>All others</td>
<td>20.9%</td>
<td>18.0%</td>
<td>17.9%</td>
<td>18.1%</td>
<td>19.7%</td>
</tr>
</tbody>
</table>

Infant Mortality
The Tri-County infant mortality rate tells a critical story of the community’s overall health – maternal health as well as access to primary health care for pregnant women and infants. The infant mortality rate is a reflection of larger social and economic conditions that affect maternal and infant health. In addition to access to high quality and affordable health care, other maternal factors that impact infant mortality include education, smoking status and income status.

Health disparities exist in the area of infant mortality. For example, according to the Wisconsin Department of Health Services, infants born to African American women in Wisconsin are 2 to 4 times more likely to die before their first birthday than infants born to white women. Infant mortality rates are also higher in the American Indian/Alaskan Native population.

Infant mortality is defined as the death of a baby in the first year of life. Overall, the Tri-County area has an infant mortality rate much less than the State of Wisconsin as a whole (Figures 12). Looking at infant mortality rates (the number of infant deaths under 1 year old) per 1,000 live births, Calumet and Outagamie counties are the lowest of the Tri-County area with 3.5 and 5.1 infant deaths per 1,000 live births (respectively). Winnebago County has the highest, with 6 infant deaths per 1,000 live births. This is slightly higher than the rate for Wisconsin, which has 5.9 infant deaths per 1,000 live births statewide.

According to the Center for Disease Control (CDC) the top five leading causes of infant mortality are:

- Congenital malformations (birth defects)
- Premature and/or low birth weight
- Sudden Infant Death Syndrome (SIDS)
- Unintentional injury, such as suffocation
- Maternal complications of pregnancy

Figure 12. Infant Mortality Rate by County (2010 - 2014)

<table>
<thead>
<tr>
<th></th>
<th>Infant Mortality Rate per 1,000 live births</th>
<th>Total Births</th>
<th>Total Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calumet</td>
<td>3.5</td>
<td>2,838</td>
<td>10</td>
</tr>
<tr>
<td>Outagamie</td>
<td>5.1</td>
<td>11,370</td>
<td>58</td>
</tr>
<tr>
<td>Winnebago</td>
<td>6</td>
<td>9,375</td>
<td>56</td>
</tr>
<tr>
<td>Tri-County</td>
<td>5.3</td>
<td>23,583</td>
<td>124</td>
</tr>
</tbody>
</table>

Lead-Based Paint Exposure Risk

Lead-based paint was common in homes built before 1978. Childhood exposure to lead is most likely to occur in older homes and child care facilities where lead-based paint has been poorly maintained, allowing chipping or the lead-tainted dust it creates to become airborne. Exposure in older homes can also occur when lead hazards have been created through renovations done without using lead-safe work practices. In the Tri-County region, there are a significant percentage of homes built before 1980, with Calumet County lowest at 50%, and Winnebago County the highest, at 63%. All four of the cities in this region – Appleton, Menasha, Neenah and Oshkosh have 67% or more of these older homes (Figure 13).

Lead can harm and affect all systems of the human body. Lead exposure in young children is especially detrimental as it can cause reduced IQ, shortened attention span, learning difficulties, including developmental delays and a range of other health and behavioral effects. (AAP, 2005). Lead poisoning often occurs with no immediate symptoms and frequently goes unrecognized as the cause of learning disabilities and behavioral problems that are identified in the schools. Once damages from lead poisoning have occurred, they are irreversible.

Figure 13. Percent of Homes in the Tri-County Area Built before 1980

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

Four Easy Questions for Determining Whether to Screen for Lead Poisoning:

1. Does the child live or visit a house built before 1950? (Including child care and homes of friends and relatives.)

2. Does the child live or visit a house built before 1978 with recent or on-going renovations? (Including child care and homes of friends and relatives.)

3. Does the child have a sibling or playmate with lead poisoning?

4. Is the child enrolled in Medicaid or WIC?
Lead-Based Paint Exposure Risk

It is recommended health care providers use four questions to determine whether a child is at risk for lead poisoning and in need of testing (see side bar on page 20). Although it is recommended testing be conducted at 12 months, 24 months, and between the ages of 36 and 72 months, most children are never screened for lead poisoning (Wisconsin Department of Health Services, 2016).

Currently, a child’s blood lead level of 5 micrograms per deciliter is considered in need of intervention. There is now overwhelming evidence that lead exposure even at this relatively low level can cause damage to cognitive, cardiovascular, endocrine and immune systems in young children.

Data reported by five local health department jurisdictions appear in Figures 14 and 15. These include the City of Appleton, City of Menasha, Calumet County, Outagamie County, and Winnebago County. Of the Tri-County children tested 106 were confirmed to have lead poisoning. The result is a lifetime of disabilities due to preventable lead poisoning. Winnebago County has the highest number of children with lead poisoning followed by the City of Appleton, then Outagamie County and the City of Menasha. Calumet County had the lowest number of children who tested positive for lead poisoning. The City of Menasha had the highest percentage of confirmed lead poisonings (5.5%) in comparison with other reporting health department jurisdictions (Figure 15), and one full percentage point above the state of Wisconsin (4.5%).

Figure 14. Tri-County Lead Poisoning Rates by Local Health Department Jurisdiction for Children Less Than 6 Years of Age (2014)

<table>
<thead>
<tr>
<th></th>
<th>Appleton</th>
<th>Menasha</th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tested</td>
<td>981</td>
<td>254</td>
<td>156</td>
<td>647</td>
<td>1,231</td>
</tr>
<tr>
<td>5mcg/dL or Above</td>
<td>22</td>
<td>14</td>
<td>3</td>
<td>14</td>
<td>53</td>
</tr>
</tbody>
</table>


Figure 15. Percent of Tri-County Children Less Than 6 Years Old, with Lead Poisoning (Blood Levels 5 mcg/dL or Above), Reported by Health Department (2014)

Until recently, definitions of children’s health have not been defined separately from that of adults; despite the fact children are not simply little adults.

We recognize a child’s development includes sensitive and critical periods of skill acquisition and “influences on children’s health have vastly differing effects at different developmental ages and stages” (National Research Council and Institute of Medicine [NRC & IOM], 2004, p. 34). In this report we view children’s health as:

“the extent to which individual children or groups of children are able or enabled to (a) develop and realize their potential, (b) satisfy their needs, and (c) develop the capacities that allow them to interact successfully with their biological, physical, and social environments” (NRC & IOM, p. 33).

A child’s early life provides the foundation for a lifetime of health, learning, and well-being. Healthy children have a better chance of being socially and emotionally successful people. They also have a greater chance of contributing economically to the community and being actively engaged citizens. A range of biological, social, environmental, and physical factors have been linked to infant and child health outcomes. This section will look at some of them.
HEALTHY: At a Glance

Women, Infants and Children (WIC)

- Calumet and Outagamie counties have the lowest percentage of infants participating in WIC, (21.3%) and (42.9%) respectively.
- Winnebago County has the highest percentage of infants participating (54.3%), exceeding the Wisconsin rate of 53.3%.

Did You Know?

Prenatal WIC participation is associated with lower infant mortality rates.

Birth Characteristics

- Tri-County’s preterm birth rate was 10.4%, exceeding Wisconsin’s rate of 9.1%. Winnebago County’s rate was slightly higher than that for Outagamie and Calumet counties.
- All three counties exceeded Wisconsin’s (7.3%) low birth weight rate, with Calumet the highest (7.8%), then Winnebago (7.7%) and Outagamie (7.5%) respectively.

Breastfeeding

- 75% of Tri-County mothers start out breastfeeding, slightly higher than the Wisconsin rate of 72.6%.
- At 3 months, the exclusive breastfeeding rate drops significantly to less than 40%, still higher than Wisconsin’s rate of 26.5%.
- These rates fall below the statewide goals of 82% and 44% respectively.

Childhood Obesity

- Overall, Tri-County 4 year olds participating in WIC are closest to Wisconsin’s average childhood obesity rate (32.9%).
- For all ages (2 to 4 years), Calumet (33.0%) and Winnebago (31.4%) county children exceeded Wisconsin’s overweight and obese rate (30.7%), while Outagamie County was slightly below (30.5%).

Immunizations

- Overall, Tri-County’s childhood immunization rate is 80%, exceeding the Wisconsin rate of 70.5%.
- 81% of all Tri-County 2 year olds and City of Appleton and Menasha children meet all immunization standards for their age.
Women, Infants, and Children (WIC)

WIC is a USDA Special Supplemental Nutrition Program that provides supplemental foods, growth monitoring, health care referrals and nutrition education services to low-income pregnant women and mothers of children up to 5 years old who are found to be at nutritional risk. Low-income eligibility is based on 185% of the US Dept. of Health and Human Services Nonfarm Income Poverty Guidelines for Gross Income (Wisconsin Department of Health Services, 2016).

It is estimated that for every dollar spent on pregnant women participating in the WIC Federal Early Child Development and Nutrition Assistance Program saves between $1.92 and $4.21 in Medicaid for the mother and newborn.

The percent of infants (birth to 1st birthday) participating in WIC is lowest in Calumet County (32.5%) and highest in Winnebago County (47.0%), with Outagamie County falling in the middle (40.1%). Winnebago County is the only county of the three that is higher than the Wisconsin rate of 53.3%. The percentage of Tri-County infants participating in WIC is 41.9% (Figure 16).

Figure 16. Percent of Infants Participating in WIC (2015)

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wisconsin</td>
<td>53.3%</td>
</tr>
<tr>
<td>Tri-County</td>
<td>41.9%</td>
</tr>
<tr>
<td>Winnebago</td>
<td>47.0%</td>
</tr>
<tr>
<td>Outagamie</td>
<td>40.1%</td>
</tr>
<tr>
<td>Calumet</td>
<td>32.5%</td>
</tr>
</tbody>
</table>

Source: Wisconsin WIC Program (January 2015). Annual Count of Participation – Total Projects

WIC Helps Reduce Risk Factors for Infant Mortality

Every dollar spent on pregnant women in WIC produces $1.92 to $4.21 in Medicaid savings for newborns and their mothers.

Prenatal WIC participation is associated with lower infant mortality rates.

WIC prenatal care benefits reduce the rate of low birth weight babies by 25% and very low birth weight babies by 44%.

Prenatal WIC participation is associated with an increase of 6.6oz for low birth weight babies.

Women participating in WIC have been found to have longer pregnancies resulting in fewer premature births.

WIC infants are in better health than eligible infants not participating in WIC.

Women, Infants, and Children (WIC)

Figure 17 compares the percentage of pregnant women in Fox Valley receiving WIC food assistance (as measured by the number of babies born each year from 2012 to 2014). Calumet County is lowest of the counties and cities reviewed, with figures in the low 20 percent range. Oshkosh is the highest of all cities and counties, with rates consistently in the mid-30 percent range, and Appleton, Neenah/ Menasha and Winnebago County all teetering either side of the 30 percent range.

When comparing the Tri-County region as a whole to Wisconsin (Figure 18), Tri-County WIC participation is approximately 8% lower than the Wisconsin rate. However, comparing individual city and county data to Wisconsin, Oshkosh is very similar to the state’s rate.

<table>
<thead>
<tr>
<th></th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
<th>Appleton</th>
<th>Neenah/Menasha</th>
<th>Oshkosh</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>21.1%</td>
<td>25.1%</td>
<td>26.8%</td>
<td>29.4%</td>
<td>25.5%</td>
<td>32.3%</td>
</tr>
<tr>
<td>2013</td>
<td>22.3%</td>
<td>25.3%</td>
<td>30.3%</td>
<td>31.8%</td>
<td>30.6%</td>
<td>33.1%</td>
</tr>
<tr>
<td>2012</td>
<td>20.8%</td>
<td>26.4%</td>
<td>30.6%</td>
<td>32.2%</td>
<td>30.3%</td>
<td>34.2%</td>
</tr>
</tbody>
</table>


Figure 18. Pregnant Women Receiving WIC Assistance Tri-County & Wisconsin (Babies Born 2012-2014)

<table>
<thead>
<tr>
<th></th>
<th>Tri-County</th>
<th>Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>25.3%</td>
<td>33.8%</td>
</tr>
<tr>
<td>2013</td>
<td>27.0%</td>
<td>34.9%</td>
</tr>
<tr>
<td>2012</td>
<td>27.2%</td>
<td>36.8%</td>
</tr>
</tbody>
</table>

Breastfeeding

Breast milk has been shown to be ideal for babies and gives them the best start in life. Breastfed babies get a nutrient- and antibody-rich food that helps them grow and boosts their immunity. Breast milk is also much more easily digested than infant formula or artificial baby milk. Breastfeeding also releases hormones during lactation, and helps the baby bond with its mother and feel secure. Breastfeeding is a personal decision, but there are often challenges that new mothers have to overcome, and as baby grows and life starts settling into the ‘new normal’, those challenges change as well.

Support needs to be given to women during pregnancy and after delivery and for as long as the mother and baby choose to breastfeed. Based on average rates of the Tri-County area (Figure 19), 75% of mothers start out breastfeeding, which is slightly higher than the Wisconsin rate of 72.6%. At about 3 months, data shows rate of exclusive breastfeeding plunges to less than 40% of mothers, but still above the state average of 26.5%. After 6 months, the rate of exclusive breastfeeding drops to less than 15%, again, still above the state average of 11.5%. Although these Tri-County area rates are above the state average, they fall well below the statewide goal of 82% at birth, 44% exclusive breastfeeding at 3 months, and 24% exclusive breastfeeding at 6 months.

Figure 19. Breastfeeding Incidence, Duration, and Exclusivity, WIC (2014)

<table>
<thead>
<tr>
<th></th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
<th>Wisconsin</th>
<th>Statewide Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiation</td>
<td>80.6%</td>
<td>73.5%</td>
<td>71.0%</td>
<td>72.6%</td>
<td>82.0%</td>
</tr>
<tr>
<td>1 month</td>
<td>76.3%</td>
<td>75.6%</td>
<td>70.1%</td>
<td>71.4%</td>
<td>77.0%</td>
</tr>
<tr>
<td>3 month</td>
<td>69.6%</td>
<td>64.4%</td>
<td>52.6%</td>
<td>54.4%</td>
<td>65.0%</td>
</tr>
<tr>
<td>6 month</td>
<td>47.8%</td>
<td>41.6%</td>
<td>30.9%</td>
<td>31.2%</td>
<td>60.0%</td>
</tr>
<tr>
<td>12 month</td>
<td>17.4%</td>
<td>13.8%</td>
<td>14.0%</td>
<td>14.7%</td>
<td>34.0%</td>
</tr>
<tr>
<td>Exclusively at 3 months</td>
<td>35.9%</td>
<td>37.3%</td>
<td>29.9%</td>
<td>26.5%</td>
<td>44.0%</td>
</tr>
<tr>
<td>Exclusively at 6 months</td>
<td>6.7%</td>
<td>14.9%</td>
<td>18.9%</td>
<td>11.5%</td>
<td>24.0%</td>
</tr>
</tbody>
</table>

Immunizations
Each day, nearly 12,000 babies are born in the United States who will need to be immunized before age two against the 14 vaccine-preventable diseases. Ideally, the nation’s goal would be a 100% immunization rate. At present, our Tri-County area is at an 80% childhood immunization rate, as compared to the Wisconsin’s rate of 71.5%. While above the state average, the Fox Valley region still has room for improvement (Figure 20).

When interpreting Figure 21, the term “Met All Benchmarks” indicates the percent of children who have received all of the recommended vaccine doses by the time they turn two years old. Children who did not have their recommended vaccines completed by age two, but had them completed by 2/15/2016 are considered “Late Up-To-Date”. Overall, 81% of Tri-County children received all their recommended vaccinations by age 2, while 85% fell into the Late Up-To-Date group.

Figure 21. Immunization Benchmark at Age 2

<table>
<thead>
<tr>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
<th>Appleton</th>
<th>Menasha</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met all Benchmarks</td>
<td>82%</td>
<td>82%</td>
<td>79%</td>
<td>81%</td>
<td>78%</td>
</tr>
<tr>
<td>Late Up-to-Date</td>
<td>87%</td>
<td>87%</td>
<td>84%</td>
<td>86%</td>
<td>85%</td>
</tr>
</tbody>
</table>

Birth Characteristics
Preterm birth, birth weight, maternal age and race/ethnicity are a few birth characteristics which affect health outcomes of infants, with preterm births and low birth weight being two of the leading causes of infant death.

Preterm birth babies (born before 37 weeks gestation) start life with an already increased risk of health problems because a baby’s organ systems, such as their brain, liver and lungs, fully develop in the final weeks of gestation.

Low birth weight babies (under 5 pounds, 8 ounces regardless of gestational age) can be born healthy even though they are small, while some low birth weight babies face serious health challenges. A low birth weight baby may also be preterm.

Maternal age and the mother’s race/ethnicity are also risk factors for having low birth weight babies. Pregnancies and births to teenagers under 17 and women aged 35 and older have an increased risk for preterm births, low birth weight, birth defects and infant mortality. African American women are more likely to have low birth weight babies than other races.

Costs Associated with Preterm Birth
According to a 2007 report from the Institute of Medicine (as cited by the March of Dimes), the cost associated with premature birth in the United States is estimated to be $26.2 billion a year. This includes the following:

- **$16.9 billion** in medical and healthcare costs for the baby
- **$1.9 billion** in labor and delivery costs for mom
- **$611 million** for early intervention services (ages 0 to 3)
- **$1.1 billion** for special education services (children with disabilities ages 3 through 21)

The National WIC Association (2012) Reports:

- The average first year medical cost for a premature/low birth weight baby is **$49,033** compared to **$4,551** for a baby without complications.
- For very low birth weight babies, a shift of one pound at birth saves approximately **$28,000** in first year medical costs.
- Medicaid costs are reduced on average between **$12,000** and **$15,000** for every very low birth weight incident prevented.
Preterm Birth
In 2014 the Tri-County area reported 487 preterm babies. The preterm birth rate is over 10% in all three counties, higher than the Wisconsin rate of 9.1% (Figure 22).

Preterm-related causes of death account for 35% of all infant deaths in the United States and are the leading cause of long-term neurological disabilities in children, such as cerebral palsy. Preterm babies are at greater risk for breathing and respiratory problems, feeding and digestive difficulties, developmental delays, vision problems and hearing impairment.

Low Birth Weight
In 2014, 354 babies in the Tri-County area were born at what is considered to be low birth weight. Low birth weight babies are born weighing less than 5 pounds, 8 ounces regardless of their gestational age. They can be born healthy even though they are small, but often low birth weight babies face serious health challenges such as respiratory distress, jaundice, anemia and infection. A low birth weight baby may also be preterm and have the more serious complications associated with preterm births.

In the Tri-County area, the rate of low birth weight was between 7.5% (Outagamie County) and 7.8% (Calumet County), with Winnebago County rates slightly below Calumet at 7.7%. These rates are all above the Wisconsin rate of 7.3% (Figure 23).
**Childhood Obesity**

From 1980 to 2012, the United States childhood obesity rate more than doubled in children (aged 6-11 years) and quadrupled in adolescents (aged 12-19 years). According to a 2011 Institute of Medicine Report on Early Childhood Obesity Prevention Policies, nearly 10 percent of the United States’ infants and toddlers had an excess weight to length ratio. The same report found that one in five children (aged 2 to 5 years) was overweight or obese before entering kindergarten.

Studies have found that children and adolescents who are obese are likely to become obese as adults, thereby making them at risk for adult related health problems such as heart disease, type 2 diabetes, stroke, several types of cancer, and osteoarthritis.

Among infants, studies have found that formula-fed babies who were given solid foods before age 4 months have higher risk of becoming obese. Formula-fed infants could be consuming fewer nutrient-dense foods and therefore more calories than breast-fed babies. Since previous data showed that breastfeeding dropped significantly at 3 months, encouraging and supporting mothers to breastfeed longer in a child’s infancy could potentially impact childhood obesity.

One of the best strategies to reduce childhood obesity, is to improve the diet and exercise habits of the entire family. Also, schools play a particularly critical role by establishing a safe and supportive environment with policies and practices that support healthy behaviors. Moreover, schools provide opportunities for students to learn about and practice healthy eating and physical activity behaviors.

The most accessible data for observing obesity in Wisconsin’s young children is through WIC clients. When looking at Figure 24, it is important to remember that these percentages are of children participating in WIC and do not represent all children in the Tri-County region. Data is broken down by ages 2, 3 and 4, and shows the percentage of WIC children who are considered overweight and obese, by age. Body Mass Index (BMI) is the determinant for overweight and obese in the chart below.

**Figure 24. Childhood Overweight and Obese, WIC (June 2015)**

<table>
<thead>
<tr>
<th></th>
<th>Calumet</th>
<th>Outagamie</th>
<th>Winnebago</th>
<th>Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-year-olds</td>
<td>31.8%</td>
<td>27.1%</td>
<td>30.1%</td>
<td>28.0%</td>
</tr>
<tr>
<td>3-year-olds</td>
<td>34.9%</td>
<td>32.7%</td>
<td>30.9%</td>
<td>31.2%</td>
</tr>
<tr>
<td>4-year-olds</td>
<td>32.4%</td>
<td>31.6%</td>
<td>33.1%</td>
<td>32.9%</td>
</tr>
<tr>
<td>All Ages</td>
<td>33.0%</td>
<td>30.5%</td>
<td>31.4%</td>
<td>30.7%</td>
</tr>
</tbody>
</table>

Childhood Obesity

For 2 Year Olds: Outagamie County has the lowest percentage of 2 year old WIC children considered overweight and obese at 27.1%. Calumet and Winnebago counties have the highest percentage of WIC children considered to be overweight and obese, with 31.8% and 30.1% respectively. Outagamie County is below the Wisconsin WIC rate, while Calumet and Winnebago exceed the Wisconsin WIC rate of 28.0%. Calumet County WIC children exceed the Wisconsin WIC rate by 3.8% with Winnebago County WIC children exceeding the state rate by 2.1%.

For 3 Year Olds: Winnebago County has the lowest percentage of 3 year old WIC children considered overweight and obese, with 30.9% (below the Wisconsin WIC rate of 31.2%), while Calumet (34.9%) and Outagamie (32.7%) counties have the highest. Calumet County WIC children exceed the Wisconsin WIC rate by 3.7% and Outagamie County WIC children exceed the state rate by 1.5%.

For 4 Year Olds: Outagamie County has the lowest percentage of 4 year old WIC children with 31.6% considered overweight and obese and Calumet County second lowest at 32.4%. Both of these counties are below the Wisconsin WIC rate of 32.9%. Winnebago County’s WIC children have the highest rate of overweight and obesity at 33.1%; however, this is just slightly (0.2%) over the Wisconsin rate.

Overall: Across all three counties, Tri-County 4 year olds participating in WIC are the closest to the state’s average childhood overweight and obesity rate. Calumet County’s 2 year olds and 3 year olds exceed the Wisconsin WIC rate, and of all ages, Calumet County exceeds the Wisconsin WIC childhood overweight and obese rate by more than two percentage points.

One of the best strategies to reduce childhood obesity, is to improve the diet and exercise habits of the whole family.
There is a growing body of research that connects early learning development to later success in life.

During a child’s first 12 months of life the human brain develops sensory pathways (e.g. vision, touch, hearing), language and higher cognitive functions sequentially. During this time, and up until at least age 5, quality, experiential learning activities that stimulate the child’s foundational skills throughout development have lifelong implications for a child’s academic success, mental health and ability to form successful relationships.

Research also shows that children lacking in these developmental areas may continue to lose ground when they start formal school. Children of poverty and minority children are disproportionately impacted in their readiness to learn because of lack of support and resources during the formation of these foundational skills (Institute of Museum and Library Services, June 2013).
READY TO LEARN: At a Glance

Early Intervention
Birth to Three Program

- Calumet County exceeds the Wisconsin Child Find Target of 2.81% target by almost one full percentage point.
- Outagamie and Winnebago counties fell short (2.39% and 2.04% respectively).

Adverse Childhood Experience (ACE)
Children 0 to 18 Years

- Winnebago County (17%) exceeds Outagamie County (9%) and Wisconsin (14%) in number of 4+ adverse childhood experience.
- Outagamie County exceeds Wisconsin in single incidences by three full percentage points (25% to 22%).
- Outagamie and Winnebago counties exceed the Wisconsin rate for 2 or 3 ACEs by one and four percentage points (22% and 25% respectively).

Child Care

- 72% of Tri-County children under 5 years of age spend time in child care outside the home.
- Nearly 15 percent of child care workers live below the poverty threshold, while one-third have incomes that are below twice the poverty threshold.

YoungStar

- 98% of Tri-County child care providers are YoungStar rated.
- 80% of them have YoungStar ratings in the 2 to 3 star range.

Head Start Enrollment

- 510 low-income children are enrolled in 7 Tri-County Head Start locations.
- Another 24 children are enrolled in the Head Start Home-Based Option.

PALS

- PALS Kindergarten students’ scores are measured against a minimal proficiency ‘Fall Benchmark’.
- Tri-County students are scoring well above this yardstick.

3rd Grade Reading Assessment

- Winnebago County has a lower percentage (35%) of 3rd graders reading at proficient and advance levels compared to the state average (37%).
- Wisconsin ranks 25th nationally in 4th Grade Reading scores.
Early Intervention Birth to Three Program
The Early Intervention Birth to 3 Program provides resources, supports and services to children (and their families) under the age of three who are experiencing developmental delays and disabilities. Discovering a child’s developmental delays or disabilities early offers them more opportunities to increase their abilities. Birth to 3 program referrals are primarily made by pediatricians or family practice physicians, but anyone can make a referral if they have concerns for a child’s development.

Child Find is a component of the Individuals with Disabilities Education Act (IDEA) that requires states to identify, locate, and evaluate all children with disabilities, aged birth to 21, who are in need of early intervention or special education services. The State of Wisconsin set the Child Find target at 2.81% of the total population of children age birth to three to be enrolled in Birth to 3 programs. In 2014, 742 children in the Tri-County area received early intervention services. During that time Calumet County exceeded Wisconsin’s Child Find target with a rate of 3.72%, while Outagamie and Winnebago counties fell short with 2.39% and 2.04% respectively (Table 6).

Table 6. Early Intervention Birth to 3 Years by County (2014)

<table>
<thead>
<tr>
<th></th>
<th>Children Served</th>
<th>Percent of Total 0-3 Population in County</th>
<th>WI Child Find Target</th>
<th>Total Referrals</th>
<th>Enrolled</th>
<th>Screened/Evaluated</th>
<th>No Screening or Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calumet</td>
<td>118</td>
<td>3.72%</td>
<td>2.81%</td>
<td>119</td>
<td>61</td>
<td>47</td>
<td>11</td>
</tr>
<tr>
<td>Outagamie</td>
<td>368</td>
<td>2.39%</td>
<td>2.81%</td>
<td>550</td>
<td>217</td>
<td>170</td>
<td>163</td>
</tr>
<tr>
<td>Winnebago</td>
<td>256</td>
<td>2.04%</td>
<td>2.81%</td>
<td>406</td>
<td>136</td>
<td>138</td>
<td>132</td>
</tr>
</tbody>
</table>

Source: Early Intervention Birth to Three Programs of Calumet, Outagamie, and Winnebago Counties (2014)
Adverse Childhood Experiences

Family functioning and parent mental health are strongly correlated with a child’s readiness to learn. We have learned that childhood adversity is more common than once thought, meaning millions of parents have histories of adverse childhood experiences (ACEs). ACEs are potentially traumatic events occurring in childhood that have an enduring, negative impact on adult health and well-being.

Adverse experiences can include emotional, physical and or sexual abuse, breakdown of the family unit by way of loss of a parent or guardian through death, divorce, separation, imprisonment or some other example. Children can experience one or more adverse experience during their lifetime and the effects can be compounded. Learn more on the Center for Disease Control website http://www.cdc.gov/violenceprevention/acestudy.

An ACE score (the count of adverse experiences) of four or more is associated with a higher risk of medical, mental, and social problems as an adult, including a greater risk of hepatitis, chronic obstructive pulmonary disease, sexually-transmitted diseases, being a smoker, attempted suicide, being depressed, being an alcoholic, using more drug prescriptions, having an auto-immune disease, and more work absences (Felitti et al, 1998).

As shown below (Figure 25), Winnebago County reported the highest level of 4+ adverse childhood experiences (17%), nearly twice the rate of adults living in Outagamie County (9%) and over 20% higher than the rate for all of Wisconsin (14%). It is important to note that Calumet County data is not presented because Calumet County has too few cases to report reliably.

Figure 25. Adverse Childhood Experiences Outagamie and Winnebago Counties (2011-14)

Child Care
The availability of high quality child care is a basic need for many families in the Fox Cities. In fact, 72% of children under age 5 in the Tri-County area spend time in child care outside of the home. The availability of quality, regulated child care, available during standard and non-standard hours ensures families have necessary supports to obtain and sustain employment. In addition, access to quality, regulated child care is an important step to ensure ALL children grow up healthy, safe and ready to learn.

However, quality child care is a significant expense for most families. According to a 2015 report by Child Care Aware® of America, “Child care remains one of the most significant expenses in a family budget. In many states, child care exceeds the cost of housing, college tuition, transportation, or food (Figure 26). Unlike all other areas of education, including colleges and universities, families pay the majority of costs for early education for young children. These costs generally come when parents are at the beginning of their careers—a time when families can least afford them” (p. 6).

High quality child care programs require professionally trained staff. However the child care industry faces many challenges in this regard, including: limited funding, high staff turnover rates, and the high cost of training new staff. Given these challenges, many child care programs are unable to pay higher wages or provide more than limited employee benefits. This scenario makes it difficult for child care programs to recruit and retain high quality staff.

Figure 26. Child Care Expenses as Compared to Family Budget (2015)

Child care workers in the U.S. have a median hourly wage of $10.39, almost 40 percent lower than the median hourly wage of employees in many other occupations. Nearly 15 percent of child care workers live below the poverty threshold, while one-third have incomes that are below twice the poverty threshold (Child Care Aware of America, 2015).

The average hourly wage of child care providers in the Tri-County region is somewhat above U.S. statistics. On average, all child care provider positions are paid the highest in Outagamie County, followed by Calumet and Winnebago, respectively (Figure 27).

Figure 27. Average Hourly Wage of Child Care Providers (2015)
YoungStar

YoungStar is Wisconsin’s child care quality rating and improvement system that monitors participating child care facilities. Data shows that young children who are in a healthy, safe and engaged child care learning environment have greater opportunities to engage in developmentally appropriate activities, which makes them more likely to experience lifelong success.

YoungStar works closely with the Wisconsin Shares child care subsidy program to ensure Wisconsin’s youngest, most in need children, get the great start they need to succeed. Any provider who accepts Wisconsin Shares subsidies is required to participate in YoungStar. Child care providers who do not have any children enrolled in Wisconsin Shares may participate voluntarily provided they agree to accept Wisconsin Shares subsidies in the future.

Participating child care providers are rated annually by YoungStar using a 5-star rating system.

Technical assistance, training opportunities and financial support are offered to help them improve their program’s quality. In looking at child care providers’ YoungStar ratings, the data below indicates that 80% of providers are rated at 2 and 3 stars. This indicates that many child care providers in the Fox Valley are actively working to improve child care quality.

Detailed Tri-County area data shows that Winnebago County has the highest quality child care with six 4 star and eight 5 star providers. Outagamie County has the second highest quality child care with nine 4 star and fourteen 5 star providers. Calumet County has the fewest child care providers overall, and has two 4 star and no 5 star providers. Overall, all three counties have primarily 2 star and 3 star rated providers. There are a total of four child care providers in the Tri-County area that are not YoungStar rated, one in Outagamie County and three in Winnebago County (Figure 28).

Figure 28. YoungStar Provider Ratings and Total Rated Providers by County (2015)

**YoungStar**

Looking at the total number of child care providers in the Tri-County area (Figure 29), it is easier to see the breakdown of providers by their YoungStar rating. The majority of child care providers (167 or 80%) scored in the 2 and 3 star categories. As noted above, there are only four child care providers in all of the Tri-County area that are not YoungStar rated (and therefore cannot accept children with Wisconsin Shares subsidies).

![Image of toys and children]

**Head Start**

Head Start promotes the school readiness of children ages 3 to 5 years living in low-income families. It is a federally funded program operated by local communities. In the Tri-County area, the University of Wisconsin Oshkosh is the federal grantee for Head Start Oshkosh serving Calumet, Outagamie, Winnebago, and Shawano counties. A total of 534 children 3 to 5 years old are enrolled in Head Start in Outagamie and Winnebago counties. There are no Head Start locations currently operating in Calumet County. Many more low-income young children qualify for Head Start services. However, the demand for services outweighs current capacity as determined by federal funding. Children who attend Head Start participate in a school-readiness curriculum that includes literacy, language, science, mathematics, and social-emotional development. They also receive medical and dental services, have healthy meals and snacks, and enjoy playing safely indoors and outdoors.

![Image of children playing]

**Figure 29. Number of Tri-County Area Child Care Providers by YoungStar Rating (2015)**

![Bar chart showing YoungStar ratings]


**Table 7. UW Oshkosh Head Start Locations & Enrollment**

<table>
<thead>
<tr>
<th>City</th>
<th>Location</th>
<th>Enrollment (children)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appleton</td>
<td>Community Early Learning Center (CELC)</td>
<td>186</td>
</tr>
<tr>
<td>Appleton</td>
<td>Project Bridges</td>
<td>10</td>
</tr>
<tr>
<td>Fox Cities</td>
<td>Home-Based Option</td>
<td>24</td>
</tr>
<tr>
<td>Kaukauna</td>
<td>St. Katherine Drexel</td>
<td>36</td>
</tr>
<tr>
<td>Menasha</td>
<td>St. Mary’s</td>
<td>74</td>
</tr>
<tr>
<td>Oshkosh</td>
<td>Wilcox</td>
<td>112</td>
</tr>
<tr>
<td>Oshkosh</td>
<td>Peace Center</td>
<td>74</td>
</tr>
<tr>
<td>Seymour</td>
<td>Downtown</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: UW Oshkosh Head Start, Enrollment as of August 31, 2015.
PALS
The Phonological Awareness Literacy Survey (PALS) is a tool used in 4-Year Old Kindergarten (4K) through second grade in the state of Wisconsin. PALS is considered a screening, diagnostic and progress monitoring tool to identify student literacy difficulties and measures various literacy skills appropriate for the age group being screened. With this information, students needing extra attention can receive early and appropriate intervention services tailored to their needs.

Because this report focuses on children ages birth to 5 years, the PALS scores reported here include only 4K and kindergarten students from the beginning of the Fall 2014 school year.

The PALS 4-Year Old Kindergarten chart (Table 8) indicates the maximum score a student can achieve and the average score for each county for four year old kindergarten students. There is no benchmark score for this age group since child development rates fluctuate and a child’s exposure to printed text and books varies greatly prior to formal instruction.

PALS Kindergarten scores (Table 9) have an additional row of numbers marked “Fall Benchmark”. These scores indicate minimal proficiency in that specific area. A child scoring at or below the Fall Benchmark is in need of intervention. On average, students in the Tri-County area are scoring well above the Fall Benchmark.

Table 8. PALS 4-Year Old Kindergarten Fall 2014 Task Results by County

<table>
<thead>
<tr>
<th>Number of Students</th>
<th>Name Writing</th>
<th>Alphabet Recognition (upper case)</th>
<th>Alphabet Recognition (lower case)</th>
<th>Letter Sounds</th>
<th>Beginning Sound Awareness</th>
<th>Print and Word Awareness</th>
<th>Rhyme Awareness</th>
<th>Nursery Rhyme Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Score</td>
<td>N/A</td>
<td>7</td>
<td>26</td>
<td>26</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Calumet</td>
<td>225</td>
<td>4.9</td>
<td>12.7</td>
<td>16.9</td>
<td>7.6</td>
<td>5.4</td>
<td>5.8</td>
<td>5.4</td>
</tr>
<tr>
<td>Outagamie</td>
<td>1,964</td>
<td>5.2</td>
<td>13.9</td>
<td>15.2</td>
<td>7.8</td>
<td>6.3</td>
<td>6.4</td>
<td>5.8</td>
</tr>
<tr>
<td>Winnebago</td>
<td>928</td>
<td>5.0</td>
<td>11.8</td>
<td>16.8</td>
<td>7.8</td>
<td>5.1</td>
<td>6.0</td>
<td>5.3</td>
</tr>
<tr>
<td>Tri-County</td>
<td>3,117</td>
<td>5.1</td>
<td>13.2</td>
<td>15.8</td>
<td>7.8</td>
<td>5.8</td>
<td>6.2</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Source: Wisconsin Department of Public Instruction, Duane Dorn. Personal Communication, 7/8/2015

Table 9. PALS Kindergarten Fall 2014 Task Results by County

<table>
<thead>
<tr>
<th>Number of Students</th>
<th>Group Rhyme Awareness</th>
<th>Group Beginning Sound Awareness</th>
<th>Alphabet Knowledge</th>
<th>Letter Sounds</th>
<th>Spelling</th>
<th>Word ID</th>
<th>Word List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Score</td>
<td>N/A</td>
<td>10</td>
<td>10</td>
<td>26</td>
<td>26</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Fall Benchmark</td>
<td>N/A</td>
<td>5</td>
<td>5</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Calumet</td>
<td>260</td>
<td>8.5</td>
<td>8.5</td>
<td>21.0</td>
<td>14.9</td>
<td>9.7</td>
<td>3.5</td>
</tr>
<tr>
<td>Outagamie</td>
<td>2,385</td>
<td>8.8</td>
<td>8.4</td>
<td>21.5</td>
<td>16.3</td>
<td>9.8</td>
<td>4.0</td>
</tr>
<tr>
<td>Winnebago</td>
<td>936</td>
<td>8.4</td>
<td>8.0</td>
<td>20.3</td>
<td>14.5</td>
<td>8.9</td>
<td>3.8</td>
</tr>
<tr>
<td>Tri-County</td>
<td>3,581</td>
<td>8.6</td>
<td>8.3</td>
<td>20.9</td>
<td>15.2</td>
<td>9.5</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Source: Wisconsin Department of Public Instruction, Duane Dorn. Personal Communication, 7/8/2015
3rd Grade Reading Assessment

Reading proficiency in the 3rd grade is a strong predictor of high school graduation and the odds of succeeding economically later in life. Children who have poor reading proficiency in the 3rd grade do not typically close that gap as they progress through school, and they tend to fall further behind in their grade-level reading proficiency. In fact, children not meeting 3rd grade reading proficiency levels are four times more likely to leave school without a diploma than proficient readers (Annie E. Casey Foundation, 2013).

The 3rd Grade Reading Assessment is a standardized test measuring students’ progress in reading and provides actionable information for improving their reading performance. The test is given in November of each school year. The Tri-County 3rd Grade Reading Assessment results shown in Figure 30 represent testing of a sample of students sorted into four categories of achievement: Minimal, Basic, Proficient and Advanced. Basic level scores are indicative of partial mastery of prerequisite knowledge and skills that are fundamental for proficient work, which represents solid academic performance.

Data in Figure 30 break out Proficient and Advanced student scores. Among the students tested in the Tri-County area approximately 63% were reading at the Basic and Below level.

Figure 30. 3rd Grade Reading Assessment Results by County (SY2013-2014)
3rd Grade Reading Assessment
The National Assessment of Educational Progress (NAEP) is the largest nationally representative and continuing assessment of student knowledge in various subject areas. Testing of reading, mathematic and writing begin in fourth grade. Tests are administered January through March and results are considered an indicator of skills developed through 3rd grade.

The NAEP 4th Grade Reading scale ranges from 0 to 500. In 2015, Wisconsin had a slightly higher average 4th Grade NAEP reading score (223) in comparison with students nationally (221). Nevertheless, Wisconsin ranks 25th nationally in 4th Grade Reading scores, with a majority of young students reading at or below Basic skill level (Figure 31).

Figure 31. NAEP 4th Grade Reading Assessment Scores for Wisconsin (2015)


Reading Scores & Gaps

DID YOU KNOW?
Children with the lowest reading scores account for 33% of all students, yet they account for 63% of all children who do not graduate from high school. A majority of these children are from low-income families. (Annie E. Casey Foundation)

2013 Wisconsin Grade 4 Public School Reading Gaps:

- Black students had an average score that was 36 points lower than White students.
- Hispanic students had an average score that was 27 points lower than White students.
- Female students had an average score that was higher than male students by 9 points.
- Students who were eligible for free/reduced-price school lunch, an indicator of low family income, had an average score that was 28 points lower than students who were not eligible for free/reduced-price school lunch.

1Based on the NAEP Reading Scale (0-500) with an average national score of 266 for public school students.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP)
Next Steps

Using the findings of this report, The Fox Valley Early Childhood Coalition will continue to collaborate with Tri-County partners and early childhood leaders to develop a Community Action Plan to prioritize early childhood needs in the Fox Valley.

Work has already begun on developing a set of indicators to better monitor the development, health, and well-being of young children, birth to five years of age. Work has also begun on articulating the Fox Valley region’s vision for early childhood, including the role of sectors outside early childhood, working together to create a shared vision for building bright futures for the youngest members of our communities.
References

Preface


Demographics

Safe


Electronic copies of this report are available on the following websites:

The Community Early Learning Center of the Fox Valley
www.communityearlylearningcenter.com

The Parent Outlet
www.theparentoutlet.com