Are there neighborhoods where very young children are identified with developmental vulnerabilities?
**Project Overview**

Children’s Optimal Health (COH) is a collective leadership initiative to ensure that every child in Central Texas becomes a healthy, productive adult engaged in his or her community. COH works with partner organizations throughout the community to map disparate data sets to help illuminate issues impacting Central Texas children. This project and partnership, *Young Children Volume II*, marks the extension of our *Young Children, by Physical and Social Environment Volume I* project that sought to highlight the geographic distribution of assets and issues of concern for families with very young children. This project was released in the fall of 2010 at the Young Children’s Summit where providers, community members, stakeholders and area experts gathered to learn from and utilize the maps to plan actionable steps to improve the health of young children in the community. *Young Children Volume II*, most importantly, also marks the sustained hard work of our action partner identified at the 2010 Summit, the United Way Capital Area’s Success by 6 (SB6) program participants.

To view the *Young Children Volume I* project or any other COH completed mapping initiative, please visit our website, www.childrensoptimalhealth.org.

**Background**

Success by 6 (SB6) is a robust coalition of families, educators, health care and human service providers, and civic leaders dedicated to improving the lives of our youngest and most vulnerable community members. SB6 has identified four Travis County neighborhoods grappling with economic hardship and poor standardized test scores: Dove Springs, Manor, Quail Creek, and St. John. In order to mobilize the community around these neighborhoods and improve child outcomes, SB6 initiated a data mapping project as part of a larger collaboration between United Way Worldwide and the UCLA Center for Healthier Children, Families and Communities. United Way Capital Area’s SB6 program is one of 17 sites in 13 states selected to be part of the Transforming Early Childhood Community Systems (TECCS) pilot collaboration.

Over the course of 6 months during the spring and summer of 2011, SB6 collected Early Development Instrument (EDI) data in Austin Independent School District (AISD) and Manor Independent School District (MISD) kindergarten classrooms and through the Ages & Stages Questionnaire (ASQ) data in four neighborhood WIC clinics.

Pairing EDI and ASQ data with other socio-demographic indicators collected by Children’s Optimal Health has resulted in a set of localized maps that clearly illustrate the developmental vulnerabilities and assets in our community. These maps will allow United Way to better monitor, diagnose, plan and improve early childhood systems performance. Furthermore, they will allow early childhood stakeholders to demonstrate the importance of family and community environments and the need for services that optimize young children’s development.

**Ages and Stages Questionnaire (ASQ)**

The ASQ is a standardized tool for screening infants and young children for developmental delays during the critical first 5 years of life. The ASQ has been demonstrated to be reliable, valid, and accurate for children from a range of racial, ethnic, linguistic, and cultural backgrounds. The questionnaire addresses five developmental domains: communication; gross motor; fine motor; problem-solving; and personal-social. As parents complete the ASQ, they learn about general developmental milestones as well as their child’s strength and weaknesses. In addition to identifying assets and delays in each developmental domain, the ASQ highlights individual as well as community-wide opportunities to enrich early childhood development. For more information please see Appendix A, page 17 Research and Justification for ASQ.

**Early Development Instrument (EDI)**

The EDI is a population–based measure of school readiness that assesses 5 developmental domains during the kindergarten year: physical health and well-being; social competence; emotional maturity; language and cognitive development; and general knowledge and communication skills. SB6 completed data collection in seven target elementary schools in the Austin Independent School District and in all seven elementary schools in the Manor Independent School District. A teacher participation rate of over 90% ensures that our results are rich and accurately reflect the pattern of needs and assets in the four target neighborhoods, Dove Springs, Manor, Quail Creek, and St. John. The results of the EDI provide the opportunity to systematically reflect on all aspects of child development in the first year of school and to consider and plan for optimal early development, school transitions, and future needs.

The Early Development Instrument (EDI) Community Profile provides local policymakers and key stakeholders with local level information on children’s developmental outcomes during the kindergarten year. Geographic areas, along with other indicators including socio-demographic characteristics and community assets, are mapped in order to help understand the factors contributing to the observed outcomes in children. The EDI Community Profile is designed to mobilize and engage local leaders around a data-driven and action-oriented process to inform local planning and improvement activities. The Profile helps early childhood stakeholders look back to assess how to support school readiness and to look forward to plan programs and improve systems that will help children succeed throughout the school years and beyond. Over time, the data in the Profile can be tracked to help assess the impact of past investments made on behalf of young children and families and to demonstrate the importance of sustaining resources dedicated to early childhood.
Learning From The Maps

Scientific research confirms the importance of children’s early years on stimulating development and significantly affecting school readiness. When children start school healthy and ready to learn, they are more likely to succeed and less likely to develop behavioral or academic problems. Unfortunately, only 20 to 30% of children with developmental delays, learning disorders, and behavioral and social-emotional problems are identified as needing help before school begins (Glascoe, 2000). Screening young children has been shown to be an effective and efficient way to help child health specialists identify 70 to 80% of children with developmental delays, allowing for earlier intervention which has huge academic, social, and economic benefits (Squires, Nickel, & Eisert, 1996; Glascoe & Shapiro, 2004).

There is currently no publicly accessible developmental data being collected in Central Texas on children ages 0-5, creating a challenge for the effective planning and provision of early childhood services. In Central Texas, only 52% of children enter kindergarten school-ready, clearly indicating that delays are emerging even before children begin their K-12 education. SB6’s maps will strengthen the learning environment for our youngest, most vulnerable children through earlier and increased identification of developmental delays in early childhood, increased referral and treatment of delays, increased knowledge of activities fostering early childhood development, and a reduction in the number of children entering school with unidentified delays. The layered data maps produced as a result of this initiative will enable the community to:

- Target early childhood services by developmental and geographic need
- Assess the impact of services and track progress over time
- Provide compelling evidence to sustain early childhood resources

References


### How Neighborhoods Were Targeted

- The identification of three target neighborhoods for this project (discussed in the Background section): Quail Creek, St. John and Dove Springs, was based on previous work by Children’s Optimal Health indicating these neighborhoods to be areas of high need.
- The fourth targeted neighborhood, Manor ISD, is a rural area located in close proximity to several urban neighborhoods with high concentrations of low-income families.
- For more information on how target neighborhoods were selected, a Technical Report is available upon request through Children’s Optimal Health, www.childrensoptimalhealth.org.

### Notes

- All WIC sites within the map’s geography are included in this map. Stars represent the four selected WIC sites where the ASQ Survey was administered.
- All consenting clients who visited one of the targeted WIC sites during the study period were given an ASQ survey regardless of zip code of residence.

### Identified Target Neighborhoods in Travis County

<table>
<thead>
<tr>
<th>Four Target Neighborhoods</th>
<th>Map Neighborhood Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manor ISD (1)</td>
<td>Manor Northeast</td>
</tr>
<tr>
<td></td>
<td>Manor Northwest</td>
</tr>
<tr>
<td></td>
<td>Manor-Weberville</td>
</tr>
<tr>
<td></td>
<td>Dryden</td>
</tr>
<tr>
<td></td>
<td>Pioneer Hill</td>
</tr>
<tr>
<td>Quail Creek (2)</td>
<td>Windsor Hills</td>
</tr>
<tr>
<td></td>
<td>Heritage Hills</td>
</tr>
<tr>
<td></td>
<td>St. John</td>
</tr>
<tr>
<td></td>
<td>Georgian Acres</td>
</tr>
<tr>
<td></td>
<td>NACA</td>
</tr>
<tr>
<td>St. John (3)</td>
<td>McKinney</td>
</tr>
<tr>
<td>Dove Springs (4)</td>
<td>Franklin Park</td>
</tr>
<tr>
<td></td>
<td>McKinney</td>
</tr>
</tbody>
</table>

**Success by Six Young Children Project Volume II**

**Map Neighborhood Names**

- Manor Northeast
- Manor Northwest
- Manor-Weberville
- Dryden
- Pioneer Hill
- Windsor Hills
- Heritage Hills
- St. John
- Georgian Acres
- NACA
- Franklin Park
- McKinney
Observations

1. The map represents concentrations of low income mothers who delivered infants in calendar years 2005-2009 in neighborhoods throughout the community.

2. When comparing this map to the neighborhood map on page 4 it is clear that there are high concentrations (or clusters) of births to low-income women within the targeted neighborhoods.

3. The Integrated Care Collaboration provided data on low income births displayed in this map.

### Births to Low-Income Mothers by Targeted Neighborhood 2005-2009

**Data Source: Integrated Care Collaboration (ICC)**

<table>
<thead>
<tr>
<th>Targeted Neighborhood</th>
<th>Map Neighborhood</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>Map Neighborhood Total</th>
<th>Neighborhood Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manor ISD (1)</td>
<td>Manor Northeast</td>
<td>23</td>
<td>34</td>
<td>25</td>
<td>27</td>
<td>21</td>
<td>130</td>
<td>2083</td>
</tr>
<tr>
<td></td>
<td>Manor Northwest</td>
<td>47</td>
<td>57</td>
<td>62</td>
<td>58</td>
<td>71</td>
<td>295</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manor-Webberville</td>
<td>72</td>
<td>64</td>
<td>86</td>
<td>84</td>
<td>61</td>
<td>367</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dryden</td>
<td>166</td>
<td>200</td>
<td>242</td>
<td>197</td>
<td>212</td>
<td>1017</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pioneer Hill</td>
<td>51</td>
<td>51</td>
<td>59</td>
<td>62</td>
<td>51</td>
<td>274</td>
<td></td>
</tr>
<tr>
<td>Quail Creek (2)</td>
<td>Windsor Hills</td>
<td>67</td>
<td>97</td>
<td>61</td>
<td>87</td>
<td>80</td>
<td>392</td>
<td>4131</td>
</tr>
<tr>
<td></td>
<td>Heritage Hills</td>
<td>89</td>
<td>100</td>
<td>121</td>
<td>112</td>
<td>99</td>
<td>521</td>
<td></td>
</tr>
<tr>
<td></td>
<td>St. John</td>
<td>97</td>
<td>104</td>
<td>96</td>
<td>111</td>
<td>102</td>
<td>510</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Georgian Acres</td>
<td>110</td>
<td>112</td>
<td>147</td>
<td>161</td>
<td>134</td>
<td>664</td>
<td></td>
</tr>
<tr>
<td></td>
<td>North Austin</td>
<td>340</td>
<td>442</td>
<td>438</td>
<td>424</td>
<td>400</td>
<td>2044</td>
<td></td>
</tr>
<tr>
<td>Dove Springs (4)</td>
<td>Franklin Park</td>
<td>269</td>
<td>345</td>
<td>319</td>
<td>298</td>
<td>307</td>
<td>1538</td>
<td>1927</td>
</tr>
<tr>
<td></td>
<td>Mc kinney</td>
<td>84</td>
<td>90</td>
<td>85</td>
<td>64</td>
<td>66</td>
<td>389</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8141 Total Births</td>
<td></td>
</tr>
</tbody>
</table>

Total by year: 1415 1696 1741 1685 1604
Ages and Stages Questionnaire (ASQ)
The ASQ is a standardized tool for screening infants and young children for developmental delays during the critical first five years of life. The ASQ has been demonstrated to be reliable, valid, and accurate for children from a range of racial, ethnic, linguistic, and cultural backgrounds. The questionnaire addresses five developmental domains: communication; gross motor; fine motor; problem-solving; and personal-social. As parents complete the ASQ, they learn about general developmental milestones as well as their child’s strengths and weaknesses. In addition to identifying assets and delays in each developmental domain, the ASQ highlights individual as well as community-wide opportunities to enrich early childhood development. For more information about the ASQ Assessment please see Appendix A, page 17.

Understanding the ASQ 2011 Maps (pages 7-9)

- All ASQ assessments were administered at one of four selected WIC (Women, Infants, and Children) sites. Selected WIC sites are represented with star symbols within the map on page 4. This map (pg. 4) also displays all other WIC sites within the map’s geography.

- The size of the pie charts in the following maps corresponds to the number of assessments that were administered to residents of that zip code, regardless of which WIC center administered the ASQ assessment.

- All pie charts on the following maps are placed in the middle of the zip code and represent zip code aggregate assessment counts.

- Children who were assessed with the ASQ and classified as green are considered ‘on-target,’ a yellow designation is considered to need ‘monitoring,’ and red is considered to ‘need further assessment’ within each developmental category.

<table>
<thead>
<tr>
<th>Age Range (In Months)</th>
<th>Number Surveyed</th>
<th>Gross Motor</th>
<th>Fine Motor</th>
<th>Communication</th>
<th>Personal-Social</th>
<th>Problem Solving</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>119</td>
<td>88%</td>
<td>9%</td>
<td>3%</td>
<td>83%</td>
<td>14%</td>
</tr>
<tr>
<td>6-11</td>
<td>204</td>
<td>89%</td>
<td>7%</td>
<td>4%</td>
<td>93%</td>
<td>4%</td>
</tr>
<tr>
<td>12-23</td>
<td>143</td>
<td>95%</td>
<td>2%</td>
<td>3%</td>
<td>95%</td>
<td>4%</td>
</tr>
<tr>
<td>24-35</td>
<td>127</td>
<td>93%</td>
<td>4%</td>
<td>3%</td>
<td>81%</td>
<td>16%</td>
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<td>≥ 36</td>
<td>204</td>
<td>89%</td>
<td>8%</td>
<td>3%</td>
<td>79%</td>
<td>14%</td>
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<tr>
<td>Total</td>
<td>815</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- Map Color
- Table Color
- ASQ Classification

- On Target
- Needs Monitoring
- Needs Further Assessment
Observations

- This map represents 492 children who were assessed with the ASQ instrument, with 454 (92%) children classified as ‘on target’, 27 (6%) classified as ‘needs monitoring’, and 11 (2%) classified as ‘needs further assessment’ for Gross Motor.
- For more information about the ASQ Assessment see Appendix A, page 10.

- This map represents 492 children who were assessed with the ASQ instrument, with 410 (83%) children classified as ‘on target’, 57 (12%) classified as ‘needs monitoring’, and 25 (5%) classified as ‘needs further assessment’ for Fine Motor.
Observations

- This map represents 492 children who were assessed with the ASQ instrument, with 429 (87%) children classified as ‘on target’, 34 (7%) classified as ‘needs monitoring’, and 29 (6%) classified as ‘needs further assessment’ for Communication.

- This map represents 492 children who were assessed with the ASQ instrument, with 456 (92%) children classified as ‘on target’, 26 (5%) classified as ‘needs monitoring’, and 10 (2%) classified as ‘needs further assessment’ for Personal-Social.
Observations

- This map represents 492 children who were assessed with the ASQ instrument, with 433 (88%) children classified as ‘on target’, 40 (8%) classified as ‘needs monitoring’, and 19 (4%) classified as ‘needs further assessment’ for Problem Solving.
Early Development Instrument (EDI) Maps

This information was provided by UCLA Center for Healthier Children, Families, and Communities.

The EDI Community Profile Summary shows for each neighborhood, the number (N) and percent of children by EDI domain that are considered developmentally vulnerable, meaning they scored at or below the 10th percentile vulnerability cutoff. The second to last column shows the number and percent of children who were vulnerable on two or more domains. Additionally, the last column displays the number and percent of children who scored very ready on four or more domains; that is, they scored at or above the 75th percentile for at least four out of the five domains. The bottom row lists the total results for all of the children living in the community.

### 2011 EDI Community Profile Summary – Austin, Texas

<table>
<thead>
<tr>
<th>Neighborhood Name</th>
<th>N</th>
<th>Physical Health and Well-being N (%)</th>
<th>Social Competence N (%)</th>
<th>Emotional Maturity N (%)</th>
<th>Language and Cognitive Development N (%)</th>
<th>Communication Skills and General Knowledge N (%)</th>
<th>Developmentally Vulnerable on 2+ Domains N (%)</th>
<th>Developmentally Very Ready on 4+ Domains N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dryden</td>
<td>155</td>
<td>23 (15%)</td>
<td>14 (9%)</td>
<td>9 (6%)</td>
<td>13 (6%)</td>
<td>24 (15%)</td>
<td>22 (14%)</td>
<td>21 (14%)</td>
</tr>
<tr>
<td>Franklin Park</td>
<td>303</td>
<td>39 (13%)</td>
<td>37 (12%)</td>
<td>28 (9%)</td>
<td>41 (14%)</td>
<td>45 (15%)</td>
<td>52 (17%)</td>
<td>40 (13%)</td>
</tr>
<tr>
<td>Georgian Acres</td>
<td>164</td>
<td>23 (14%)</td>
<td>11 (7%)</td>
<td>10 (6%)</td>
<td>21 (13%)</td>
<td>19 (12%)</td>
<td>23 (14%)</td>
<td>17 (10%)</td>
</tr>
<tr>
<td>Heritage Hills</td>
<td>101</td>
<td>16 (16%)</td>
<td>19 (19%)</td>
<td>14 (16%)</td>
<td>20 (20%)</td>
<td>30 (30%)</td>
<td>24 (24%)</td>
<td>12 (12%)</td>
</tr>
<tr>
<td>Manor Northeast</td>
<td>42</td>
<td>8 (19%)</td>
<td>8 (19%)</td>
<td>7 (17%)</td>
<td>4 (10%)</td>
<td>4 (10%)</td>
<td>9 (21%)</td>
<td>7 (17%)</td>
</tr>
<tr>
<td>Manor Northwest</td>
<td>96</td>
<td>8 (6%)</td>
<td>9 (9%)</td>
<td>5 (9%)</td>
<td>9 (9%)</td>
<td>8 (8%)</td>
<td>10 (11%)</td>
<td>13 (14%)</td>
</tr>
<tr>
<td>Manor-Webberville</td>
<td>136</td>
<td>5 (4%)</td>
<td>12 (9%)</td>
<td>12 (9%)</td>
<td>16 (12%)</td>
<td>13 (10%)</td>
<td>12 (9%)</td>
<td>29 (21%)</td>
</tr>
<tr>
<td>McKinney</td>
<td>47</td>
<td>9 (19%)</td>
<td>12 (26%)</td>
<td>10 (22%)</td>
<td>5 (11%)</td>
<td>9 (11%)</td>
<td>10 (21%)</td>
<td>6 (13%)</td>
</tr>
<tr>
<td>North Austin</td>
<td>143</td>
<td>14 (10%)</td>
<td>14 (10%)</td>
<td>8 (6%)</td>
<td>17 (12%)</td>
<td>21 (15%)</td>
<td>20 (14%)</td>
<td>27 (19%)</td>
</tr>
<tr>
<td>Pioneer Hill</td>
<td>50</td>
<td>10 (20%)</td>
<td>10 (20%)</td>
<td>7 (14%)</td>
<td>9 (18%)</td>
<td>12 (24%)</td>
<td>11 (22%)</td>
<td>2 (4%)</td>
</tr>
<tr>
<td>St. John’s</td>
<td>110</td>
<td>11 (10%)</td>
<td>9 (8%)</td>
<td>15 (14%)</td>
<td>14 (13%)</td>
<td>7 (6%)</td>
<td>14 (13%)</td>
<td>6 (5%)</td>
</tr>
<tr>
<td>Windsor Hills</td>
<td>10</td>
<td>4 (40%)</td>
<td>2 (20%)</td>
<td>2 (20%)</td>
<td>3 (33%)</td>
<td>3 (30%)</td>
<td>4 (40%)</td>
<td>1 (10%)</td>
</tr>
<tr>
<td>Community-wide</td>
<td>1,356</td>
<td>170 (13%)</td>
<td>158 (12%)</td>
<td>127 (9%)</td>
<td>170 (13%)</td>
<td>211 (16%)</td>
<td>211 (16%)</td>
<td>181 (13%)</td>
</tr>
</tbody>
</table>

Data Source: Teacher Reported EDI Checklist
*N is the number of valid checklists received for a geographic area. The actual N for each domain may be lower (refer to Tables 5-9 in the Community Profile for the N by domain).

### Range Values Used in EDI Maps:

<table>
<thead>
<tr>
<th>Developmentally Vulnerable on 2 or More Domains</th>
<th>Physical Health and Well-being</th>
<th>Social Competence</th>
<th>Emotional Maturity</th>
<th>Language and Cognitive Development</th>
<th>Communication and General Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% - 7%</td>
<td>0% - 6%</td>
<td>0% - 4%</td>
<td>0% - 5%</td>
<td>0% - 4%</td>
<td>0% - 4%</td>
</tr>
<tr>
<td>8% - 12%</td>
<td>7% - 11%</td>
<td>5% - 8%</td>
<td>6% - 9%</td>
<td>5% - 8%</td>
<td>5% - 8%</td>
</tr>
<tr>
<td>13% - 16%</td>
<td>12% - 15%</td>
<td>9% - 12%</td>
<td>10% - 14%</td>
<td>9% - 13%</td>
<td>9% - 12%</td>
</tr>
<tr>
<td>17% - 21%</td>
<td>16% - 20%</td>
<td>13% - 16%</td>
<td>15% - 18%</td>
<td>14% - 17%</td>
<td>13% - 16%</td>
</tr>
<tr>
<td>22% or more</td>
<td>21% or more</td>
<td>17% or more</td>
<td>19% or more</td>
<td>18% or more</td>
<td>17% or more</td>
</tr>
</tbody>
</table>
EDI 2011: Children Vulnerable in the Social Competence Domain in Austin Area Neighborhoods

Legend

Proportion of Children Developmentally Vulnerable

- Lowest Proportion
- Highest Proportion
- No or Few Data

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Appendix A

Explanation for ASQ-3 Assessment Categories

The ASQ-3 scoring system gives an individual score for each of the five developmental categories: communication, gross motor, fine motor, problem solving and personal-social. Each score is calculated from the "parents' response --yes, sometimes, and not yet-- which is converted to points -- 10, 5, and 0 respectively -- and are totaled for each developmental area. The five area scores are then compared with empirically derived cutoff points" and used to classify children into on-target (green), monitoring (yellow) and need further assessment (red) categories depending on where they fall in regards to standard deviation from the mean (p. 7). "The cutoff points were reached by subtracting 2 standard deviations from the mean for each area of development (e.g. fine motor)"; children whose scores fall below the cutoff point are not testing on level for their developmental age and their families are directed to further testing to determine how to address the problem (p. 74). Children who are above the cutoff point (two standard deviations) but still more than one standard deviation from the mean are in the monitoring zone which means that parents are educated about activities designed to help their child's development and referred for a follow-up ASQ-3 screening at the next age interval to track progress; these children would be considered "at-risk". Children above -1 standard deviation below the mean are considered on target.

An illustration of the characteristics of the children represented in the red, yellow and green zones varies widely depending on the age range being discussed. For example, the parents of an 18-month old answer six questions about their child's communication skills:

1) When your child wants something, does she tell you by pointing to it?

2) When you ask your child to, does he go into another room to find a familiar toy or object?

3) Does your child say 8 or more words, in addition to "Mama" and "Dada"?

4) Does your child imitate a two-word sentence?

5) Without your showing him, does your child point to the correct picture, when you ask him "where is the dog?"

6) Does your child say two or three words that represent different ideas together, such as "mommy come home".

In order to be considered on-target, there are several answer combinations. A parent needs to answer not yes to at least three questions to receive a yellow (monitoring category) designation. Answering not yes to three questions indicates the child is already struggling with language development. An 18-month old already lacking in vocabulary content and language structure is at-risk for developing a more serious speech delay. Being designated in the red zone (needing further assessment) signifies extreme concern for developmental progress. A marked deficit in any category (gross motor, fine motor, communication, personal-social, or problem solving) signals the need for a targeted early intervention strategy.

Work Cited

**Project Data Sources**

**Integrated Care Collaboration (ICC) Birth Data, 2005-2009**

This data set provided by the ICC encompasses all of the uninsured or underinsured mothers who delivered at a safety net provider in calendar years 2005-2009 in the ICC system (see map page 5). Birth data represents the vast majority, but not all births in the county between 2005 and 2009. Further, home births were not included. If there are neighborhood clusters where high numbers of women deliver at home, the map could be inaccurate in that those births would not appear.

**Early Development Instrument (EDI) Data, 2011 UCLA**

The Early Development Instrument (EDI) was developed by Dan Offord and Magdalena Janus at the Offord Centre for Child Studies at McMaster University in Canada. As part of the Transforming Early Childhood Community Systems (TECCS) partnership with UWW, the UCLA Center for Healthier Children, Families and Communities, under license from McMaster University, is implementing the EDI with sites in the US. The EDI has 103 core items and is an observational checklist, based on recall that is completed by kindergarten teachers on each child in their class. Teachers typically complete the EDI in the second half of the school year. The EDI requires approximately 10-15 minutes per child to complete. Information collected using the EDI is reported at a group level (e.g. for a census tract, neighborhood, city, etc) and is never reported on individual children or used as a screening or diagnostic tool for children.

The UCLA Center for Healthier Children, Families and Communities, under license from McMaster University, is implementing the EDI with its sub licensees in the US. The EDI is the copyright of McMaster University and must not be copied, distributed or used in any way without the prior consent of UCLA or McMaster University.

**Ages and Stages Questionnaire, July 12, 2011 – August 31, 2011**

All child demographic and assessment data were derived from the Child Profile data Export facility provided by ASQ’s web interface (asqonline.com). The questionnaire’s data input window commenced on July 12, 2011 and was cutoff on the last day of August, 2011. The exported data was available as two Microsoft Excel files: one for child demographic data and another file for assessment data.


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**Project Limitations**

**ASQ Maps, Pages 7-9**

The relatively small timeframe for data collection represents a snapshot of the children served by the participating WIC centers. In addition, the four contributing WIC centers are meant to focus our attention to specific parts of north, east and southeast Austin.

Visual correlations on a map do not necessarily represent causality; for more information about related research or possibilities for further research, please visit www.childrensoptimalhealth.org.
Methodology

Children’s Optimal Health Methodology, ASQ and Birth Maps

Standard ESRI ArcGIS 10.0 pie chart generation facility was used to produce all maps. The maps show the aggregated results of the assessments performed across five categories. The results were aggregated to Zip codes and shown as pie charts within their respective Zip code boundaries. For each assessment type (Communication, Gross Motor, Fine Motor, Problem Solving, and Personal-Social), the results were categorized into Green, Yellow, and Red based on a child’s age and her/his score’s location relative to -1SD and -2SD values. Finally, the pie charts were sized proportionally to the count of results within the respective Zip codes.

For further information regarding the COH mapping methodology, contact Mohan Rao at mrao@childrensoptimalhealth.org.

EDI Mapping Methodology, UCLA

ESRI ArcMap 10.0 was used to create all EDI maps. Community defined neighborhood boundaries are the geographic unit of assessment in the EDI maps and were created by aggregating US Census 2009 block groups. The maps show the aggregated EDI results across five domains by these neighborhood boundaries. Each developmental domain (physical health and well-being, social competence, emotional maturity, language and cognitive development, and communication skills and general knowledge) were thematically mapped using a green color scale. Darker shading indicates an increase in the percentage of children vulnerable on each respective domain. Each range break was the distance of one half standard deviation. For reasons of confidentiality, where fewer than 10 valid EDI records were available for a given neighborhood, this area was suppressed (i.e. not reported).

What is United Way Success by 6 (SB6) doing to address early childhood developmental vulnerabilities in Central Texas?

Children are born learning, and their experiences between birth and school entry greatly determine whether they will enter school ready for sustained success. Without high quality experiences and support, a gap in competencies – cognitive, social, emotional, and physical – will exist from the start of K-12 education. This gap leads to a range of problems that are significantly more difficult, as well as more expensive, to address later in life.

SB6 has gathered quantitative data, capturing the most pressing developmental needs of our community’s poorest children. SB6 has listened to the community, capturing qualitative data from families, service providers, and issue-area experts. Based on these child development assessments and community dialogues, SB6 has discerned the community’s most pressing needs. In response to those needs, SB6 has lead Austin’s early childhood community in developing an action plan based on the following equation:

Ready Families + Ready Systems + Ready Communities = Children Ready for School Success

SB6 is also addressing educational disparities in Central Texas through a combination of thought leadership and strategic investment. SB6 monitors the community’s progress toward shared goals through ongoing data collection efforts. SB6 communicates local data trends with the early childhood community, while keeping providers informed of national research efforts and training opportunities. In order to build and maintain a sustainable early childhood infrastructure, SB6 funds services that are research- and evidence-based while still addressing the unique needs of the Central Texas landscape. SB6 develops innovative signature projects that incorporate cutting-edge research and emerging technologies, never forgetting our accountability to our investors and our community. United Way Capital Area SB6 brings together resources, research, experts, and volunteers, united to create a Central Texas where all children enter school ready to succeed.

How to Get Involved

The Austin community has many individuals and organizations who work cooperatively to assure that young children have a healthy start to life, and enter kindergarten ready to learn. Still, our rapid demographic changes indicate that large numbers of children are vulnerable to having a poor start in life, and more effort is needed to assure their healthy early start.

If you are interested in gaining more information about the partners working to address these issues, please contact:

United Way Capital Area Success by 6
http://unitedwaycapitalarea.org/ · 512-472-6267

Children’s Optimal Health
www.childrensoptimalhealth.org · 512 -324 – 5980
About COH:

Children’s Optimal Health is a collective leadership initiative that unites the efforts of Central Texas organizations in promoting community change to help our children reach a brighter future.

COH strives to give agencies and communities access to formerly proprietary data by using GIS mapping to illuminate issues involving Central Texas children. By layering data from multiple sources, COH can help communities visualize the health of their neighborhoods, identify assets and needs, and unearth opportunities for collaborative change.

Through a commitment to shared data, collaboration, and ongoing communication, Children’s Optimal Health is a collective leadership initiative to ensure that every child in Central Texas becomes a healthy, productive adult engaged in his or her community. The goal of COH is to use visual images to inform policy, improve operations, promote research, and mobilize the community to better the lives of our children and youth.

COH Board Members

Any Baby Can
Austin Independent School District
Central Health
E3 Alliance
Greater Austin Chamber of Commerce
H-E-B
Housing Authority of the City of Austin
LifeWorks
Lone Star Circle of Care
Workforce Solutions
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St. David’s Foundation
University of Texas at Austin
University of Texas School of Public Health

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Mohan Rao, Spatial Data Analyst
Lindsey Ripley, Project Manager

COH would like to extend special recognition and thanks to the Technical Advisory Committee for the time and effort they have dedicated to ensure the integrity of this project.

Co-Chairs:

Dr. Stephen Pont, Medical Director, Texas Center for the Prevention and Treatment of Childhood Obesity, Dell Children’s Medical Center, Medical Director Austin ISD Student Health Services, UT Southwestern, UT-Austin Department of Advertising

Dr. Steve Kelder, Professor, Division of Epidemiology, Co-Director, Michael & Susan Dell Center for Advancement of Healthy Living, UT School of Public Health Austin Campus

Participants: Dr. Bill Sage, Dr. Brenda Hummel, Sue Carpenter, Dr. Leah Meunier, Blanche Green-Cramer, Kaley Horton, Leslie Goodyear, Lisa Stanley, Jamie Moxham, Jesse Simmons, and Joshua Bailey.