THINKING UPSTREAM:

Mapping a Pathway to End Child Maltreatment

COMMUNITY REPORT

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A LETTER TO THE COMMUNITY

Dear Community Leaders and Members,

We are facing a public health crisis in our community and your commitment to ending this issue is imperative right now. In Travis County, 2,495 children were confirmed victims of child maltreatment in 2015. Sadly, these numbers include only those children reported to Texas Child Protective Services; we know this is just the tip of the iceberg. As a community, Travis County will sustain a heavy burden in the form of economic, social, and health consequences, including increases in crime, youth and adult suicide, substance abuse, and future increase in chronic health problems among the population. We need to focus on the future health of Travis County and work toward ending child maltreatment.

The Dell Children’s Trauma and Injury Research Center, in collaboration with Children’s Optimal Health, has created a visual representation of the issue by highlighting mapped locations of (1) maltreatment, (2) changing patterns over time, and (3) other community factors. This report also provides synthesized information and recommended action steps for the elimination of child maltreatment from the guided conversations of a convened group of community experts.

We would love for you to read this report and think about where your organization, or you as an individual, could play a role in ending child maltreatment in Travis County. Whether you are a community leader, parent, or a concerned citizen, you can play a part in utilizing these maps to take the next steps and proposed actions. We must join together as a community, with all members playing a role, in order to improve the health and wellbeing of our community’s most vulnerable and rich resource, our children. We can do this together!

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EXECUTIVE SUMMARY

This report represents the culmination of a collective effort between Dell Children’s Trauma and Injury Research Center and Children’s Optimal Health, with community guidance from Texas Child Protective Services, Project HOPES of Travis County, the Texas Institute for Child & Family Wellbeing at the University of Texas at Austin School of Social Work, and the Community Advancement Network.

The maps created for this report are the visual product of an ongoing research study that aims to inform child maltreatment prevention programming in Travis County on how to better target preventive resources and education efforts toward areas of greatest need in our community. Our maps depict confirmed child maltreatment cases in Travis County from 2003 to 2012. For comparison, we have also included pre-existing maps from similar time periods produced by other respected entities, such as the Kirwan Institute for the Study of Race and Ethnicity at the Ohio State University, Children’s Optimal Health, and the Community Advancement Network.

In addition, we include findings from our summit, Thinking Upstream: Mapping a Pathway to End Child Maltreatment, wherein participants engaged in cross-sector guided conversations to inspire upstream thinking in the prevention of child maltreatment in our community.

The guided conversations highlighted key action and policy recommendations for Travis County:

- **Shared Vision:** Creation of a shared vision for an affordable, equitable, resilient community
- **Trauma-Informed Care:** Integration of screening and training on trauma-informed care across multiple sectors
- **Service Integration:** Increased integration, co-location, and collaboration among social services, health providers, healthcare systems, school districts, and government to address child abuse prevention
- **Behavioral Health:** Increased access to behavioral health services
- **Affordable Housing:** Geographic dispersion of and increased access to affordable housing
- **Pre-K Programming:** Availability of affordable, quality pre-K programs for children
- **Supportive Technology:** Access to and use of technology tools to support parents and prevent child abuse

The intent of sharing these recommendations is to provide a springboard for community-led child maltreatment prevention in Travis County. We are stronger when we work together to create viable solutions to the problem of child maltreatment in our community.

**Key findings** from our study to date underscore the following issues in Travis County:

1. Child maltreatment in Travis County follows an “East Austin Crescent” pattern.
2. There is an inequitable distribution of mental health and substance use services in our community. Mental health and substance use services are primarily located on the west side of I-35, while the areas with the highest densities of child maltreatment and children removed due to child maltreatment are located on the east side of I-35.
3. Over time, child maltreatment cases have decreased in the urban core, increased in peripheral areas of Travis County, and remain high in the “East Austin Crescent.”
4. The “East Austin Crescent” pattern of child maltreatment corresponds with the following factors in our community: poverty, lack of educational opportunity, community violence, family/dating violence, student overweight/obesity, and other factors.
BACKGROUND

The Problem
Child maltreatment is a public health problem that places an immense burden on communities. This burden impacts multiple community sectors: financial, healthcare, education, child welfare, law enforcement, and social services, to name a few.4-6

Child maltreatment harms an individual’s health and wellbeing across the lifespan.7 Child maltreatment and household dysfunction have been directly linked to leading causes of death in adults such as: suicide, sexually transmitted diseases, ischemic heart disease, severe obesity, cancer, chronic lung disease, and liver disease.7

In Texas, the total estimated lifetime financial impact from child maltreatment that occurred in 2014 alone will exceed $454 billion.8 This includes direct and social costs such as health care, social services, criminal justice, and education, as well as lost productivity and lifetime earnings.

How Common Is Child Maltreatment?
Child maltreatment is more common than many people think. Child maltreatment is measured in several different ways. Depending on the data source, the incidence of child maltreatment can look very different.

- Texas Department of Family and Protective Services: In Texas, about 1 in 110 children was confirmed for child maltreatment by Child Protective Services (CPS) in 2015. Travis County was slightly higher with approximately 1 in 107 confirmed cases during 2015.9
- National Data Archive on Child Abuse and Neglect: Approximately 1 in 106 US children was a confirmed victim of child maltreatment in 2014.10
- National Incidence Study (NIS): NIS found that 1 in 25 children in the US experienced or was endangered by child maltreatment in 2010.11
- Self-Report: A national study by Finkelhor et al (2013), found that 1 in 4 US children and adolescents reported experiencing some form of child maltreatment.12

Confirmed CPS cases of child maltreatment represent the tip of the iceberg as compared to NIS data and self-report. If one in four children and adolescents do experience some form of child maltreatment during their lifetime, then the vast majority of child maltreatment cases are going undetected and untreated. For this reason, it is incumbent upon communities to engage in concerted child maltreatment prevention efforts.

Why Should We “Think Upstream” to Prevent Child Maltreatment?
Child maltreatment has such a devastating effect on individuals, families, and communities across generations, that it only makes sense to mobilize our collective skills, knowledge, and resources to prevent it. Primary prevention of child maltreatment involves “thinking upstream” or stopping maltreatment before it occurs (See Figure 1). We can do this by reducing the factors that put people at risk for violence and increasing the protective factors that safeguard against such violence.13 Of all the levels of prevention, primary prevention can have the greatest impact on morbidity and mortality. Primary prevention not only allows us to reduce incidence of disease, increase productivity at work and school, and improve quality of life, but also makes good fiscal sense in light of the catastrophic costs and lifelong consequences of child maltreatment.14
Note: The above figure is a modified version of the public health prevention pyramid.1-3

**Risk Factors**
A risk factor is anything that increases risk for a certain disease or condition. Risk factors for child maltreatment are many and cross socio-ecological levels (individual, family, and community).4,15,16

- **Child level risk factors**: premature birth, low birth weight, exposure to toxins in utero, disability (physical, cognitive, emotional), child aggression, behavioral issues, attention deficits, and age

- **Family level risk factors**: parental history of child abuse, domestic violence, young parental age, substance abuse, poor impulse control, depression/anxiety, social isolation, separation/divorce, single parent with lack of support (high number of children in household), lack of knowledge and expectations about child development, and high general stress level

- **Community level risk factors**: poverty and concentrated poverty, community violence, household crowding, unemployment, homelessness, social isolation, poor schools, exposure to racism/discrimination; lack of access to medical care, health insurance, adequate child care, and social services

**Protective Factors**
Protective factors are conditions or attributes that help people cope more effectively with stressful events and reduce health risk. Understanding protective factors is essential to prevention planning.4,15,16

- **Child level protective factors**: good health and development, positive peer relationships, positive activities and interests, personality factors such as easy temperament, positive self-esteem, good social skills, internal locus of control, and active coping style

- **Family level protective factors**: supportive family environment, secure parent/child attachment, household rules/structure, extended family support and involvement, parental coping skills, parental self-esteem, high parental education, and family expectations of pro-social behavior

- **Community level protective factors**: affordable and secure housing, access to healthcare and social services, good schools, consistent parental employment, socioeconomic stability, and active community participation

The goal of prevention planning is to minimize risk factors and strengthen protective factors among affected individuals, families, and communities.
Cross-Sector Approach
Known risk and protective factors for child maltreatment cross many different sectors within our community including: housing, schools, law enforcement, criminal justice, early childhood education, parent education, healthcare, and child welfare.\(^4,15,16\) For this reason, child maltreatment prevention calls for a coordinated, community-wide, trauma-informed approach.\(^17,18\) Many successful community-wide child maltreatment prevention initiatives have utilized a cross-sector approach:\(^19-21\)

- Children’s Resilience Initiative (Walla Walla, WA)
- East Cleveland Neighborhood Center (Cleveland, OH)
- HEARTS Initiative (Albany, NY)

Utilizing a cross-sector approach also allows us to mobilize our many assets, connections, and collective empathy in our community.

Geospatial Mapping as a Methodology
Geographic Information Systems (GIS), or geospatial mapping, is a technology that enables spatial and statistical analyses to be performed with multiple data variables.\(^22\) Geospatial mapping is particularly useful for identifying and targeting vulnerable high risk populations and geographic areas of concern.\(^23\)

**Study Goals**

We chose to utilize geospatial mapping to investigate the following study goals:

1. Generate a series of maps to inform Travis County child maltreatment prevention programs on how to better target preventative resources and education efforts toward areas of greatest need.
2. Determine correlates to maltreatment in neighborhoods.
3. Define neighborhood risk factors for child maltreatment.

This report will focus on the first goal. Goals 2 and 3 are part of our ongoing child maltreatment mapping study.

**METHODOLOGY**

**About the Data**

Texas Child Protective Services (CPS) provided the Dell Children’s Trauma and Injury Research Center with the data needed to conduct this study. Addresses and descriptive information from reports made in Travis County, Texas between January 1, 2003 and June 30, 2012\(^*\) for children 0-14 years of age were included in this study. This study was comprised of reports for all types of maltreatment including: neglectful supervision, physical abuse, sexual abuse, abandonment, refusal of parental rights, emotional abuse, medical neglect, and physical neglect. Given that the data were obtained at the report level, multiple reports per child are possible (i.e., duplicates included).

**Protecting the Data**

We strived to make the maps as complete and precise as possible. At the same time, we are bound to protect individual privacy and confidentiality. To ensure the confidentiality of mapped data, three processes were utilized: shifting, rasterizing, and masking.

- **Shifting:** The method of random perturbation is a process of “shaking” the data by location so that when looking at the map, the point of incident does not fall at the exact location. Latitude and longitude values of home address were randomly shifted between 100 feet and 300 feet to conceal the true physical address (without detriment to the integrity of the map itself) to protect confidentiality.

- **Rasterizing:** Rasterizing is a process of color-coding the data based on the number of cases of maltreatment in a raster cell (approximately the size of a city block on the map). Specifically, data were made into points within the cells of the map grid where each point depicts a case. Ranges of the number of points were then established and the cells were color-coded depending on which range the cell falls into. For example, cells with 5-10 points may be yellow, cells with 11-20 points may be orange, and cells with >20 points may be red. This process further conceals the true physical address (without detriment to the integrity of the map itself) to protect confidentiality.

- **Masking:** Data cells with fewer than five cases of maltreatment were not visually depicted on maps in order to provide additional privacy protections to the data. Cells ending up with fewer than five cases of maltreatment were not color-coded to protect confidentiality.

\(^*\) The time frame of this study, January 1, 2003 – June 30, 2012, was based on the investigation closure date so that the disposition of the case was known. In our sample, cases were either substantiated reports of child maltreatment (i.e., Texas CPS confirmed the allegation or risk of allegation) or unsubstantiated reports of child maltreatment (i.e., Texas CPS did not have sufficient evidence to conclude or suspect maltreatment or the risk of maltreatment).\(^10\)
Mapping the Data
Three types of maps were used in this analysis of child maltreatment data: density heat maps, census tract rate maps, and census tract delta maps.

Density Heat Maps: The density heat maps do not show all areas of Travis County affected by child maltreatment; rather, they show areas with the highest concentration of child maltreatment. Density heat maps do not take into account the number of children living in that area, therefore the rate of child maltreatment is not assessed. In an effort to provide the most current data from our study, density heat maps focus on the post economic recession (7/1/2009–6/30/2012) time period.†

Census Tract Rate Maps: The census tract rate maps visually depict the rates of substantiated reports within each census tract of Travis County. Rates were calculated utilizing 2010 U.S. census tract data.25 In an effort to provide the most current data from our study, census tract rate maps focus on the post economic recession (7/1/2009–6/30/2012) time period.

Census Tract Delta Maps: The census tract delta maps depict changes in Travis County rates between pre economic recession (12/1/2004–11/30/2007) and post economic recession (7/1/2009–6/30/2012) for two age cohorts: 0-4 years old and 5-14 years old. The pre economic recession and the post economic recession time frames each span a 36-month period. Rates during these time frames were calculated utilizing 2010 U.S. census tract data.25

† Given that a national study showed an increase in abusive head trauma following an economic recession (2/1/2007–6/30/2009), we chose to use this time period as a point of reference in our analysis of changing rates in Travis County. The recession time frame was defined by the National Bureau of Economic Research.24
SAMPLE DESCRIPTION

After obtaining Travis County data from Texas CPS, reports with unknown addresses, purged addresses, and PO boxes were excluded from our study given that these data are not able to be geocoded. All remaining addresses of children were then geocoded; 98% of the addresses were able to be geocoded. While all reports were obtained and 98% were able to be geocoded, this study will predominately focus on the 16,158 substantiated reports of child maltreatment (See Figure 2).

FIGURE 2: NUMBER OF CPS REPORTS BY DISPOSITION

CPS Reports 48,562
Unsubstantiated Reports 32,404
Substantiated Reports 16,158

FIGURE 3: DUPLICATE ENCOUNTERS OF CHILDREN IN REPORT

Some children in our study had more than one CPS report. The number of substantiated reports per child ranged from one to five reports. The majority of children in our sample had one substantiated report (89.4%) and only 1.6% of children had between three and five substantiated reports of child maltreatment.
Children in our study were predominately Hispanic (57%) with 20% reported as African American, 19% reported as Anglo, and 5% reported as other (See Figure 4). Children were equally distributed in gender between female (50%) and male (50%). The average age of children in our sample was 4.86 years old (SD 4.04) with a range of 0-14 years of age. Children 0-4 years old made up a larger percentage of substantiated reports (53%) than children 5-14 years old (47%) despite representing a smaller age range (See Figure 5).
MAPPING RESULTS
A variety of maps were created to inform Travis County maltreatment prevention programs how to better target resources and education toward areas of greatest need. Our maps focused on the following:

- High concentrations of substantiated reports of child maltreatment: Map 1a, Map 1b, and Map 1c
- High concentrations of children removed from their home: Map 2a and Map 2b
- Rates of substantiated reports of child maltreatment: Map 3a and Map 3b
- Rates of substantiated reports of the three most common types of child maltreatment (i.e., neglectful supervision, physical abuse, and sexual abuse): Map 4, Map 5, and Map 6
- Changes in rates of substantiated reports of child maltreatment: Map 7a and Map 7b

Detailed descriptions are provided underneath the title of each map, however, the following four main findings will be discussed in depth:

1. “East Austin Crescent” Pattern of Child Maltreatment
2. Inequitable Distribution of Behavioral Health Services
3. Changing Patterns of Risk
4. Community Factors Corresponding to Child Maltreatment
“East Austin Crescent” Pattern of Child Maltreatment

The mapping done for this study revealed a crescent shaped pattern of substantiated reports of child maltreatment for children 0-14 years of age in Travis County (See Map 1a). The areas with the highest concentrations of maltreatment border the urban core of Austin to the north, north east, east, south east, and south, forming a crescent pattern often referred to by service providers in the field as the “East Austin Crescent.” While the map depicts child maltreatment predominately occurring east of Interstate 35 in areas that border the urban core of Austin, it is important to note that this map focuses only on high density areas of child maltreatment. Low density areas of child maltreatment are not shown, therefore this map understates the problem in rural areas. That being said, this map still provides us with the areas where the largest number of high risk children would be impacted by prevention and intervention efforts.
The “East Austin Crescent” pattern was also found when looking at the highest concentrations of children removed from their home (See Map 2a). There was one additional hotspot in the Clarksville neighborhood containing a particularly high concentration of children removed from their home (21-36 children within a 300 yard radius).
Travis County School Districts
Map 1b was created to further demonstrate the impact of child maltreatment on various Travis County school districts. At first glance, it may appear that the highest concentrations of child maltreatment solely impact youth in the Austin Independent School District (ISD), however, a closer look reveals that Del Valle ISD, Manor ISD, Pflugerville ISD, and Round Rock ISD all contain areas of high concentration. Again, this map only focuses on highest density areas of child maltreatment. If all instances of child maltreatment were mapped, all districts would be affected to some extent. Furthermore, only substantiated reports of children residing in Travis County were analyzed, children who reside in bordering counties (i.e., Williamson, Bastrop, etc.) are not represented.

Map 1b: Substantiated reports of child maltreatment for children 0-14 years of age, Travis County, Texas from 7/1/2009 to 6/30/2012 with school district overlay
Description: This map depicts the highest concentrations of substantiated reports of child maltreatment for children 0-14 years of age. It focuses on the post economic recession time period (7/1/2009-6/30/2012). School districts in Travis County are shown in order to see the impact of substantiated reports of child maltreatment for each district. 5,554 substantiated reports of maltreatment are represented.

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Spatial Data Analyst: Mohan Rao, MAG, Children’s Optimal Health, Map created on 4/15/2016
Data Source: Texas Child Protective Services
Density Heat Maps and Rate Maps
While our density heat maps display the highest concentrations of child maltreatment, it is known that these same areas also contain some of the largest concentrations of children. In order to further assess the level of risk in these areas, we created census tract rate maps. The “East Austin Crescent” pattern is clearly apparent when looking at census tract rate Map 3a, on which all of the census tracts with the highest rates of substantiated child maltreatment reports per 1,000 children are located within the “East Austin Crescent.”

Census tracts that contain the highest counts as well as the highest rates also fall within the “East Austin Crescent” (See Map 3b). Knowing the location of the areas in our community that have the highest counts and rates of child maltreatment can enable targeting of prevention programs toward areas of highest risk (See the “Counts vs. Rates” text box on page 18 for a more detailed description of the difference between using counts and rates).

In order to assess if different types of maltreatment resulted in different geographic patterns, we mapped the three most common types of maltreatment: neglectful supervision, physical abuse, and sexual abuse. Even when looking separately at rates of substantiated reports of neglectful supervision, physical abuse, and sexual abuse per 1,000 children, the “East Austin Crescent” pattern is apparent (See Maps 4-6). These maps further solidify that the “East Austin Crescent” is a high risk area for child maltreatment.

Map 3a: Rates of substantiated reports of child maltreatment per 1,000 children 0-14 years of age, Travis County, Texas from 7/1/2009 to 6/30/2012
Description: This map depicts the rates of substantiated child maltreatment reports per 1,000 children 0-14 years of age per census tract. It focuses on the post economic recession time period (7/1/2009-6/30/2012). There are 5,554 substantiated reports of maltreatment represented in this map.
Counts vs. Rates

WHAT IS A COUNT? A count, also known as a frequency, refers to the number of events that occur in a defined time period. **For example:** 150 cases of disease in children in 2015.

WHAT IS A RATE? A rate refers to the number of events that occur in a defined time period, divided by the average population at risk of that event. **For example:** 15 cases of disease per 1,000 children in 2015.

COUNT VS. RATE By looking at rates instead of just counts, we can compare which areas have a greater level of disease per person. **For example:** A suburban area could have a higher count of disease than an urban area, but a lower rate of disease per person.


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Map 3b: Top 10 census tracts of Travis County, Texas with the highest children's optimal health counts of child maltreatment for children 0-14 years of age from 7/1/2009 to 6/30/2012 with rates of substantiated reports represented

Description: This map highlights the 10 census tracts with the highest counts of substantiated reports of child maltreatment for children 0-14 years of age. The color of the census tract relates to the rate of substantiated reports of child maltreatment per 1,000 children during the post economic recession timeframe (7/1/2009-6/30/2012). There are 5,554 substantiated reports of maltreatment represented in this map.

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Data Source: Texas Child Protective Services
Map 4: Rates of substantiated reports of neglectful supervision per 1,000 children 0-14 years of age, Travis County, Texas from 7/1/2009 to 6/30/2012

Description: This map depicts the rates of substantiated neglectful supervision per 1,000 children 0-14 years of age per census tract. It focuses on the post economic recession time period (7/1/2009-6/30/2012). There are 4,592 substantiated reports of neglectful supervision represented in this map.

Rate per 1,000
- 0.0 to 10.0
- > 10.0 to 20.0
- > 20.0 to 40.0
- > 40.0 to 60.0
- > 60.0 to 97.7

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Data Source: Texas Child Protective Services
Map 5: Rates of substantiated reports of physical abuse per 1,000 children 0-14 years of age, Travis County, Texas from 7/1/2009 to 6/30/2012

Description: This map depicts the rates of substantiated physical abuse reports per 1,000 children 0-14 years of age per census tract. It focuses on the post economic recession time period (7/1/2009-6/30/2012). There are 847 substantiated reports of physical abuse represented in this map.

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Data Source: Texas Child Protective Services
Map 6: Rates of substantiated reports of sexual abuse per 1,000 children 0-14 years of age, Travis County, Texas from 7/1/2009 to 6/30/2012

Description: This map depicts the rates of substantiated sexual abuse reports per 1,000 children 0-14 years of age per census tract. It focuses on the post economic recession time period (7/1/2009-6/30/2012). There are 379 substantiated reports of sexual abuse represented in this map.

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Data Source: Texas Child Protective Services
**Inequitable Distribution of Behavioral Health Services**

Upon identifying the areas of highest concentrations and highest rates of child maltreatment, we were interested in how these areas related to the location of behavioral health services in Travis County. Map 1c and Map 2b show that there is an inequitable distribution of mental health and substance use services in our community. Mental health and substance use services are primarily located on the west side of I-35, while the areas with the highest densities of child maltreatment and children removed due to child maltreatment are located on the east side of I-35. While it is true that some of these services do provide home-based interventions, this is likely not the case for the majority of services. In order to ensure that we are supporting the needs of our community, location of service provision may need to be redistributed.

**Changing Patterns of Risk**

Our previously discussed maps show that the areas of highest concentration and highest rates of child maltreatment predominately fall within the “East Austin Crescent.” While looking at density and rates are crucial methods for identifying areas of greatest need in a county, for this study we also wanted to examine how rates have changed over time. We did

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*The Mental Health Services Inventory for Travis County, Texas and The Substance Use Services Inventory for Travis County, Texas were created by the Dell Children’s Trauma and Injury Research Center for the sole purpose of this research project. The inventories were reviewed by a panel of stakeholders in the community and all efforts were made to be as inclusive as possible of services.*
Map 2b: Children 0-14 years of age removed from home, Travis County, Texas from 1/1/2003 to 6/30/2012 with behavioral health services overlay

Description: This map depicts the highest concentrations of children removed from their home for children 0-14 years of age. It encompasses the entire period of the study (1/1/2003-6/30/2012). Mental health and substance use services are overlaid to show how their locations relate to the areas with high concentrations of children removed from home. There are 3,072 removed children represented in this map.

Children removed
Count within 300 yard radius (natural breaks)

- 21 - 36
- 11 - 20
- 6 - 11
- 1 - 5 (not visible)

- Mental Health Services
- Substance Use Services

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Data Source: Texas Child Protective Services
so by mapping the change in rates of substantiated reports of child maltreatment from pre economic recession (12/1/2004 to 11/30/2007) to post economic recession (7/1/2009-6/30/2012). Maps 7a and 7b depict the change in rates of substantiated reports of maltreatment per 1,000 children for children 0-4 and 5-14 years of age respectively. A closer examination of the census tracts with increasing (red and orange) and decreasing (yellow, green, and blue) rates, shows that overall the dense urban areas display decreasing rates, while the county’s periphery displays increasing rates. The result is a county-wide high risk area. Although areas outside the “East Austin Crescent” may not contain the highest density or rates of child maltreatment, there is a clear increase of rates over time, which demonstrates the potential for these rates to continue to increase if no action is taken.

Map 7a: Changes in rates of substantiated reports of child maltreatment per 1,000 children 0-4 years of age, Travis County, Texas from prerecession to post-recession

Description: This map depicts the changes per census tract in rates of substantiated child maltreatment reports per 1,000 children 0-4 years of age from pre economic recession (12/1/2004 to 11/30/2007) to post economic recession (7/1/2009-6/30/2012).

Rate change per 1,000
-182 to -105
> -105 to -30
> -30 to 0
> 0 to +20
> 20 to +70

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Data Source: Texas Child Protective Services
Map 7b: Changes in rates of substantiated reports of child maltreatment per 1,000 children 5-14 years of age, Travis County, Texas from prerecession to post-recession

Description: This map depicts the changes per census tract in rates of substantiated child maltreatment reports per 1,000 children 5-14 years of age from pre economic recession (12/1/2004 to 11/30/2007) to post economic recession (7/1/2009-6/30/2012).

Rate change per 1,000
-88 to -50
-50 to -15
-15 to 0
0 to +40
> +40 to +118

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Data Source: Texas Child Protective Services
Community Factors Corresponding to Child Maltreatment

In order to gain perspective on our findings, we compared our density heat map, census tract rate map, and census tract delta maps to other maps depicting proxies and risk factors for child maltreatment, other Adverse Childhood Experiences (ACEs), and possible risk outcomes of ACEs supported by the scientific literature. The pages following (Pages 26-35) display how the “East Austin Crescent” pattern of child maltreatment corresponds to the following factors in the community:

- Domestic assault incidents with injury
- Safety-related incidents
- Students disciplined for physical aggression
- Students disciplined for drugs or alcohol
- Students who are overweight, obese, and severely obese
- Educational opportunity
- Racial segregation
- Overall opportunity
- Availability of subsidized housing in areas of higher opportunity
- Poverty
The “East Austin Crescent” pattern of high child maltreatment concentration corresponds to:

**Domestic assault incidents with injury:** Domestic violence is a risk factor for child maltreatment. The map on the bottom was created by Children’s Optimal Health (COH) and depicts concentrations of domestic assault incidents with injury recorded by the Austin Police Department for 2010. Many of the areas of high concentration are within the “East Austin Crescent” pattern identified in the top map, which is an enlarged version of Map 1a.
The “East Austin Crescent” pattern of high child maltreatment concentration corresponds to:

**Safety-related incidents:** Community violence and dangerous/violent neighborhoods are both risk factors for child maltreatment. The map on the bottom was created by COH and depicts the concentration of safety-related incidents reported by the Austin Police Department for 2010. Many of the areas of high concentration are within the “East Austin Crescent” pattern identified in the top map, which is an enlarged version of Map 1a.
The “East Austin Crescent” pattern of high child maltreatment concentration corresponds to:

**Students disciplined for physical aggression:**
Child aggression and/or behavioral issues put children at higher risk for child maltreatment. It is also a risk outcome of children who have been maltreated. The map on the bottom was created by COH and depicts concentrations of Austin Independent School District (AISD) students disciplined for physical aggression. Many of the areas of high concentration are within the “East Austin Crescent” pattern identified in the top map, which is an enlarged version of Map 1a. 
The “East Austin Crescent” pattern of high child maltreatment concentration corresponds to:

**Students disciplined for drugs or alcohol:**
Families experiencing substance abuse are more likely to experience child maltreatment.16 Children of parents who abuse substances are more likely to become substance abusers themselves.29 The map on the bottom was created by COH and depicts concentrations of AISD students disciplined for drugs or alcohol.28 To clarify, this map depicts AISD students disciplined for substance use, not all AISD students using substances. This does, however, give us a proxy for substance use in our community. Many of the areas of high concentration are within the “East Austin Crescent” pattern identified in the top map, which is an enlarged version of Map 1a.
The “East Austin Crescent” pattern of high child maltreatment concentration corresponds to:

Students who are overweight, obese, and severely obese:
Severe obesity is one of the possible risk outcomes of ACEs, such as child maltreatment. The map on the bottom was created by COH and depicts the concentration of AISD middle school students who are overweight, obese, and severely obese. Many of the areas of high concentration are within the “East Austin Crescent” pattern identified in the top map, which is an enlarged version of Map 1a.
The “East Austin Crescent” pattern of high child maltreatment rates corresponds to:

Educational opportunity: Poor schools are community risk factors for child maltreatment. The Educational Index, depicted on the bottom map, was developed by the Kirwan Institute for the Study of Race and Ethnicity. The Educational Index is based on the combination of adult educational attainment, student poverty, student/teacher ratio, reading and math proficiency, graduation rate, and school enrollment rate. A large portion of the “East Austin Crescent” pattern identified in the top map, which is an enlarged version of Map 3a, is encompassed by areas of very low educational opportunity.
The “East Austin Crescent” pattern of high child maltreatment rates corresponds to:

**Racial segregation:**
Exposure to racism and/or discrimination is a community risk factor for child maltreatment.\(^2\)

It is important to reiterate that race is not a risk factor for child maltreatment; it is the exposure to racism or discrimination that puts a child at an increased risk for child maltreatment. The Kirwan Institute map on the bottom of this page shows that areas where predominately white children live correspond with those of higher educational opportunity and areas where predominately African American and Hispanic children live correspond with those of lower educational opportunity.\(^3\)

A large portion of the “East Austin Crescent” pattern identified in the top map, which is an enlarged version of Map 3a, is encompassed by Hispanic and African American youth living in a low educational opportunity area. While the Kirwan Institute map does not prove exposure to racism or discrimination, it does show that Austin has yet to racially integrate since its history of segregating minority families to the east side of Austin.\(^4\)

These findings should inform our community of the need to come together, promote equality, and create opportunity for all.
The “East Austin Crescent” pattern of high child maltreatment rates corresponds to:

**Overall opportunity:**
This Kirwan Institute opportunity map on the bottom of this page goes beyond educational data by including economic mobility data and housing and environment data. Lack of access to health insurance, medical care, social services, and adequate child care are community risk factors for child maltreatment, each of which relates to the overall opportunity an individual has in their community. While the western portion of Travis County has the largest number of very high opportunity areas, a large portion of the “East Austin Crescent” pattern identified in the top map, which is an enlarged version of Map 3a, is encompassed by very low and low opportunity areas.
The “East Austin Crescent” pattern of high child maltreatment rates corresponds to:

**Availability of subsidized housing in areas of higher opportunity:** Poverty, homelessness, and household crowding are all risk factors for child maltreatment. Adequate housing, however, is a protective factor against child maltreatment. Subsidized housing can therefore be a great resource as it can provide adequate housing to many individuals in our county. The Kirwan Institute map on the bottom of this page shows the overall opportunity index with an overlay of the subsidized housing units in the area. It does not differentiate between the type of subsidized housing (e.g., Section 8, Housing Authority of Travis County, Housing Authority of the City of Austin, etc.). The Kirwan Institute found that the vast majority of units (79%) are located in low or very low opportunity areas, demonstrating that individuals relying on subsidized housing do not have access to the economic and educational resources needed to move out of subsidized housing and buy a home of their own. When comparing the Kirwan Institute map to the top map, which is an enlarged version of Map 3a, it is clear that a large portion of subsidized housing is located in the “East Austin Crescent” pattern which is situated in very low and low opportunity areas. These findings provide evidence of the need for affordable housing to be expanded to higher opportunity areas to see the potential of this protective factor.
The “East Austin Crescent” pattern of high child maltreatment rates corresponds to:

**Poverty:** Poverty is a community risk factor for child maltreatment. The map on the bottom of this page created by the Community Advancement Network (CAN) displays change in poverty by census tract from 2010 to 2014. It is evident that, similar to Map 7a and Map 7b, overall there are increasing rates in the county's periphery and decreasing rates in the urban core.
Guided Conversations Process
The goal of the guided conversations was to formulate cross-sector action and policy steps with community stakeholders following the presentation of the maps at the Thinking Upstream: Mapping a Pathway to End Child Maltreatment summit. In an effort to foster cross-sector communication and networking, attendees were assigned to a table at check-in. Each table contained attendees from a diverse array of sectors in the community and were tasked with focusing their conversations and responses on one of the four strategic directions of the National Prevention Strategy:

1. Healthy and Safe Community Environments
2. Clinical and Community Preventive Services
3. Empowered People
4. Elimination of Health Disparities

Key community stakeholders moderated the guided conversations utilizing a strengths-based approach where each table began by generating a list of existing assets, resources, strengths, and/or initiatives related to the prevention of child maltreatment in Travis County. Next, attendees created a list of opportunities for change. Finally, attendees discussed the top action and policy steps. Figures 6-8 depict word clouds generated from notes taken by the table moderators. The more frequently a word/concept/organization was referenced in the table moderators’ notes, the larger that word/concept/organization was depicted in the word cloud.

The guided conversations resulted in three top action and policy steps for each assigned strategic direction. These action steps were reported out to the group by each table’s representative. Following the report-out from each group, individuals were provided with three dots to vote on the top three ideas they support within the sector they had discussed. In the next section, we will provide a detailed report of the action and policy steps obtained from the guided conversations.

FIGURE 6:
EXISTING ASSETS, RESOURCES, STRENGTHS, AND/OR INITIATIVES
Common Action and Policy Recommendations

Across all strategic directions, the following were the most common action and policy steps recommended by summit attendees:

- **Shared Vision**: Creation of a shared vision for an affordable, equitable, resilient community
- **Trauma-Informed Care**: Integration of screening and training on trauma-informed care across multiple sectors
- **Service Integration**: Increased integration, co-location, and collaboration among social services, health providers, health care systems, school districts, and government to address child abuse prevention
- **Behavioral Health**: Increased access to behavioral health services
- **Affordable Housing**: Geographic dispersion of and increased access to affordable housing
- **Pre-K Programming**: Availability of affordable, quality pre-K programs for children
- **Supportive Technology**: Access to and use of technology tools to support parents and prevent child abuse

Please refer to Appendix A for a detailed report of the action and policy recommendations by each strategic direction.

IMPLICATIONS AND COMMUNITY RECOMMENDATIONS

The maps included in this study were developed to inform local child maltreatment prevention efforts. Visual depiction of the problem of child maltreatment in our community equips community leaders with information to target action and policy in “hot spots” and areas of service deficits in Travis County. Recommendations from our summit’s guided conversations provide a framework for community solutions:

- **Inequitable Distribution of Services**: The maps depict an inequitable distribution of mental health and substance use services in our community. Child maltreatment “hot spots” in Travis County are areas of reduced service availability. This highlights the need for initiatives that build opportunity, strengthen families, and improve access to services in the “East Austin Crescent” and peripheral areas.
- **Changing Patterns of Risk**: Areas with the highest incidences of child maltreatment appear to be expanding and/or moving over time into the periphery of Travis County, resulting in a larger risk area. Child maltreatment is increasing in rural portions of the county that are effectively “service deserts.”
- **Related Community Factors**: These maps demonstrate that the “East Austin Crescent” corresponds with multiple known related factors including: family/date assaults with injury, students disciplined for physical aggression, students disciplined for drugs or alcohol, reported safety related crimes, overweight and obese students, low educational opportunity, racial segregation, low opportunity index, subsidized housing, and poverty. These co-occurring issues illustrate that child maltreatment does not occur in a vacuum and underscores the need for community-level, multi-generational, integrated, cross-sector solutions.
- **Community Recommendations**: Utilize a cross-sector approach to build educational and financial opportunity. Strengthen families through multi-generational, integrated, trauma-informed services, and improve access to mental health and substance abuse services in the “East Austin Crescent” and peripheral areas.
- **Community Recommendations**: Raise awareness of the shifting problem and build upon existing rural community strengths such as faith-based organizations. Bolster rural infrastructures such as early childhood education, affordable housing, and transportation, and improve access to and provision of related prevention services such as ACEs screening, trauma-informed care, and behavioral health services in rural areas.
- **Community Recommendations**: Address community infrastructures such as poverty, racial and economic segregation, affordable housing, transportation, and access to early childhood education and behavioral health services.
MOVING FORWARD

• **Raise Awareness:** Our goal is to continue to raise awareness about the issue of child maltreatment in our community through research and dissemination of findings.

• **Call to Action:** These findings provide an opportunity to mobilize community leaders toward common action in the prevention of child maltreatment in Travis County. We are a community rich in resources. Imagine if together we could mobilize our academic organizations, philanthropic institutions, technology and business sectors, non-profit organizations, research entities, healthcare organizations, and the new 10:1 City Council districting system to end child maltreatment.

• **Create a Shared Vision:** Together we can create a shared vision of affordability, equitability, and resiliency for our community. By involving committed stakeholders that represent various sectors of our community, we improve the viability and strength of our shared vision.
REFERENCES


APPENDIX A: ACTION AND POLICY RECOMMENDATIONS BY STRATEGIC DIRECTION

Below are the policy and action steps that were recommended by attendees of the Thinking Upstream: Mapping a Pathway to End Child Maltreatment summit. Attendees made recommendations within each of the four National Prevention Strategy directions. The recommendations below are listed in descending order based on the number of dots they received. The number of dots is in parentheses.

Clinical and Community Preventive Services

- Expand access to multi-generational, evidence-based approaches, i.e, parenting programs (9) 
  Note: this was recommended by two different tables
- Implement better collaboration between programmatic, legislative, and academic entities (8)
- Build capacity for quality behavioral health services through workforce, peer specialists, technology use and increased financial support (7)
- Educate individuals and families on health literacy and personal medical advocacy (6) 
  Note: this was recommended by two different tables
- Improve transportation to services in communities based on needs assessment (5)
- Healthy relationship education for teens (3)
- Oversight agency that coordinates services for families at 80% of poverty or below (1)
- Increase economic prosperity via financial stability (training, accessibility, education) (1)

Healthy and Safe Community Environments

- Incentivize and require equitable geographic distribution of affordable housing with quality child care (10)
- Mandatory screening for ACEs in health care settings with mandatory training on child maltreatment for health care providers, child/ youth providers, nonprofits, educators, faith communities, and families, especially those that operate within the crescent (high incidence areas) (8) Note: this was recommended by three different tables
- Create a cohesive vision and shared sense of responsibility for creating a resilient community (7)
- Support a broad definition of affordability within the city: housing and transportation and child care (5)
- School based health center model - co-location of non-profit and school services (5)
- Disseminate information from the Thinking Upstream event out into the community (5)
- Focus efforts on identifying which evidence based services are best for which providers and which target populations (4)
- Cross system integration of data and real time communication between systems/agencies to share info (3)
- Improve food deserts by expanding food bank, partnering with local restaurants, and building relationships with farmers markets to come into these communities of need (2)
- Universal full day quality pre-K and early pre-K (0)

Elimination of Health Disparities

- Create affordable housing policies to prevent displacement (10)
- Provide trauma-informed training across sectors, including for health care providers and healthcare systems which includes: screening, needs assessments, cultural appropriateness, how to access community services, and how to communicate with parents (10)
- Integrate ACEs screening across systems (9)
- Collaborate with large health agencies to provide community based health services (8)
- Increase CCMS subsidy (and require all licensed centers to provide high quality childcare and to increase number of children enrolled (7)
- Invest in early childhood and pre-K (beginning at age 3) (7) Note: this was recommended by two tables
- Fund foster care - invest in safe and supportive foster care placements/foster homes/kinship care (6)
- Expand community schools with cross-sector, collaborative, integrated services that create access to comprehensive, whole person care i.e., parenting classes, navigation for social services (4)
- Advocate for and incentivize companies to offer affordable free Internet since it is a basic need, in COA high need areas (2)
- Implement a more global approach to home visiting based on types of risk factors other than income and expand state-level home visiting program (1)
• Implement an after school program for low income school districts led by teachers and/or trauma-informed leaders (0)
• Coordinate marketing/outreach holistically across systems to reach parents with messages and service availability geared to their needs (0)

**Empowered People**
• Provide trauma-informed care in schools, and through healthy choices education by employers (12)
• Increase provision of high quality child care during services related to health and safety promotion (8)
• Explore ways for providers to co-locate and co-treat clients with the hope that clients will increase this utilization of services via ease of access (6)
• Reduce stigmatization of accessing health and mental health services through targeted marketing campaigns that are culturally sensitive (5)
• Utilize technology to support universal messages to de-stigmatize and promote positive, safe parenting; free apps for education supported by the City or technology company (4)
• Target teen males and fathers with prevention without shame programming (3)
• Identify community ambassadors to provide information about health and safety concerns/services (3)
• Lobby for changes to Medicaid so it will reimburse for community health workers (3)
• Utilize congregations as centers for service provision and wraparound services (education and training) that support people in making and sustaining change; meet people where they are (2)
• Develop child care and afterschool care programs that empower parents to maintain their jobs while paying teens and other community members to lead these programs (2)
• Seek funding and interest for an Innovation Lab/Competition to encourage innovation in solving community health problems and proposing sustainable solutions (1)
• Increase adult ESL classes across community and offer more than just Spanish (0)