INSTITUTE *of* PUBLIC POLICY

Harry S Truman School of Public Affairs

GREATER KANSAS CITY AREA ASSESSMENT OF SERVICE NEEDS FOR AT-RISK CHILDREN AND YOUTH

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Children and Youth Project

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EXECUTIVE SUMMARY

The Children and Youth Project Team of the Homelessness Task Force of Greater Kansas City is working to secure new resources for children and youth services in the nine-county region. Communities throughout the state of Missouri and other places have secured new public and private funds to meet growing service needs. The project team believes that the community could support new resources if needs are demonstrated and a plan for investing new funds is broadly supported.

The Institute of Public Policy (IPP) was contracted to work with the Children and Youth Project team to: 1) quantify the services needs in the community, 2) gauge public awareness of the need and support for new resources, 3) convene stakeholders and 4) develop an investment plan that will lay out strategies for addressing needs of at-risk children and youth. This needs assessment report quantifies the service needs in the nine-county region and provides the evidence-base for the investment plan.

There are 538,652 children and youth age 19 years or younger living in the greater Kansas City area. This child and youth population makes up 28 percent of the entire regional population. Though children and youth made up a smaller percentage of the population in 2010 than in 2000, the number of children increased. There were 134,570 children enrolled in the public free and reduced lunch program in 2010-2011 in the nine-county region. This is 25 percent of the entire child and youth population under the age of 19.

The data show the region is experiencing increasing need for shelter and housing services for young people living in the region. The rates and number of youth living in situations that put them at risk of homelessness is shown in the number of youth in foster care. The region is seeing a five year high in the number of children in foster care and these children are at-risk of experiencing homelessness due to the instability of their life circumstances and the inevitable period of transitioning from foster care to independence.

The Greater Kansas City region is showing the greatest need for prevention services targeted at children who live in out-of-home placement or in single-parent headed homes. The need for prevention services targeted at unwed and teen parents is demonstrated in the rate of live births to teen mothers. The rate of live births to teen mothers is trending downward (except in Leavenworth) meaning there are fewer children being born to teen mothers. This implies a decrease in the need for services to teen parents.

The need for early intervention services is demonstrated, once again, in the rate of births to teen mothers and in the number of single parent households in poverty. The rate of births to teen mothers is decreasing meaning there is less need for services to teen parents. Additionally, the number of single male headed households has increased pointing to an increasing need for intervention services target at single male fathers and though the overall number of single female-headed households went down, in Jackson County, the number of single mothers continues to outweigh single fathers.

The need for chemical dependency prevention services is seen in the trends of students' perceptions towards alcohol, cigarettes and marijuana. A smaller proportion of students view the use of marijuana as wrong, putting them at-risk of experimentation with this drug. Likewise, fewer students in Missouri feel that using alcohol is wrong and they are at risk of trying alcohol. Prevention services can address students' perceptions of substance use before problem behaviors arise. Such prevention services address social norms and environmental factors including those in the home.

The need for intervention services is demonstrated in the use of cigarettes, alcohol and drugs. The reported recent use of alcohol is generally on the decline and cigarette use has declined overall, though the rates of use sharply fluctuate from year to year in Missouri. Although recent attention for legalization

may lead to an upward trend, the use of marijuana appears to not be getting worse or better. Therefore, early intervention programs that strengthen students' resolve to abstain from substance use while addressing the personal, social and environmental factors that contribute to substance use among teens is a continuing need.

The need for rehabilitation services is demonstrated in the constant demand for treatment services. These services work with young people who have been diagnosed with a substance use problem. There has not been a drastic increase or decrease in the number of youth in treatment though the concentration of need exists with Jackson, Johnson and Wyandotte counties.

Children and youth in the nine-county region are demonstrating the need for continued services that address acute mental health problems and work with young people to prevent suicidal ideation, (thinking about, considering or planning for suicide). The need for mental health prevention services is demonstrated in the number of children and youth living in poverty or in traumatic situations. The latter cannot be quantified in this report but the region should focus prevention efforts in communities where families are living at or near poverty and address the risk and protective factors that put children at risk of anxiety, depression, and poor self-esteem.

The need for early intervention services is demonstrated in the trends of suicidal ideation among students survey in the public schools. Though the rates of planning and attempting suicide are decreasing in most counties, the rate of seriously considering suicide remains the highest. This means there is a need to intervene early in the lives of students who are demonstrating anti-social behavior and experiencing traumatic life events.

Finally, the need for treatment and rehabilitation services is seen in the rate of hospitalizations with mental health diagnosis and the rate of children receiving treatment for emotional disorders in Missouri or being diagnosed with mental health disorders in Kansas. Older teens make up a higher percentage of the adolescent population being hospitalized with a mental health diagnoses and the rate of older youth hospitalizations is on the rise across the region. The rate of younger children being hospitalized is lower and more volatile, but diagnoses at a young age is rare and if their needs are not addressed early, they will continue to need intensive services in the future. Regarding the rate of children in Missouri who are receiving treatment for SED, it has increased across the board. The rate of children being diagnosed with a mental health disorder in Kansas has decreased. Mental health diagnoses are often made later in adolescence and early adulthood, meaning the manifestation of mental illness begins before intervention occurs. Prevention and intervention programs that focus on children and youth who are living in poverty and experiencing traumatic events will prevent or delay the onset of mental illness and have positive impact on the children and youth in the community.

To quantify service need, IPP reviewed community level indicators and surveyed service providers for the nine-county region. Based on a review of 15 community level indicators there are approximately 85,663 (duplicated) individuals demonstrating need for services. This number is not meant to represent the number of people in need, but rather provide an indication of the service needs in the region. For example, a child in foster care could be counted as needing services to prevent homelessness and teen pregnancy while also counted as needing services that will help restore a family unit.

A provider survey was conducted to attempt to collect provider input on the need in the nine-county region. Respondents reported reaching approximately 285,562 children and youth in 2013, and that approximately $149 million would be needed to reach those who were turned away from services due to lack of capacity.

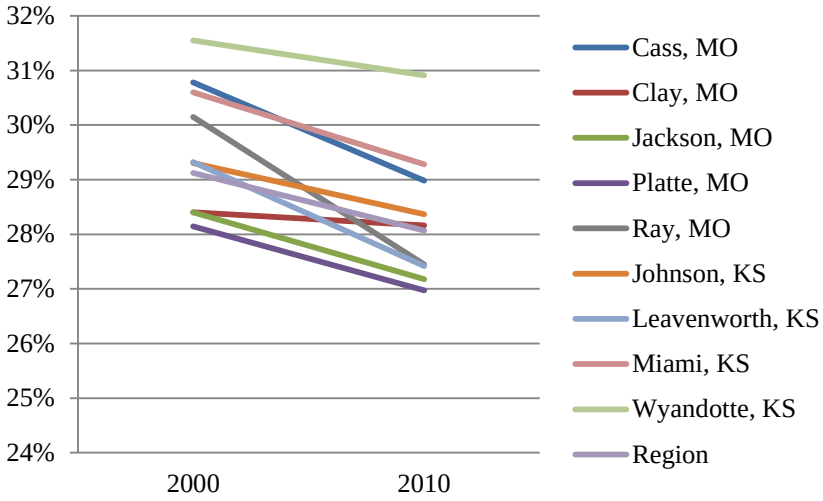
Community stakeholders are asked to review this assessment and engage in the process of **1)** identifying how the project team and MU researchers can better quantify these needs and unmet service demands, **2)** articulating important needs, goals, objectives and **3)** outlining strategies that will have the highest impact on at-risk children and youth in the Greater Kansas City area.

REGIONAL OVERVIEW OF SERVICE NEEDS

The following data represent the documented need for prevention and intervention services for at-risk children and youth in the nine-county region. This assessment is meant to be used by community stakeholders who are working collaboratively to define the service needs, goals, objectives and indicators for the nine-county region.

Scope of At-Risk Population

Figure 1: Child and youth population age birth to 19



Source: Census Bureau Profile of General Demographc Characteristict 2000 and 2010

Children and youth are considered a vulnerable population because in the early developmental phases, children and youth are highly susceptible to the influences of their surroundings and developing behaviors that become part of life as an adult.

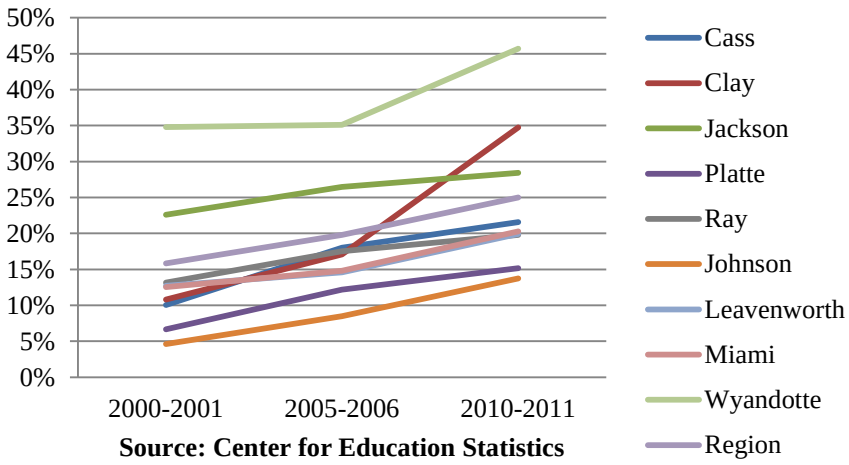
There are 538,652 children and youth age 19 years or younger living in the greater Kansas City area. This child and youth population makes up 28 percent of the entire regional population. Though children and youth make up a smaller percentage of the population in 2010 than in 2000, the number of children has increased.

Table 1: Child and youth population age birth to 19[1]

	2000	2010	2000	2010
	Rate per 100		Number (#)	
Cass	31%	29%	25,268	28,833
Clay	28%	28%	52,264	62,509
Jackson	28%	27%	185,989	183,220
Platte	28%	27%	20,765	24,092
Ray	30%	27%	7,041	6,448
Johnson	29%	28%	132,194	154,362
Leavenworth	29%	27%	20,140	20,898
Miami	31%	29%	8,675	9,600
Wyandotte	32%	31%	49,808	48,690
Region	29%	28%	502,144	538,652

Source: Census Bureau Profile General Demographic Characteristics

Figure 2: Percent of children on free and reduced lunch



Source: Center for Education Statistics

Table 2: Number of children on free and reduced lunch[2]

	2000-2001*	2005-2006*	2010-2011
	Rate per 100 children in the geographic location		
Cass	10%	18%	22%
Clay	11%	17%	35%
Jackson	23%	26%	28%
Platte	7%	12%	15%
Ray	13%	18%	20%
Johnson	5%	9%	14%
Leavenworth	13%	15%	20%
Miami	13%	15%	20%
Wyandotte	35%	35%	46%
Region	16%	20%	25%
	Number (#)		
Cass	2,544	4,552	6,226
Clay	5,647	8,926	21,733
Jackson	42,003	49,240	52,092
Platte	1,386	2,531	3,656
Ray	927	1,233	1,277
Johnson	6,100	11,239	21,235
Leavenworth	2,563	2,934	4,164
Miami	1,087	1,285	1,946
Wyandotte	17,329	17,476	22,241
Region	79,586	99,416	134,570

Source: National Center for Education Statistics
*Rate based on 2000 census population

Families living near or in poverty bear a large financial burden for basic necessities like housing, food, and healthcare. Poverty is a primary risk factor for all children and youth regardless of race.

Poverty among children is linked to homelessness, teen pregnancy, substance abuse, out-of-home placement, and mental illness.

The number of children and youth on the free and reduced lunch program quantifies the scope of poverty at the regional and local level.

There were 134,570 children enrolled in the public free and reduced lunch program in 2010-2011 in the nine-county region. This is 25 percent of the entire child and youth population under the age of 19.

The rate of students on free and reduced lunch is going up every year in every county, though clearly the rates in Clay and Wyandotte counties had a more dramatic increase.

It should be noted that the rates were calculated using census population statistics, therefore 2005-2006 rates likely underestimate the true number as it is not adjusted for population growth.

As a subset of the child and youth population, those living in or near poverty are at greater risk than the general child and youth population. The number of children living in poverty continues to grow and prevention initiatives targeting this population of at-risk youth could have a large impact on reducing the cycle of poverty among families. This cycle of poverty often results in greater rates of homelessness, teen pregnancy, substance abuse, out-of-home placement, and mental illness.

Temporary Shelter, Transitional Living, Permanent Housing & Respite Care

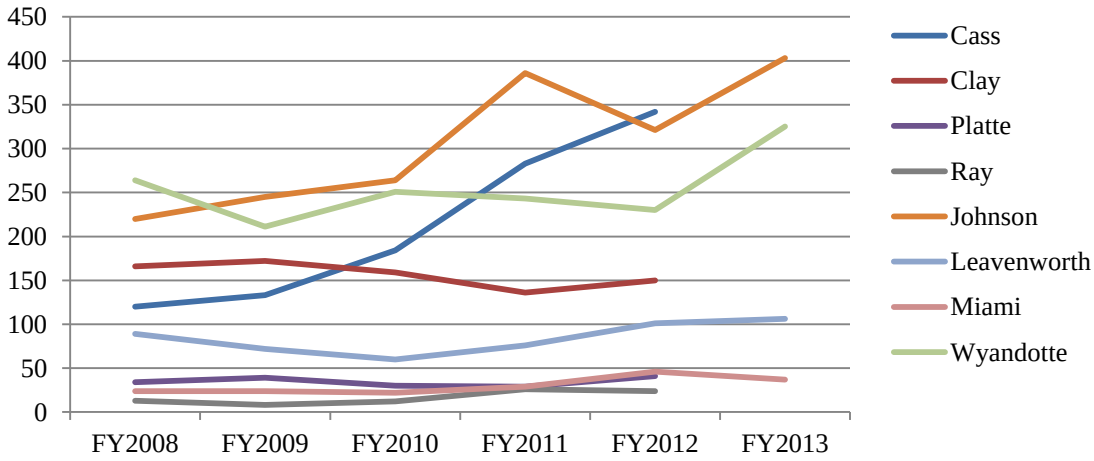
Shelter, housing and respite services in the greater Kansas City region offer unaccompanied youth, single parents, pregnant teens, victims of domestic violence and low-income families a safe place to stay. Some agencies offer temporary shelter for people in crisis and other agencies offer opportunities for rapid housing or permanent housing assistance. Because these young people and families often come from difficult circumstances, the programs also provide counseling, mental health assessment, case management, life skills building classes, provisions for basic needs, referral and coordination with other services. The goals of these services are to prevent chronic homelessness and to minimize the risk of experiencing homelessness among children, youth and their families.

Prevention……..……..……Early Intervention……Treatment/Rehabilitation			
Risk Antecedents	**Risk Markers**	**Problem Behaviors**	**Outcomes**
• Out-of-home placement	• Aging out of foster care		• Homelessness

Out-of-Home Placement

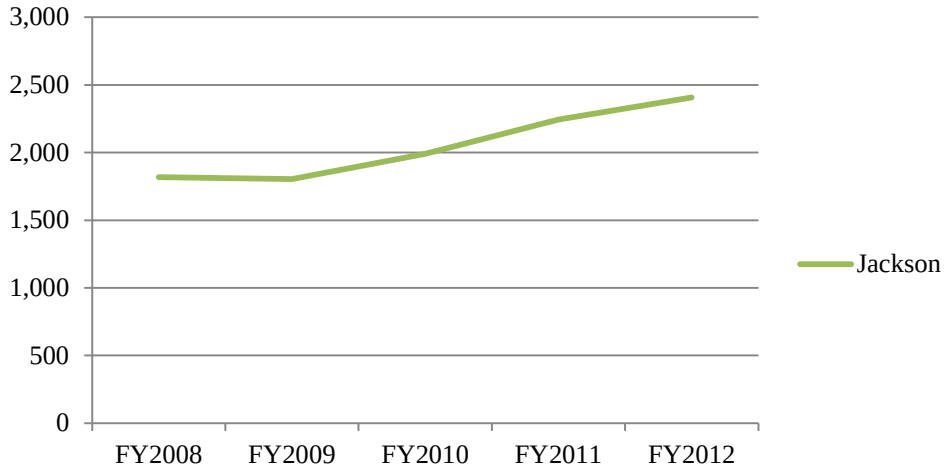
Studies show that children in foster care are one of the most vulnerable populations (Bruskas, 2008). Children in the foster care system will become independent of the system when they turn 18, regardless of their capacity to achieve self-sufficiency. Therefore, the number of children and youth in state custody is a good measure for the need for prevention services. There were 3,662 youth in foster care in the nine-county region during FY2012. There has been a consistent increase in the number of youth in foster care in the region since 2008. Though all counties have seen an increase between 2008 and 2012, there has been a 185 percent increase in the number of youth in foster care in Cass County. There was not as large an increase in Jackson County when compared to Johnson County (83 percent) but the sheer number of youth in foster care in Jackson County makes their trend greatly impact the overall trend in the region. Finally, Ray County had an 84 percent increase in the number of youth in foster care between 2008 and 2013.

Figure 3: Number of youth in out-of-home placement in Missouri and number of youth removed into foster care in Kansas



Source: Missouri Department of Social Services & Kansas Department for Children and Families

Figure 3 (continued): Number of children in out-of-home placement



Source: Missouri Department of Social Services

Table 3: Number of youth in out-of-home placement in Missouri and number of youth removed into foster care in Kansas [3]

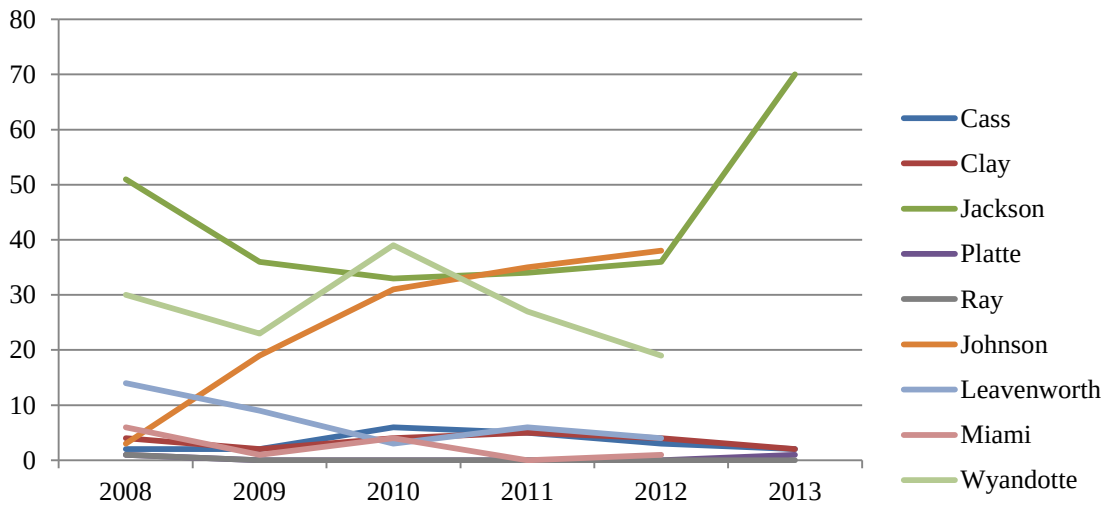
	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Cass	120	133	184	283	342	.
Clay	166	172	159	136	150	.
Jackson	1,818	1,804	1,992	2,245	2,407	.
Platte	34	39	30	29	41	.
Ray	13	8	12	26	24	.
Johnson	220	245	264	386	321	403
Leavenworth	89	72	30	76	101	106
Miami	24	24	22	29	46	37
Wyandotte	264	211	251	243	230	325
Total:	2,748	2,708	2,944	3,453	3,662	

Source: Missouri Department of Social Services & Kansas Department of Children and Families

Aging Out of Foster Care

Youth who age out of foster care may not have adequate support in achieving self-sufficiency. Studies show that the transition from foster care to independent adulthood is the period of greatest risk for homelessness for that youth population (Dworsky, Napilitano, & Courtney, 2013). In 2012, there have been a total of 105 youth in foster care who turned 21 years of age. Johnson County had a 1,166 percent increase in the number of youth aging out of foster care between 2008 and 2012 and makes up a quarter of this transitional population in 2012. Between 2011 and 2012, Jackson County had a 94 percent increase of youth aging out and accounts for a quarter of all youth who age out of foster care in the region.

Figure 4: Number of foster care youth who aged out of the program



Source: Missouri Children's Division & Kansas Department for Children & Families

Table 4: Number of foster care youth who aged out of the program[4]

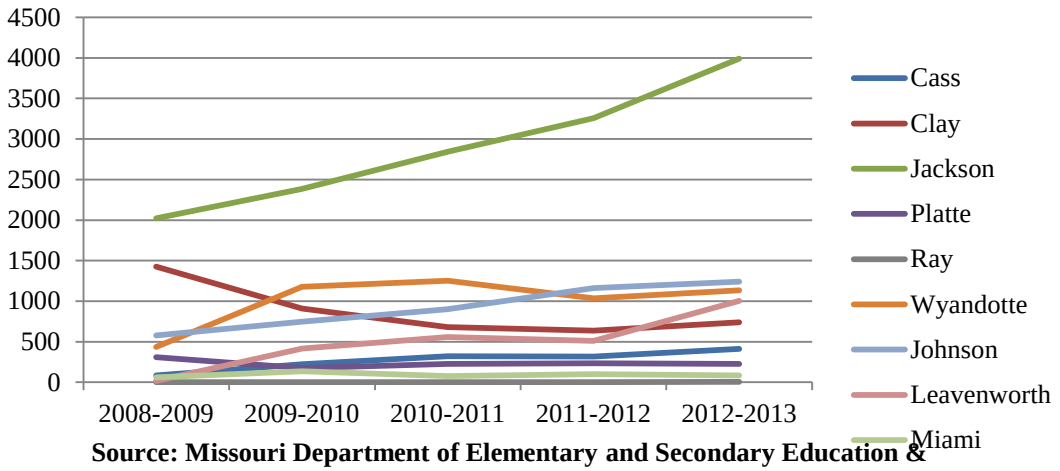
	2008	2009	2010	2011	2012	2013
Cass	2	2	6	5	3	2
Clay	4	2	4	5	4	2
Jackson	51	36	33	34	36	70
Platte	1	0	0	0	0	1
Ray	1	0	0	0	0	0
Johnson	3	19	31	35	38	.
Leavenworth	14	9	3	6	4	.
Miami	6	1	4	0	1	.
Wyandotte	30	23	39	27	19	.
Total:	112	92	120	112	105	

Source: Source: Missouri Children's Division & Kansas Department of Children and Families

Youth Homelessness

In Missouri and Kansas public school systems, students are considered homeless if they do not have a fixed, regular, and adequate nighttime residence. "Fixed" means stationary, permanent, and not subject to change. "Regular" means nighttime residence available on a predictable or routine basis. "Adequate" means the residence is sufficient for both the physical and psychological needs typically met in home environment, including adequate and quiet space for studying. These definitions, although though loose, were enacted with the McKinney-Vento Homeless Act which provides federal guidelines for assuring school access, stability, academic support and child-centered decision making for homeless youth. Homeless youth are in need of support services to prevent chronic homelessness. There were 8,841 homeless students in the nine-county region during the 2012-2013. This number continues to rise, and since the 2008-2009 school year, has risen 79 percent. Because of its size, Jackson County drives this regional trend, but it is clear that youth homelessness is a growing trend in nearly all communities throughout the region.

Figure 5: Number of homeless children attending public schools



Source: Missouri Department of Elementary and Secondary Education & Kansas Department of Education

Table 5: Number of homeless youth by county[5]

	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Cass	84	224	320	316	412
Clay	1,425	910	682	637	741
Jackson	2,022	2,386	2,841	3,256	3,990
Platte	308	174	228	234	228
Ray	2	0	0	3	7
Johnson	576	746	902	1,161	1,240
Leavenworth	17	416	556	511	1,004
Miami	59	134	75	101	86
Wyandotte	436	1,179	1,251	1,036	1,133
Total:	4, 929	6,169	6,855	7,255	8,841

Source: Missouri Department of Elementary and Secondary Education

Summary of Demonstrated Need for Shelter, Housing and Respite Services

The data show the region is experiencing increasing need for shelter and housing services for young people living in the region. The rates and number of youth living in situations that put them at risk of homelessness is shown in the number of youth in foster care. The region is seeing a five year high in the number of children in foster care and these children are at-risk of experiencing homelessness due to the instability of their life circumstances and the inevitable period of transitioning from foster care to independence.

Finally, the number of youth experiencing homelessness in the public school system increases every year demonstrating the increased need for intervention services to prevention chronic homelessness and rehabilitation services to assist families in achieving stability.

Services to Unwed and Teen Parents

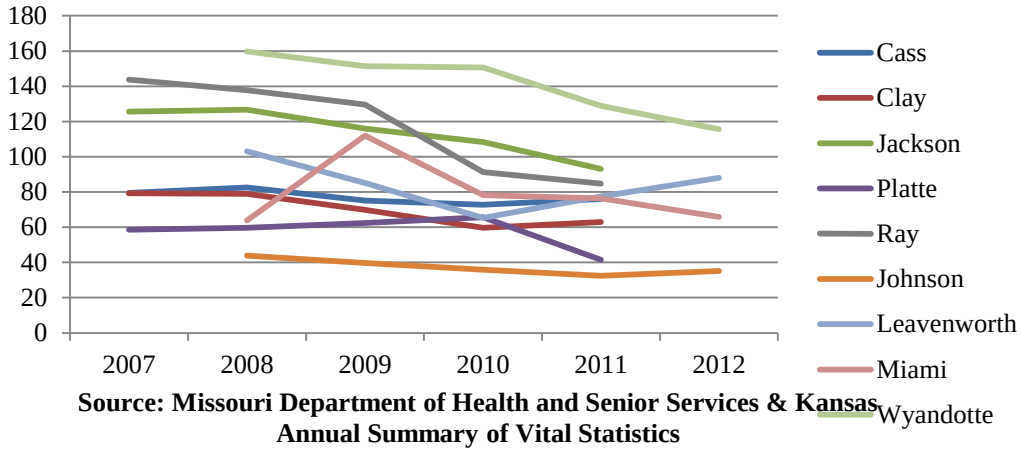
The array of challenges faced by single and young parents create a need for a variety of services such as affordable health care, academic achievement, job placement, affordable childcare, counseling and developing life/parenting skills. The children, as well, benefit from prevention and intervention as they are directly impacted by the challenges of being in a single parent home. According to the Center for Disease Control, (Promotion, 2011) children born to teen mothers tend to have lower levels of kindergarten readiness, higher rates of behavioral and medical problems, consume high amounts of public resources, become involved in the juvenile justice system, drop out of school, have their own babies as teenagers and are unemployed/underemployed as adults. To prevent the cycle from repeating itself, prevention and early intervention services for young and single parents is important. Agencies in this assessment reported providing early education and socialization groups for children in single parent homes.

Prevention……..……Early Intervention…….Treatment/Rehabilitation			
Risk Antecedents	**Risk Markers**	**Problem Behaviors**	**Outcomes**
• Live births to teen mothers (Children)			• Live births to teen mothers (Mothers) • Single parent families living in poverty

Live Births to Teen Mothers (age 15-19)

Thinking about the number of births to teen mothers from a prevention standpoint, the number of births directly relates to the number of children who are at-risk of poor life outcomes (Hoffman, 2006). Children born to teen mothers are found to be at-risk for teen pregnancy themselves. From an intervention standpoint, the number of live births relates to the number of teen mothers in a given year and directly points to the scope of need for services to teen parents. In 2011 in the nine-county region 1,935 teens gave birth. The rate and number of teen births are trending downward in most counties, though the rate and number of live birth increased in Leavenworth between 2010 and 2012. Jackson County has a large impact on the overall regional trend but the rate and number of live births to teen mothers in Wyandotte County continue to be the highest in the region. Even though the rate of live births has decreased, following the national trend, a new cohort of adolescents enter puberty every year and will be in need of pregnancy prevention programs.

Figure 6: Number of live births to teen moms (age 15-19) per 1,000 live births in the county



Source: Missouri Department of Health and Senior Services & Kansas Annual Summary of Vital Statistics

Table 6: Number of live births to teen mothers (age 15-19)[6]

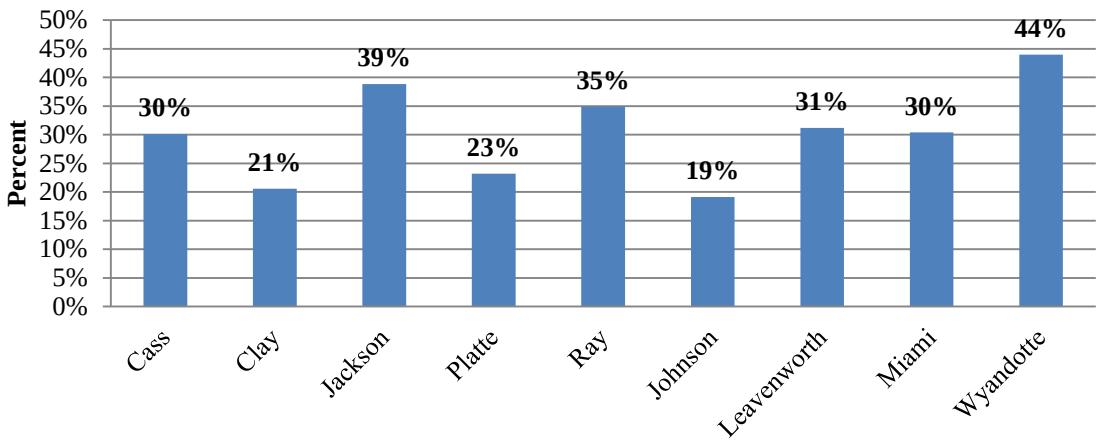
	2007	2008	2009	2010	2011	2012
	Rate per 1,000 live births in the county					
Cass	79.4	82.6	75.2	72.7	76.0	.
Clay	79.4	78.9	69.9	59.6	62.9	.
Jackson	125.6	126.6	116.1	108.4	93.1	.
Platte	58.6	59.7	62.3	65.7	41.5	.
Ray	143.8	137.7	129.6	91.3	84.7	.
Johnson	.	43.9	39.8	35.9	32.5	35.2
Leavenworth	.	103.0	85.1	65.4	77.6	88.0
Miami	.	63.8	111.9	78.1	76.3	65.9
Wyandotte	.	159.6	151.5	150.7	128.8	115.5
	Number (#)					
Cass	104	106	97	92	91	.
Clay	255	264	224	187	189	.
Jackson	1,336	1,326	1,201	1,058	892	.
Platte	64	65	68	76	48	.
Ray	43	38	39	24	20	.
Johnson	.	344	301	265	239	262
Leavenworth	.	99	82	63	75	85
Miami	.	25	46	30	29	24
Wyandotte		455	433	415	352	320
Total:		2,722	2,491	2,210	1,935	

Source: Missouri Department of Health and Human Services & Kansas Annual Summary of Vital Statistics.

Number of Single-Parent Homes In Poverty

When considering the need for services to at-risk unwed and teen parents, the number of single parent families living in poverty is a direct measure of the need for services to at-risk unwed parents. Single-parents need the support and intervention services that will help achieve economic stability and personal wellbeing. According the American Community Survey five year estimates, there were an estimated 27,520 single parent families living in poverty. As shown in Figure 7, over a quarter of families live in poverty in most counties. The highest rates of single parent families living in poverty exist in Wyandotte, Jackson, and Ray. The table also indicates how many children are living in single parent homes and are living at 100% poverty. There are almost 60,000 children in poverty in single parent homes in the region. The following table expands the poverty criteria to also consider children living between 100-199% poverty. These children are still a very needy population as many are SNAP (135%) and WIC eligible (180%). There are more than 103,000 children living below 200% poverty in the region.

Figure 7: Estimated Percent of Single Parent Families Living In Poverty in 2010



Source: U.S. Census Bureau; American Community Survey 2012, 5-year Estimates

	Table 7: Estimated Number and Percent of Families Living at 100% Poverty in 2010[7]			
	Single Parent Families	**Single Parent Families in Poverty**	**Number of Children in Single Parent Families in Poverty**	**Rate of Single Parent Families in Poverty**
Cass	4,104	1,237	2354	30%
Clay	9,534	1,962	3999	21%
Jackson	35,957	13,966	30,758	39%
Platte	3,720	863	1,718	23%
Ray	838	293	541	35%
Johnson	17,950	3,432	7,108	19%
Leavenworth	2,839	886	1,854	31%
Miami	1,201	365	890	30%
Wyandotte	9,770	4,300	10,498	44%
Total:	85,913	27,304	59,720	32%
	Source: U.S. Census Bureau; American Community Survey 2012, 5-year			

Table 7b: Number of children living with one parent between 100-199% of poverty			
		Number	*Margin of Error*
Missouri	Cass	4,188	+/-942
	Clay	9,357	+/-1469
	Jackson	49,400	+/-3,415
	Platte	3,347	+/-767
	Ray	1,065	+/-360
Kansas	Johnson	14,697	+/-1,820
	Leavenworth	3,065	+/-774
	Miami County	1,250	+/-499
	Wyandotte County	16,789	+/-1,717
TOTAL:		103,158	+/-11,763
Source: American Community Survey, 5-year estimates, 2008-2012, B05010			

Summary of Demonstrated Need for Services to Unwed and Teen Parents

The Greater Kansas City region is showing the greatest need for prevention services targeted at children who live in out-of-home placement or in single-parent headed homes. The need for prevention services targeted at unwed and teen parents is demonstrated in the rate of live births to teen mothers.. The rate of live births to teen mothers is trending downward (except in Leavenworth) meaning there are fewer children being born to teen mothers. This implies a decrease in the need for services to teen parents. On the other hand, the number of children in foster care is at a five year high, and youth in foster care have high rates of teen pregnancy. This implies the need for pregnancy prevention services to be targeted at teens in the foster care system.

The need for early intervention services is demonstrated, once again, in the rate of births to teen mothers and in the number of single parent households and children in poverty. The rate of births to teen mothers is decreasing meaning there is less need for services to teen parents. Additionally, the number of single male headed households has increased pointing to an increasing need for intervention services targeted at single male fathers and though the overall number of single female-headed households went down, in Jackson County, the number of single mothers continues to outweigh single fathers. There are almost 60,000 children living in single parent homes in poverty in the region, this is an indicator of the at-risk population. As demonstrated later in this report, there are a limited number of services available to this population. Thus, reducing services is not necessarily the recommendation.

Chemical Dependency Treatment

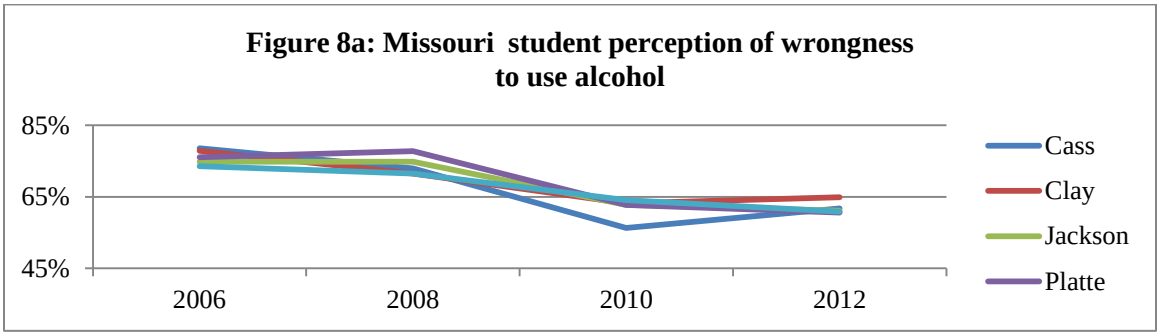
Chemical dependency treatment provides adolescents having substance use disorders with counseling and treatment services. These services include assessment and evaluation, early intervention, education, group counseling, individual counseling, family therapy and aftercare. These services are available for youth age 12 to 21 though out the nine-counties.

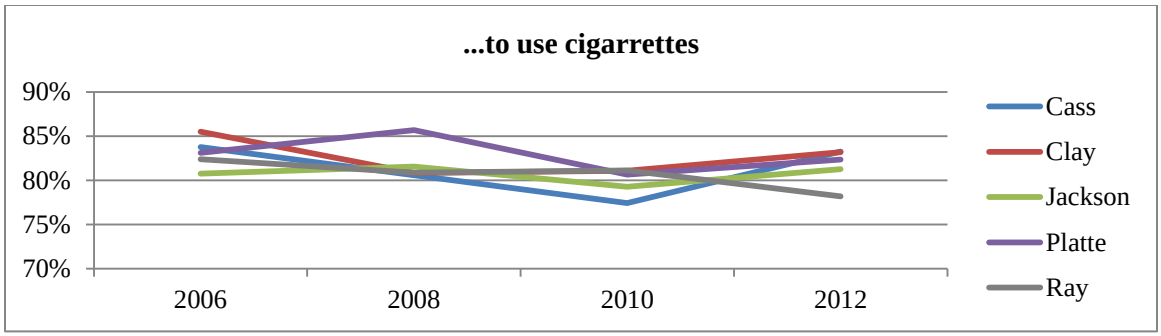
Preventions……..……Early Intervention……Treatment/Rehabilitation			
Risk Antecedents	**Risk Markers**	**Problem Behaviors**	**Outcomes**
	• Perception of wrongness	• Past 30 day use • Binge drinking	• In treatment

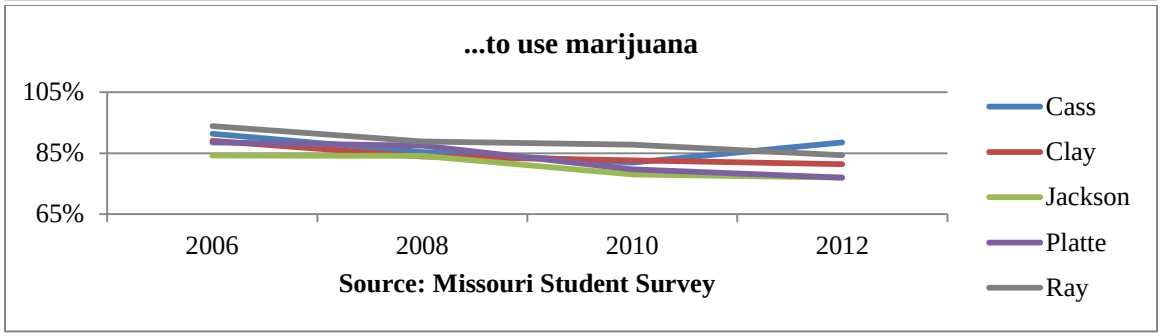
Perception of Wrongness

When a young person believes that drinking alcohol and using drugs is wrong, he or she is less likely to try it than those who do not think it is wrong, especially if those beliefs are reinforced during the early adolescent development years (Ames, Sussman, & Dent, 1999). While difficult to make conclusions as to the whole region, one can identify some stand-alone trends. It appears teenagers' perceived wrongness of cigarette usage is most fragmented, meaning their perception is not consistent. It fluctuates and varies by year and location. Perception of alcohol use behaves in opposite fashion on each side of the state line – in Missouri between 2006 and 2012, the rate of teenagers perceiving alcohol use as "wrong" is decreasing. In Kansas between 2009 and 2013, the rate is increasing. Between these same years, all regional Missouri counties and all regional Kansas counties (except for Miami County) have seen a decline in the teenagers' perception of marijuana wrongness.

Figure 8a: Missouri student perception of wrongness to use alcohol







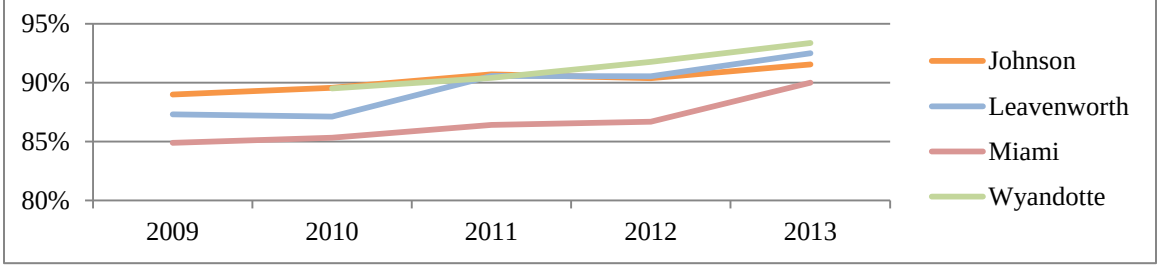
Source: Missouri Student Survey

Table 8a: Missouri student perception of wrongness to use alcohol and drugs[8]

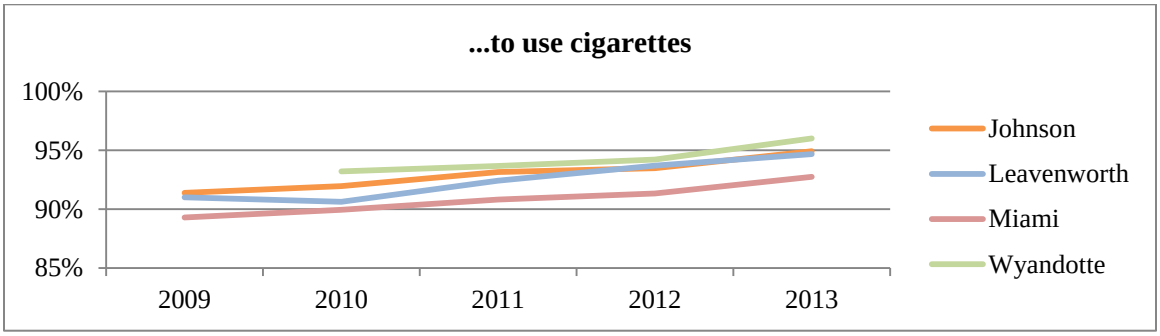
		2006	2008	2010	2012
Cass County, MO	Rate (%)				
	Alcohol	78.58%	72.99%	56.30%	61.79%
	Cigarettes	83.77%	80.59%	77.44%	83.26%
	Marijuana	91.35%	85.38%	81.87%	88.54%
	Number (#)				
	Alcohol	818	1,508	1,384	1,098
	Cigarettes	872	1,665	1,902	1,487
	Marijuana	951	1,763	2,009	1,568
Clay County, MO	Rate (%)				
	Alcohol	77.91%	71.55%	63.19%	64.93%
	Cigarettes	85.50%	80.85%	81.08%	83.20%
	Marijuana	89.06%	83.92%	82.64%	81.41%
	Number (#)				
	Alcohol	1,788	2,910	3,035	2,381
	Cigarettes	1,963	3,289	3,900	3,056
	Marijuana	2,044	3,413	3,970	2,987
Jackson County, MO	Rate (%)				
	Alcohol	74.86%	74.85%	62.75%	61.10%
	Cigarettes	80.78%	81.55%	79.28%	81.26%
	Marijuana	84.22%	84.12%	78.04%	76.95%
	Number (#)				
	Alcohol	5,644	9,389	9,762	6,419

Table 8a: Missouri student perception of wrongness to use alcohol and drugs[8]					
		2006	**2008**	**2010**	**2012**
	Cigarettes	6,087	10,230	12,339	8,544
	Marijuana	6,346	10,552	12,116	8,081
Platte County, MO	Rate (%)				
	Alcohol	76.04%	77.82%	62.72%	60.60%
	Cigarettes	83.10%	85.68%	80.67%	82.37%
	Marijuana	88.52%	87.50%	79.73%	76.96%
	Number (#)				
	Alcohol	714	1,326	1,302	923
	Cigarettes	782	1,460	1,673	1,252
	Marijuana	833	1,491	1,652	1,169
Ray County, MO	Rate (%)				
	Alcohol	73.56%	71.51%	64.12%	60.86%
	Cigarettes	82.38%	80.88%	81.14%	78.18%
	Marijuana	93.87%	88.84%	87.80%	84.38%
	Number (#)				
	Alcohol	192	359	352	255
	Cigarettes	215	406	443	326
	Marijuana	245	446	482	351
Source: Missouri Student Survey					

Figure 8b: Kansas student perception of wrongness to use alcohol



...to use cigarettes



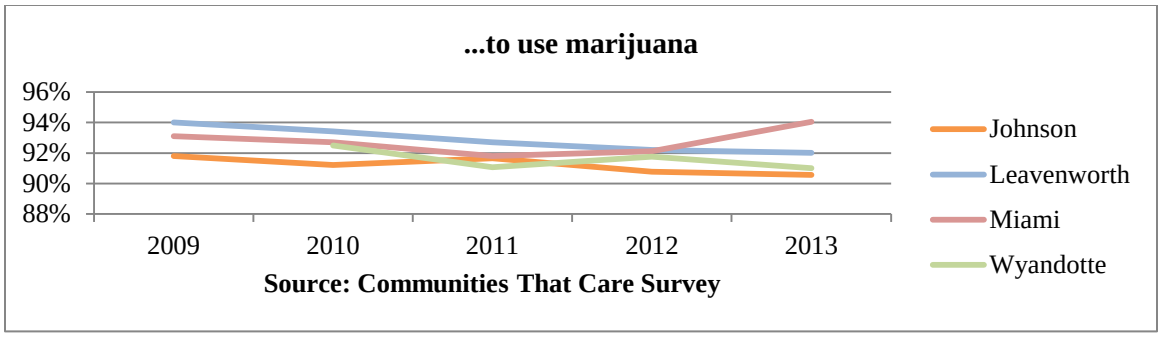


Table 8b: Kansas students who think it is "all wrong" to use alcohol and drugs [9]						
		2009	2010	2011	2012	2013
Johnson County, KS		Rate (%)				
	Alcohol	89.00%	89.56%	90.70%	90.39%	91.55%
	Cigarettes	91.40%	91.95%	93.16%	93.48%	94.92%
	Marijuana	91.80%	91.22%	91.65%	90.77%	90.56%
Leavenworth County, KS		Rate (%)				
	Alcohol	87.30%	87.13%	90.58%	90.55%	92.50%
	Cigarettes	91.00%	90.62%	92.41%	93.71%	94.67%
	Marijuana	94.00%	93.42%	92.71%	92.20%	92.02%
Miami County, KS		Rate (%)				
	Alcohol	84.90%	85.34%	86.41%	86.69%	89.99%
	Cigarettes	89.30%	89.94%	90.82%	91.33%	92.75%
	Marijuana	93.10%	92.70%	91.80%	92.11%	94.05%
Wyandotte County, KS		Rate (%)				
	Alcohol	89.50%	90.41%	91.76%	93.38%	89.50%
	Cigarettes	93.20%	93.66%	94.21%	96.02%	93.20%
	Marijuana	92.50%	91.06%	91.76%	91.00%	92.50%
Source: Communities that Care Survey The denominators for these rates was not released to the consultants						

Past 30-Day Use of Alcohol, Drugs, and Cigarettes

Alcohol use is evidence of the need for intervention. The Substance Abuse and Mental Health Services Administration (SAMHSA) measures "recent use" as any use within the past 30 days. Not all who have tried alcohol are in need of treatment, but early intervention is crucial for stopping the progression of risky behavior before it becomes the child's new normal (Liddle, Rowe, Dakof, & Henderson, 2004). From 2008 to 2011 there was a steady decline in the region for student-reported past 30-day use of alcohol. Some counties saw a slight increase in reported use in 2012, however the Kansas counties, which have data collected for 2013, once again saw a decrease in reported past 30-day use of alcohol with all reporting around 20 percent. Data from 2012, and when available from 2013, indicate a rate of 5-10 percent of students who completed the survey reported past 30-day use of cigarettes. While Kansas counties have generally seen a decline since 2009, all Missouri counties have trend lines swinging sharply up and down from 2006 to 2012. Finally, regional trends of past 30-day marijuana use indicate that most counties in

the region saw very little change in reported use between 2008 (when available) and 2011-2012. Cass County saw the largest change in the data set with a decrease of 4.92 percent between 2010 and 2012. After a small spike in most Kansas counties in 2012, 2013 rates were all lower than the previous year. It should be noted that drastic changes in substance use are a function of the inconsistent number of students who participate in the survey from year to year.

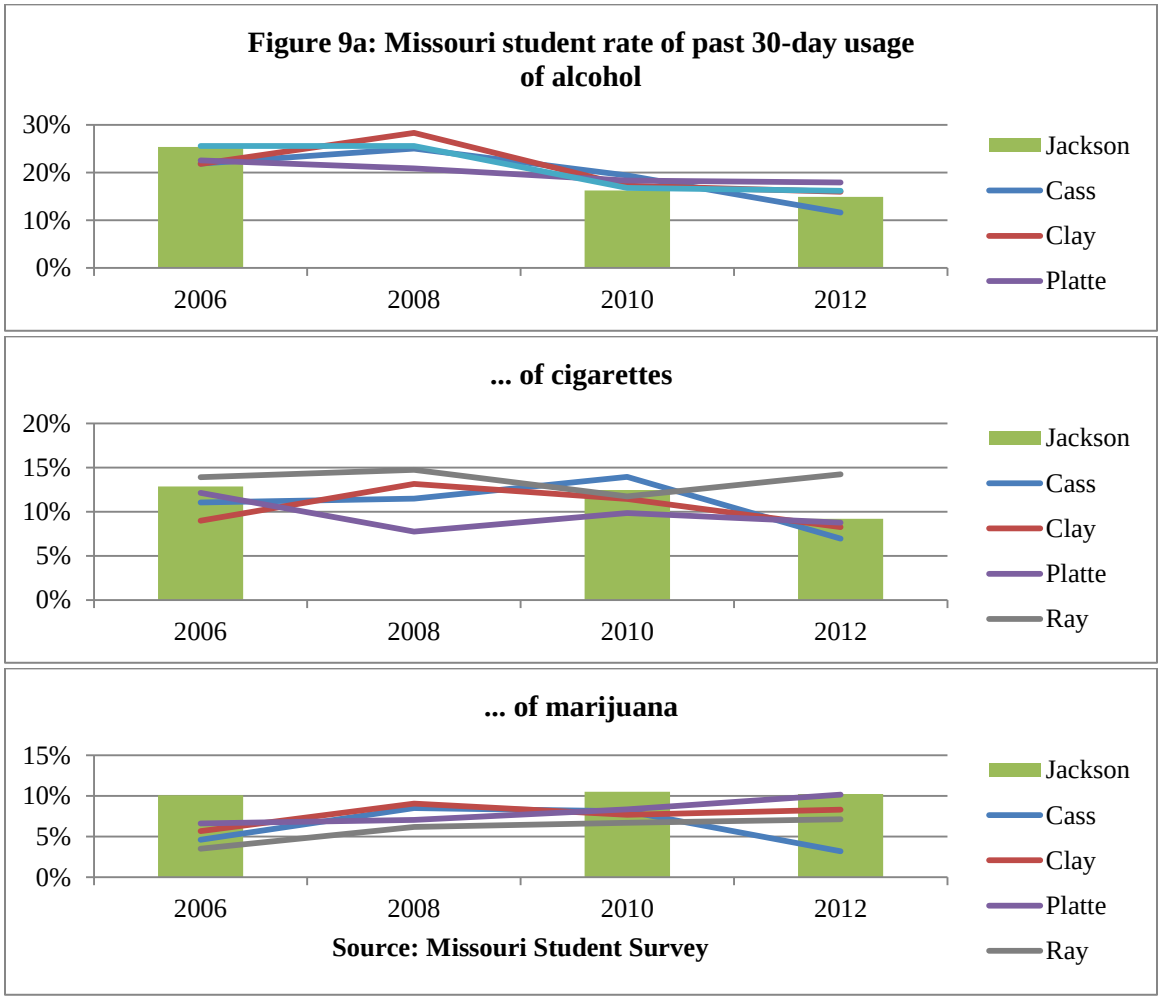
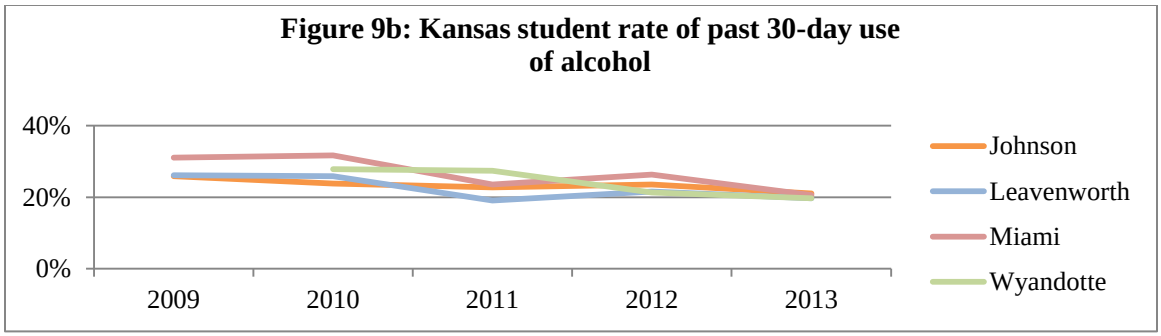
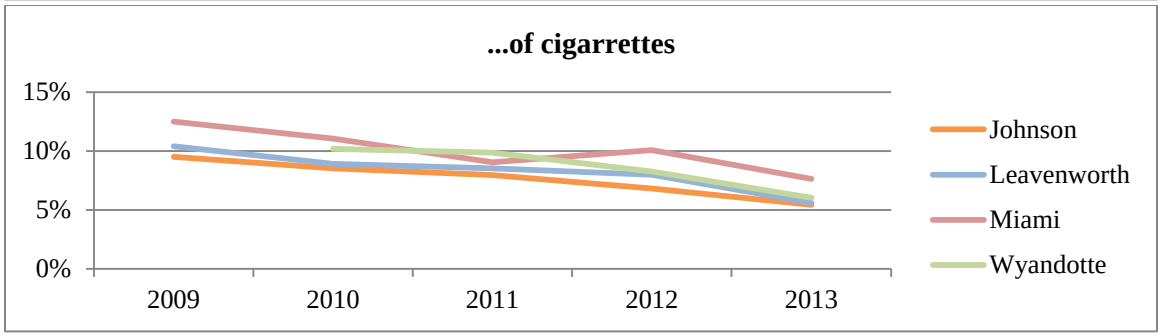


Table 9a: Missouri student rate of past 30-day usage of alcohol and drugs [10]					
		2006	2008	2010	2012
Cass County, MO	Rate (%)				
	Past month **alcohol** use	21.89%	25.08%	19.41%	11.59%
	Past month **cigarette** use	11.07%	11.50%	13.96%	6.94%
	Past month **marijuana** use	4.62%	8.51%	8.11%	3.19%
	Number (#)				
	Past month **alcohol** use	227	518	470	207
	Past month **cigarette** use	115	238	339	124
	Past month **marijuana** use	48	176	197	57
	Total:	390	932	1,006	388

Clay County, MO	Rate (%)				
	Past month **alcohol** use	21.85%	28.32%	17.29%	15.99%
	Past month **cigarette** use	8.98%	13.17%	11.46%	8.26%
	Past month **marijuana** use	5.67%	9.04%	7.70%	8.33%
	Number (#)				
	Past month **alcohol** use	499	1,149	817	589
	Past month **cigarette** use	206	536	547	304
	Past month **marijuana** use	130	368	364	307
	Total:	835	2,053	1,728	1,200
Jackson County, MO	Rate (%)				
	Past month **alcohol** use	25.37%	.	16.28%	14.91%
	Past month **cigarette** use	12.86%	.	12.45%	9.22%
	Past month **marijuana** use	10.09%	.	10.53%	10.23%
	Number (#)				
	Past month **alcohol** use	1,901	.	2,487	1,576
	Past month **cigarette** use	968	1,456	1,921	973
	Past month **marijuana** use	758	1,154	1,613	1,081
	Total:	3,627	2,610	6,021	3,630
Platte County, MO	Rate (%)				
	Past month **alcohol** use	22.59%	20.86%	18.37%	17.97%
	Past month **cigarette** use	12.14%	7.74%	9.87%	8.78%
	Past month **marijuana** use	6.62%	7.04%	8.35%	10.16%
	Number (#)				
	Past month **alcohol** use	211	355	378	274
	Past month **cigarette** use	114	132	204	134
	Past month **marijuana** use	62	120	172	155
	Total:	387	607	754	563
Ray County, MO	Rate (%)				
	Past month **alcohol** use	25.58%	25.60%	16.79%	16.19%
	Past month **cigarette** use	13.90%	14.74%	11.74%	14.25%
	Past month **marijuana** use	3.52%	6.18%	6.68%	7.13%
	Number (#)				
	Past month **alcohol** use	66	128	91	68
	Past month **cigarette** use	36	74	64	60
	Past month **marijuana** use	9	31	36	30
	Total:	111	233	191	158
Source: Missouri Student Survey					





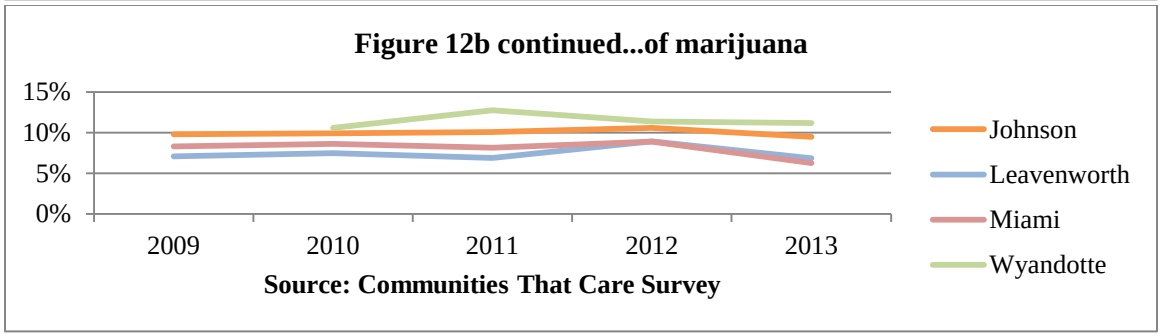


Table 9b: Past 30-day use among youth surveyed in Kansas[11]

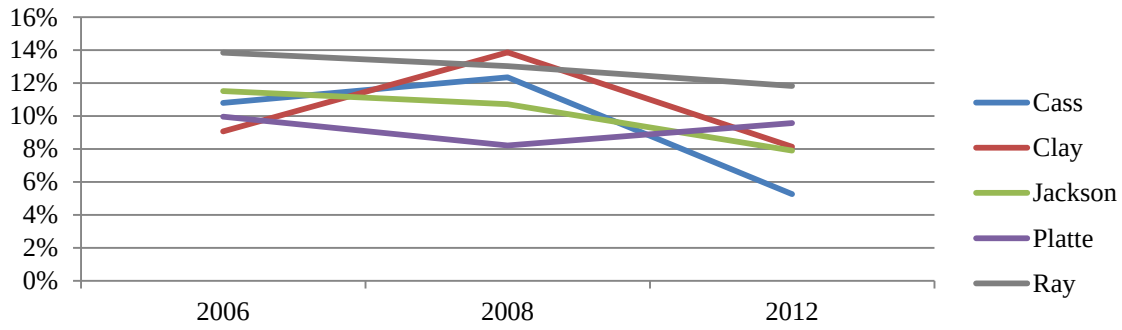
		2009	2010	2011	2012	2013
Johnson County, KS	Rate (%)					
	Past month **alcohol** use	25.90%	23.81%	22.74%	23.55%	21.09%
	Past month **cigarette** use	9.50%	8.54%	7.97%	6.82%	5.43%
	Past month **marijuana** use	9.80%	9.91%	10.10%	10.59%	9.50%
Leavenworth County, KS	Rate (%)					
	Past month **alcohol** use	26.20%	25.87%	19.12%	21.62%	19.70%
	Past month **cigarette** use	10.40%	8.92%	8.53%	7.99%	5.59%
	Past month **marijuana** use	7.10%	7.47%	6.90%	8.95%	6.84%
Miami County, KS	Rate (%)					
	Past month **alcohol** use	31.10%	31.71%	23.54%	26.29%	20.60%
	Past month **cigarette** use	12.50%	11.07%	9.04%	10.08%	7.65%
	Past month **marijuana** use	8.30%	8.63%	8.16%	8.91%	6.26%

Wyandotte County, KS	Rate (%)					
	Past month **alcohol** use	.	27.90%	27.42%	21.35%	19.70%
	Past month **cigarette** use	.	10.20%	9.87%	8.26%	6.03%
	Past month **marijuana** use	.	10.60%	12.75%	11.38%	11.17%
Source: Communities That Care Survey The denominators for these rates was not released to the consultants						

Binge Drinking

According to the Centers for Disease Control and Prevention, binge drinking is defined as having more than four alcoholic drinks for women and five alcoholic drinks for men, in approximately two hours. Heavy drinking among young people is related to higher rates of alcohol dependence later in life (Alcoholism, 2003) and points to the need for intervention. Among all the junior high and high school students surveyed in the nine-county region in 2012, the rate of students reporting binge drinking has gone down. However, these rates are likely to fluctuate because the number of students participating in the student survey changes. These rates are merely a snapshot of the reported behavior of youth responding to the survey.

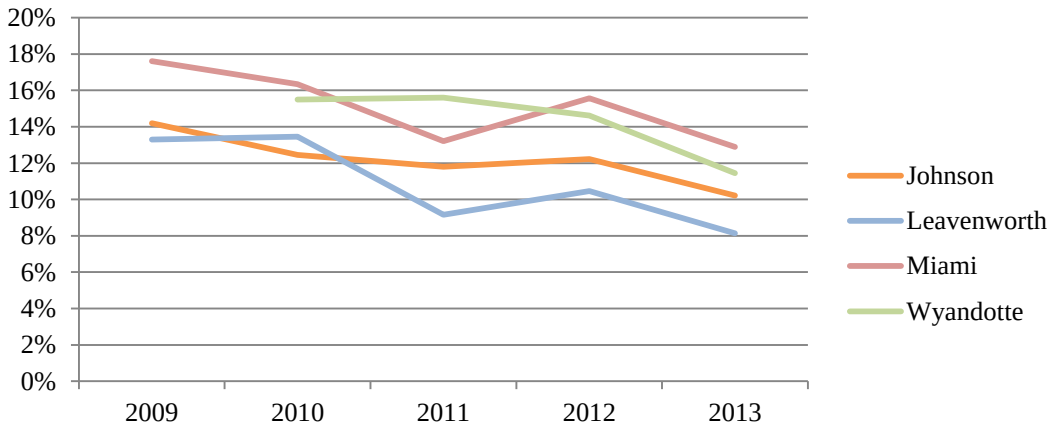
Figure 10a: Missouri student rate of past two-week binge drinking



Source: Missouri Community Survey

Table 10a: Missouri student rate of past two-week binge drinking[12]			
	2006	**2008**	**2012**
	Rate (%)		
Cass	10.79%	12.34%	5.26%
Clay	9.07%	13.87%	8.14%
Jackson	11.52%	10.72%	7.90%
Platte	9.95%	8.22%	9.57%
Ray	13.85%	13.03%	11.82%
	Number (#)		
Cass	112	255	72
Clay	207	563	241
Jackson	863	1,345	654
Platte	93	140	118
Ray	36	65	37
Total:	1,311	2,368	1,122
Source: Missouri Student Survey			

Figure 10b: Kansas student rate of past two-week binge drinking



Source: Communities That Care Survey

Table 10b: Kansas student rate of past two-week binge drinking[13]

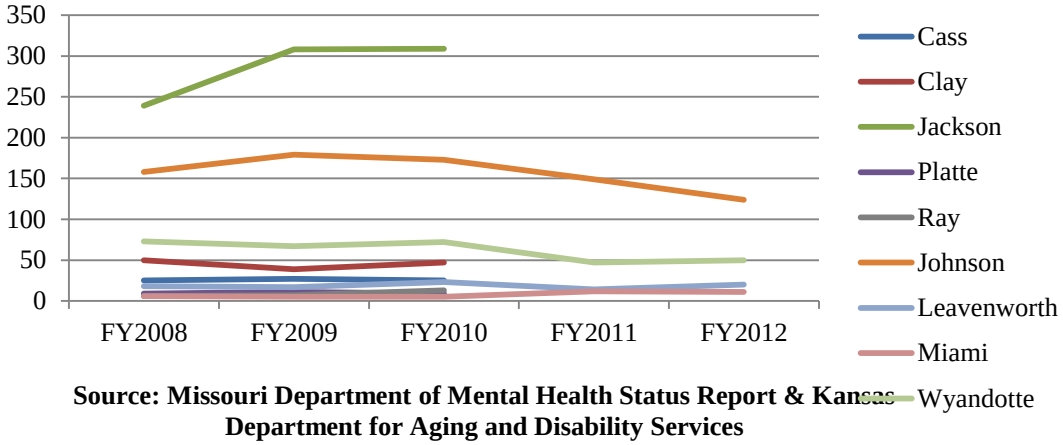
	2009	2010	2011	2012	2013
			Rate (%)		
Johnson	14.20%	12.45%	11.80%	12.22%	10.21%
Leavenworth	13.30%	13.46%	9.15%	10.46%	8.14%
Miami	17.60%	16.34%	13.21%	15.57%	12.89%
Wyandotte	·	15.50%	15.60%	14.61%	11.45%

Source: Communities that Care Survey
The denominators for these rates were not released to the consultants

Adolescent Admissions to Alcohol and Drug Abuse Treatment Programs

Not all who need alcohol or drug abuse treatment have means, or the desire, to enter treatment. Nonetheless, monitoring the observed utilization for state residential treatment programs demonstrates the continuing need for this service. The number of youth from the nine-county region admitted to treatment raises and falls gradually from year to year, ranging from 584 to 676 between 2008 and 2010. The number of adolescents admitted to residential care facilities in Jackson County make up almost half of the total number admitted, followed by Johnson County which makes up a quarter and Wyandotte County which makes up ten percent.

Figure 11: Number of adolescents admitted to residential treatment facilities
(Missouri facilities are alcohol and drug abuse treatment facilities
Kansas facilities are psychiatric residential treatment facilities)



Source: Missouri Department of Mental Health Status Report & Kansas Department for Aging and Disability Services

Table 11: Number of adolescents admitted to residential treatment facilities (Missouri facilities are ADA substance abuse facilities and Kansas facilities are psychiatric residential treatment facilities) [14]

	FY2008	FY2009	FY2010	FY2011	FY2012
Cass	25	27	25	.	.
Clay	50	39	47	.	.
Jackson	239	308	309	.	.
Platte	9	11	9	.	.
Ray	6	7	13	.	.
Johnson	158	179	173	149	124
Leavenworth	18	17	23	14	20
Miami	6	5	5	12	11
Wyandotte	73	67	72	47	50
Total:	584	660	676		

Source: Missouri Department of Mental Health & Kansas Department for Aging and Disability Services

Summary of Demonstrated Need for Chemical Dependency Services

The need for chemical dependency prevention services is seen in the trends of students' perceptions towards alcohol, cigarettes and marijuana. A smaller proportion of students view the use of marijuana as wrong, putting them at-risk of experimentation with this drug. Likewise, fewer students in Missouri feel that using alcohol is wrong and they are at risk of trying alcohol. Prevention services can address students' perceptions of substance use before problem behaviors arise. Such prevention services address social norms and environmental factors including those in the home.

The need for intervention services is demonstrated in the use of cigarettes, alcohol and drugs. The reported recent use of alcohol is generally on the decline and cigarette use has declined overall, though

the rates of use sharply fluctuate from year to year in Missouri. Although recent attention for legalization may lead to an upward trend, the use of marijuana appears to not be getting worse or better. Therefore, early intervention programs that strengthen students' resolve to abstain from substance use while addressing the personal, social and environmental factors that contribute to substance use among teens is a continuing need.

Finally, the need for rehabilitation services is demonstrated in the constant demand for treatment services. These services work with young people who have been diagnosed with a substance use problem. There has not been a drastic increase or decrease in the number of youth in treatment though the concentration of need exists with Jackson, Johnson and Wyandotte counties.

Community-Based Family Intervention and Prevention Programs

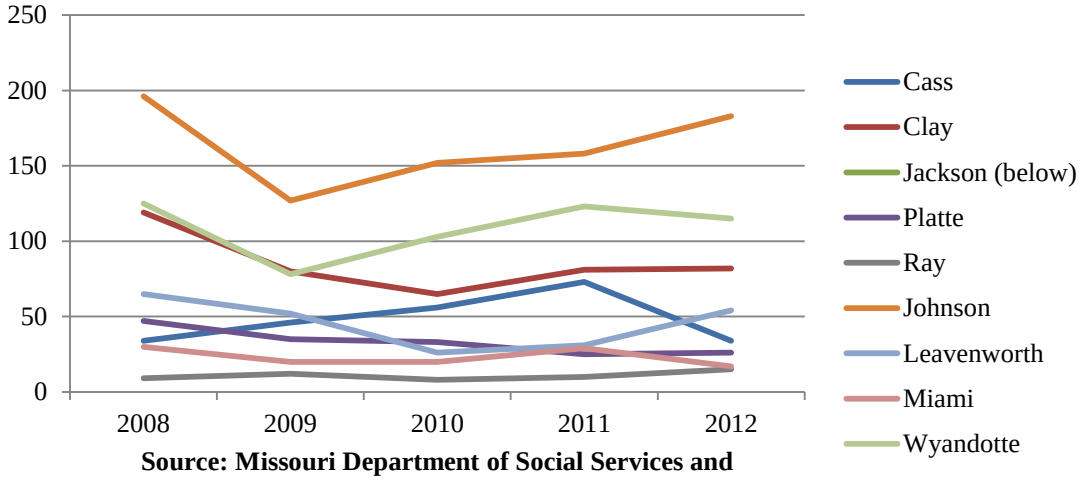
Intervention and prevention programs in the community or family setting offer timely intensive services to families with children. The interventions work to keep children with their families, prevent out of home placement in residential facilities or foster care and unnecessary hospitalization. Agencies in this assessment offer legal services, crisis intervention, counseling, screening, linking to community services, skill building, and personal development classes.

Prevention……..……..……Early Intervention…….Treatment/Rehabilitation			
Risk Antecedents	**Risk Markers**	**Problem Behaviors**	**Outcomes**
• Children involved in abuse and neglect • Children involved in domestic violence			• Youth involved in juvenile justice

Child Abuse and Neglect

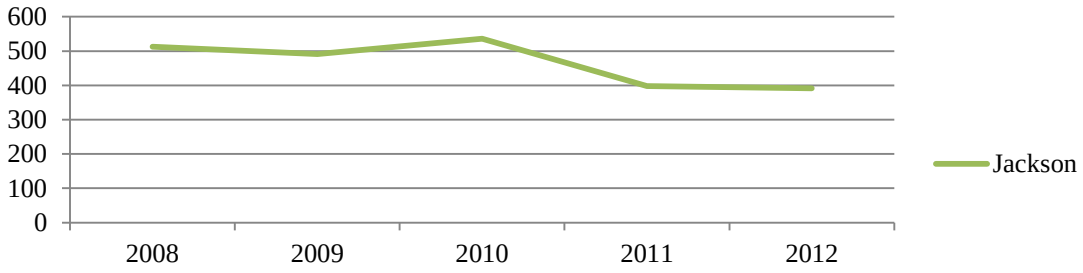
Children in abusive environments are at greater risk for poor developmental outcomes and out-of-home placement. In the nine-county region, the number of substantiated incidents of child abuse/neglect decreased by 19% percent between 2008 and 2012 (Figure 10a) though counties such as Johnson, Clay and Leavenworth have seen an increase in recent years. Often when there are child abuse and neglect cases, more than one child is involved. Here, (Figure 10b), quantifies the exact number of children who were involved in substantiated child abuse cases on an annual basis. In 2012, there were 1,222 children involved in substantiated cases. There has been a steady increase in the number of children involved in abuse and neglect cases in Johnson County and in Leavenworth, the number increased 52 percent between 2011 and 2012.

Figure 12a: Number of substantiated cases of child abuse/neglect



Source: Missouri Department of Social Services and Kansas Department for Children and Families

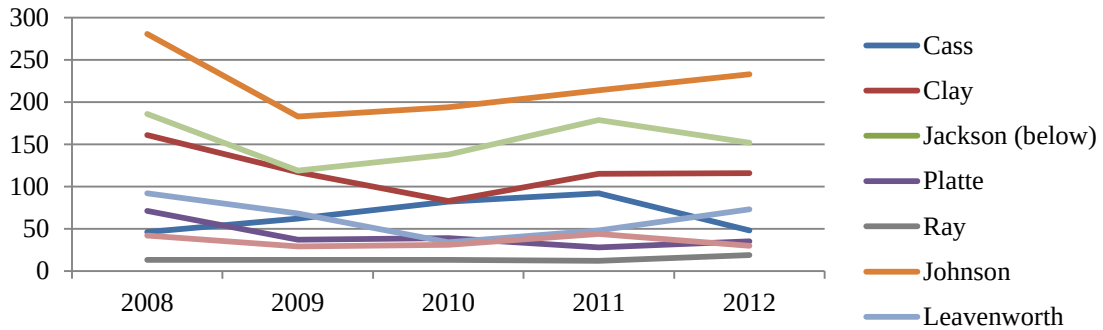
Figure 12a (continued): Number of substantiated cases of child abuse/neglect



Source: Missouri Department of Social Services

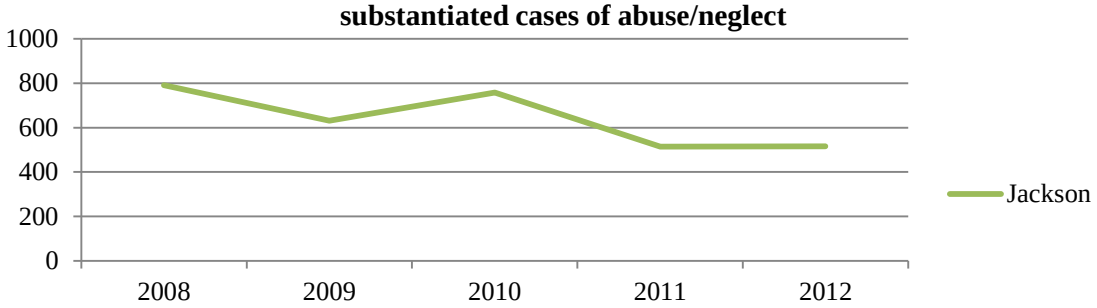
Table 12a: Number of substantiated cases of child abuse/neglect[15]					
	2008	**2009**	**2010**	**2011**	**2012**
Cass	34	46	56	73	34
Clay	119	80	65	81	82
Platte	47	35	33	25	26
Jackson	513	491	536	398	391
Ray	9	12	8	10	15
Johnson	196	127	152	158	183
Leavenworth	65	52	26	31	54
Miami	30	20	20	29	17
Wyandotte	125	78	103	123	115
Total:	1,138	941	999	928	917
Source: Missouri Department of Social Services & Kansas Department for Children and Families					

Figure 12b: Number of reported children involved in substantiated cases of abuse/neglect



Source: Missouri Department of Social Services & Kansas Department for Children and Families

Figure 12b (continued): Number of reported children involved in substantiated cases of abuse/neglect



Source: Missouri Department of Social Services

Table 12b: Number of reported children involved in substantiated cases of abuse and neglect [16]

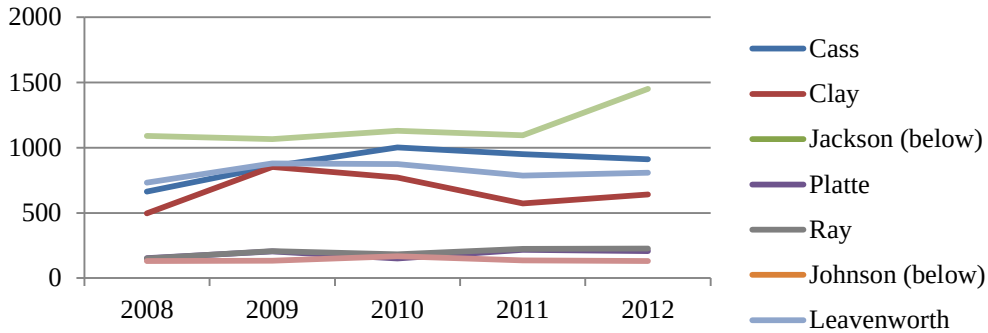
	2008	2009	2010	2011	2012
Cass	46	62	82	92	48
Clay	161	117	83	115	116
Platte	71	37	39	28	35
Jackson	792	632	758	515	516
Ray	13	13	13	12	19
Johnson	281	183	194	214	233
Leavenworth	92	68	34	48	73
Miami	42	29	31	44	30
Wyandotte	186	119	138	179	152
Total:	1,684	1,260	1,372	1,247	1,222

Source: Missouri Department of Social Services & KS Department for Children and Families

Domestic Violence DVM-1

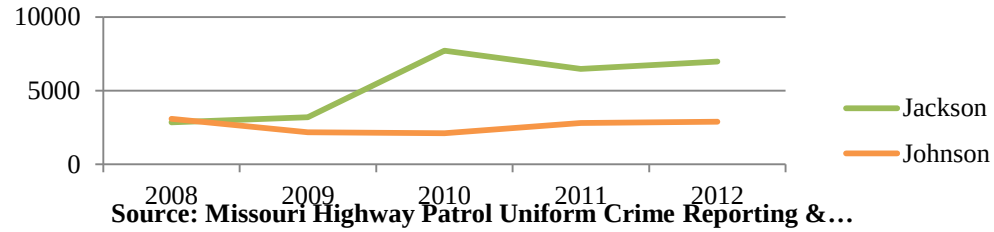
Domestic violence is more than an adult ill; domestic violence has significant repercussions on child wellbeing and puts children at-risk for out-of-home placement. As noted previously, children often are better off with their family. In 2012, there were 14,256 incidents of domestic violence and is the highest rate since 2008. Nearly every county is experiencing slight increases between 2011 and 2012.

Figure 13: Number of domestic violence incidents



Source: Missouri Highway Patrol Uniform Crime Reporting & Kansas Bureau of Investigation

Figure 13 (continued): Number of domestic violence incidents



Source: Missouri Highway Patrol Uniform Crime Reporting &…

Table 13: Number of domestic violence incidents[17]

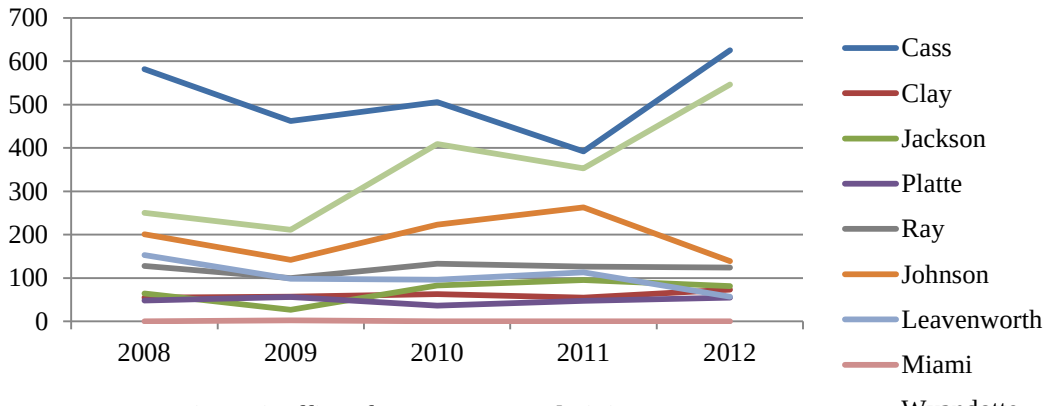
	2008	2009	2010	2011	2012
Cass	662	858	1001	949	910
Clay	497	853	771	572	640
Jackson	2,859	3,203	7,721	6,469	6,983
Platte	153	205	150	218	206
Ray	151	208	182	224	227
Johnson	3,086	2,184	2,124	2,803	2,899
Leavenworth	732	880	875	785	808
Miami	132	133	168	137	132
Wyandotte	1,090	1,065	1,130	1,095	1,451
Total:	9,362	9,589	14,122	13,252	14,256

Source: Missouri Highway Patrol Uniform Crime Reporting & Kansas Bureau of Investigation.

Youth in Juvenile Justice System

Youth who are involved in the juvenile justice system are already engaging in risk behaviors which point towards a need for earlier intervention and prevention of future misconduct. In 2012, there were 1,700 referrals on minors in the nine-county region for the juvenile status offences which include curfew violations, runaways, incorrigible, ungovernable, truancy, and alcohol consumption. This is an 18 percent increase in referrals from 2011. It is clear that Cass and Wyandotte counties drive the regional trend. Cass County had a 59 percent increase and Wyandotte had a 55 percent increase in juvenile referrals between 2011 and 2012. However, Johnson County had a 47 percent decrease in referrals between 2011 and 2012.

Figure 14: Total number of referrals on minors for juvenile status offenses (curfew violations, runaways, incorrigible, ungovernable, truancy, and alcohol consumption by a minor



Source: Missouri Office of States Court Administrator & Kansas Courts Administrator

Table 14: Total number of referrals on minors for juvenile status offenses (curfew violations, runaways, incorrigible, ungovernable, truancy, and alcohol consumption by a minor)[18]

	2008	2009	2010	2011	2012
Cass	582	462	506	392	625
Clay	55	57	63	55	73
Jackson	64	27	83	95	81
Platte	48	56	36	47	55
Ray	128	100	133	126	124
Johnson	201	142	223	263	139
Leavenworth	153	98	96	113	57
Miami	0	2	0	0	0
Wyandotte	250	211	409	353	546
Total:	1,481	1,155	1,549	1,444	1,700

Source: Missouri Office of State Courts Administrator & Kansas Courts Administration

Summary of Demonstrated Need for Family and Community-Based Services

The need for prevention services is demonstrated in the number of children involved in abuse, neglect or domestic violence cases. The data show that though there is a net decrease in the region for abuse and neglect cases, a handful of counties have seen recent increases. Domestic violence is at a five

year high for the region and across the board. These trends demonstrate a need for intensive in-home prevention services that work with families to strengthen protective factors and keep families together.

The need for intervention services is seen in the number of referred for juvenile offences. The rate at a five year high, indicating a need for intensive interventions that allow youth to address the risk factors that lead to juvenile delinquency.

Professional Mental Health Services

Individuals in distress need counseling services to help them reestablish healthy relationships, cope with trauma, and work through stressful circumstances. Professional mental health services include evaluation, screening, medication management, case management, aftercare, individual, group and family therapy.

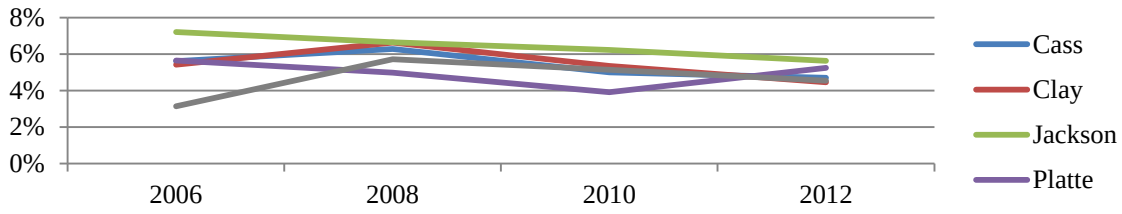
Prevention……..……..……Early Intervention…….Treatment/Rehabilitation			
Risk Antecedents	**Risk Markers**	**Problem Behaviors**	**Outcomes**
		• Suicidal ideation	• Hospitalizations with mental health diagnosis • Children treated for or diagnosed with mental health disorders

Preventing mental illness happens at the genetic and environmental levels. For the purposes of this project, prevention focuses on the environmental factors. Statistics of children living in poverty is a logical place to begin discussing the environmental risk factors that are associated with mental illness later in life (Saraceno & Barbui, 1997). Children in poverty often experience stress related to the challenges of being in an unstable environment. This stress is compounded by parental stress, putting kids at-risk of abuse, neglect and onset of depression (Horwitz, Widom, McLaughlin, & White, 2001). The onset of depression in young people can also occur as a result of traumatic life events such as the death or divorce of parents. Depression at a young age can lead to permanent negative outcomes for health and wellbeing as the child matures into adulthood.

Suicidal Ideation

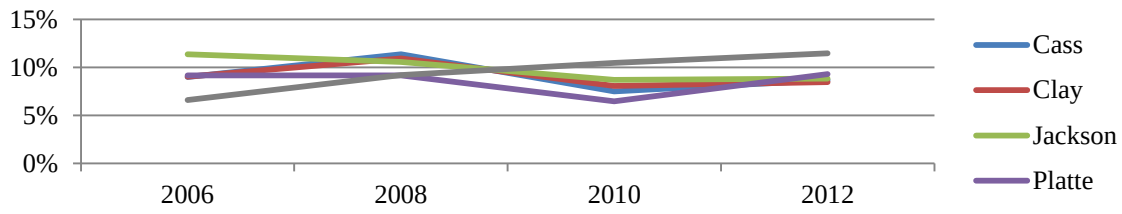
Suicidal ideation is a clear sign of emotional distress and strongly linked to depression among young adults (Fergusson, Woodward, & Horwood, 2000) (Fergusson & Woodward, 2002). Among all the students surveyed in the Cass, Clay, Jackson, Platte and Ray Counties the rate of students who seriously consider suicide is higher than other forms of suicidal ideation. In Ray County, the percentage of students that are planning suicide has increased every year since 2006 while other county rates have decreased since 2008. The rate of attempting suicide has slightly decreased in every county since 2008 except in Platte County. Overall, there were 5,021 suicidal ideation events among students surveyed in the Missouri counties in 2012. This number reflects only students surveyed in Missouri, as Kansas schools do not collect this information. This number also includes duplication of ideation events. One student may consider, plan and attempt suicide and will be counted three times, once for each event. It should also be noted that rates and numbers are volatile due to the fact that the total number of students who participate in the survey varies from year-to-year.

Figure 15a: Rate of students reporting to have attempted suicide in the last year



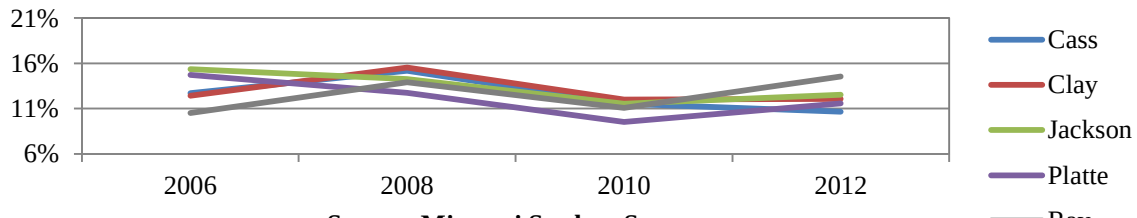
Source: Missouri Student Survey

Figure 15b: Rate of students reporting to have been planning suicide in the last year



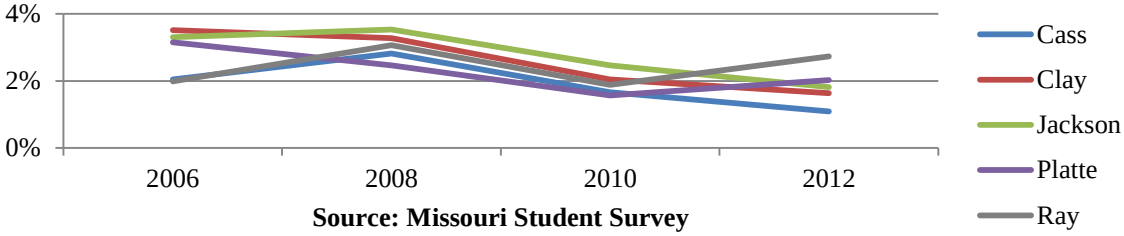
Source: Missouri Student Survey

Figure 15c: Rate of students reporting to be seriously considering suicide in the last year



Source: Missouri Student Survey

Figure 15d: Rate of students reporting to have had an injury with suicide attempt



Source: Missouri Student Survey

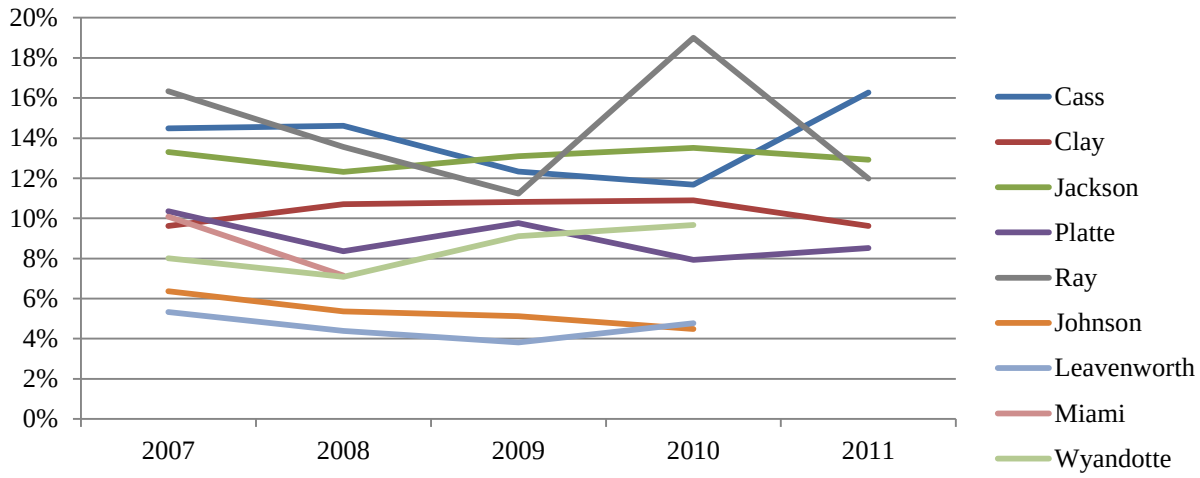
Table 15: Rate of students reporting suicide ideation in the last year [19]					
		2006	**2008**	**2010**	**2012**
Cass County, MO	Rate (%)				
	Past year **attempting** suicide	5.62%	6.28%	5.01%	4.71%
	Past year **planning** suicide	9.01%	11.37%	7.51%	8.66%
	Past year seriously **considering** suicide	12.72%	15.20%	11.53%	10.66%
	Past year suicide with **injury**	2.04%	2.82%	1.66%	1.09%
	Number (#)				
	Past year **attempting** suicide	58	127	123	84
	Past year **planning** suicide	93	230	184	155
	Past year seriously **considering** suicide	131	308	282	190
	Past year suicide with **injury**	21	57	40	19
	Total:	303	722	629	448
Clay County, MO	Rate (%)				
	Past year **attempting** suicide	5.42%	6.64%	5.36%	4.46%
	Past year **planning** suicide	9.03%	10.93%	8.09%	8.48%
	Past year seriously **considering** suicide	12.44%	15.53%	12.01%	12.06%
	Past year suicide with **injury**	3.52%	3.28%	2.04%	1.63%
	Number (#)				
	Past year **attempting** suicide	123	266	258	164
	Past year **planning** suicide	205	438	388	311
	Past year seriously **considering** suicide	283	622	577	443
	Past year suicide with **injury**	80	131	96	58
	Total:	691	1,457	1,319	976
Jackson County, MO	Rate (%)				
	Past year **attempting** suicide	7.22%	6.65%	6.23%	5.64%
	Past year **planning** suicide	11.38%	10.59%	8.71%	8.84%
	Past year seriously **considering** suicide	15.35%	14.28%	11.56%	12.53%
	Past year suicide with **injury**	3.31%	3.54%	2.46%	1.81%
	Number (#)				
	Past year **attempting** suicide	542	812	970	595
	Past year **planning** suicide	853	1,294	1,353	930
	Past year seriously **considering** suicide	1,152	1,742	1,793	1,319
	Past year suicide with **injury**	247	431	374	186
	Total:	2,794	4,279	4,490	3,030

Platte County, MO	Rate (%)				
	Past year **attempting** suicide	5.66%	4.98%	3.91%	5.26%
	Past year **planning** suicide	9.16%	9.18%	6.46%	9.32%
	Past year seriously **considering** suicide	14.73%	12.76%	9.54%	11.57%
	Past year suicide with **injury**	3.15%	2.46%	1.57%	2.02%
	Number (#)				
	Past year **attempting** suicide	53	79	81	80
	Past year **planning** suicide	86	146	134	142
	Past year seriously **considering** suicide	138	203	197	176
	Past year suicide with **injury**	29	39	32	30
	Total:	306	467	444	428
Ray County, MO	Rate (%)				
	Past year **attempting** suicide	3.14%	5.73%	5.15%	4.55%
	Past year **planning** suicide	6.59%	9.20%	10.46%	11.48%
	Past year seriously **considering** suicide	10.51%	13.91%	11.07%	14.56%
	Past year suicide with **injury**	1.99%	3.07%	1.88%	2.73%
	Number (#)				
	Past year **attempting** suicide	8	28	28	19
	Past year **planning** suicide	17	45	57	48
	Past year seriously **considering** suicide	27	68	60	61
	Past year suicide with **injury**	5	15	10	11
	Total:	57	156	155	139
Source: Missouri Student Survey					

Hospitalizations with a Mental Health Diagnosis

The number of individuals being hospitalized for mental health issues is a direct measure of the documented demand for professional mental health services. Of all the inpatient hospitalizations with mental health disorders in the nine-county region in 2011, 1,998 were for youth age 14 and under, 3,724 hospitalizations were for youth age 15-24. For this indicator, the nine-county region trend line fluctuates from year to year, with the most recent data showing an increase in hospitalizations with mental health diagnoses for older teens. Older teens also make up a higher percentage of hospitalizations with mental health diagnosis than their younger cohort.

Figure 16a: Rate of inpatient hospitalization with mental health disorders (age 14 or younger) among all hospitalizations with mental health disorders



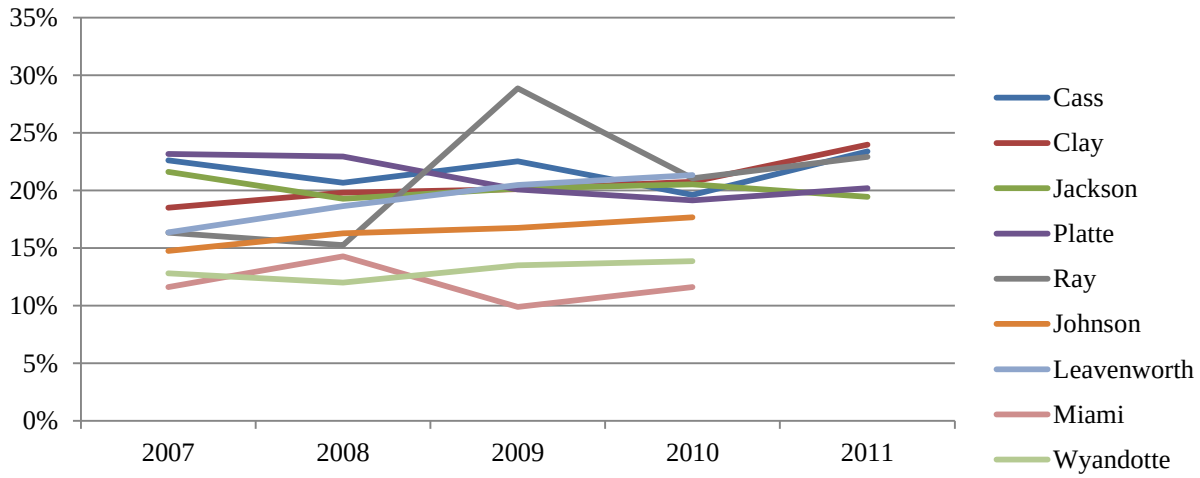
Source: Missouri Department of Health and Human Services (MICA Database) & Kansas Information for Communities (Bureau of Epidemiology and Public Health)

Table 16a: Inpatient hospitalization with mental health disorders (age 14 or younger) among all hospitalizations with mental health disorders [20]

	2007	2008	2009	2010	2011
	Rate (%)				
Cass	14.49%	14.61%	12.33%	11.68%	16.28%
Clay	9.62%	10.70%	10.82%	10.89%	9.62%
Jackson	13.30%	12.31%	13.10%	13.51%	12.92%
Platte	10.36%	8.36%	9.76%	7.93%	8.53%
Ray	16.34%	13.56%	11.23%	19.01%	11.98%
Johnson	6.36%	5.36%	5.12%	4.48%	.
Leavenworth	5.33%	4.39%	3.81%	4.78%	.
Miami	10.08%	7.14%	.	.	.
Wyandotte	8.00%	7.09%	9.11%	9.67%	.
	Number (#)				
Cass	114	123	99	125	174
Clay	198	264	242	277	221
Jackson	1,110	971	1,109	1,438	1,303
Platte	72	55	70	65	70
Ray	33	24	21	46	23
Johnson	156	129	125	119	83
Leavenworth	27	24	24	30	18
Miami	13	8	#	#	#
Wyandotte	83	72	91	106	106
Total:	1,806	1,670	1,781	2,206	1,998

Source: Missouri Department of Health and Human Services (MICA Database) & Kansas Information for Communities (Bureau of Epidemiology and Public Health).
in place for number representing 0-6 individuals

Figure 16b: Rate of inpatient hospitalizations with mental health disorders (age 15-24) among all hospitalizations with mental health disorders



Source: Missouri Department of Health and Human Services (MICA Database) & Kansas Information for Communities (Bureau of Epidemiology and Public Health)

Table 16b: Inpatient hospitalization with mental health (age 15-24) among all hospitalizations with mental health disorders [21]

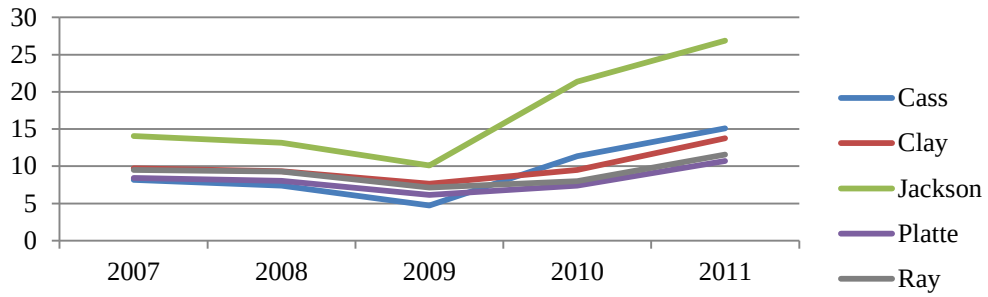
	2007	2008	2009	2010	2011
	Rate (%)				
Cass	22.62%	20.67%	22.54%	19.63%	23.39%
Clay	18.51%	19.82%	20.13%	20.76%	23.99%
Jackson	21.63%	19.28%	20.17%	20.54%	19.47%
Platte	23.17%	22.95%	20.08%	19.15%	20.22%
Ray	16.34%	15.25%	28.88%	21.07%	22.92%
Johnson	14.76%	16.28%	16.75%	17.69%	.
Leavenworth	16.37%	18.65%	20.48%	21.34%	.
Miami	11.63%	14.29%	9.89%	11.63%	.
Wyandotte	12.83%	12.01%	13.51%	13.87%	.
	Number (#)				
Cass	178	174	181	210	250
Clay	381	489	450	528	551
Jackson	1,805	1,521	1,707	2,186	1,963
Platte	161	151	144	157	166
Ray	33	27	54	51	44
Johnson	362	392	409	470	493
Leavenworth	83	102	129	134	121
Miami	15	16	9	15	14
Wyandotte	133	122	135	152	122
Total:	3,151	2,994	3,218	3,903	3,724

Source: Missouri Department of Health and Human Services (MICA Database) & Kansas Information for Communities (Bureau of Epidemiology and Public Health)

Children Treated or Diagnosed with Mental Health Disorders

Children and youth with serious emotional disorder (SED) are at-risk for abuse, neglect and out-of-home placement (Stagman & Cooper, 2010) and document a special population of young people who have been diagnosed with a mental health disorder. The unduplicated data show that in the nine-county region in 2011, 6,118 local children and youth are in need of mental health services. The rates and number of children in Missouri being treated for SED have gone up over the last three years while rates and numbers for mental health diagnoses in Kansas have gone down.

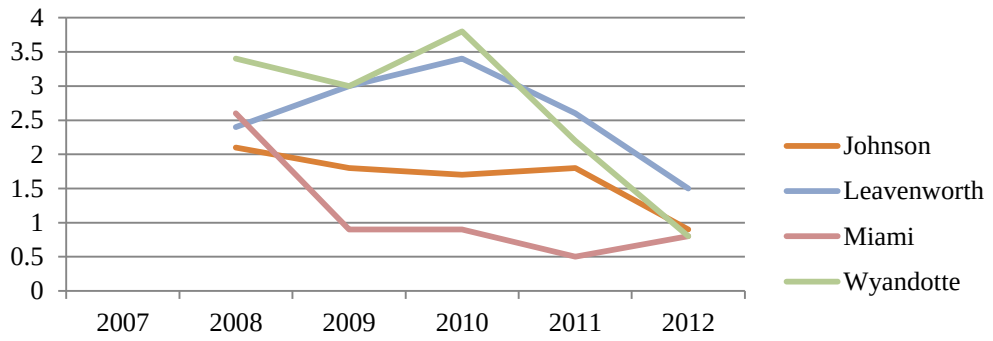
Figure 17a: Rate of Missouri children per 1,000 treated for or diagnosed with mental health disorders



Source: Kids Count provided by the Missouri Department of Mental Health

Table 17a: Missouri children treated for or diagnosed with mental health disorders[22]					
	2007	**2008**	**2009**	**2010**	**2011**
Rate per 1,000 children in the county					
Cass	8.18	7.38	4.73	11.37	15.09
Clay	9.70	9.34	7.66	9.50	13.77
Jackson	14.04	13.17	10.10	21.35	26.85
Platte	8.40	8.03	6.12	7.39	10.70
Ray	9.51	9.28	7.13	8.01	11. 55
Number (#)					
Cass	210	190	125	301	392
Clay	532	521	439	573	790
Jackson	2,397	2,245	1,758	3,519	4,426
Platte	175	168	132	164	234
Ray	55	52	46	52	75
Total:	3,369	3,176	2,500	4,609	5,917
Source: Kids County Data provided by the Missouri Department of Mental Health					

Figure 17b: Rate of Kansas children per 1,000 who have a mental health diagnosis



Source: Kids Count Data Base provided by Kansas Action for Children

Table 17b: Rate of Kansas children per 1,000 with mental health diagnoses[23]					
	2008	**2009**	**2010**	**2011**	**2012**
Rate per 1,000 children in the county					
Johnson	2.1	1.8	1.7	1.8	0.9
Leavenworth	2.4	3.0	3.4	2.6	1.5
Miami	2.6	0.9	0.9	0.5	0.8
Wyandotte	3.4	3.0	3.8	2.2	0.8
Number (#)					
Johnson	286	245	240	257	129
Leavenworth	44	56	64	49	29
Miami	20	7	8	4	7
Wyandotte	149	129	167	98	36
Total:	499	437	479	408	201
Source: Kids Count Data Base provided by Kansas Action for Children					

Summary of Demonstrated Need for Professional Mental Health Services

Children and youth in the nine-county region are demonstrating the need for continued services that address acute mental health problems and work with young people to prevent suicidal ideation. The need for mental health prevention services is demonstrated in the number of children and youth living in poverty or in traumatic situations. The latter cannot be quantified in this report but the region should focus prevention efforts in communities where families are living at or near poverty and address the risk and protective factors that put children at risk of anxiety, depression, and poor self-esteem.

The need for early intervention services is demonstrated in the trends of suicidal ideation among students survey in the public schools. Though the rates of planning and attempting suicide are decreasing in most counties, the rate of seriously suicide remains the highest. This means there is a need to intervene early in the lives of students who are demonstrating anti-social behavior and experiencing traumatic life events.

Finally, the need for treatment and rehabilitation services is seen in the rate of hospitalizations with mental health diagnosis and the rate of children receiving treatment for emotional disorders in Missouri or being diagnosed with mental health disorders in Kansas. Older teens make up a higher percentage of the adolescent population being hospitalized with a mental health diagnoses and the rate of older youth hospitalizations is on the rise across the region. The rate of younger children being hospitalized is lower and more volatile, but diagnoses at a young age is rare and if their needs are not addressed early, they will continue to need intensive services in the future. Regarding the rate of children in Missouri who are receiving treatment for SED, it has increased across the board. The rate of children being diagnosed with a mental health disorder in Kansas has decreased. Mental health diagnoses are often made later in adolescence and early adulthood, meaning the manifestation of mental illness begins before intervention occurs. Prevention and intervention programs that focus on children and youth who are living in poverty and experiencing traumatic events will prevent or delay the onset of mental illness and have positive impact on the children and youth in the community.

SCOPE OF THE OBSERVED NEED FOR SERVICE AT THE COMMUNITY LEVEL

Table 18 is a summary of the indicators identified throughout this report that point to the need for additional services in the community to support children in each of the five service categories. Often, children and youth have multiple needs or are demonstrating multiple indicators that require prevention or intervention services.

Table 18: Summary of scope of need

Service Area Description	Indicators included in calculating the scope	Scope of the observed need for prevention services	Scope of the observed need for intervention services
Temporary shelter, transitional living, permanent housing, respite care	• Number of children in out-of-home placement (3,662) • Number of youth aging out of foster care (105) • Number of homeless youth (8,841)	3,767	8,841
Services to unwed parents and/or pregnant teens	• Number of live births to teen mothers- the children (1,935) • Number of live births to teen mothers- the mothers (1,935) • Number of single-parent households living in poverty (27,304)	1,935	29,239
Outpatient chemical dependency treatment	• Number of student who report using drugs or alcohol in past 30 days (5,939) • Number of student who report binge drinking in past two weeks (1,122) • Number of adolescent admissions to state Alcohol and Drug Abuse Treatment (676)		7,737
Home-based or community-based family intervention and prevention programs	• Number of children in substantiated child abuse/neglect cases (1,222) • Number of domestic violence incidents (14,256) • Number of youth in the juvenile justice system (1,700)	15,478	1,700
Professional mental health services	• Number of students attempting, planning, and seriously considering suicide (5,021) • Number of hospitalizations with mental health diagnoses (5,722) • Number of children and youth being treated for or diagnosed with mental illness (6,118)	-	16,861
	Total demonstrated need for services	21,285	64,378
	Total:		85,663

*Based on community level indicators reported for the most recent year

**Perception of wrongness is a protective factor and therefore not used to quantify the scope of need for chemical dependency treatment. The alternative measure, percent of students who do not feel substance use is wrong, was not available for this assessment.

Table 19 provides some comparison data for the regional indicators previously mentioned. There are some national and state level indicators that are good comparisons to the county level data examined in this report, however because this data is reported at the regional level it is difficult to accurately compare state and national rates with the region. These benchmarks should be used as a general comparison to the states of Kansas and Missouri and the nation.

Table 19: National Benchmark Rates with Missouri, Kansas[24]

	U.S.	*KS*	*MO*	*Jackson County*
Population in Poverty[1]	15%	13%	15%	17%
Children in Single Parent Families	35%	31%	35%	42% (2011)
Teen Births Age 15-19 (Rate per 1,000 teens aged 15-19)[2]	29.4	19.7	32.2	44.5
Children who have one or more serious emotional, behavioral, development, conditions	17%	16%	16%	
Confirmed child victims of maltreatment (Rate per 1,000 children <18 yrs.)	9	3	3	
Youth residing in juvenile detention, correctional, and/or residential facilities (Rate per 100,000 juveniles aged 10 through upper age of juvenile court jurisdiction in each state)	196 (2011)	255 (2011)	202 (2011)	
Children age 0-17 in foster care (Rate per 1,000 children <18 yrs.)	5	8	7	
Teens Age 12-17 who abused drugs or alcohol in the past year	8%	6%	6%	

Source: National Kids Count Data Center
[1] This data is from the America Community Survey's five-year estimates 2008-2010
[2] This U.S. data is from the Centers for Disease Control's National Center for Health Statistics. The Kansas data is from the Annual Summary of Vital Statistics. The Missouri and Jackson County data are from the National Kids County Database.

KANSAS CITY REGIONAL SERVICE CAPACITY AND GAPS

Agencies that responded to the provider survey were asked to identify the programs that fit into the five service categories of interest for this project. Then a series of questions was asked to better understand the individual programs and determine the quantifiable service scope and gap. The scope of services is quantified by the total number of children and youth the agency was able to serve in 2013. The quantifiable service gap is determined by the number of eligible clients who were "turned away." Turned away means a service eligible client was not able to be served because the program/agency was at full capacity and therefore had to be referred to other programs in the community, put on a waiting list or asked to come back at a later date. When applicable, agencies also reported the length of time clients waiting for services, either on an official or unofficial waiting list. The waiting period is especially important because this represents a time when clients are most vulnerable and several professionals report challenges in connecting and engaging clients who reached out for help but had to wait any length of time before receiving it.

The provider survey was distributed electronically to 186 service providers in the nine-county region. Despite repeated attempts at follow up, responses were recorded from only 38 service providers, a response rate of 20%. **It should be noted that the following data only includes information from the participating service providers and therefore cannot be used to quantify the needs of the entire region.**

Respondents identified the programs they provide and categorized each into one of the five service categories used in this analysis. They also reported their service area and identified if they provided service in an individual county or multiple counties. Data is reported based on their service area.

Respondents reported reaching approximately 285,562 children and youth in 2013, and that approximately $149 million would be needed to reach those who were turned away from services due to lack of capacity. The cost to serve those turned away is the product of the cost per unit, the average number of units consumed, and the number of individuals turned away during the year. All three data points had to be present to be reflected in the calculation. See Table 19.

Table 19: Agency reported program and client information

Service category	Number of programs available	Number served in 2013	Number turned away	Length of waiting list	Cost to service those turned away[1]
Temporary shelter, transitional living, permanent housing and respite care	32	74,356	9,111	One week to four months	$70.8 million
Service to unwed/teen parents	6	5,271	349	Three to six months	$3.2 million
Substance Abuse	8	579	5	None reported	$60,600
Community and family-based services	29	177,526	3,574	30 days	$4.6 million
Professional mental health services	30	27,830	8,238	Four weeks to four months	$70 million
Total:	105	285,562	21,277	One week to six months	$148 million

Source: Service Provider Survey, 2014

[1]This figure is based on the agency's reported cost per unit of service multiplied by the average number of units clients consume and the number of clients the agency turned away.

Providers who offered services in the region were asked to identify additional unmet needs of the populations they serve. The identified needs point to the complexity of service demand for this population. Providers explained that there is additional need for:

- Transitional housing units and emergency shelter beds for homeless children, youth and young families
- Safe and affordable housing
- Transitional living
- Wrap around services for homeless and unaccompanied youth
- Services for youth aging out of foster care
- Therapy services for children and youth who have been traumatized
- In-school counseling and case management
- Therapists and physicians who take Medicaid

- More sexual abuse counselors
- Bilingual therapists (other than Spanish)
- In home mental health services
- More substance abuse in-patient facilities
- More psychiatric beds for children
- Coordination of services between the systems
- Transportation services for families who need to access services in other communities
- Transportation for youth who have no parental support
- Employment services and skills training
- Emergency relief and basic needs funds
- Food resources
- Affordable day care
- Educational services
- Dental care for children
- Medical and mental health insurance

The true cost to meet all the needs of at-risk children and youth goes beyond the cost of delivering existing services. New facilities, trained professionals and models of service delivery create need for funds beyond the scope of this assessment. Table 19 represents the quantifiable current costs and provides a bottom line estimate for additional funds needed to deliver services to the at-risk children and youth who were turned away.

COST AND BENEFIT TO FILL THE GAP

Studies conclusively show that prevention and very early intervention will have a greater impact on service investments in the long run while treatment and wrap around services for those that are the most expensive will also yield high returns on investment. In general, local agencies will bear the costs of implementing prevention programs while prisons, hospitals, mental health clinics and welfare systems will experience significant cost benefits. The following is a brief synopsis of the document found in Appendix C that directly links to service areas of interest in this study. Each study uses various methodology for calculating the cost benefit of the services, common benefits include; reduced emergency room and healthcare costs, reduced police and incarceration costs, improved education outcomes, higher salaries, increased tax revenue and avoidance of welfare. See Appendix C for the specific methodology used to determine the following cost benefits.

- **Preventing homelessness** begins with services to children and youth who are most at-risk of homelessness, i.e. the 134,570 children enrolled in the public free and reduced lunch program, 2,892 youth in foster care, 140 youth who aged-out of foster care, 1,700 youth who came into contact with the juvenile justice system and the 8,841 who experienced homelessness. Effective prevention and early intervention services implemented in some economies have yielded benefits up to **$7 to $12** for every dollar invested. Studies also suggest focusing housing and wrap-around services on those who impose the highest costs may have greater returns on investment. Effective housing programs have been shown to cut service costs in half in terms of the services a "high need high cost" homeless individual consumes. One study in Denver Colorado showed a net cost saving of $4,475 per person through a comprehensive housing and support services program.

- Though no peer reviewed studies were found for this report regarding the economic cost and benefits of **single or teen parenting programs**, several studies do address the antecedents and outcomes related to single or teen parenting. Services that have measurable impact on education, employment, crime, mental illness and health are shown in some economies to have benefit to costs ratios from less than **$1.00 up to $84** with the highest returns being in mental health and criminal justice.

- A study in Philadelphia concluded **that community and family-based prevention and intervention** efforts target at high-rate chronic offenders could yield significant benefits at lower costs and suggest that early childhood programs such as family-parent training, self-control improvement, and cognitive therapies should be used to move juveniles from high-rate chronic offending to low or no offending trajectories. However, high-rate juvenile offenders make up a small percentage of juvenile offenders. Early interventions targeted at youth who have their first encounter with the law to get them back on the right trajectory will be more cost-effective than efforts that only focus on the top 10 percent. Evidence-based programs have been shown to produce benefit to cost ratios from **$1.30 to $18.42** with the higher return coming from family-based interventions, behavioral modification programs and multi-dimensional treatments.

- A study in California of a **foster care program** that extended funding and guardianship support for foster youth through age 23 showed a befit-cost ratio of 1.5 to 1. The savings benefits came from avoidance of welfare and prison and increased tax revenues due to higher education levels and salaries. Other evidence-based child welfare programs have been shown to yield benefit-cost ratios from **$2.73 to $14.67**. Certain home visiting programs and parent-child interaction therapy are shown as being particularly beneficial.

- Preventing **mental illness** is challenging, because of the biological predisposition some mental illnesses carry. However, preventing or delaying the onset of mental illness in young people will have a long-term payoff for the community. Evidence-based programs covering anxiety, attention deficit hyperactivity disorder, depression, disruptive behavior, serious emotional disturbance, and trauma, with benefit-cost rations ranging from **$1.09 to $11.01** with cognitive behavioral and family therapies being the most beneficial.

The next step is to use this information and lay out a plan to address service needs. It is clear from the research that prevention and early intervention strategies that are most effective offer intensive family-based programs designed to modify behaviors and address the vulnerabilities of poverty, neighborhood conditions, and family dysfunction.

BACKGROUND TO REPORT PREPARATION

This community needs assessment was conducted by the Institute of Public Policy (IPP) at the University of Missouri for the Children and Youth Project of the Greater Kansas City area. The Greater Kansas City region includes nine counties: Cass, Clay, Jackson, Platte and Ray counties in Missouri, Johnson, Leavenworth, Miami and Wyandotte in Kansas. The purpose of the needs assessment is to quantify the services offered to at-risk youth in the nine-county Kansas City metropolitan region and to document the outstanding service needs. The results of this assessment will be reviewed during a convening of stakeholders. The data will be used to guide the group in articulating service needs, goals, objectives and service indicators for at-risk youth in each county and the region overall.

METHODOLOGY

The goal of this assessment is to quantify the demonstrated need for services while identifying service gaps to at-risk youth in the greater Kansas City area. Five service categories were developed to organize the structure of this assessment:

- Temporary shelter, transitional living, permanent housing, and/or respite care
- Services for unwed parents and/or pregnant teens
- Outpatient and/or residential chemical dependency treatment
- Home-based and/or community-based family intervention and prevention
- Mental health services such as psychological evaluations, mental health screenings, professional counseling, professional therapy, outpatient psychiatric treatment programs and/or crisis intervention

Agency and community-level data were collected and analyzed around these service categories to create a compelling story of the service needs in each of the nine counties and in the region as a whole.

Agency-Level Data Collection and Analysis

The online agency level survey was developed to quantify the services provided to at-risk youth and the unmet needs in the nine-county region. The survey questions are shown in Appendix A. The online survey was created and managed using Qualtrics[1].

The Child and Youth Project team compiled a list of agencies that provide services to at-risk youth in the greater Kansas City area (See Appendix B for a complete list of agencies). Each agency was emailed a link to an online provider survey and given two weeks to complete the survey.

Completed surveys were submitted through Qualtrics and downloaded into Excel. Responses were sorted by county and then services were organized within each county by service category. Once all the data were sorted, they were checked against program descriptions and when necessary providers to provide additional information.

Using the final dataset, data was synthesized in each county by service category to calculate the number of children and youth reached, the number turned away, and the cost to serve those who were turned away. Additional qualitative information was systematically compiled to create the narrative about service capacity and gaps.

Cautions and limitations: Agency-level data were self-reported by agency staff. This type of data is useful because it describes the opinions and experiences of the service providers. It is likely that the

[1] http://qualtrics.com/

estimates underreport the need because not everyone who needs services seeks them. However, as providers were not asked to provide unduplicated counts, the estimates almost certainly include double or multiple counts as children and youth who are in need are typically accessing multiple services.

> For example, an unaccompanied child in a temporary shelter needs more than a bed. He or she may also need counseling, case management, food and education. Shelters often provide more than just a bed so this person may be counted in the calculations for each service he or she uses while in the shelter. This person may also be receiving similar services through other agencies in the community and is also counted in the data reported by those agencies.

Additionally, providers serve children and youth who reside in other counties. Agencies were not asked to provide data unique to individual counties. Thus, the data submitted by an agency that serviced multiple counties was counted the same for each county.

> For example, an agency that provided professional mental health treatment through a program that is implemented in three counties submitted data for that program as a whole and indicated which counties it served. The reported number served, turned away and costs were then used when to quantify the service capacity and gaps in each county.

Cautions and limitations in the data and data sources were considered carefully when designing the community assessment. The IPP and the Children and Youth Project team agreed that this assessment design is appropriate and that the described limitations do not unduly bias the final conclusions.

Secondary Data Collection and Analysis

Community level data is included in this assessment to represent real counts that are systematically collected, documented and reported to the community. Trend lines were chosen to demonstrate how the data behaves over time, while the tables offer specific point-in-time annual figures. Every effort was made to ensure data was uniform across counties and state lines and to accurately describe the data sources and collection methodology (see End Notes).

To provide additional guidance in the interpretation of community level data, the report organizes the indicators of need based on the Adolescent Risk Model (Resnick & Burt, 1996) in which the need for prevention services is measured by the documented number of children and youth who have not demonstrated problem behaviors (running away) or experienced the undesirable outcome (homelessness) but do live in a family or community setting that is proven to be a predictor of problem behaviors. The need for intervention strategies are measured by the documented "risk markers" (out-of-home placement) or "problem behaviors" (running away) that have been shown to be precursors to future undesirable outcomes (homelessness).

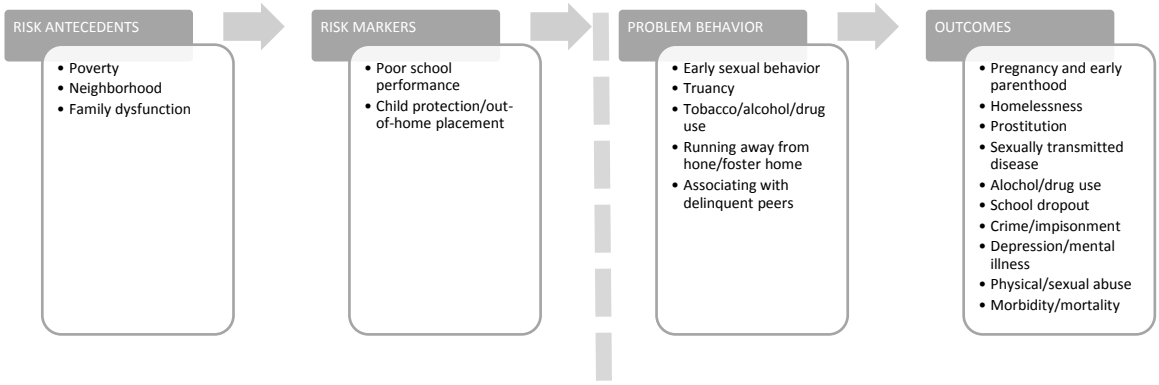
Cautions and Limitations: The quality and accuracy of secondary data depends on the systems in place to collect and disseminate the information. Therefore, the data in this assessment assumes the limitations of the original data source. Finally, secondary data only captures the needs of people who come into contact with "the system" (i.e. state departments, schools, providers in the community). Therefore, those who are in need of services, but do not enter the system, are not counted towards the scope of the need. As a standard practice, real numbers have not been extrapolated unless there is a systematic technique that is supported by research.

FRAMEWORK FOR SERVICE IMPACT

The goal of this needs assessment is to quantify the scope of service needs and cost to address gaps in services to at-risk children and youth in the nine-county region. From this needs assessment, stakeholders will participate in the preparation of an investment plan that lays out a strategy for addressing the service needs of at-risk child and youth. When laying out a plan to address service needs, it is also important to have a framework for assessing potential impact and economic return of strategic investments. This framework, outlined below, will guide strategies and priorities that will have the greatest impact on at-risk children and youth and on the broader community.

Resnick & Burt (1996) outlined a framework for understanding risk in adolescence, arguing that the prevention of problems in youth must begin with the identification of risk antecedents and risk markers. "By the time problem behavior has been identified, these youth are no longer at risk, and thus no longer amenable (by definition) to intervention through prevention programs" (p. 185).

Figure 1: Adolescent Risk Model (Resnick & Burt (1996))



- **Risk Antecedents** refer to forces operating at the community and family level that increase an individual's vulnerability to future problems in the family, school, or community. Poverty, neighborhood and family dysfunction have been found to be predictors of adolescent behavioral problems. They are antecedents in that they exist before a youth displays problem behaviors.

- **Risk Markers** are behavioral precursors of future problems. They are the symptoms of living in risky conditions, and research has shown strong links between risk markers and the later onset of more serious problems. Examples are poor school performance – functioning below grade level, repeating grades – and involvement with child protection services and out-of-home placements.

- **Problem Behaviors** represent the transition from youth being at-risk to demonstrating problems. These include early sexual behavior, truancy, and running away from home.

- **Outcomes** are conditions that undermine a youth's future development as a responsible self-sufficient adult. Long-term prevalence of increasingly serious problem behaviors result from ineffective or absent interventions at the at-risk stage.

There is much evidence to support intervention at the earliest possible stage both as a means of avoiding problems for the individual and society, and as the way to significantly reduce costs to victims, communities, and government (see Appendix C). The compilation of community level data in the subsequent sections are organized using the Adolescent Risk model and demonstrate the quantifiable need

for prevention and intervention services throughout the region. Stakeholders are asked to address four questions in response to the data:

1. What is the need for **prevention services** for children and youth who live in situations that put them at-risk of homelessness, single or teen parenting, chemical dependency, out-of-home placement, or mental illness?

2. What is the need for **early intervention services** for children and youth who have demonstrated problem behaviors that are precursors for homelessness, single or teen parenting, chemical dependency, out-of-home placement, or mental illness?

3. What is the need for **intervention and rehabilitation services** for children and youth who have experienced homelessness, single or teen parenting, chemical dependency, out-of-home placement, or mental illness?

4. Where can the agencies in the nine-county region have the **earliest impact** to prevent or slow down the progression towards homelessness, single or teen parenting, chemical dependency, out-of-home placement, or mental illness?

END NOTES

[1] Source: 2000 and 2010 Census Demographic Profile Data. This is a sum of all children age 19 and under in each county for the nine country region.

[2] *Source:* National Center for Education Statistics website, specifically the "build a table function" (http://nces.ed.gov/ccd/bat/). The option to list data by county was selected, followed by checking the box to select the 2010-2011 school year data. When selecting the data to be reviewed ("Select Columns" section) I selected the following categories to be included: Free Lunch Eligible (School), Reduced-price Lunch Eligible Students (School) and Total Free and Reduced Lunch Students (School), all of which were in the "Students in Special Programs" category. Missouri was then selected as the state to be examined and no filter was used. The end result was a table that included the number of students eligible for free and reduced lunches, broken down by county. *Method:* Rates for 2000-2001 and 2005-2006 were then calculated by dividing the number of children in free and reduced lunch by the 2000 Census population under age 19. The rate for 2010-2011 were calculated by dividing the number of children on free and reduced lunch by the 2010 Census population under age 19.

[3] *MO Source:* The Missouri Department of Social Services house data on youth in foster care. This data is available through the department's annual reports and may be found on Table 20 for all years, 2008-2012. *MO Method:* None. The data expressed here is a direct reflection of the Missouri Department of Social Services' Children's Division Annual Reports. *KS Source:* The Kansas Department of Children and Families house data on the number of youth who are placed in foster care (also referred to as *removed into foster care*). This data is publically accessible and available on the *Removals, Discharges and Out of Home Summary (FACTS)* page of the Kansas Department of Children and Families website.

KS Method: The data expressed here is a direct reflection from the fact page on fiscal year averages for removals and discharges.

[4] *MO Source:* The Missouri Children's Division houses data on the number of foster care youth who achieve independence at age 21. This is often referred to as "aging out of foster care." IPP's

correspondence with Ms. Sally Gaines on January 6, 2014 produced the data presented here. Ms. Gaines is part of the Missouri Children's Division's Older Youth Program. *MO Method:* The data expressed here is a direct reflection of the Older Youth Program Data. *KS Source:* The Kansas Department of Children and Families houses data on the number of foster care youth who achieve independence at age 21. This is often referred to as "aging out of foster care." IPP's correspondence with Ms. Patricia Long on January 14, 2014 produced the data presented here. Ms. Long is a program administrator with the Kansas Department of Children and Families. *KS Method:* The data expressed here is a direct reflection from the Kansas Department of Children and Families.

[5] *MO Source:* The Missouri Department of Elementary and Secondary Education houses data on youth homelessness. *MO Method:* The data expressed here is a reflection of the homeless data results for school year 2008-2009 through 2012-2013. This data is collected by district, not by county. To achieve a county total, the school districts in each county were aggregated. School districts were not counted twice if they crossed a county line. They were counted toward the county in which the majority of the district lay. Some districts are continually omitted from the fact page for all years. IPP's correspondence with Ms. Kim Oligshlafger, of DESE Data System Management, on January 14, 2014 determined that if/when a district reports no homeless children for all years (2008-2013), the district's name is omitted from the data fact page. For the purposes of the data presentation here, all school district names were included and zeros were put in place for schools districts with no reported homeless children. *KS Source*: The Kansas Department of Education house data on youth homelessness. The data is accessible through Educating Homeless Children and Youth (KSDE). *KS Method:* The data expressed here is a reflection of KSDE data fact sheets by year. However, the KSDE data is collected by district, not by county. To achieve a county total, the school districts in each county were aggregated. School districts were not counted twice if they crossed a county line. They were counted toward the county in which the majority of the district lay. In districts with less than ten reported homeless students, the data is suppressed (meaning it is not publically available). This is represented by the "#" symbol.

[6] *MO Source:* The Missouri Department of Health and Senior Services houses data on vital statistics including births and deaths. The data is accessible through the interactive portal *Missouri Information Community Assessment (MICA)* page. *MO Method:* The annual number of births to teen moms (age 15-19) in the county was divided by the annual number of live births in the county. This number was multiplied by 1,000 to convert to the live births to teen moms per 1,000 live births in the county. *KS Source:* The Kansas Department of Health and Environment houses data on vital statistics including births and deaths. The data is accessible through a series of annual summary reports: Kansas Annual Summary Report of Vital Statistics 2008, Kansas Annual Summary Report of Vital Statistics 2009, Kansas Annual Summary Report of Vital Statistics 2010, Kansas Annual Summary Report of Vital Statistics 2011, and Kansas Annual Summary Report of Vital Statistics 2012. The number of total live births to teen mothers can be found on table 26 of the 2008 report. In the 2009 report, see table 30. In the 2010, 2011, and 2012 reports, see table 33. The number of total live births in the county can be found on Table 9 for all report years (2008-2012). *KS Method:* The annual number of births to teen moms (age 15-19) in the county was divided by the annual number of live births in the county. This number was multiplied by 1,000 to convert to the live births to teen moms per 1,000 live births in the county.

[7] *Source:* U.S. Census Bureau; American Community Survey 2012, 5-year estimates. *Method:* The rate of single parent families living in poverty is the total estimate of number of single parent families divided by total estimate of number of single parent families living in poverty for each county.

[8] *MO Source:* The Missouri Student Survey is conducted in even-numbered years to track risk behaviors of students in grades 6-12 attending public schools in Missouri. The survey is conducted jointly between the Missouri Department of Elementary and Secondary Education and the Missouri Department of Mental

Health, Division of Behavioral Health. *MO Method:* None. The data expressed here is a direct reflection of the Missouri Student Survey Databank.

[9] *KS Source:* The Communities that Care survey is conducted annually to track teen use of harmful substances and is administered to students in grades 6, 8, 10 and 12 attending schools in Kansas. School participation in the survey is voluntary. The survey is provided by the Kansas Department for Aging and Disability Services and Behavioral Health Services. *KS Method:* None. The data expressed here is a direct reflection of the Communities that Care Survey Databank.

[10] *MO Source:* The Missouri Student Survey is conducted in even-numbered years to track risk behaviors of students in grades 6-12 attending public schools in Missouri. The survey is conducted jointly between the Missouri Department of Elementary and Secondary Education and the Missouri Department of Mental Health, Division of Behavioral Health. *MO Method:* None. The data expressed here is a direct reflection of the Missouri Student Survey Databank.

[11] *KS Source:* The Communities that Care survey is conducted annually to track teen use of harmful substances and is administered to students in grades 6, 8, 10 and 12 attending schools in Kansas. School participation in the survey is voluntary. The survey is provided by the Kansas Department for Aging and Disability Services and Behavioral Health Services. *KS Method:* None. The data expressed here is a direct reflection of the Communities that Care Survey Databank.

[12] *MO Source:* The Missouri Student Survey is conducted in even-numbered years to track risk behaviors of students in grades 6-12 attending public schools in Missouri. The survey is conducted jointly between the Missouri Department of Elementary and Secondary Education and the Missouri Department of Mental Health, Division of Behavioral Health. *MO Method:* None. The data expressed here is a direct reflection of the Missouri Student Survey Databank. The Centers for Disease Control and Prevention define binge drinking as having had more than four alcoholic drinks for women and five alcoholic drinks for men, in approximately two hours.

[13] *KS Source:* The Communities that Care survey is conducted annually to track teen use of harmful substances and is administered to students in grades 6, 8, 10 and 12 attending schools in Kansas. School participation in the survey is voluntary. The survey is provided by the Kansas Department for Aging and Disability Services and Behavioral Health Services. *KS Method:* None. The data expressed here is a direct reflection of the Communities that Care Survey Databank. The Centers for Disease Control and Prevention define binge drinking as having had more than four alcoholic drinks for women and five alcoholic drinks for men, in approximately two hours.

[14] *MO Source*: The Missouri Department of Mental Health houses data on youth admissions into substance abuse and treatment programs. The data is accessible through the Division of Comprehensive Psychiatrics Services Clinical Data and is made available through the annual Status Reports on Missouri's Substance Abuse and Mental Health Programs. *MO Method:* The data expressed here is a reflection of the annual Status Reports on Missouri's Substance Abuse and Mental Health Programs. *KS Source:* The Kansas Department for Aging and Disability Services houses data on admission into psychiatric residential treatment facilities. The numbers presented here are based on the responsible county which provided the initial screening assessment for a person admitted to a psychiatric residential treatment facility. *KS Method:* IPP's correspondence with Mr. Ted Jester, of the Kansas Department for Aging and Disability Services, on February 24, 2014, supplied the data represented here.

[15] *MO Source:* The Missouri Department of Social Services houses data on child abuse/neglect. This data is available through the department's annual reports and may be found in Appendix A for all years, 2008-2012. *MO Method:* None. The data expressed here is a direct reflection of the Missouri Department of

Social Services Annual Report on Child Abuse and Neglect. *KS Source:* The Kansas Department for Children and Families houses data on child abuse and neglect. IPP's correspondence with Ms. Deanne Dinkel on February 11, 2014 produced the data supplied here. *KS Source:* None, the data presented here is a direct reflection of the data shared by Ms. Dinkel.

[16] *MO Source:* The Missouri Department of Social Services houses data on child abuse/neglect. This data is available through the department's annual reports and may be found in Appendix F for all years, 2008-2012. *MO Method:* None. The data expressed here is a direct reflection of the Missouri Department of Social Services Annual Report on Child Abuse and Neglect. *KS Source:* The Kansas Department for Children and Families houses data on child abuse and neglect. IPP's correspondence with Ms. Deanne Dinkel on February 11, 2014 produced the data supplied here. *KS Source:* None, the data presented here is a direct reflection of the data shared by Ms. Dinkel.

[17] *MO Source:* The Missouri Highway Patrol's Statistical Analysis Center offers data on the number of domestic violence incidents. The data is accessible through the interactive portal *Uniform Crime Reporting (URC) Statistical Query* page. *MO Method:* None. The data expressed here is a direct reflection of the *Uniform Crime Reporting (URC) Statistical Query*. *KS Source:* The Kansas Bureau of Investigation houses data on the number of domestic violence incidents. The data is available in the Annual Report on Domestic Violence and Rape Statistics. *KS Method:* The county total was used here. When necessary, the individual county jurisdictions were added together to establish the county total.

[18] *MO Source:* The Missouri Office of State Courts Administrator house data on juvenile offenses. Juvenile offenses range from truancy, being beyond parental control, being habitually absent from home, and behavioral injurious (self-injury). IPP's correspondence with Ms. Tina Senter on December 20, 2013 produced the data presented here. Ms. Senter is a research analyst with the Court Business Services Division of the Missouri Office of State Court Administrator. *MO Method:* None. The data expressed here is a direct reflection of data shared by Missouri Office of State Court Administrator. *KS Source:* The Kansas Office of State Courts houses data on juvenile offences. Juvenile offenses range from curfew violations, runaways, incorrigible, ungovernable, truancy, and alcohol consumption by a minor. Kansas Courts do not separate out each offense; therefore, the data represented here is an aggregate of all juvenile offense violations by county by year. IPP's correspondence with Ms. Carrie McGinley January 24, 2014 produced the data presented here. Ms. McGinley is employed by the Kansas Courts. *KS Method*: None, the data presented here is a direct reflection of the data shared by Ms. McGinley.

[19] *MO Source:* The Missouri Student Survey is conducted in even-numbered years to track risk behaviors of students in grades 6-12 attending public schools in Missouri. The survey is conducted jointly between the Missouri Department of Elementary and Secondary Education and the Missouri Department of Mental Health, Division of Behavioral Health. *MO Method:* None. The data expressed here is a direct reflection of the Missouri Student Survey Databank.

[20] *MO Source:* The Missouri Department of Health and Senior Services houses data on vital statistics including hospitalizations with mental health diagnoses. The data is accessible through the interactive portal *Missouri Information Community Assessment (MICA)* page. *MO Method:* The annual number of hospitalization with mental health diagnoses (age 14 and younger) in the county was divided by the annual number of hospitalization with mental health diagnoses in the county. *KS Source:* The Kansas Department of Health and Environment houses data on health statistics including hospitalizations. The data is accessible through the Bureau of Epidemiology and Public Health's data portal *Kansas Information for Communities*. *KS Method:* The annual number of hospital discharges for mental health diagnoses (age 14 and younger) in the county was divided by the annual number of hospital discharges for mental health diagnoses in the county.

[21] *MO Source:* The Missouri Department of Health and Senior Services houses data on vital statistics including hospitalizations with mental health diagnoses. The data is accessible through the interactive portal *Missouri Information Community Assessment (MICA)* page. *MO Method:* The annual number of hospitalization with mental health diagnoses (age 15-24) in the county was divided by the annual number of hospitalization with mental health diagnoses in the county. *KS Source:* The Kansas Department of Health and Environment houses data on health statistics including hospitalizations. The data is accessible through the Bureau of Epidemiology and Public Health's data portal *Kansas Information for Communities*. *KS Method:* The annual number of hospital discharges for mental health diagnoses (age 15-24) in the county was divided by the annual number of hospital discharges for mental health diagnoses in the county.

[22] *Source:* The Kids County Data Center is a national project of the Annie E. Casey Foundation and serves as a source for data on child and family well-being. Kids Count relies on local state partnerships to assist in the data collection and assimilation of hundreds of indicators. In Missouri, the Partnerships for Children organization works with the Kids Count Data Center to provide many of the center's count-level data indicators. The Missouri Department of Mental Health provided data for this specific indicator. *Method:* None. The data expressed here is a direct reflection of the Kids Count Center.

[23] *KS Source:* The Kids County Data Center is a national project of the Annie E. Casey Foundation and serves as a source for data on child and family well-being. Kids Count relies on local state partnerships to assist in the data collection and assimilation hundreds of indicators. In Kansas, the Kansas Action for Children organization works with the Kids Count Data Center to provide many of the center's count-level data indicators. The Kansas Hospital Association and Kansas Department of Health and Environment provided data for this specific indicator. *KS Method:* For the number count, the rate per 1,000 was converted to rate per 100. The county population denominator was determined using the American Community Survey population three-year estimates found on table B09001. Taking the rate per 100 divided by the child population (under 18) supplied the population estimate number for the number of Kansas Children who have a mental health diagnosis.

[24] Source: National Kids Count Data Center. The Population in Poverty data is from the America Community Survey's five-year estimates 2008-2010. Teen birth data at the U.S. level is from the Centers for Disease Control's National Center for Health Statistics. The Kansas data on teen births is from the Annual Summary of Vital Statistics. The Missouri and Jackson County teen birth data are from the National Kids County Database.

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APPENDIX A: PROVIDER SURVEY

INSTITUTE *of* PUBLIC POLICY
Harry S Truman School of Public Affairs
University of Missouri-Columbia

MARC
MID-AMERICA REGIONAL COUNCIL

Dear Children, Youth and Family Service Provider,

With your help, the Children and Youth Project team aims to create a compelling portrait of children's services.

This survey will ask you to identify the programs your agency offers to children, youth and families in the Greater Kansas City area. For each program you identify, you will be asked to categorize the primary services into one of five categories. Then, you will be asked about the number of requests for services at your agency, the number of children/youth served, and the number you turned away or referred out of your agency.

This survey is meant to measure the service needs of children, youth and families. Since agencies provide multiple types of services and clients utilize more than one program to get their needs met, there will be duplication and overlap in your survey responses. Please do your best to provide accurate information for each program and the evaluation team from the Institute of Public Policy will follow-up with you if needed.

On behalf of the Children and Youth Project Team and its partners, thank you for taking the time to weigh-in on the valuable services you provide to our community.

NOTE: Your responses are confidential. They will be summarized with other children's services provider data in your county and reported in aggregate form. Please complete and submit the survey by close of business February 20, 2014.

Q1: What is your name?

Q2: What is the name of your agency?

Q3: What is your email address?

Q4: Please list the names of each of the programs your agency offers to children, youth and families.

The programs you list should be inclusive of one or more of the following service categories:

- Shelter or other services for abused, neglected or runaway homeless or emotionally disturbed youth. This includes transitional, permanent housing and respite care.
- Services for unwed parents and/or pregnant teens.
- Outpatient and/or residential chemical dependency treatment programs.
- Home-based or community-based family intervention and prevention programs.
- Psychological evaluations, mental health screenings, professional counseling and/or therapy services, outpatient psychiatric treatment programs, and/or crisis intervention.

Program 1 (name)	Program 6 (name)
Program 2 (name)	Program 7 (name)
Program 3 (name)	Program 8 (name)
Program 4 (name)	Program 9 (name)
Program 5 (name)	Program 10 (name)

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Please complete Questions 5 - 16 for each program you list above. If you list five, you will answer these questions five times, once for each program.

For "Program Name", please provide the following information for 2013. If you do not know exact figures, please provide a reasonable estimation.

Q5: What county(ies) does "Program Name" serve?

- Cass, MO
- Clay, MO
- Jackson, MO
- Platte, MO
- Ray, MO
- Johnson, KS
- Leavenworth, KS
- Miami, KS
- Wyandotte, KS

Q6: Please select the primary purpose of "Program Name".

If this program does not fit into any one category perfectly, please pick the best option. If this program has multiple purposes, please choose the category that best describes the program's main function. You will have the opportunity to provide further explanation of this program later in the survey.

- To offer services for temporary shelter, transitional living, permanent housing, and/or respite care
- To offer services for unwed parents and/or pregnant teens
- To offer services for outpatient and/or residential chemical dependency treatment
- To offer services for home-based and/or community-based family intervention and prevention
- To offer mental health services such as psychological evaluations, mental health screenings, professional counseling, professional therapy, outpatient psychiatric treatment programs and/or crisis intervention.

Q7: If needed, please select the secondary purpose of "Program Name".

- To offer services for temporary shelter, transitional living, permanent housing, and/or respite care
- To offer services for unwed parents and/or pregnant teens
- To offer services for outpatient and/or residential chemical dependency treatment
- To offer services for home-based and/or community-based family intervention and prevention
- To offer mental health services such as psychological evaluations, mental health screenings, professional counseling, professional therapy, outpatient psychiatric treatment programs and/or crisis intervention.

Q8: Please describe the services provided by "Program Name".

Q9: Please describe the target population for "Program Name".

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Q10: How many requests for services for "Program Name" did your agency receive in 2013? This does not have to be a count of unique individuals; the survey assumes there will be duplication.

Q11: How many people did you serve with "Program Name" in 2013?

Q12: How many people were turned away from Program Name" in 2013? "Turned away" can include those who were put on a waiting list, referred to another agency for the same service, encouraged to check back another time.

Q13: If the number "turned away" included people being put on a waiting list or being asked to wait for an extended period of time before receiving service, what is the average wait time for "Program Name"?

Q14: What was the approximate cost of one unit of service for "Program Name" (in dollars). This should include staffing costs. Please just enter a number, no "$" dollar sign needed.

Q15: On average, how many units of services does one client/customer consume for "Program Name"?

Q16: Is there any additional information you would like us to know about "Program Name"?

Q17: Based on your professional experiences, what are the unmet needs of children, youth and families in your community?

Q18: Please share any additional comments you have for the Children and Youth Project team in the space below.

This is the END of the provider survey – Thank you!

APPENDIX B: LIST OF AGENCY PARTICIPATION IN THE PROVIDER SURVEY:

Agency

1. 4 Oaks
2. Boys & Girls Clubs of Greater Kansas City
3. Children's Enhancement Program
4. Community LINC
5. Community Services League
6. Cornerstones of Care
7. Crittenton Children's Center
8. Flint Hills Job Corps
9. Fort Osage R-1 School District
10. Goodwill Western Missouri & Eastern Kansas
11. Hope House, Inc.
12. Independence School District
13. Jackson County CASA
14. Kansas City MO Health Department
15. Kids TLC
16. Mattie Rhodes Center
17. Mid America Head Start
18. Newhouse Shelter
19. Niles Home for Children
20. PACES/Wyandot Inc.
21. Pathways Community Health
22. Phoenix Family
23. Platte County R-3 School District
24. Preferred Family Healthcare
25. Project EAGLE
26. ReDiscover
27. ReStart
28. SAFEHOME, Inc.
29. Sheffield Place
30. Spofford
31. Steppingstone
32. Swope Health Services
33. Synergy Services
34. Tri County Mental Health Services
35. Truman Medical Center Behavioral Health

APPENDIX C: COST BENEFIT FRAMEWORK

Needs Assessment and Investment Plan to Serve At-Risk Children and Youth

Mid-America Regional Council

WORKING PAPER

RETURNS ON INVESTMENTS IN PROGRAMS FOR AT-RISK CHILDREN AND YOUTH

Brian Dabson

Introduction

One of the main outputs of the study is the preparation of an investment plan, which in large part will emerge from the needs assessment, the community awareness assessment, the convening of stakeholders, and the engagement of local government officials. However, there is also a need to provide an analytical framework for determining the economic return of strategic investments so as to guide strategies and priorities that will have the greatest impact on at-risk children and youth and on the broader community.

There are several ways in which impact of public programs can be assessed. For large scale economic development programs, such as sports stadiums, business incentives, and infrastructure projects, input-output analyses are used to predict the effect that the programs will have on regional employment and income. These analyses track the flow of money between industries, households, and government, and involve the use of large and complex tables of data, usually available through proprietary models. However, they are rarely used for social programs because of the difficulties in attaching unambiguous monetary values and more generally improvements in the regional economy are not the focus of these programs.

For social programs, economic returns are usually assessed either in terms of cost-benefit or cost-effectiveness. The former asks the question, *do the benefits of a program exceed its costs?* It allows comparisons across projects of

Definitions

Cost-benefit analysis (aka benefit-cost analysis) is widely used to compare the costs of doing something with its benefits. It requires identifying all the costs and benefits and then attaching a monetary value to them. The result is expressed as a ratio to enable different programs to be compared.

Cost-effectiveness analysis is used in cases where monetizing of the benefits may be controversial or difficult. In health services, for instance, the benefits may be expressed as years of life, or premature births averted. Comparisons are only possible with programs sharing the same intended outcome.

Present Value is the value today of an amount of money in the future. Using a **discount rate** it is possible to calculate the value of an investment in 5, 10, or 20 years. This is essential for calculating the monetary costs and benefits that will be incurred in the future. Generally, costs will be incurred before the full array of benefits are apparent.

Net Present Value (NPV) is calculated by subtracting the present values of the costs from the present values of the benefits. NPV is sometimes used as an alternative to cost-benefit analysis ratios, although its use tends to favor larger projects.

Internal Rate of Return is the discount rate that makes the NPV of all cash flows from a particular program equal to zero. Generally, the higher the rate of return the more attractive the investment.

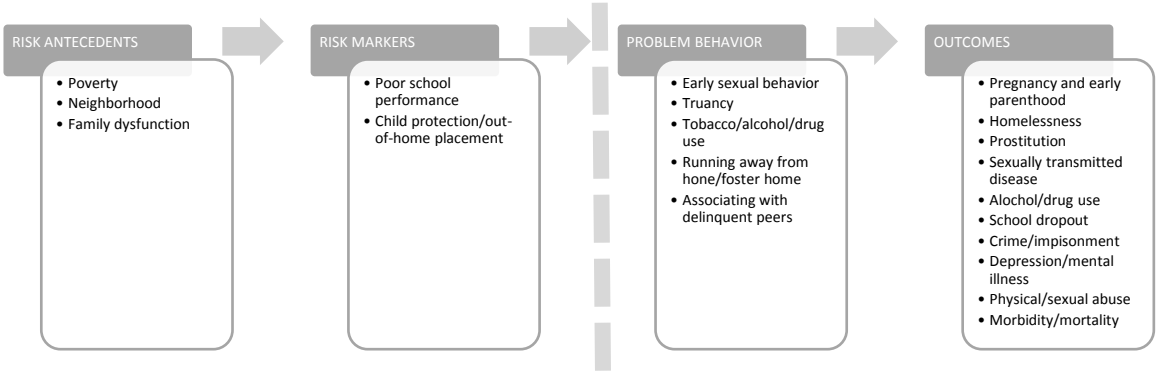
Opportunity Cost represents the cost of a program plus the value of what that money could have been used for – the next highest valued alternative use of that resource.

different sizes and with different objectives. The latter asks, *do the costs of a program yield the anticipated outcomes?* It can only compare projects with the same objectives, which, unlike cost-benefit analysis, does not require all benefits to be monetized. Both types of analyses face challenges in identifying appropriate quantifiable measures and in ensuring comprehensiveness of the costs and benefits or outcomes to be included, but cost-benefit analysis offers an ability to compare results across programs so as to estimate which offer the highest return on the investment. This paper presents a distillation of academic literature on current and recent past efforts to measure the benefits and costs of program investments in the areas of at-risk youth, early education, juvenile crime, foster care, and homelessness.

A Model of Adolescent Risk, Behaviors and Outcomes

Resnick & Burt (1996) outlined a framework for understanding risk in adolescence, arguing that the prevention of problems in youth must begin with the identification of risk antecedents and risk markers. "By the time problem behavior has been identified, these youth are no longer at risk, and thus no longer amenable (by definition) to intervention through prevention programs" (p. 185).

Figure 1: Adolescent Risk Model (Resnick & Burt (1996))



- **Risk Antecedents** refer to forces operating at the community and family level that increase an individual's vulnerability to future problems in the family, school, or community. Poverty, neighborhood and family dysfunction have been found to be predictors of adolescent behavioral problems. They are antecedents in that they exist before a youth displays problem behaviors.

- **Risk Markers** are behavioral precursors of future problems. They are the symptoms of living in risky conditions, and research has shown strong links between risk markers and the later onset of more serious problems. Examples are poor school performance – functioning below grade level, repeating grades – and involvement with child protection services and out-of-home placements.

- **Problem Behaviors** represent the transition from youth being at-risk to demonstrating problems. These include early sexual behavior, truancy, and running away from home.

- **Outcomes** are conditions that undermine a youth's future development as a responsible self-sufficient adult. Long-term prevalence of increasingly serious problem behaviors result from ineffective or absent interventions at the at-risk stage.

There are two important things to note about Resnick & Burt's framework. First, it does not account for individual-level factors (including race, gender, and cognitive ability) that may be strongly associated with the outcomes of interest. These factors are explicitly left outside the model, as the authors focus on the community and family-level influences that are amendable to policy reform. Second, some scholars have criticized the framework as "deficit focused," and that it invites people to overlook the strengths that disadvantaged populations have, despite their circumstances. Our view is that the "strengths-based" approach has important contributions to make for the field in crafting and implementing policy, but that these criticisms do not undermine the framework itself.

As will be shown in this paper, there is much evidence to support intervention at the earliest possible stage both as a means of avoiding problems for the individual and society, and as the way to significantly reduce costs to victims, communities, and government.

Cost-benefit studies for at-risk children and youth

Early childhood development and pre-school education has been a fertile ground for the use of "cost-benefit analyses to weed out political pork from economically productive programs" (Heckman et al, 2010). Three interventions have been the subject of intensive study:

- The **Chicago Child-Parent Centers**, where 1,539 low-income, mainly African-American children in the Chicago Public Schools system received comprehensive services, including parental involvement, outreach, and health and nutrition, from pre-school to age nine, tracked to the age of 22.

- The **High/Scope Perry Preschool Program** provided a half-day, five days per week intervention, backed by home visits, for three- and four-year olds from African-American poor families. 123 children were followed up to the age of 27 and then to 40.

- The **Carolina Abecedarian Project** provided full-day, year-round care for five years for mainly at-risk African-Americans. 111 families were tracked up to the age of 21.

In a review of the evidence from studies of these programs (Temple & Reynolds, 2007), it was noted that early childhood programs are an effective means of reducing future labor force and crime problems. Early intervention is more cost-effective than offering treatment or training later on for those having difficulties in graduating from high school, finding a well-paying job, and staying out of crime. Successful programs have shown to improve academic achievement, and reduce the need for remedial education and social services. They are also associated with reduced levels of delinquency, educational attainment, and better economic well-being to adulthood. An earlier review of the literature (Barnett, 1995) suggested that participation in pre-school programs led to a 31 percent reduction in grade retention, a 50 percent reduction in special education placement, and 32 percent fewer high school dropouts.

Across the three interventions, studies showed that benefits per participant (in 2002 dollars) were estimated to be $946-$1,892 in child care, $5,377-$8,836 in K-12 education savings, $850 in child welfare savings, $363 in adult education savings, $30,638-$43,253 in participant earnings, $17,782 in savings related to smoking and health, $36,902-$90,246 in crime savings, $340 in welfare savings, and $73,608 in maternal earnings (ages 26-60). The total benefits per dollar (benefit-cost ratio) invested were calculated as $10.15 for Child-Parent Centers, $8.74 for High/Scope Perry, and $3.78 for Abecedarian (Temple & Reynolds, 2007).

A life-time analysis of the High/Scope Perry Program (Belfield et al, 2006) showed $49,190 (in 2000 dollars) in net benefits for program participants over their working life or six percent of total earnings. For the general public, net benefits (such as educational attainment, higher tax payments, lower welfare payments, and reduced crime costs) amounted to $180,455 per participant, equivalent to a benefit-cost ratio of $12.90 for every dollar invested (at 3 percent discount rate). When participant and general public benefits were combined, an internal rate of return was estimated to be 17 percent.

This analysis raised a number of methodological issues among researchers, so a follow-up study (Heckman et al, 2010) used a number of techniques to remedy these concerns. This study looked at costs and benefits of outcomes where reliable data were available – education, earnings, criminal behavior, tax payments and reliance on public welfare programs – and excluded health outcomes, marital and parental outcomes, and the quality of social life. Heckman et al concluded that the annual rates of return fell between seven and ten percent, much less than previously estimated but still higher than the historical return on equity of 5.8 percent. Their calculations also showed a benefit cost range of $7.1 to $12.2 in benefits for every dollar invested (at 3 percent discount rate)

A recent study on the effects of the Child-Parent Centers program (Reynolds et al, 2011) on participants' well-being at the age of 28 underscored the benefits of early education interventions. These included higher levels of educational attainment, higher rates of health insurance coverage, lower rates of substance, alcohol and drug abuse, and lower rates of crime. Of particular interest was that substantial benefits were found for males and for children whose parents were high school drop-outs, and the positive effects were found in spite of the high risk environments in which the children lived. Referring back to the Resnick and Burt model, this suggests that effective interventions can impact risk antecedents.

Saving a high-risk youth according to one study (Cohen, 1998) could prevent 60-80 crimes and result in $1.2 -$1.5 million in tangible benefits. There could be an additional 30 percent in benefits from avoiding intangible losses such as pain and suffering and lost quality of life. Cohen calculated costs imposed by a career criminal, a heavy drug abuser, and a high-school dropout. Juvenile delinquency between the ages of 14 and 17 imposes over $83,000 in external costs. The total costs of a life of crime, assuming 14 years of offending and incarceration, ranged from $1.5 to $1.8 million – 25 percent victim costs, 50 percent lost quality of life, 20 percent criminal justice costs, and 5 percent offender productivity losses. Another study of male juvenile offending among a cohort of 503 boys, aged 7-17, in Pittsburgh (Welsh et al, 2008) indicated that this cohort caused between $89 million and $110,000 million in victimization costs. Such costs included damage to property, pain and suffering, and involvement of police and other agencies.

Cohen (Cohen, 1998) estimated that a high-school dropout imposes costs of $470,000 and $750,000 (1997 dollars). Another study (Cohen & Piquero, 2009) described a typical high-risk youth

with over six police contacts (who collectively commit half of all crimes) who imposed between $3.2 million - $5.2 million in costs when discounted to the age of 14. The bulk of these costs were due to crimes, with $390,000-$580,000 resulting from a loss of productivity through dropping out of high school. Cohen & Piquero argue that effective early interventions targeted at high risk offenders can have substantial payoffs. The present value of costs imposed by someone with one police contact was $173,000 to $240,000. For youth with two or more contacts, the costs rise to $1.1 million to $1.6 million through age 26; and for the worst offenders with 15 or more contacts the costs were $3.6 million to $5.8 million.

Cohen also estimated that a heavy drug abuser generates costs ranging from $483,000 to $1.26 million, where half the costs relate to associated criminal activity, the balance to opportunity costs, drug treatment costs, reduced productivity, medical costs, premature death, and criminal justice costs (Cohen, 1998). A study prepared by the Missouri Division of Alcohol and Drug Abuse (MDADA, 2008) calculated that costs for state government of substance abuse was approximately $1.3 billion annually with societal costs at $7 billion. The average cost to treat a substance-addicted individual is $1,346 compared with a cost to society of $17,300 not to treat that individual. The Missouri Department of Social Services spends over $15 million annually on residential services for the care and treatment of youth with substance abuse issues.

An analysis of longitudinal data from the Second Philadelphia Birth Cohort (Cohen, Piquero & Jennings, 2010) looked at different trajectories of young offenders and the costs they impose on society. Overall offending *frequency* accounts for the bulk of costs in juvenile years, whereas the *seriousness* of crimes drives costs in adult years; moreover high frequency offending as juveniles leads to high seriousness offending in adults. The authors conclude that focusing prevention and intervention efforts on high-rate chronic offenders could yield significant benefits at lower costs and suggest that early childhood programs such as family-parent training, self-control improvement, and cognitive therapies should be used to move juveniles from high-rate chronic offending to low or no offending trajectories. The elimination of high frequency juvenile offenders, representing 3.1 percent of the total cohort of 6,750, would result in the prevention of 2,000 crimes or 34 percent of all crimes committed by the cohort, with costs savings of $200 million compared with $529 million of total costs. However, Ludwig (2010) noted that the lowest offending group, which at 18.6 percent of the cohort or six times larger than the highest offending group, represented 37 percent of the total costs, raising some questions as to the efficacy of targeting the 3.1 percent.

Cost-benefit analysis has also been used for foster care programming. In a study of a transitional program in California that provides funding and guardianship support for foster youth through the age of 23 (Packard et al, 2008), benefits were estimated to be over $320 million compared with costs of $123 million for one five-year cohort. Over 40 years, the Net Present Value would be $1.5 billion with a benefit-cost ratio of 1.5 to 1. The benefits were derived from savings through avoidance of welfare and prison and increased tax revenues due to higher education levels and salaries. Of note, is that in California in any given year, foster children comprise less than 0.3 percent of the state's population, yet 40 percent of persons living in homeless shelters are former foster youth, a similar proportion was found among the prison population, and 51 percent were unemployed.

A paper prepared for the National Symposium on Homelessness Research (Culhane et al, 2007) provided an assessment of the progress made on cost-effectiveness and performance of homeless assistance programs. There is relatively little peer-reviewed academic research but a growing amount of program monitoring and evaluation from across the country. For instance, a study in Maine (Mondello et al, 2007) showed that housing people who are homeless cuts the costs of average services they consume in half. Permanent supportive housing cut emergency room costs by 62 percent, health care costs by 59 percent, ambulance transportation costs by 66 percent, police contact costs by 66 percent, incarceration by 62 percent, and shelter visits by 98 percent. The study also found that although use of mental health services increased by 35 percent, the costs were 41 percent less reflecting a shift from expensive emergency and psychiatric inpatient care to less expensive outpatient community-based mental health services. A cost-benefit analysis in Denver (Perlman & Parvensky, 2006) of a comprehensive housing and supportive services program showed a reduction of 73 percent in emergency services costs, 66 percent in inpatient costs, 84 percent in detox visits, and 76 percent in incarceration days and costs. Overall the analysis showed net cost savings of $4,475 per person.

A review of the cost-effectiveness literature on homeless assistance programs (Rosenheck, 2000) concluded that only the most costly 10 percent of homeless people with mental illness are likely to show costs saved that can be offset by the costs of interventions. Kuhn & Culhane (1998) identified a chronic homeless population where only 10 percent of the adult shelter users account for 50 percent of the shelter costs. Average costs in 2006 dollars for these heavy users were $6,600 in Philadelphia and $20,400 in New York City, the difference being largely accounted for by the larger array of support services available in New York City. This may suggest an argument for focusing attention and resources on the mostly costly in order to bring overall costs down and yield the most societal benefits.

One of the more ambitious attempts to bring the above analyses and others together into a comprehensive framework is Washington State Institute for Public Policy's Benefit-Cost Model (Aos et al, 2004; WSIPP, 2013 and 2014). A study was commissioned by the legislature to look at the costs and benefits of programs intended to yield outcomes relating to crime, substance abuse, educational outcomes, teen pregnancy, teenage suicide attempts, child abuse or neglect, and domestic violence. This study conducted an extensive literature review of evaluations in the United States since 1970 totaling some 3,500 documents. These were assessed on the quality of their research design, and then a benefit-cost model was constructed in which monetary values were assigned to any observed changes in outcomes. Considerable efforts were made to maximize internal consistency so that programs could be directly compared. The results were first published in 2004.

Efforts to apply the lessons of cost-benefit studies for at-risk children and youth

Since 2004, the model has been refined and peer reviewed and is now being applied in 13 states as part of the Pew-MacArthur Results First Initiative[2] (WSIPP, 2013). A principal objective of the model is to produce a 'What Works" list of public policy options available to the legislature and to rank the list by

[2] A report prepared by the Pew-MacArthur Results First Initiative (2013) presented the results of a study of the use of cost-benefit analyses by state governments. Based on the number of cost-benefit studies conducted, their scope across multiple program areas and policy options, and their use for budget and policy actions, Missouri was identified as one of ten states as 'leading the way.'

estimates of return on investment. This ranked list can then help policymakers chose a portfolio of policies that are evidence-based and have a high likelihood of producing more benefits than costs. WSIPP uses four main steps (WSIPP, 2013):

- *What works?* Systematically review of the research literature to identify policies and programs that demonstrate an ability to improve outcomes.
- *What makes economic sense?* Applying economic calculations to put a monetary value on the improved outcomes; once monetized the estimate benefits are compared to program costs to arrive at a set of economic bottom lines.
- *How risky are the estimates?* Assessing the odds that an individual return on investment may offer the legislature the wrong advice.
- *How can a portfolio of policy options change statewide outcomes?* Picking and choosing options and projecting the combined impact of those options on statewide costs, benefits, and outcomes.

Current results present benefits (tax payer and non-taxpayer), costs, benefits minus cost (net present value), benefit to cost ratio, and odds of a positive net present value for each program (WSIPP, 2014). In broad terms, the results show the following:

- Of 18 **juvenile justice** programs assessed, 17 show positive net present values ranging from $948 to $58,043, and benefit to cost ratios from $1.30 to $18.42. The 'best' performers are family-based interventions, behavioral modification programs and multi-dimensional treatments.

- 13 **child welfare** programs are included of which eight show positive net present values ranging from $249 to $16,956, and benefit-cost ratios from $2.73 to $14.67. Certain home visiting programs and parent-child interaction therapy are shown as being particularly beneficial.

- Of 25 **pre-K to 12 education** programs, four yield negative net present values. Those that show positive results, net present values range from $9 to $22,236 and benefit-cost ratios from $1.0 to $62.82. The highest performing programs are early childhood education programs, Head Start, and K-12 tutoring.

- **Children's Mental Health** programs, covering anxiety, attention deficit hyperactivity disorder, depression, disruptive behavior, serious emotional disturbance, and trauma, indicate a range of somewhat lower net present values with certain cognitive behavioral and family therapies being the most beneficial. Benefit-cost ratios range from $1.09 to $11.01.

A different approach to the use of cost-benefit analysis is the exploration of social impact financing (Dubno, Dugger & Smith, 2013). This refers to innovative ways of developing income streams that will attract new mixes of public and private investments to tackle entrenched social problems. As referenced earlier, research shows that providing three- and four-year old socially and economically disadvantaged children with quality pre-kindergarten (pre-k) education can significantly reduce public school elementary special education assignment rates. The cost reductions associated with lower assignment rates, given the high costs of remediation, have been shown to be sufficient to pay for the pre-k provision. Similarly, the costs of home visit pre-natal counseling to improve maternal nutrition and health can be paid for by reducing the post-delivery health costs associated with low-weight births. Dubno, Dugger & Smith (2013) describe the "pay for success" form of social impact financing, where success payments are made by government for 'cost avoidance' (actual reductions in government operating costs resulting from an intervention) and 'outcome improvement.' They calculate an internal rate of return of 8 percent on

government investments in re-k for at-risk children, which would sufficient to support fixed-maturity fixed-rate obligations such as bank loans or bonds to finance such investments.

Commentary

Economic analyses increasingly inform the valuation of investments in social welfare and to provide a more objective basis upon which to make resource allocation decisions. The evidence presented in this paper shows:

- Effective interventions can lead to actual and often significant reductions in government spending on subsequent remediation and other downstream costs.

- Early interventions, particularly in pre-school education, initial contact with law enforcement, and substance use, can be particularly effective in warding off the onset of serious problems and putting vulnerable children back on track to productive and rewarding lives. Such interventions can go some way to counteracting the risks and pressures associated with poverty, neighborhood conditions, and family dysfunction, and can yield benefits of up to $7 to $12 for every dollar invested.

- Targeting interventions on those who impose the highest costs on public services and on society may yield the highest returns on investment. Focusing on high frequency juvenile offenders, extended guardianship of foster children, or permanent housing for the chronic homeless may particularly effective.

No single number or metric will dictate the most effective investments in at-risk children and youth. But the approach and model pioneered by the Washington State Institute for Public Policy WSIPP) gets the closest to an evidence-based, peer-reviewed methodology for assessing and comparing different programs across juvenile justice, child welfare, early education, and mental health. Many of the programs reviewed are national in scope or widely applied across the country, and it is thus possible to make comparisons with programs that are being used or proposed in the Kansas City region. A common thread to the WSIPP's analyses appears to be the effectiveness of intensive family-based interventions designed to modify behaviors and address the vulnerabilities of poverty, neighborhood conditions, and family dysfunction.

It is important to note that all of the cost-benefit analyses attempt to capture costs and benefits across broad areas – crime, health, education, future earning potential, quality of life – and over extended periods of time. The challenge this imposes is that the benefits generated by investments by a particular agency may not return to that agency for years to come, if at all, while other agencies may reap those benefits directly through a reduced need to spend money on remedial or downstream actions. Thus a holistic and integrated approach to interventions is required so that the costs and benefits can be appropriately recognized.

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