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TMC HEALTH POLICY PROGRAM

REQUEST:

"Do we have any local or state data on Medically Complex Children? Preferably the Greater Houston area or Harris."

RESPONSE:

Definition: Children with medical complexities require the highest level of services and support from children's hospitals due to the intensity of care and breadth of pediatric specialists required to care for their conditions. There are approximately 3 million of these children in this country, and almost all of them are cared for in children's hospitals. And the population is growing. Children with medical complexities are often enrolled in Medicaid. Based on initial estimates of Medicaid data, 6 percent of child enrollees fall into this category, and they represent 40 percent of the Medicaid health care spend for children. Using the 3M™ Clinical Risk Group categories, these children can be defined as those that fall into CRG categories 5 through 9; a portion of children in lifelong chronic, complex chronic children, and children with malignancies. They are children with significant chronic conditions in two or more body systems or those with a single dominant chronic condition.

Health Status Category	**CRG Level**	**Most Common CRG Conditions in Health Status Category**
Healthy/acute	CRG = 1: Healthy CRG = 2: History of significant acute disease	Healthy (82.5%) Acute ear-nose-throat illnesses (4.2%)
Minor chronic	CRG = 3: Single minor chronic disease CRG = 4: Minor chronic disease in multiple organ systems	ADHD (14.2%) Chronic eye diagnoses (14.4%) Psoriasis (13.8%) Chronic joint/musculoskeletal diagnoses (8.0%)
Significant chronic	CRG = 5: Single dominant or moderate chronic disease CRG = 6: Significant chronic disease in 2 organ systems CRG = 7: Dominant chronic disease in 3 or more organ systems CRG = 8: Dominant, metastatic, and complicated malignancies CRG = 9: Catastrophic conditions	Asthma (47.2%) Developmental delay (11.3%) Schizophrenia (7.3%) Obesity (4.9%)
Adapted from Table 1 in Morris et al: http://www.ajmc.com/journals/issue/2011/2011-11-vol17-n11/preventive-care-for-chronically-ill-children-in-medicaid-managed-care/P-1		

We began by searching for data on "Medically Complex Children" at the State and local levels. Such data is either not being collected, or is not made available to the public.

In order to answer the query, we researched data for the four most common conditions that satisfy the aforementioned definition of "Medically Complex Children":

1- Asthma
2- Developmental delay
3- Schizophrenia
4- Obesity

1- Asthma:

In Texas, approximately 1.4 million adults and 617,000 children have asthma. An estimated 7.8% of children in Texas have current asthma.

Asthma Prevalence, Children, 0 to 17 years					
	Estimated Number	**Percentage of Children** (95% confidence interval)	**Region**	**Estimated Number**	**Percentage of Children** (95% confidence interval)
Total	545,715	**7.8** (6.3-9.3)	**HSR 1**	-	-
			HSR 2	-	-
White	153,954	**6.6** (4.6-8.5)	**HSR 3**	149,697	**7.9** (4.6-11.2)
Black	139,963	**17.3** (10.3-24.3)	**HSR 4**	-	-
Hispanic	232,233	**6.8** (5.0-8.7)	**HSR 5**	-	-
Other	-	-	**HSR 6**	-	
			HSR 7	75,282	**9.8** (5.8-13.8)
Boy	286,027	**8.0** (6.0-10.0)	**HSR 8**	69,570	**9.8** (5.1-14.4)
Girl	259,997	**7.6** (5.5-9.8)	**HSR 9**	-	
			HSR 10	-	-
0-4 years	116,300	**6.0** (3.2-8.8)	**HSR 11**	58,426	**8.6** (4.2-13.0)
5-9 years	180,350	**9.2** (5.9-12.5)			
10-14 years	158,305	**8.1** (5.2-10.9)			
15-17 years	108,613	**9.5** (5.5-13.4)			

Source:

Texas Department of State Health Services, Center for Health Statistics. Texas Behavioral Risk Factor Surveillance System, 2012 (updated in 2014).
https://www.dshs.texas.gov/asthma/data.shtm

2- Obesity:

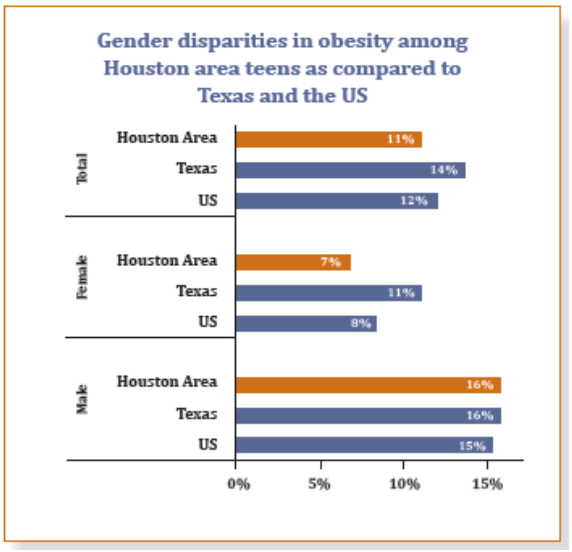
Indicator	Data	95% CI	Sample Size	Year	Data Source
Adolescents who are obese *(students in grades 9-12)*	15.7%	(13.9-17.6)	3,039	2013	YRBSS
Adolescents who are overweight *(students in grades 9-12)*	15.6%	(14.1-17.2)	3,039	2013	YRBSS
WIC 2-4 year olds who have obesity *(children aged 2 to 4 years)*	15.9%	(15.8-16.0)	336,178	2012	WIC PC
WIC 2-4 year olds who have an overweight classification *(children aged 2 to 4 years)*	16.3%	(16.2-16.5)	336,178	2012	WIC PC

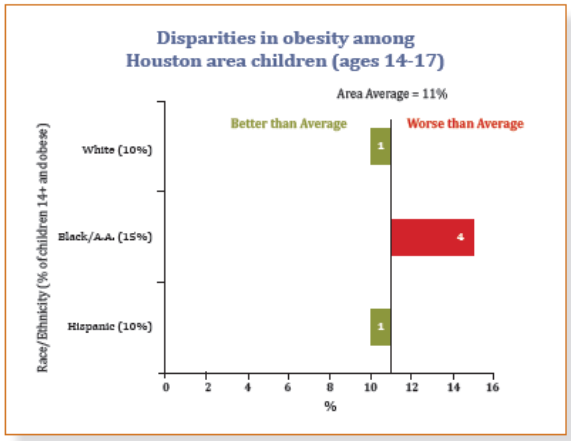
Source:

CDC. Nutrition, Physical Activity and Obesity: Data, Trends and Maps:

https://nccd.cdc.gov/NPAO_DTM/Default.aspx

Based on data from the Health of Houston Survey 2010, the Houston area had lower obesity rates among teens compared to the Texas average and national average. Except among males, where the Houston rate matched the Texas rate and was higher than the national one. Comparing across racial and ethnic groups, obesity appears to be more common among African American children – 15% relative to our area average of 11% (see Figures).



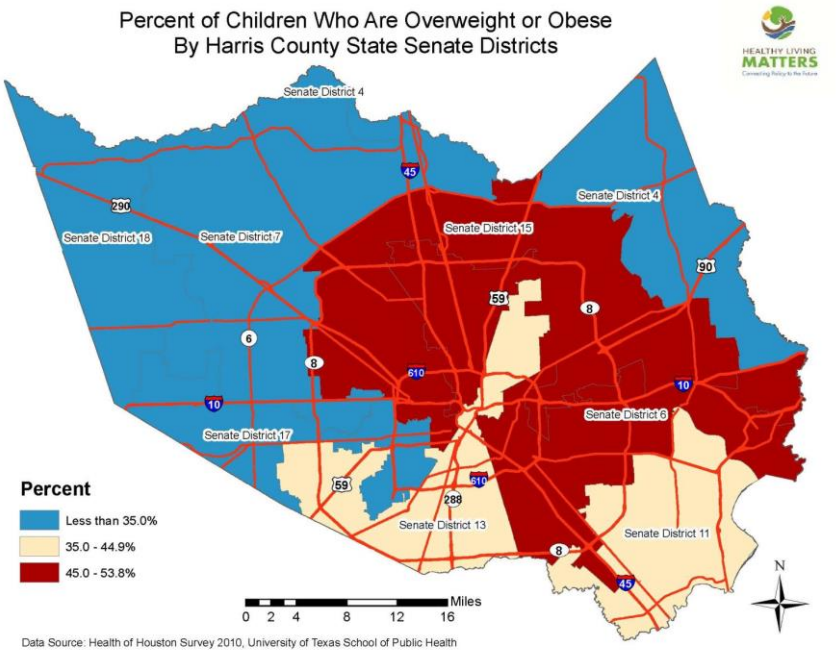


Source:

Health of Houston Survey 2010:

https://sph.uth.edu/content/uploads/2010/09/HHS-8.5x11-Sep30_cover.pdf

The following map shows the percent of children who are overweight or obese by Harris County State Districts. The source of this data is the Health of Houston Survey 2010 as well.



Source:

Healthy Living Matters:

http://www.healthylivingmatters.net/userfiles/Servers/Server_59212/image/StSenateObeseandOverweight.jpg

3- Developmental delay:

Autism:

According to the most recent estimates from CDC's Autism and Developmental Disabilities Monitoring (ADDM) Network from 2012, about 1 in 68 children aged 8 years, has been identified with autism spectrum disorder (ASD).

Down syndrome:

Down syndrome occurs in about 1 in every 800 to 1,000 live births. Although parents of any age may have child with Down syndrome, the incidence is higher for women over 35. In Harris County the prevalence of Down syndrome in 2011 was 13.34 per 10,000 live births.

Source:

Texas Health Data birth defects registry available at:

http://healthdata.dshs.texas.gov/Registries/BirthDefects

Fetal Alcohol Syndrome (FAS):

According to the CDC, Fetal Alcohol Syndrome (FAS) occurs in 0.2 to 1.5 infants with FAS for every 1,000 live births in certain areas of the United States (Alaska, Arizona, Colorado, and New York). Studies using in-person assessment of school-aged children in several U.S. communities report higher estimates of FAS: 6 to 9 out of 1,000 children. The CDC's Pregnant Risk Assessment and Monitoring (PRAMS) found that 44.3% of women in Texas reported drinking three months before they were pregnant. National studies indicate that one in eight women continue to drink during pregnancy. The prevalence of Fetal Alcohol Spectrum Disorder (FASD) may be as high as one to five percent in the United States. This is higher than the prevalence of autism spectrum disorders. Given that the drinking rates in Texas are similar to national rates, it is a reasonable to assume that the national rates of FASD are reflected in Texas.

Intellectual Disability:

According to test standards and studies about 2.7% of the Texas population falls at or below an IQ score of 70. For evaluation of their needs for services, persons with an intellectual disability can be divided into three groups, mild, moderate and severe/profound:

- Mild range of Intellectual Disability: about 2.34% of the total population
- Moderate range of Intellectual Disability: about 0.28% of the population.
- Severe and profound ranges of Intellectual Disability: about 0.11% of the population

Sources:

Intellectual and Developmental Disabilities Needs Council of Harris County (2005). Mental Retardation and Other Developmental Disabilities including Autism in Harris County. Available at: http://iddnc.org/wp-content/uploads/IDDNC-MRDDA-Report.pdf

Intellectual and Developmental Disabilities Needs Council. FAQs Available at: http://iddnc.org/resources/faqs/

Texas Department of Mental Health and Mental Retardation Strategic Plan for Fiscal Years 2003-2007, page 85. Available at: http://s3.amazonaws.com/zanran_storage/www.dshs.state.tx.us/ContentPages/5423010.pdf

Pregnant Risk Assessment and Monitoring (2011). Available at: https://chronicdata.cdc.gov/Maternal-Child-Health/CDC-PRAMStat-Data-for-2011/ese6-rqpq

4- Schizophrenia:

Most of the available data is on Serious and Persistent Mental Illness (SPMI) which includes Schizophrenia, Bipolar Disorder and Major Depression. Childhood-onset schizophrenia (COS), characterized by onset before age 13 years, has a prevalence of approximately 1 in 40,000.

In Harris County, according to the 2010 Census data, there are 1,147,835 children under 18 years of age:
1,147,835 X 1/40,000 ≈ 29 children in Harris County with childhood-onset schizophrenia.

Source:

Gochman P, Miller R, and Rapoport JL (2011). Childhood-Onset Schizophrenia: The Challenge of Diagnosis. Curr Psychiatry Rep; 13(5): 321–322. doi: 10.1007/s11920-011-0212-4. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3289250/