

## Characteristics of Children/Youth with Chronic Physical Illness, their Service Use and Clinical Outcomes in Systems of Care

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## The President's New Freedom Commission Report on Mental Health

- ▶ **Goal 1: Americans Understand that Mental Health is Essential to overall Health**
  - **Recommendation 1.2: Address mental health with the same urgency as physical health.**
- ▶ **Goal 4: Early Mental Health Screening, Assessment, and Referral to Services are Common Practice**
  - **Recommendation 4.4: Screen for mental health disorders in primary health care, across the life span, and connect to treatment and supports.**



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## Review of the Literature

- ▶ **Mental illness can manifest itself through physical symptoms** (CDC, 2003; Glazebrook et al, 2003; Holden et al, 1997)
- ▶ **Mental and physical illnesses often co-exist and one may increase risk for the other** (Bair, Robinson, Katon & Kroenke, 2003; NIMH, 2002)
- ▶ **Children with mental illness have been described as more burdened by physical health issues** (Garralda, Bowman, and Mandalia, 1999)
- ▶ **Barriers exist to the detection of mental health needs by primary care providers** (Asarow et al, 2002)



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## Study Participants

- ▶ **Youth and families enrolled in the national evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program of the Center for Mental Health Services (CMHS) at SAMHSA**
- ▶ **Sample**
  - 13,602 children and youth for whom physical health data were available in 45 communities funded by CMHS from 1997 – 2000.
    - ♦ 56.9% White, 24.9% Black/African American, 11.8% American Indian/Alaska Native, 11.8% Hispanic Origin, 1.4% Asian/Pacific Islander, 1.2% Other, 8.3% Multi-racial.



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## Measures

### Demographic and Descriptive Data

- ▶ **Descriptive data including physical health data collected using the Descriptive Information Questionnaire (DIQ) at services intake.**
  - “Does (*child's name*) have recurring ir chronic physical health problems such as allergies, asthma, migraine headaches, diabetes, epilepsy, cancer, etc.?”
  - Problem description – open-ended.



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## Measures

### Service Use and Clinical Outcomes Data

- ▶ **Services Utilization collected at 6 month follow-up assessments with the Multi-Sector Service Contacts form (MSSC).**
- ▶ **Clinical and functional characteristics were assessed at intake and follow up with the CBCL, CAFAS, & BERS.**



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## Analytic Approach

- ▶ Comparison of Child/Youth Intake Characteristics
- ▶ Multiple Regression
  - Contribution of Chronic Physical Illness and Other Factors to Child/Youth Clinical Problems at Intake
- ▶ Reliable Change Analysis of Clinical and Functional Measures from Intake to 6 Months
- ▶ Logit to Examine Change in Percentage of Children/Youth with Severe Problems from Intake to 6 Months

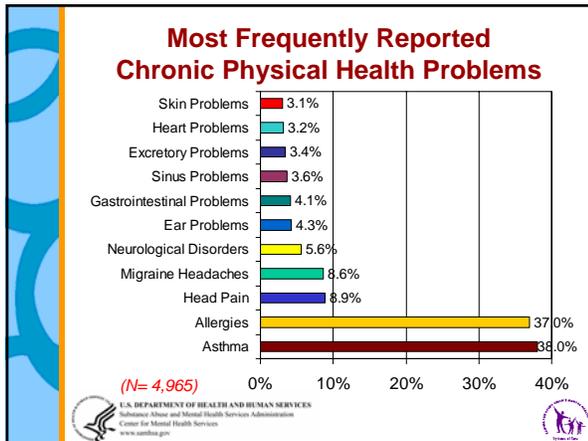

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## Demographic Characteristics

Chronic Illness 36.5%	(N=13,602)	No Chronic Illness 63.4%
Mean Age: 12.08		Mean Age: 12.12 <sup>1</sup>
Girls: 34.5%		Girls: 32.1%*
White: 59.9%		White: 57.8%**
Below Poverty: 49.7%		Below Poverty: 45.5%***
<b>Past 6 Months</b>		
Acute Illness: 47.0%		Acute Illness: 26.5%****
Mean # of times: 2.64		Mean # of times: 2.06*****

n=13,597  
<sup>1</sup>X<sup>2</sup> = 8.47, n=13,589, p=.004.  
<sup>\*</sup>X<sup>2</sup> = 5.6, n=12,508, p<.05.  
<sup>\*\*</sup>X<sup>2</sup> = 19.34, n=11,704, p<.001.  
<sup>\*\*\*</sup>X<sup>2</sup> = 205.79, p<.001.  
<sup>\*\*\*\*</sup>t = -3.12, df = 1,602, p=.002.


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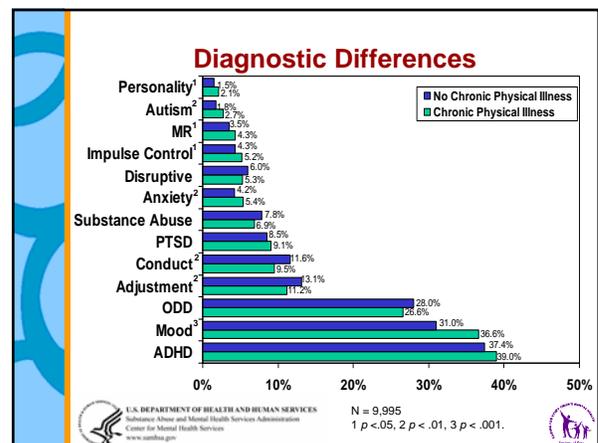
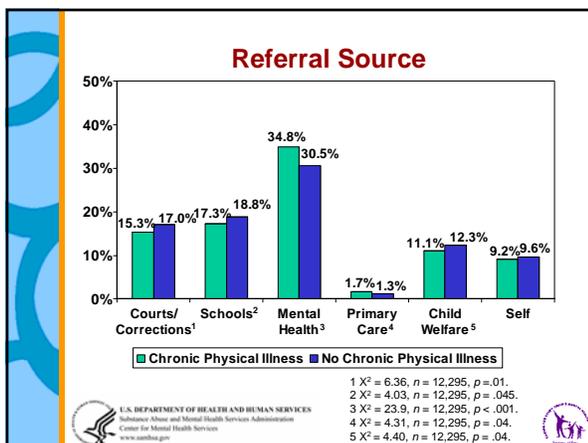



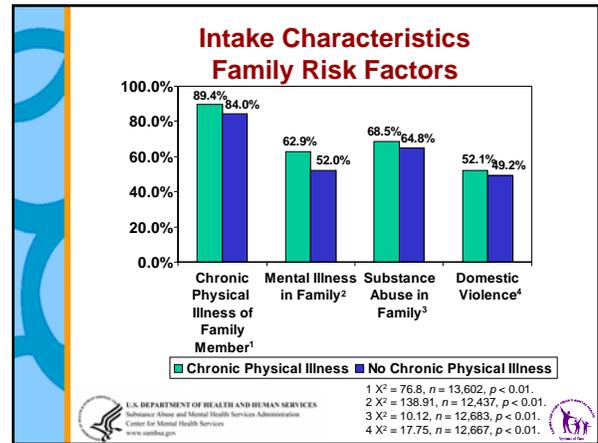
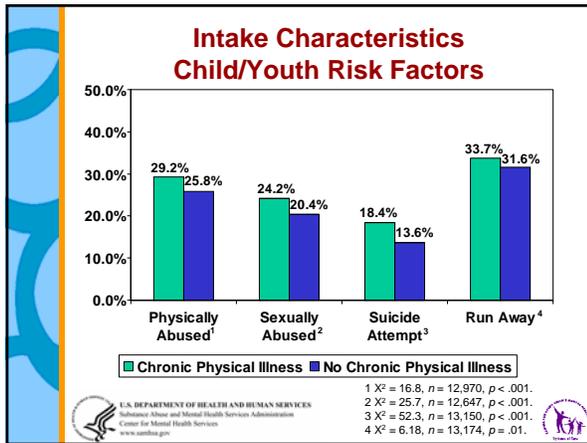
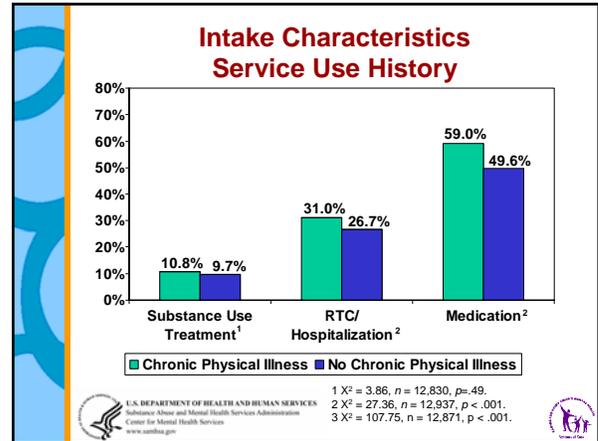
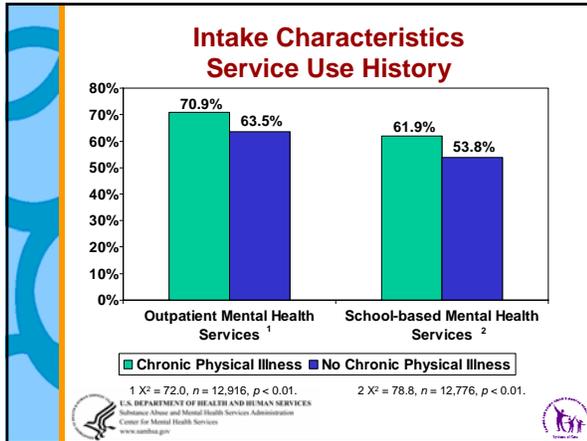
## Children/Youth with Chronic Illnesses

*Use of Medical Services in Past 6 Months*

	N	Mean
Doctor Visits	1,827	2.72 (sd=8.6)
Emergency Room Visits	1,848	.42 (sd=1.6)
Times Hospitalized	1,853	.11 (sd=1.03)
Days Hospitalized	106	12.69 (sd=24.5)
Times Activities Disrupted	1,797	8.55 (sd=28.3)
Medication for Physical Health Problems	4,770	63%


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### Intake Clinical Characteristics

	Chronic Physical Illness (Mean Score)	No Chronic Physical Illness (Mean Score)	F	p
CAFAS (n=6,579)	114.9	109.9	17.42	<.001
CBCL (n=5,849)	71.9	69.2	100.1	<.001
BERS (n=6,439)	86.2	86.8	2.29	ns

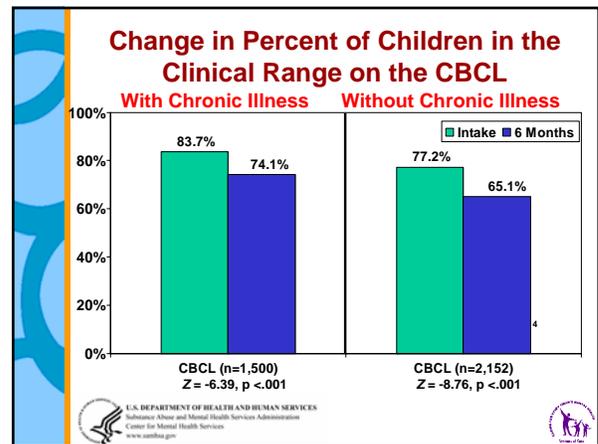
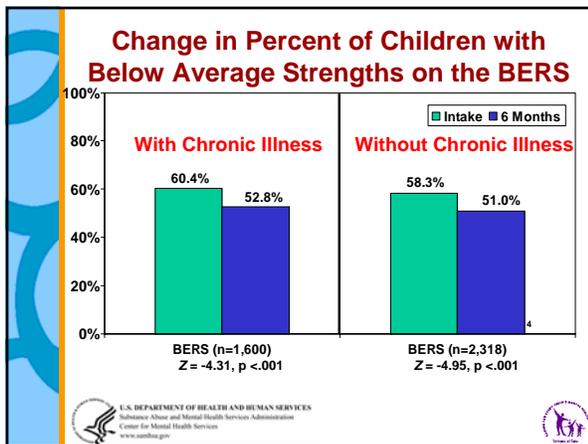
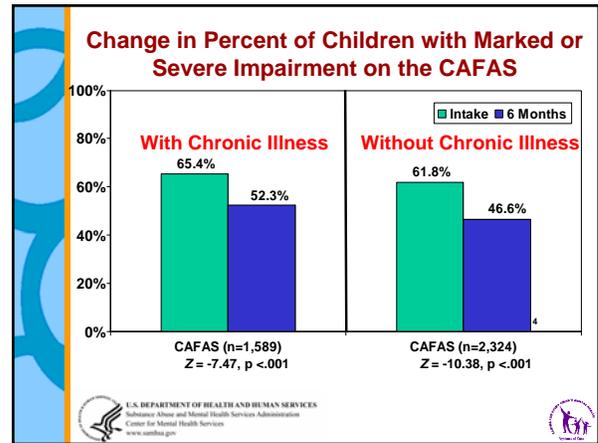
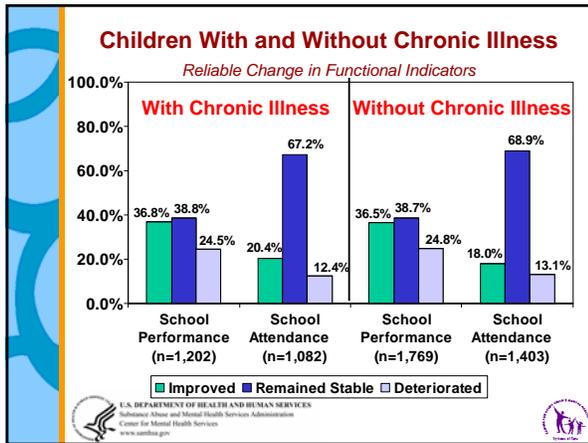
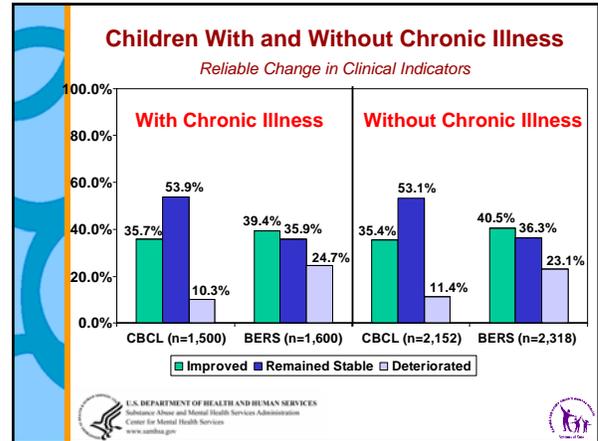
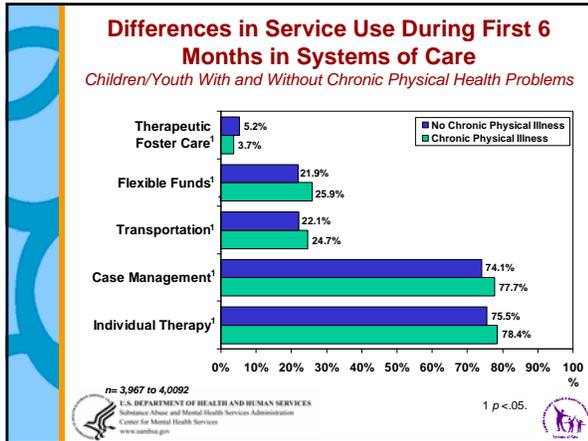
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### Predictors of Behavioral and Emotional Problems (CBCL Total Problems T-Score)

COVARIATES	Model 1 Beta	Model 2 Beta
Chronic Physical Health Problem	.112***	.059**
Outpatient Services in Past 12 Months		.093***
School-based Services in Past 12 Months		.103***
Physical Abuse		.032
Sexual Abuse		.066**
Suicide Attempt		.147***
Domestic Violence		.038
Mental Illness in Bio Family		.201***
Family Member - Chronic Health Problems		.053*
Adjusted R <sup>2</sup>	.012	.148

\* < .05, \*\* < .01, \*\*\* < .001

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## Summary of Findings

- ▶ Children/Youth with serious emotional disturbance with chronic physical illnesses
  - differ demographically from children without these added problems, have increased child and family risk factors, are more burdened by other health problems and enter services with greater behavioral, emotional and functional problems.
  - are more likely to have received previous outpatient and residential services, and medication for behavioral and emotional problems.
  - are more often diagnosed with mood disorders, personality disorders, impulse control, anxiety, autism, and mental retardation; and less likely to be diagnosed with conduct and adjustment disorders.
  - are more often referred from mental health and primary care.



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## Summary of Findings

- ▶ Although having a chronic health problem was a predictor of behavioral and emotional problems, it was not as strong a predictor as other factors, and did not predict functional impairment when other factors were entered into the regression model.
- ▶ Children/youth with chronic health problems were more likely to receive case management, individual therapy, transportation, and flexible funds, and less likely to receive therapeutic foster care.
- ▶ Children /youth with chronic health problems achieved similar levels of improvement in behavioral and emotional problems, strengths, functioning, and school attendance and performance as other children/youth.



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## Implications

- ▶ Children/youth with physical health problems who are more burdened by behavioral and emotional problems are also more burdened with environmental risk factors.
- ▶ Further examination is needed to better understand the association between physical health problems, emotional and behavioral problems, and environmental factors.
- ▶ Although these children/youth are at greater risk, they improve at similar rates to their peers without chronic physical health problems in systems of care.
- ▶ Additional analyses are needed to better understand the combinations of services received by these children. Differences in service use suggest attention to heightened needs in concentrated areas for these children and their families.



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## Implications for Systems of Care

- ▶ Systems of care have worked to engage public health agencies and primary care providers such as pediatricians. Referrals to mental health are still low and more can be done to engage these providers, and educate them about the mental health needs of children and youth.
- ▶ Slightly higher referrals for children with chronic illness suggest that these providers can assist in identifying service needs of children with physical health problems. Primary care providers should be alert to the increased risk of these children for mental health problems, as well as environmental risk factors.



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## Questions

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