SCHOOL OF PUBLIC HEALTH
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Identifying Factors Associated with Regional Variations in Utilization of Mental Health Care among Medicaid-Eligible Children in Washington State

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Abstract

In Washington State, it is estimated that nearly 60,000 Medicaid-eligible children (birth to 17 years old) are in need of mental health care. Yet, in 2009 just over 32,000 children received any form of treatment through the State's 13 Regional Support Networks (RSNs) that manage Medicaid mental health care through the Department of Mental Health.

RSNs are making uneven attempts to respond to the mental health needs of children, evidenced by utilization rates (proportion served) that vary from 2.91% to 8.16%. Using Washington State's RSNs as the unit of analysis, this study explores a number of community level factors, state funding and state access policy to explain regional variation in children's use of mental health services.

We find that state Medicaid Access to Care Standards and funding structures are the primary barriers to access and utilization of mental health care. Our findings provide an important context for Medicaid expansion options under full implementation of the Patient Protection and Affordable Care Act.

Background

- **Serious Emotional Disorders (SEDs)** are diagnosable emotional, behavioral, and mental disorders.[1]
- **7-9% estimated prevalence of SEDs** among all children (birth to 17 years) in Washington State[2]
- **SEDs include depression, attention deficit/hyperactivity disorder (ADHD), anxiety, conduct and eating disorders.**[1]
- SEDs impact physical health, academic performance and increase risk of mental illness later in life[3]

Regional Support Networks Department of Social & Human Services (WA State) (Figure 1)

- Deliver mental health services to low-income individuals

Figure 1. Washington State RSN Map

Purpose

We sought to investigate geographic-based inequities by exploring factors that contribute to regional disparities in access to and utilization of children's mental health care for the Medicaid population in Washington State.

Methods

We addressed the study question using mixed methods.

- We began by ranking the RSNs based on the proportion of Medicaid-eligible children with SEDs served in 2009 [4] (Figure 2), using the following formula:

$$\frac{\text{\# of Medicaid clients receiving outpatient mental health services Fiscal Year 2009 by RSN}}{\text{Number of Medicaid clients in Fiscal Year 2009 by RSN}}$$

- We used the SED prevalence estimate codified in the Federal Register to determine a range in the prevalence of SEDs among Medicaid-eligible children[5].

Figure 2. Medicaid enrollment and number of children who received mental health service in 2009, by Regional Support Network.

2009				
RSN	Enrolled	#Children with SEDs receiving at least one service	Estimated # Children with SEDs (7-9% prevalence)	Proportion Served
Southwest	14,108	1,151	988-1,270	8.16%
Grays Harbor	10,277	581	719-925	5.65%
Clark	47,387	2,619	3,317-4,265	5.53%
Timberlands	13,218	725	925-1,190	5.48%
King	137,372	7,342	9,616-12,363	5.34%
Thurston/Mason	27,969	1,480	1,958-2,517	5.29%
Spokane	56,831	3,001	3,978-5,115	5.28%
Chelan/Douglas	16,519	814	2,004-2,576	4.93%
Peninsula	28,623	1,387	2,004-2,576	4.85%
North Sound	100,369	4,449	7,026-9,033	4.43%
Pierce	81,751	3,174	5,723-7,358	3.88%
Greater Columbia	115,950	4,470	8,117-10,436	3.86%
North Central	41,519	1,209	2,906-3,737	2.91%
Statewide	**691,893**	**32,402**	**48,433-62,270**	**4.68%**

- Spearman's rank correlation coefficients were computed to test associations between RSN's rank for for mental health services provided to children and community level characteristics of the RSNs.
- Qualitative data collected through key informant interviews to examine further how the RSNs differed in terms of system capacity, child assessment, access, outreach, and population characteristics (Figure 3).

Figure 3. Key Informant Sample Questions

KEY INFORMANT INTERVIEW GUIDE (Sample Questions)

REGIONAL SERVICE NETWORK RANKINGS

1. Based on State Medicaid data for 2007-2009, it is estimated that your Regional Service Network ranks (insert rank) for providing mental health care to Medicaid-eligible children with serious emotional disorders. Does this estimate reflect current service levels? Please explain.

ASSESSMENT

1. How are the mental health needs of Medicaid-eligible children, aged birth to seventeen years old, assessed in your RSN? (Where, when, by whom?)

ACCESS

1. What local factors (such as public transportation, location of providers, etc) might have an impact on access to care within your RSN?

RESOURCES & OUTREACH

1. What types of mental health services exist within your RSN for Medicaid-eligible children and adolescents?

SYSTEM CAPACITY

1. What services are most needed by children and families within your RSN that are not currently available?

POPULATION CHARACTERISTICS

1. Are there groups of children, youth or families within your RSN who have difficulty getting needed mental health services because of cultural or language barriers? (Please specify.)

Results

Quantitative Analysis

- Only one RSN (Southwest) delivered services to a proportion of children within the range of expected need (8.16%).
- We observed a negative association between the proportion of Hispanic children living within an RSN and the proportion of children who received mental health services (Figure 4).

Figure 4. Relationship between Regional Support Network demographics and Utilization Rankings
Spearman's rho

RSN Demographic Characteristic	*n*	Spearman rho	p-value
% Hispanic	13	-0.55	0.05
% Native American	13	0.18	0.55
% African-American	13	0.07	0.81
% Poverty[a]	13	-0.52	0.07
HRSA HPSA Scores[b]	13	-0.12	0.70
Total Square[c] Miles	13	-0.25	0.41
Population[d] Density (unadjusted)	13	-0.20	0.51
Population Density (adjusted)	11	0.39	0.23

[a] Percentage of children aged birth to 17 living in poverty within the RSN. (Source: U.S. Census Bureau, 2009)

[b] Health Professional Shortage Areas (HPSAs) are designated by the Health Resources and Services Administration(HRSA) as having shortages of mental health providers in a geographic area.

[c] Total square mileage of RSN. (Source: U.S. Census Bureau, 2009).

[d] Population density as defined by U.S. Census Bureau.

KEY INFORMANT INTERVIEWS
Thematic Analysis

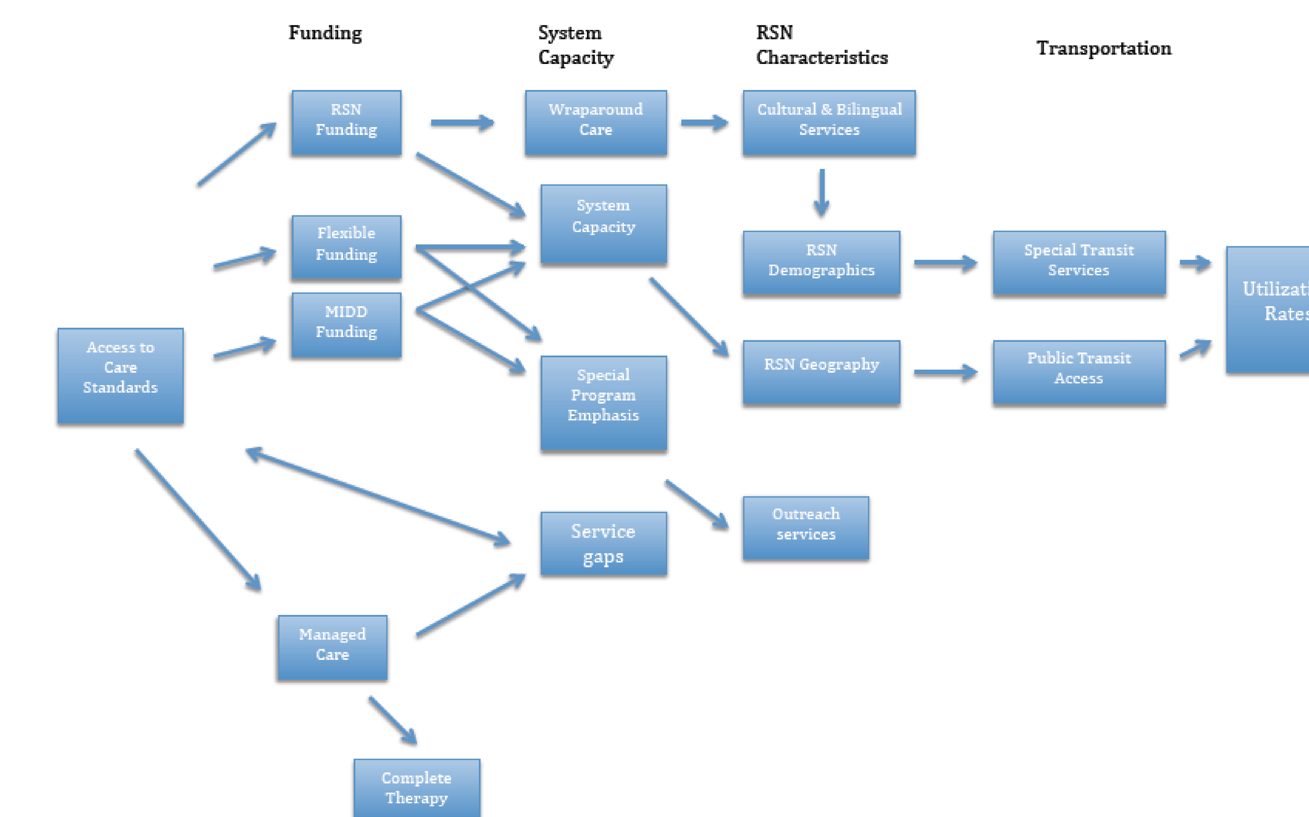
Key Word in Context Analysis identified six factors within the interview data to explain why the proportion of Medicaid-eligible children who received mental health care was lower than expected based on *a priori* estimates of the prevalence of serious emotional disorders.

- **Access to Care Standards** – Limit RSN Wraparound care to only the most severe diagnoses.
- **Funding Structures –** Funding for care limited by Access to Care Standards. Some counties have access to more flexible funding options through county-level sales tax levies. Transportation funding does not reflect local variations in need/demand.
- **Fragmented Care –** Lack of coordination between managed care providers and RSN system of care.
- **System Organization & Service Delivery –** Wide variability in available resources and transportation demands.
- **Regional Demands –** Competing demands for services (adult vs. child population).
- **Outreach –** Visibility in community and schools.

Conclusions

- Narrowly crafted Access to Care standards limit care to only those children with the most severe mental health needs.
- State Medicaid policy is at odds with the intention of the Washington State Community Health Services Act which called for early identification and treatment of mental illness in children.[6]
- Managed care systems of care run parallel to the RSN system with little coordination, leaving critical gaps in care for youth with escalating disorders.
- The amount and sources of RSN funding directly impact system capacity in each RSN, contributing to great variability in service offerings and utilization between networks.

Figure 5. Association Network: Factors associated with geographic variation in utilization rankings



Implications

- This study demonstrates the weaknesses of a decentralized system of mental health care for Medicaid recipients. These weaknesses include: strict access policy, fragmentation of care, and chronic under-funding.
- Expansion of Medicaid coverage to children living 200-400% of the poverty level may widen current managed care gap if 'benchmark benefits' do not match standard Medicaid benefits.
- Implementation of "health homes" under health care reform may address fragmentation by redesigning service delivery to Medicaid enrollees.

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