Why Rural?

- Other research found that rural populations are less likely to access services.
- Rural populations are considered an underserved and vulnerable population by the federal government.
- Little evidence is available to examine population-level patterns of service use among rural children and adolescents.

What Counts as Rural?

RUCA (Rural-Urban Commuting Area Codes)
- Population density and commuting patterns
- 4 levels:
  - Urban core area
  - Suburban area
  - Large town rural
  - Small town/isolated rural

What Geography to Use?

- Islands (n=7)
- Counties (n=5)
- Census tracts (n=300+)
- School complexes (n=43)
Advantage of School Complex

- Has “face validity” to providers, policy makers, families
- Relates to how services are provided, links between SBBHs and Family Guidance Clinics
- Can link to school issues (grad rates, enrollment, etc.)
- Allows sub-analysis within islands/counties

Hawaii School Complexes by RUCA

Youth Served by Geographic Location, By Island

Overall Study Question

What are the types and amounts of mental health services used, and patterns of service use for rural children registered with CAMHD? How do these differ from non-rural children?

Data Sources

- Hawaii Dept. of Health, Child and Adolescent Mental Health Information System
  - Registration: Demographics, School
  - Billing: Dates and Type of Each Service
- US Bureau of Census
  - Census Block Group % Urban
- Child addresses were geocoded to school complex and census blocks were matched

Who is CAMHD?

- The Child and Adolescent Mental Health Division is a division of the Department of Health-Behavioral Health Services Administration. We provide mental health services for children and youth who have serous mental health problems.
Hawaii Schools Provide Prevention and Early Intervention

SBBH
- Assessment
- Psychiatric Evaluation
- Medication Management
- Individual, Family and Group Therapy
- Functional Family Therapy

CAMHD Provides More Intensive Array of Services

- Respite Services
- Psychosexual Assessments
- Intensive In-Home Interventions
- Multisystemic Therapy
- Respite Therapeutic Foster/Group Home
- Community Mental Health Shelter
- Therapeutic Foster Home
- Multidimensional Treatment Foster Care
- Therapeutic Group Home
- Independent Living Program (18-21) (16-18)
- Community Based Residential I, II, III
- Hospital Based Residential

How Many Children/Adolescents Received A Service From CAMHD?

Sample: Total Number of Children Served by CAMHD by RUCA/Year

What Do We Know About the Children Served by CAMHD?

Gender: Overall 50% Girls but 75% Girls in Most Rural Areas
**Demographics: Race 2007**

Most Rural Areas Have Most Minority

<table>
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<th>Race</th>
<th>Urban</th>
<th>Suburban</th>
<th>Large Town Rural</th>
<th>Small Town/Isolated Rural</th>
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</tbody>
</table>

Rural Children More Often Use Out-of-Home Care (OOH)

% of Children by CAMHD Service Type (2007)

Rural Children Less Likely to Use In-Home Services

In-Home as % of All Service Users

Rural Children Used Fewer Units of IH

OOH Services as % of All Users:
A Focus on Children with Out-of-Home Services

Types of OOH 2003-2007: Rural Children More Likely to Use TFC

Length of Stay in OOH: Days Fall Overall, But Rural Children Tend to Stay Longer

Before OOH Admit, Rural Children Less Likely to Have a CAMHD Service

After OOH Discharge: Rural Children Less Often Get Follow-up

Summary

- Rural children less likely than those living in non-rural areas to be served in In-Home (IH) services
  - Received fewer IH units

- Rural children were more frequently served in OOH
  - Rural children had longer lengths of stay
  - Rural children less likely to have had a CAMHD (lower level) service before admission to OOH
  - Rural children less likely to receive a timely follow-up service after discharge
Implications

Findings raise issues for discussion about quality of services and future allocation of resources that for the CAMHD staff.

In order to understand the needs and service use patterns, CAMHD needs to integrate with school data:
- Need Dept. of Education data on SBBH to have better understanding of service patterns.

Some Issues for Discussion

In-Home Services:
- What are the barriers to delivering In-Home services in more rural areas in order to deter more expensive and disruptive OOH care?
- What could be done to facilitate children more frequently receiving IH care before being admitted to OOH?
- Could access to IH lower the proportion of children in rural areas who are served in OOH?
- Why are children in rural areas receiving fewer units of IH? Should they be receiving more units or should youth in urban areas be receiving less?

Some Issues for Discussion

Out-of-Home Services:
- What could be done to ensure that more children receive timely non-residential services after being discharged from OOH?
- If children from the most rural areas are more likely to be:
  - Girls
  - Younger
  - Use out-of-home care
  What are the implications?

Update

- How does the economy and the Hawaii budget affect mental health services for children?
- How will this affect rural children and their families?

For More Information

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