BACKGROUND

On average, 15% of young children, 2-8 years of age in the United States have a parent-reported mental, behavioral, or developmental disorder (MBDD) diagnosis, which includes attention-deficit/hyperactivity disorder (ADHD), depression, anxiety problems, behavioral or conduct problems such as oppositional defiant disorder or conduct disorder, Tourette syndrome, autism spectrum disorder, learning disability, intellectual disability, developmental delay, or speech or other language problems. The percentage of children with diagnosed MBDDs is similar for small rural and urban areas, at 18.6% and 15.2% respectively.

Across the country, people with mental health issues may struggle to get care due to a shortage of providers, and this problem is magnified in rural areas. According to the Health Resources and Services Administration (HRSA), 61% of areas with a mental health professional shortage are rural or partially rural.

There is also a gap between the demand for services from child psychiatrists and psychologists and the supply of providers. Experts project that the number of child and adolescent psychiatrists will increase to 8,312 in 2020, but this falls short of the estimated 12,624 that are needed to meet demand.

Traditionally, rural areas have fewer of these professionals than urban areas. This shortage combined with the unique socioeconomic and cultural factors associated with rural residence, including higher poverty rates and geographic isolation, make it more challenging for rural children to access behavioral health services.

Transportation is also a barrier in accessing mental health care and is often cited “as one of the major concerns reported by rural residents in discussing limitations to their access to health care or their participation in health programs.”

WHAT’S IN THIS POLICY BRIEF

This brief presents a selection of potential policies and practices that may help rural children with mental, behavioral, or developmental disorders (MBDDs) access behavioral health services. These policies and practices include:

- Telemedicine
- Integration of behavioral health and primary care
- School-based care

ABOUT THIS POLICY BRIEF SERIES

CDC policy briefs provide a summary of evidence-based best practices or policy options for a public health issue. They also include information on the background and significance of the issue as well as current status and potential next steps.

This policy brief is part of a series accompanying CDC’s Morbidity and Mortality Weekly Reports on rural health.
There are many definitions of telemedicine, but the American Telemedicine Association defines it as the “use of medical information exchanged from one site to another via electronic communications to improve patients’ health status.” Telemental health is the “use of telemedicine to provide mental health assessment and treatment at a distance.” This brief will use the term telemedicine to refer to the general use of technology to provide health services. The term telemental health will be used to describe mental health services that are provided at a distance.

Telemental health could increase access for all rural Americans by maximizing the ability of the existing mental health workforce to reach people who may not have access to in-person services. While telemental health has been used more with adults than children, pediatric use is increasing. Although it is a promising option for expanding mental health services, there are several barriers to widespread adoption and use which may also slow increased adoption for pediatric use.

Insurance Coverage for Telemedicine Services
Telemedicine services are governed by federal and state laws. Regulation varies considerably because each state defines telemedicine services differently, and these definitions determine the services that qualify for reimbursement under Medicaid and private insurance.

The Centers for Medicare and Medicaid Services (CMS) encourages states to use the flexibility built into Medicaid to create “innovative payment methodologies for services that incorporate telemedicine technology.” Forty-eight states and the District of Columbia provide some level of Medicaid reimbursement for telemedicine. Thirty-nine states have some form of Medicaid coverage and reimbursement for telemental health services.

On the private payer side, thirty-two states and the District of Columbia have private payer policies in place for telehealth, but these policies differ considerably in what services are covered and how much providers are reimbursed. Twenty-three states and the District of Columbia require that payments for telemental health services be equivalent to those received for in-office treatment.

To deal with this emerging issue, states have established several options for licensing telemedicine practitioners. Eight states accept conditional or telemedicine licenses from out-of-state physicians. Three states have established registries that permit qualifying out-of-state physicians to practice in the states. Eighteen states have adopted the Federation of State Medical Boards’ compact which “enforces an expedited license for out-of-state practice” for doctors, including psychiatrists. Similar multistate agreements that would include other mental health professionals, such as psychologists, are in the early stages of development.

Evidence of Effectiveness
Evidence suggests that telemental health services can be effectively delivered to underserved populations, such as rural Americans. Telemental health can also effectively treat underserved children with specific conditions such as ADHD. Research suggests that telemental health services could meet the broader behavioral health needs of children and adolescents, and some programs have demonstrated that telemental health can successfully meet the psychiatric needs of rural children. Although these studies demonstrate effectiveness for these specific populations, more evidence is needed to
support the use of telemental health for the broader population of rural children with MBDDs. In rural areas, adoption of new interventions and methods often outpaces research into the potential effectiveness of expanding those programs. More rigorous research into these innovative approaches can expand the evidence base and may increase adoption of telemedicine services and interventions for treating rural children with MBDDs.

**Other Issues**

Another important component of encouraging adoption of telemicine is ensuring that patient privacy and confidentiality are maintained at the same level as an in-person visit. In order to promote these services, it may be important for telemedicine providers to ensure the security of the data stored and transmitted via telemedicine.

The Health Insurance Portability and Accountability Act (HIPAA) created “national standards to protect individuals’ medical records and other personal health information (PHI).” Because doctor-patient interactions via telemental health may involve PHI, those health care providers are subject to the same HIPAA requirements that govern in-person meetings.

In addition to privacy concerns, the cost of telemedicine technology may limit adoption. These costs include:

- equipment and installation of telecommunications lines,
- rental cost of telecommunications lines,
- salary and wages, and administrative expenses, and
- data transmission costs, service fees, and maintaining and upgrading equipment.

**INTEGRATING BEHAVIORAL HEALTH AND PRIMARY CARE**

Research shows that integrating mental health and primary care services can improve health outcomes and may be an effective approach to caring for patients with multiple, complex healthcare concerns. Practices that implemented a collaborative, fully integrated model for primary care and behavioral health improved children’s behavioral health outcomes as well as measures of accessibility and acceptability. Integration may also improve symptoms while increasing retention rates and improving access for children with serious emotional disturbance. Studies have also found that integration may increase access to mental health services in rural areas.

Integration can take many forms, but there are common features. For example, the Substance Abuse and Mental Health Services Administration (SAMHSA) proposed a standard framework for integration with three categories of collaboration – coordinated, co-located, and integrated care – and two levels of development within each category.

The framework identified by SAMHSA focuses on elements of communication, physical proximity, and practice changes, but some or all of these elements may not be feasible in rural areas where specialists can be scarce. This framework assumes that there are enough mental health providers and support staff to successfully execute these categories of collaboration, and larger metropolitan areas may be better able to provide the mental health professionals and support staff. Rural health care providers and practices may find it more difficult to integrate in these traditional ways.

In addition, traditional models can rely on separate professionals providing discrete services. While this may be possible under some conditions, in some rural areas, shortages and poor distribution of behavioral health professionals could make it difficult for primary care physicians to get a consultation or make a referral. In rural and urban areas, primary care physicians will continue to be frontline providers of mental health services. Roughly 65% of rural residents get treatment from a primary care physician for their mental health issues. There are successful models for integrating behavioral health services into primary care practice where primary care physicians are trained to use evidence-based practices to screen for and treat conditions such as depression.

While this model may be a more feasible way for rural physicians and practices to combine services, there are still challenges for this type of integration, including physician time constraints and ensuring that the quality of care that patients receive is comparable to care received from a mental health professional. Another challenge is providing primary care physicians with training and support they need to feel more comfortable diagnosing and treating pediatric patients who present with MBDDs.
Project ECHO (Extension for Community Healthcare Outcomes) is an innovative program to train primary care physicians to perform enhanced services.\(^{36}\) Project ECHO connects specialists and primary care physicians via videoconferencing in order to build knowledge and support for providers who see patients with complex conditions, including behavioral health issues. Project ECHO has 75 hubs in the U.S.\(^{37}\)

In Oregon, Project ECHO is training primary care physicians to better care for children with mental health issues. The Oregon Health and Science University is training providers to diagnose and manage these patients. The program, which includes 18 sites around the state, establishes weekly live video sessions that provide lectures and case reviews with child psychiatry specialists. The session topics include ADHD diagnosis and management, depression diagnosis and management, and prescription of psychotropic medications.\(^{38}\)

Overall, Project ECHO has shown promise for expanding and improving care in rural areas, but more research is needed to evaluate outcomes. In 2016, Congress passed the Expanding Capacity for Health Outcomes (ECHO) Act which is intended to integrate “technology-enabled collaborative learning and capacity building models” such as Project ECHO into more health systems.

The law requires a study by the Department of Health and Human Services on the models’ effect on workforce development and patient care, specifically the “impact on addressing mental and substance use disorders, chronic diseases and conditions, prenatal and maternal health, pediatric care, pain management, and palliative care” and “the delivery of health care services in rural areas, frontier areas, health professional shortage areas, and medically underserved areas.”\(^{39}\)

CASE STUDY: OREGON

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SBHCs provide primary health care and may also provide mental health care, social services, dentistry, and health education.

- Services may be available only during some school days or hours, and may also be available in non-school hours.
- Student participation requires parental consent, and services provided for individual students are sometimes limited for specific types of care, such as reproductive or mental health.
- Services may be provided to school staff, student family members, and others within the surrounding community.
- Services are often provided by a medical center or provider independent of the school system, such as a federally qualified health center or academic institution.

SBHC COST, SAVINGS, AND FUNDING

Cost
A study conducted in Oregon estimated the cost of operating an SBHC. The study found that the cost of starting an SBHC ranges from $49,750-$128,250. The average operating cost ranges from $90,750-$152,750 for a SBHC operating during the nine-month school year. The main source of revenue for SBHCs sponsored by Federally Qualified Health Centers (FQHC) was billing. SBHCs with this particular sponsorship were able to cover an average of 26% of their operating costs.

Savings and Benefits
SBHCs have also been reported to have financial benefits. Studies have found that SBHCs produce annual benefits between $15,028 and $912,878 per SBHC in averted costs related to treatment, productivity losses, and transportation, combined with other relevant benefits.

Additionally, studies have also shown net savings to Medicaid ranging from $30-$969 per visit or $46-$1,166 per user. The range in the savings are due to the different services that a SBHC can offer.

Funding
In order to operate SBHCs, the funding and financing sources need to be considered. Some of the federal government funding sources may include: School-Based Health Center Capital Program (HRSA), Section 330 Public Health Services Act (PHSA): FQHC Funding, and Title X PHSA: Family Planning. Funding may also happen at the state and local level with financial supports through county and city governments as well as school districts. Corporations and private foundations have also been identified as possible funding sources.

Additionally, Medicaid and the State Children’s Health Insurance Program (SCHIP) have been common sources of financing for SBHCs. In December 2014, the Centers for Medicaid and Medicare Services (CMS), drafted a letter that allows for schools to be able to bill Medicaid for services they provide. This policy is known as the Free Care Rule Reversal. In order for schools to be able to bill for Medicaid, it must be included in their Medicaid State Plan.

Challenges
Though SBHCs are promising, these facilities are faced...
with certain challenges. A common issue is that these facilities may not be able to serve as primary care facilities.\textsuperscript{40} Since SBHCs typically operate during school hours, they may not be able to provide care before or after the school day. Care also may be affected during holidays or breaks when schools are not in session.\textsuperscript{40}

Funding is an issue that SBHCs may face. One study notes that despite the variety of funding sources to run a SBHC, they struggle to provide care for all students regardless if they have Medicaid or another insurance provider. The “volume of currently nonreimbursable educational and preventive services SBHCs provide” may affect the SBHCs sustainability.\textsuperscript{40}

Similar to telemedicine, SBHCs may be affected by privacy regulations. SBHCs require parental consent in order to obtain services. There are laws such as Family Educational Rights and Privacy Act (FERPA), which protects “the privacy of student education records,”\textsuperscript{53} and HIPAA, which protects “individuals’ medical records and other personal health information.”\textsuperscript{54}

SBHCs may also be difficult to evaluate based on limited resources. Additionally, studies have noted that the evaluation method is complicated by “difficulty in establishing randomized control designs, confidentiality and consent concerns, diverse school environments, small sample sizes, and attrition within school populations.”\textsuperscript{40}

CASE STUDY: CALIFORNIA

Westside Park Elementary School Health Center, California

In 1995, Westside Park Elementary School in Adelanto, California was able to open an SBHC with funding they received from HRSA. Through its 15 years of operation, the SBHC has been able to work with the Adelanto Unified School District to obtain support for the facilities and services. This school also has a partnership with the state school-based health agency, California School Based Health Alliance.

The SBHC serves about 1,300 patients a year “providing basic medical care, immunizations, dental screenings, and counseling services.” A bilingual counselor is also present. As transportation is an issue for the residents of this community, the SBHC has a van to transport children to health services such as dental appointments. This school has worked with partners ranging from San Bernardino Department of Public Health to local agencies such as the food bank. Since opening, the leadership of the SBHC has learned that partnerships are needed to sustain the SBHC.\textsuperscript{55}
REFERENCES


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36 University of New Mexico School of Medicine. About ECHO. Retrieved from http://echo.unm.edu/about-echo/


39 ECHO Act, Public Law No: 114-270


REFERENCES


ADDITIONAL RESOURCES

Marshall University’s Robert C. Byrd Center for Rural Health in West Virginia adapted a toolkit for starting an SBHC, detailing funding, marketing, and evaluation efforts.

Texas has a list of resources ranging from general SBHC resources to more specific content such as ICD-9 and ICD-10 coding.

The Colorado Association for School-Based Health Care has modules and resources for planning an SBHC, including community assessments, partnership development, and business development.