Establishing a Statewide School-Based Telehealth Program

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School-Based Telepresenter

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The Medical University of South Carolina
Center for Telehealth
Objectives

1. Describe the operation of a successful school-based telehealth program
2. Identify what type of care can be provided via school-based telehealth
3. Describe the role of the school nurse and/or telepresenter in school-based telehealth
4. Describe the steps involved with implementing a new school-based telehealth program.
Agenda

• Background
  • Medical University of South Carolina (MUSC) Center for Telehealth
  • School-Based Telehealth Program Overview

• Program Implementation
  • Telehealth Service Implementation Model (TSIM™) Framework
  • Outcomes

• Challenges and Lessons Learned

• Questions
MUSC Center for Telehealth

• In 2013, the SC Legislature funded MUSC to:
  • Create a statewide telehealth network – SCTA
  • Expand telehealth initiatives throughout SC

• MUSC Center for Telehealth was established to assist with:
  • Telehealth strategic planning
  • Telehealth service development
  • Contracting and legal issues
  • Credentialing
  • Equipment procurement and training
  • Compliance and billing issues
  • Workflow creation
  • External site relations
School-Based Telehealth in SC

- Services vary by county
- Strong collaborations with hospitals, local providers, and school districts

*Services vary by county to include acute care and chronic disease management, mental health, group health education, and individual education plan consultation.*
School-Based Telehealth Overview
What is School-Based Telehealth?

- High quality healthcare for children in the school setting using telehealth technologies
- Telemedicine cart is placed in school nurse’s office
  - Secure video conferencing
  - Telemedicine peripheral devices
- Children are treated as they would be in a regular clinic setting
Establishing a Virtual Clinic

Schools are furnished with basic clinic supplies
- Rapid strep tests
- Albuterol and nebulizer
- Prednisolone
- Acetaminophen, Ibuprofen
- Diphenhydramine

Not Standing Orders!
Establishing a Virtual Clinic

Administration of Medications During Telehealth Visits

- Medications provided are only for use during telehealth visits with a verbal order from the connecting provider.
- Provider must send written order after the visit for nurse’s records.
- Nurse must enter patient name, date and dosage given on Medication Administration Record (MAR) sheet.
- School nurse regulations vary by state.

Point of Care Tests (POCT)

- Each school site must have a CLIA waiver.
- Controls are completed at MUSC prior to dispensing tests to the schools.
- POCT training provided annually to school nurses.
How Does it Work?
Tiered Call Pool Workflow

School nurse requests visit

- Visit is requested using the AW clinical platform

Priority 1 providers alerted

- Provider connects to student, if available.
- If not, the alert rolls to Priority 2

Priority 2 providers alerted

- Provider connects to student, if available.
- If not, the alert rolls to Priority 3

Priority 3 providers alerted

- “Rescue” provider connects to student
What Type of Care is Provided?

**Acute Care**
- Sick visits for most low-acuity conditions

**Specialty Care**
- Access to pediatric specialists
- Children with special healthcare needs

**Chronic Disease Management**
- Asthma
- ADHD
- Obesity Management

**Mental Health**
- Trauma Focused Cognitive Behavioral Therapy (TF-CBT)
What Type of Care is Provided?

• **Chronic Disease Management**
  • Asthma
    • Identify students
    • Evaluation and treatment
    • Prevention
      • School forms
      • Action Plans
      • Rx at school
      • Delivery pharmacy
  • Education
    • Patient, family and school personnel
    • Respiratory therapy

Photo credit: American Association for Respiratory Care April 6, 2017
School Nurse and Telepresenter Perspective

Lorrie Smart, LPN
Nurse Telepresenter
MUSC School-Based Health

Jennifer Lamb, RN
Lead Nurse
Williamsburg County School District
South Carolina
Program Implementation
ITIL Inspired the Creation of TSIM™
(Telehealth Service Implementation Model)

“Telehealth is a clinical service delivered over an IT service”

• Provided terminology and a standard framework
• Highlighted strengths & weaknesses

Image Credit: Shawn Valenta, Administrator Center for Telehealth
Medical University of South Carolina
Phases of Implementation

**Phase 1**
- Strategy
  - Exploration
  - Agreements

**Phase 2**
- Design
  - Equipment
  - Business Requirements

**Phase 3**
- Transition
  - Train school nurse & providers
  - Mock calls

**Phase 4**
- Operation
  - Clinical Launch
  - Evaluation
Phase 1: Strategy Exploration

Strategically targeting populations identified by key stakeholders
Phase 1: Strategy Exploration

Initial Meeting with School Leadership
- Superintendent
- Director of Special Services/Lead Nurse
- Local Provider

Follow-Up Meetings
- School Board
- School nurses
Phase 1: Strategy Agreements

- Develop Agreements/Consent Forms
  - Partnership with SC Department of Education
    - Consent Forms
      - Consent to treat
      - HIPAA
      - FERPA
    - Agreements
      - School district
      - Local providers
Phase 2: Design Equipment & Business Requirements

- Technology Assessment
  - Site completes survey to verify:
    - Bandwidth
    - Data circuits
    - Firewall management
  - Ordering and installation of equipment
- Business Requirements
  - CLIA waiver
  - EMR
  - Consents
Phase 3: Transition Education and Training

- School Nurse Training
  - Consent process
  - Equipment Review
    - Operation
    - Tips for successful exam
    - Trouble shooting
  - Workflow
    - Patient selection/referral process
    - Incorporating visits into busy schedule
Phase 3: Transition
Education and Training

- Conducting the exam
  - Telehealth etiquette
  - Communication
- Care coordination following the exam
- Documentation
- Billing
- POCT Training
Phase 3: Transition
Education and Training

• Provider Training
  • The same as the school nurse with the addition of:
    • Maintaining standard of care
    • Communication with medical home
    • State/Federal laws pertaining to telehealth care
    • Communication with the school nurse
      • Consistent language/descriptive terms
      • Patience
Phase 3: Transition
Mock Calls

• Mock Calls
  • Between provider and school nurse
  • Number depends on how comfortable each user is with process
  • Support personnel with provider and at school nurse site
  • Ongoing support indefinitely

• Provide ongoing resources
  • Equipment videos
  • Manuals
Phase 4: Operation
Clinical Launch

- Internal meeting to review mock visits
- Communicate go-live with stakeholders including:
  - School nurses
  - Providers
  - Schedulers
- Market service to school and community:
  - Distribute consent forms
  - Social media campaign
  - School district website
  - Press conference
  - Attend school events
Phase 4: Evaluation
Population Health Outcomes
Reducing ED Visits Among Children with Asthma

- School-based, asthma-focused telehealth program in SC associated with
  - 6.89-percentage-point overall reduction (21%) in likelihood of ED visits among Medicaid enrollees
  - 11.07-percentage-point reduction (35%) in likelihood of ED visits during the 3rd year

Asthma Management Success Story


Timothy struggled in school. A freshman at C.E. Murray High School in Williamsburg County, he was reserved and inattentive in class. But he had a much bigger problem out of the classroom: severe, poorly-controlled asthma.
Improving ADHD Care through Telehealth

- Improved ADHD Quality Metrics

Table 2. Proportion of Visits With a Structured Report Present at the Time of Visit in the School-Based Health Centers and Continuity Clinic (N = 873 Total Encounters)

<table>
<thead>
<tr>
<th>Structured report for</th>
<th>School-Based Health</th>
<th>Continuity Clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>a change visit*(N = 373)</td>
<td>Present 136 (93%)</td>
<td>52 (23%)</td>
</tr>
<tr>
<td>Absent 10 (7%)</td>
<td>175 (77%)</td>
<td></td>
</tr>
<tr>
<td>Structured report for a stable visit†(N = 500)</td>
<td>Present 142 (89%)</td>
<td>17 (5%)</td>
</tr>
<tr>
<td>Absent 18 (11%)</td>
<td>323 (95%)</td>
<td></td>
</tr>
</tbody>
</table>

* A change visit was defined as an encounter in which an ADHD medication was changed, initiated or restarted after greater than 2 months.
† A stable visit was defined as an encounter where a child was continued on the same medication at the same dose.

Table 3. Proportion of Visits With Appropriate Follow-Up in the School-Based Health Centers and Continuity Clinic (N = 873 Total Encounters)

<table>
<thead>
<tr>
<th>Follow-up after a change visit*(N = 352)</th>
<th>School-Based Health</th>
<th>Continuity Clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 days or less</td>
<td>62 (46%)</td>
<td>60 (28%)</td>
</tr>
<tr>
<td>More than 30 days</td>
<td>73 (54%)</td>
<td>157 (72%)</td>
</tr>
<tr>
<td>Follow-up after stable visit†(N = 469)</td>
<td>School-Based Health</td>
<td>Continuity Clinic</td>
</tr>
<tr>
<td>100 days or less</td>
<td>134 (88%)</td>
<td>186 (59%)</td>
</tr>
<tr>
<td>More than 100 days</td>
<td>19 (12%)</td>
<td>130 (41%)</td>
</tr>
<tr>
<td>Follow-up not scheduled(N = 52)</td>
<td>18</td>
<td>34</td>
</tr>
</tbody>
</table>

* A change visit was defined as an encounter in which an ADHD medication was changed, initiated or restarted after greater than 2 months.
† A stable visit was defined as an encounter where a child was continued on the same medication at the same dose.

Providing Access to Mental Health Services

• **Specialty Mental Health**
  • Trauma Focused Cognitive Behavioral Therapy (TF-CBT)
  • Therapy to address traumatic events:
    • Sexual abuse
    • Physical abuse
    • Witnessing domestic violence
    • Being in a bad car accident, etc.

Photo courtesy of Regan Stewart, PhD
Improving Mental Health Outcomes through Telehealth

• TF-CBT
  • For students seen for individual therapy
    • 100% treatment completion rates
    • 100% demonstrated improvement in symptoms
    • 100% no longer met criteria for PTSD or adjustment disorder at end of treatment

Caregiver Perceptions of School Based Telehealth

• 90% insured through SC Medicaid
• 25% would lose pay if they have to take time from work
• 54% of caregivers thought their child was less stressed
• 90% of caregivers found themselves less stressed
• 93% feel that telehealth allowed more timely access to care

https://doi.org/10.14485/HBPR.6.4.3
<table>
<thead>
<tr>
<th>Identified Challenge</th>
<th>Best Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaining trust in new communities</td>
<td>• Ambassador Board</td>
</tr>
<tr>
<td></td>
<td>• Support from local providers</td>
</tr>
<tr>
<td>Electronic health records</td>
<td>• Modified to reflect telehealth visit</td>
</tr>
<tr>
<td></td>
<td>• Identify school locations to facilitate tracking and reimbursement</td>
</tr>
<tr>
<td>School nurse adoption</td>
<td>• Strong training program which includes mock visits</td>
</tr>
<tr>
<td></td>
<td>• Provide ongoing support such as educational opportunities</td>
</tr>
<tr>
<td>Consent forms</td>
<td>• Include Consent to Treat, HIPAA, &amp; FERPA</td>
</tr>
<tr>
<td></td>
<td>• Valid the entire time student is enrolled in district</td>
</tr>
<tr>
<td></td>
<td>• Electronic consents /paper</td>
</tr>
<tr>
<td></td>
<td>• Mimic district registration process</td>
</tr>
<tr>
<td>Securely transferring documents between provider &amp; school</td>
<td>• Leverage AW platform to share documents that contain PHI (nurse referral form, consent forms)</td>
</tr>
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</table>
## School-Based Telehealth Operations Challenges and Best Practices

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Lessons Learned</th>
<th>Solution</th>
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<tbody>
<tr>
<td>Quickly identifying provider that is available for a visit</td>
<td>Limit use of phone calls to coordinate visit</td>
<td>Workflow that supports providers receiving alerts directly</td>
</tr>
<tr>
<td>Providers from multiple organizations serving a single school district efficiently</td>
<td>Limit the school nurse needing to contact multiple provider groups to coordinate visit</td>
<td>Tiered provider call pool</td>
</tr>
<tr>
<td>Limit missed class time for students</td>
<td>Visit to take place as quickly as possible after the nurse requests visit to limit the student going back and forth between class and nurse’s office</td>
<td>On-demand model</td>
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Questions?

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