Establishing a Statewide School-Based Telehealth Program

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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

Number of South Carolina schools with telehealth capability *
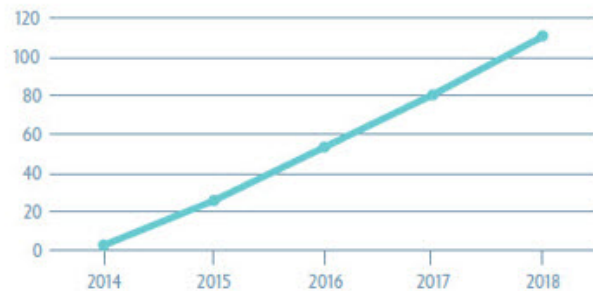
*Services vary by county to include acute care and chronic disease management, mental health, group health education, and individual education plan consultation.

Current
Projected Expansion
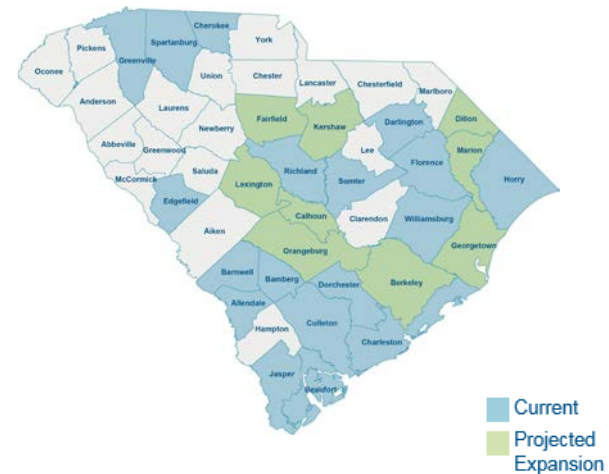
School-Based Telehealth Overview

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
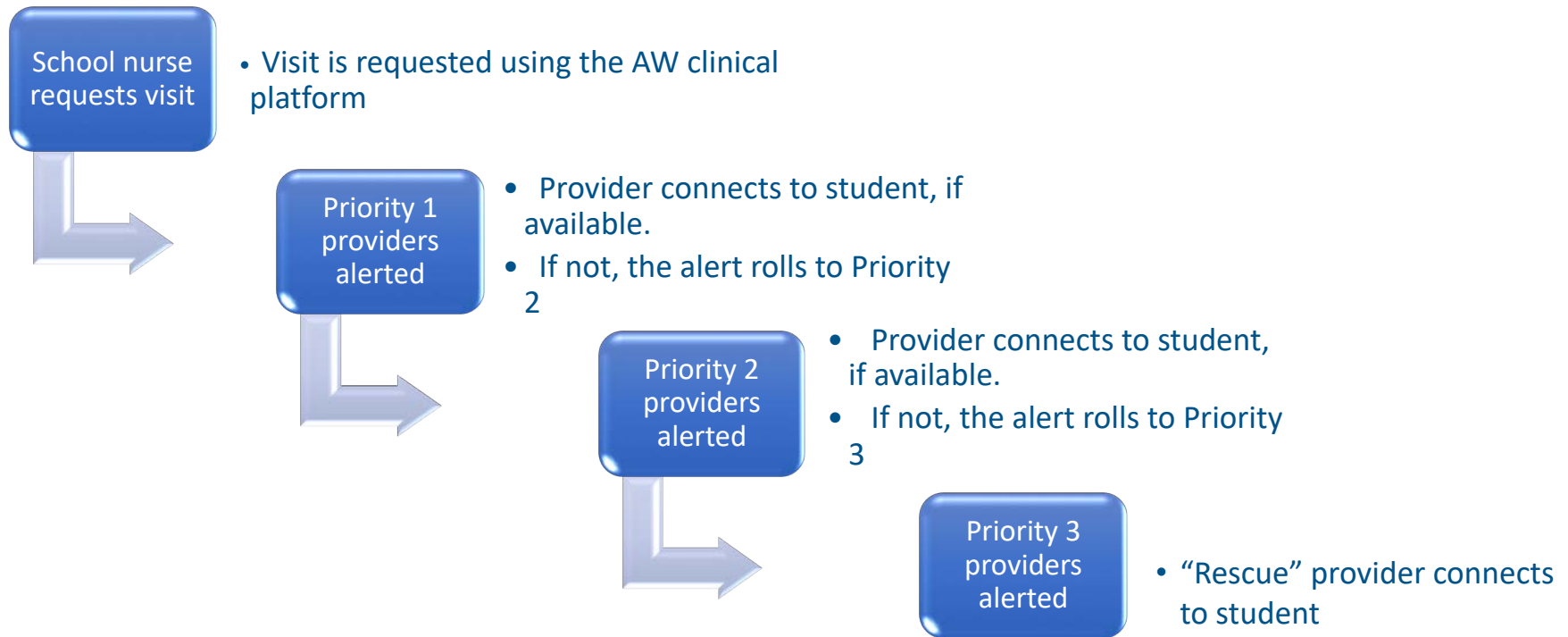- School nurse regulations vary by state

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)

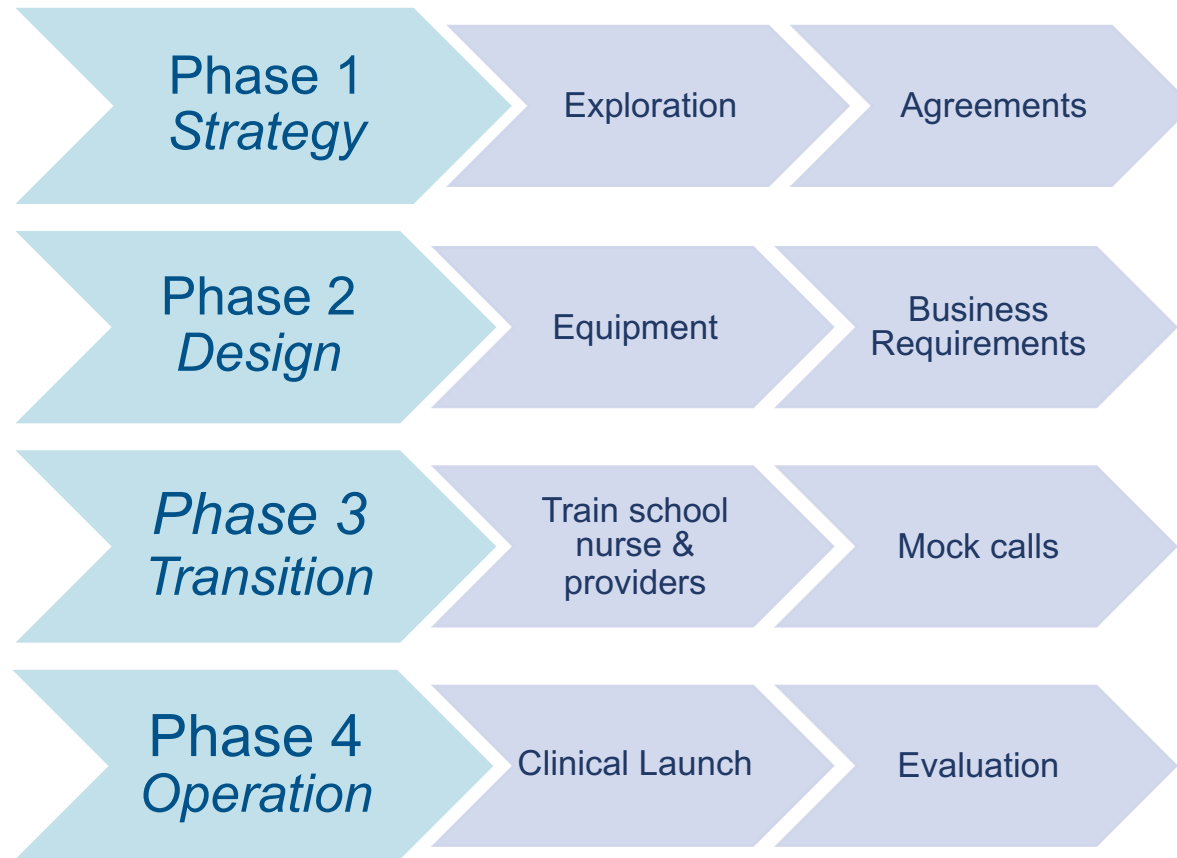*"Telehealth is a clinical service delivered over an IT service"*

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

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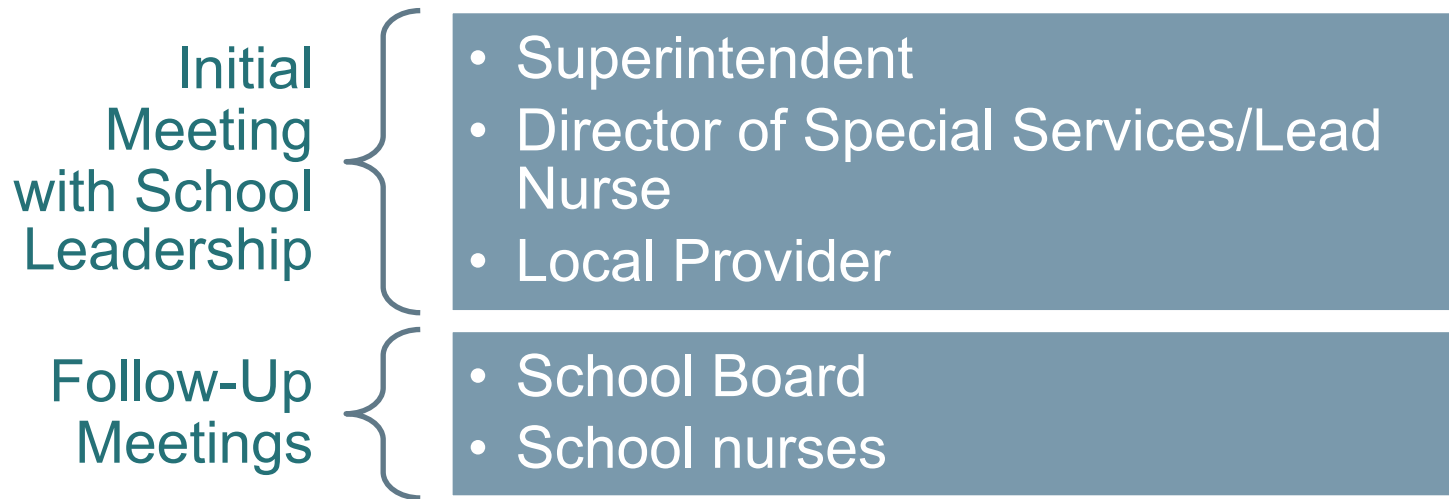
Phases of Implementation

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
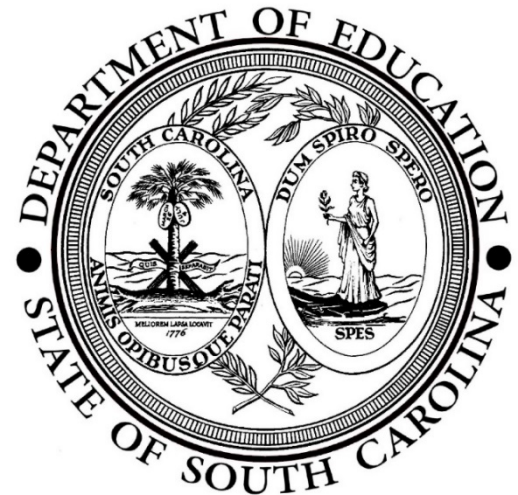
Phase 1: Strategy Agreements

- 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 users 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

Bain et al JAMA Pediatrics. 2019.
doi:10.1001/jamapediatrics.2019.3073

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Changing What's Possible | MUSChealth.org ›

Asthma Management Success Story

https://www.scetv.org/stories/health/2018/hes-not-same-kid-how-telehealth-changed-students-life

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)

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

*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)

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

*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.

MacGeorge et al, (2019). Comparison of Attention-Deficit/Hyperactivity Disorder Care Between School-Based Health Centers and a Continuity Clinic. Journal of School Health. 89(12). DOI:10.1111/josh.12836

MUSC Health
Medical University of South Carolina

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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
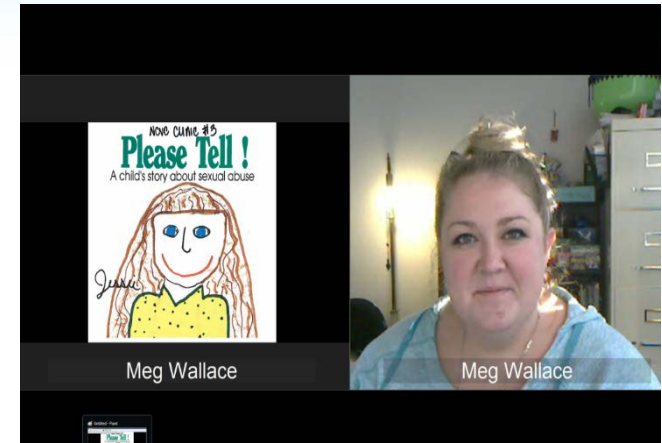   - Being in a bad car accident, etc.

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

Stewart et al., (2017). A Pilot Study of Trauma-Focused Cognitive- Behavioral Therapy Delivered via Telehealth Technology. Child Maltreatment 22(4). 324-333.

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

Kistler et al, Health Behav Policy Rev. 2019;(4):344-352
https://doi.org/10.14485/HBPR.6.4.3

School-Based Telehealth Operations Challenges and Best Practices

Identified Challenge	Best Practice
Gaining trust in new communities	• Ambassador Board • Support from local providers
Electronic health records	• Modified to reflect telehealth visit • Identify school locations to facilitate tracking and reimbursement
School nurse adoption	• Strong training program which includes mock visits • Provide ongoing support such as educational opportunities
Consent forms	• Include Consent to Treat, HIPAA, & FERPA • Valid the entire time student is enrolled in district • Electronic consents /paper • Mimic district registration process
Securely transferring documents between provider & school	• Leverage AW platform to share documents that contain PHI (nurse referral form, consent forms)

School-Based Telehealth Operations Challenges and Best Practices

Challenge	Lessons Learned	Solution
Quickly identifying provider that is available for a visit	Limit use of phone calls to coordinate visit	Workflow that supports providers receiving alerts directly
Providers from multiple organizations serving a single school district efficiently	Limit the school nurse needing to contact multiple provider groups to coordinate visit	Tiered provider call pool
Limit missed class time for students	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	On-demand model

Questions?

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