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# Telemedicine in Rural Communities

## An Innovative Approach to Delivering Healthcare

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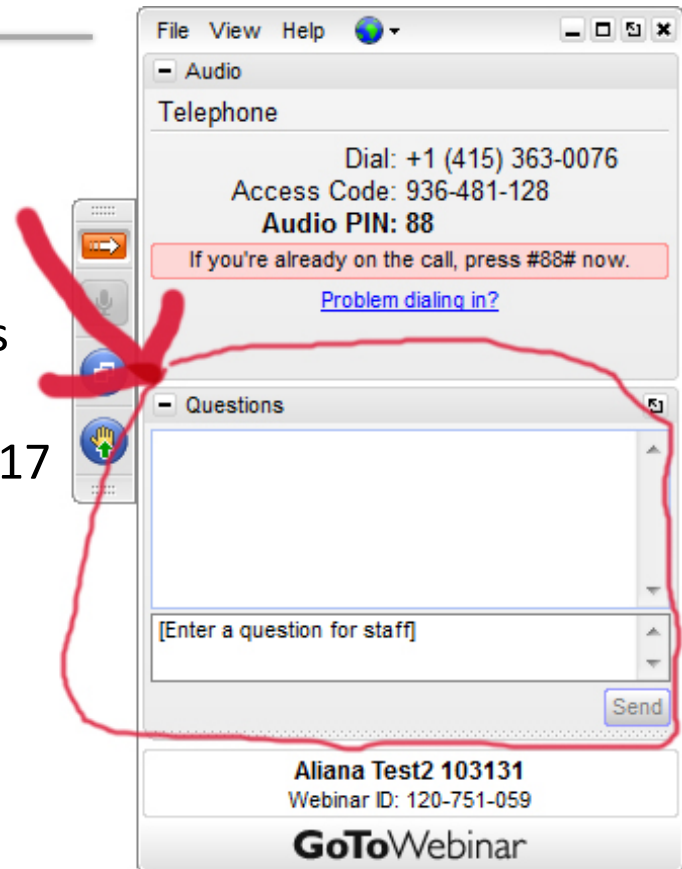
**Learn About School-Based Telemedicine**  
**What's Involved, How to Get Started and**  
**the Secrets to Success**

*August 19, 2014. Start time is 12:00 PM (central time)*



## Questions During Webinar

- ❖ Type into “Question” box in control panel
- ❖ 15 minute Q&A session after presentations
- ❖ Webinar technical support call 800-263-6317



## Featured Presenters

**Introduction & Overview:  
What, Why, Who, Benefits**



**Jenny Kattlove**

*Director, Strategic Health Initiatives*  
The Children's Partnership

**Lessons Learned from Experience  
How To Get Started & Succeed:**



**Amanda Martin**

*Executive Director*  
Center for Rural Health Innovation,  
My Health-e-Schools



## Introduction & Overview

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### School-Based Telemedicine: An Innovative Approach to Meet the Health Care Needs of Children



**Jenny Kattlove**

The Children's Partnership





## What is Telemedicine?

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Telemedicine is the use of technology to provide health care at a distance.



## What is Telemedicine?

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- ❖ Video conferencing
- ❖ Store and forward software
- ❖ Remote monitoring



## School-Based Telemedicine: Applications and Impact

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- ❖ Brings care to children who may otherwise go without
- ❖ Adds value to existing school-based health services
- ❖ Allows community health systems (e.g., clinics, hospitals) to bring care to where children are – at school
- ❖ Helps keep children in school and parents at work
- ❖ Parent satisfaction
- ❖ Efficient use of resources
- ❖ Can be cost effective



# School-Based Telemedicine: Applications and Impact

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- ❖ Increased access to acute care
- ❖ Chronic disease management
- ❖ Behavioral and mental health care
- ❖ Dental care
- ❖ Health education for children and families
- ❖ Education, training, and support for school staff





# Financing and Sustaining School-Based Telemedicine

- ❖ Grants for start-up
- ❖ Leverage current technology
- ❖ Education funds
- ❖ Medicaid and CHIP
  - Advocating for policy changes
  - Creating volume
  - Outreach and enrollment
- ❖ Medicaid Administrative Assistance



## Lessons from Across the Country

- ❖ Engaging parents is critical
- ❖ Role of school nurse is crucial
- ❖ Conduct a needs assessment
- ❖ Obtain community buy-in
- ❖ Work with local health care providers; promote medical home



## Lessons from Across the Country

- ❖ Take a multidisciplinary approach
- ❖ Schools need resources
- ❖ Technology must be reliable
- ❖ Invest in evaluation

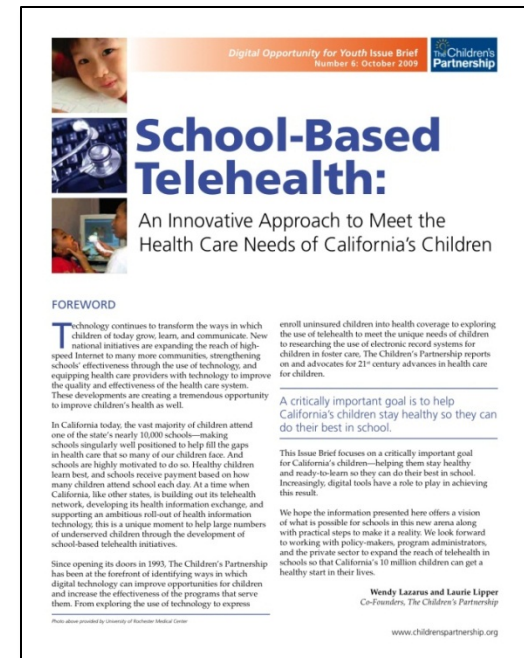


## For More Information

### *School-Based Telehealth: An Innovative Approach to Meet the Health Care Needs of California's Children*

- ❖ Schools' roles in meeting the health care needs of children
- ❖ The role of telemedicine in meeting the health care needs of children
- ❖ Profiles of selected school-based telemedicine programs
- ❖ Benefits of school-based telemedicine
- ❖ Lessons learned

<http://www.childrenspartnership.org/schoolbasedtelehealth>



## Contact Information

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Jenny Kattlove  
Director, Strategic Health Initiatives  
(310) 260-1220  
[jkattlove@childrenspartnership.org](mailto:jkattlove@childrenspartnership.org)  
[www.childrenspartnership.org](http://www.childrenspartnership.org)

## Lessons Learned from Experience

How to Develop & Implement an Effective & Sustainable School-Based Telemedicine Program



**Amanda Martin**

MY Health-e-Schools Telemedicine Program





# How to Develop & Implement an Effective & Sustainable School-Based Telemedicine Program

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- ❖ Why?
- ❖ Existing Models for Program Structure and Method
- ❖ Who Are We? Where Are We?
- ❖ Hub & Spoke Model
- ❖ Planning Phase, Listening to our Community & Applying for Grants
- ❖ Pilot Year... and the Next Two Years
- ❖ Billing
- ❖ Challenges/Surprises/What to Measure
- ❖ Resources

## School-Based Health Centers

No matter how good schools are, students won't be able to learn if they're not healthy.  
- Secretary of Education Arne Duncan



## Examined Existing Models

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### ❖ University of Rochester

- Link 33 daycare centers to 10 physician practices

### ❖ Akron Children's Hospital

- Links 2 schools to a children's hospital

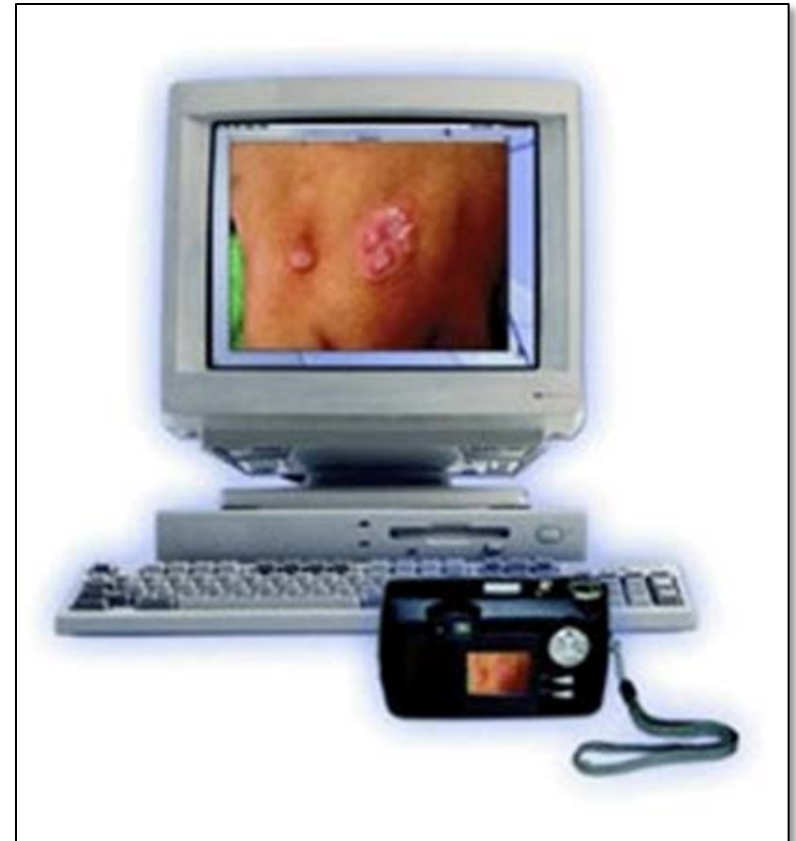
### ❖ Kansas University Medical Center

- 10 schools in 7 counties in Kansas

## Store and Forward

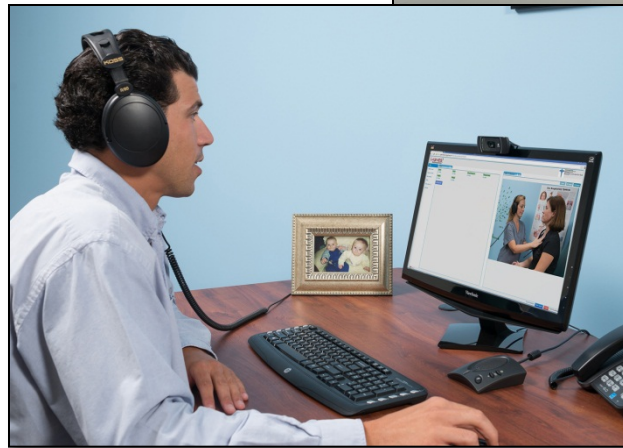
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- ❖ Dermatology
- ❖ Pathology
- ❖ Radiology
- ❖ Some acute care



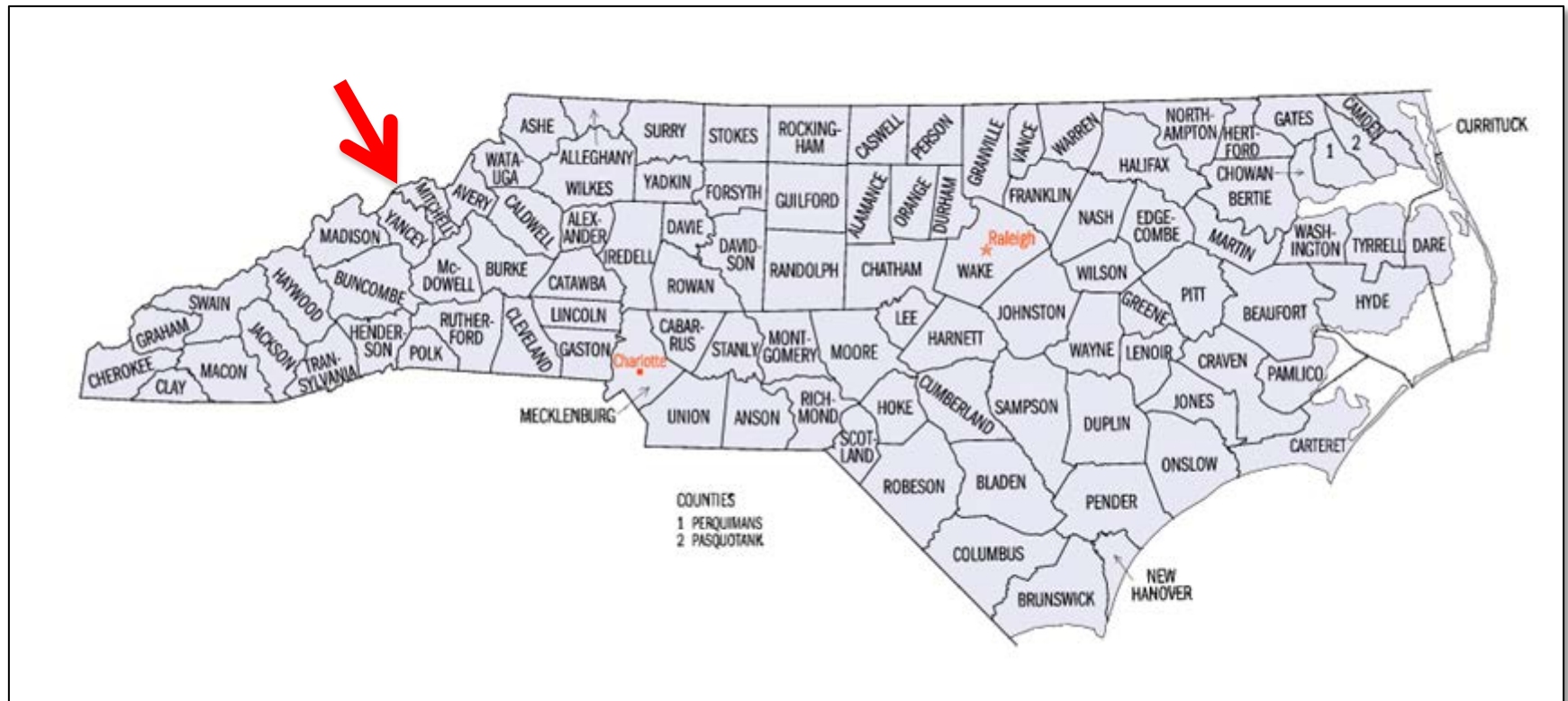
# Real-Time Telemedicine

- ❖ Consultations
- ❖ Direct Patient Interaction
- ❖ Medical Education
- ❖ Group discussions





## Mitchell and Yancey Counties





## Hub and Spoke Model

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## Spoke Sites

### ❖ Clinical Station

- Camera
- Monitor
- Stethoscope
- Otoscope
- Exam camera



### ❖ Locate in an office or tutoring room



## Hub Sites

### ❖ Receiving Station

- Camera
- Monitor
- Computer
- Connections to peripherals



## Medical Peripherals

General Exam Camera



ENT Otoscope



Electronic Stethoscope





## Initial Planning

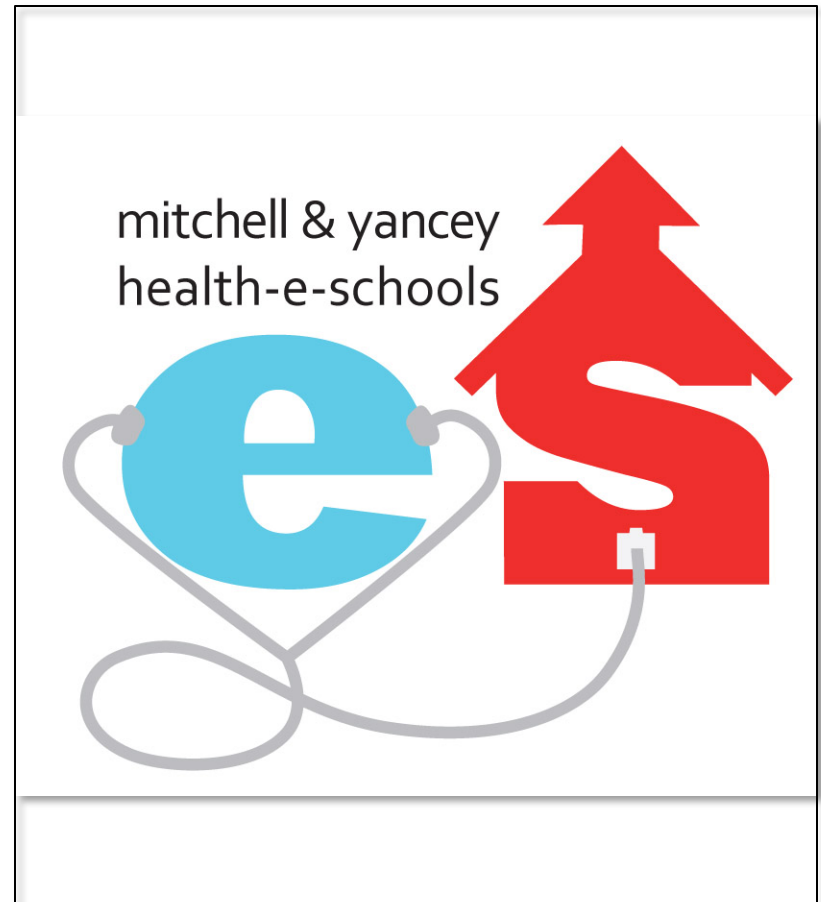
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- ❖ Building local relationships
- ❖ Research
- ❖ UC-Davis Telemedicine Course
- ❖ American Telemedicine Association
- ❖ Launching the plan



## Organizational Development

- ❖ 501c3 partnership
- ❖ Advisory board
- ❖ Hiring a STAFF PERSON
- ❖ Developing image
- ❖ Social media





# Needs Assessment

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## Listening Sessions

- ❖ School Nurses
- ❖ Teachers
- ❖ Parents
- ❖ At-risk students
- ❖ Local healthcare providers



# Needs Assessment

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## Family Survey

- ❖ Sent home with students
- ❖ 30%+ response rate
- ❖ Complemented with a teacher survey



## Desired Health Services at School

	Response Percent	Response Count
Acute injury or illness care	85.5%	954
Physical exams, including sports physicals	61.3%	684
Learn about healthy living	53.7%	599
Health Education	44.4%	496
Dermatology	38.8%	433
Counseling for depression, drug abuse, family problems	36.7%	410
Disease management	36.5%	407
Help to quit smoking	16.1%	180
	N=	1116



## Would you consider letting your child use school-based telemedicine services?

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	Response Percent	Response Count
Yes	32.3%	408
Probably	25.8%	326
I don't know	32.4%	410
Probably not	3.8%	48
No	5.8%	73
	N=	1265

## I would consider letting my child use telemedicine if.... (n=376)

	Response Percent	Response Count
Received more information	34%	128
Parents were informed and involved	14.7%	54
The provider was qualified	11.4%	43
There was a true need or an emergency	5.6%	21
Confidence in the care and the providers	5.3%	20
If it was provided	5.1%	19
Affordable and/or free if no insurance	4%	15

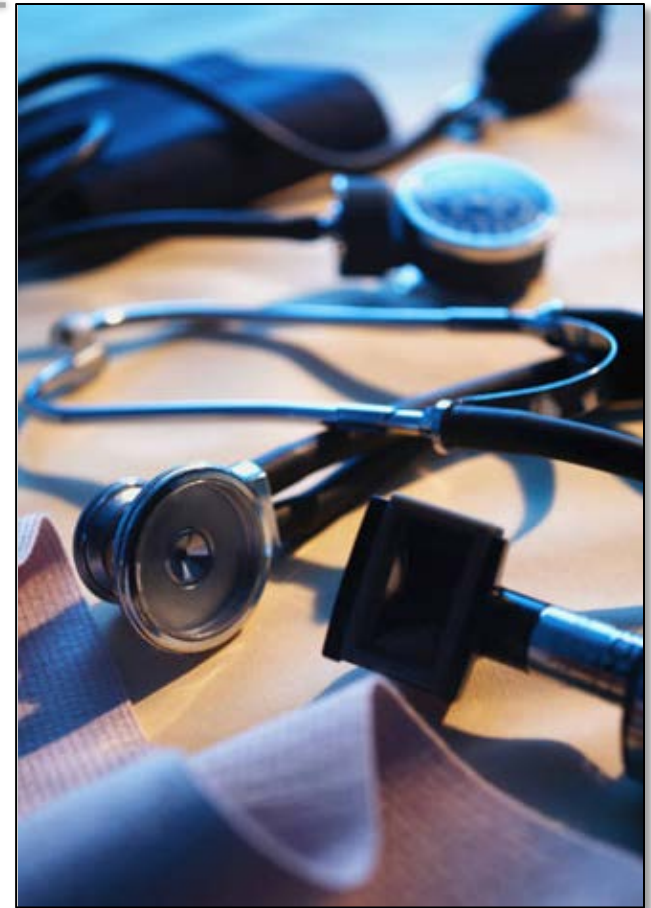
## Equipment Grants

Year	Source	Match	Amount
2009	Local Foundation	0	\$40,000
2010	App. Regional Comm.	70:30	\$90,000
2011	USDA-RUS	2:1	\$260,000
2011	HRSA SBHC	0	\$54,000
2011	HRSA SBHC	0	\$145,000



## Staffing Needs

- ❖ Nurse Practitioner
- ❖ Program Manager
- ❖ Mental Health Provider
- ❖ IT Support



## Operational Funds

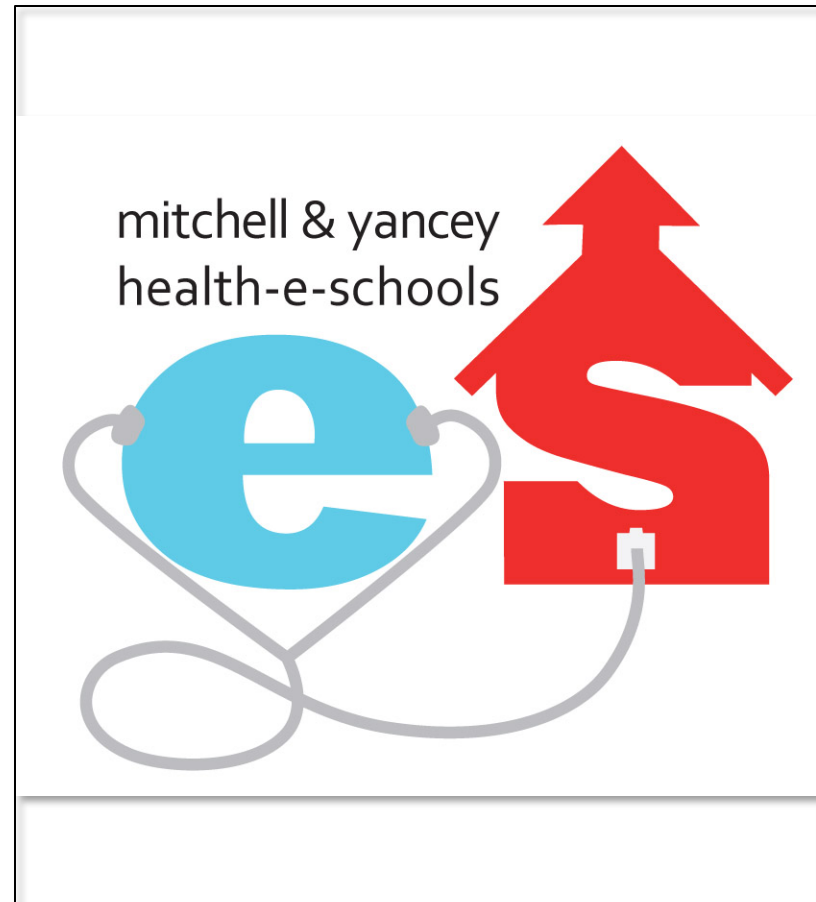
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- ❖ Essential to cover start-up costs
- ❖ Feasibility study was very beneficial in helping get these grants
- ❖ Be honest with your funders if you are not hitting your targets



## Pilot Network Components

- ❖ 700 students with access
- ❖ ~225 enrolled
- ❖ One elementary and two middle schools



## 2011-2012 Pilot Network

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- ❖ Small steps to work out the bugs
- ❖ Segment the funding
- ❖ Grow based on demands and finances
- ❖ Multiple challenges, limited number of patients





## Implementation Plan

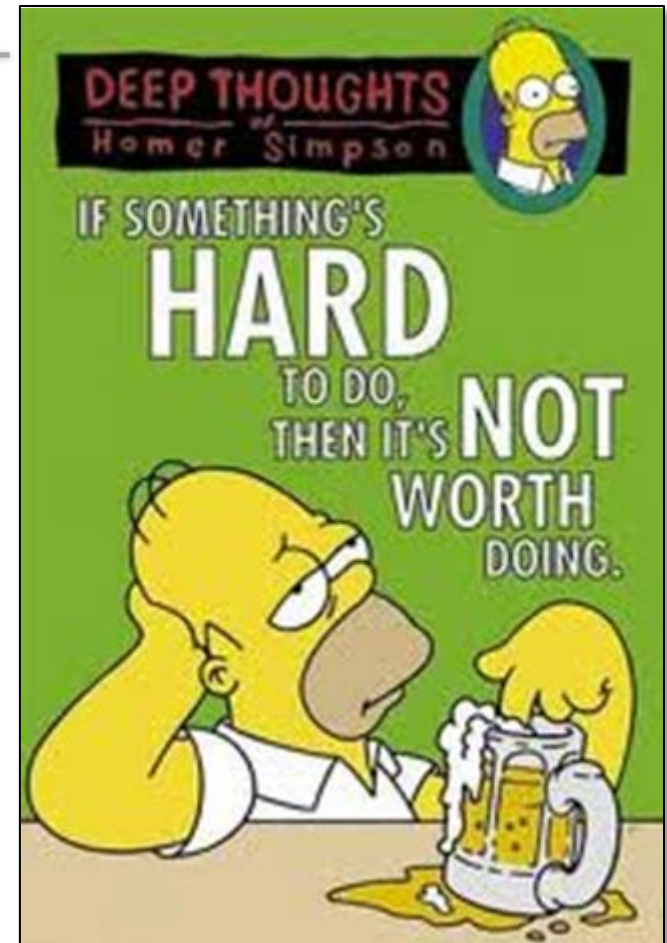
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School Year	Sites	Potential Patients
2011-2012	3	700
2012-2013	10	2,600
2013-2014	14	4,000
2014-2015	21	8,000
2015-2016	27	12,000

## Challenges

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- ❖ Enrollment
- ❖ School nurses
- ❖ Legal issues
- ❖ HIPPA-FERPA
- ❖ Electronic Health Record
- ❖ Staffing





## Surprises

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- ❖ Evaluation is useless without a way to make the treatment happen
- ❖ Eavesdropping pays off
- ❖ Flexibility matters
- ❖ Growth curve? What growth curve?

## Outcome Measures

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- ❖ Attendance
- ❖ Coordination of Care
- ❖ Satisfaction Measures
- ❖ Cost-savings to Medicaid
- ❖ Health outcomes
- ❖ Annual preventive care
- ❖ Financial viability

## Resources

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## Contact Information

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Find us on  
**Facebook**

Amanda Martin  
Executive Director

[Amanda.Martin@crhi.org](mailto:Amanda.Martin@crhi.org)

## Choosing Telemedicine Equipment & Technology

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Consider:

- ❖ Medical specialties servicing
- ❖ Environment of equipment
- ❖ Training required of users
- ❖ Integration with existing IT infrastructure

# Types of Telemedicine Equipment & Technology



- ❖ Clinical Telemedicine Systems
- ❖ Medical Devices
- ❖ Encounter Management Software



## Contact Information

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Keri Dostie

Director of Marketing, AMD Global Telemedicine

[kdostie@amdtelemedicine.com](mailto:kdostie@amdtelemedicine.com)

Tel: 978-937-9021

[www.amdtelemedicine.com](http://www.amdtelemedicine.com)

## Q&A Session

- ❖ Type your questions for the presenters in the control panel box



Jenny Kattlove

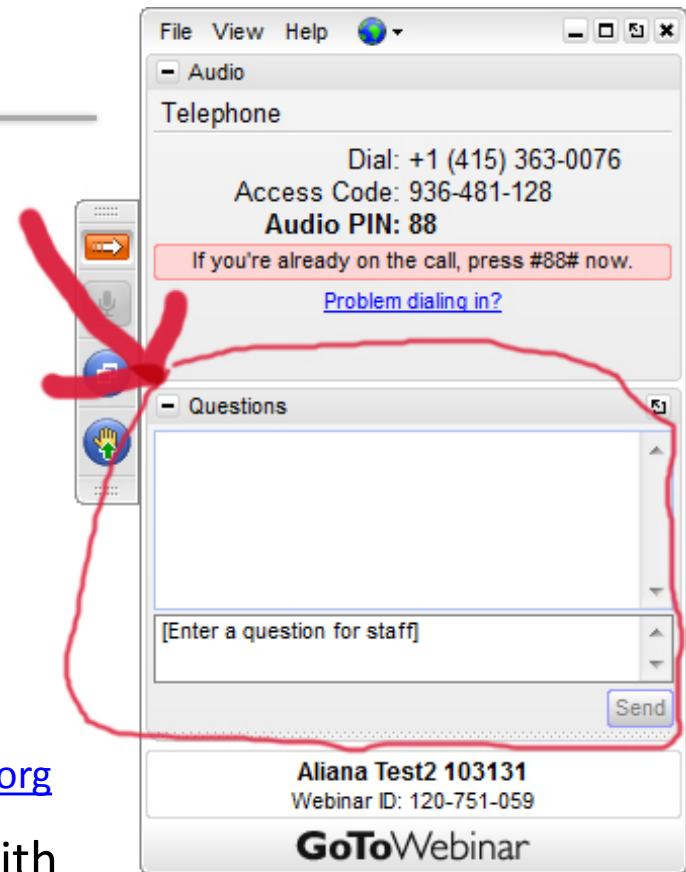
[jkattlove@childrenspartnership.org](mailto:jkattlove@childrenspartnership.org)



Amanda Martin

[Amanda.Martin@crhi.org](mailto:Amanda.Martin@crhi.org)

- ❖ You can also email the presenters directly with questions after the webinar
- ❖ Webinar technical support call 800-263-6317





# Thank You for Attending

- ❖ Archived presentation will be available in next few days.
- ❖ List of telemedicine resource centers will be provided