

Virtual Healthcare Career Extended Learning Opportunities



Innovative Career Awareness Program



SC Department of Education SC Hospital Association Partnership Outcomes

- Health careers Web site
- Virtual Surgery Insider Project
- Amazing Hospital Careers
- Virtual Hospital Project



PROGRAM PURPOSE

To improve and enhance learning experiences using readily available technology delivered to the classroom with limited interruption to class schedule



Today's Presentation

What we do!

Why we do it!

How we do it!

Inspire you to do it!



Concerns of SCHA Workforce Committee

- High vacancy rates in most hospitals
- Educational programs not at capacity
- Very dependent on out-of-state recruitment
- Students only know about doctors & nurses
- Little interaction between hospitals & local schools
- Healthcare not viewed as “high tech”



FIRST STEPS

- First heard about virtual surgery at an American Hospital Association (AHA) national workforce meeting
- Program originated with the Hospital Association of Rhode Island (HARI)
- SCHA staff attended technical assistance workshop
- SCHA staff believes in CASE



VIRTUAL SURGERY PROJECT DESCRIPTION

- Providing a “virtual” surgery experience for SC high school students
- Presents opportunity for hospitals to allow groups of students to experience surgical procedures
- Provides audio and chat room, 1-way video broadcast
- Partnership with SC Department of Education, local hospitals, SC high schools/career centers



OUR PROGRAM

- Discovered Self Regional Healthcare used similar technology
 - Operating room with audio/video broadcasting capability
 - Polycom units
 - Broadcasting procedures internally for medical students, physician training
- Became willing partner in the VSI Project



PILOT PROGRAM

- Initially piloted in April 2004
- Identified 2 high schools from 7 county area surrounding Self Regional Healthcare
 - Newberry County Career Center
 - Strom Thurmond Career Center
- Utilized Piedmont Technical College's distance education classrooms already set-up at career centers



Budget Summary Pilot

Production of careers video	\$13,377.00
Revisions to careers video	\$488.00
Production of documentary video	\$4,757.00
Sub Total	\$18,622.00



Documentary: Making of the VSI project



<http://besomethingamazing.com/freeresources.aspx>

Health Careers video featuring the OR team



WHO PARTICIPATED?

82% of students in 11th or 12th grade:

Grade	Percent
-------	---------

9 th	5%
10 th	13%
11 th	42%
12 th	40%



WHO PARTICIPATED?

Top 5 Career Choices:

Nursing	45%
Physician	14%
Physical Therapist	8%
Radiology	5%
Pharmacist	2%



PROGRAM STATISTICS

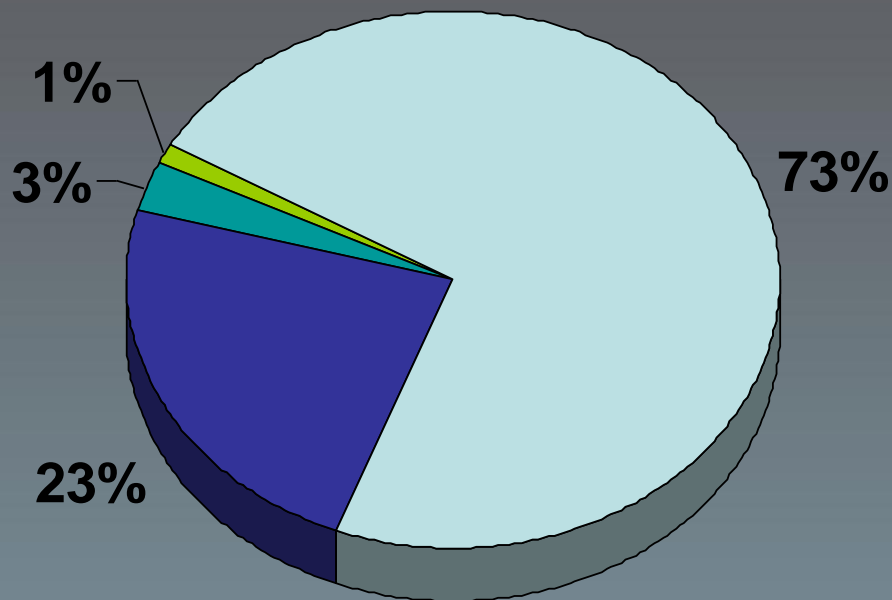
Percent of “YES” responses

Do you think 2 hours is an appropriate amount of time for Virtual Surgery? **85%**
(87% of those who responded “no” felt the VSI should be 3-4 hours long)

Would you want to participate in another Virtual Surgery if the opportunity was made available? **97%**



USING VIRTUAL SURGERY AS A LEARNING TOOL

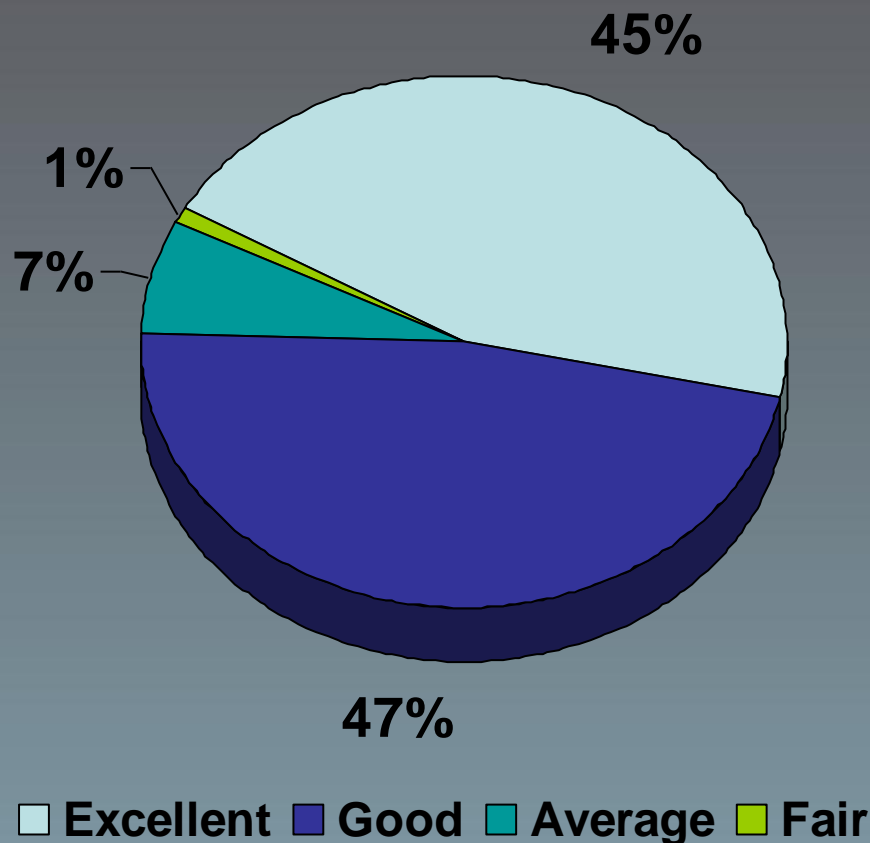


96% of participants rated
Virtual Surgery as a
quality learning tool

□ Excellent □ Good □ Average □ Fair



QUALITY OF LESSONS AND OTHER SUPPLEMENTARY MATERIAL



92% of participants rated the lessons and supplementary material as Excellent or Good



WHAT DID YOU LIKE MOST?

- I enjoyed the whole process of the surgery. I want to be a cardiologist so this was a real eye opener.
- I enjoyed seeing the actual heart beat and how the people work together.
- That we were able to ask the surgeon questions and get an immediate response.
- The actual step-by-step explanation of the entire procedure.
- Seeing the heart for the first time instead of seeing pictures in a book.



WHAT DID YOU LIKE LEAST?

- The anesthesia could have been shown.
- I would like to have seen the entire surgery, even though the complete surgery is 4 hours long.
- Not being able to talk to the whole surgical team.
- All of the questions being asked while trying to learn what was going on during the surgery.
- Not being able to see how the patient was doing after surgery.

OVERALL COMMENTS

I am thrilled to have had this experience because it's something not many people get to do. I appreciate the opportunity to have this experience. It was a wonderful chance, an honor to participate, and will help me in the future. In my mind, I thought that the heart would be taken out of the body, but it wasn't.



EXPANSION SINCE PILOT

- Second broadcast in Dec 2004
 - 10 schools participated
- Third broadcast in Dec 2005
 - 12 schools participated
- Both open heart procedures (CABG)
- Increased interested to participate
 - Health science programs
 - SC hospitals



TECHNOLOGY

- Partnered with SC ETV to broadcast procedure
 - Extremely cost-effective
 - All or most schools already have necessary resources
 - Using satellite feed
- Schools dialed into 1-800 number for audio interaction
- ETV technician at each site



EXPANSION SINCE PILOT

- Development of pre-post curriculum to accompany VSI experience; lesson plans, PPTs, rubrics, talking points
 - Cardiovascular
 - Orthopedic ; knee and hip replacements
 - Gynecological; hysterectomy
- Stipend to selected health science teachers to develop curriculum
- Joint effort for participation on local schools and hospitals
 - Goal: To help sustain local business/education partnerships



EXPANSION SINCE PILOT

New group of participating hospitals

- Palmetto Health Baptist – January 2007
(Total knee replacement)
- Upstate Carolina Medical Center – March 2007
(Total knee replacement)
- Trident Medical Center – December 2009
(da Vinci hysterectomy)
- KershawHealth – April 2010
(Total hip replacement)

Created Web site

www.virtualsurgery.tv



HOSPITAL BENEFITS

- Positive impact on future healthcare employees
- Positioning hospital as employer of choice
- Community relations and local partnerships
- Physician and employee recognition
- Positive public relations impact: *high media interest*



Current Approach for Virtual Surgery

- Live webcast through VirtualSurgery.TV
- Streams real time video & live chat
- Create project page for the live broadcast
- Contract with a content distribution network (CDN)
- Limit number of student participants
- Reduced need for numerous other parties



Introduction to Broadcast



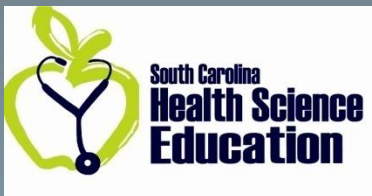
WHAT WE NEED FROM SCHOOLS

- Flexibility with scheduling
- Assistance and participation with pre-broadcast testing
- Contacts with school/district IT departments
- Selection and preparation of students (no more than 50 students per site)
- Assistance with data collection
- Suggestions for improvement or additional resources



TYPICAL SCHEDULE

8:30am	Teachers tune in to appropriate channel/website
9:00am	Broadcast begins with welcome from the surgeon
11:00am	Broadcast concludes with sign off from surgeon



Challenges for Current Approach

- Tight restrictions by schools
- Band width often split among schools
- Lack of IT expertise in some schools
- Require numerous tests before broadcast



2010 Current Budget Summary

Pre-production evaluation

On location production & camera
package

Post production editing & digitizing

Review & re-edit with Physician (75
minute video)

Creation of master files for webcast
playback

Live webcast from OR

Sub total

\$30,000.00-

\$32,000.00



Current Budget Summary (continued)

Promotional Materials

\$ 5,000.00

In-kind contributions by hospital

\$10,000.00

Total

\$37,000.00



KEY POINTS



- Research all available technology options
 - Changing daily!
- Develop strong partnerships
 - Utilize local strengths!
- Develop curriculum support
 - Expand reach of broadcast experience!
- Preplanning & pre-testing

Amazing Hospital Careers DVD

- Interactive, educational overview of hospital careers
- Highlights an assortment of professionals in their work environments
- Real healthcare professionals tell their story; education and training
- Multiple ways to watch and listen, each story is woven into an interactive and dynamic interface.
- Detailed career track information
- Helpful tips for job seekers



Health Careers Awareness Web site

www.BeSomethingAmazing.com

- SC Hospitals
- SC postsecondary health science programs
- Free resources
- News
- Online store





Be Something Amazing



SC
HOSPITALS



HOSPITAL
CAREERS



WORKBASED
LEARNING



HIGHER
EDUCATION



FREE
RESOURCES



ONLINE
STORE



Make a Real
Difference

LOG ON

EMAIL

PASSWORD

REMEMBER ME

Submit

The Virtual Hospital (under construction)

- Easy to use website highlighting healthcare professionals in their work environment
- Story lines around professionals explaining what they do, typical work activities, and how they relate to individual patient care



The Virtual Hospital

(under construction) continued

- Series of video screens, interactive features, teacher guides, & student resources
- Component of BeSomethingAmazing.com



SC Health Science Education Rewards

- Strengthen hospital partnerships
- Increased technology in the classroom
- Availability of resources
- Expanded work-based learning experiences



FOR MORE INFORMATION

Please contact:

Jim Walker

South Carolina Hospital Association

jwalker@scha.org

Nancy Allen

South Carolina Department of Education

nallen@ed.sc.gov

