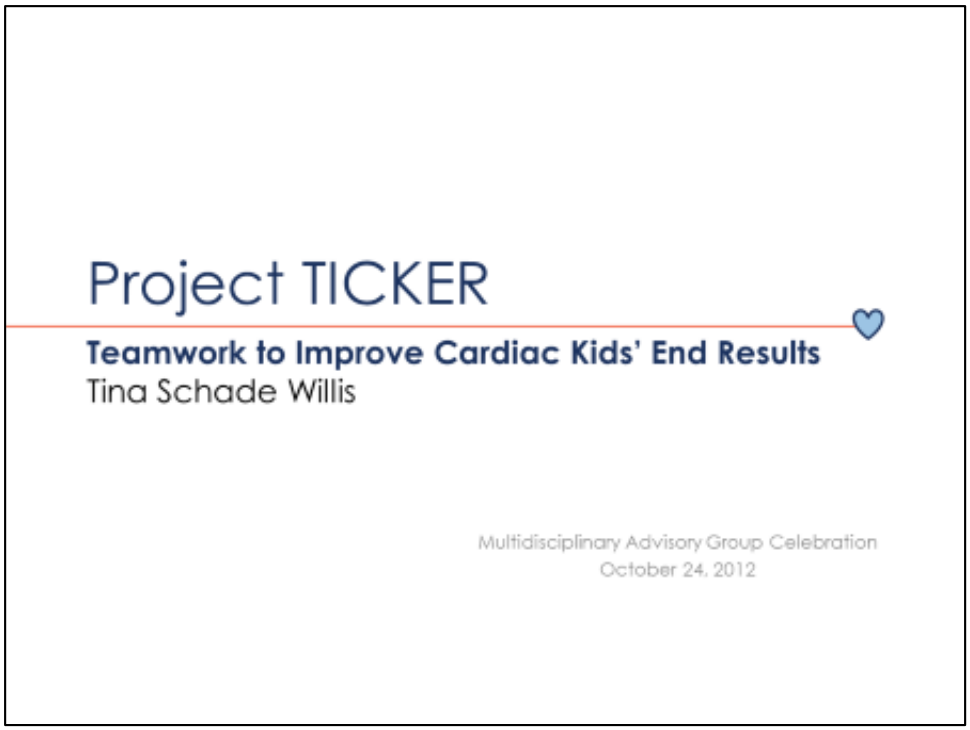
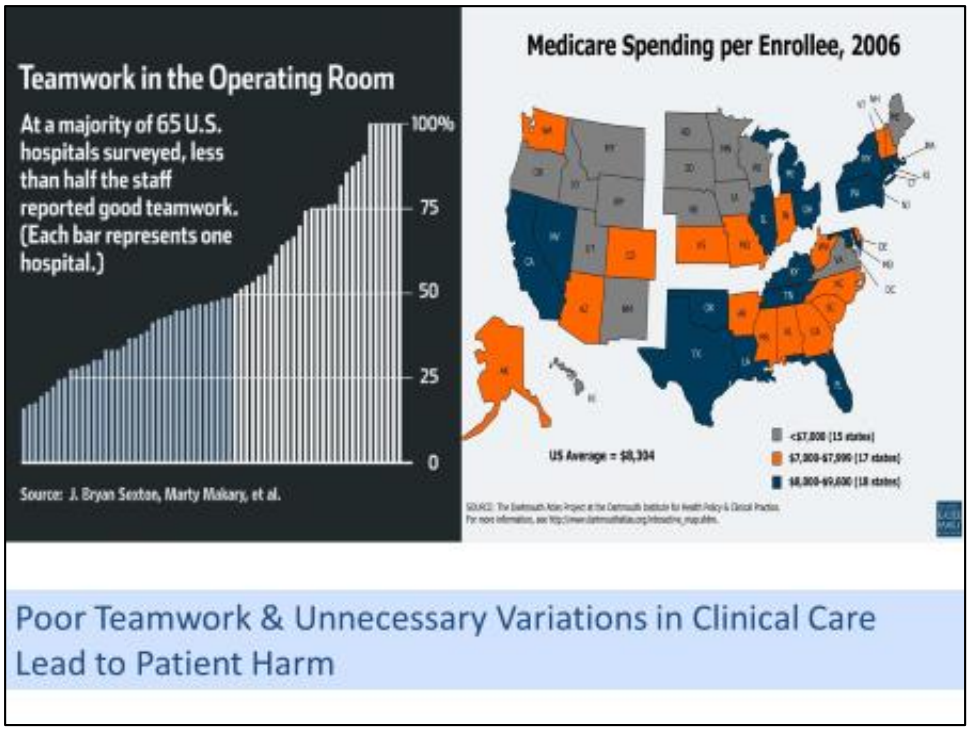


Welcome to Project TICKER's 2 year milestone celebration

This was a project milestone celebration for Project TICKER in our pediatric congenital heart population at UNC back in 2012.

I want to use this as a demonstration of a Pecha Kucha style presentation which is 20 slides 20 seconds per slide and a little over 6 minutes total.

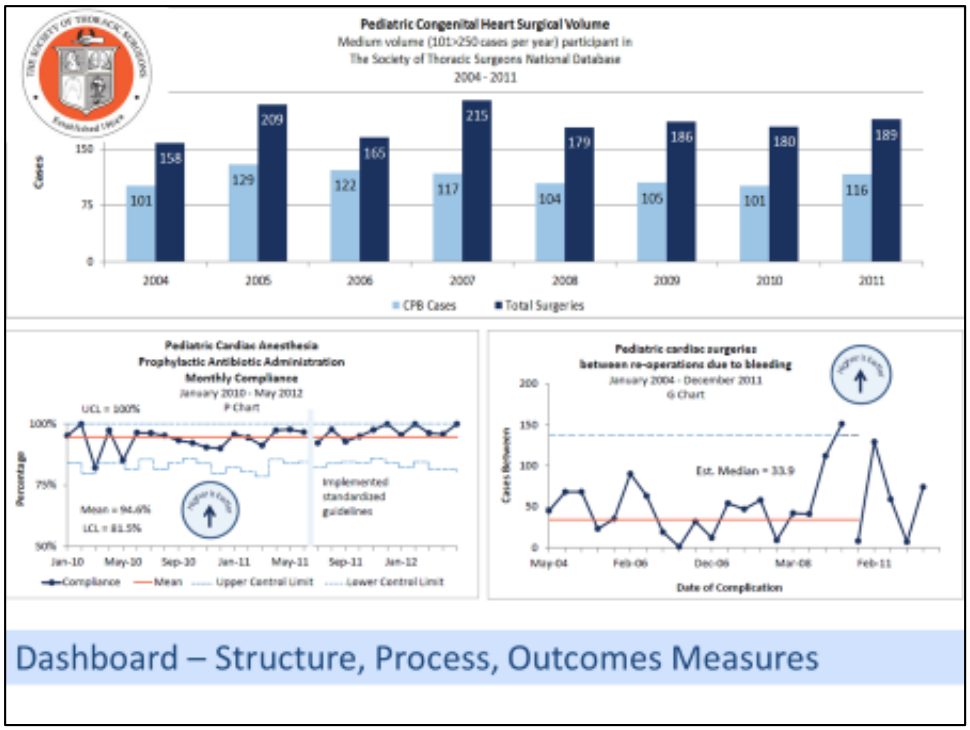


Poor teamwork in the Operating Room is known to lead to poor outcomes. In one study of 65 US hospitals, less than half of the staff reported good teamwork.

In the Dartmouth Atlas Project there are substantial variations in the cost of care for people of similar health
In fact, clinicians with the best results often have lower, not higher, costs than average.

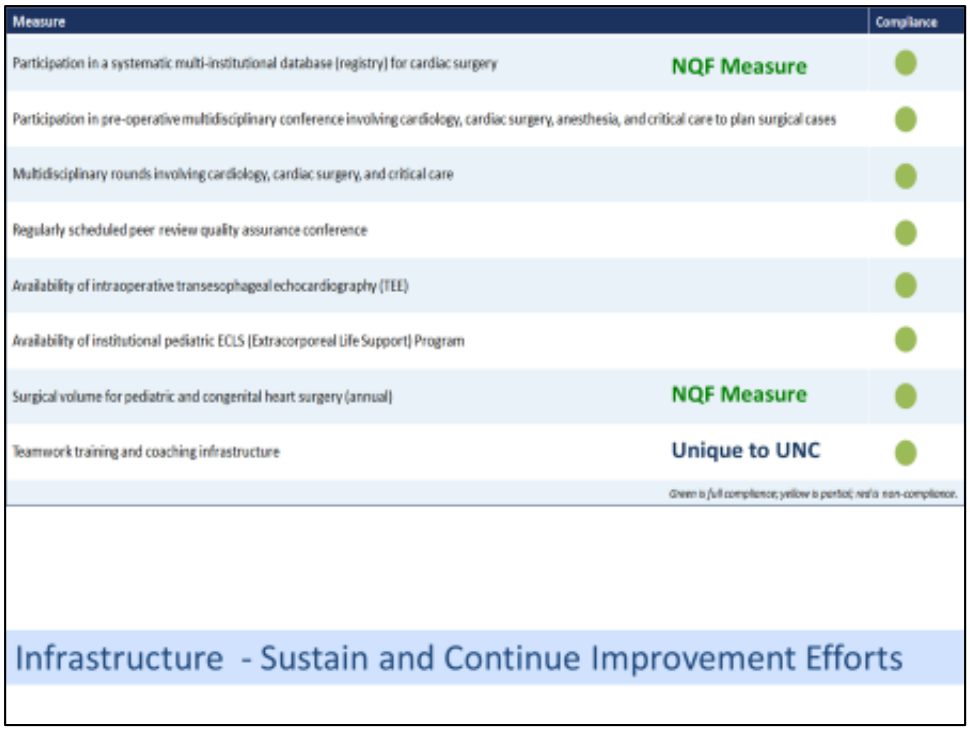
Our project's aim was to implement teamwork training and standardized clinical pathways. Pathways have been shown to decrease length of stay and lead to better outcomes especially for surgical populations.

Through teamwork training and observations, we did find significantly improved teamwork in all of the areas where it was new and sustained or improved in the areas with previous training.



UNC already participates in a national database through the Society for Thoracic Surgeons. In this project we created a dashboard from the STS and hospital data using process control charts.

Creating a dashboard with the rich amount of data already collected for STS gave us a really unique perspective and we believe should be used at the national level for evaluation of quality at the participating institutions.



The infrastructure created for this project was based on the recommendations from STS to the National Quality Forum for reporting from all pediatric congenital heart surgery programs.

The NQF only adopted 2 of the original recommendations but we continued with all and added our own teamwork training program measure.

By the end of the 2 year project we are in full compliance with all structure measures.

Family Advisors – Partners in Every Aspect of Project

Our family advisors are families who have had children as patients in our program.

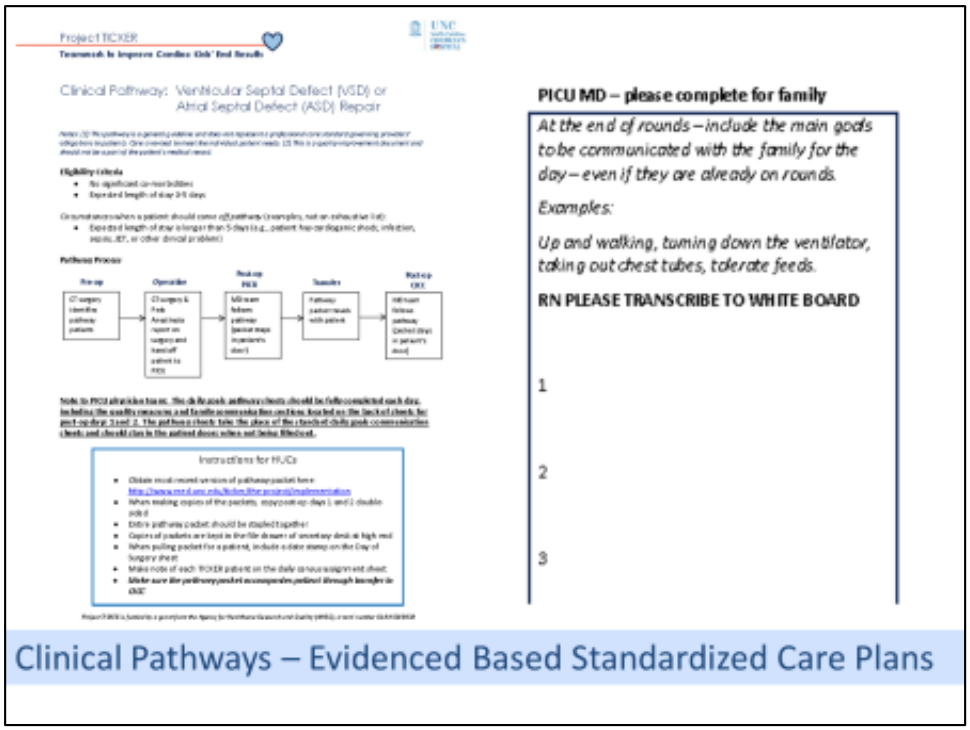
They have traveled from all over the state to attend meetings, call in for phone conferences, and work diligently through email and snail mail to partner with us in every aspect of this project.

This was the project that really showed me the importance of working with or families rather than doing things for them.

Examples of how we are changing our unit related to communication are included here.

We post photos in every patient room now of the current on service PICU physicians to better communicate who is working that week.

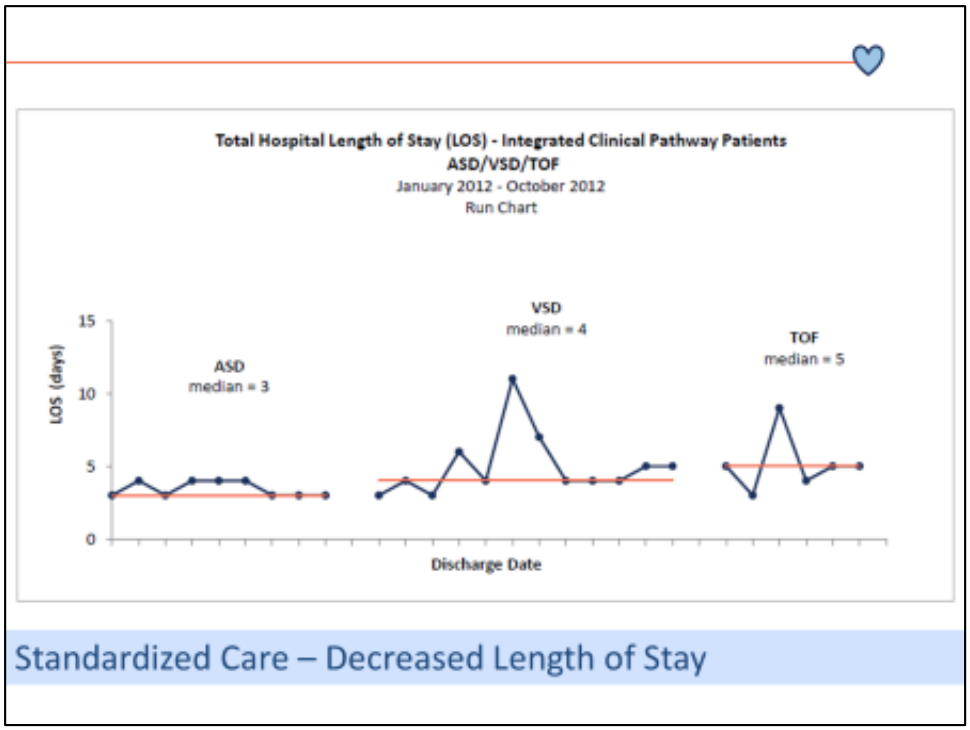
In addition, we have a family communication dry erase board for each room that was designed by our advisors.



The clinical pathways that we have implemented are for some of our most common procedures.

These are evidenced based standard guidelines that follow a patient from admission to discharge with set goals for each stage of their care.

Our family advisors included a prompt area for the primary days goals to be shared with the families so that we all know the direction we are going for the day.

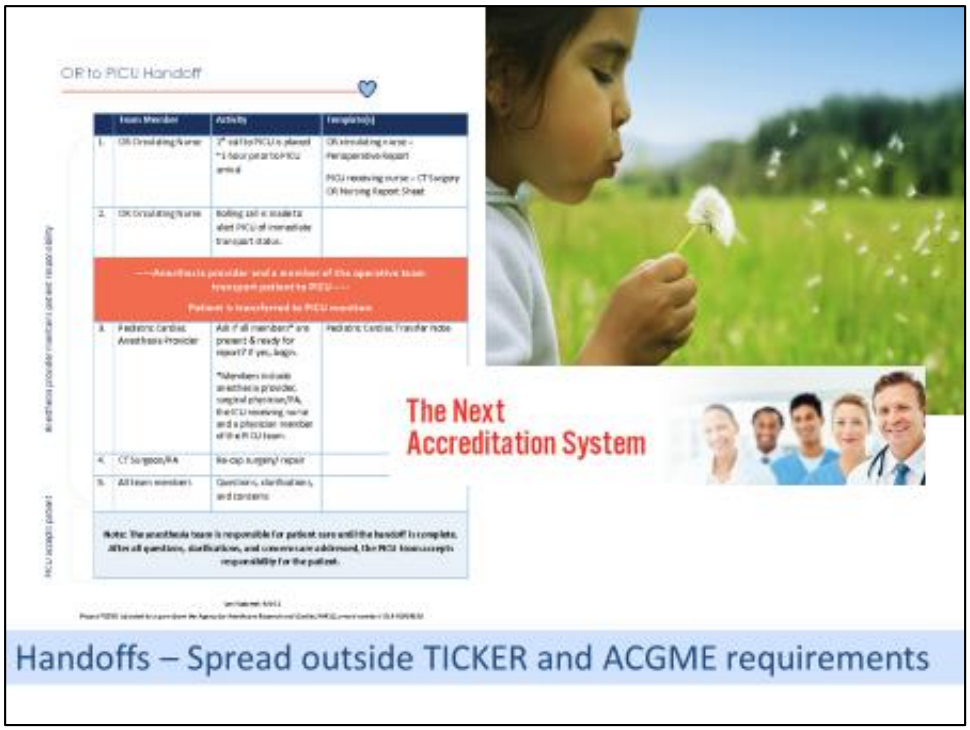


We have established goal total hospital length of stay for each of our pathway patient populations.

We aimed to decrease our VSD patient LOS from a baseline of 8 days and our TOF LOS from a baseline of 13 days.

We have not had enough patients on pathway to reach statistical significance but we have reached beyond our median goals for the patients thus far.

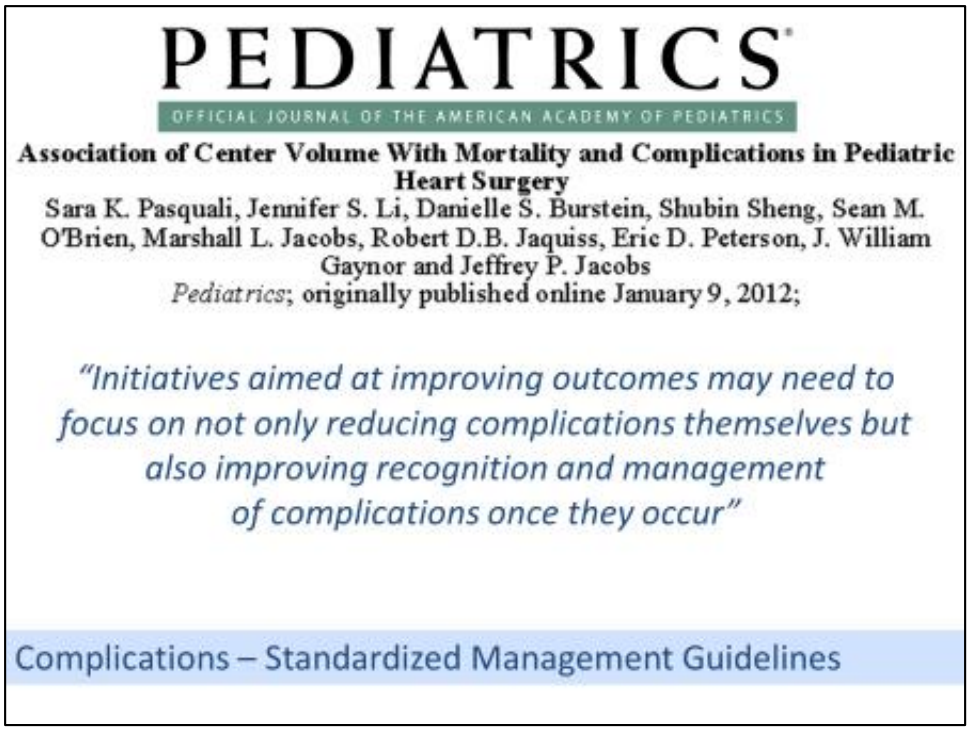
That is 4 days for VSD patients and 5 days for TOF.



We have developed several tools through the project that are used to improve transitions of care.

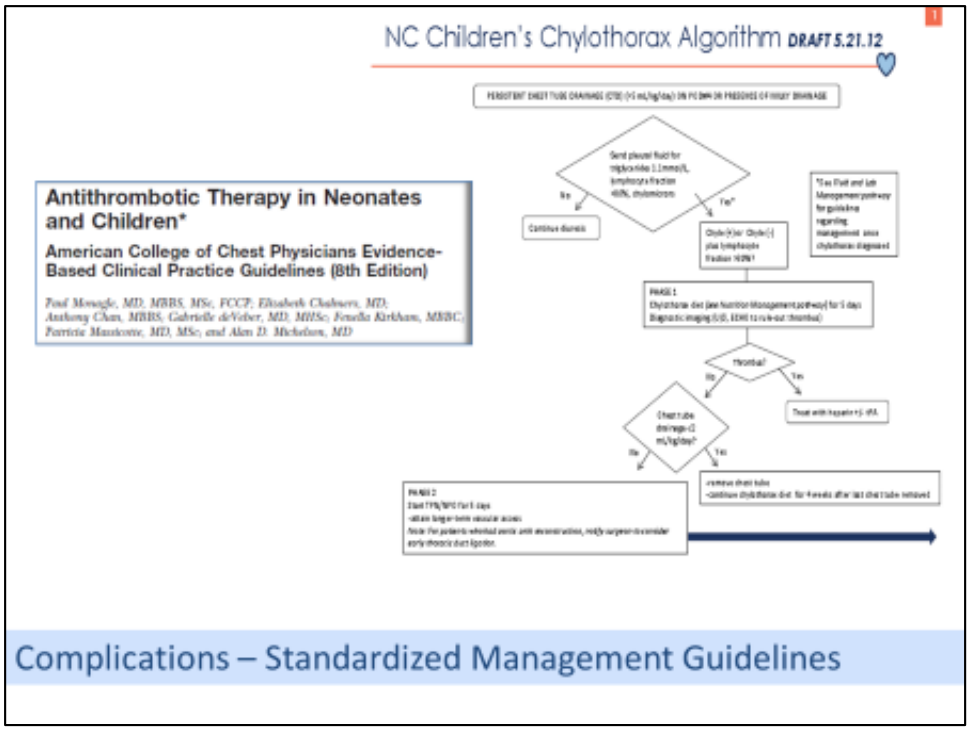
The first tool in this area developed was the Cardiac OR to PICU standardized handoff. Of note this has already spread as the tool throughout the institution for all OR to ICU handoffs in the institution.

These standardized transitions of care are also newly required ACGME requirements for all of our residency programs and can be shown for accreditation visits as examples.



Earlier this year, there was a publication in Pediatrics describing the association of center volume with mortality and complications in pediatric heart surgery utilizing the STS data from the US centers participating.

It was found that the higher mortality rates found in different institutions may be related more to how the institution recognizes and manages complications



For this reason we used what we had learned through the project to standardize our approach to the most common complications associated with pediatric congenital heart surgery such as deep venous thrombosis –blood clots - and chylothorax – or the leakage of lymphatic fluid in the space just outside of the lung.

These approaches are evidence based and available for all team members to use on a public access website.

Journal of Perinatology (2012) 32, 765–771

SPECIAL FEATURE

Physician counseling, informed consent and parental decision making for infants with hypoplastic left-heart syndrome

JJ Paris[1,2], MP Moore[3] and MD Schreiber[4]

Communication – Standardized Parental Counseling

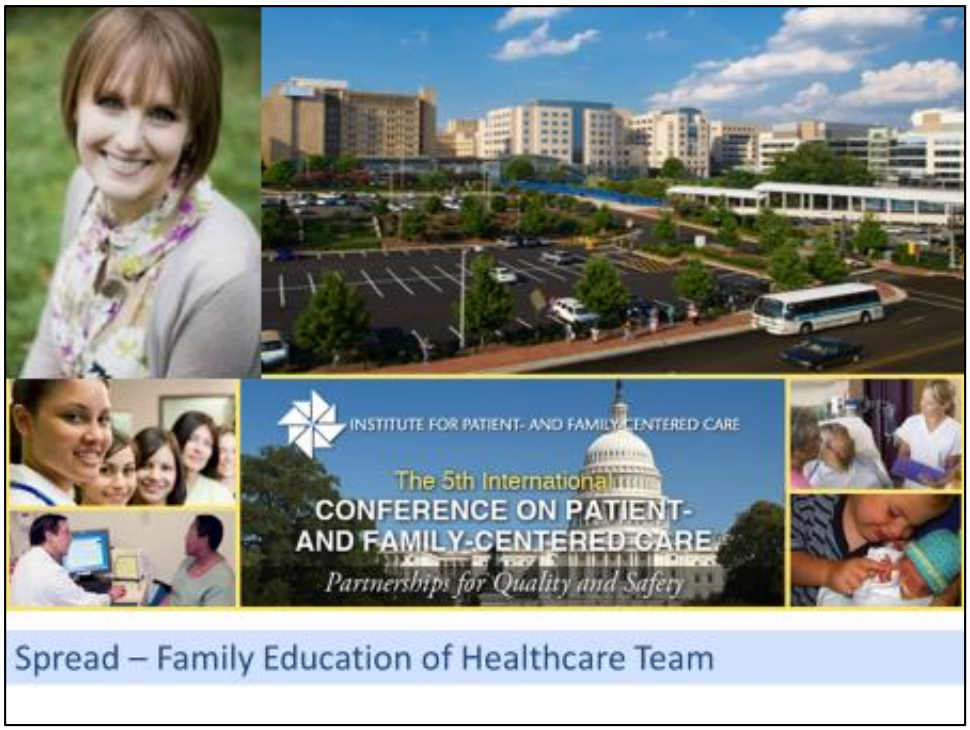
In looking at our data we also found that we have a disproportionate amount of Hypoplastic Left Heart Syndrome patients that are high risk surgical candidates –they have other anomalies that make their chance of survival lower.

We found quite a few publications that describe inconsistent counseling with these families, leaving some surgical options out as well as advanced care planning.

We created a process with our family advisors to better standardize counseling and support these families.

The TICKER project provides quality improvement credit for faculty in 3 of our pediatric divisions in Part 4 maintenance of certification which is a requirement for all board certified physicians to complete to maintain their certification.

We applied for project specific approval from the american board of pediatrics and Project TICKER was approved for fulfillment of this requirement.



Patience Leino pictured here was our first formal family advisor in the PICU and is a mother of a heart baby.

She has presented her work with our team in improving communication with families at an international conference and in publication.

She and our wonderful TICKER family advisors have been working on yet another project. We discovered a need for families to educate our medical team members.

This education program has now being spread throughout the institution in both the adult and pediatric patient populations.

Spread – Handoffs OR to ICUs, NICU to PICU, PICU to Wards

As I mentioned earlier – standardized transitions of care or handoffs are an ACGME requirement and we have been able to adapt not only the OR to ICU's tool for other units but also have used the NICU to PICU standardized handoff for non cardiac babies and the PICU to CICC handoff will also be adapted for all PICU to non-ICU transitions over time.

It is also very important to continue to involve patient and family advisors in the handoff process.

Spread – Toolkit on TICKER and AHRQ Websites for Free Use

One of the deliverables for the AHRQ grant is a detailed toolkit that is now complete and available on our TICKER website for any other center in the world to use to implement the same program.

It includes all of the pathways and handoff tools as well as our complication management guidelines in formats that can be edited for use in other environments and institutions.

Just Google Project TICKER and click on toolkit

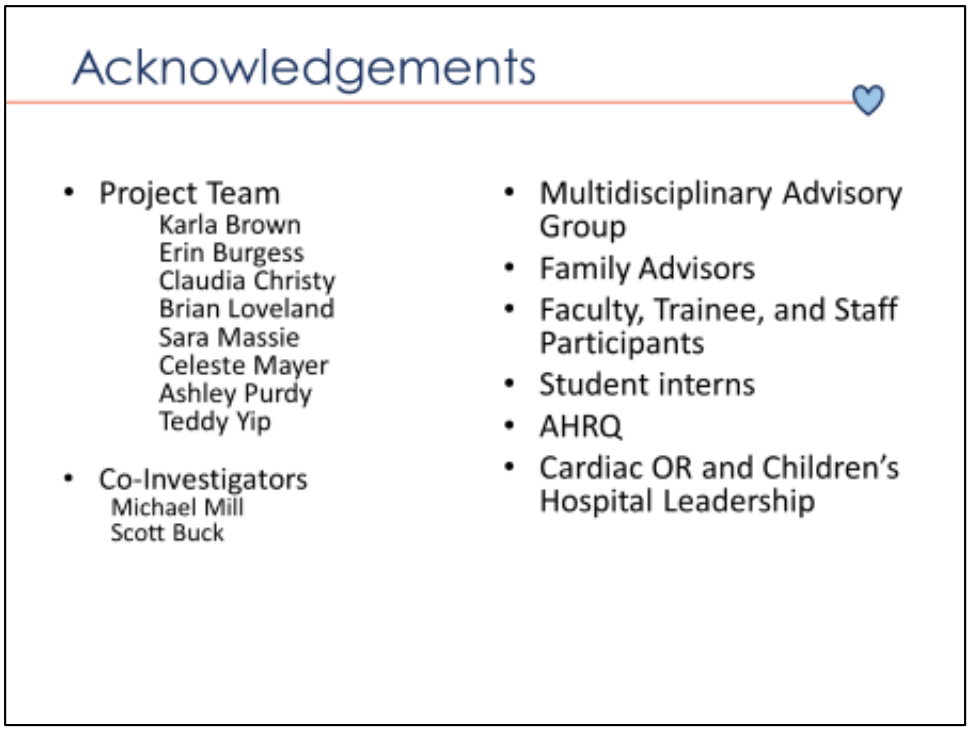
Sustainment, Additional Pathways, Measurement, Publication

The most important part of complex system improvement is putting into place a sustainment plan – which thankfully we have budgeted well enough to have an additional year of funding available and were awarded an extension from AHRQ to continue the sustainment portion of the project.

The goal is a sustained infrastructure of creating additional pathways, continuing our measurement and dashboard, and publications.

There are several future directions that this work could lead to.

Examples including continuing to work with the quality subgroup from STS and working on statistical process control chart evaluations of national data, assisting in spread of these quality measures at even larger institutions, as well as the possibility of incorporating a similar program into different patient populations here at UNC.



I would like to thank all of the people who have worked tirelessly over the past two years on this project.

Our multidisciplinary advisory group and the family advisors have been tremendous in taking this program to a level beyond most quality improvement programs, AHRQ for funding Project TICKER, the participants that have been willing to pilot tools and go through teamwork training, the student interns that observed so many events in and out of the OR and clinical units. And our institutional leaders that gave the thumbs up for setting up this program and covering extra time for training sessions.

We will have time for questions now – thank you all for coming.