Every Drop Counts: Improving Sample Quality in Arizona

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NewSTEPs CQI 2021 National Meeting
May 25, Aug 24, Dec 7 • An APHL™ Event

BACKGROUND

Arizona is a 2 screen state that receives a high volume of unsatisfactory samples each day. The follow up program has had to dedicate 1 FTE to following up on these samples and the volume is not sustainable.

The aim of the project was to reduce the amount of unsatisfactory screens submitted to the Arizona State Public Health Laboratory from a statewide high of 2.6% (roughly 2080 samples requiring follow up) in 2019 to 1.5% by April 1, 2021.

METHODS

- Used Tableau reports to identify high volume submitters of unsatisfactory samples
- Created training materials and resources to provide training
- "Borrowed" pictures and inspiration from other states projects to create resource and training materials
- Key contacts identified at the practices
- Monitored progress on reducing unsat rates with targeted facilities by providing monthly data on their progress
- Make training materials available broadly to all collection sites including hospitals
- Regular check ins with practice to review progress and reinforce proper collection methods

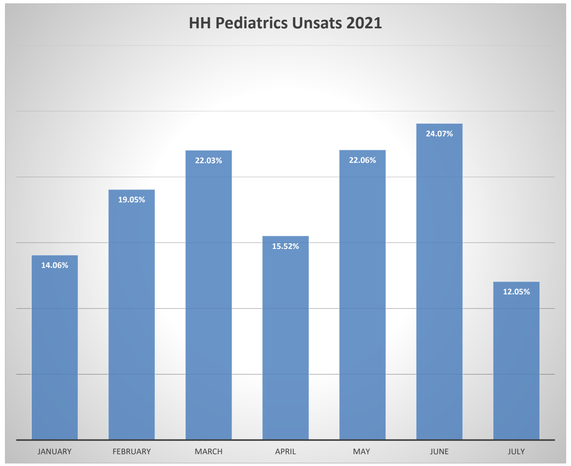
RESULTS

Initially , the Arizona team partnered with Sonora Quest Laboratories (a high volume lab with hundreds of draw stations around the state) to identify draw stations with high volume unsats to target interventions.

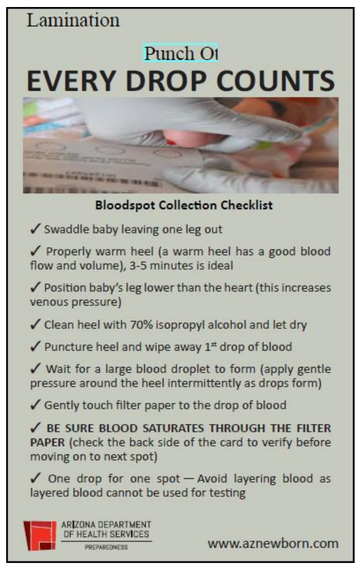
- NBS provided stamps to collect site codes to identify specific sites
- This took a long time to disseminate and track usage with limited impact

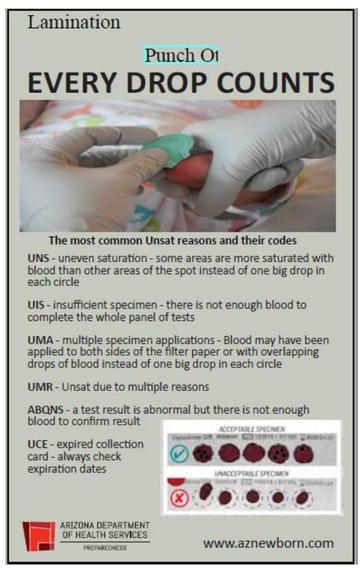
Next, the focus shifted to one specific high volume pediatric practice that was identified as the top submitter of unsatisfactory samples in the state between January 2021 to April 2021. Baseline data was reviewed, a PowerPoint training was presented to key contacts who then provided training to the MA's at all 3 practice locations in May. In June, data was reviewed again demonstrating no change. The ***Badge Buddy*** and ***Bloodspot Collection Checklist*** were then provided to reinforce best practices in July. July data was reviewed again in August and improvements could be seen. Immediate feedback to the practice to reinforce the progress was made. Data will be monitored and the next intervention, if needed, will be hands on training.

Unsat Rates Jan-July

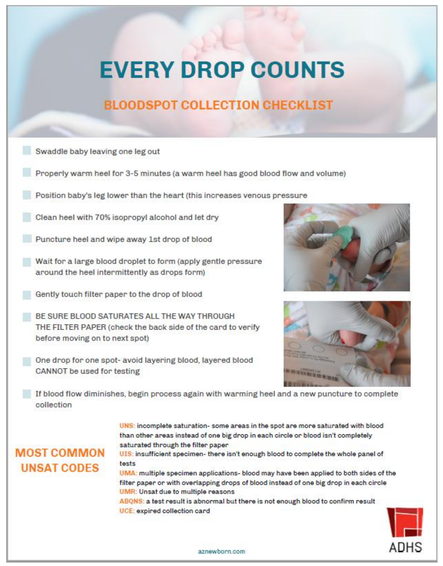


Badge Buddy





Checklist



CONCLUSIONS

- Don't be afraid to "start over"
  - Every step in the process builds on what you have learned
- Partnership development is key
- Develop training materials early in the project
  - Badge buddy has been disseminated to all Sonora Quest Phlebotomists to wear on their badge (1,000 were distributed)
  - Badge buddy is currently being disseminated to hospital post partum units and pediatrician offices
- The CQI team continues to be engaged and will revisit the targeted interventions with the Sonora Quest Draw stations
  - Revisit metrics for specific draw stations and phlebotomists
  - Providing monthly data to Sonora Quest and targeting training

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Acknowledgements / Sources

Thank you to the South Dakota and Georgia teams for their inspiration and pictures used on the Badge Buddy and Checklist!.

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Implementation of CLIR Post-Analytical Tools for Pompe and MPSI Screening:

Georgia Public Health Laboratory Newborn Screening

Georgia Department of Public Health

NewSTEPs QI | 2021 National Meeting

May 25, Aug 24, Dec 7 • An APHL™ Event

BACKGROUND

False positive (FP) results in newborn screening (NBS) are a cause of distress for families and a strain on resources. As more and more disorders have been added to screening panels, additional attention has been paid to screening performance with regards to FP results. This project's stated goal was to:

- Integrate post-analytical tools into the workflow to screen for Pompe and MPSI, including targeted second tier testing when appropriate
    - The overall performance goal is a FP % of < 0.1 % and a PPV > 40 %.
- Create a model for the implementation of post-analytical tools for additional conditions, with the goal of achieving similar performance statistics after full implementation

METHODS

To accomplish our goals, we identified several intermediate steps:

- Identified and contracted with a subject matter expert to establish CLIR algorithms and communicate with LIMS vendor for needed adaptations
- Install and validate instruments and assay for Pompe and MPSI testing
- Integrate laboratory and post-analytical validations with second tier testing to create a unified system of high sensitivity and specificity.

ALGORITHMS & WORKFLOWS

Detailed workflows integrating CLIR post-analytical tools and second tier testing were developed in order to guide the process of LIMS buildout and workflow development

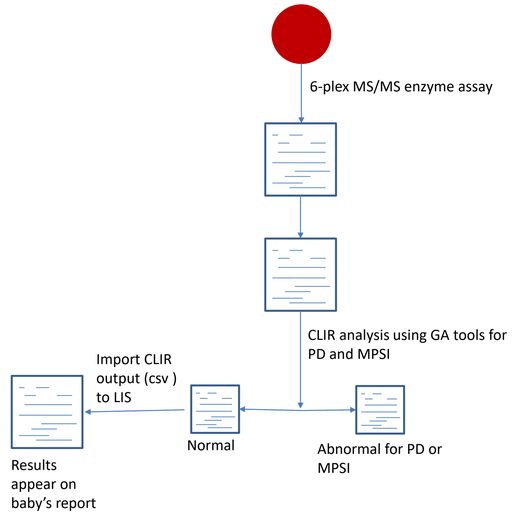


Figure 1: Algorithm describing the main workflow for analysis of initial samples

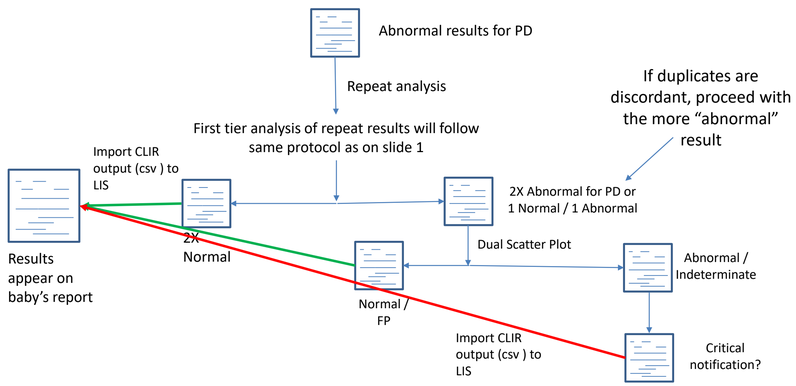
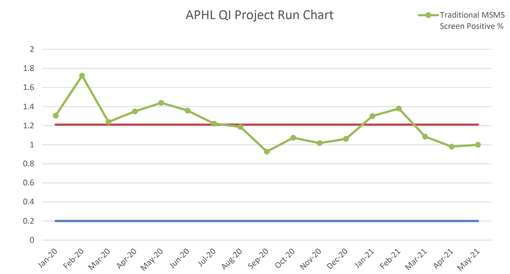


Figure 2: Algorithm describing the main workflow for analysis of confirmation samples for the identification of Pompe disease.

Screen Positive Rate



Screen positive rate (# of abnormal samples reported / total # of specimens) was selected as our targeted metric because it is easily accessible in near real time to the laboratory.

As performance improvements will reduce FP screens while not sacrificing overall performance in identifying true positive samples, a reduction in the screen positive rate directly correlates to an improvement in the FP % and the PPV

CONCLUSION

Our planned go-live for our fully integrated system to screen for Pompe and MPSI is mid-September. Final implementation took longer than intended as the integration of CLIR tools was a completely new process for both the laboratory and the LIMS vendor. Flexibility and communication were key to the success of this project. Our work setting up robust systems for this implementation will lower the bar for future work to reduce FP screens. Our next target is amino acids and acylcarnitines.

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Improving Newborn Screening Testing Turnaround Time using Lean Six Sigma

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[1] Louisiana Office of Public Health Laboratory [2] Louisiana Office of Public Health Genetics Disease Program [3] A3 Healthcare [4] LSU Health New Orleans

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BACKGROUND

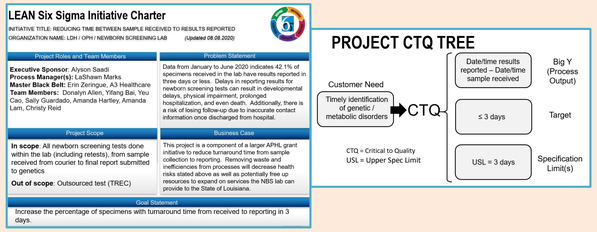
The Louisiana Newborn Screening (LA NBS) Program aims to reduce the median turnaround time (TAT) of sample collection to result reporting from six to five days by improving specimen tracking and laboratory process workflows.

METHODS

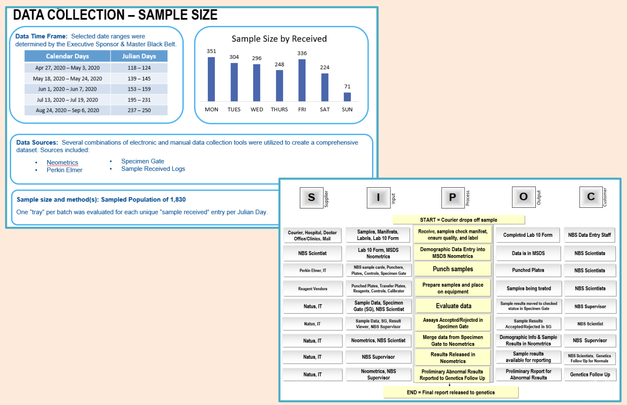
The LA NBS program employed a problem solving approach known as DMAIC (duh-may-ik) to drive a Lean Six Sigma project focused on improving laboratory process workflows by eliminating waste and process defects.

The five phases of DMAIC include:

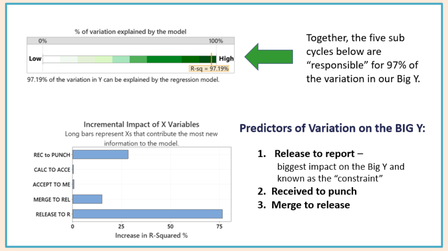
- **Define –** define the problem, improvement activity, project goals, customer requirements



- **Measure –** measure process performance, process map, capability analysis



- **Analyze -** analyze process to determine root cause of variation and defects



- **Improve -** improve process performance by addressing/eliminating root causes

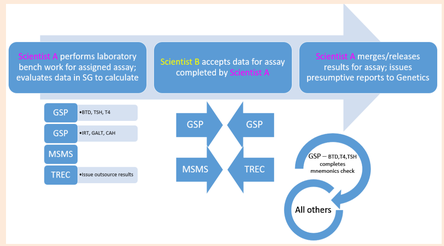
Based on the results from the Analyze phase, the NBS Lab focused improvements on the operational workflow of releasing results. The NBS Lab incorporated operational flow to "merge" by 11am and release results by 2pm daily for samples tested the previous day.

When measured, these changes improved the median turn around times as shown below:

- **from 5 to 2 days** - Sample Receipt to Results Reported
- **from 6 to 4 days** - Sample Collection to Results Reported

- **Control –** sustain improved process and future process performance, visual controls, mistake proofing

Releasing Results Process Workflow



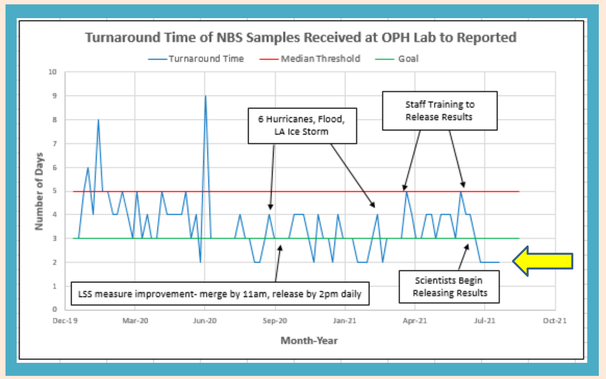
In order to sustain improvements the NBS Lab:

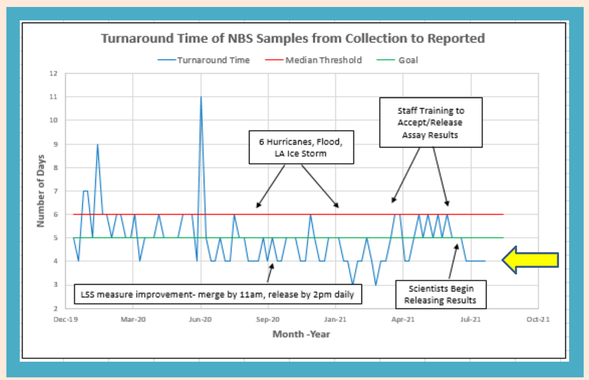
- Trained seven scientists to release results
- Monitors sample pending reports daily
- Conducts daily 11am huddle with NBS unit
- Incorporated visual control boards

RESULTS

The LA NBS Lab's process improvements resulted in a 3 day reduction in median TAT, samples received to results reported was decreased from 5 to 2 days. As of July 2021, 64.2% of samples were reported within the original goal of 3 days from receipt at the NBS Lab, an increase of 22.6% since start of the project. Furthermore, the process improvements led to a 2 day reduction in median TAT, from 6 to 4 days, for sample collection to results reported. Also, as of July 2021, 79.1% of samples have results reported within the original project goal of 5 days, which is an increase of 24.8%. It is important to note that these measurements are for the samples with *normal* results, as any sample with *abnormal* results are processed through an expedited reporting workflow for quicker notification to the Genetics Diseases Program for patient follow up.

Weekly Turnaround Time Beginning December 2019 to Present





CONCLUSION

By applying DMAIC, the NBS Laboratory identified a significant process constraint in sample result reporting. In order to alleviate the workflow constraint, seven NBS Scientists were trained to release results providing overlapping resources in the department, a standard operating process for releasing sample results, and consistent predictable testing turnaround times.

The Louisiana Office of Public Health NBS Lab has a median 2 day TAT for sample receipt at the lab to results reported and 4 days from newborn screening sample collection to results reported.

The DMAIC process provided our team systematic data driven tools to determine the process steps to prioritize improvements. It has introduced a "method" for the NBS program to follow for implementing and sustaining further process improvements. In addition, two team members are training for certifications to lead future Lean Six Sigma projects for the LA NBS program. Next goal is to reduce unsatisfactory newborn screening sample collections.

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Empowering Parents to Take a More Active Role in the Newborn Screening Process Through Prenatal Education

Shelby Atkinson, MPH, Isabel Hurden, MPH, Kristen Thompson, MPH, Mary Kleyn, MSc

NewSTEPs CQI 2021 National Meeting
May 25, Aug 24, Dec 7 • An APHL™ Event

BACKGROUND

- Studies show that parents generally have limited awareness of newborn screening (NBS) and providing information to expectant parents may increase satisfaction with and support for screening.[1,2]
- In Michigan, blood spots are stored for up to 100 years after NBS is complete. Around the time of screening, families are asked to complete a consent form about whether their child's stored blood spots can be used in de-identified research.
- The goal of this project is to improve the NBS prenatal education experience in Michigan, so that parents are more active participants in the NBS process.
- Project staff will create and distribute a new educational checklist during the prenatal period through a partnership with three birthing hospitals with the goal of improving parental knowledge and participation in the NBS and BioTrust program.

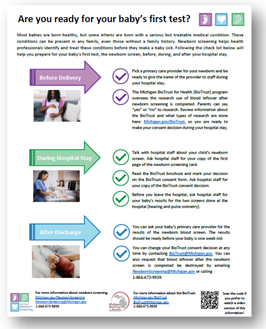
METHODS

- We will test a new educational document called the "NBS Checklist". The checklist will be provided to parents prenatally by 3 Michigan hospitals during virtual hospital tours or in educational packets at prenatal care offices. Distribution will occur between 34-38 weeks of pregnancy.
- A survey instrument will be used to establish baseline data and to evaluate the effectiveness of the proposed intervention.
- Prior to implementation of the checklist, we will survey 1,000 families who delivered at the participating hospitals. Following document distribution, we will survey an additional 1,000 families.
- To encourage survey completion, families will be offered an incentive worth $10. The incentive is a "new mother's gift bag" with first aid related items customized with the Michigan NBS logo.

RESULTS

- Since the start of funding, the following tasks have been completed:
  - Hired a student assistant dedicated to project.
  - Secured IRB approval for the survey.
  - Developed and finalized the educational document, survey, and other mailing materials.
  - Created and ordered incentives including a cooler, hand sanitizer, bandage holder, tissues, and cold pack.
  - Identified and secured a new hospital partner after staff turnover in key positions ended one of our original site's participation.
- A draft of the educational checklist and a brief survey was sent to our hospital partners, team members, and CQI coach. This feedback was used to make changes to the educational document to make it the most effective for parent communication. Of responses received, 75% thought that the document would be helpful for delivering parents.

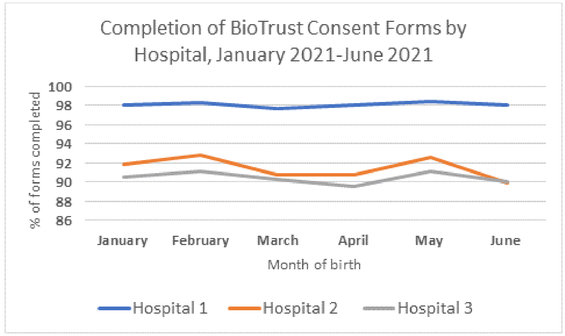
Image 1



Parent Checklist

The above image is the checklist developed by the Newborn Screening Coordinator for this project. It is designed for prenatal distribution to increase parental understanding of the importance of NBS, their role throughout the NBS process, and their choices after NBS is complete.

Figure 1



BioTrust for Health Consent Return Rates for Participating Hospitals

Completed BioTrust consent return rates are being tracked monthly throughout this grant period. These rates indicate the number of completed consent forms returned by a hospital out of all screens collected during the same time frame. Our goal is for each participating hospital to reach 98% following checklist implementation and increased parental awareness.

Results Continued

- Baseline data collection started in mid-August and is expected to last 8-10 weeks. The educational document is expected to be in the field by winter of 2021, followed by post-intervention survey collection.
- Data that will be collected and analyzed includes:
  - BioTrust consent return rates for each site
  - Percent of parents who self report completing action items related to NBS and BioTrust
  - Indicators of parental knowledge and understanding of NBS and BioTrust

CONCLUSION

- Data collection is ongoing and will extend into 2022.
- Establishing and maintaining positive relationships with hospital partners has been crucial to the planning and implementation of this project. NBS is small part of the larger hospital experience and respecting hospital staff by minimizing staff time involvement is critical to continued partner support. Hospital involvement consists of brief feedback via email, document distribution, and participation in meetings only when necessary. Each participating hospital is also receiving a free pack of NBS cards as an incentive.
- Our team faced challenges resulting from the COVID-19 pandemic
  - Key hospital staff turnover resulted in one hospital rescinding participation in the project.
  - The educational document was intended to be distributed at pre-registration tours at participating hospital. However, COVID-19 restrictions have halted in person registration tours. Hospital partners had to identify new routes of document distribution to accommodate these changes in protocol.
  - To accommodate the growing virtual environment, the MDHHS communications team is creating a YouTube video of the Checklist. Parents who prefer to watch a video will be able to scan a QR code on the document.
- Should this project indicate that the NBS Checklist increases parental awareness and involvement, the Michigan NBS team will introduce the document to all birthing hospitals and will add it to our online ordering system, so it can be ordered and distributed widely free of charge.

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Acknowledgements / Sources
[1] Ulph F, Wright S, Dharni N, et al. Provision of information about newborn screening antenatally: a sequential exploratory mixed-methods project. Health Technology Assessment 2017;21(55):1-240.
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Advancing Electronic Data Sharing and Integration in Newborn Screening – The Tennessee Experience

Valerie Ragland, MALS, Ashley Porter, BSN, RN, M. Christine Dorley, PhD, Yinmei Li MD, PhD, Amanda Ingram, RN, Hilary Fryman, RN, and Hugh Peeples

Tennessee Department of Health, Divisions of Laboratory Services & Family Health and Wellness, Nashville, TN

BACKGROUND

The State of Tennessee Newborn Screening (TN NBS) Program is comprised of the NBS Laboratory and the Pediatric Case Management and Follow-up. The NBS Laboratory processes about 95,000 dried blood spot (DBS) specimens from about 87,000 infants born in Tennessee annually, screening for 70 diseases and conditions. The Pediatric Case Management and Follow-up receive from the lab out-of-range results and reports of unsatisfactory specimens. In 2020, 1,586 infants had at least one out-of-range DBS result and 202 were confirmed with a disease with a calculated incidence for TN born infants of 1:428. Despite significant improvements over recent years for quality indicators (QI) to include the DBS collection time, transit time, time to report, and the rate of unsatisfactory specimens, work was still needed on decreasing transit times, preventing lost specimens, preventing delayed reporting due to incomplete or inaccurate information submitted on specimen forms, and improving recollection of the DBS on patients with an unsatisfactory specimen. In 2019, APHL under Cooperative Agreement Number UG8MC31893 (CFDA No. 93.110) from the Health Resources and Services Administration of Department of Health and Human Services awarded the TN NBS funding to implement the OZ System. OZ would facilitate achieving our Year 1 goals: a) increase the percentage of time critical abnormal results reported by day of life five (DOL5) to 85% in Quarter 3 of 2020 and b) increase the percentage of all other screen results reported by day of life seven (DOL7) to 90 % in Quarter 3 of 2020.

METHODS

TN NBS used grant funding to contract with OZ Systems (Arlington, TX) and focused our efforts in the following areas to support the work of Electronic Order Entry (ELO) for demographic information from our birthing facilities:

- **Prioritization of hospitals:** The team determined from the list of birthing centers which centers had the lowest percentage of specimens received <2 days from collection and which had the highest number of specimens with inaccurate or incomplete information. We identified 21 birthing centers fitting this criteria. We also identified hospitals within the same hospital systems and targeted these hospitals as the candidates for the first installation of OZ.
- **Communication and training:** TN NBS team planned to visit the birthing facilities to review processes. procedures and to educate on the importance of quick transit of specimens once collected. We continued communication with OZ and received packets to send to those birthing facilities for recruitment. We sent the packets to our contact person within the birthing facilities, and they distributed them to the essential persons. We held bimonthly meetings with OZ to discuss what the needs are for TN NBS as well as progress of hospitals regarding implementation.
- **Preparation for implementation:** The team began outreach to hospitals and scheduled kickoff meetings to discuss specifically what the project entails and to outline the steps for implementing this new process after developing a communication plan with OZ. This plan clearly defined requirements, roles, and the vision so hospitals could fully understand the project and be prepared with appropriate questions when the initial kickoff meeting was held. In addition, it was to assure that appropriate staff are included on kickoff meetings, training, and implementation workflow. The hope was to improve communication and expedite hospital internal approval processes.
- **Current status and next step:** The initial roll out is scheduled for the week of September 6, 2021. Hospitals that have completed their training with OZ will begin sending to the NBS laboratory ELO messages. Subsequent hospitals are in the end-to-end testing phase and will soon move to the training phase prior to going-live (See Figure 1). Additionally, work will begin by October on returning electronic results back to these facilities. The plan is to have 80% of TN hospitals to implement the OZ System by the end of Year 2 and the remaining 20% by Year.

RESULTS

Figure 1. Hospital Outreach Process

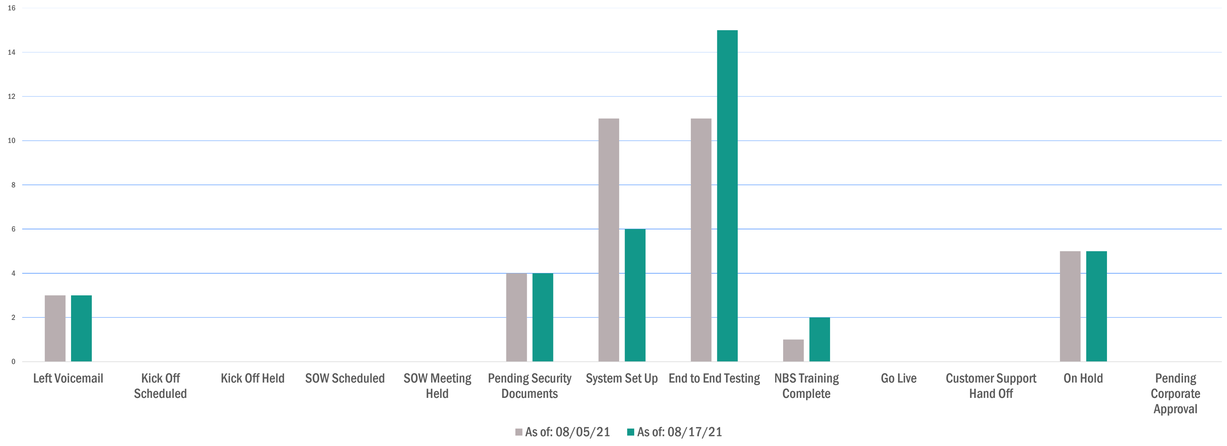

Figure 1 shows the status of the birthing hospitals based on the process steps from outreach to go live for all those recruited during Year 1.

Figure 2. Time Trend of Unsatisfactory DBS Specimens Tennessee, 2017 - 2021

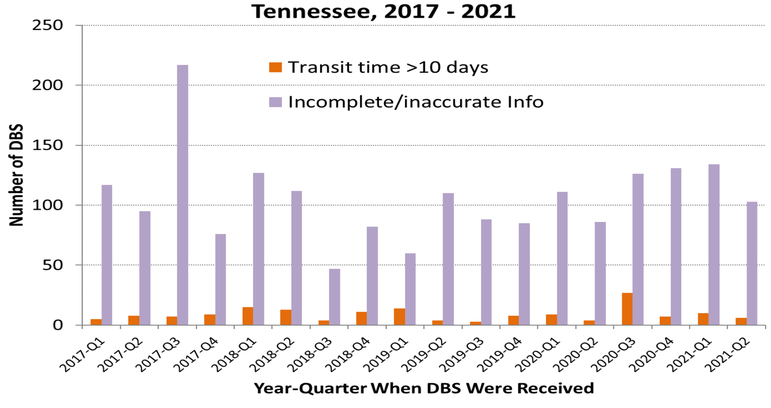

Figure 2 shows the quarterly totals of the number of DBS with incomplete or inaccurate information and the number of DBS with transit time greater than 10 days. Both numbers fluctuated over time and there is no consistent pattern from 2017 to the first two quarters of 2021. We expect to see some reduction once the OZ system is implemented.

Figure 3. Time Trend of DBS Results Reported out Tennessee, 2017 - 2021

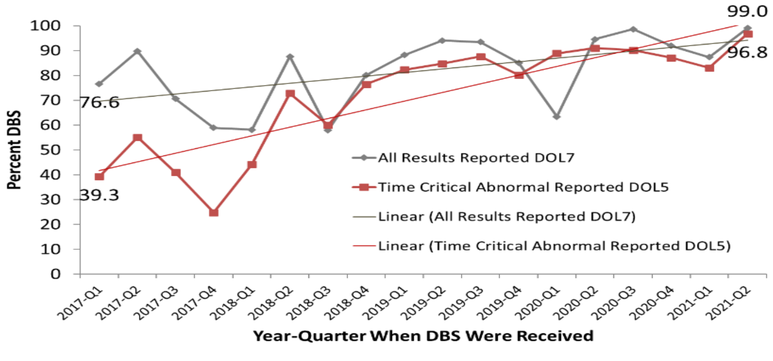

Figure 3 shows the time trend of abnormal results for time-critical conditions reported by DOL5 and all results reported by DOL7. In 2017 Q1, 39.3% of time-critical abnormal results were reported by DOL5. Steady increases were noted in 2018 reaching 96.8% in 2021 Q2 which is a 146% increase from 2017 Q1. For all results reported by DOL7, the percentage increased from 76.7% in 2017 Q1 to 99% in 2021 Q2, a 46% increase. The improvement in both indicators over time was statistically significant. The DOL5 for time-critical conditions lagged the DOL7 for all results in 2017 but has since narrowed. The DOL5 target of 85% was recently reached for six quarters while the DOL7 target of 90% was met for five quarters. Large dips in percent reported are attributed to staff shortages, holidays, Nashville bombing, and snowstorms which impacted demographic entry but should be minimized with OZ.

CONCLUSION

Key takeaways: While we are making some progress, we are not where we thought we would be when we first outlined this project. During Year 1, we anticipated receiving ELO messages from 50% of our hospitals, however we underestimated the time it would take to push a contract through procurement for the State of Tennessee. We were almost a year behind when we began our first virtual planning meetings with OZ. We underestimated the support and resources needed to see the process through from start to finish. Although we know the positive impact this project will have on our program once it is completed, we have not stopped working to achieve timeliness or decrease unsatisfactory specimens in the interim and we continue to monitor these trends for improvement. For programs entertaining a project like ours, consideration of our challenges, successes and lessons learned could assist in a smoother implementation.

- **Challenges:**
  - Lack of response from some birthing centers
  - Hospitals requiring additional document clearances from their corporate offices or legal
  - Some hospitals are on hold due to internal projects which conflict with the OZ implementation timeframe
  - Hospital have limited staffing to dedicate to the OZ implementation
- **Successes:**
  - Commitment from the TN NBS program with full leadership support
  - Dedicated epidemiologist for data support
  - Significant improvement in DOL5 and DOL7 reporting outside of the OZ project due to other QI activities
  - Frequent communication and education to hospitals with low performance on key indicators even during the COVID-19 pandemic
- **Lessons learned:**
  - Over communication is better than under communication to ensure all parties are aware of expectations and timelines
  - Expect delays in timelines and be flexible to adjust to unplanned interruptions and changes
  - Contracts take a lot of time to finalize
  - Some people are resistant to change
  - Administrative rules and organizational bureaucracy may hinder the implementation of the OZ System for some hospitals
  - Resources for a dedicated project manager to coordinate activities are necessary

Sustainability: Our nursing educator will continue to visit the birthing centers that do not show improvement in birth to collection and birth to receipt timeliness during OZ implementation and after. We will continue with our QI activities within the TN NBS Program and give data support, and education to our birthing centers. We will also secure a contract for maintenance of the OZ System to cover existing hospitals and the addition of new birthing hospitals as needed. We will use fees collected from current services to cover these activities.

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Wisconsin Newborn Screening Laboratory

Helping babies get started on the right foot

A Deeper Dive: An introspective study on process and performance

The WI NBS Project Team

NewSTEPs CQI | 2021 National Meeting
May 25, Aug 24, Dec 7 • An APHL™ Event

BACKGROUND

AIM STATEMENT

By March 2021, the Wisconsin Newborn Screening program aims to increase the percentage of results reported within two days after receipt in the laboratory. In completing this project, Wisconsin will also develop a quality assurance model for introspective analysis of key processes and provide a framework for ongoing quality improvement.

SUMMARY

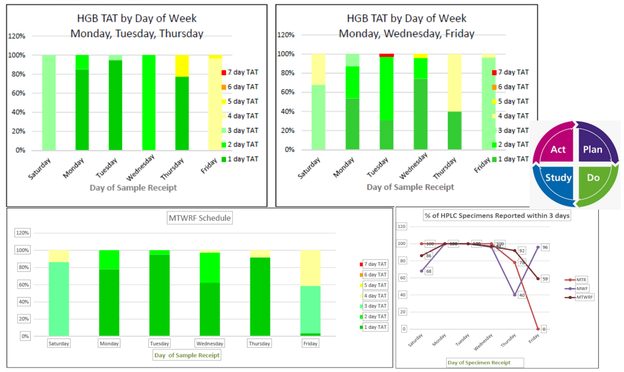
This project was initially aimed at taking a deep dive in to data to identify processes within our control contributing to delays in turn-around time. By confirming that internal processes have been optimized, we would be better equipped to weather external factors impacting overall timeliness.

A secondary goal was to establish baseline expectations and an education plan for a fundamental quality toolkit for the entire Newborn Screening laboratory staff. Assessment and engagement exercises showed the value of an introspective review of lab culture, aligned goals, awareness, and appreciation for the work being performed in each area of the lab. The value of these lessons learned will become the foundation focus for future change and sustainability efforts.

METHODS

- Data tools: Review of workflow processes and what and how data points were being captured by the LIMS system. Build reports to afford better awareness of process interactions and impacts. Use data to identify areas for potential improvement and conversations with staff. Create hypothesis. Initiate PDSA.
- Staff Assessment: Create a tool to afford capture of anonymous responses to assess awareness of NBS timeliness expectations and experience with quality assurance terms and practices. Use responses to identify gaps in awareness. Fortify education and awareness efforts through onboarding, refreshers, and visuals.
- Visual Board: Provide a centralized location for display and interactive communication.
- PDSA projects: Test change hypothesis. Share data with supervisors and staff. Data-driven discussion, tangible.
- Meetings and engagement: Hold interactive activities intended to spark interest, discussion, and awareness. Exercises included Model for Improvement workshop, workflow flowcharting, 'pinch point" identification, workgroup bench meetings to share PDSA findings, puzzles and prizes, and celebrations.

RESULTS

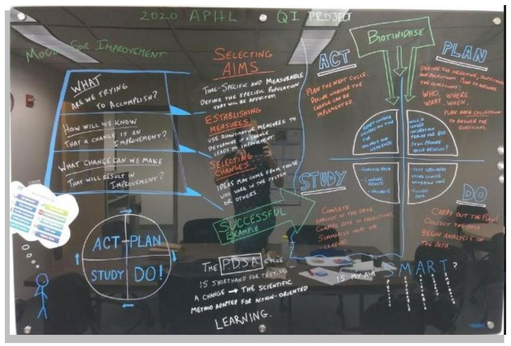


Additional feedback from staff shared that it was actually PREFERRED to run five days a week, as it made planning and workflow more consistent. This then changes focus on staff training in order to better "sustain the gain".

PDSA Project – HGB/HPLC Turnaround Time

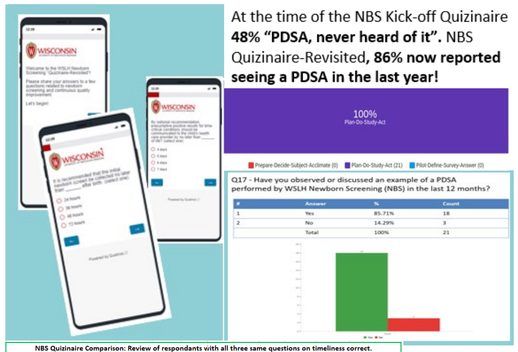
Summarize and reflect on what you learned:

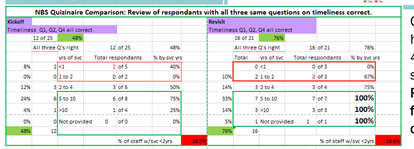
- The MWF schedule did not improve the number of reports issued within 3 days.
- For specimens received Monday thru Wednesday, most have a report generated within 1 to 2 days. This was observed with each HPLC run schedule.
- For those specimens received Friday and Saturday report TATs are typically 3-4 days with a run schedule MTWRF. This was observed with each run schedule.
- Running HPLC on Friday has decreased the number of reports issued in 5 days.



Visual Board

Shared is the visual board following the Model For Improvement Workshop. The board is centrally located in a common breakroom/conference room space and has served as a focal point for communication and engagement throughout the project. The addition and use of the board has received positive feedback from staff.





Change for those that have been with NBS for 4+ or more years, shows Kickoff 25-75%, Revisit=100% correct for all three questions on timeliness!

Staff Assessment - NBS Quizinaire

Staff assessment tool designed using Qualtrix. Questions assessed knowledge of newborn screening timeliness expectations, familiarity with quality assurance related topics, and frequency of related conversations within the lab. Results could only be submitted once and were anonymous.

CONCLUSION

The initial goal of this project was to identify a few key changes that could be made in our testing processes that would cumulatively improve total reports completed within two days of receipt. Using PDSA cycle processes, we were able to identify and make measurable changes in two workflows of three bench workflows tested. The third, through review of run chart data, provided a future model for confirming how to measure impact over time following implementation of a new method (returning to baseline performance). The data reports developed may also provide tools for forecasting impact of future changes and where to assess or plan for potential impact based on interactive timing of actions involved in producing a final report.

The secondary goal afforded opportunity for program awareness and how each role plays a part. Awareness of timeliness expectations was the unifying focal point for discussions around common goals and explaining the "why" behind proposed changes throughout this project. A lesson learned is that one cannot assume something as common knowledge. Retention benefits from messages being directly communicated, reinforced, and persistently present.

Challenges experienced during this project included staffing changes, social distancing requirements, interdependence of processes that could not be controlled, and staff perception of additional meetings and required activities.

Benefits from this experience include increased staff awareness of other testing areas, timeliness expectations, quality efforts and processes used for improvement.

Strategies that will be implemented to sustain improvements include:

- Redesign of onboarding and staff refresher materials,
- Continuation of use of the visual board and other visual material
- Educating all supervisors on PDSA cycle
- Continuation of cross-functional QA group meetings for continuous process improvement planning

By taking an introspective approach for this project, the WI NBS program overall is better equipped to address improvement projects involving external partners and sharing with stakeholders why change is needed and how progress will be measured.

Contact Information

For information about this project please contact our program at NBSQualityReport@slh.wisc.edu

Acknowledgements / Sources

The WI Quality Improvement Project Team would like to thank the entire WI Newborn Screening staff for their participation in this project aimed at finding ways that we can be "better together".

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