

2022-2023 Data Support COL
Educational Offering #1

Getting Started With Data:
Assessing and Choosing a QI Data
Collection Platform



Wednesday
December 7, 2022
3:00 – 4:30PM EST



ALLIANCE FOR INNOVATION ON MATERNAL HEALTH

The Alliance for Innovation on Maternal Health is a national, cross-sector commitment designed to support best practices that **make birth safer, improve maternal health outcomes, and save lives.**

You can find more information at
saferbirth.org.

This program is supported by a cooperative agreement with the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number UC4MC28042, Alliance for Innovation on Maternal Health. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.



Before We Get Started

- ▶ You are **muted** upon entry to the call.
- ▶ **You will have the ability to unmute** yourself during Q&A times.
- ▶ We encourage participants to **remain muted** to reduce background noise.
- ▶ If you are experiencing technical difficulties, please chat an AIM staff member or **email aimdatasupport@acog.org**

This presentation will be recorded.

Both the slides and recording will be available on the AIM Data Resources Webpage and shared in the follow-up newsletter.



- 1 Welcome
- 2 Upcoming Data COL Events and Additional Supporting Resources
- 3 Speaker Presentation: Dan Weiss; Amy Ladley; Stephanie Trusty
- 4 Breakout Session
- 5 Closing



Meet the National AIM Data Team



Isabel Taylor
Data Program
Supervisor



Inderveer Saini
Program Data Analyst



Rekha Karki
Program Data Analyst



David Laflamme
Epidemiology
Contractor

Upcoming Data COL Events and Additional Resources





Office Hours Opportunity

Questions about REDCap?
Sign up for Office Hours with
Dan Weiss

December 8, 2022
10:30PM-11:30PM (EST)

Questions about LifeQI?
Sign up for Office Hours with
Amy Ladley

December 12, 2022
12:00PM-1:00PM (EST)

Questions about SimpleQI?
Sign up for Office Hour with
Stephanie Trusty

December 13, 2022
11:00PM-12:00PM (EST)

Register at saferbirth.org/aim-data/resources/
Click Resource Type and Select 2023 Data Support COL



Data Coaching

- ▶ Have broader questions about using data for quality improvement and AIM data processes? **Sign up for data coaching!**
- ▶ Available to state, jurisdiction, and hospital teams
- ▶ Available December 2022 through August 2023

SELECT A SERVICE

Data Coaching - 60 min. <input type="radio"/>	Data Coaching - 30 min. <input type="radio"/>
Curious about using data for quality improv... Read more 1 hour	Curious about using data for quality improv... Read more 30 minutes

Select a service to see available dates and times

Register at [saferbirth.org/aim -data/resources/](https://saferbirth.org/aim-data/resources/)
Click Resource Type and Select 2023 Data Support COL



Supplemental Funding Opportunity

- ▶ AIM has dedicated supplemental funding available to support data and reporting projects.
- ▶ Supplemental funding for data and reporting projects can be submitted via a project narrative through AIM's *Supplemental Funding Form*.

Only states and entities with an executed subaward agreement with ACOG are eligible for COL supplemental funding.



Upcoming Educational Offerings

Register at saferbirth.org under Resources > Events

Too Many Measures and Too Little Time: Strategies for Prioritizing and Adapting QI Data Collection for Lower -Resourced Settings

January 2023
TBD

Using Data for QI: Interpreting Variation and Trends in Lower - Volume Facilities

February 3, 2023
3:00PM-4:30PM (EST)



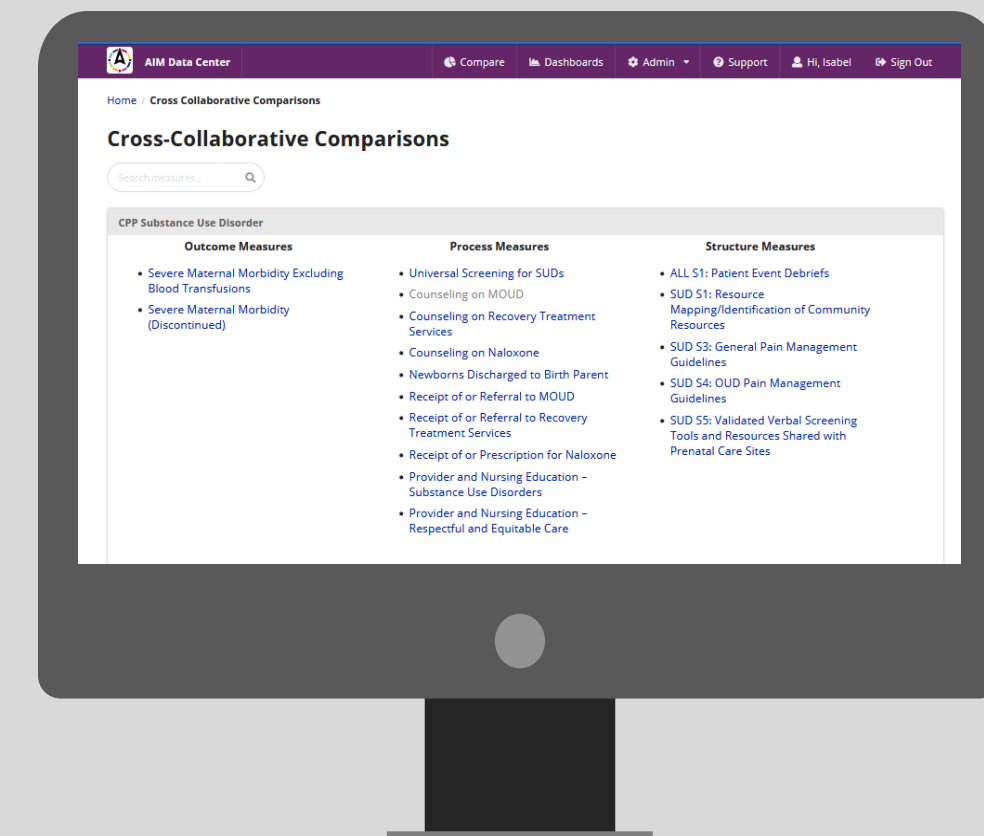
How did you find us?





AIM Data Center

- ▶ A national data submission system and quality improvement tool
- ▶ Used by AIM state-based teams to report, monitor and benchmark maternal health clinical quality improvement data as part of AIM patient safety bundle implementation
- ▶ Available to AIM state-based teams upon execution of a subaward agreement, including a Data Use Agreement, with ACOG AIM
- ▶ The AIM Data Center **does not**:
 - ▶ Collect personal health information
 - ▶ Make available data attributable to identifiable facilities to the AIM National Team or HRSA MCHB





Decision Making About the AIM Data Center

Use the AIM Data Center When:

- You do not have the resources to develop and maintain your own data collection system
- You do not have the resources to regularly upload process and structure measures data on hospitals' behalf

Explore or Use Another Data Collection Tool When:

- You are already (successfully) using a pre-existing data collection system
- You have the resources to maintain a data collection system and submit process and structure measures data to AIM
- You want more customizations than the AIM Data Center can accommodate



Before You Choose Another Data Collection Tool ...

- ▶ Schedule some time with the AIM Data Team to review the most recently updated Data Center and assess if it will meet your needs
- ▶ Ask if we have capacity to accommodate your requests for customizations
- ▶ Reflect on whether a self-developed data collection system is sustainable in terms of:
 - ▶ Costs
 - ▶ Staffing required to support updates

If you choose to use another data collection tool, share your data collection plans and tools with the AIM Data Team early and often to ensure data collected are compatible with the AIM Data Center



Final Notes

- ▶ This presentation focuses on 3 frequently used data collection tools:
 - ▶ SimpleQI
 - ▶ REDCap
 - ▶ LifeQI
- ▶ These are not the only tools available for data collection and reporting for AIM
- ▶ Do not take any discussion of these tools by AIM as endorsements
 - ▶ We want to share options and others' successes
 - ▶ Do your research
 - ▶ Talk to the AIM Data Team or the educational offering's faculty to help with decision making



Faculty



Dan Weiss, MPH
Program Manager,
ILPQC



Amy Ladley, PhD
Program Manager,
LaPQC



Stephanie Trusty,
RN, BSN
Nurse Clinician, Iowa
HHS

Collaborative Data Collection Systems: balancing your time and money

Stephanie Trusty, Dan Weiss, Amy Ladley

Data Collection for QI

There are a lot of systems you can use. Some you can purchase, some are free, some you can build...

We are going to talk about three **through the lens of our decision-making process** to give you some insight into our process.

At the Beginning of Your Journey, Ask:

- What are our data collection goals?
 - For the collaborative? For hospitals?
- What tools and resources do we need to achieve these goals?
- What are our equity-specific goals and what does that mean in terms of data collection?
- Where are our gaps in knowledge/capacity/time when it comes to data collection/analysis/visualization? What about hospitals?

The Iowa Maternal Quality Care Collaborative (IMQCC)

Stephanie Trusty, RN, BSN

Iowa Department of Health and Human Services



Iowa AIM Participation

- ❑ State population is 3.19 million
- ❑ 36,144 occurrent births in 2021 (provisional data)
- ❑ 145 hospitals in the state
- ❑ 56 hospitals with open L&D units
- ❑ 1 freestanding birthing center
- ❑ 43 hospitals participated in Safe Reduction of Cesarean Birth.
- ❑ 56 hospitals (100%) participating in OB Hemorrhage Bundle



● Non-AIM Hospital with L&D service

 AIM Hospital

Data Reporting Routine – Outcome Measures

	Denominator	Numerator	Reporting	Equity
Obstetrical Hemorrhage Rate	All births at your facility	Births with cumulative blood loss >1000mL	N/D monthly	Detect health disparities: Examine by primary payer and race/ethnicity
Obstetrical Transfusion Rate	All births at your facility	Births where any blood product was transfused related to a hemorrhage	N/D quarterly	
Severe Morbidity from Hemorrhage	All births at your facility	Births where 4 or more units of blood products were transfused <i>and/or</i> ICU admission occurred following hemorrhage	N/D quarterly	

Data Reporting Routine – Process Measures

	Denominator	Numerator	Reporting	Equity
Hemorrhage Risk Assessment*	All birth admissions (sampling strategy = 20 cases)	Number of birth admissions that had a hemorrhage risk assessment completed and risk level assigned at least once between admission and birth	N/D monthly	Detect health disparities: Examine by primary payer and race/ethnicity
Quantified Blood Loss*	All birth admissions (sampling strategy = 20 cases)	Number of birth admissions that had measurement of blood loss using quantitative and cumulative techniques	N/D monthly	

Data Reporting – Process Measures

	Denominator	Numerator	Reporting	Equity
Patient Support after Obstetric Hemorrhage*	All cases of Obstetric Hemorrhage (blood loss >1000mL)	Among the denominator, those who received a verbal briefing on their sentinel event(s) by their care team prior to discharge	N/D quarterly (high volume facilities may want to report monthly)	Detect health disparities: Examine by primary payer and race/ethnicity
Multidisciplinary Case Review*	All cases of Severe Morbidity from Hemorrhage (see outcome measures)	Number of completed structured case reviews among the denominator	Quarterly	Look for systems issues that may have unfairly disadvantaged low-income and racial minorities

PQC Data Reporting Routine – Structure Measures

	Description	Reporting
Patient Event Debrief*	Has your department established a standardized process to conduct debriefs with patients after a severe event?	<p>Report on 1-5 scale: 1 (not started) to 5 (fully in place).</p> <p>Quarterly</p>
Clinical Team Debriefs*	Has your department established a standardized process to conduct formal debriefs with the clinical team after a case with major complications?	
Multidisciplinary Case Reviews*	Has your hospital established a process to perform multidisciplinary systems-level reviews on cases of maternal morbidity (including, at minimum, cases with ICU admission and/or transfusion of 4 or more units of blood)?	
Hemorrhage Cart*	Does your facility have obstetric hemorrhage supplies readily available in a cart or mobile box?	
Postpartum Warning Signs*	Has your department developed/curated patient education materials on urgent postpartum warning signs that are culturally and linguistically appropriate?	
Quantitative Blood Loss*	Does your facility have the resources and supplies readily available to quantify cumulative blood loss for both vaginal and Cesarean deliveries?	

PQC Data Reporting Routine – Structure Measures

Unit Policies & Procedures (Reviewed and updated in the last 2 years)		
OB Rapid Response*	Does your hospital have an obstetric rapid response team appropriate to the facility's level of care?	Report on 1-5 scale: 1 (not started) to 5 (fully in place). Quarterly
Hemorrhage Management Plan*	Does your hospital have a standardized, stage-based obstetric hemorrhage emergency management plan with checklists and escalation policy?	
Massive Transfusion Protocol*	Does your hospital have emergency release and massive transfusion protocols?	
Bloodless Medicine*	Does your hospital have a protocol for patients who decline blood products but may accept some components and/or alternative approaches?	

* Measures reported to AIM

Staff Education & Trainings		
Nursing Education on Hemorrhage*	At the end of this reporting period, what cumulative proportion of OB nurses (including L&D and Postpartum) has completed within the last 2 years an educational program on Obstetric Hemorrhage that includes the unit-standard protocols and measures?	Report estimates in 10% increments (round up) Quarterly
Nursing Education on Respectful Care*	At the end of this reporting period, what cumulative proportion of OB nurses (including L&D and Postpartum) has completed within the last 2 years an educational program on respectful and equitable care?	
Provider Education on Hemorrhage*	At the end of this reporting period, what cumulative proportion of physicians and midwives has completed within the last 2 years an educational program on Obstetric Hemorrhage that includes the unit-standard protocols and measures?	
Provider Education on Respectful Care*	At the end of this reporting period, what cumulative proportion of physicians and midwives has completed within the last 2 years an educational program on respectful and equitable care?	
Unit Drills & Simulations		
Number*	How many OB drills (in situ or simulation lab) were performed on your unit for any maternal safety topic?	Quarterly
Topics*	What topics were covered?	

* Measures reported to AIM

Choosing a Reporting System

priorities

- Data collection and some analysis
- Shared-learning and collaboration
- Project management
- Easy to use

concessions

- Willing to give up what we wanted to stay within our budget

SimpleQI -

- . Using since: May 2021
- . Why did you settle on this one? Matched most of our priorities and the price was within our budget.
- . Adding users - The subscription price is based on number of teams, team can have unlimited users
- . AIM interface? Not yet they are working on export that will be formatted in the way AIM wants the data.
- . Click on their logo to visit their website



SimpleQI

pros

- One site for data collection and analysis, team collaboration and project management.
- User friendly
- Reasonable price

cons

- Currently have to reformat data before sending to AIM.

Data Collection, Analysis and Visualization

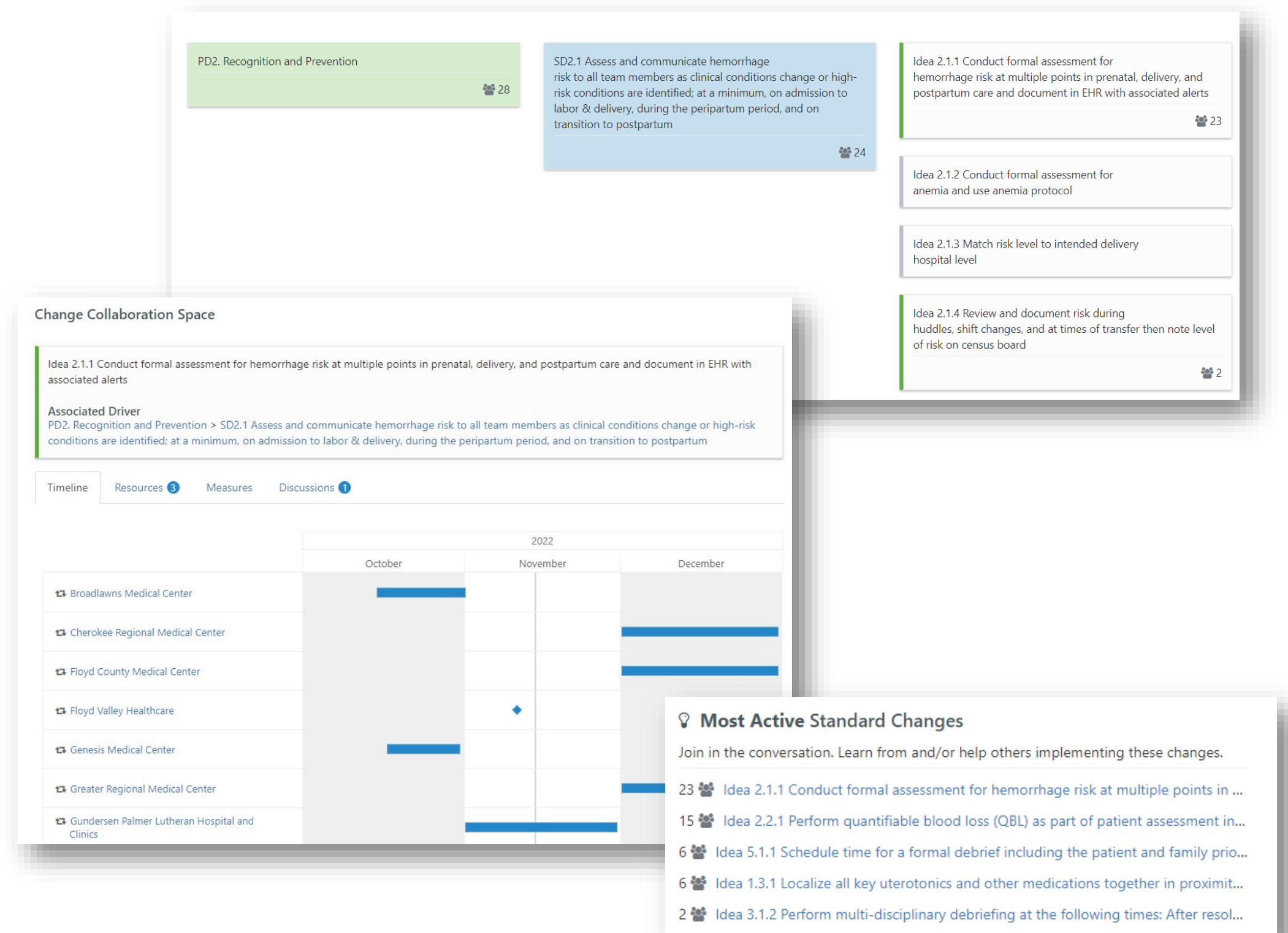
☐ Customized measure configuration

- Multiple **measure types**
- Pre-configured **data collection frequencies** to ensure consistent time periods
- **Project level measures** - teams use the same configuration
- Team level **custom measures**
- Optional **data stratification**. For example, race and gender.

The image displays two overlapping screenshots of a 'Measure Setup' web application. The top screenshot is at 'STEP 1: Select Type of Measure' and lists several options: 'Count or Measurement Data', 'Percentage', 'Rate', 'Sequential Data', 'Cases Between Events', and 'Days Between Events'. The bottom screenshot is at 'STEP 4: Data Collection Frequency' and lists options for how often data will be collected: 'Daily', 'Weekday', 'Weekly', 'Monthly', 'Quarterly', 'Annual', 'Semi-Monthly', and 'Semi-Annual'. Both screenshots show a progress bar at the top with steps 1 through 6, and a 'Show more measures' link at the bottom of the first screenshot.

Shared Learning and Collaboration

- **Shared driver diagrams and change package** to enable hospitals to rapidly learn from each other's improvement efforts
- **Collaboration spaces** that provide focused hubs for each change concept
- **Discussion areas** for real-time collaboration and focused communication



Project Management and Coaching

- **PDSA tracking** and reporting
- Hospital and Coach **monthly reports** with integrated PDSA activity and measure data to support assessment of improvement work

The screenshot displays a software interface for project management and coaching. The main view is a PDSA plan titled "Pre-birth huddle for vaginal deliveries". The plan includes a description, objectives, questions and related predictions, plan details, and data collection information. A "Do" section is highlighted in green, indicating the testing phase, with a testing period ending on October 31, 2022. Below the plan, there is an "Observations Summary" section and a "Study" section for analyzing results.

Overlaid on the main view is a "January 2020 Status Report". The report shows the status as of January 29, 2020, and includes a "Measure" section with the following data:

Measure	Value	Unit
Total	7	
Data Updated	1	
Percent Updated	14%	

The report also includes a "PDSAs" section with the following data:

PDSAs	Value	Unit
Active Changes	8	
PDSAs Started	4	
Open PDSAs	11	
Completed PDSAs	3	

The report also includes a "Drivers and Changes" section with the following details:

- Ease of Scheduling
 - 1.1 Scheduling Process
 - 1. Map out scheduling process
 - 1/29/2020 (1 days) View
 - 1/23/2020 (7 days) View
 - 12/17/2019 (38 days) View
 - 2. Survey Patients
 - 8/16/2019 (167 days) View
 - 3. Study results of previous surveys to create change ideas
 - 2/15/2019 (349 days) View
 - 4. Test Scheduling via email or online form
 - 3/13/2019 (323 days) View
 - 5. Design Standard Procedures

The report also includes a "Team Narrative" section with the following details:

- Submitted by: Michael Iantosca • 3 years ago
- Self Assessment: 3 - Modest improvement: Initial test cycles have been completed and implementation begun. Data shows moderate improvement.
- Assessment Notes: test
- Other Activities Completed: test
- Lessons Learned and Breakthroughs: test
- Barriers: test
- Next Steps: test

The report also includes a "Project Staff Narrative" section with the following details:

- Team Assessed by: Michael Iantosca • 3 years ago
- Assessment: 3 - Modest improvement: Initial test cycles have been completed and implementation begun. Data shows moderate improvement.
- Assessment Notes: notes
- Measure data complete: Yes
- Change status complete: Yes

Project Management and Coaching

- **Shared calendar** for meetings, deadlines and milestones
- **File uploads** for project and hospital level resources

Project Calendar

subscribe add event

< > today November 2022 month week day list

Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	31	1	2	3	4	5
6	7	8	9	10 1p Iowa AIM All-Team Call	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3
4	5	6				


Project Resources

- 📁 Literature on Reducing Cesarean Birth
- 📁 QI Resources
- 📄 AIM Resource List.pdf a year ago
- 🔗 Link to Process and Structure Measure reporting to IDPH a year ago



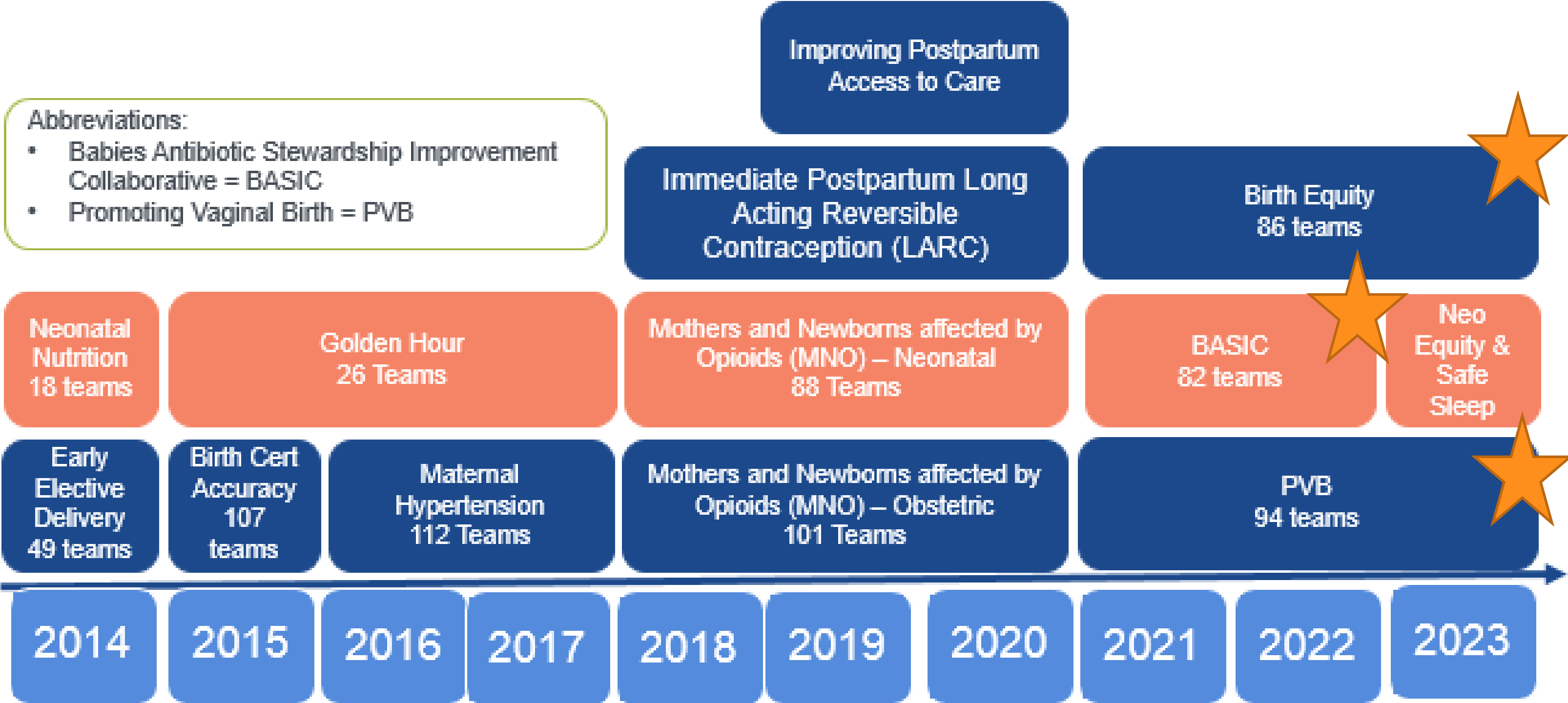
Illinois Perinatal Quality Collaborative (ILPQC)

ILPQC

 Active initiatives, teams submitting data

Abbreviations:

- Babies Antibiotic Stewardship Improvement Collaborative = BASIC
- Promoting Vaginal Birth = PVB



ILPQC Data System



Data collection



Data visualization

*Note: Option available to manually upload data into Zoho

Data forms and report formulas created by ILPQC Staff

Data consulting group extracts and repackages data (analysis sql) into Zoho and develops reports based on formulas given

ILPQC Data Reporting Routine: Data Reporting Frequency

- Monthly Process & Outcome Measures (per patient data & random sample of charts)
- Monthly Hospital Measures (structure measures, population level data)

Examples:

- Collection of all opioid-exposed dyads
- Collection of random sample of 10 charts a month from all delivering patients to assess for documentation of screening for OUD with validated tool

Examples:

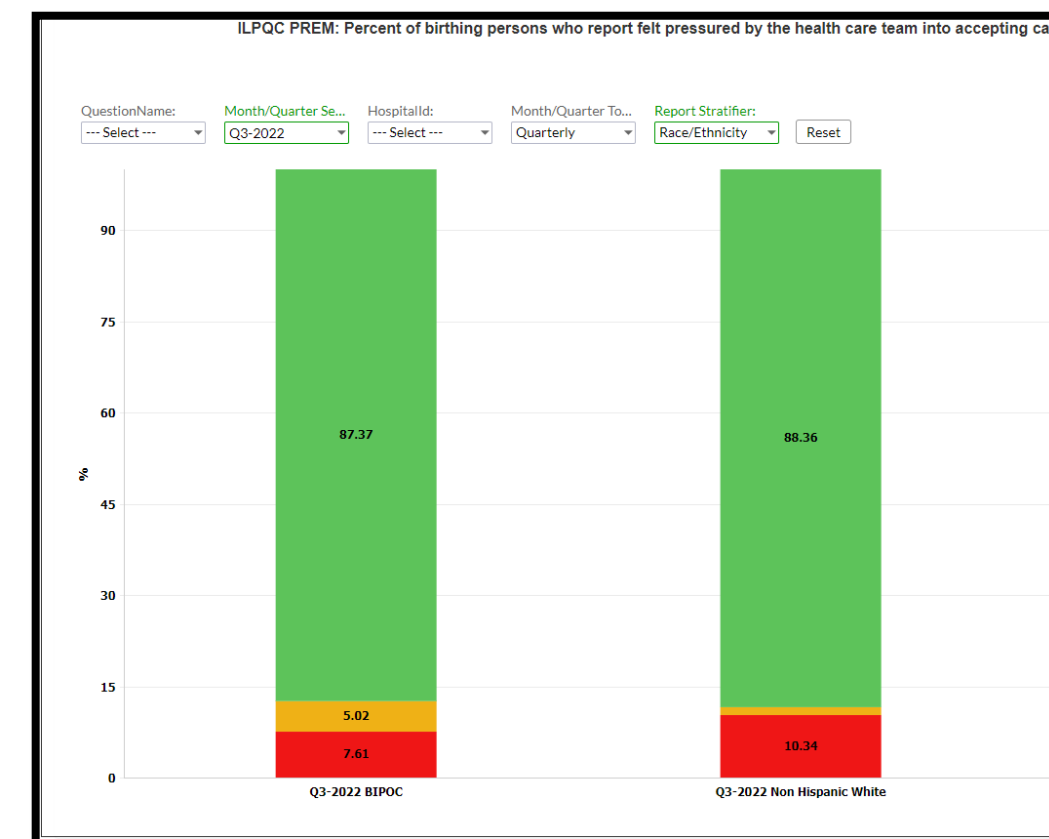
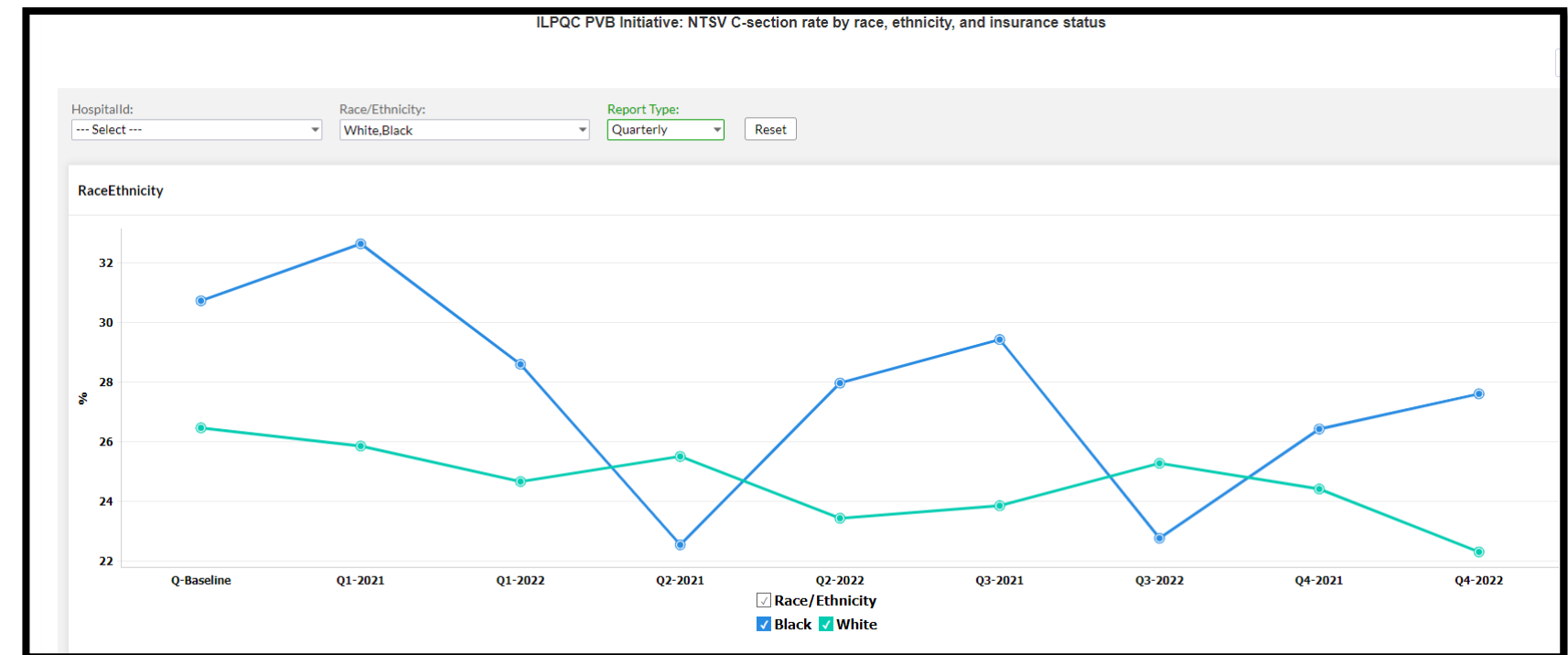
- Structure measures: does hospital have standardized protocol in place to screen all pregnant patients with a validated tool for OUD on Labor & Delivery

ILPQC Data Reporting Routine: Stratification

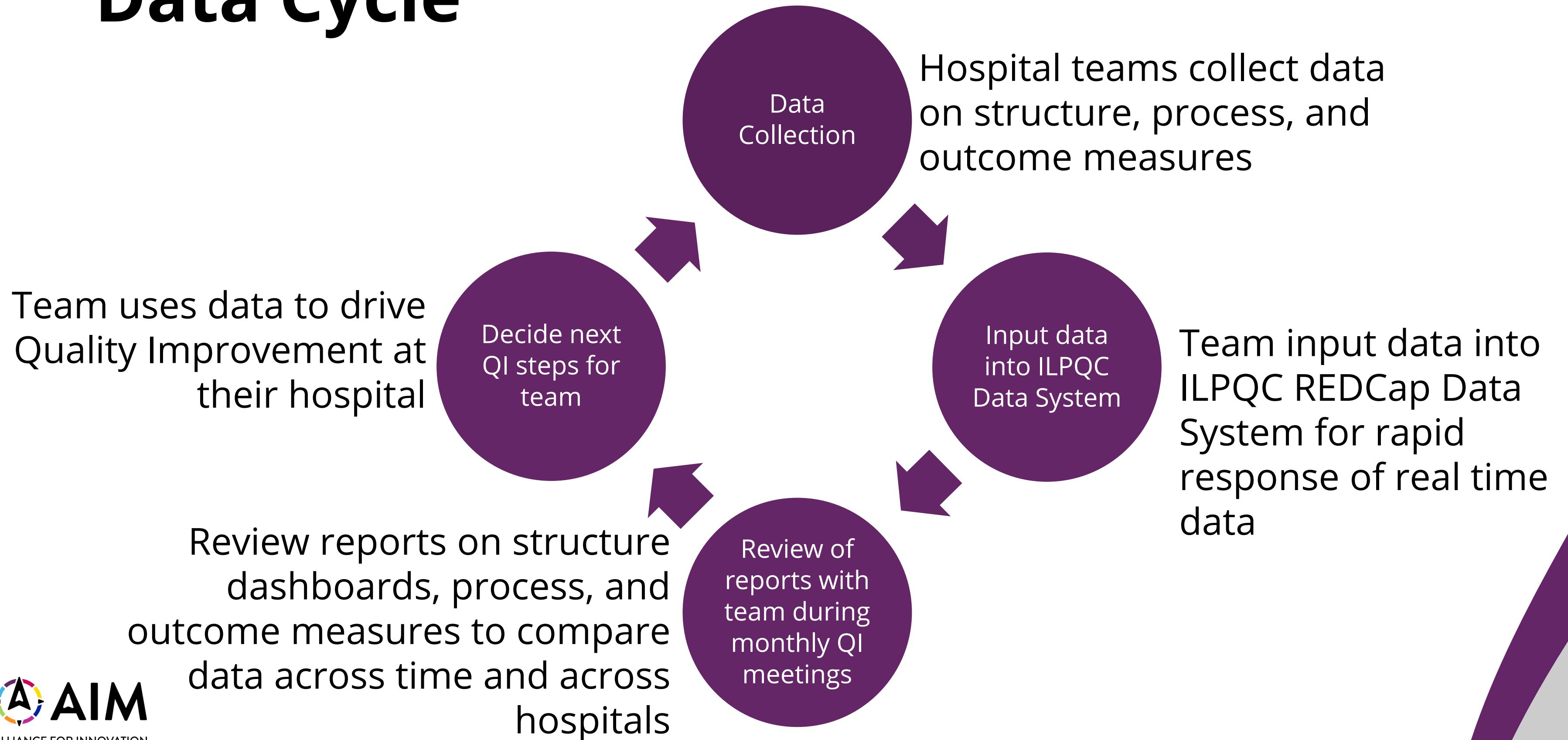
- ILPQC creates formulas to stratify measures by race, ethnicity, and insurance status
- Implements a race and ethnicity stratification hierarchy to code multiple choice race and ethnicity questions into categorical variables

Examples:

- ❑ NTSV C/S data stratified by race and ethnicity
- ❑ Birth Equity Patient-Reported Experience Measure

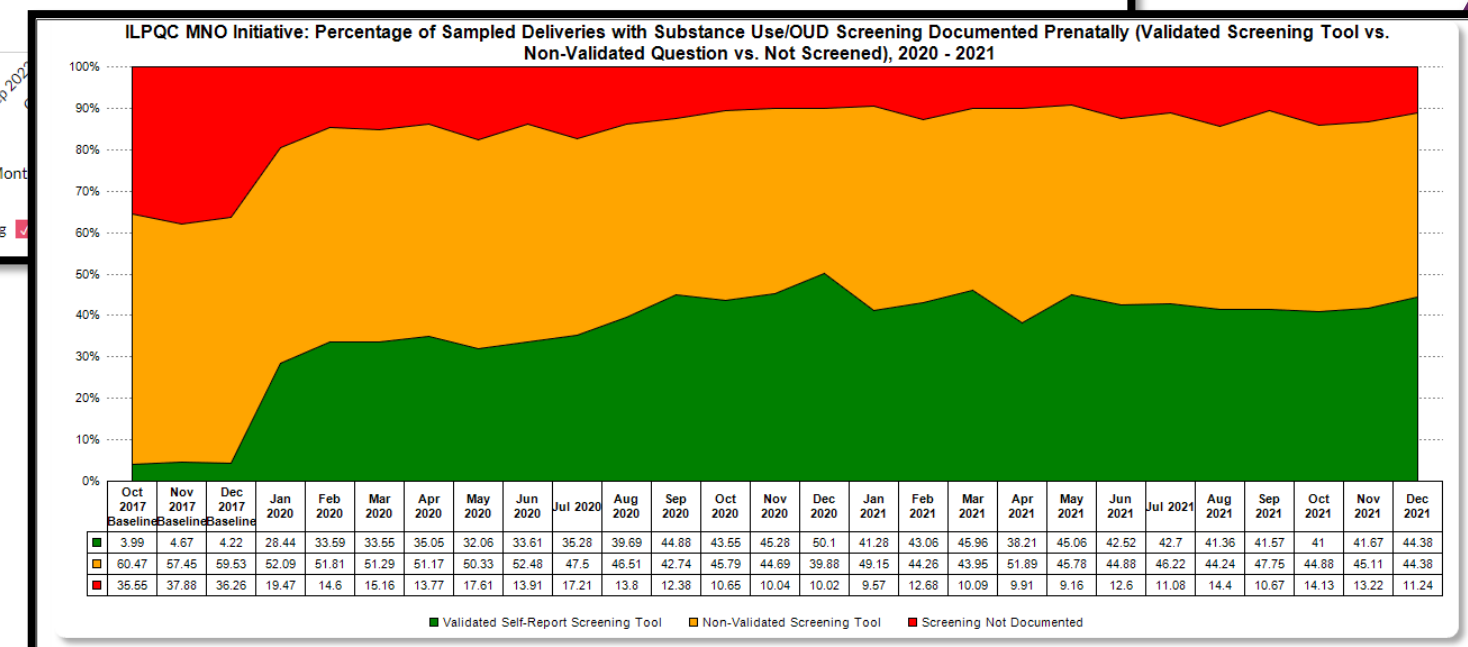
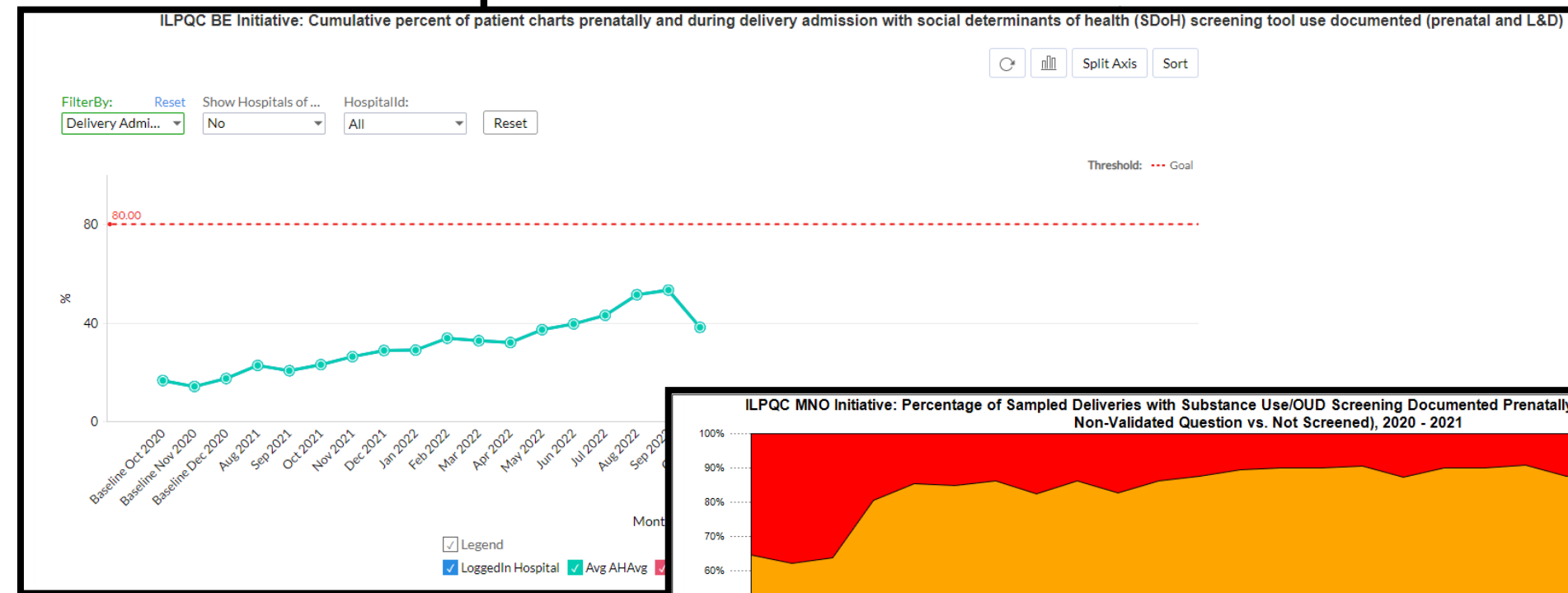
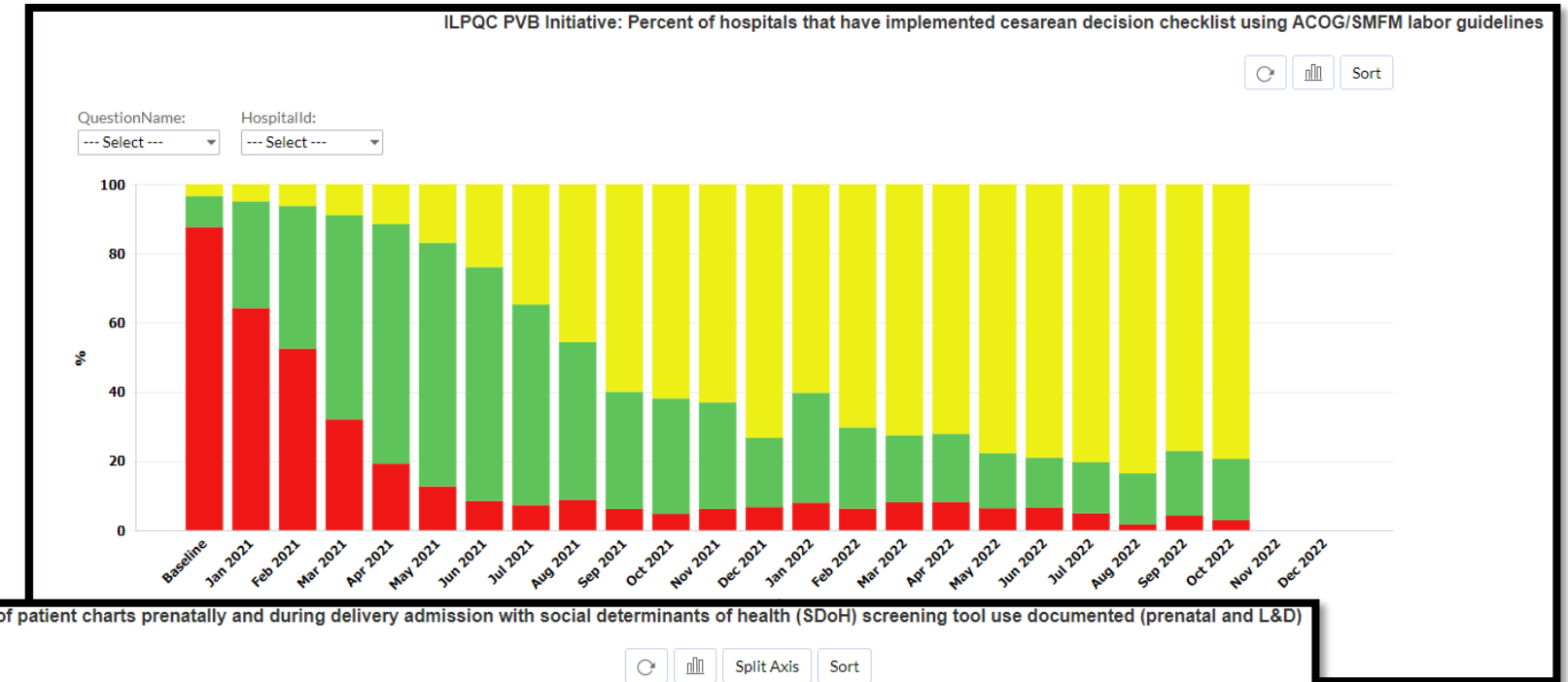


ILPQC Data Reporting Routine: Data Cycle



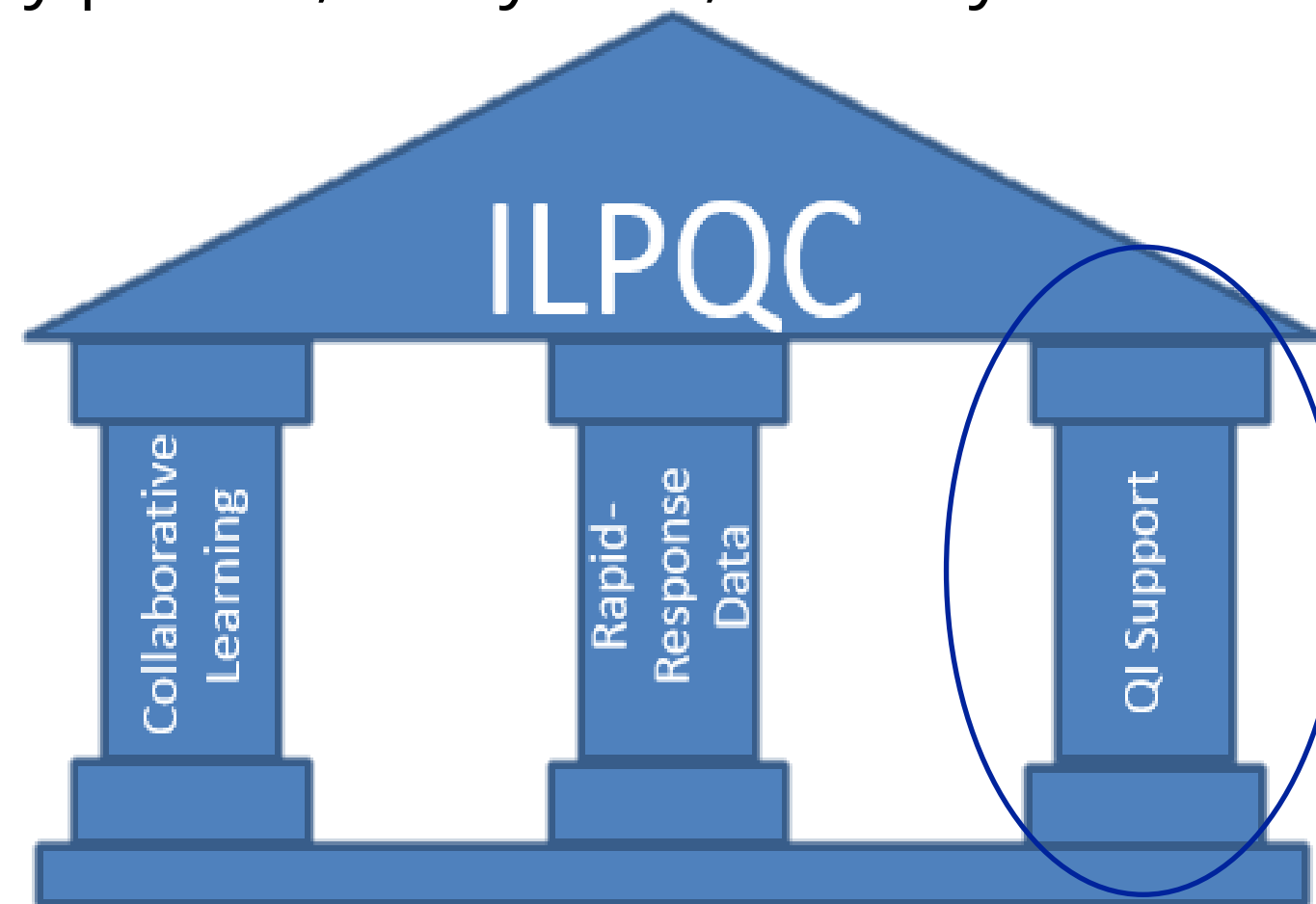
ILPQC Data Reporting Routine: Visualization

- Run Charts
- Area Charts
- Stacked Bar Charts
- Dashboards



ILPQC Data Reporting Routine: Data Used for 1:1 QI Support

ILPQC hospital teams work to implement evidence-based care guidelines to facilitate every provider, every nurse providing optimal care to every patient, every time, in every unit.



Monitor monthly QI data for teams not meeting goals

1:1 QI coaching calls with teams not reaching goals

Grand rounds speakers bureau presentations

Focused QI topic calls with mentor hospitals

Choosing a Reporting System

priorities

- Ability for hospital teams to access reports in real-time
- Ability for reports to be visualized in comparison to the collaborative

concessions

- The specific visualization platform, didn't use "REDCap Reports"

REDCap & Zoho Analytics

- Using since 2013
- Why did you settle on this one: REDCap account separate instance at Northwestern University
- Adding users: add users to “Data Access Groups” to submit data to their hospital & view reports compared to collaborative in aggregate & hospitals of similar perinatal levels

Utilize the Aim Data Resources

- AIM Data Collection Plan: descriptions and definitions for bundle required measures for collection
- Activity for consideration: Conduct a crosswalk of the measures/definitions your state collaborative collects and how it aligns with the AIM measures.
- The closer they are in similarity; the less manual data maintenance needs to be conducted to recode!

DATA RESOURCES



AIM DATA GUIDE



2021 AIM SMM CODES LIST



AIM DATA COLLECTION PLAN



AIM DATA COLLECTION PLAN CHANGE SUMMARY

ILPQC Data System

pros

- Ability for hospitals to view reports in real time compared to their peers
- Ability to have stratified reports by race, ethnicity, insurance status

cons

- ILPQC developed a strong relationship with a developer to code and create the reports- not always a sustainable model



LaPQC
Louisiana Perinatal Quality Collaborative

Louisiana Perinatal Quality Collaborative (LaPQC)

LaPQC

- Focused on systems and culture change that promotes **safe, equitable, and dignified** birth.
- **47** of **48** birthing hospitals in Louisiana participate in at least 1 LaPQC initiative.
 - covers >**98%** of births in Louisiana
- **4** initiatives
 - new coming in 2023 (emergency departments)

LaPQC Programs/Initiatives

The Gift

breastfeeding
infant nutrition

Gift 3.0
Designation

**Safe Births
Initiative**

AIM bundles
perinatal
outcomes

Birth Ready
Designation

ICSED

**SUD/ODU &
NAS/NOWS**

CPDS Pilot

caregiver
depression
screening in
pediatric practices

Data Reporting Routine

- Participating teams report **process, outcome,** and **balancing** measures monthly
 - **structure** measures are reported via REDCap quarterly/annually
- **Stratification** of select process measures by race/ethnicity required.
- Teams also submit monthly **narrative** with data.
- LaPQC provides monthly **feedback**, and Collaborative-wide data-for-improvement **learning** opportunities.

Choosing a Reporting System

priorities

- Track PDSAs
- Monthly narratives
- Easy data entry with instant visualization
- Technical assistance
- User-friendly for PQC participants
- Manage without a fulltime epi

concessions

- Move from free to paid platform
- Continue to do more work on the LaPQC side in terms of tracking and AIM interface
- Short-term stratification visualization solution



LifeQI

- Piloted in **2019**, moved all work to Life QI in January **2020**.
- Final decision:
 - interactive control charts, narratives/PDSAs, support
- Limit users to **2 licenses, per initiative, per facility**
 - Ladley General, participating in 3 initiatives, can have 6 unique licenses

Sample Team - LaPQC Safe Births Initiative

Only members can view

General Driver diagram Measures & charts Pdsas Discuss

Actions ↓

			<p>12 Measures</p> <p>30 Charts</p>	<p>6 Ramps</p> <p>9 Cycles</p>
<p>Change score ✎</p>	<p>Project team</p>	<p>Driver diagram</p>	<p>Measures</p>	<p>Pdsas</p>

-
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Details

Edit ✎

<p>Title</p> <p>Sample Team - LaPQC Safe Births Initiative</p>	<p>Status</p> <p>Active</p>
<p>Featured Reports</p> <ul style="list-style-type: none"> Jan 2021 - PQC Narrative report Published Created by Sophie Webb on 16/02/2021 at 12:12:02 → Feb 2021 PQC Narrative report Published → 	<p>Start date</p> <p>01/01/2021</p> <p>End date</p> <p>31/12/2022</p> <p>Location</p>

Charts

[Add a chart +](#)

Search...

Timely Treatment of Severe Hypertension

Monthly **Data due within the next 2 days**



Timely Treatment of Severe Hypertension (non-Hispanic white)

Monthly **Data due within the next 2 days**



Timely Treatment of Severe Hypertension (non-Hispanic Black)

Monthly **Data due within the next 2 days**

Timely Treatment of Severe Hypertension (Hispanic/Latinx)

Monthly **Data due within the next 2 days**

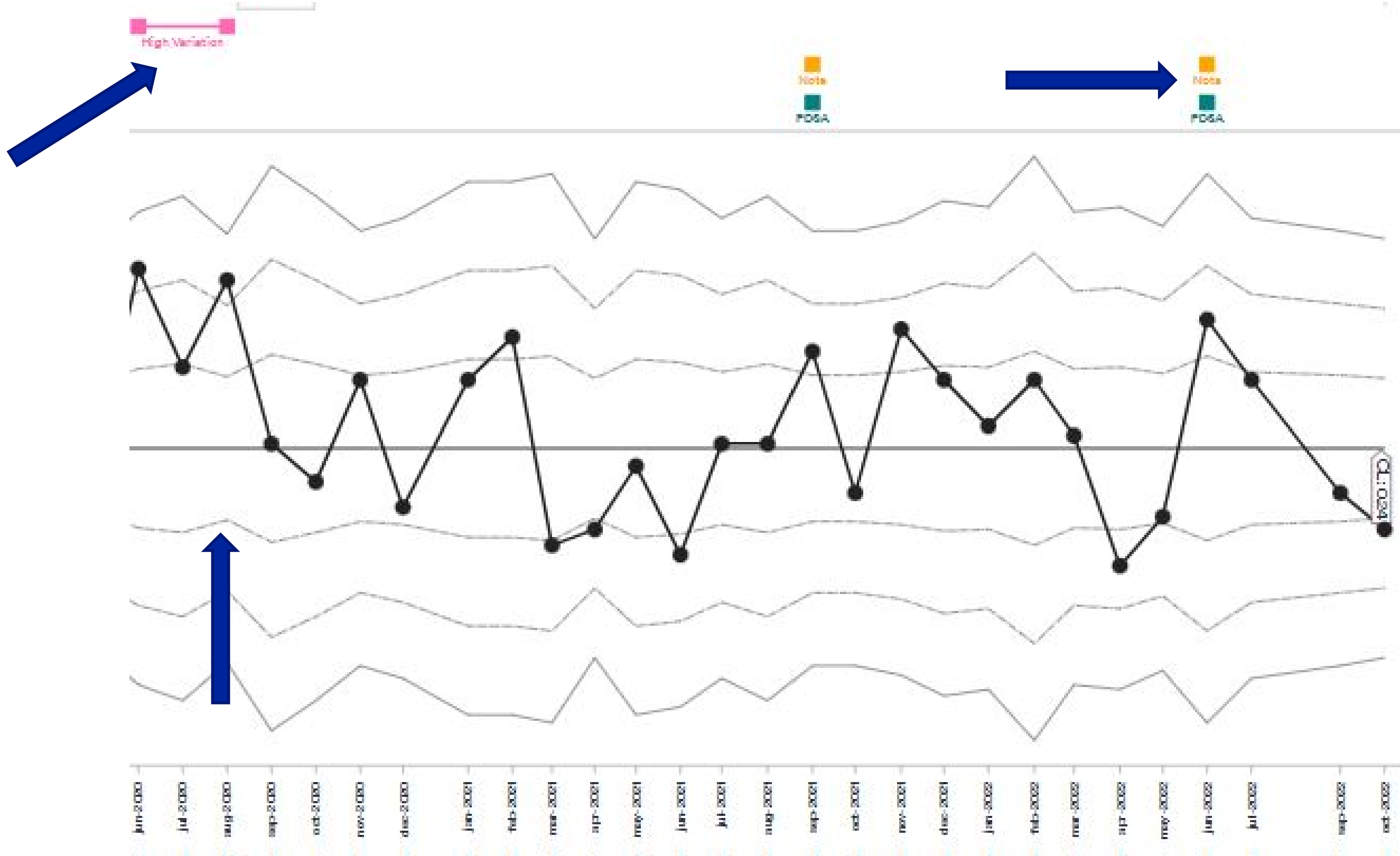
Timely Treatment of Severe Hypertension (non-Hispanic other)

Monthly **Data due within the next 2 days**

may 2022		4	26		
jun 2022		7	17		
jul 2022		8	24		
aug 2022		0	0		
sep 2022		5	27		
oct 2022		4	29		

[Add Row +](#)

LifeQL

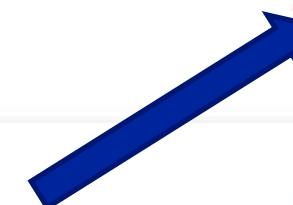
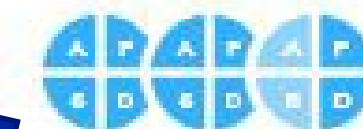




LifeQI

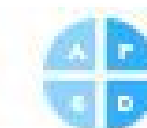
March 2022- Stocked Antepartum emergency kits, & warmers

3 pdsa cycles



Nightly Antepartum Logs

1 pdsa cycle



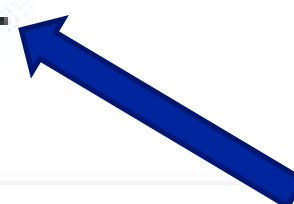
May 2022- Safe Surgery Checklist - AL

1 pdsa cycle



May 2022- Sign up for Quarter Drill - AL

1 pdsa cycle



June 22- Debrief on Checklists

1 pdsa cycle



pros

- Simple data entry
- Control and run charts
- Narrative
- Annotation!
- PDSAs and narratives
- Help: chat, page, team
- Report feature
- feedback

cons

- No overlaid strat. charts (coming in next version)
- Discussion feature not used often
- Limited number of people can access (\$\$)
- Can't filter work in long-term projects

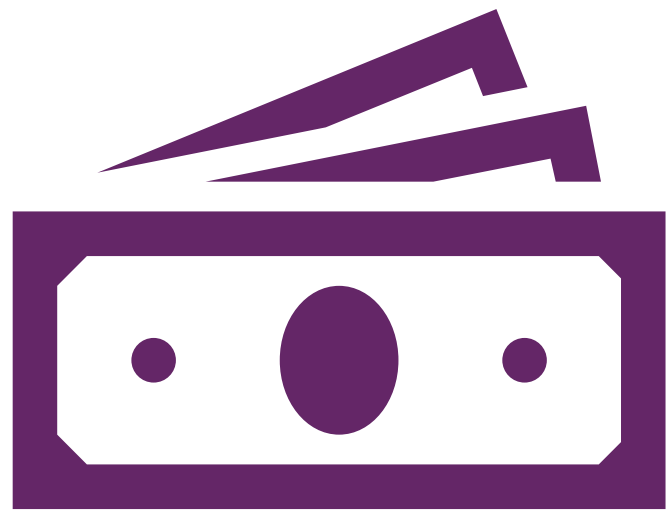
Final Thoughts

Thinking About Important Features

	run charts	analysis	stratify data	discussion or listerv	AIM interface	PDSA tracking
Simple QI	✓	some	✓	✓	working on it	✓
REDCap + Zoho (ILPQC)	✓	some	✓		recoding required	
Life QI	✓	some	✓	✓		✓

Thinking About Cost

Do you invest in the time to build capacity?
To own the work and build for long term?
What do you not work on while you are
working on your data system?



Is it worth spending more, if you get time back you don't have? If you fill a gap in PQC staffing? If you fill a data-for-improvement need for your participants?

Questions ?

Breakout Discussions





Thank you!

The recording
will be emailed
to all attendees
once ready

Any questions
about this COL or
the series can be
sent to
aimdatasupport
@acog.org

Be sure to
complete the
evaluation survey!
It will pop up in
your browser as
you exit the
session

Remember to
register for
upcoming
educational
offerings!