AIM

ALLIANCE FOR INNOVATION
ON MATERNAL HEALTH

AIM Tableau Dashboard Templates: Visualizing Your AIM Patient Safety Bundle Data

Thursday
August 28, 2025
1:00PM- 2:00PM (ET)

AIM

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.

Agenda

1. Welcome
2. Upcoming AIM Office Hour
3. AIM Tableau Dashboard Template
4. Q/A
5. Closing

Welcome

Izzy Taylor

Meet the AIM Data Team

Izzy Taylor
Senior Manager, AIM Data Program

Inderveer Saini
Program Data Analyst II

Rekha Karki
Program Data Analyst

David Laflamme
Epidemiology Contractor

Upcoming AIM Office Hour

August 29, 2025, at 1PM (EST)

Register via
QR code

Last Call: AIM Office Hour Tomorrow!

Join our open office hour tomorrow to connect directly with the AIM Data Team and TA Specialists. These sessions are designed to provide teams with personalized support and guidance—whether you have specific questions about AIM data collection and reporting, need help interpreting your data, or want to discuss broader programmatic needs.

Meet the Speaker

David Laflamme
Consulting
Epidemiologist
PhD, MPH

AIM Tableau Dashboard Templates: Visualizing Your AIM Patient Safety Bundle Data

David J. Laflamme, PhD, MPH

Learning Objectives

- Import and prepare bulk export data for analysis.
- Build and customize Tableau dashboard templates to visualize data from the AIM Data Center.
- Apply filters and interactive features to explore data dynamically.

Purpose and Scope

- Assist states/territories/collaboratives in using AIM Patient Safety Bundle data *at the facility level* to target support and drive measurable *statewide* improvement

- These dashboards are the next logical step after implementing standardized data collection such as the pre-built AIM REDCap projects available on saferbirth.org

- Regardless of which data collection platform you use, these dashboards provide *examples which you can build upon* to take your AIM work to the next level to drive measurable change

Rationale

- Using AIM data to actively drive improvement requires a strategy that recognizes and leverages the unique roles and expertise at the state and facility levels
  - State-level: Standardized measures, statewide networks/relationships, analytic capacity, convening role
  - Facility-level: Quality Improvement expertise, knowledge of facility microsystem, ability to conduct PDSA cycles tied to situational aspects of facility
- AIM Tableau Dashboard Templates are one tool to facilitate improvement work at the intersection of public health and clinical medicine

Why isn't AIM using more traditional QI charts in these dashboards?

- AIM Measures are often not collected at the level of granularity needed for effective PDSA cycles
  - AIM measures are often more appropriately used for monitoring and targeting Technical Assistance
  - More granular traditional QI charts can and should be used within each facility when needed
    - These might include custom measures specific to the microsystem of the facility that are selected by the QI professionals within the facility team
- There are sometimes methodological challenges in using AIM measures in traditional QI charts (e.g. run chart)

Tools We'll Reference Today

- Tableau
  - Data visualization and visual analytics
- Tableau Prep
  - Data cleaning and modeling
- REDCap
  - Used by some states to collect and report standardized AIM data

AIM and ACOG are not associated with Tableau or REDCap and no endorsement is intended. There are many other products/tools that provide similar functionality, and the choice is up to each grantee to use what they feel is most appropriate for their situation.

A few examples of practical analytic questions that can we answer with facility-level data

- Which facilities have the most potential to drive statewide improvement?
  - Facility volume *combined with* room for improvement
- Which facilities should be targeted for outreach during this data period(monthly or quarterly)?
  - Structure and process measures are often good measures to use when making this determination
  - Look for lack of reported progress
- Which facilities might be asked to share their lessons learned that led to their improvement?
  - Consider actively encouraging facility-to-facility mentoring for hospitals with similar systems (e.g. same parent corporation, EHR vendor, volume, region, etc.)
  - Invitation to present on monthly webinar

The Power of the Hospital Demographics File

- The hospital demographics file is not integrated into the AIM Tableau Dashboard templates at this time. A simple join on *hospital_name* (or *hospital_unique_identifier)* will make additional data fields such as these accessible in your analytic file:
  - Volume (speaks to impact potential)
  - % Medicaid (can be useful for collaboration with Medicaid partners)
  - NICU level
  - Maternal care level
  - Urban/Rural designation
  - And more!

What other visualizations might be helpful?

- Stratify your data by:
  - Race and Ethnicity Groups
  - Payor
- Top N facilities
  - Automatically display top N (e.g. 10) facilities with certain characteristics:
    - Measure score (choose high or low)
    - Percent of births in state

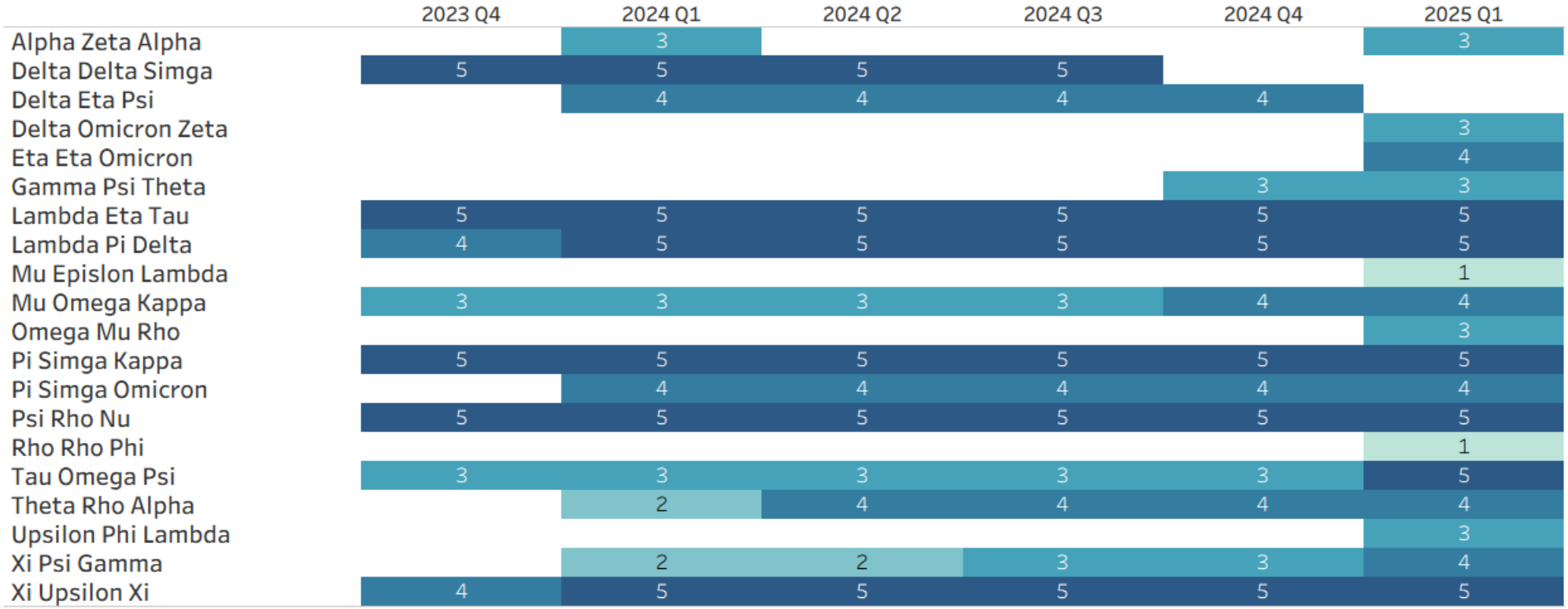
Remember…

- As we move into looking at images of the dashboards, remember that these are static images of dashboards that are dynamic.
  - Tooltips provide additional information on mouseover
  - Filter selections make each dashboard capable of displaying many different measures

Structure Scores by Hospital Over Time

Bundle(s): *cppsud*

Measure: *Verbal_screening_and_tools*



Select Bundle

cppsud

Select Measure

Verbal_screening_and_tools

Select Race Group

all

Structure Scale Score

1 5

Structure Measures are rated on a Likert-like scale from **1 (Not Started)** to **5 (Fully In Place)**

Latest Structure KPIs

3 x 3 Grid

Select Bundle: cppsud

Select Measure: verbal_screening_and_tools

Select Race Group: all

KPI Definitions

KPI #1
2025 Q1
Not Started
10%

KPI #2
2025 Q1
In Progress
55%

KPI #3
2025 Q1
Fully In Place
35%

KPI #4
2025 Q1
Progressing
14%

KPI #5
2025 Q1
Backsliding
0%

KPI #6
2025 Q1
Re-Entry
0%

KPI #7
2025 Q1
Jumping
7%

KPI #8
2025 Q1
Mean Time in Days to Fully Implemented
96

KPI #9
2025 Q1
Retained Fully in Place
100%

KPI Glossary (Latest & All-Period)

Back to Structure KPI 3x3 Grid

Back to Structure KPI Detail

KPI #0 Pct Unknown — % of rows with **null** score.
Denominator: **Cnt_AllRows_AllHosp_Period**. (Lower is better.)

KPI #1 Pct Not Started — % of **valid** rows with score **1**.
Denominator: **Den_Valid_AllHosp_Period**. (Lower is better.)

KPI #2 Pct In Progress — % of **valid** rows with score **2–4**.
Denominator: **Den_Valid_AllHosp_Period**.

KPI #3 Pct Fully in Place — % of **valid** rows with score **5**.
Denominator: **Den_Valid_AllHosp_Period**. (Higher is better.)

KPI #4 Pct Progressing — % of facilities (with prior data) whose score **increased** since last period.
Denominator: **Den_ValidTransitions_Latest** (Latest) or **..._Period** (All). (Higher is better.)

KPI #4 Pct Stagnant — % with **no change** since last period.
Denominator: **Den_ValidTransitions_....**

KPI #5 Pct Backsliding — % whose score **decreased** since last period.
Denominator: **Den_ValidTransitions_....** (Lower is better.)

KPI #6 Pct Re-entry — % that **previously backslid at least once** and **increased** this period.
Denominator: **Den_ValidTransitions_....** (Higher is better.)

KPI #7 Pct Jumping — % with an **increase ≥2 points** in one step.
Denominator: **Den_ValidTransitions_....**

KPI #8 Avg Speed (Days) — Average days from a facility's **last 1 (Not Started)** on/before its **first 5 (FI)** to that **first 5**, averaged across facilities in the group.
Contributors: **KPI #8 N With Speed** = number of facilities that ever reached 5. (Lower is better.)

KPI #9 Pct Retaining Fully in Place — Among facilities that were **5 last period**, % that are **still 5** now.
Denominator: **Den_RetainFI_....** (Higher is better.)

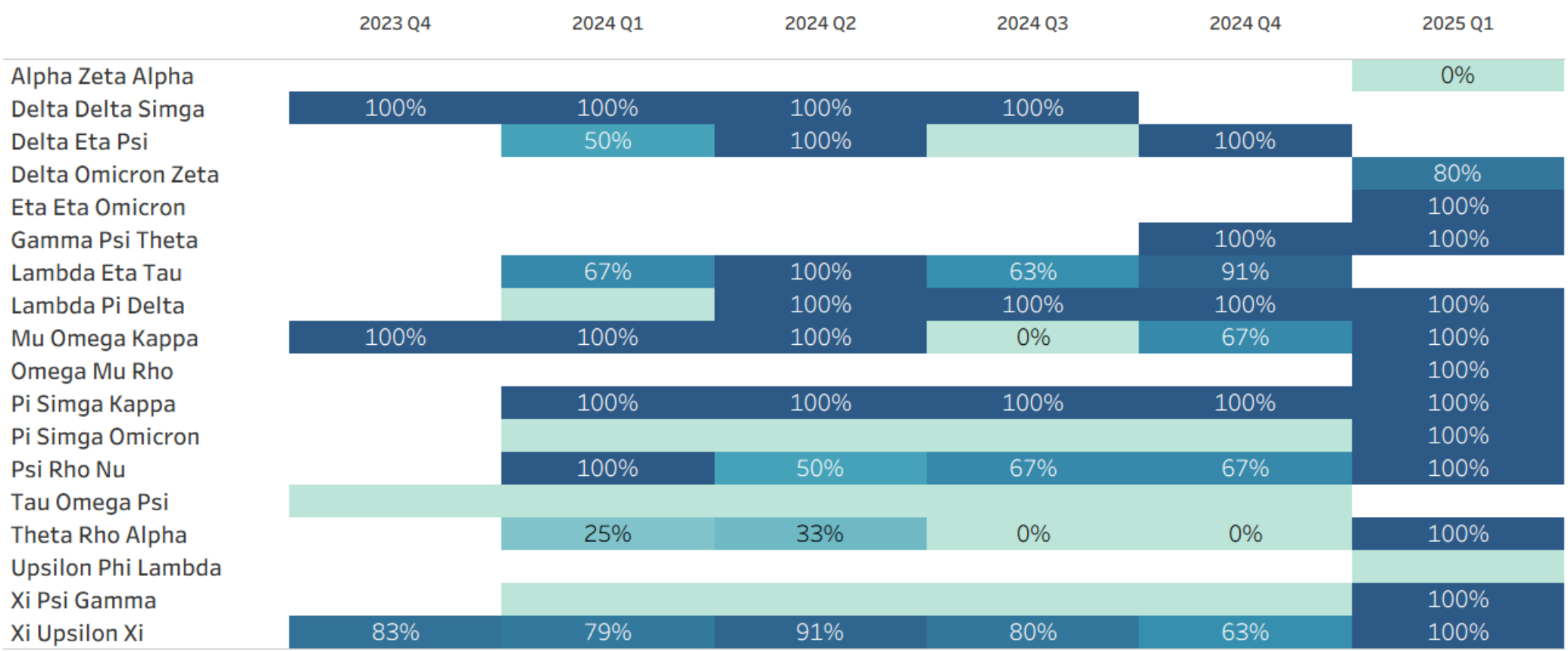
Notes

- "AllHosp" = across all facilities in the group.
- "Latest" tables are at **Bundle + Measure + Race (no date)**; "All-Period" tables include **period_start_date**.
- Transition Key Performance Indicators (KPIs #4–#7) only use rows with a valid current **and** prior score.

Process by Hospital Over Time

Bundle: cppsud

Measure: medication_assisted_treatment_referral



Select Bundle

cppsud

Select Measure

medication_assisted_treatment_referral

Select Race Group

all

Percent of births

0% 100%

SMM Outcome Scores by Hospital Over Time

(per 10,000 births)

Measure: severe_maternal_morbidity_hemorrhage

Bundle(s): hemorrhage

Select Bundle

hemorrhage

Select SMM Measure

severe_maternal_morbidity_hemo..

Select Race Group

all

	2016	2017	2018	2019	2020	2021	2022
Alpha Iota Alpha	0	3,333	4,000	2,857	0	667	1,429
Alpha Kappa Zeta	3,226	2,632	3,188	3,220	3,929	3,235	4,107
Alpha Zeta Alpha	2,694	3,534	3,151	3,589	2,759	2,038	2,609
Beta Iota Upsilon	2,340	3,398	3,125	2,258	3,017	5,000	3,759
Beta Theta Beta	3,333	1,667	1,852	2,254	896	563	1,455
Beta Xi Delta	2,414	5,455	5,870	3,750	3,824	5,526	6,471
Chi Gamma Zeta	361	694	290	875	0	367	319
Chi Kappa Rho	0	0	0	0	0	588	0
Chi Kappa Upsilon	354	973	190	420	788	468	171
Chi Mu Phi	3,400	1,667	1,379	1,034	1,587	1,139	811
Delta Delta Simga	1,154	0	244	392	0	313	0
Delta Eta Psi	4,000	2,963	1,967	4,000	2,500	4,314	2,364
Delta Mu Chi	5,000	3,333	6,667	3,333	5,000	5,000	5,000
Delta Omicron Zeta	2,320	2,063	3,147	3,313	2,825	2,834	2,688
Delta Rho Iota	2,857	4,423	3,750	4,082	5,167	3,509	5,510
Delta Tau Alpha	1,364	2,000	1,343	2,656	411	1,013	2,125
Epislon Upsilon Epislon	3,750	1,429	6,667	1,818	1,765	3,077	2,353
Eta Eta Omicron	0	0	417	0	0	286	0
Eta Nu Tau	800	2,400	2,121	1,667	3,793	3,333	6,667
Eta Phi Epislon	500	1,200	0	1,481	1,200	1,905	2,083
Eta Phi Gamma	3,333	769	3,000	2,500	909	2,143	3,333
Eta Rho Epislon	0	294	250	149	149	253	122
Eta Xi Upsilon	1,707	2,444	1,633	1,923	3,333	5,000	3,333

Severe Maternal Morbidity
(per 10,000 births)

0 — 10,000

NOTE: Remember to mouse over each cell of interest to check numerator and denominator size. Annual SMM at the hospital level is not often useful due to small cell sizes. Consider using statewide aggregation or select high volume facilities. Consider implementing your own custom suppression rules (e.g. suppress numerators <5 and denominators <30) within the SMM calculated field to address privacy and statistical stability.

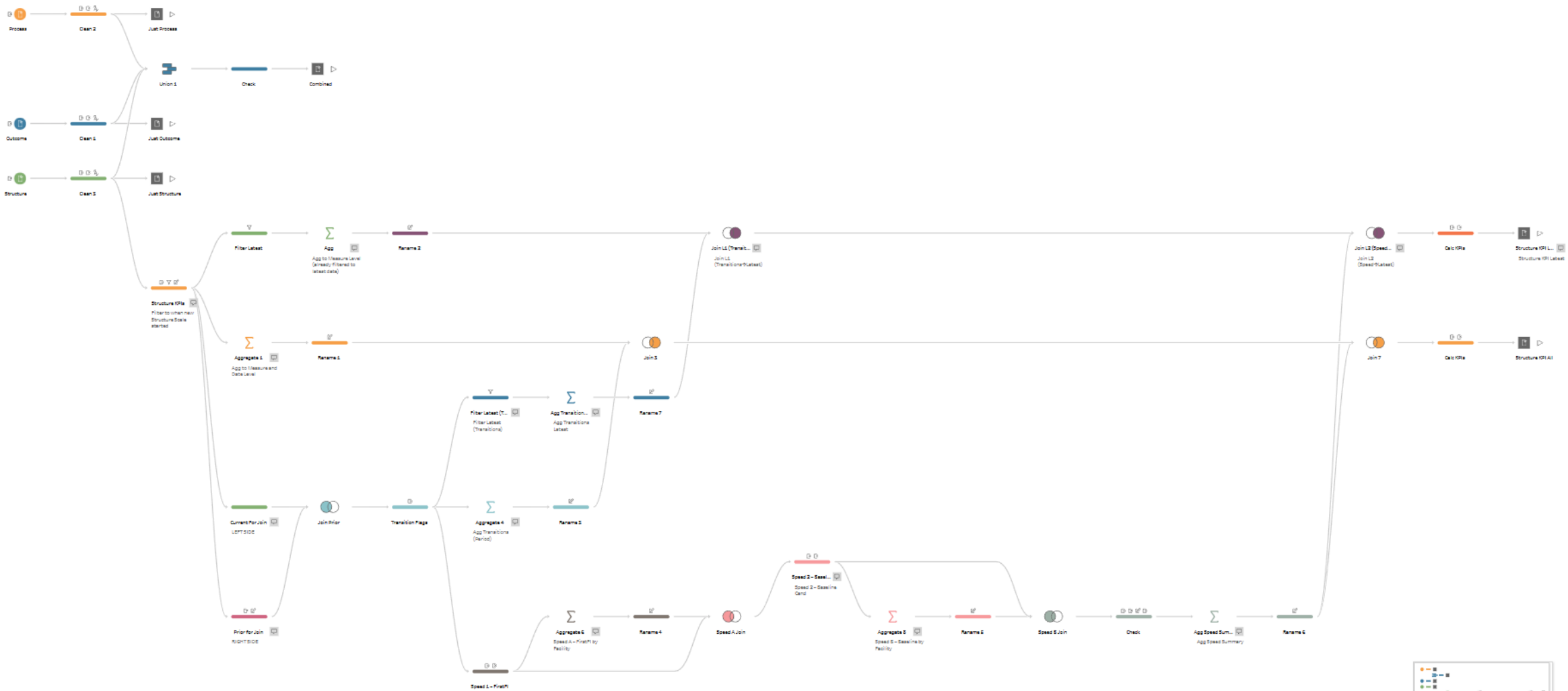
The Flow of Data…

- **Standardized Data Source**
  - AIM Data Center Extract Files
  - Alternatives include sources such as pre-built AIM REDCap reports or another system you have been using to collect and aggregate data for standardized AIM reporting
  - This includes Outcome, Process, and Structure measures
- **Data Cleaning and Modeling**
  - Tableau Prep
  - Alternatives include tools such as R, SAS, Stata, SPSS, Excel, and other products such as those from Alteryx and Informatica
- **Data Visualization and Visual Analytics (“Dashboarding”)**
  - Tableau
  - Alternatives include tools such as Power BI, Excel, Qlik, etc.

Specific to AIM Tableau Template

- Instructions available on safebirth.org (within the next few days)
- Key Steps
  - Download data from AIM Data Center
  - Following file naming conventions in instructions
  - Open Tableau Prep
    - Edit file paths to point to downloaded source files
    - Edit file paths to point to desired location for output file
  - Run Tableau Prep Data Flow
  - Open Tableau workbook (template)
    - Point Tableau to file from Tableau Prep
    - Configure your preference for hospital name visibility in hospital-level dashboards
      - Default = Names visible (*hospital_name*)
      - Alternatives: Unique ID (*hospital_unique_identifier*) or Masked Name (*masked_name*)
  - Explore and test the dashboards!

Tableau Prep Flow



The Bottom Line

- Although we have shown you a template that can be used out-of-the-box today, a key takeaway today is that data can be used to support Technical Assistance (TA) to facilities in a way that drives improvement at the state level in measurable ways

Live Demonstration

Questions?

AIM Data Support
aimdatasupport@acog.org

David Laflamme
david@mchepi.com

Thank You!

The slides and recording will be shared to all the attendees

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

Any questions about this session can be sent to aimdatasupport @acog.org

Remember to register for AIM office hour tomorrow!