



Billings Clinic

Level I Trauma Center

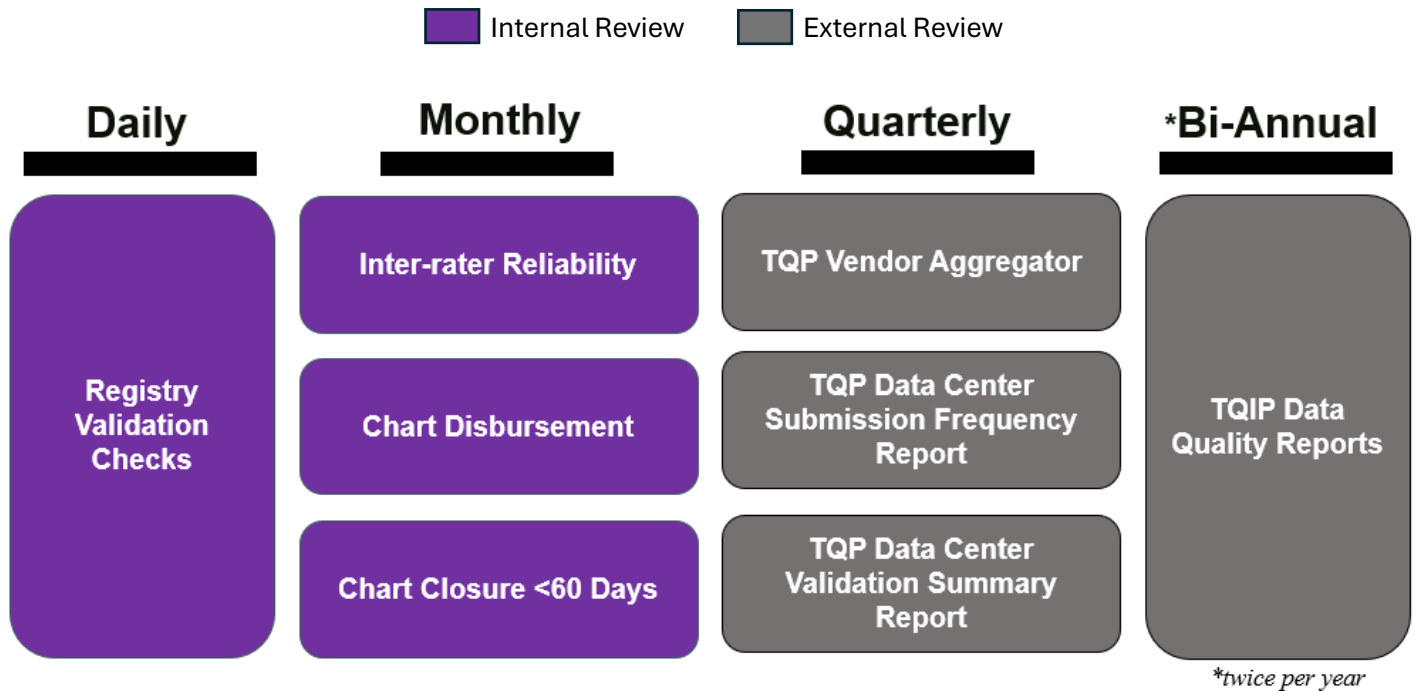
2025 TQIP Validation Reports

Utilization and Tracking Manual

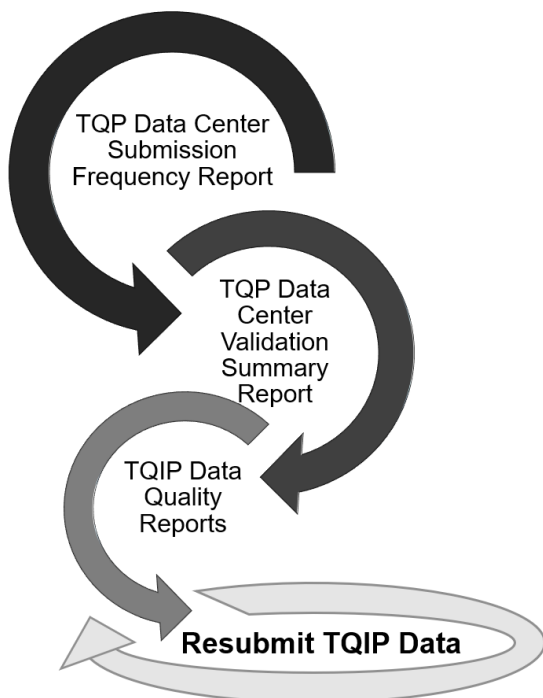
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I. REGISTRY VALIDATION SCHEDULE (EXAMPLE)



II. 6-STEP REVIEW VALIDATION PROCESS TQIP VALIDATION REPORTS



TQIP Validation Reports: Utilization Process

1. Discrepancies flagged
2. Data recorded on dashboard
3. NTDS definition & staff education
4. Deep dive for registry accuracy
5. Registry discrepancies rectified
6. Written action plan developed/updated

III. TQIP DATA CENTER SUBMISSION FREQUENCY REPORT

Utilized to evaluate “Not Known/Not Recorded” registry elements

A. ACCESS REPORTS

Access Reports

ACS Data Quality Platform

THE COMMITTEE ON TRAUMA

Welcome, Chelsea Landrey

Currently Viewing
Trauma Quality Programs
Billings Clinic -- 4202

DASHBOARD
Data Submission Summary

PLATFORM
Upload
Notifications

ANALYTICS
Operational Reports

RESOURCES
Library

ACCOUNT
My Account
Log out

11/07/2023 12:38:49 PM
Upload ID: [redacted]
TQP Facility Name: Billings Clinic
Processing Status: File Upload Completed
File Name: TQIP_[redacted]
Uploader Username: Landrey Chelsea
File Type: TQIP
Date Range: 07/01/2023-09/30/2023
Total Processed: 323 3
Duplicate Records: 0
[Validation Summary Report](#)
[Submission Frequency Report](#)

11/07/2023 12:30:36 PM
Upload ID: [redacted]
TQP Facility Name: Billings Clinic
Processing Status: Failed due to level 1 or 2 NTDS data validation flags
File Name: ITDX_[redacted]
Uploader Username: Landrey Chelsea
File Type: TQIP
Date Range: 07/01/2023-09/30/2023
Total Processed: 0
Duplicate Records: 0
[Validation Summary Report](#)

Access the Submission Frequency & Validation Summary Reports

Click on **Submission Frequency Report** (right side, blue font) to open in a new window

B. 6-STEP VALIDATION PROCESS

1. Flag Discrepancies

1. Discrepancies flagged

Submission Frequency					
Category	Element	Element Description	Value	Count	Percent
Hospital Pro...	Hospital Procedure Sta...	The time operative and selected non-operative procedures were performed.	Not Known/Not Recorded	132	44.30 %

Step 1: Discrepancies Flagged

1. Abstract data

Shows elements entered as “unknown” in the registry (and how many unknown entries)

Filter results to “Limit to Not Known/Not Recorded”

2. Record Data

2. Data recorded on dashboard

ELEMENT: Not Known/ Not Recorded	2022				2023				2024			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Initial Fallout												
Hospital Procedure Start Time	19.5	9.0	17.5	14.2	9.4	48.6	52.9	44.3	3.8	Ongoing Review		
Other Transport Mode	5.7	3.0	3.8	7.3	6.70	3.3	3.72		RESOLVED			
Missing Race	2.4	5.1	6.5	2.9	4.9	5.8	8.4	1.7	1.3	RESOLVED		
First Recorded Temperature	9.5	4.3	3.8	4.5	2.2	5.8	3.7	4.4	RESOLVED			
Airbag Deployment	4.8	6.4	4.8	6.1	4.0	4.1	5.3	9.7	3.3	Ongoing Review		
First Recorded Height (≤24hrs)	22.9	18.4	4.5	1.2	RESOLVED							

Step 2: Data recorded on dashboard

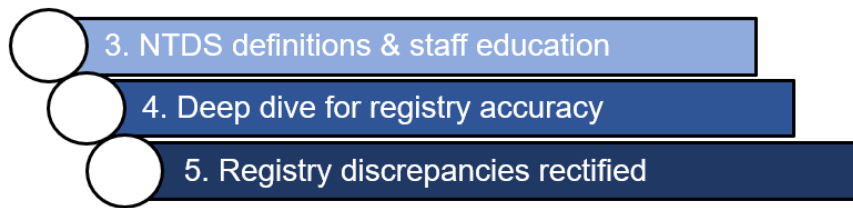
1. Create or add to existing dashboard
Include all elements & indicate fallouts (5.5% threshold used for this example)

Now complete steps 3-6 with the registry team

3. Review

4. Deep Dive

5. Rectify



Q4 2023 Not Known/Not Recorded Procedure Start Time

Patient ID	Accurate?	Missing Reason	Registrar	Validated By
2023	N	Time updated from TFS	Dwight	M. Scott
2023	N	Found on Trauma Flow Sheet	Jim	M. Scott
2023	Y	Unknown ED lac repair time	Pam	M. Scott

Step 3: NTDS definitions & staff education

1. Review NTDS definitions of all fallouts
Refer to NTDS data dictionary
2. Provide staff education
Gear towards proper entry of elements
Ensure congruent understanding

Step 4: Deep dive for registry accuracy - Submission Frequency Report

1. Click the percent of the element under review. This will produce a list of chart numbers in Frequency Details

Submission Frequency

Category	Element	Element Description	Value	Count	Percent
	Alternate Home Reside...	Documentation of the type of patient without a home ZIP/Postal Code.	Not Known/Not Recorded	0	0.00 %
	Date of Birth	The patient's date of birth.	Not Known/Not Recorded	0	0.00 %
	Age	The patient's age at the time of injury (best approximation).	Not Known/Not Recorded	0	0.00 %
	Age Units	The units used to report the patient's age (Minutes, Hours, Days, Months, Years, ...	Not Known/Not Recorded	0	0.00 %
	Race	The patient's race.	Not Known/Not Recorded	4	1.41 %
	Ethnicity	The patient's ethnicity.	Not Known/Not Recorded	0	0.00 %
	Sex	The patient's sex.	Not Known/Not Recorded	0	0.00 %
Injury Information	Injury Incident Date	The date the injury occurred.	Not Known/Not Recorded	1	0.35 %
	Injury Incident Time	The time the injury occurred.	Not Known/Not Recorded	198	69.72 %
	Work-Related	Indication of whether the injury occurred during paid employment.	Not Known/Not Recorded	0	0.00 %
	Patient's Occupational ...	The occupational industry associated with the patient's work environment.	Not Known/Not Recorded	0	0.00 %
	Patient's Occupation	The occupation of the patient.	Not Known/Not Recorded	0	0.00 %
	ICD-10 Primary Externa...	External cause code used to describe the mechanism (or external factor) that ca...	Not Known/Not Recorded	0	0.00 %
	ICD-10 Place of Occur...	Place of occurrence external cause code used to describe the absolute location...	Not Known/Not Recorded	0	0.00 %

Documented Details
Please select a Count or Percent for Documented Element to see the values that make up the Count/Percent.

Element Value	Count	Percent

Frequency Details
Please select a Count or Percent to see the PatientID's that make up the Count/Percent.

Patient ID

- 2024
- 2024
- 2024
- 2024

Export for a deep dive of those charts by right-clicking

Documented Details
Please select a Count or Percent for Documented Element to see the values that make up the Count/Percent.

Element Value	Count	Percent

Frequency Details
Please select a Count or Percent to see the PatientID's that make up the Count/Percent.

Patient ID

- 20240539

Context menu options:

- Visualization to PDF...
- Visualization to image...
- Export table**
- Export table (without value formatting)
- Export
- Microsoft Excel Export...
- Copy cell value...
- Maximize visualization

2. Use “**export table**” option to generate an excel spreadsheet with Patient ID numbers
 - a. Add custom tracking elements such as:
 - **Accuracy:** Is the information truly missing because of documentation issues or overlooked by the registrar?
 - **Missing Reason:** Brief explanation of why the information is missing
 - **Registrar:** Initial registrar inputting the data
 - **Validated By:** Registrar validating the information

Q4 2023 Not Known/Not Recorded Procedure Start Time				
Patient ID	Accurate?	Missing Reason	Registrar	Validated By
2023	N	Time updated from TFS	Dwight	M. Scott
2023	N	Found on Trauma Flow Sheet	Jim	M. Scott
2023	Y	Unknown ED lac repair time	Pam	M. Scott

Involving registrars in correcting/validating information is a great way to enhance the quality of initial data collection, as seen on the dashboard.

Step 5: Registry discrepancies corrected

6. Action Plan

EXAMPLE:

6. Written action plan developed/updated

ISSUE: 44.3% Fallout

DEEP DIVE: 24/132 (18%) OFI

ACTION: Education for registrars

Q4 2023 132 (44.30%)

Data evaluation revealed that 24/132 (18%) charts did have elements that should have been entered into the registry. These have since been fixed with proper entry.

108/132 (82%) elements were reviewed and validated to truly have an unknown start time for procedure (some were Xray, suturing, etc. that often do not have start times).

Overall, 18% of these flagged elements were deemed preventable. We will continue to be diligent in registry entry and continue monitoring this element for instance of not known/not recorded until it remains consistently below the 5.5% threshold for at least 2 consecutive TQIP quarterly reports.

Educational OFI: Discussed excluding radiology done outside of the ED. Reviewed commonly missed start times, checking iView/last page of TFS, & new default start times added to the BC Trauma Data Dictionary. All registrars verbalize understanding.

Step 6: Write an action plan or update existing plans

1. Focus on registrar education efforts and guide action plan development
2. Involve other team members for action plans aimed at patient care/documentation errors
 - a. Additional resources and trainings available through the ACS TQIP Education Portal
3. Check for elements that can be considered “closed or resolved” in your action plans and on your dashboard

Resubmit corrected and validated data to TQIP!

IV. TQP VALIDATION SUMMARY REPORT

Utilized to evaluate registry data entries that exceed the expected range

A. ACCESS REPORTS

Access Reports

ACS Data Quality Platform

THE COMMITTEE ON TRAUMA

Welcome, Chelsea Landrey

Currently Viewing
Trauma Quality Programs
Billings Clinic – 4202

DASHBOARD

- Data Submission Summary

PLATFORM

- Upload**
- Notifications

ANALYTICS

- Operational Reports

RESOURCES

- Library

ACCOUNT

- My Account
- Log out

Upload ID: 1507427
TQP Facility Name: **Billings Clinic**
Processing Status: **File Upload Completed**
File Name: **TQIP_V2023_30005_20230701_20230930_20231107193429.xml**
Uploader Username: **Landrey Chelsea**
File Type: **TQIP**
Date Range: **07/01/2023-09/30/2023**

Total Processed: 323
Duplicate Records: 0
[Validation Summary Report](#)
[Submission Frequency Report](#)

11/07/2023 12:38:49 PM

Upload ID:
TQP Facility Name: **Billings Clinic**
Processing Status: **Failed due to level 1 or 2 NTDS data validation flags**
File Name: **ITDX_**
Uploader Username: **Landrey Chelsea**
File Type: **TQIP**
Date Range: **07/01/2023-09/30/2023**

Total Processed: 0
Duplicate Records: 0
[Validation Summary Report](#)

11/07/2023 12:30:36 PM

Click on **Validation Summary Report** (right side, blue font) opens in a new window

Validation Summary Report

Call for Data Year: 2024
Data Range of Records: 04/01/2024 - 06/30/2024
TQP Facility ID: 30005
Upload ID: 1724350
NTDS Version: tqip_v2024
Channel: 224
File Type: tqip
File Result: Passed

Policy/File Based Issues

Rule ID	Validation Alert	File Message

Monthly Record Count Summary

Record Date (Month)	Count
Apr	81
May Q2 2024	102
Jun	101

Record Level Validations

Select an Alert Level(s) from the Validation Alert Summary visualization to see individual alerts.

Validation Alert Summary

New Record, 284 (96.6%)

● Level 3
● New Record

Validation Alert Summary

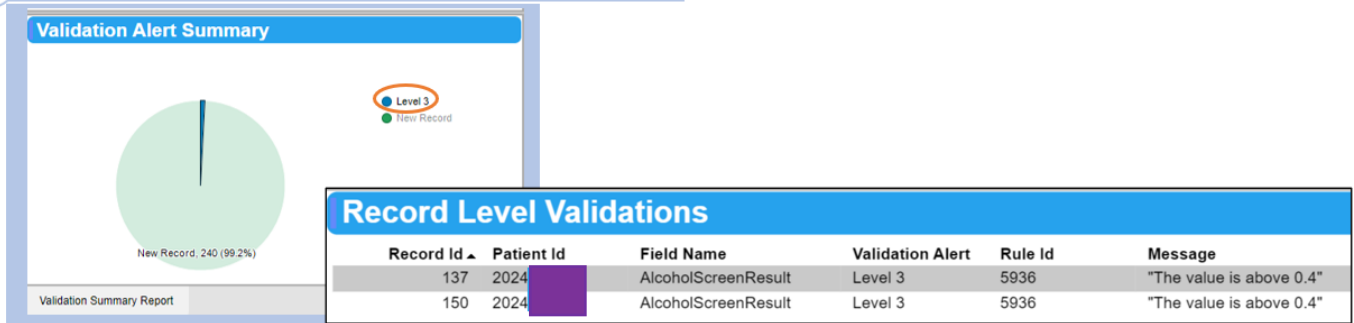
New Record, 284 (96.6%)

● Level 3
● New Record

B. 6-STEP VALIDATION PROCESS

1. Flag Discrepancies

1. Discrepancies flagged



Step 1: Discrepancies flagged

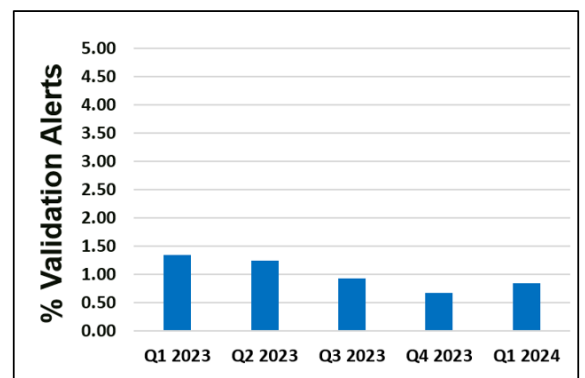
Click "Level 3" which will populate a list of patients with alerts

Record Id	Patient Id	Field Name	Validation Alert	Rule Id	Message
137	2024	AlcoholScreenResult	Level 3	5936	"The value is above 0.4"
150	2024	AlcoholScreenResult	Level 3	5936	"The value is above 0.4"

2. Record Data

2. Data recorded on dashboard

	2023				2024
	Q1	Q2	Q3	Q4	Q1
Valid New Records	224	243	323	298	240
Validation Alerts	3	3	3	2	2
% of Alerts	1.3%	1.2%	0.9%	0.7%	0.8%
% of Correct Data	100%	100%	100%	100%	100%



Step 2: Data recorded on dashboard

1. Export to an excel spreadsheet by right clicking
2. Export > Export table

This will produce an Excel spreadsheet

Record ID	Patient ID	Field Name	Validation Alert	Rule ID	Message
137	20240	AlcoholScreenResult	Level 3	5936	"The value is above 0.4"
150	20240	AlcoholScreenResult	Level 3	5936	"The value is above 0"

Q1 2024 Level 3 Flags								
Record ID	Patient ID	Field Name	Validation Alert	Rule ID	Message	Valid Data Entry?	Comments/Explanation	Validated by
137	2024	AlcoholScreenResult	Level 3	5936	"The value is above 0.4"	Y	Correct - Lab value 452 mg/dL	CML
150	2024	AlcoholScreenResult	Level 3	5936	"The value is above 0.4"	Y	Correct - Lab value 414 mg/dL	CML

Disclaimer: In the example above, alerts were validated to be correctly documented values in our registry.

Now complete steps 3-6 with the registry team

3. Review

4. Deep Dive

5. Rectify

- 3. NTDS definition & staff education
- 4. Deep dive for registry accuracy
- 5. Registry discrepancies rectified

Q1 2024 Level 3 Flags								
Record ID	Patient ID	Field Name	Validation Alert	Rule ID	Message	Valid Data Entry?	Comments/Explanation	Validated by
137	2024	AlcoholScreenResult	Level 3	5936	"The value is above 0.4"	Y	Correct - Lab value 452 mg/dL	CML
150	2024	AlcoholScreenResult	Level 3	5936	"The value is above 0.4"	Y	Correct - Lab value 414 mg/dL	CML

Step 3: NTDS definitions & staff education

1. Review NTDS definitions of all flagged elements
Refer to NTDS data dictionary
2. Provide staff education
Gear towards proper entry of elements
Ensure congruent understanding

Step 4: Deep dive for registry accuracy – Validation Summary Report

1. Right click the on the patient list
2. Export > Export Table
This will produce an Excel spreadsheet

3. Add custom tracking elements such as:
 - **Valid Data Entry:** Is the information truly missing because of documentation issues or overlooked by the registrar?
 - **Comments/Explanations:** Brief explanation about the information
 - **Validated by:** Registrar validating the information

Q1 2024 Level 3 Flags								
Record ID	Patient ID	Field Name	Validation Alert	Rule ID	Message	Valid Data Entry?	Comments/Explanation	Validated by
137	2024	AlcoholScreenResult	Level 3	5936	"The value is above 0.4"	Y	Correct - Lab value 452 mg/dL	CML
150	2024	AlcoholScreenResult	Level 3	5936	"The value is above 0.4"	Y	Correct - Lab value 414 mg/dL	CML

Involving registrars in correcting/validating information is a great way to enhance the quality of initial data collection.

Step 5: Registry discrepancies corrected (if applicable)

6. Action Plan

6. Written action plan developed/updated

For this example, the flagged items were correct, so no action plan was needed. Refer to page 8 or 17 for an example of an action plan.

Step 6: Write an action plan or update existing plans.

1. Focus on registrar education efforts and guide action plan development
2. Involve other team members for action plans aimed at patient care/documentation errors
3. Check for elements that can be considered “closed or resolved” in your action plans and on your dashboard

Resubmit corrected and validated data to TQIP!

V. TQIP DATA QUALITY REPORTS

TQIP identifies missing data elements that are above specific thresholds.
Thresholds are defined by TQIP

A. ACCESS REPORTS

Access Reports

Sent via email by TQIP

When data does not meet set standards, a Data Quality Report is sent via email.

If your facility does NOT fall outside the threshold for these elements, you will NOT receive this report.

B. 6-STEP VALIDATION PROCESS

1. Flag Discrepancies

Step 1: Discrepancies Flagged

1. Obtain data

Elements that fall out of TQIP standards will be indicated on the table sent by TQIP

1. Discrepancies flagged

Facility Name: Billings Clinic		
TQP Facility ID:		
Date Range: 4/1/2021 - 3/31/2022		
Data Submission Deadline: June 3, 2022		
Data Quality Filter	Your Data	Outside Threshold
More than 10% patients with an unknown Sex	0.00%	No
Atypical percentage of records meeting the TQIP Patient Inclusion Criteria (Mean +/-2 STD (95%))	60.14%	No
More than 10% of patients with an unknown BMI	14.10%	Yes
Atypical percentage of records reported with Major Hospital Events (Adults <1% or >15%; Pediatrics > 4%; Level III > 7%)	5.71%	No
More than 10% of patients with an unknown Initial ED/hospital Temperature	6.86%	No
More than 10% of patients with an unknown Length of Stay (LOS)	0.00%	No
More than 10% of patients with an unknown Initial ED/hospital Systolic Blood Pressure (SBP)	0.76%	No
More than 10% of patients with an unknown Initial ED/hospital Pulse	1.14%	No
More than 10% of patients with an unknown Initial ED/hospital GCS Motor	2.10%	No
More than 10% of patients with unknown Pre-Existing Conditions	0.00%	No
More than 1% of patients with unknown Hospital Events	0.00%	No

2. Record Data

2. Data recorded on dashboard

Data Quality Report	2021		2022		2023		2024	
	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
More than 10% of Patients with an Unknown initial ED/ hospital Temperature	10.2%	10.8%	No Fallouts	6.86%	No Fallouts	No Fallouts	RESOLVED	
More than 10% of Patients with an unknown BMI	No Fallouts	No Fallouts	No Fallouts	14.1%	No Fallouts	No Fallouts	RESOLVED	

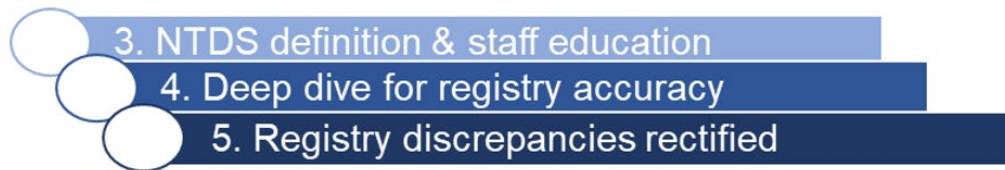
Step 2: Data recorded on dashboard

Now complete steps 3-6 with the registry team

3. Review

4. Deep Dive

5. Rectify



Step 3: NTDS definitions & staff education

1. Review NTDS definitions of all fallouts
Refer to NTDS data dictionary
2. Provide staff education
Gear towards proper entry of elements
Ensure congruent understanding

Step 4: Deep dive for registry accuracy – Data Quality Report

1. Review specific elements

Determine why information is missing

**To determine which patients having missing information, you would have to run a report from your registry. Include the data element in question for the time frame indicated in the TQIP report.*

Facility Name: Billings Clinic		
TQP Facility ID:		
Date Range: 4/1/2021 - 3/31/2022		
Data Submission Deadline: June 3, 2022		
Data Quality Filter	Your Data	Outside Threshold
More than 10% patients with an unknown Sex	0.00%	No
Atypical percentage of records meeting the TQIP Patient Inclusion Criteria (Mean +/-2 STD (95%))	60.14%	No
More than 10% of patients with an unknown BMI	14.10%	Yes
Atypical percentage of records reported with Major Hospital Events (Adults <1% or >15%; Pediatrics > 4%; Level III > 7%)	5.71%	No
More than 10% of patients with an unknown Initial ED/hospital Temperature	6.86%	No
More than 10% of patients with an unknown Length of Stay (LOS)	0.00%	No
More than 10% of patients with an unknown Initial ED/hospital Systolic Blood Pressure (SBP)	0.76%	No
More than 10% of patients with an unknown Initial ED/hospital Pulse	1.14%	No
More than 10% of patients with an unknown Initial ED/hospital GCS Motor	2.10%	No
More than 10% of patients with unknown Pre-Existing Conditions	0.00%	No
More than 1% of patients with unknown Hospital Events	0.00%	No

2. Add custom tracking elements such as:

- **Valid Data Entry:** Is the information truly missing because of documentation issues or overlooked by the registrar?
- **Comments/Explanations:** Brief explanation about the information
- **Validated by:** Registrar validating the information

FALL 2022 DATA QUALITY REPORT FALLOUTS - Missing BMI							
trauma#	BMI	weight	Height	Valid Data Entry?	Comments/Explanations	Validated by	
2021	-	82.1	unk	YES	Valid - no documented height in EMR	DS	
2021	-	70.8	unk	YES	Valid - no documented height in EMR	DS	
2021	-	unk	unk	NO	Height and weight in EMR. Missing registry data - Fixed	DS	
2021	-	unk	unk	NO	Height and weight in EMR. Missing registry data - Fixed	JH	
2021	-	unk	unk	YES	Valid - no documented weight or height in EMR	JH	
2021	-	117	unk	NO	Height in EMR. Missing registry data - Fixed	JH	

Involving registrars in correcting/validating information is a great way to enhance the quality of initial data collection.

Step 5: Registry discrepancies corrected (if applicable)

6. Action Plan

6. Written action plan developed/updated

Issue Opened: Fall 2022

>10% of pts w/ unknown BMI	14.10% of TQIP submissions were missing BMI element
	This element calculates automatically if height and weight are entered
	Evaluation of data shows opportunity for missed entries.
	Registrar education and verbal understanding of importance of entering ht & wt
	Ht, wt, & BMI element added to monthly IRR audit sheets for evaluation.
	Anticipate this to be a one-off fallout, and for above to be adequate to increase compliance.
	IF we fallout on this element again, and official PI plan will be started.
	If we DO NOT fallout for 2 subsequent TQIP reports, we can consider this issue resolved.
Spring 2023	No Fallout for BMI (or any other element)
Fall 2023	No Fallout for BMI (or any other element)
Considering this Fallout CLOSED (Fall 2023)	

Step 6: Write an action plan or update existing plans

1. Focus on registrar education efforts and guide action plan development
2. Involve other team members for action plans aimed at patient care/documentation errors
3. Check for elements that can be considered “closed or resolved” in your action plans and on your dashboard

Tip: Involve Trauma Program Manager and Trauma Performance Improvement Coordinator (use your chain of command) with issues beyond the registry such as:

- Record acquisition (missing EMS or Referring hospital notes)
- Nursing staff opportunities for improvement
 - No temperature taken within 30 minutes of ED arrival
 - No height and weight documented

Resubmit corrected and validated data to TQIP!