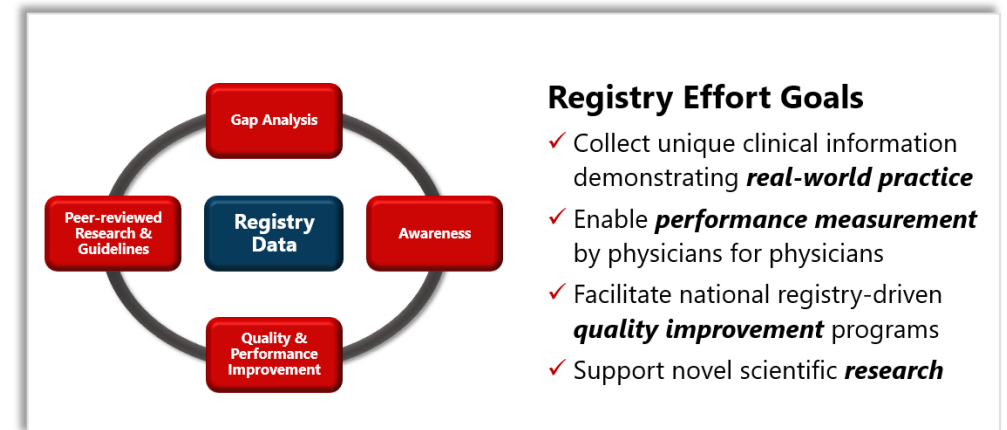


AJRR Resources for TJC Advanced Total Hip and Knee Replacement Certification

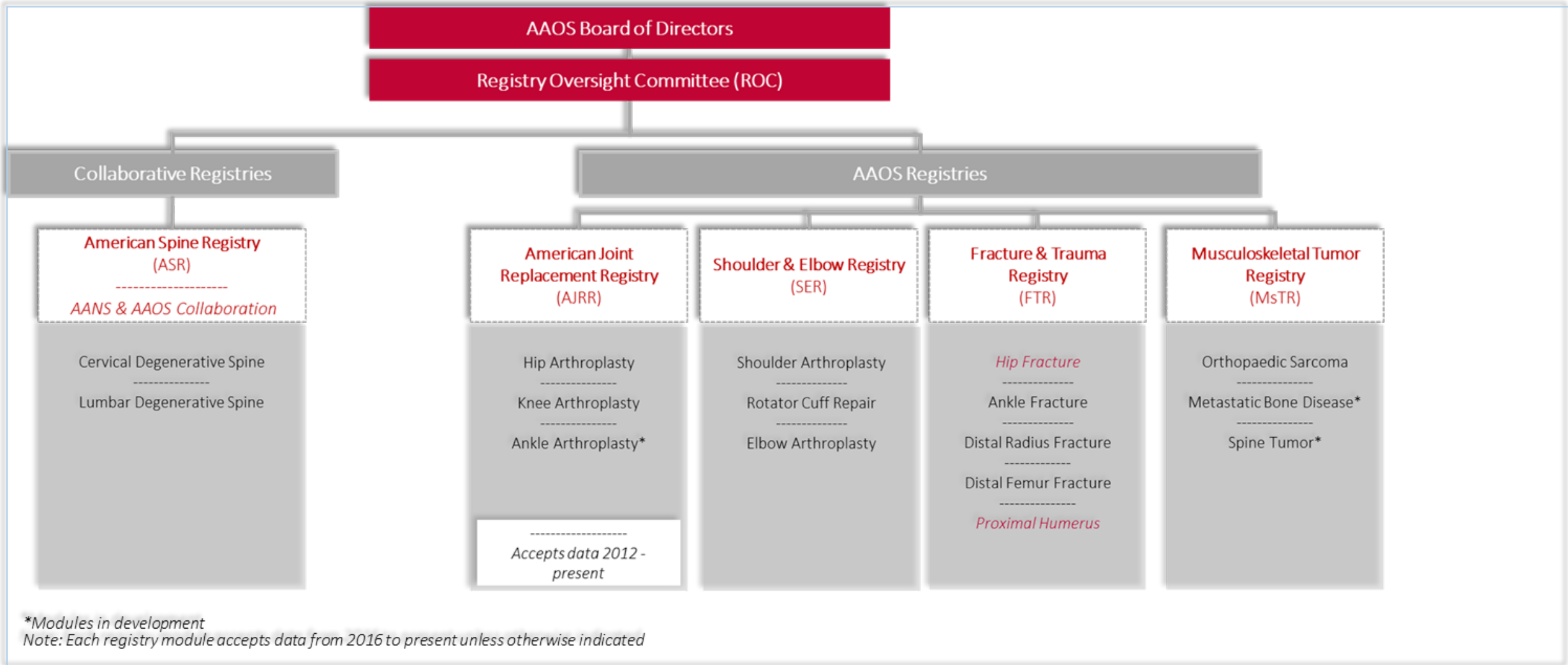
May 31, 2023

Agenda

- AJRR Data Element & Submission Overview
- TJC Total Hip and Knee Replacement (THKR) Performance Measures
- Viewing THKR Performance Measure Data RegistryInsights®
- Available Tools and Resources for TJC Sites

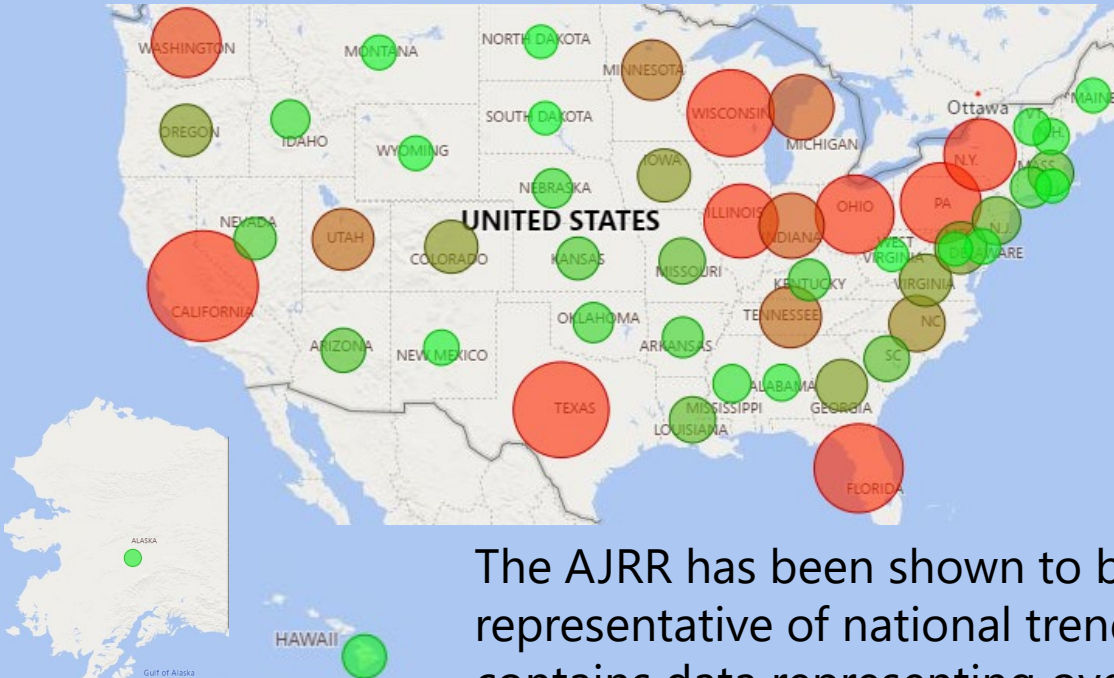


AAOS Registry Program | Overview



Participation Across the Registries

Sites by State

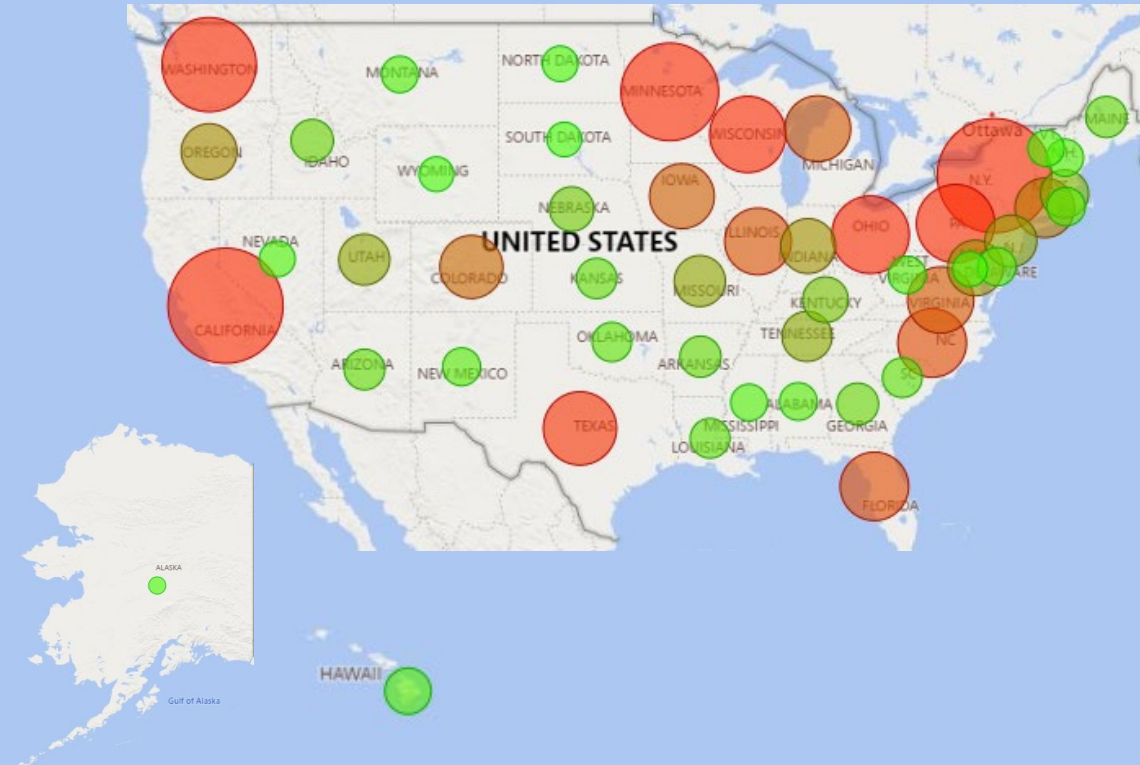


The AJRR has been shown to be representative of national trends and contains data representing over 3.2M procedures.

ASR includes data representing over 190,000 procedures and over 160,000 patients with over 250 participating sites and over 800 registered surgeons

Over 1,400 participating sites contracted and 14,000 registered surgeons across all 50 states.

Procedures by State



Registry Data Collection | Core Data Elements

These Core Data Elements are collected across all AAOS and Collaborative Registries.

Procedure

Patient

- Name (Last, First), Date of Birth, SSN
- Diagnosis (ICD-10)
- Gender
- Race/Ethnicity
- Height + Weight/Body Mass Index
- Payer Status

Site of Service

- Name and Address (TIN/NPI)

Surgeon

- Name (NPI)

Procedure

- Type (ICD-10, CPT)
- Date of Surgery
- Implants (Manufacturer, Lot #)
- Anesthesia Type

Procedure, continued

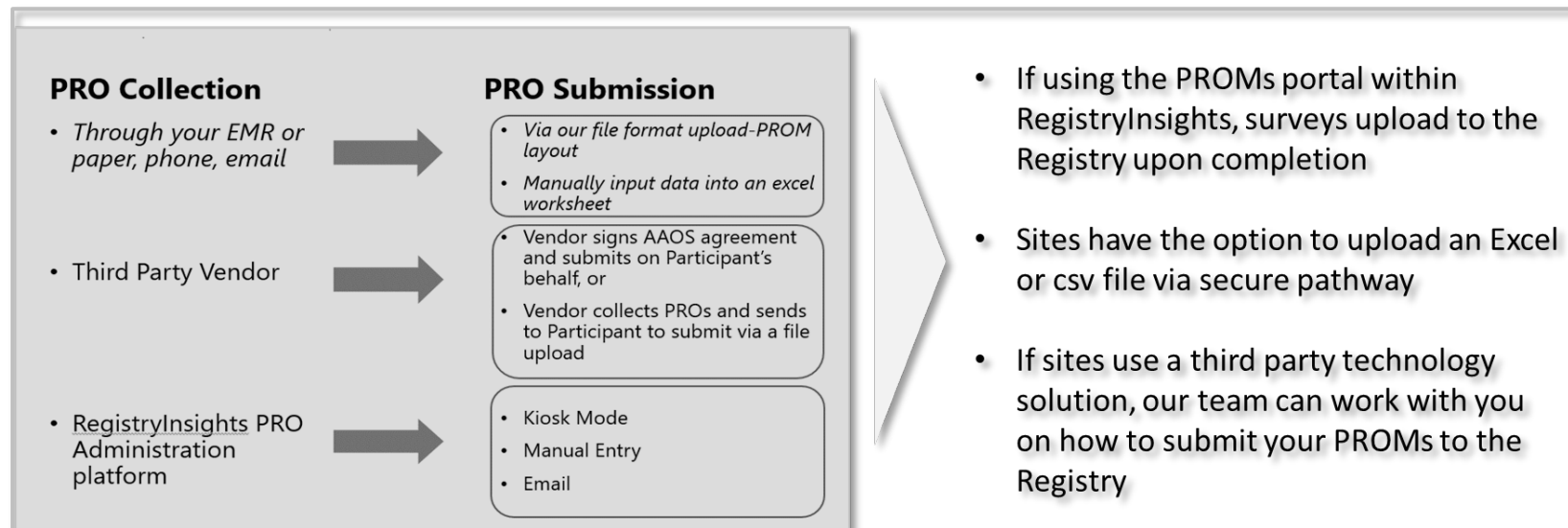
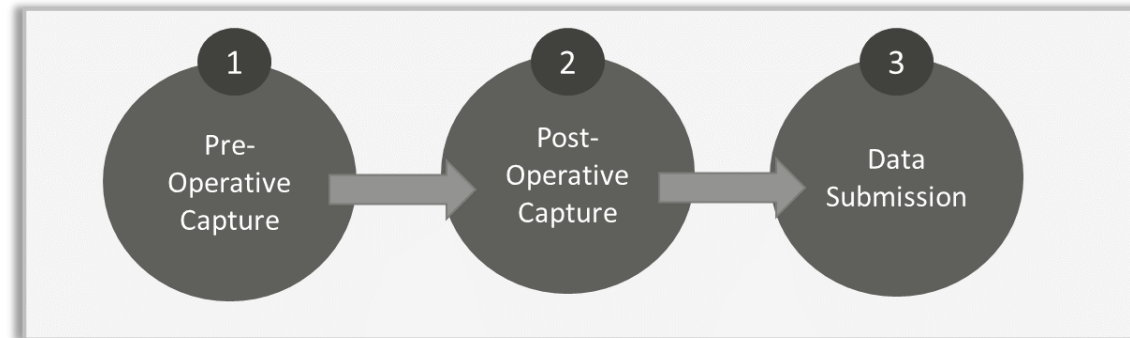
- Length of Stay
- American Society of Anesthesiologists Score
- Charlson Comorbidity Index (CCI)

Comorbidities & Complications

- Comorbidities (ICD-10)
- COVID-19 as prior diagnosis
- Height + Weight/Body Mass Index
- Length of Stay
- American Society of Anesthesiologists Score
- Charlson Comorbidity Index (CCI)
- Operative and Post-operative Complications

PROMs

Registry participants may submit data to the registry or utilize the registry portal to collect patient reported outcomes. The portal supports multiple workflow options for collection (i.e. computer, tablet device, paper methods).

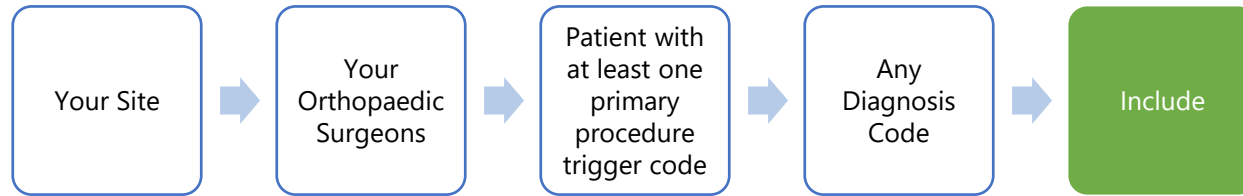


PROMs Intervals

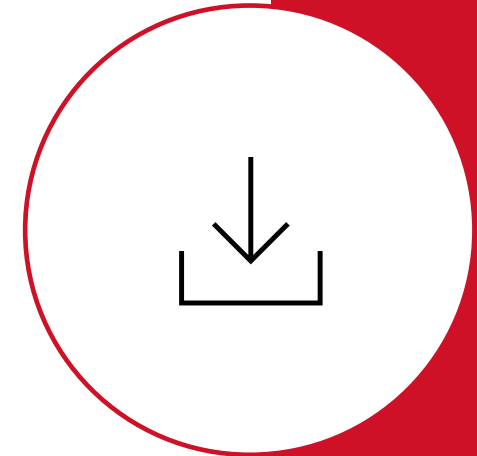
Collection Interval	Definition
Baseline/Pre-operative*	From 90 days before procedure to the date of procedure
90 days/3 months*	From 30 days after procedure to 150 days after procedure
6 months	From 150 days after procedure to 210 days after procedure
12 months	From 270 days after procedure to 425 days after procedure
Yearly	Every year after procedure, +/- 60 days after procedure anniversary

*TJC PROMs Metric Intervals

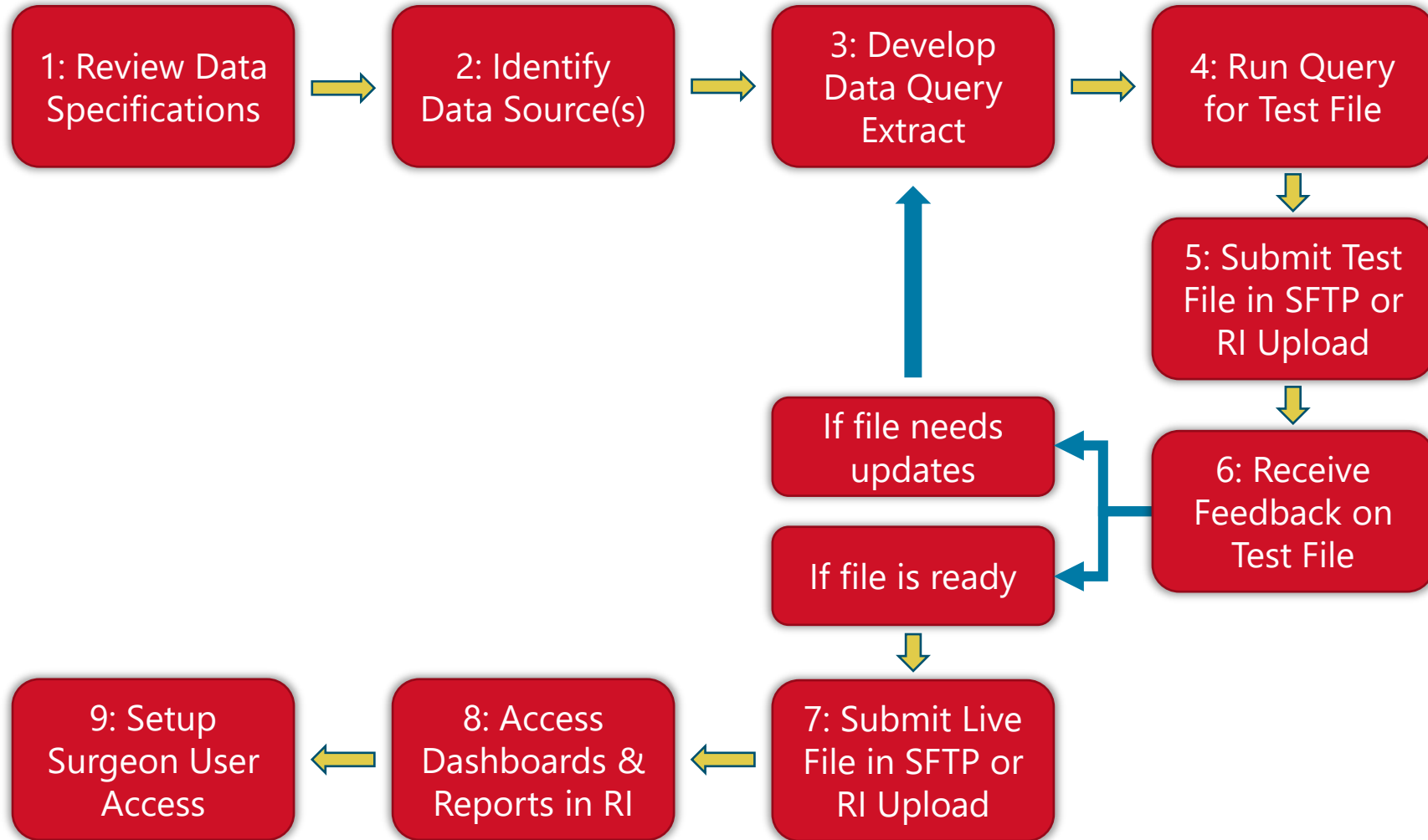
Data Submission



- Use Inclusion Criteria Guide to identify AJRR procedures
 - Additionally accepted coding listed in AJRR data specifications
 - Data fields defined further in the data dictionary, along with acceptable values, and data domain for each element (demographic, pre-op, procedural, component, etc.)
- Three ways to submit:
 - Automatic submission via SFTP
 - File drop via the RegistryInsights® platform (csv, xls)
 - Via a third-party vendor authorized to submit data to the registry on a site's behalf



Registry Data Submission Process



*Recently submitted files can always be reviewed for rejections or flags in RegistryInsights® (RI)

**Data should be submitted *at least quarterly* with best practice being *at least monthly*

TJC Advanced THKR Certification



- Advanced Total Hip and Knee Replacement (THKR) Certification
 - A minimum of 10 patients
 - Participate in AJRR
 - 3 components to certification:
 - Standards of clinical care delivery
 - Use of clinical practice guidelines
 - Performance measurement
 - 5 measures captured through data elements in procedure and PROMs submission

THKR Measures

Measure Name	Description	Numerator	Denominator
THKR-1 Regional Anesthesia	Patients with regional anesthesia attempted or performed including spinal and epidural blocks and peripheral nerve blocks	Patients undergoing and total hip or total knee replacement with regional anesthesia performed	Patients undergoing a total hip or total knee replacement
THKR-2 Postoperative Ambulation on the Day of Surgery	Patients who ambulated postoperatively the day of surgery or ambulated in the PACU or within 4 hours of discharge from the PACU	Patients undergoing total hip or total knee replacement who ambulated postoperatively the day of surgery or ambulated in the PACU or within 4 hours of discharge from the PACU	Patients undergoing a total hip or total knee replacement
THKR-3 Discharged to Home	Patients discharged to home following a total hip or knee replacement	Patients discharged to home following a total hip or knee replacement	Patients undergoing a total hip or total knee replacement
THKR-4 Preoperative and THKR-5 Postoperative Functional/Health Status Assessment	Percentage of patients submitted to AJRR who completed the general health (VR-12 or PROMIS-Global) and joint specific (HOOS Jr./subscales or KOOS Jr./subscales) functional status assessments: Within 90 days prior to surgery and 90 days postoperatively.		

AJRR Procedure Data Elements

Field Name	Required	Acceptable Data Values and Format
TJC_AnesthesiaType	Required for TJC Certification	1-7 (1=General; 2=Spinal; 3=Epidural; 4=Nerve Block: Lumbar Plexus/Psoas/etc. (hip); 5= Femoral/Sciatic/Adductor/etc. (knee); 6= Not reported or NR; 7= Monitored Anesthesia Care (MAC)); PLEASE NOTE: a comma separation may be used if there is more than one technique administered (e.g., "1, 4").
TJC_Rgnl_Ansth_Exemption	Required for TJC Certification	1-6 (1=Attempted and failed; 2=Not attempted; 3=Contraindicated; 4=Not indicated; 5=Unknown; 6=Not reported or NR)
TJC_Ambulation	Required for TJC Certification	1-5 (1=Yes, Ambulation Day of Surgery or 4 hours from PACU discharge; 2=No, Ambulation Day of Surgery or 4 hours from PACU discharge; 3=No, other medical factors preventing ambulation; 4=Unknown; 5=Not reported or NR)
TJC_DSCHDISPCODE	Required for TJC Certification	## or not reported or NR Any valid CMS Patient Discharge Status Code. Common codes used are: 01=Discharged to Home or Self Care (routine discharge); 02 =Discharged/Transferred to a Short-term General Hospital for Inpatient Care; 03=Discharged/Transferred to a Skilled Nursing Facility (SNF) with Medicare Certification in Anticipation of Skilled Care; 04=Discharged/Transferred to a Intermediate Care Facility (ICF); 05=Discharged/Transferred to a designated cancer center or children's hospital; 06=Discharged/Transferred to Home Care of Organized Home Health Service Organization; 07=Left against Medical Advice or Discontinued Care; 09=Admitted as an Inpatient to this Hospital (This code is for use only on Medicare outpatient claims, and it applies only to those Medicare outpatient services that begin greater than three days prior to an admission.); 20=Expired (This code is used only when the patient dies.); 90=Discharged/transferred to an inpatient rehabilitation facility (IRF) including rehabilitation distinct part units of a hospital with a planned acute care hospital inpatient readmission
TJC_Discharge_Exclusion	Required for TJC Certification	1=Yes, 2=No, 3=Unknown, 4=Not reported or NR
TJC_Admit_Source	Required for TJC Certification	1-5 (1=Home; 2=SNF and/or Other Healthcare Facilities; 3=Other; 4=Unknown; 5=Not reported or NR)

- Additional procedure data used to calculate measures:
 - Procedure & Diagnosis Codes
 - Patient Death Date
 - Procedure Date
 - PROMs Completion Date & Submitted Surveys
 - Admit and Discharge Dates

RegistryInsights Dashboard Metrics



Sign in with your existing account

Email Address

Password [Forgot your password?](#)

[Sign in](#)

Don't have an account? [Sign up now](#)

HOME SEARCH **DASHBOARD & REPORTS**

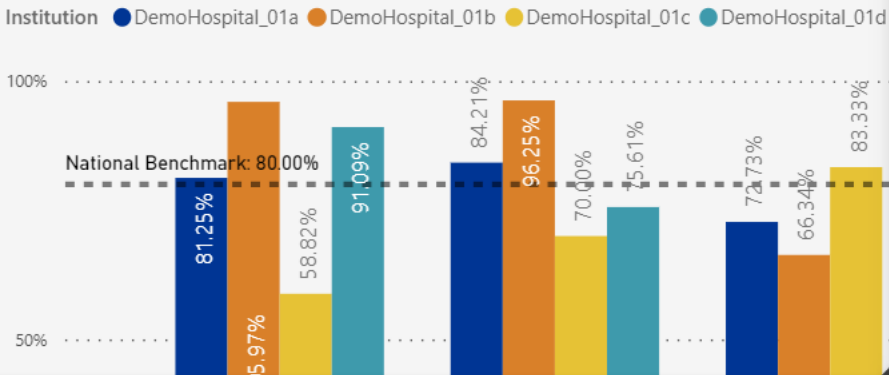
HOME MY TEST D **Institution Dashboard** Reports

- All Procedures
- Your Procedures
- All Post-Operative Data
- Your Post-Operative Data
- All PROMs
- Your PROMs
- Your Performance Measures**

Registry Insights Dashboard Metrics

Track Performance Rates in Measures Dashboard

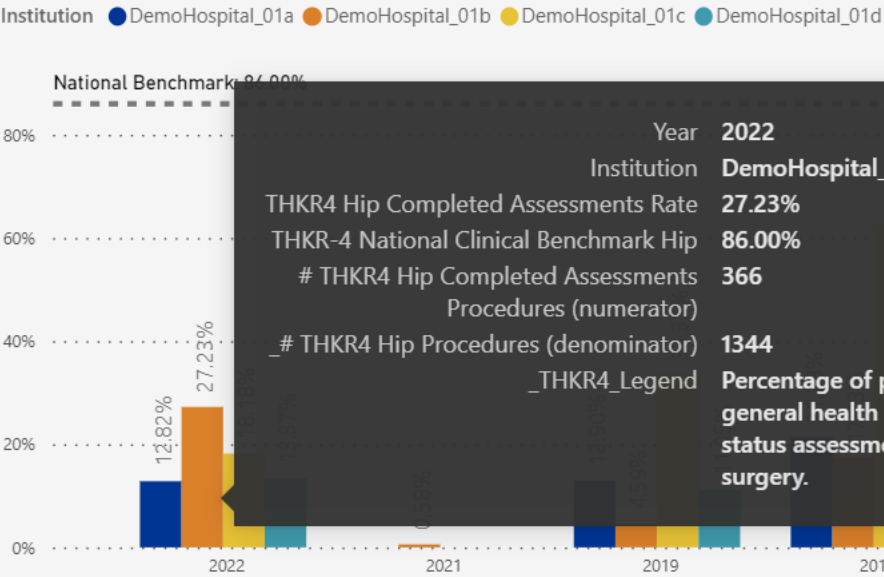
(1) THKR-1 Regional Anesthesia (Hip) ⓘ



(2) THKR-1 Regional Anesthesia (Knee) ⓘ

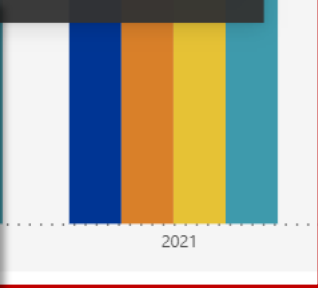
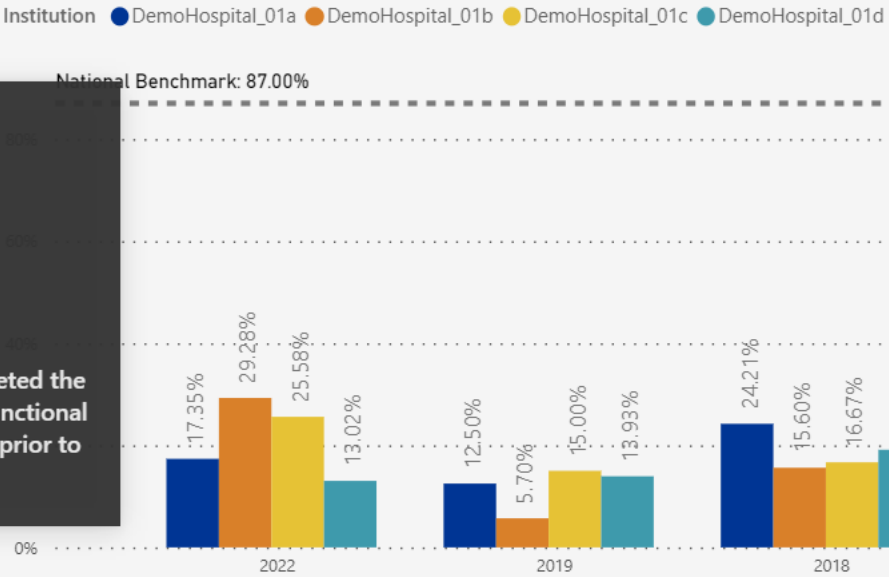
Year	2020
Institution	DemoHospital_01c
THKR1 Hip Regional Anesthesia Rate	83.33%
THKR-1 National Clinical Benchmark Hip	80.00%
# THKR1 Hip Regional Anesthesia Procedures (numerator)	5
# Hip Procedures (denominator)	6
_THKR_Legend	Patients undergoing a total hip or total knee replacement with regional anesthesia attempted or performed. Regional anesthesia includes neuraxial anesthesia (spinal and epidural blocks) as well as peripheral nerve blocks.

(7) THKR-4 Preoperative Functional/Health Status Assessment (Hip) ⓘ



Year	2022
Institution	DemoHospital_01b
THKR4 Hip Completed Assessments Rate	27.23%
THKR-4 National Clinical Benchmark Hip	86.00%
# THKR4 Hip Completed Assessments Procedures (numerator)	366
# THKR4 Hip Procedures (denominator)	1344
_THKR4_Legend	Percentage of patients who completed the general health and joint specific functional status assessments within 90 days prior to surgery.

(8) THKR-4 Preoperative Functional/Health Status Assessment (Knee) ⓘ



Dashboards | Performance Metrics

Post-Discharge Complications

Complication Rates for Infection, Mechanical Complication, Fracture, Loosening, and Instability

Linked Revisions & Readmissions by Complication Type

Performance Measures

Post-op Ambulation, Regional Anesthesia, Discharge to Home

Completion of 90-day pre- and post-op PROMs

SSI, Mortality, 90-day Readmission

Patient-Reported Outcome Measures (PROMs)

Tracking linked pre-op, 90-day post-op, and 1-year post-op PROMs

National Outcomes Comparison for Mean Scores and 1-year MCID

CJR/IQR THKR PRO-PM Extract with HOOS/KOOS & PROMIS-10/VR-12 Data



Advanced Total Hip and Knee Replacement Certification

American Joint Replacement Registry (AJRR)

Achieving and Maintaining the Advanced Total Hip and Knee
(THKR) Certification from The Joint Commission

Registry Participation Toolkit
Version 1.0; released May 2023

ABOUT THIS TOOLKIT

This toolkit provides details related to your registry participation for obtaining and maintaining your THKR certification. This guide includes information related to measure definitions, details to aid in the data submission process to appropriately calculate measures in the registry to inform quality improvement at your site, and frequently asked questions to support ongoing data submission to the registry.

New TJC Resources

- Registry Participant Quick Reference Guide
 - Measure descriptions and data elements for calculations
 - Dashboard & report (THKR) overview
- Registry Participation Toolkit
 - Measure & calculation details
 - Data submission guidance
 - Dashboard visual details & report information
 - [FAQs](#)
- [Registry TJC Web Page](#)
- TJC-Specific support line - **1-800-999-2939**

Registry Participation Quick Reference Guide

The Joint Commission Advanced THKR Certification Performance Measures

Measure	Description	Required Data Elements for Measure Calculation
THKR-1 Regional Anesthesia	Patients with regional anesthesia attempted or performed including spinal and epidural blocks and peripheral nerve blocks	<p>Numerator: TJC_AnesthesiaType = 2,3,4,5, TJC_Rgnl_Ansth_Exemption = 1, 3, 4</p> <p>Denominator: PatDOB, ProcedureDate, Procedure Codes (PX_1-PX_10), Diagnosis Codes (DX_1-DX_10), Admission Date (ADMSNDT), Discharge Date (DSCHRGDT)</p> <p>Exclusions: LOS >120 days, revisions, hemis, partials, complication of device/prosthesis, and malignant neoplasms based off coding (fracture is NOT an exclusion for THKR-1)</p>
THKR-2 Postoperative Ambulation of the Day of Surgery	Patients who ambulated postoperatively the day of surgery or ambulated in the PACU or within 4 hours of discharge from the PACU	<p>Numerator: ProcedureDate, TJC_Ambulation = 1</p> <p>Denominator: PatDOB, ProcedureDate, Procedure Codes (PX_1-PX_10), Diagnosis Codes (DX_1-DX_10), Admission Date (ADMSNDT), Discharge Date (DSCHRGDT)</p> <p>Exclusions: TJC_Ambulation = 3, Discharge Disposition Code (03 – D/C to SNV, 07 – Left AMA), PatDeathDate on or before DSCHRGDT, LOS >120 days, revisions, hemis, partials, complication of device/prosthesis, fractures (hip, pelvis, femur), and malignant neoplasms based off coding</p>
THKR-3 Discharged to Home	Patients discharged to home following a total hip or knee replacement	<p>Numerator: TJC_DSCHDISPCODE = 01 or 06</p> <p>Denominator: PatDOB, ProcedureDate, Procedure Codes (PX_1-PX_10), Diagnosis Codes (DX_1-DX_10), Admission Date (ADMSNDT), Discharge Date (DSCHRGDT)</p> <p>Exclusions: TJC_Admit_Source = 2, TJC_Discharge_Exclusion = 1, Disposition Code (03 – D/C to SNV, 07 – Left AMA), PatDeathDate on or before DSCHRGDT, LOS >120 days, revisions, hemis, partials, complication of device/prosthesis, fractures (hip, pelvis, femur), and malignant neoplasms based off coding</p>

Continue to next page

Resources

Registry Participation Quick Reference Guide

The screenshot shows a data table with the following columns: AnesthesiaType, Rgnl_Ansth_Exemption, Ambulation, DSCHDISPCODE, Admit Source, Discharge Exclusion, Encounter/Mortality, and Revision/Removal/Partial. The table contains multiple rows of data, with some cells containing values like 1, 3, 4, 5, 01, 06, 03, 02, 01, 07, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

► Gain additional insight on cases not meeting the metric and identify excluded cases removed from the denominator by reviewing submitted Joint Commission data fields and exclusion criteria met. The below legend provides the data element responses indicating a measure exclusion. Cases that are excluded from the denominator will also have a blank in the procedure site column. Additional data element and measure calculation details can be found in the previous tables in this guide and in the Registry Participant Toolkit.

The Joint Commission Data Element Denominator Exclusion Legend

Measure	AJRR Data Element	Submitted Value
THKR-2	TJC_Ambulation	3 – site documented other medical factors preventing ambulation
THKR-2 & THKR-3	TJC_DSCHDISPCODE	03 – Discharged to SNF or 07 – Left AMA
THKR-3	TJC_Admit_Source	2 – Admitted from SNF and/or other healthcare facilities
THKR-3	TJC_Discharge_Exclusion	1 – Yes, there is a documented medical or social reason patient was not discharged to home

Additional denominator exclusions are identified via ICD-10 diagnosis coding (fractures*, malignant neoplasms), CPT or ICD-10 procedure coding (hemis, revisions, complications), length of stay, and patient death date where applicable. These exclusions are indicated with a "1" in the last 4 columns of the report.

*Fracture is not an exclusion for THKR-1

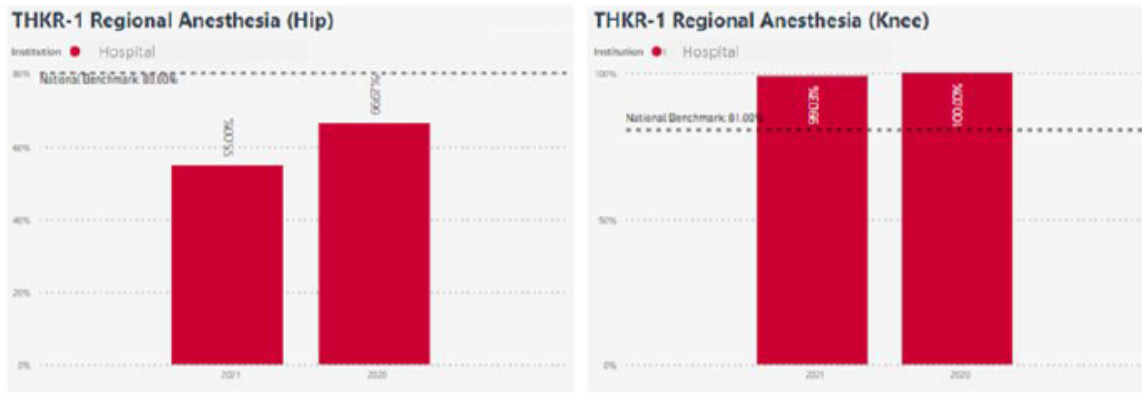
Call 1-800-999-2939 with any questions related to The Joint Commission Advanced THKR Certification

3.3 Viewing THKR Performance Measures

The 5 THKR measures are separately displayed for hip and knee cases. An encounter date filter at the top of the dashboard allows sites to set the procedure date range to view monthly data. Hovering over any column within a tile will display the measure numerator, denominator, and performance rate for the selected time frame.

The National benchmark across all the measure tiles is a historical benchmark provided by TJC. As THKR measure data submitted to the registry grows, we will seek to establish a national registry benchmark.

The Joint Commission Advanced Certification for Total Hip and Knee Replacement (THKR) Measures



THKR-1 displays the performance rate for patients undergoing a total hip or total knee replacement with regional anesthesia attempted or performed. Regional anesthesia includes neuraxial anesthesia (spinal and epidural blocks) as well as peripheral nerve blocks. The measure is calculated from the specific TJC Anesthesia Type data element field responses and procedure and diagnosis codes indicating exclusions outlined in sections 1.1 and 1.2. The denominator is often higher than the other THKR measures as fracture cases are **not** excluded for this measure.

Resources

PROMs Matching

Once the patient is matched, the next step is to link PROMs to the index procedure. The table below lists the fields that are used to match PROMs data. If the data in these fields are not consistent in the record submitted, the PROMs case will not be linked to the index procedure.

PROMs Matching	
AJRR	<ul style="list-style-type: none">• Joint• DXLat• ProcedureDate

Section 2: Extracting Data from EHR Systems

This section is intended to help guide staff running a query and building a report to extract data from an EHR. For successful data submission to the registry, extraction from your clinical systems is necessary for consistent data submission which is an essential step in achieving and maintaining the THKR Advanced Certification. The data elements that are specific to THKR are extracted in the same manner as the standard data elements defined in the registry data specification. The steps below provide a general overview for developing data extracts from EMR systems.

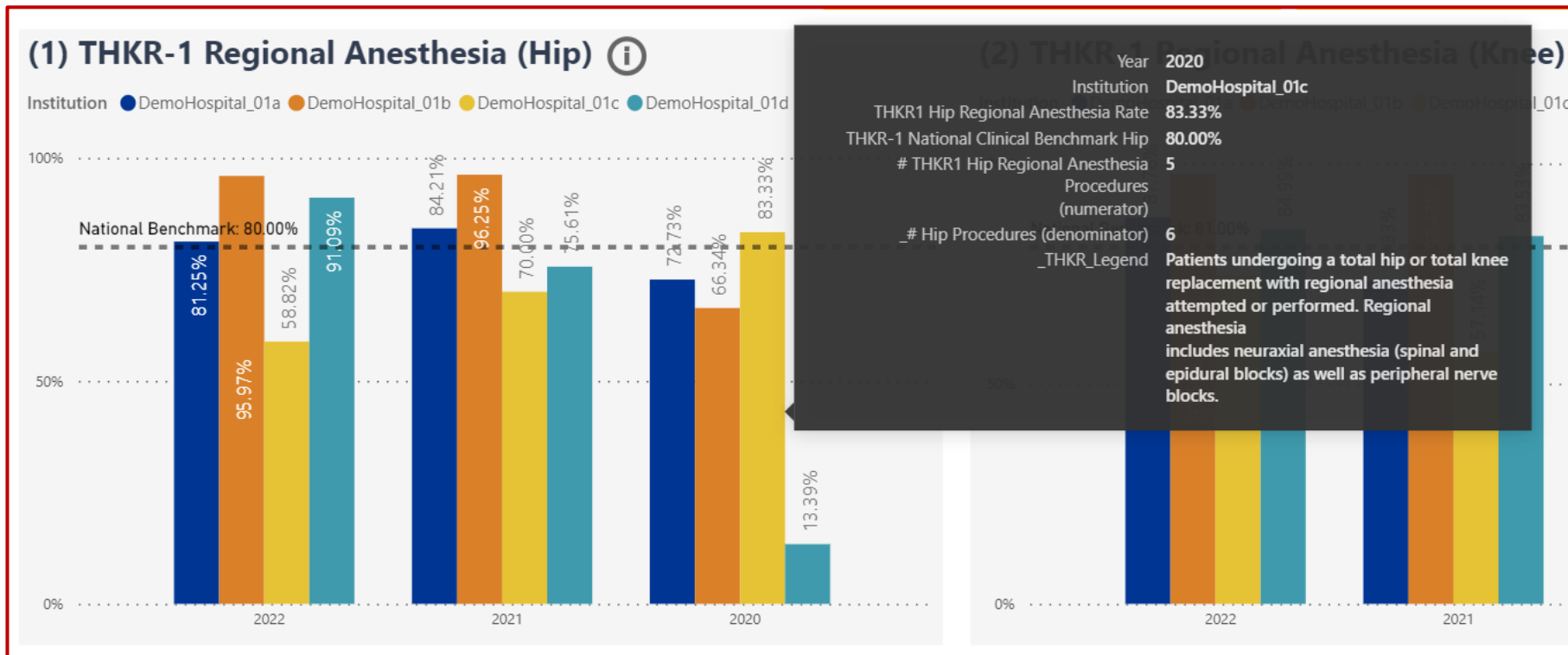
TJC Use Cases

Participant Concern:

Regional Anesthesia/THKR-1 denominator is off and is including non-elective cases

Reference:

- THKR Quick Guide Measure Table for denominator and exclusion data points
- Toolkit section 1.1



TJC Use Cases

Participant Concern:

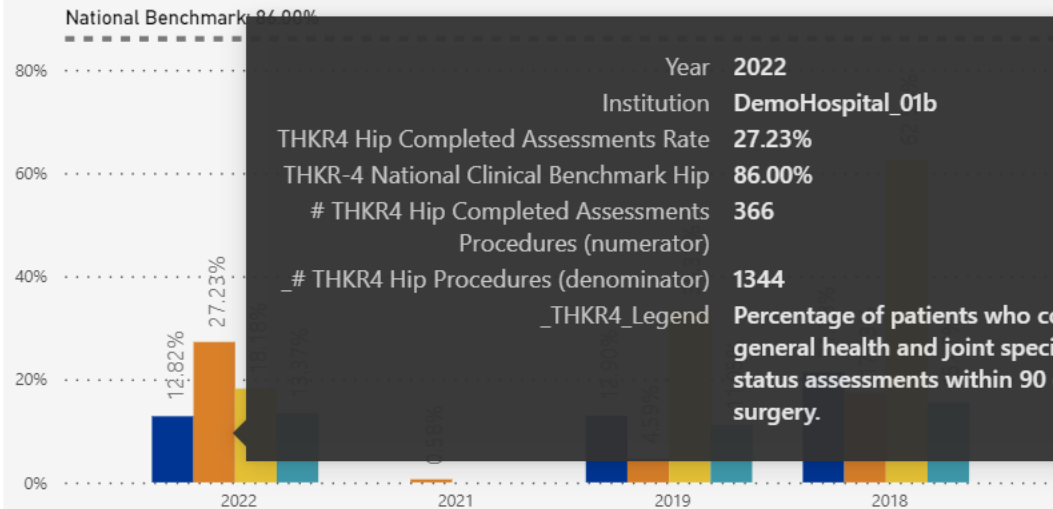
PROMs competition rate is too low for pre- and/or post-op PROMs measures (THKR-4 & THKR-5)

Reference:

- Toolkit sections 1.1 (measure table) and 1.4 (PROMs matching criteria)
- THKR Quick Guide Measure Table for measure numerator data requirements

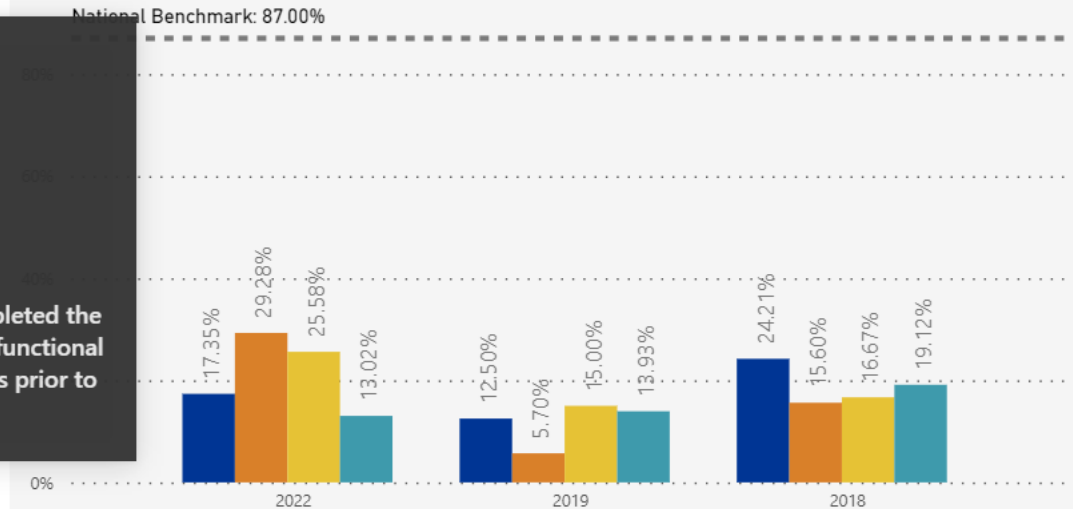
(7) THKR-4 Preoperative Functional/Health Status Assessment (Hip) ⓘ

Institution ● DemoHospital_01a ● DemoHospital_01b ● DemoHospital_01c ● DemoHospital_01d

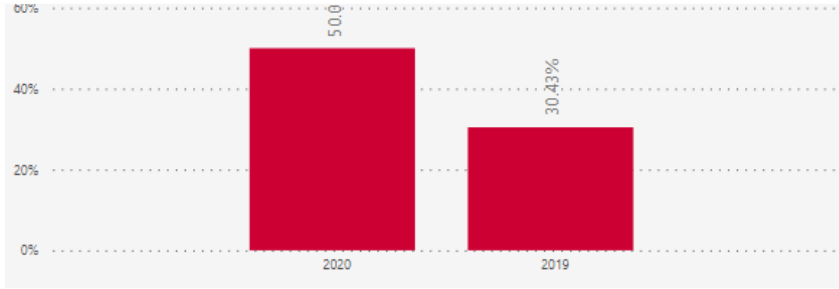


(8) THKR-4 Preoperative Functional/Health Status Assessment (Knee) ⓘ

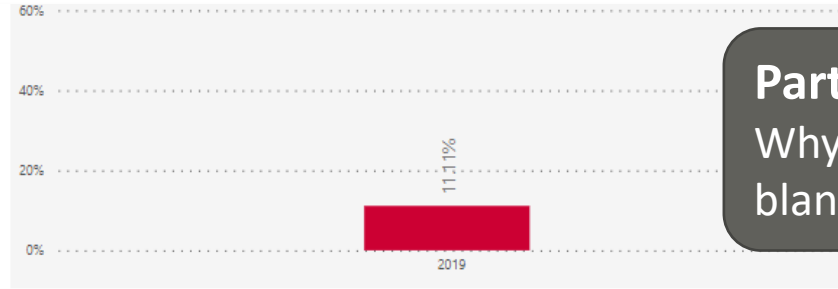
Institution ● DemoHospital_01a ● DemoHospital_01b ● DemoHospital_01c ● DemoHospital_01d



TJC Use Cases



(9) THKR-5 Postoperative Functional/Health Status Assessment (Hip) ⓘ



(10) THKR-5 Postoperative Functional/Health Status Assessment (Knee) ⓘ

Participant Concern:

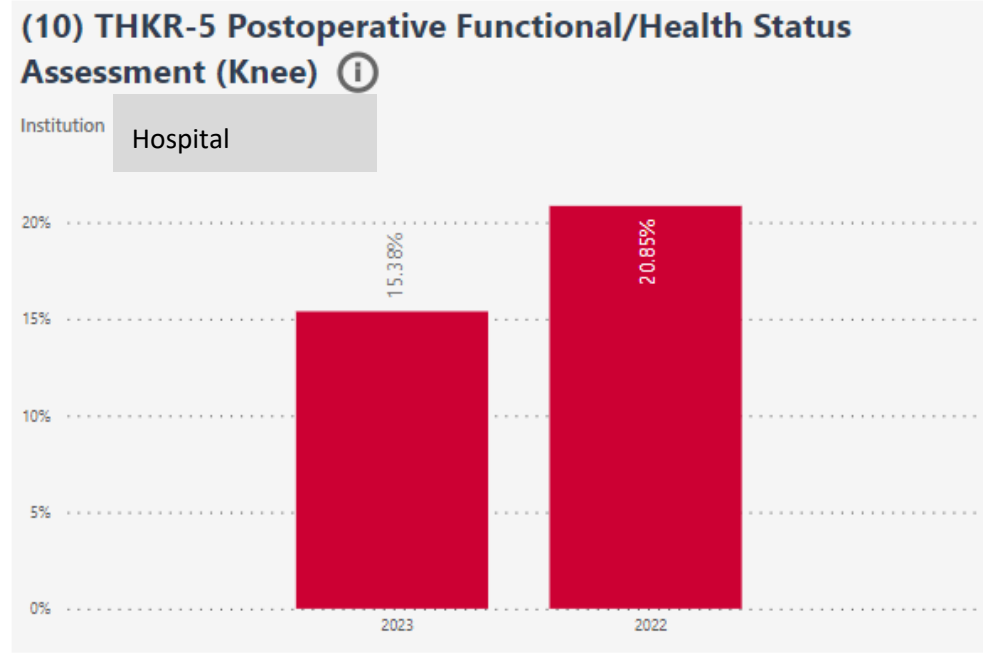
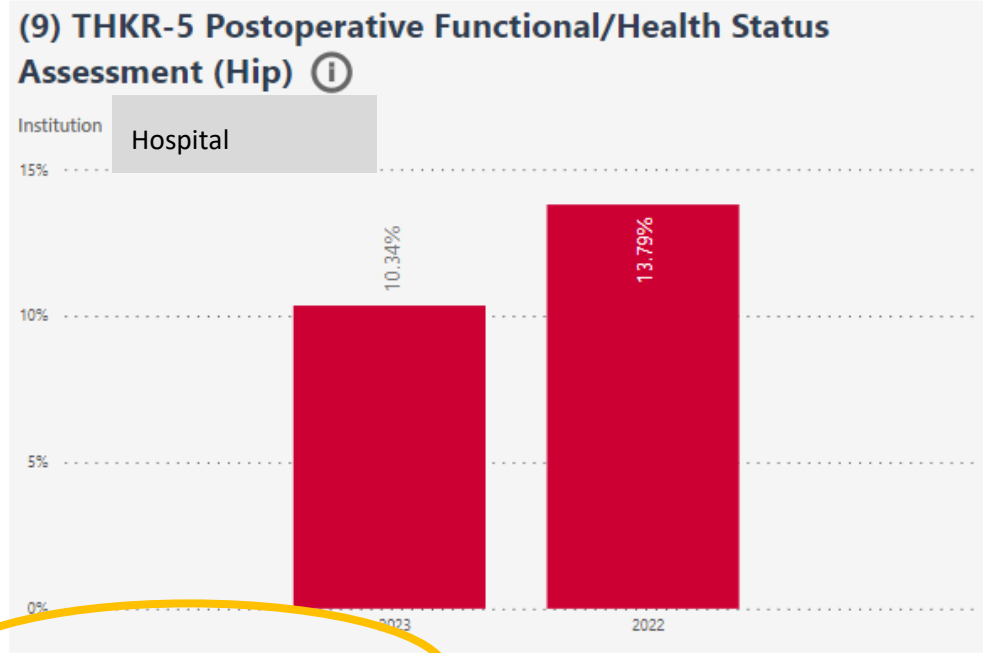
Why are my performance measure tiles blank?

THKR Reference:

- Toolkit sections 1.2 & 1.3 highlighting TJC-specific fields for submission
- Section 1.4 - PROMs matching criteria
- Section 3.3 – performance measure visual descriptions
- Step by step data validation in FAQs

THKR Dashboard Report

Participant Concern:
Who is falling into this metric?
Inpatient vs outpatient metrics?



[TJC Data Detail Report](#)

Modified 109 Measure

- All Procedures
- Your Procedures
- All Post-Operative Data
- Your Post-Operative Data
- All PROMs
- Your PROMs
- Your Performance Measures

THKR Dashboard Report

Setting of Care: THKR1 THKR2 THKR3 THKR4 THKR5 Year Month

ProcedureSite: All

TJC View

Setting of Care	THKR1	THKR2	THKR3	THKR4	THKR5	PromisPreOp Completed	PromisPostOp Cor	P Completed	VR12PostOP Completed	HoosKoosPreOp Completed	Hoo
Inpatient	0	0	0	0	0						
Inpatient	0	0	1	0	0						
Outpatient	0	1	1	0	0				0		
Outpatient	1	0	1	0	0						
Outpatient	1	1	1	0	0		0			0	
Outpatient	0	0	1	0	0		0			0	
Outpatient	0	1	1	0	0		0			0	
Inpatient	0	0	1	0	0						
Outpatient	0	1	1	0	0		0			0	
Outpatient	0	1	0	0	0		0			0	
Outpatient	1	1	1	0	0		0			0	
Outpatient	0	1	1	0	0		0			0	
Outpatient	0	1	1	0	0		0			0	
Outpatient	0	1	1	0	0		0			0	
Outpatient	0	1	1	0	0		0			0	
Outpatient	1	1	1	0	0		0			0	
Outpatient	0	1	1	0	0						
Outpatient	0	1	1	0	0						
Inpatient	0	0	0	0	0						
Outpatient	0	1	1	0	0		0			0	
Outpatient	1	1	1	0	0		0			0	
Outpatient	1	1	1	0	0		0			0	

All Procedures | Your Procedures | All Post-Operative Data | Your Post-Operative Data | All PROMs | Your PROMs | Your Performance Measures

THKR Dashboard Report

Setting of Care: All | THKR1: All | THKR2: All | THKR3: All | THKR4: All | THKR5: All | Year: All | Month: All

ProcedureSite: All

TJC View

osisLaterality	TJC_AnesthesiaType	TJC_Rgnl_Ansth_Exemption	TJC_Ambulation	TJC_DSCHDISPCODE	TJC_Admit_Source	TJC_Discharge_Exclusion	EncounterMortality	Revision-Removal-Partial
:	1	6	5	02		4	0	0
:	6	6	5	01		4	0	1
:	6	6	1	01		4	0	0
:	1,5	6	5	01		4	0	0
:	1,5	6	1	01		4	0	0
:	6	6	5	01		4	0	0
:	6	6	1	01		4	0	0
:	6	6	5	06		4	0	1
:	6	6	1	01		4	0	0
:	6	6	1	03		4	0	0
:	1,5	6	1	01		4	0	0
:	6	6	1	01		4	0	0
:	6	6	1	01		4	0	0
:	1	6	1	01		4	0	0
:	1,4	6	1	01		4	0	0
:	6	6	1	01		4	0	1
:	6	6	1	01		4	0	1
:	6	6	5	20		4	1	0
:	6	6	1	01		4	0	0
:	1,5	6	1	01		4	0	0
:	1,5	6	1	01		4	0	0

Navigation: All Procedures | Your Procedures | All Post-Operative Data | Your Post-Operative Data | All PROMs | Your PROMs | Your Performance Measures

There is a legend in the toolkit - section 3.4 - that provides the response numbers indicating measure exclusions

TJC | AJRR Future State

Additional Projects for TJC Site Support

Code Type dashboard filter for
IP/OP separation

Exportable reports for internal
analysis

User group sessions

Improving orthopaedic
care through **data.**

Questions?

RegistryInfo@aaos.org

www.aaos.org/registries