



U.S. Department of Health and Human Services



Agency for Healthcare Research and Quality

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AHRQ Quality Indicators Software: Transition to ICD-10

July 19, 2016



Announcements

- This webinar will be recorded and available on the AHRQ QI website - <http://www.qualityindicators.ahrq.gov/>.
- Due to the large number of attendees, all participant lines will remain in listen-only mode.
- You may submit webinar questions via the ***question feature*** at any time; however, questions will be answered only during the Q&A sessions. Your questions will only be visible to the moderators.
- If multiple people from your organization are dialing in from the same location, please use only one line.
- For **technical difficulties**, please contact **Erin Johnson** at ejohnson@air.org.



Objectives

- Inform users about **changes to AHRQ QI software** due to the ICD-10 transition
- Highlight **enhancements to select AHRQ Quality Indicators (QIs)**
- Discuss **improvements to the V6.0 ICD-10 software** (SAS and WinQI)
- Direct users to **AHRQ QI resources**



Today's Moderator

- Diane Stollenwerk, MPP, President, Stollenwerks, Inc.
 - ▶ Member of the AHRQ QI Support Contract Team, led by Pantheon Software



Today's Speakers

- Pam Owens, Scientific Lead, AHRQ Quality Indicators Program, Agency for Healthcare Research and Quality
- Vivek Kumar, Senior Project Manager, Pantheon, and member of AHRQ QI Team



Agenda

1. Changes to the AHRQ QI software related to the ICD-10 transition
2. Enhancements to select indicators
3. Improvements to the V6.0 ICD-10 software
4. Resources to support AHRQ QI users



V6.0 Software Release Details

SAS

July 2016

- **Now available** : ICD-10 software
- Separate software package to download for each module

WinQI

July 2016

- **Now available:** ICD-10 software
- Download a single ICD-10 installer package for all four modules

Continuing through the remainder of 2016, v6.0 SAS and WinQI ICD-9-CM compatible software for each of the AHRQ QI modules will be released incrementally. Future announcements will provide additional detail about these ICD-9 releases.

Software available at:

<http://www.qualityindicators.ahrq.gov/Software/Default.aspx>



CHANGES TO AHRQ QI SOFTWARE RELATED TO THE ICD-10 TRANSITION



Overview: Conversion to ICD-10

	ICD-9-CM	ICD-10-CM/PCS
Diagnosis		
Number of codes	~ 14,000	~ 68,000
Structure	3-5 characters	<ul style="list-style-type: none">• 3-7 characters• Includes laterality• Combines diagnosis & symptoms• Diagnosis & procedure not linked
Procedures		
Number of codes	~ 4,000 codes	~73,000 codes
Structure	3-4 characters	<ul style="list-style-type: none">• Differentiates body part, procedure type, surgical approaches and device used• Does not specify indication for procedure• May require multiple codes to capture what surgeon considers a single procedure

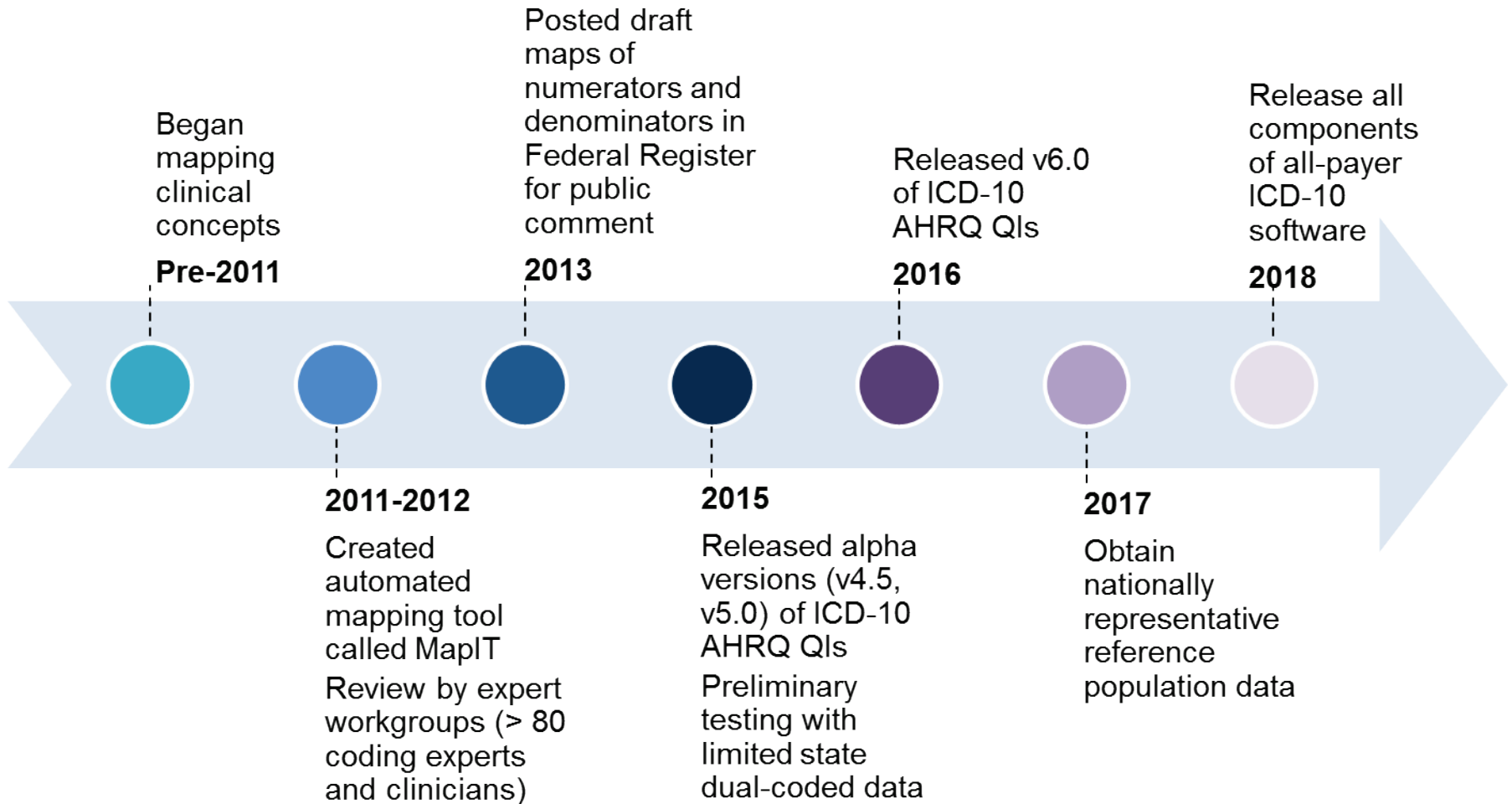


Overview: Conversion to ICD-10 (cont.)

- Complexity of conversion
- CMS General Equivalence Mapping (GEM) files as starting point
- Increased specificity allows “enhanced” specifications to clinical concept of AHRQ QIs
- Coordination critical
 - ▶ ICD-10 Coordination and Maintenance Committee
 - ▶ CMS and the MS-DRG classification system including list of operating room procedures
 - ▶ AHRQ and the HCUP classification software (Elixhauser Comorbidity Software, Clinical Classification Software)



Timeline: Conversion to ICD-10





Risk Adjustment and ICD-10

- No risk adjustment or smoothing in ICD-10 v6.0 software
- Reference population data required
 - ▶ 1 full year of nationally representative ICD-10 data is needed for a reference population
 - ▶ Used to calculate indirectly standardized risk-adjusted rates
 - ▶ Used to calculate smoothed rates
 - ▶ Anticipate a full-year of all-payer ICD-10 data in mid-2017
- Expect risk adjustment in ICD-10 software packages in 2018
- AHRQ does NOT recommend deriving risk-adjusted estimates by applying ICD-9 parameter estimates



Risk Adjustment and ICD-10: Impact on AHRQ QI Software

- Only observed rates reported
- Can track *within* hospital performance over time
 - ▶ *Note: Rates based on ICD-10 coding may be different than rates based on ICD-9.*
- Use caution in comparing observed rates across hospitals
- Area-level PQI and PDI composites are included



Risk Adjustment and ICD-10: Impact on AHRQ QI Software (cont.)

- No provider-level composite indicators based on risk- and reliability-adjusted component indicator ratios in ICD-10 software
 - ▶ IQI 90 (Mortality for Selected Procedures)
 - ▶ IQI 91 (Mortality for Selected Conditions)
 - ▶ PSI 90 (Patient Safety and Adverse Events Composite)
 - ▶ PDI 19 (Pediatric Patient Safety for Selected Indicators) are not in ICD-10 v6.0 software
- Further information about forthcoming updated ICD-9 PSI 90 composite (Patient Safety and Adverse Events Composite):
http://www.qualityindicators.ahrq.gov/News/PSI90_Factsheet_FAQ.pdf



ENHANCEMENTS TO SELECT INDICATORS



Version 6.0 Updates

- Updates across software packages
 - ▶ Removed option to omit present-on-admission (POA)
 - ▶ Operating room procedure list (MS-DRG Appendix E) updated
 - PSI 02, PSI 04, PSI 08 - PSI 13, NQI 03, PDI 02, PDI 08 - PDI 10
 - ▶ Definition of delivery now uses ICD-10 codes instead of surgical MS-DRG codes
 - IQI 21, IQI 22, IQI 33, IQI 34, PSI 18, PSI 19



Version 6.0 Updates (cont.)

- Refinements based on clinical concept (examples):
 - ▶ PSI 03 Pressure Ulcer Rate
 - ▶ PSI 08 In-Hospital Fall with Hip Fracture Rate
 - ▶ PSI 10 Postoperative Acute Kidney Injury Requiring Dialysis Rate
 - ▶ PSI 12 Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate
 - ▶ PSI 15 Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate
- New composite indicator
 - ▶ PQI 93 (Prevention Quality Diabetes Composite)



PSI 03 (Pressure Ulcer Rate) Refined

- **Change:** Removed exclusion of MDC 09 and added focused exclusion for major skin disorders that are associated with higher risk of pressure injuries to the denominator.
- **Rationale:** Some skin disorders put patients at greater risk for skin breakdown.



PSI 08 (In-Hospital Fall with Hip Fracture Rate) Refined

- **Change:** Added medical MS-DRGs to denominator.
- **Rationale:** Clinical concept applies equally to surgical and medical patients; consistent POA coding.



PSI 10 (Postoperative Acute Kidney Injury Requiring Dialysis) Refined

- **Change:** Removed cases with principal diagnosis of urinary tract obstruction and cases with dialysis access before or on the same day as the first operating room procedure from the denominator. Dropped cardiac arrhythmia diagnosis codes from the denominator.
- **Rationale:** Increase validity of the indicator; cardiac exclusions no longer necessary with consistent POA coding in ICD-10.



PSI 12 (Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate) Refined

- **Change:** Removed cases with acute brain and/or spinal injury from the denominator specification. Removed cases with isolated calf vein DVT from the numerator specification.
- **Rationale:** DVT/PE in patients with acute brain and/or spinal injury may be less preventable because of safety concerns with pharmacological prophylaxis in hyper-acute period; DVT is isolated calf vein not as clinically meaningful.



PSI 15 (Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate) Refined

- **Change:** Limited the denominator to abdominal & pelvic surgery. Limited the numerator to accidental punctures or lacerations that require a return to the operating room at least one day after the index procedure.
- **Rationale:** Focus on the most serious intraoperative injuries caused by an accidental puncture or laceration. Patients undergoing abdominopelvic procedures are at risk for re-operations.



PQI 93 (Prevention Quality Diabetes Composite) – *NEW*

- **Description:** Creates a composite of 4 component diabetes-related indicators including:
 - ▶ PQI 01 (Diabetes Short-Term Complications Admission Rate)
 - ▶ PQI 03 (Diabetes Long-Term Complications Admission Rate)
 - ▶ PQI 14 (Uncontrolled Diabetes Admission Rate)
 - ▶ PQI 16 (Lower-Extremity Amputation among Patients with Diabetes Rate)
- **Rationale:** Combining components increases the reliability of estimates in counties with small populations.

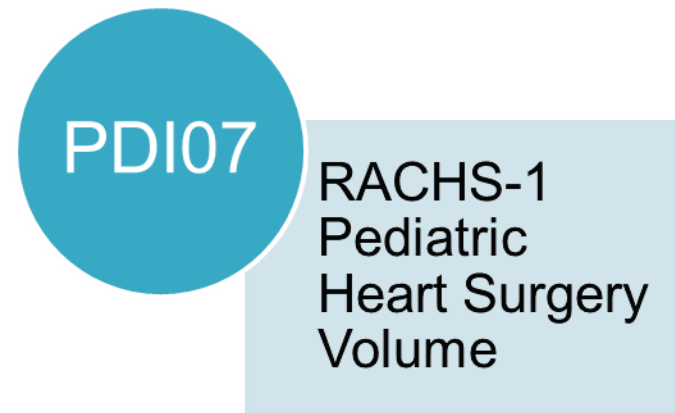
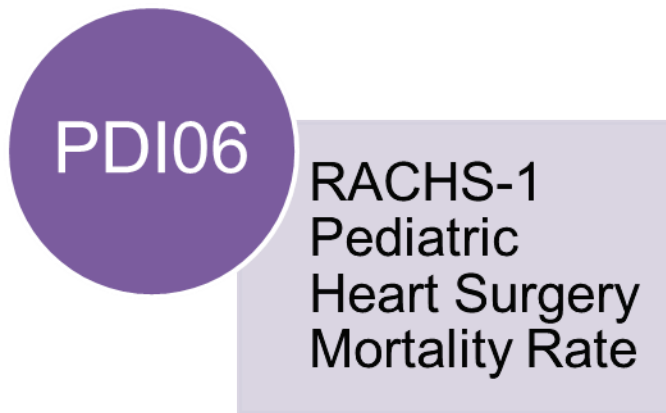


Version 6.0 Updates

- Omit estimates that continue to undergo changes:
 - ▶ PDI 06 (RACHS-1 Pediatric Heart Surgery Mortality Rate)
 - ▶ PDI 07 (RACHS-1 Pediatric Heart Surgery Volume)
 - ▶ Population prevalence estimates for diabetes
 - ▶ Risk-adjusted rates and smoothed rates
 - ▶ Provider-level composites (IQI 90, IQI 91, PSI 90, PDI 19)
- Removal of indicators
 - ▶ PQI 13 (Angina without Procedure Admission Rate)
 - ▶ Removal of codes related to archived indicators (e.g., complications of anesthesia)

PDI 06 & PDI 07 Not Available

- **Change:** Indicators are omitted and will be revisited in future
- **Rationale:** Necessary ICD-10 diagnosis and procedure codes to calculate these indicators not available; under consideration
- **Impact:** PDI 06 and PDI 07 cannot currently be calculated using ICD-10 data





PQI 13 (Angina without Procedure Admission Rate) Retired

- **Change:** PQI13 is retired
- **Rationale:** New evidence has raised concerns about its utility
 - ▶ Changes in coding practices related to angina
 - ▶ Shift in where care is provided
 - ▶ May incentivize unnecessary procedures
- **Impact:** PQI 13 is not available in v6.0 software; AHRQ does NOT recommend using it going forward
 - ▶ PQI 13 removed from PQI composites (PQI 90, PQI 92)
 - ▶ More information:
http://www.qualityindicators.ahrq.gov/News/PQI13_Retirement_Announcement.pdf



IMPROVEMENTS TO V6.0 ICD-10 SOFTWARE



SAS V6.0 ICD-10 Software Improvements

- Organized application files into separate folders for Programs, Macros and SASData output
- Revised program and file names for improved usability, for example:
 - ▶ CONTROL_ALL_IQI.SAS changed to IQI_ALL_CONTROL.SAS
 - ▶ IQFMTS.SAS changed to IQI_ALL_FORMATS.SAS
 - ▶ IQSAS1.SAS changed to IQI_ALL_MEASURES.SAS
 - ▶ IQIA2.sas changed to IQI_AREA_OBSERVED.SAS
 - ▶ IQIP2.sas changed to IQI_PROV_OBSERVED.SAS
- Support no longer included for input files missing Present on Admission (POA) data



WinQI V6.0 ICD-10 Software Improvements

- **Redesigned user interface**
 - ▶ Dashboard of key functions and horizontal progress bar
 - ▶ Advanced Online Help
- **Improved data loading and error checking**
 - ▶ Data import and indicator calculations now performed separately, allowing users to **upload and save data files for running at a later time**
 - ▶ **Re-designed data mapping and crosswalk** process to streamline data import and error checking process
 - ▶ **Export a cleaned, mapped file for future use.** Users can jump to indicator calculations next time they use the software with that file
 - ▶ **Enhanced error reporting** to help troubleshoot input data issues



WinQI V6.0 ICD-10 Software Improvements (cont.)

- **Faster calculations** for users focusing on just one or two modules
 - ▶ Users can **select which modules to run**; no longer calculate all indicators every time
 - ▶ **Decreased run times** for users focusing on just one or two modules
 - ▶ Overall performance improvements around indicator generation process
- **User interface (UI) to generate automation scripts**



WinQI V6.0 ICD-10 Software Improvements (cont.)

- Running reports
 - ▶ **Quick report** gives overview of data loaded, which modules reported, and what errors triggered
 - ▶ The quick report also displays indicator numerators, so users running daily or weekly calculations can **see what new numerator events happened since the previous run**
 - ▶ Click on numerator in any report to **see which patients contribute to the numerator.**

Learn more about the new features in our tutorial videos:

WinQI: <https://youtu.be/-INnrq5IW2I>

SAS: <https://youtu.be/KIG5u-t81CY>



AHRQ QI RESOURCES



QI Resources

- AHRQ QI technical assistance
 - ▶ http://www.qualityindicators.ahrq.gov/FAQs_Support/
 - ▶ QIsupport@ahrq.hhs.gov
- AHRQ QI ICD-10 software and documentation
 - ▶ <http://www.qualityindicators.ahrq.gov/Software/Default.aspx>



Updated AHRQ QI Toolkit for Hospitals

- **New and enhanced version of QI Toolkit:**
<http://www.ahrq.gov/professionals/systems/hospital/qitoolkit/index.html>
- **Customizable resources within the toolkit include:**
 - ▶ Documentation and coding practices
 - ▶ Measure prioritization worksheet
 - ▶ Clinical best practices for 25 of the AHRQ QIs
 - ▶ Guide for calculating return on investment (ROI)
 - ▶ Slide presentation templates for different audiences
 - ▶ QI Toolkit implementation and impact case studies



Upcoming Webinar: “Toolkit for Using the AHRQ QIs: A ‘How to’ Guide for Improving Hospital Quality and Safety”

- **Register now – space is limited**

- ▶ Monday, August 1, 1:00-2:30 pm ET

- <https://qitoolkit.adobeconnect.com/aug1/event/registration.html>

- ▶ Tuesday, August 30, 1:00-2:30 pm ET

- <https://qitoolkit.adobeconnect.com/aug30/event/registration.html>

(Multiple dates offered for convenience; content will be the same)

The webinar will review the new and enhanced version of the QI Toolkit and its inventory of customizable resources



Q&A/DISCUSSION



Thank You

Thank you to our speakers and participants!

General Questions and Comments:

AHRQ QI Support Team

QIsupport@ahrq.hhs.gov

AHRQ QI Website

<http://www.qualityindicators.ahrq.gov/>