



Frequently Asked Questions (FAQs) on the Emergency Department Prevention Quality Indicators (ED PQI) ^{Beta} Software, v2023

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Emergency Department Prevention Quality Indicators (ED PQI) ^{Beta} Software v2023 Product Information

1. What is the purpose of Emergency Department Prevention Quality Indicators (PQEs)?

PQEs provide insight into health system performance and population health by measuring the frequency of emergency department (ED) visits for conditions that could be managed outside the hospital by high-quality, community-based care. These indicators capture an important dimension of health care apart from the inpatient area-level quality indicators (QIs) by including care that begins in the ED but does not necessarily result in an inpatient stay. The indicators measure variation in conditions, such as pediatric asthma exacerbations, which are more often treated in the ED than in an inpatient setting and may reflect the experience of the uninsured better than inpatient indicators. PQEs are intended to identify targets for public health services improvement, to help identify disparities or gaps in care, and to indicate the potential impact of interventions aimed at improved health system functioning. The indicators are not intended to evaluate the appropriateness of individual ED visits or to restrict access to emergency care.

2. What Indicators are included in PQE software?

PQE indicators are geographic area-level rates of emergency department visits that could be prevented by high quality health care. They consist of five measures:

- PQE 01 Visits for Non-Traumatic Dental Conditions
- PQE 02 Visits for Chronic Ambulatory Care Sensitive Conditions
- PQE 03 Visits for Acute Ambulatory Care Sensitive Conditions
- PQE 04 Visits for Asthma
- PQE 05 Visits for Back Pain

3. What year of data do the SAS QI and WinQI v2023 ED PQI ^{Beta} Software support?

The v2023 software supports Fiscal Year (FY) 2023 (October 2022 to September 2023) data. The software is backward compatible, meaning that it supports visits classified under International Classification of Diseases, 10th Revision, Clinical Modification/Procedure Coding System (ICD-10-CM/PCS) retroactively through October 2015. Backward compatibility ensures users can analyze trend data/multiple years of data through 2015 with a single version of the software.

Methodology

4. What inputs are needed to use PQE software?

The data required for measuring PQEs come from hospital discharge abstracts or billing claims (administrative data), which are readily available within hospitals or from many state data organizations. Input data for the ED-PQI software should contain discharge abstracts for the following types of ED encounters:

- ED visits that do not result in an admission to that hospital (i.e., treat-and-release visits, transfers to another hospital, transfers to other health facilities, patients that leave against medical advice, and deaths);
- ED visits that result in admission to the same hospital.

The ED-PQI software is intended to be used with ED data that cover an entire patient population (e.g., all ED encounters from a state in a year), and population data from the community. Population estimates are provided for counties, so users will not be required to provide these data. The software only utilizes visits to the ED for patients who reside in the same state as the ED. The software does not have the ability to handle data sampled from a patient population that requires the weighting of estimates.

5. What are the denominators of the PQE indicators?

PQE denominators are population estimates from the AHRQ Quality Indicators (QI) Population File containing estimates of county-level populations from years 2000 – 2022. The AHRQ QI Population File was developed for use with area-level QIs for AHRQ QI software v2023. This specification means that the measure denominator reflects the most accurate available local population estimate and does not require any encounter with the health care system or membership in a payer group. Like the PQIs or area-level PDIs, the PQEs can serve as population health or health system performance indicators. Details about the population methodology are available at: https://qualityindicators.ahrq.gov/Downloads/Software/SAS/V2023/AHRQ_QI_v2023_ICD10_Population_File.pdf.

6. Is the AHRQ ED PQI ^{Beta} Software v2023 risk-adjusted?

Yes, risk adjustment is supported in both the SAS QI and WinQI ED PQI ^{Beta} Software v2023 for area-level indicators.

7. How are PQE measures risk adjusted?

Like other area-level indicators, the PQE indicators are adjusted for age and sex. An additional, optional adjustment for the local poverty rate may also be selected. Rates smoothed by reliability adjustment are also available. Adjustment parameter estimates are available at:

https://qualityindicators.ahrq.gov/Downloads/Modules/ED_PQI/V2023/Parameter_Estimates_ED_PQI_v2023.pdf.

8. What is the reference population for PQEs?

The reference population for PQEs consists of ED visits, both those resulting in inpatient admission and those resulting in discharge from the emergency room. For one measure, PQE 03 Visits for Acute Ambulatory Care Sensitive Conditions, visits resulting in an inpatient stay are excluded. For another measure, PQE 05 Visits for Back Pain, only states whose data permit linkage between multiple stays for a single individual are included. For v2023, the reference population is based on 2019 Healthcare Cost and Utilization (HCUP) State Inpatient Databases (SID) and State Emergency Department Databases (SEDD). The use of 2019 data allows benchmarks and parameters for the beta version to be similar to those expected in most years (prior to or following the public health emergency period).

9. What is the SEDD?

The Healthcare Cost and Utilization Project (HCUP) State Emergency Department Database (SEDD) used in creation of the ED PQI reference population consists of visits to the emergency department that end in discharge from the emergency department. For more information about the SEDD, please visit: <https://hcup-us.ahrq.gov/seddoverview.jsp>.

10. Are ED visits that result in inpatient admission included in the PQE indicators?

Inpatient admissions beginning in the ED are included in four PQE indicators:

- PQE 01 Visits for Non-Traumatic Dental Conditions
- PQE 02 Visits for Chronic Ambulatory Care Sensitive Conditions
- PQE 04 Visits for Asthma
- PQE 05 Visits for Back Pain

11. Why are inpatient discharges admitted through the ED included in the PQEs?

The numerators for four out of five PQEs (PQE 01, PQE 02, PQE 04, and PQE 05) consist of both ED visits resulting in inpatient admission and those resulting in discharge from the emergency room. Both are included because both are measures of ED use that could be avoided by access to quality health care. This specification means that some discharges included in the PQIs or area PDIs may also be included in PQE 01 and PQI discharges may also be included in PQE 02.

12. Why are inpatient discharges admitted through the ED excluded from PQE 03?

The numerators for four out of five PQEs (PQE 01, PQE 02, PQE 04, and PQE 05) consist of both ED visits resulting in inpatient admission and those resulting in discharge from the emergency room. However, the numerator for PQE 03, Visits for acute ACS conditions, excludes inpatient stays even when they begin in the ED. This exclusion means that the measure excludes the most severely acute cases, for which delay in seeking care to avoid the ED may harm the patient.

13. Why is PQE 05 restricted to patients with two or more back pain visits in a year?

Unlike other indicators, which are defined based on a single ED visit, PQE 05, Visits for back pain, includes only patients with two or more back pain visits in a year. A single back encounter, which may involve severe pain or immobilization may require treatment in the ED, but subsequent visits may be avoided by correct initial diagnosis or high-quality ambulatory care.

14. How does the back pain measure differ from other PQE indicators?

The numerator of the back pain measure requires two visits for back pain within a twelve-month period. Therefore, the measure can only be calculated when multiple visits and the time between visits for a single person can be identified. The reference population for this measure includes only states that provide data that permits linkage between visits.

15. Are out of state ED admissions included in the PQE indicators?

ED visits occurring in a state other than the one where the patient resides are excluded from the ED PQI numerators.

16. Are pediatric PQE indicators available?

Several ED PQI include pediatric visits:

- PQE 01 Visits for Non-Traumatic Dental Conditions,
- PQE 03 Visits for Acute Ambulatory Care Sensitive Conditions
- PQE 04 Visits for Asthma.

PQE 01 and PQE 04 both include visits for patients ages five years and older. PQE 03 includes visits for patients ages three months and older. All PQEs also include visits for adult patients.

Using ED PQI ^{Beta} Software

17. Where can I download the AHRQ ED PQI ^{Beta} v2023 software?

The Windows version of ED PQI ^{Beta} software can be downloaded from the AHRQ QI website by visiting the [WinQI page](#).

The SAS version can be downloaded from the [SAS QI page](#).

18. Can I install the Windows version of ED PQI ^{Beta} software on my desktop that also has WinQI and/or CloudQI installed?

Yes, the Windows version of ED PQI ^{Beta} software can be installed alongside the WinQI or CloudQI software. The installation guide for the software can be found on the [AHRQ QI Website](#).

19. Do I need any additional software to run the Windows version of ED PQI ^{Beta} Software?

The only additional software needed is an internet browser, such as Google Chrome, Firefox, or Edge. Google Chrome is recommended, but any modern browser can be used.

20. Is technical assistance available for users of the AHRQ ED PQI ^{Beta} Software v2023?

Yes. Users may submit questions or feedback to QISupport@ahrq.hhs.gov.