



# **Prevention Quality Indicator 03 (PQI 03) Diabetes Long-Term Complications Admission Rate**

## **July 2017**

### **Area-Level Indicator**

### **Type of Score: Rate**

#### **Prepared by:**

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[www.qualityindicators.ahrq.gov](http://www.qualityindicators.ahrq.gov)

#### **DESCRIPTION**

Admissions for a principal diagnosis of diabetes with long-term complications (renal, eye, neurological, circulatory, or complications not otherwise specified) per 100,000 population, ages 18 years and older. Excludes obstetric admissions and transfers from other institutions.

*[NOTE: The software provides the rate per population. However, common practice reports the measure as per 100,000 population. The user must multiply the rate obtained from the software by 100,000 to report admissions per 100,000 population.]*

#### **NUMERATOR**

Discharges, for patients ages 18 years and older, with a principal ICD-10-CM diagnosis code for diabetes with long-term complications (renal, eye, neurological, circulatory, or complications not otherwise specified) (*ACDIALD*<sup>\*</sup>).

*[NOTE: By definition, discharges with a principal diagnosis of diabetes with long-term complications are precluded from an assignment of MDC 14 by grouper software. Thus, obstetric discharges should not be considered in the PQI rate, though the AHRQ QI™ software does not explicitly exclude obstetric cases.]*

## NUMERATOR EXCLUSIONS

Exclude cases:

- transfer from a hospital (different facility)
- transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)
- transfer from another health care facility
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), principal diagnosis (DX1=missing), or county (PSTCO=missing)

### [Appendix A - Admission Codes for Transfers](#)

## DENOMINATOR

Population ages 18 years and older in metropolitan area† or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county where the hospital discharge occurred.‡

† The term “metropolitan area” (MA) was adopted by the U.S. Census in 1990 and referred collectively to metropolitan statistical areas (MSAs), consolidated metropolitan statistical areas (CMSAs), and primary metropolitan statistical areas (PMSAs). In addition, “area” could refer to either 1) FIPS county, 2) modified FIPS county, 3) 1999 OMB Metropolitan Statistical Area, or 4) 2003 OMB Metropolitan Statistical Area. Micropolitan Statistical Areas are not used in the QI software.

‡ The denominator can be specified with the diabetic population only and calculated with the SAS QI software through the condition-specific denominator at the state-level feature.

\* See below for code list

***Diabetes with long-term complications diagnosis codes: (ACDIALD)***

E1021	Type 1 diabetes mellitus with diabetic nephropathy	E1121	Type 2 diabetes mellitus with diabetic nephropathy
E1022	Type 1 diabetes mellitus with diabetic chronic kidney disease	E1122	Type 2 diabetes mellitus with diabetic chronic kidney disease
E1029	Type 1 diabetes mellitus with other diabetic kidney complication	E1129	Type 2 diabetes mellitus with other diabetic kidney complication
E10311	Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema	E11311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema
E10319	Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema	E11319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema
E10321	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	E11321	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema
E103211	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	E113211	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye
E103212	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	E113212	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye
E103213	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	E113213	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral
E103219	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	E113219	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye
E10329	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	E11329	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema
E103291	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	E113291	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye
E103292	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	E113292	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye
E103293	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	E113293	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral
E103299	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	E113299	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye

E10331	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	E11331	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema
E103311	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	E113311	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye
E103312	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	E113312	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye
E103313	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	E113313	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral
E103319	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	E113319	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye
E10339	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	E11339	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema
E103391	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	E113391	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye
E103392	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	E113392	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye
E103393	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	E113393	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral
E103399	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	E113399	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye
E10341	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	E11341	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema
E103411	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	E113411	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye
E103412	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	E113412	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye
E103413	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	E113413	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral
E103419	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	E113419	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye

E10349	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	E11349	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema
E103491	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	E113491	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye
E103492	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	E113492	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye
E103493	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	E113493	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral
E103499	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	E113499	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye
E10351	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema	E11351	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema
E103511	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	E113511	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye
E103512	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	E113512	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye
E103513	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	E113513	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral
E103519	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	E113519	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye
E103521	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	E113521	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E103522	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	E113522	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E103523	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	E113523	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral
E103529	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	E113529	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye

E103531	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	E113531	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E103532	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	E113532	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
E103533	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	E113533	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral
E103539	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	E113539	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye
E103541	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	E113541	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye
E103542	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	E113542	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye
E103543	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	E113543	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral
E103549	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	E113549	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye
E103551	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	E113551	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, right eye
E103552	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	E113552	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye
E103553	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	E113553	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral

E103559	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	E113559	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye
E10359	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema	E11359	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema
E103591	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	E113591	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye
E103592	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	E113592	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye
E103593	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	E113593	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral
E103599	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	E113599	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye
E1036	Type 1 diabetes mellitus with diabetic cataract	E1136	Type 2 diabetes mellitus with diabetic cataract
E1037X1	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	E1137X1	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye
E1037X2	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	E1137X2	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye
E1037X3	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	E1137X3	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral
E1037X9	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	E1137X9	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye
E1039	Type 1 diabetes mellitus with other diabetic ophthalmic complication	E1139	Type 2 diabetes mellitus with other diabetic ophthalmic complication
E1040	Type 1 diabetes mellitus with diabetic neuropathy, unspecified	E1140	Type 2 diabetes mellitus with diabetic neuropathy, unspecified
E1041	Type 1 diabetes mellitus with diabetic mononeuropathy	E1141	Type 2 diabetes mellitus with diabetic mononeuropathy
E1042	Type 1 diabetes mellitus with diabetic polyneuropathy	E1142	Type 2 diabetes mellitus with diabetic polyneuropathy
E1043	Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy	E1143	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy
E1044	Type 1 diabetes mellitus with diabetic amyotrophy	E1144	Type 2 diabetes mellitus with diabetic amyotrophy
E1049	Type 1 diabetes mellitus with other diabetic neurological complication	E1149	Type 2 diabetes mellitus with other diabetic neurological complication

E1051	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	E1151	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene
E1052	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene	E1152	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E1059	Type 1 diabetes mellitus with other circulatory complications	E1159	Type 2 diabetes mellitus with other circulatory complications
E10610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy	E11610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy
E10618	Type 1 diabetes mellitus with other diabetic arthropathy	E11618	Type 2 diabetes mellitus with other diabetic arthropathy
E10620	Type 1 diabetes mellitus with diabetic dermatitis	E11620	Type 2 diabetes mellitus with diabetic dermatitis
E10621	Type 1 diabetes mellitus with foot ulcer	E11621	Type 2 diabetes mellitus with foot ulcer
E10622	Type 1 diabetes mellitus with other skin ulcer	E11622	Type 2 diabetes mellitus with other skin ulcer
E10628	Type 1 diabetes mellitus with other skin complications	E11628	Type 2 diabetes mellitus with other skin complications
E10630	Type 1 diabetes mellitus with periodontal disease	E11630	Type 2 diabetes mellitus with periodontal disease
E10638	Type 1 diabetes mellitus with other oral complications	E11638	Type 2 diabetes mellitus with other oral complications
E1069	Type 1 diabetes mellitus with other specified complication	E1169	Type 2 diabetes mellitus with other specified complication
E108	Type 1 diabetes mellitus with unspecified complications	E118	Type 2 diabetes mellitus with unspecified complications