# Table of Contents

1.0 **Introduction** ........................................................................................................ 1  
   1.1 CRS Denominator Definitions .............................................................................. 1  
   1.1.1 For All Denominators .................................................................................. 1  
   1.1.2 Active Clinical Population ........................................................................... 1  
   1.1.3 User Population .......................................................................................... 2  
   1.1.4 Active Clinical Plus Behavioral Health Population ..................................... 3  

2.0 **Topics and Definitions** ...................................................................................... 4  
   2.1 Diabetes Group ............................................................................................... 4  
   2.1.1 Diabetes Comprehensive Care .................................................................... 4  
   2.2 Dental Group ................................................................................................. 11  
   2.2.1 Topical Fluoride ....................................................................................... 11  
   2.3 Immunization Group ....................................................................................... 12  
   2.3.1 Influenza .................................................................................................. 12  
   2.3.2 Adult Immunizations ............................................................................... 15  
   2.3.3 Adolescent Immunizations ..................................................................... 18  
   2.4 Behavioral Health Group .............................................................................. 22  
   2.4.1 Depression Screening ............................................................................... 22  
   2.5 Cardiovascular Disease Related Group ......................................................... 24  
   2.5.1 Physical Activity Assessment ..................................................................... 24  
   2.5.2 Cardiovascular Disease and Blood Pressure Control ............................... 25  
   2.5.3 Appropriate Medication Therapy after a Heart Attack ............................... 27  
   2.5.4 Heart Failure and Evaluation of LVS Function .......................................... 38  
   2.6 STD-Related Group ....................................................................................... 40  
   2.6.1 HIV Quality of Care ................................................................................. 40  
   2.6.2 Sexually Transmitted Infection Screening ................................................. 42  
   2.7 Other Clinical Measures Group .................................................................... 45  
   2.7.1 Asthma ...................................................................................................... 45  
   2.7.2 Medication Therapy for Persons with Asthma ........................................... 46  
   2.7.3 Proportion of Days Covered by Medication Therapy ............................... 49  
   2.7.4 Primary Medication Non-adherence ......................................................... 58  
   2.7.5 Medication Therapy Management Services ........................................... 61  
   2.7.6 Public Health Nursing .............................................................................. 61  
   2.7.7 Use of High Risk Medications in the Elderly ............................................. 63  
   2.7.8 Use of Benzodiazepine Sedative Hypnotic Medications in the Elderly 65  

List of Acronyms ........................................................................................................... 67  

Contact Information ..................................................................................................... 69
1.0 Introduction

The Other National Measures (ONM) Report contains clinical quality measures for which national data is desired. The majority of these measures were historically reported in the National Government Performance and Results Act (GPRA) Report as non-GPRA measures. The ONM Report provides valuable information on the quality of care that is being provided to patients and can be used to address other national reporting requirements. Data for these measures will be collected and reported at least once annually.

1.1 CRS Denominator Definitions

1.1.1 For All Denominators

- All patients with name “DEMO, PATIENT” or who are included in the Resource and Patient Management System Demo/Test Patient Search Template (DPST option located in the Patient Care Component (PCC) Management Reports, Other section) will be excluded automatically for all denominators.

- For all measures except as noted, patient age is calculated as of the beginning of the Report Period.

1.1.2 Active Clinical Population

1.1.2.1 National GPRA/GPRAMA Reporting

- The patient must have two visits to medical clinics in the past 3 years prior to the end of the Report Period. Chart reviews and telephone calls from these clinics do not count; the visits must be face-to-face. At least one visit must be to a core medical clinic. Refer to the Clinical Reporting System for FY2018 Clinical Measures User Manual for listing of these clinics.

- The patient must be alive on the last day of the Report Period.

- The patient must be American Indian/Alaska Native (AI/AN); defined as Beneficiary 01.

- The patient must reside in a community specified in the site’s GPRA community taxonomy, defined as all communities of residence in the defined Purchased and Referred Care (PRC) catchment area.
1.1.2.2 Local Reports

- The patient must have two visits to medical clinics in the past 3 years prior to the end of the Report Period. Chart reviews and telephone calls from these clinics do not count; the visits must be face-to-face. At least one visit must be to a core medical clinic. Refer to the Clinical Reporting System for FY2018 Clinical Measures User Manual for listing of these clinics.

- The patient must be alive on the last day of the Report Period.

- The user defines the population type as one of the following:
  - AI/AN patients only
  - Non-AI/AN
  - Both

- The user defines the general population: single community, group of multiple communities (community taxonomy), user-defined list of patients (patient panel), or all patients regardless of community of residence.

1.1.3 User Population

1.1.3.1 National GPRA/GPRAMA Reporting

- The patient must have been seen at least once in the 3 years prior to the end of the Report Period, regardless of the clinic type, and the visit must be either ambulatory (including day surgery or observation) or a hospitalization; the rest of the service categories are excluded.

- The patient must be alive on the last day of the Report Period.

- The patient must be AI/AN; defined as Beneficiary 01.

- The patient must reside in a community specified in the site’s GPRA community taxonomy, defined as all communities of residence in the defined PRC catchment area.

1.1.3.2 Local Reports

- The patient must have been seen at least once in the 3 years prior to the end of the Report Period, regardless of the clinic type, and the visit must be either ambulatory (including day surgery or observation) or a hospitalization; the rest of the service categories are excluded.

- The patient must be alive on the last day of the Report Period.

- The user defines the population type as one of the following:
  - AI/AN patients only
The user defines the general population: single community, group of multiple communities (community taxonomy), user-defined list of patients (patient panel), or all patients regardless of community of residence.

1.1.4 Active Clinical Plus Behavioral Health Population

1.1.4.1 National GPRA/GPRAMA Reporting

- The patient must have two visits to medical or behavioral health clinics in the past 3 years prior to the end of the Report Period. Chart reviews and telephone calls from these clinics do not count; the visits must be face-to-face. At least one visit must be to a core medical clinic. Refer to the Clinical Reporting System (CRS) for FY2018 Clinical Measures User Manual for listing of these clinics.
- The patient must be alive on the last day of the Report Period.
- The patient must be AI/AN; defined as Beneficiary 01.
- The patient must reside in a community specified in the site’s GPRA community taxonomy, defined as all communities of residence in the defined PRC catchment area.

1.1.4.2 Local Reports

- The patient must have two visits to medical or behavioral health clinics in the past 3 years prior to the end of the Report Period. Chart reviews and telephone calls from these clinics do not count; the visits must be face-to-face. At least one visit must be to a core medical clinic. Refer to the Clinical Reporting System (CRS) for FY2018 Clinical Measures User Manual for listing of these clinics.
- The patient must be alive on the last day of the Report Period.
- The user defines the population type as one of the following:
  - AI/AN patients only
  - Non-AI/AN
  - Both
- The user defines the general population: single community, group of multiple communities (community taxonomy), user-defined list of patients (patient panel), or all patients regardless of community of residence.
2.0 Topics and Definitions

The following sections define the performance measure topics and their definitions included in the CRS 2018 Version 18.0 patch 1 ONM Report.

Note: In this section, the asterisk (*) often appears in codes (Current Procedural Terminology (CPT), Purpose of Visit (POV), Edu., etc.) as a ‘wildcard’ character indicating that the code given has one or more additional characters at this location.

Brackets ([ ]) after a list of codes contain the name of the taxonomy where the associated codes reside.

2.1 Diabetes Group

2.1.1 Diabetes Comprehensive Care

2.1.1.1 Owner: Contact

Diabetes Program: Dr. Ann Bullock

2.1.1.2 Denominators

1. Active Diabetic patients, defined as Active Clinical patients diagnosed with diabetes prior to the Report Period, and at least two visits in the past year, and two Diabetes Mellitus (DM)-related visits ever.

2. Active Diabetic patients, defined as Active Clinical patients diagnosed with diabetes prior to the Report Period, and at least two visits during the Report Period, and two DM-related visits ever, without a documented history of bilateral blindness or bilateral eye enucleation.

3. Active Diabetic patients, defined as Active Clinical patients diagnosed with diabetes prior to the Report Period, and at least two visits during the Report Period, and two DM-related visits ever, without a documented history of bilateral foot amputation or two separate unilateral foot amputations.

2.1.1.3 Numerators

1. Patients with A1c and blood pressure and nephropathy assessment and retinal exam and diabetic foot exam.
2. Patients with hemoglobin A1c documented during the Report Period, regardless of result.

3. Patients with blood pressure documented during the Report Period.

4. Patients with controlled blood pressure during the Report Period, defined as below 140/90.

   **Note:** This measure is *not* included in the comprehensive measure (the last numerator).

5. Patients with nephropathy assessment, defined as an estimated Glomerular Filtration Rate (GFR) with result *and* a Urine Albumin-to-Creatinine Ratio (UACR) during the Report Period *or* with evidence of diagnosis or treatment of end-stage renal disease (ESRD) at any time before the end of the Report Period.

6. Patients receiving a qualified retinal evaluation during the Report Period (with Denominator 2).

   **Note:** This numerator does *not* include refusals.

7. Patients with diabetic foot exam during the Report Period (with Denominator 3).

   **Note:** This numerator does *not* include refusals.

### 2.1.1.4 Definitions

#### Diabetes

First POV International Classification of Diseases (ICD)-9: 250.00 through 250.93 or ICD-10: E10.* through E13.* [SURVEILLANCE DIABETES] recorded in the VPOV file prior to the Report Period.

#### A1c

Searches for most recent A1c test with a result during the Report Period. If none found, CRS searches for the most recent A1c test without a result. A1c defined as:

- CPT 83036, 83037, 3044F through 3046F, 3047F (old code) [BGP HGBA1C CPTS]
- Logical Observations Identifiers Names Codes (LOINC) taxonomy
- Site-populated taxonomy DM AUDIT HGB A1C TAX
BP Documented
Exclusions: When calculating all BPs (using vital measurements or CPT codes), the following visits will be excluded:

- Service Category H (Hospitalization), I (In Hospital), S (Day Surgery), or O (Observation)
- Clinic code 23 (Surgical), 30 (Emergency Room or ER), 44 (Day Surgery), 79 (Triage), C1 (Neurosurgery), or D4 (Anesthesiology)

CRS uses the mean of the last 3 BPs documented during the Report Period. If 3 BPs are not available, uses mean of last 2 BPs, or one BP if there is only 1 documented. If a visit contains more than 1 BP, the lowest BP will be used, defined as having the lowest systolic value. The mean Systolic value is calculated by adding the last 3 (or 2) systolic values and dividing by 3 (or 2). The mean Diastolic value is calculated by adding the diastolic values from the last 3 (or 2) blood pressures and dividing by 3 (or 2).

If CRS is not able to calculate a mean BP, it will search for CPT 0001F, 2000F, 3074F through 3080F, G9273, G9274 [BGP BP MEASURED CPT, BGP SYSTOLIC BP CPTS, BGP DIASTOLIC BP CPTS] or POV ICD-9: V81.1 [BGP HYPERTENSION SCREEN DXS] documented during the Report Period.

Controlled BP
CRS uses a mean, as described above. If the mean systolic and diastolic values do not both meet the criteria for controlled, then the value is considered not controlled.

BP Documented and Controlled BP
If CRS is not able to calculate a mean BP from blood pressure measurements, it will search for the most recent of any of the following codes documented during the Report Period:

- Systolic: CPT 3074F, 3075F, or 3077F [BGP SYSTOLIC BP CPTS] with Diastolic: CPT 3078F, 3079F, or 3080F [BGP DIASTOLIC BP CPTS]. The systolic and diastolic values do not have to be recorded on the same day. If there are multiple values on the same day, the CPT indicating the lowest value will be used.
- The following combinations represent BP below 140/90 and will be included in the Controlled BP numerator: CPT 3074F or 3075F and 3078F or 3079F, OR G9273. All other combinations will not be included in the Controlled BP numerator.
**Nephropathy Assessment**

Defined as any of the following:

- Estimated GFR with result during the Report Period, defined as any of the following:
  - Site-populated taxonomy BGP GPRA ESTIMATED GFR TAX
  - LOINC taxonomy
- Urine Albumin-to-Creatinine Ratio during the Report Period, defined as any of the following:
  - CPT 82043 WITH 82570
  - LOINC taxonomy
  - Site-populated taxonomy BGP QUANT UACR TESTS

**Note:** Be sure to check with your laboratory supervisor that the names added to your taxonomy reflect quantitative test values.

- End Stage Renal Disease diagnosis or treatment defined as any of the following ever:
  - CPT 36145 (old code), 36147, 36800, 36810, 36815, 36818, 36819, 36820, 36821, 36831 through 36833, 50300, 50320, 50340, 50360, 50365, 50370, 50380, 90951 through 90970 or old codes 90918 through 90925, 90935, 90937, 90939 (old code), 90940, 90945, 90947, 90989, 90993, 90997, 90999, 99512, 3066F, G0257, G0308 through G0327 (old codes), G0392 (old code), G0393 (old code), G9231, S2065, S9339 [BGP ESRD CPTS]
  - Diagnosis (POV or Problem List entry where the status is not Deleted):
    - SNOMED data set PXRM END STAGE RENAL DISEASE (Problem List only)
  - Procedure ICD-9: 38.95, 39.27, 39.42, 39.43, 39.43, 39.93 through 39.95, 54.98, 55.6* [BGP ESRD PROCS]

**Qualified Retinal Evaluation**

- Diabetic retinal exam or
- Other eye exam

The following methods are qualifying for this measure:

- Dilated retinal evaluation by an optometrist or ophthalmologist.
- Seven standard fields stereoscopic photos (Early Treatment Diabetic Retinopathy Study [ETDRS]) evaluated by an optometrist or ophthalmologist.
- Any photographic method formally validated\(^1\) to seven standard fields (ETDRS).

**Diabetic Retinal Exam**

Any of the following during the Report Period:

- Exam code 03 Diabetic Eye Exam (dilated retinal examination or formally validated\(^2\) ETDRS photographic equivalent.

- CPT 2021F Dilated macular exam, 2022F Dilated retinal eye exam, 2024F Seven standard field stereoscopic photos with interpretation by an ophthalmologist or optometrist, 2026F Eye imaging formally validated\(^3\) to match the diagnosis from seven standard field stereoscopic photos, S0620 Routine ophthalmological examination including refraction; new patient, S0621 Routine ophthalmological examination including refraction; established patient, S3000 Diabetic indicator; retinal eye exam, dilated, bilateral [BGP DM RETINAL EXAM CPTS].

- Procedure ICD-9: 95.02 Comprehensive eye exam, 95.03 Extended ophthalmologic work-up [BGP EYE EXAM PROCS]

**Other Eye Exam**

- Non-DNKA (did not keep appointment) visits to ophthalmology or optometry clinics with an optometrist or ophthalmologist, or visits to formally validated\(^4\) tele-ophthalmology retinal evaluation clinics. Searches for the following codes in the following order:
  - CPT 67028, 67038 (old code), 67039, 67040, 92002, 92004, 92012, 92014 [BGP DM EYE EXAM CPTS]
  - Clinic code A2 (Diabetic Retinopathy)\(^5\)
  - Clinic codes 17\(^6\) or 18\(^7\) with Provider code 08, 24, or 79 where the Service Category is not C (Chart Review) or T (Telecommunications)

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\(^1\) Validation study properly powered and controlled against the ETDRS gold standard (American Telemedicine Association validation category 3).
\(^2\) Ibid.
\(^3\) Ibid.
\(^4\) Ibid.
\(^5\) Validated photographic (teleretinal) retinal surveillance (American Telemedicine Association validation category 3).
\(^6\) Ophthalmology or Optometry clinic codes (17, 18) cannot be used for non-qualifying photographic DR examination methods\(^1\) unless a dilated retinal examination by an ophthalmologist or optometrist is also accomplished during the same encounter.
\(^7\) Ibid.
Bilateral Blindness

- Diagnosis (POV or Problem List entry where the status is not Deleted):
  - ICD-9: 369.01, 369.03, 369.04; ICD-10: H54.0* [BGP BILATERAL BLINDNESS DXS]
  - SNOMED data set PXRM BGP BILAT BLINDNESS (Problem List only)
  - SNOMED data set PXRM BGP BLINDNESS UNSPECIFIED with Laterality equal to Bilateral (Problem List only)
  - One code from (SNOMED data set PXRM BGP LEFT EYE BLIND (Problem List only) OR SNOMED data set PXRM BGP BLINDNESS UNSPECIFIED with Laterality equal to Left (Problem List only)) AND one code from (SNOMED data set PXRM BGP RIGHT EYE BLIND (Problem List only) OR SNOMED data set PXRM BGP BLINDNESS UNSPECIFIED with Laterality equal to Right (Problem List only))

Bilateral Eye Enucleation

- CPT 65091, 65093, 65101, 65103, 65110, 65112, 65114 with modifier 50 or 09950 (50 and 09950 modifiers indicate bilateral)
- Two separate unilateral eye enucleations with visit dates at least 14 days apart with CPT 65091, 65093, 65101, 65103, 65105, 65110, 65112, 65114
- Left eye enucleation: Procedure ICD-10: 08B1*** AND right eye enucleation: Procedure ICD-10: 08B0*** on either the same or different dates of service

Diabetic Foot Exam

- Exam code 28 Diabetic Foot Exam, Complete
- Non-DNKA visit with a podiatrist (Provider codes 33, 84, 25)
- Non-DNKA visit to Podiatry Clinic or Diabetic Foot Clinic (Clinic codes 65 and B7), or
- CPT 2028F, G9226 [BGP CPT FOOT EXAM]

Bilateral foot amputation

- CPT: 27290.50 through 27295.50, 27590.50 through 27592.50, 27598.50, 27880.50 through 27882.50 (50 modifier indicates bilateral), G9224 [BGP CPT BILAT FOOT AMP]
- Procedure ICD-10: 0Y640ZZ [BGP BILAT FOOT AMP PROCEDURES]
- Diagnosis (Problem List entry where the status is not Deleted): SNOMED data set PXRM BGP ABSENCE OF FOOT BIL (Problem List only)
Two Separate Foot Amputations
Requires either of the following:

- Must have one code that indicates a right-foot amputation and one code that indicates a left foot amputation
- Must have two separate occurrences on two different dates of service for one code that indicates a foot amputation on unknown side and one code that indicates either a right or left-foot amputation, or two codes that indicate a foot amputation on unknown side

Right-Foot Amputation

- Diagnosis (POV or Problem List entry where the status is not Deleted):
  - ICD-10: Z89.511, Z89.611, Z89.431, Z89.441 [BGP RIGHT FOOT AMP DXS]
  - SNOMED data set PXRM BGP ABSENCE OF FOOT RIGHT (Problem List only)
- Procedure ICD-10: 0Y620ZZ, 0Y670ZZ, 0Y6F0ZZ, 0Y6C***, 0Y6H***, 0Y6M0Z0 [BGP RIGHT FOOT AMP PROCS]

Left-Foot Amputation

- Diagnosis (POV or Problem List entry where the status is not Deleted):
  - ICD-10: Z89.512, Z89.612, Z89.432, Z89.442 [BGP LEFT FOOT AMP DXS]
  - SNOMED data set PXRM BGP ABSENCE OF FOOT LEFT (Problem List only)
- Procedure ICD-10: 0Y630ZZ, 0Y680ZZ, 0Y6G0ZZ, 0Y6D***, 0Y6J***, 0Y6N0Z0 [BGP LEFT FOOT AMP PROCS]

Foot Amputation on Unknown Side

- CPT 27290 through 27295, 27590 through 27598, 27880 through 27889 [BGP FOOT AMP CPTS]
- Procedure ICD-9: 84.10, 84.13 through 84.19 [BGP FOOT AMP PROCEDURES]

2.1.1.5 Patient Lists

- List of diabetic patients who did have their A1c assessed.
- List of diabetic patients who did not have their A1c assessed.
- List of diabetic patients who did have their blood pressure assessed.
- List of diabetic patients who did not have their blood pressure assessed.
• List of diabetic patients with controlled blood pressure, defined as below 140/90.
• List of diabetic patients with uncontrolled blood pressure, defined as above 140/90.
• List of diabetic patients with nephropathy assessment.
• List of diabetic patients without nephropathy assessment.
• List of diabetic patients with retinal evaluation.
• List of diabetic patients without retinal evaluation.
• List of diabetic patients with a diabetic foot exam.
• List of diabetic patients without a diabetic foot exam.
• List of diabetic patients with comprehensive diabetes care.
• List of diabetic patients without comprehensive diabetes care.

2.2 Dental Group

2.2.1 Topical Fluoride

2.2.1.1 Owner: Contact
Dental Program: Timothy L. Lozon, D.D.S., Chris Halliday, DDS, MPH

2.2.1.2 Denominators
No denominator. This measure is a total count, not a percentage.

2.2.1.3 Numerators
1. Count only (no percentage comparison to denominator). For patients meeting the User Population definition, the total number of appropriate topical fluoride applications based on a maximum of four per patient per year.

2.2.1.4 Definitions
Topical Fluoride Application
Defined as any of the following:
• RPMS Dental codes 1201 (old code), 1203 (old code), 1204 (old code), 1205 (old code), 1206, 1208, 5986
• ADA CDT D1201 (old code), D1203 (old code), D1204 (old code), 1205 (old code), D1206, D1208, D5986, 99188 [BGP CPT TOPICAL FLUORIDE]
- POV ICD-9: V07.31; ICD-10: Z29.3 [BGP TOPICAL FLUORIDE DXS]

A maximum of one application per patient per visit is allowed. A maximum of four topical fluoride applications are allowed per patient per year for the applications measure.

### 2.2.1.5 Patient Lists

List of patients who received at least one topical fluoride application during Report Period.

### 2.3 Immunization Group

#### 2.3.1 Influenza

#### 2.3.1.1 Owner: Contact

Epidemiology Program: Amy Groom, MPH

#### 2.3.1.2 Denominators

1. Active Clinical patients broken down by age groups: 6 months through 17 years, 18 through 49 years, 50 through 64 years, 65 years and older.

2. Active Clinical patients ages 18 through 49 years and considered high risk for influenza.

3. Active Diabetic patients, defined as Active Clinical patients diagnosed with diabetes prior to the Report Period, and at least two visits in the past year, AND two DM-related visits ever.

#### 2.3.1.3 Numerators

1. Patients with influenza vaccine documented during the Report Period or with a contraindication documented at any time before the end of the Report Period.

**Note:** The only refusals included in this numerator are (NMI) refusals.

A. Patients with a contraindication or a documented NMI refusal.
2.3.1.4 Definitions

Diabetes
First DM POV ICD-9: 250.00 through 250.93 or ICD-10: E10.* through E13.* [SURVEILLANCE DIABETES] recorded in the V POV file prior to the Report Period.

Influenza Vaccine
Any of the following during the Report Period:

- Immunization (CVX) codes 15, 16, 88, 111, 135, 140, 141, 144, 149, 150, 151, 153, 155, 158, 161, 166, 168, 171, 185, 186
- POV ICD-9: V04.8 (old code), V04.81 not documented with 90663, 90664, 90666 through 90668, 90470, G9141 or G9142, or V06.6 not documented with 90663, 90664, 90666 through 90668, 90470, G9141 or G9142 [BGP FLU IZ DX V04.8]
- CPT 90630, 90653 through 90662, 90672 through 90674, 90682, 90685 through 90688, 90724 (old code), 90756, G0008, G8108 (old code) [BGP CPT FLU]

Contraindication to Influenza Vaccine
Any of the following documented at any time before the end of the Report Period:

- Contraindication in the Immunization Package of “Anaphylaxis”
- PCC NMI Refusal

Persons Considered High Risk for Influenza:
Those who have two or more visits in the past 3 years with a POV or Problem diagnosis of any of the following [BGP HIGH RISK FLU DXS]:

- Human Immunodeficiency Virus (HIV) Infection: ICD-9: 042, 042.0 through 044.9 (old codes), 079.53, V08; ICD-10: B20, B52.0, B97.35, Z21
- Diabetes: ICD-9: 250.00 through 250.93; ICD-10: E08.2*, E09.2*, E10.* through E13.*
- Rheumatic Heart Disease: ICD-9: 393. through 398.99; ICD-10: I05.* through I09.*
- Hypertensive Heart Disease: ICD-9: 402.00 through 402.91; ICD-10: I11.*
- Hypertensive Heart or Renal Disease: ICD-9: 404.00 through 404.93; ICD-10: I13.*
- Ischemic Heart Disease: ICD-9: 410.00 through 414.9; ICD:10: I20.0 through I22.8, I24.0 through I25.83, I25.89, I25.9
- Pulmonary Heart Disease: ICD-9: 415.0 through 416.9; ICD-10: I26.* through I27.*
- Other Endocardial Heart Disease: ICD-9: 424.0 through 424.9; ICD-10: I34.* through I39
- Cardiomyopathy: ICD-9: 425.0 through 425.9; ICD-10: I42.*, I43
- Congestive Heart Failure: ICD-9: 428.0 through 428.9, 429.2; ICD-10: I50.1, I50.20, I50.22 through I50.32 through I50.40, I50.42 through I50.9
- Chronic Bronchitis: ICD-9: 491.0 through 491.9; ICD-10: J41.*, J42
- Emphysema: ICD-9: 492.0 through 492.8; ICD-10: J43.*
- Asthma: ICD-9: 493.00 through 493.91; ICD-10: J45.21 through J45.902
- Bronchiectasis, Chronic Lung Disease (CLD), Chronic Obstructive Pulmonary Disease (COPD): ICD-9: 494.0 through 496.; ICD-10: J44.*, J47.*
- Pneumoconiosis: ICD-9: 500 through 505; ICD-10: J60 through J64, J66.8 through J67.6, J67.8 through J67.9
- Chronic Liver Disease: ICD-9: 571.0 through 571.9; ICD-10: K70.11 through K70.41, K73.0 through K74.5, K74.69, K75.81
- Nephrotic Syndrome: ICD-9: 581.0 through 581.9; ICD-10: N02.*, N04.*, N08
- Renal Failure: ICD-9: 585.6, 585.9; ICD-10: N18.6 through N19
- Transplant: ICD-9: 996.80 through 996.89; ICD-10: T86.00 through T86.819, T86.83*, T86.850 through T86.899, Z48.21 through Z48.280, Z48.290, Z94.0 through Z94.4, Z94.6, Z94.81 through Z94.84, Z95.3, Z95.4
- Kidney Transplant: ICD-9: V42.0 through V42.89
- Chemotherapy: ICD-9: V58.1; ICD-10: Z51.11, Z51.12
- Chemotherapy Follow-up: ICD-9: V67.2; ICD-10: Z08

2.3.1.5 Patient Lists
- List of patients with influenza vaccination, contraindication, or NMI refusal.
- List of patients without influenza vaccination, contraindication, or NMI refusal.
- List of diabetic patients with influenza vaccination, contraindication, or NMI refusal.
- List of diabetic patients without influenza vaccination, contraindication, or NMI refusal.
2.3.2 Adult Immunizations

2.3.2.1 Owner: Contact
Epidemiology Program: Amy Groom, MPH

2.3.2.2 Denominators
1. Active Clinical patients ages 18 through 64 years and considered high risk for pneumococcal.

2. Active Diabetic patients, defined as Active Clinical patients diagnosed with diabetes prior to the Report Period, and at least two visits in the past year, and two DM-related visits ever.

3. Active Clinical patients ages 18 and older. Broken down by age groups 18 through 64 and 65 and older.

2.3.2.3 Numerators
1. Patients with Pneumococcal Polysaccharide vaccine (PPSV23) vaccine or contraindication documented ever and, if patient is older than 65 years, either a dose of PPSV23 vaccine after the age of 65 or a dose of PPSV23 vaccine in the past 5 years. (With Denominators 1 and 2)

   **Note:** The only refusals included in this numerator are NMI refusals.

2. Patients who have received 1 dose of Tdap ever, including contraindications and evidence of disease (with Denominator 3).

   **Note:** The only refusals included in this numerator are NMI refusals.

3. Patients who have received 1 dose of Tdap or Td in the past 10 years, including contraindications and evidence of disease (with Denominator 3).

   **Note:** The only refusals included in this numerator are NMI refusals.
2.3.2.4 Definitions

**Diabetes**
First DM POV ICD-9: 250.00 through 250.93 or ICD-10: E10.* through E13.* [SURVEILLANCE DIABETES] recorded in the V POV file prior to the Report Period.

**Pneumococcal Polysaccharide (PPSV23) Immunization**
Any of the following documented any time before the end of the Report Period:
- Immunization (CVX) codes 33, 109
- POV ICD-9: V03.82 [BGP PNEUMO IZ DXS]
- CPT 90732, G0009, G8115 (old code), G9279 [BGP PNEUMO IZ CPT DEV].

**Pneumococcal Contraindication**
Any of the following documented any time before the end of the Report Period:
- Contraindication in the Immunization Package of “Anaphylaxis”
- PCC NMI Refusal

**Persons Considered High Risk for Pneumococcal**
Those who have two or more visits in the past 3 years with a POV or Problem diagnosis of any of the following [BGP HIGH RISK PNEUMO DXS]:
- HIV Infection: ICD-9: 042, 042.0 through 043.9 (old codes), 044.9 (old code), 079.53, V08; ICD-10: B20, B52, B97.35, Z21
- Diabetes: ICD-9: 250.00 through 250.93; ICD-10: E08.2*, E09.2*, E10.* through E13.*
- Chronic Alcoholism: ICD-9: 303.90, 303.91; ICD-10: F10.20, F10.220 through F10.29
- Congestive Heart Failure: ICD-9: 428.0 through 428.9, 429.2; ICD-10: I50.1, I50.20, I50.22 through I50.30, I50.32 through I50.40, I50.42 through I50.9
- Emphysema: ICD-9: 492.0 through 492.8; ICD-10: J43.*
- Asthma: ICD-9: 493.00 through 493.91; ICD-10: J45.21 through J45.902
- Pneumoconiosis: ICD-9: 501. through 505.; ICD-10: J60 through J66.8 through J67.6, J67.8 through J67.9
- Chronic Liver Disease: ICD-9: 571.0 through 571.9; ICD-10: K70.11 through K70.41, K73.0 through K74.5, K74.69, K75.81
• Nephrotic Syndrome: ICD-9: 581.0 through 581.9; ICD-10: N02.*, N04.*, N08
• Renal Failure: ICD-9: 585.6, 585.9; ICD-10: N18.6 through N19
• Injury to Spleen: ICD-9: 865.00 through 865.19
• Transplant: ICD-9: 996.80 through 996.89; ICD-10: T86.00 through T86.819, T86.83*, T86.850 through T86.899, Z48.21 through Z48.280, Z48.290, Z94.0 through Z94.4, Z94.6, Z94.81 through Z94.84, Z95.3, Z95.4
• Kidney Transplant: ICD-9: V42.0 through V42.89
• Chemotherapy: ICD-9: V58.1; ICD-10: Z51.11, Z51.12
• Chemotherapy Follow-up: ICD-9: V67.2; ICD-10: Z08

**Tdap Immunization:**
Any of the following documented during the applicable time frame:
- Immunization (CVX) code: 115
- CPT 90715

**Tdap Contraindication**
Any of the following documented any time before the end of the Report Period:
- Immunization Package contraindication of "Anaphylaxis"
- PCC NMI Refusal

**Td Immunization**
Any of the following documented in the past 10 years:
- Immunization (CVX) code 9, 113, 138, 139
- POV ICD-9: V06.5 [BGP TD IZ DXS]
- CPT 90714, 90718

**Td Contraindication**
Any of the following documented any time before the end of the Report Period:
- Immunization Package contraindication of "Anaphylaxis"
- PCC NMI Refusal

**2.3.2.5 Patient Lists**
- List of patients 18 through 64 years of age considered high risk for pneumococcal with PPSV23 vaccination, contraindication, or NMI refusal.
• List of patients 18 through 64 years of age considered high risk for pneumococcal without PPSV23 vaccination, contraindication, or NMI refusal.
• List of diabetic patients with PPSV23 vaccination, contraindication, or NMI refusal.
• List of diabetic patients without PPSV23 vaccination, contraindication, or NMI refusal.
• List of patients 18 years and older with Tdap vaccination, contraindication, evidence of disease or NMI refusal.
• List of patients 18 years and older without Tdap vaccination, contraindication, evidence of disease or NMI refusal.
• List of patients 18 years and older with Tdap or Td vaccination or NMI refusal in the past 10 years, or contraindication or evidence of disease ever.
• List of patients 18 years and older without Tdap or Td vaccination or NMI refusal in the past 10 years, or contraindication or evidence of disease ever.

2.3.3 Adolescent Immunizations

2.3.3.1 Owner: Contact
Epidemiology Program: Dr. Scott Hamstra, Amy Groom, MPH

2.3.3.2 Denominators
1. Active Clinical patients ages 13 through 17 years.
2. Male Active Clinical patients ages 13 through 17 years.
3. Female Active Clinical patients ages 13 through 17 years.

2.3.3.3 Numerators
1. Patients who have received the 1:1:2* combination (i.e., 1 Tdap or Td, 1 Meningococcal, 2 or 3 HPV), including contraindications.

   **Note:** The only refusals included in this numerator are NMI refusals.

2. Patients who have received the 1:1 combination (i.e., 1 Tdap or Td, 1 Meningococcal), including contraindications.
3. Patients who have received 1 dose of Tdap ever, including contraindications.  

**Note:** The only refusals included in this numerator are NMI refusals.

4. Patients who have received 1 dose of meningococcal ever, including contraindications.  

**Note:** The only refusals included in this numerator are NMI refusals.

5. Patients who have received 2 or 3 doses of HPV ever, including contraindications.  

**Note:** The only refusals included in this numerator are NMI refusals.

### 2.3.3.4 Definitions

#### Timing of Doses

Because IZ data comes from multiple sources, any IZ codes documented on dates within 10 days of each other will be considered as the same immunization.

#### Dosage and Types of Immunizations

- 1 dose of Td or Tdap
- 1 dose of Meningococcal
- 2 or 3 doses of HPV – in order to qualify for two doses, the patient must have the first dose prior to their 15th birthday and the two doses must be separated by a minimum of five months

#### Not Medically Indicated Refusal, Contraindication, and Evidence of Disease Information

NMI refusals and contraindications for individual immunizations will also count toward meeting the definition, as defined in the following section.

**Note:** NMI refusals are not counted as refusals; rather, they are counted as contraindications.

- For immunizations where required number of doses is greater than one, only one NMI refusal is necessary to be counted in the numerator. For example, if
there is a single NMI refusal for HPV, the patient will be included in the numerator.

- For immunizations where required number of doses is greater than one, only one contraindication is necessary to be counted in the numerator. For example, if there is a single contraindication for HPV, the patient will be included in the numerator.

**NMI Refusal Definitions**

PCC Refusal type NMI for any of the following codes:

- Tdap
  - Immunization (CVX) codes 115
  - CPT 90715
- Td
  - Immunization (CVX) codes 9, 113, 138, 139
  - CPT 90714, 90718
- Meningococcal
  - CPT 90644, 90733, 90734
- HPV
  - Immunization (CVX) codes 62, 118, 137, 165
  - CPT 90649, 90650, 90651

**Immunization Definitions:**

- Tdap
  - Immunization (CVX) code 115
  - CPT 90715
- Tdap Contraindication
  - Immunization Package contraindication of “Anaphylaxis”
- Td
  - Immunization (CVX) code 9, 113, 138, 139
  - POV ICD-9: V06.5 [BGP TD IZ DXS]
  - CPT 90714, 90718
- Td Contraindication
  - Immunization Package contraindication of “Anaphylaxis”
- Meningococcal
• CPT 90644, 90733, 90734

- Meningococcal Contraindication
  - Immunization Package contraindication of “Anaphylaxis”

- HPV
  - Immunization (CVX) codes 62, 118, 137, 165
  - CPT 90649, 90650, 90651

- HPV Contraindication
  - Immunization Package contraindication of “Anaphylaxis”

### 2.3.3.5 Patient Lists

- List of Active Clinical patients 13 through 17 years with 1:1:2* combination (i.e., 1 Tdap or Td, 1 Meningococcal, 2 or 3 HPV).
- List of Active Clinical patients 13 through 17 years without 1:1:2* combination (i.e., 1 Tdap or Td, 1 Meningococcal, 2 or 3 HPV). If a patient did not have all doses in a multiple dose vaccine, the IZ will not be listed. For example, if a patient only had 1 HPV, no IZ will be listed for HPV.
- List of Active Clinical patients 13 through 17 years with 1:1 combination (i.e., 1 Tdap or Td, 1 Meningococcal).
- List of Active Clinical patients 13 through 17 years without 1:1 combination (i.e., 1 Tdap or Td, 1 Meningococcal).
- List of Active Clinical patients 13 through 17 years with 1 Tdap ever.
- List of Active Clinical patients 13 through 17 years without 1 Tdap ever.
- List of Active Clinical patients 13 through 17 years with 1 Meningococcal ever.
- List of Active Clinical patients 13 through 17 years without 1 Meningococcal ever.
- List of Active Clinical patients 13 through 17 years with 2 or 3 doses of HPV ever.
- List of Active Clinical patients 13 through 17 years without 2 or 3 doses of HPV ever. If a patient did not have all doses, the IZ will not be listed.
2.4 Behavioral Health Group

2.4.1 Depression Screening

2.4.1.1 Owner: Contact
Miranda Carman, IHS Division of Behavioral Health

2.4.1.2 Denominators
1. Active Diabetes patients, defined as Active Clinical patients diagnosed with diabetes prior to the Report Period, and at least two visits during the Report Period, and two DM-related visits ever. Broken out by gender.

2.4.1.3 Numerators
1. Patients screened for depression or diagnosed with mood disorder at any time during the Report Period.

   Note: This numerator does not include refusals.

A. Patients screened for depression during the Report Period.
B. Patients with a diagnosis of a mood disorder during the Report Period.
2. Patients with depression-related education in past year.

2.4.1.4 Definitions
Diabetes
First DM POV ICD-9: 250.00 through 250.93 or ICD-10: E10.* through E13.* [SURVEILLANCE DIABETES] recorded in the V POV file prior to the Report Period

Depression Screening
Any of the following:

- Exam code 36
- POV ICD-9: V79.0 [BGP DEPRESSION SCRN DXS]
- CPT 1220F, 3725F, G0444 [BGP DEPRESSION SCREEN CPTS]
- Behavioral Health System (BHS) Problem code 14.1 (screening for depression)
- Measurement in PCC or BH of PHQ2, PHQ9 or PHQT
Mood Disorders
At least two visits in PCC or BHS during the Report Period with POV for: Major Depressive Disorder, Dysthymic Disorder, Depressive Disorder NOS, Bipolar I or II Disorder, Cyclothymic Disorder, Bipolar Disorder NOS, Mood Disorder Due to a General Medical Condition, Substance-induced Mood Disorder, or Mood Disorder NOS. These POV codes are as follows:


- BHS POV 14, 15.

Depression-related patient education
Any of the following during the Report Period:

- Patient education codes containing “DEP-” (depression), 296.2*, 296.3*, “BH-” (behavioral and social health), 290 through 319, 995.5*, 995.80 through 995.85, “SB-” (suicidal behavior), 300.9, “PDEP-” (postpartum depression), 648.44, or SNOMED codes 14183003, 15193003, 15639000, 18818009, 191610000, 191611001, 191613003, 191616006, 191659001, 19208009, 19527009, 19694002, 20250007, 231504006, 231542000, 2506003, 25922000, 2618002, 268621008, 28475009, 3109008, 319768000, 320751009, 33078009, 35489007, 36170009, 36474008, 36923009, 370143000, 38451003, 38694004, 39809009, 40379007, 40568001, 42925002, 430852001, 442057004, 48589009, 63778009, 66344007, 67711008, 69392006, 71336009, 73867007, 75084000, 75837004, 76441001, 77486005, 77911002, 78667006, 79298009, 81319007, 83176005, 832007, 84760002, 85080004, 87512008

2.4.1.5 Patient Lists

- List of Active Diabetic patients screened for depression or diagnosed with mood disorder.
- List of Active Diabetic patients not screened for depression or diagnosed with mood disorder.
2.5 Cardiovascular Disease Related Group

2.5.1 Physical Activity Assessment

2.5.1.1 Owner: Contact
Patient Education Program: Chris Lamer, PharmD
Nutrition Program: Alberta Becenti

2.5.1.2 Denominators
1. Active Clinical patients ages 5 and older.
2. Numerator 1 (Active Clinical Patients assessed for physical activity during the Report Period).
3. User Population patients ages 5 and older.

2.5.1.3 Numerators
1. Patients assessed for physical activity during the Report Period. (With Denominators 1 and 3)
   A. Patients from Numerator 1 who have received exercise education following their physical activity assessment (with Denominators 2 and 4).
   B. Patients from Numerator 1 who have set at least one exercise goal following their physical activity assessment (with Denominators 2 and 4).

2.5.1.4 Definitions

Physical Activity Assessment
Any health factor for category Activity Level documented during the Report Period.

Exercise Education
- POV ICD-9: V65.41 exercise counseling; ICD-10 Z71.82 [BGP EXERCISE COUNSELING DXS]
- Patient education codes ending “-EX” (Exercise) or containing V65.41 or Z71.82

Exercise Goal
• Patient Goal with Goal Type of "Physical Activity" and Goal Status of "Goal Set".

2.5.1.5 Patient Lists

• List of Active Clinical patients 5 and older who had a physical activity assessment.
• List of Active Clinical patients 5 and older who did not have a physical activity assessment.
• List of Active Clinical patients 5 and older who had a physical activity assessment and received exercise education.
• List of Active Clinical patients 5 and older who had a physical activity assessment and did not receive exercise education.
• List of Active Clinical patients 5 and older who had a physical activity assessment and set at least one exercise goal.
• List of Active Clinical patients 5 and older who had a physical activity assessment and did not set at least one exercise goal.

2.5.2 Cardiovascular Disease and Blood Pressure Control

2.5.2.1 Owner: Contact

Dr. Dena Wilson, Chris Lamer, PharmD, and Mark Veazie

2.5.2.2 Denominators

1. Active Clinical patients ages 18 and over.

2. Active coronary heart disease (CHD) patients, defined as Active Clinical patients diagnosed with CHD prior to the Report Period, and at least two visits during the Report Period, and either two CHD-related visits ever or CHD entry on the Problem List.

2.5.2.3 Numerators

1. Patients with blood pressure values documented during the Report Period.
2.5.2.4 Definitions

CHD

Problem List entries must have Date of Onset or Date Entered prior to the Report Period:

- Diagnosis (POV or Problem List entry where the status is not Inactive or Deleted) ICD-9: 410.0 through 413.*, 414.0 through 414.9, 429.2; ICD-10: I20.0 through I22.8, I24.0 through I25.83, I25.89, I25.9, Z95.5 [BGP CHD DXS]

- One or more Coronary Artery Bypass Graft (CABG) or Percutaneous Coronary Interventions (PCI) procedures, defined as any of the following:
  - CABG Procedure
    - Diagnosis (POV or Problem List entry where the status is not Inactive or Deleted):
      - POV ICD-9: V45.81; ICD-10: Z95.1 [BGP CABG DXS]
      - SNOMED data set PXRM BGP CABG (Problem List only)
    - CPT 33510 through 33514, 33516 through 33519, 33521 through 33523, 33530, 33533 through 33536, 33572, 35500, 35600, S2205 through S2209 [BGP CABG CPTS]
  - PCI Procedure
    - Diagnosis (POV or Problem List entry where the status is not Inactive or Deleted):
      - POV ICD-9: V45.82; ICD-10: Z95.5, Z98.61 [BGP PCI DXS]
      - SNOMED data set PXRM BGP PCI (Problem List only)
    - CPT 92920, 92924, 92928, 92933, 92937, 92941, 92943, 92980 (old code), 92982 (old code), 92995 (old code), G0290, C9600, C9602, C9604, C9606, C9607 [BGP PCI CPTS]
    - Procedure ICD-9: 00.66, 36.01 (old code), 36.02 (old code), 36.05, (old code), 36.06 through 36.07; ICD-10: 02703**, 02704**, 02713**, 02714**, 02723**, 02724**, 02733**, 02734** [BGP PCI CM PROCS]
BP Values (all numerators)
Exclusions: When calculating all BPs (using vital measurements or CPT codes), the following visits will be excluded:

- Service Category H (Hospitalization), I (In Hospital), S (Day Surgery), or O (Observation)
- Clinic code 23 (Surgical), 30 (ER), 44 (Day Surgery), 79 (Triage), C1 (Neurosurgery), or D4 (Anesthesiology)

CRS uses mean of last 3 BPs documented during the Report Period. If 3 BPs are not available, uses the mean of last 2 BPs, or 1 BP if there is only one documented. If a visit contains more than 1 BP, the lowest BP will be used, defined as having the lowest systolic value. The mean Systolic value is calculated by adding the last 3 (or 2) systolic values and dividing by 3 (or 2). The mean Diastolic value is calculated by adding the diastolic values from the last 3 (or 2) blood pressures and dividing by 3 (or 2). If the systolic and diastolic values do not both meet the current category, then the value that is least controlled determines the category.

For the Blood Pressure (BP) documented numerator only, if CRS is not able to calculate a mean BP, it will search for CPT 0001F, 2000F, 3074F through 3080F, G9273, G9274 [BGP BP MEASURED CPT, BGP SYSTOLIC BP CPTS, BGP DIASTOLIC BP CPTS] or POV ICD-9: V81.1 [BGP HYPERTENSION SCREEN DXS] documented during the Report Period.

2.5.2.5 Patient Lists
- List of Active Clinical patients 18+ who had their blood pressure assessed.
- List of Active Clinical patients 18+ who have not had their blood pressure assessed.
- List of Active Clinical patients who have CHD who had their blood pressure assessed.
- List of Active Clinical patients who have CHD who have not had their blood pressure assessed.

2.5.3 Appropriate Medication Therapy after a Heart Attack

2.5.3.1 Owner: Contact
Dr. Dena Wilson, Chris Lamer, PharmD, and Mark Veazie
2.5.3.2 Denominators

1. Active Clinical patients 35 and older discharged for an Acute Myocardial Infarction (AMI) during the first 51 weeks of the Report Period and were not readmitted for any diagnosis within seven days of discharge.

2.5.3.3 Numerators

| Note: These numerators do not include refusals. |

1. Patients with active prescription for or who have a contraindication or previous adverse reaction to beta-blockers.

2. Patients with active prescription for or who have a contraindication or previous adverse reaction to Aspirin (acetylsalicylic acid [ASA]) or other anti-platelet agent.

3. Patients with active prescription for or who have a contraindication or previous adverse reaction to ACEIs or ARBs.

4. Patients with active prescription for or who have a contraindication or previous adverse reaction to statins.

5. Patients with active prescriptions for all post-AMI medications (i.e., beta-blocker, ASA or anti-platelet, ACEI or ARB, AND statin) or who have a contraindication or previous adverse reaction.

2.5.3.4 Definitions

AMI:
POV ICD-9: 410.0*-410.9*, 412, 429.79; ICD-10: I21.*, I22.*, I23.*, I25.2 [BGP AMI DXS PAMT] with Service Category H. If patient has more than one episode of AMI during the first 51 weeks of the Report Period, CRS will include only the first discharge.

Denominator Exclusions
Patients meeting any of the following conditions will be excluded from the denominator:

- Patients with Discharge Type of Irregular (AMA), Transferred, or contains “Death”
- Patients readmitted for any diagnosis within seven days of discharge
- Patients with a Diagnosis Modifier of C (Consider), D (Doubtful), M (Maybe, Possible, Perhaps), O (Rule Out), P (Probable), R (Resolved), S (Suspect, Suspicious), T (Status Post)

To Be Included in the Numerators
A patient must meet one of the two conditions that follow:

• An active prescription (not discontinued as of discharge date plus seven days and does not have a comment of RETURNED TO STOCK) that was prescribed prior to admission, during the inpatient stay, or within seven days after discharge. “Active” prescription defined as:

\[ \text{Days Prescribed} > (\text{Discharge Date} + 7 \text{ days}) - \text{Order Date} \]

• Have a contraindication or previous adverse reaction to the indicated medication.

Contraindications or previous ADR or allergies are only counted if a patient did not have a prescription for the indicated medication. Patients without a prescription who have a contraindication or ADR or allergy will be counted toward meeting the numerator.

Note: If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:
- Rx Date: November 15, 2018
- Discontinued Date: November 19, 2018
Recalculated number of Days Prescribed:
November 19, 2018 − November 15, 2018 = 4

Numerator Logic
In the logic that follows, “ever” is defined as anytime through the end of the Report Period.

Beta-Blocker Numerator Logic
• Beta-blocker medication codes

Defined with medication taxonomy BGP PQA BETA BLOCKER MEDS:
  – Noncardioselective Beta Blockers: Carvedilol, Labetalol, Nadolol, Penbutolol, Pindolol, Propranolol, Timolol, Sotalol
  – Cardioselective Beta Blockers: Acebutolol, Atenolol, Betaxolol, Bisoprolol, Metoprolol, Nebivolol
  – Antihypertensive Combinations: Atenolol-Chlorthalidone, Bendroflumethiazide-nadolol, Bisoprolol-hydrochlorothiazide,
Hydrochlorothiazide-metoprolol, and Hydrochlorothiazide-propranolol, Nebivolol-valsartan.

- **Contraindications to beta-blockers**
  Defined as any of the following occurring ever unless otherwise noted:
  - **Asthma.** Two diagnoses (POV) of ICD-9: 493*; ICD-10: J45.* [BGP ASTHMA DXS] on different visit dates
  - **Hypotension.** One diagnosis (POV or Problem List entry where the status is not Deleted):
    - ICD-9: 458*; ICD-10: I95.* [BGP HYPOTENSION DXS]
    - SNOMED data set PXRM BGP HYPOTENSION (Problem List only)
  - **Heart block greater than 1 degree.** One diagnosis (POV or Problem List entry where the status is not Deleted):
    - ICD-9: 426.0, 426.12, 426.13, 426.2, 426.3, 426.4, 426.51, 426.52, 426.53, 426.54, 426.7; ICD-10: I44.1, I44.2, I45.2, I45.3, I45.6 [BGP CMS 2/3 HEART BLOCK DXS]
    - SNOMED data set PXRM BGP OVER 1 DEG HEART BLK (Problem List only)
  - **Sinus bradycardia.** One diagnosis (POV or Problem List entry where the status is not Deleted):
    - ICD-9: 427.81; ICD-10: I49.5, R00.1 [BGP SINUS BRADYCARDIA DXS]
    - SNOMED data set PXRM BGP SINUS BRADYCARDIA (Problem List only)
  - **COPD.** Two diagnoses on different visit dates of ICD-9: 491.0, 491.1, 491.2*, 491.8, 491.9, 493.2*, 496, 506.4; ICD-10: J41.*, J42, J44.*, J68.4, J68.8 [BGP COPD DXS], or a combination of any of these codes, such as one visit with 491.20 and one with 496
    - NMI refusal for any beta-blocker at least once during hospital stay through seven days after discharge date
    - CPT G8011 (Clinician documented that AMI patient was not an eligible candidate for beta-blocker at arrival) (old code), G9190 (Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., allergy, intolerance, other medical reasons)) at least once during hospital stay through seven days after discharge date
  - **Adverse drug reaction or documented beta blocker allergy**
Defined as any of the following occurring ever:

- POV ICD-9: 995.0 through 995.3 [BGP ASA ALLERGY 995.0-995.3] and E942.0 [BGP ADV EFF CARD RHYTH]
- Beta block* entry in ART
- Beta block*, bblock* or b block* contained within Problem List (where status is not Deleted) or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8 [BGP ASA ALLERGY 995.0-995.3 and BGP HX DRUG ALLERGY NEC]
- Problem List entry where the status is not Deleted of SNOMED data set PXRM BGP ADR BETA BLOCKER

**ASA or Other Anti-Platelet Numerator Logic**

- **ASA medication codes**
  - Defined with medication taxonomy DM AUDIT ASPIRIN DRUGS

- **Other anti-platelet medication codes**
  - Defined with medication taxonomy site-populated BGP ANTI-PLATELET DRUGS taxonomy, any medication with VA Drug Class BL700.

- **Contraindications to ASA or other anti-platelet**

  Defined as any of the following occurring ever unless otherwise noted:

  - Patients with active prescription for Warfarin (Coumadin) at time of arrival or prescribed at discharge, using site-populated BGP CMS WARFARIN MEDS taxonomy
  - Hemorrhage diagnosis (POV or Problem List entry where the status is not Deleted):
    - ICD-9: 459.0; ICD-10: R58 [BGP HEMORRHAGE DXS]
    - SNOMED data set PXRM BGP HEMORRHAGE (Problem List only)
  - NMI refusal for any aspirin at least once during hospital stay through seven days after discharge date
  - CPT G8008 (Clinician documented that AMI patient was not an eligible candidate to receive aspirin at arrival) (old code) at least once during hospital stay through seven days after discharge date

- **Adverse drug reaction, documented ASA, or other anti-platelet allergy**

  Defined as any of the following occurring ever:

  - POV ICD-9: 995.0 through 995.3 [BGP ASA ALLERGY 995.0-995.3] and E935.3 [BGP ADV EFF SALICYLATES]; ICD-10: T39.015* or T39.095* [BGP ADV EFF SALICYLATES 10]
Aspirin entry in ART

ASA or aspirin contained within Problem List (where status is not Deleted) or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8 [BGP ASA ALLERGY 995.0-995.3 and BGP HX DRUG ALLERGY NEC]

Problem List entry where the status is not Deleted of SNOMED data set PXRM BGP ADR ASA

ACEI/ARB Numerator Logic

• Ace Inhibitor (ACEI) medication codes

Defined with medication taxonomy BGP HEDIS ACEI MEDS:

  – **ACEI medications:** (Benazepril, Captopril, Enalapril, Fosinopril, Lisinopril, Moexipril, Perindopril, Quinapril, Ramipril, Trandolopril).


• Contraindications to ACEI defined as any of the following:

  – **Pregnancy:** See the definition that follows


  – **Diagnosis ever for moderate or severe aortic stenosis**

    • POV or Problem List entry where the status is not Deleted:


      – SNOMED data set PXRM BGP MOD SEV AORTIC STEN (Problem List only)

    – **NMI refusal** for any ACEI at least once during hospital stay through seven days after discharge date.

• **Adverse drug reaction or documented ACEI allergy**

Defined as any of the following occurring ever:

  – POV ICD-9: 995.0 through 995.3 [BGP ASA ALLERGY 995.0-995.3] and E942.6 [BGP ADV EFF ANTIHYPERTEN AGT]; ICD-10: T46.4X5* [BGP ADV EFF ANTIHYPER 10]
- Ace inhibitor or ACEI entry in ART
- Ace i* or ACEI contained within Problem List (where status is not Deleted) or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8 [BGP ASA ALLERGY 995.0-995.3 and BGP HX DRUG ALLERGY NEC]
- Problem List entry where the status is not Deleted of SNOMED data set PXRM BGP ADR ACEI

- **ARB medication codes**

Defined with medication taxonomy BGP HEDIS ARB MEDS:

- **ARB medications**: Angiotensin II Inhibitors (Azilsartan, Candesartan, Eprosartan, Irbesartan, Losartan, Olmesartan, Telmisartan, Valsartan.)

- **Contraindications to ARB** defined as any of the following:
  - **Pregnancy**: See the definition that follows
  - **Diagnosis ever for moderate or severe aortic stenosis**
    - POV or Problem List entry where the status is not Deleted:
      - ICD-9: 395.0, 395.2, 396.0, 396.2, 396.8, 424.1, 425.1, 747.22 [BGP CMS AORTIC STENOSIS DXS]
      - SNOMED data set PXRM BGP MOD SEV AORTIC STEN (Problem List only)
    - **NMI refusal** for any ARB at least once during hospital stay through seven days after discharge date.
  - **Adverse drug reaction or documented ARB allergy**

Defined as any of the following occurring ever:

- POV ICD-9: 995.0 through 995.3 [BGP ASA ALLERGY 995.0-995.3] and E942.6 [BGP ADV EFF ANTIHYPERTEN AGT]
– Angiotensin Receptor Blocker or ARB entry in ART
– Angiotensin Receptor Blocker or ARB contained within Problem List (where status is not Deleted) or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3; V14.8; ICD-10: Z88 [BGP ASA ALLERGY 995.0-995.3 and BGP HX DRUG ALLERGY NEC]
– Problem List entry where the status is not Deleted of SNOMED data set PXRM BGP ADR ARB

**Statins Numerator Logic:**

- **Statin medication codes**

  Defined with medication taxonomy BGP PQA STATIN MEDS:

- **Statin medications:** Atorvastatin (Lipitor), Fluvastatin (Lescol), Lovastatin (Altocor, Altoprev, Mevacor), Pravastatin (Pravachol), Pitavastatin (Livalo), Simvastatin (Zocor), Rosuvastatin (Crestor).

- **Statin Combination Products:** Niacin-lovastatin, Niacin-simvastatin, Ezetimibe-simvastatin, Amlodipine-Atorvastatin, Sitagliptin-simvastatin, Ezetimibe-atorvastatin.

- **Contraindications to Statins:** defined as any of the following:

  - **Pregnancy:** See the definition that follows
  - **Acute Alcoholic Hepatitis:** Defined as POV or Problem List entry where the status is not Deleted during the Report Period:

    - ICD-9: 571.1; ICD-10: K70.10, K70.11 [BGP ALCOHOL HEPATITIS DXS]
    - SNOMED data set PXRM BGP ACUTE ETOH HEPATITIS (Problem List only)
  - **NMI refusal** for any statin at least once during hospital stay through seven days after discharge date.

- **Adverse drug reaction or documented statin allergy**

  Defined as any of the following:

  - ALT or AST greater than three times the Upper Limit of Normal (ULN) (i.e., Reference High) on two or more consecutive visits during the Report Period
  - Creatine Kinase (CK) levels greater than 10 times ULN or CK greater than 10,000 IU/L during the Report Period
Myopathy or Myalgia, defined as any of the following during the Report Period:

- POV or Problem List entry where the status is not Deleted:
  - ICD-9: 359.0 through 359.9, 729.1, 710.5, 074.1; ICD-10: G71.14, G71.19, G72.0, G72.2, G72.89, G72.9, M35.8, M60.80 through M60.9, M79.1 [BGP MYOPATHY/MYALGIA]
  - SNOMED data set PXRM BGP MYOPATHY MYALGIA (Problem List only)
- Any of the following occurring ever:
  - POV ICD-9: 995.0 through 995.3 [BGP ASA ALLERGY 995.0-995.3] and E942.9 [BGP ADV EFF CARDIOVASC NEC]
  - "Statin" or “Statins” (except "Nystatin") entry in ART
  - “Statin” or “Statins” (except "Nystatin") contained within Problem List (where status is not Deleted) or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8 [BGP ASA ALLERGY 995.0-995.3 and BGP HX DRUG ALLERGY NEC]
  - Problem List entry where the status is not Deleted of SNOMED data set PXRM BGP ADR STATIN

**Pregnancy Definition**

Any of the following:

- The Currently Pregnant field in Reproductive Factors file set to "Yes" during the Report Period.
- At least one visit during the Report Period where the primary provider is not a CHR (Provider code 53) with any of the following:

– Procedure ICD-9: 72.*, 73.*, 74.* [BGP PREGNANCY ICD PROCEDURES]

– CPT 59000-59076, 59300, 59320, 59400-59426, 59510, 59514, 59610, 59612, 59618, 59620, 76801-76828 [BGP PREGNANCY CPT CODES]

– Miscarriage or abortion (see definitions below)

Pharmacy-only visits (clinic code 39) will not count toward this visit. If the patient has more than one pregnancy-related visit during the Report Period, CRS will use the first visit in the Report Period.

• Miscarriage definition:

– POV ICD-9: 630, 631, 632, 633*, 634*; ICD-10: O03.9 [BGP MISCARRIAGE/ABORTION DXS]

– CPT 59812, 59820, 59821, 59830 [BGP CPT MISCARRIAGE]

• Abortion definition:

– POV ICD-9: 635*, 636* 637*; ICD-10: O00.* through O03.89, O04.*, Z33.2 [BGP MISCARRIAGE/ABORTION DXS]

– CPT 59100, 59120, 59130, 59136, 59150, 59151, 59840, 59841, 59850, 59851, 59852, 59855, 59856, 59857, S2260 through S2267 [BGP CPT ABORTION]

– Procedure ICD-9: 69.01, 69.51, 74.91, 96.49; ICD-10: 0WHR73Z, 0WHR7YZ, 10A0***, 3E1K78Z, 3E1K88Z [BGP ABORTION PROCEDURES]
**All Medications Numerator Logic**

To be included in this numerator, a patient must have a prescription or a contraindication for *all* of the four medication classes (i.e., beta-blocker, ASA or other anti-platelet, ACEI or ARB, and statin).

**Test Definitions**

- **ALT**
  - Site-populated taxonomy DM AUDIT ALT TAX
  - LOINC taxonomy
- **AST**
  - Site-populated taxonomy DM AUDIT AST TAX
  - LOINC taxonomy
- **Creatine Kinase**
  - Site-populated taxonomy BGP CREATINE KINASE TAX
  - LOINC taxonomy

**2.5.3.5 Patient Lists**

- List of Active Clinical patients 35 and older discharged for AMI with beta-blocker therapy.
- List of Active Clinical patients 35 and older discharged for AMI without beta-blocker therapy.
- List of Active Clinical patients 35 and older discharged for AMI with ASA therapy.
- List of Active Clinical patients 35 and older discharged for AMI without ASA therapy.
- List of Active Clinical patients 35 and older discharged for AMI with ACEI or ARB therapy.
- List of Active Clinical patients 35 and older discharged for AMI without ACEI or ARB therapy.
- List of Active Clinical patients 35 and older discharged for AMI with statin therapy.
- List of Active Clinical patients 35 and older discharged for AMI without statin therapy.
- List of Active Clinical patients 35 and older discharged for AMI with all appropriate medications.
2.5.4 Heart Failure and Evaluation of LVS Function

2.5.4.1 Owner: Contact
Dr. Dena Wilson, Chris Lamer, PharmD and Mark Veazie

2.5.4.2 Denominators
1. Active Clinical ages 18 and older discharged with heart failure during the Report Period.

2.5.4.3 Numerators
1. Patients whose Left Ventricular Systolic (LVS) function was evaluated before arrival, during hospitalization, or is planned for after discharge.

2.5.4.4 Definitions
Heart Failure
- Primary diagnosis code of ICD-9: 398.91, 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9, 429.1, 997.1 ICD-10: I11.0, I13.0, I13.2, I150.* and with Service Category H (hospitalization) [BGP HEART FAILURE DXS].

Note: If a patient has multiple admissions matching these criteria during the Report Period, the earliest admission will be used.

Denominator Exclusions
Defined as any of the following:
- Patients receiving comfort measures only (i.e., patients who received palliative care and usual interventions were not received because a medical decision was made to limit care).
- Patients with a Discharge Type of Transferred or Irregular or containing “Death.”
- Patients who had a left ventricular assistive device (LVAD) or heart transplant procedure during hospitalization.
Comfort Measures

- POV ICD-9: V66.7 (Encounter for palliative care); ICD-10: Z51.5 documented during hospital stay. [BGP PALLIATIVE CARE DXS]

LVAD/Heart Transplant

Any of the following during hospital stay:

- Procedure ICD-9: 33.6, 37.41, 37.51 through 37.54, 37.61 through 37.66, 37.68; ICD-10: 02HA**Z, 02PA*RZ, 02RK0JZ, 02RL0JZ, 02UA4JZ, 02WA0JZ, 02WA0QZ, 02WA0RZ, 02WA3QZ, 02WA3RZ, 02WA4QZ, 02WA4RZ, 02YA0Z*, 5A02*10, 5A02*16, 5A02*1D [BGP CRS LVAD/HEART TRANS PROC]

Evaluation of LVS Function

Any of the following:

- An ejection fraction ordered or documented anytime one year prior to discharge date, defined as any of the following:
  - Measurement “CEF”
  - Procedure ICD-9: 88.53, 88.54; ICD-10: B205*ZZ, B206*ZZ, B215*ZZ, B216*ZZ [BGP CMS EJECTION FRACTION PROC]
  - CPT 78414, 78468, 78472, 78473, 78480, 78481, 78483, 78494, 93303, 93304, 93307, 93308, 93312, 93314 through 93318, 93350, 93543, 93555 [BGP CMS EJECTION FRACTION CPTS]
- Referred Care Information System (RCIS) order for Cardiovascular Disorders referral that is ordered during the hospital stay but no later than the hospital discharge date. (RCIS referral defined as:
  - ICD Diagnostic Category "Cardiovascular Disorders" combined with any of the following CPT Categories: “Evaluation and/or Management, “Non-surgical Procedures” or “Diagnostic Imaging.”)
- Any of the following documented anytime 1 year prior to discharge date:
  - Echocardiogram: Procedure ICD-9: 88.72, 37.28, 00.24; ICD-10: B245YZZ, B245ZZ4, B245ZZZ, B246YZZ, B246ZZ4, B246ZZZ, B24BYZZ, B24BZZ4, B24BZZZ [BGP CMS ECHOCARDIOGRAM PROCS]
  - Nuclear Medicine Test: Procedure ICD-9: 92.2* [BGP CMS NUCLEAR MEDICINE PROCS]
  - Cardiac Catheterization with a Left Ventriculogram: Procedure ICD-9: 37.22, 37.23, 88.53, 88.54; ICD-10: 4A02*N7, 4A02*N8, B205*ZZ, B206*ZZ, B215*ZZ, B216*ZZ [BGP CMS CARDIAC CATH/LV PROCS]
2.5.4.5 **Patient Lists**

- List of Active Clinical heart failure patients 18 and older who received evaluation of LVS function.
- List of Active Clinical heart failure patients 18 and older who did not receive evaluation of LVS function.

2.6 **STD-Related Group**

2.6.1 **HIV Quality of Care**

2.6.1.1 **Owner: Contact**

Richard Haverkate, MPH

2.6.1.2 **Denominators**

1. User Population patients 13 and older with at least two direct care visits, (i.e., not contract or PRC) during the Report Period with Human Immunodeficiency Virus (HIV) diagnosis and one HIV visit in the last six months.

2.6.1.3 **Numerators**

1. Patients who received CD4 test only (without HIV viral load) during the Report Period.

2. Patients who received HIV viral load only (without CD4), during the Report Period.

3. Patients who received both CD4 and HIV viral load tests during the Report Period.

4. Total Numerators 1, 2 and 3.

5. Patients who received at least one prescription for an Antiretroviral medication.

2.6.1.4 **Definitions**

**HIV**

POV ICD-9: 042, 042.0 through 044.9 (old codes), 079.53, V08, 795.71; ICD-10: B20, B97.35, R75, Z21, O98.711 through O98.73 [BGP HIV/AIDS DXS]

**Lab Test CD4**

- CPT 86359, 86360, 86361, G9214 [BGP CD4 CPTS]
• LOINC taxonomy
• Site-populated taxonomy BGP CD4 TAX

**HIV Viral Load**
• CPT 87536, 87539, G9242, G9243 [BGP HIV VIRAL LOAD CPTS]
• LOINC taxonomy
• Site-populated taxonomy BGP HIV VIRAL TAX

**Antiretroviral Medication**
• Defined with medication taxonomy BGP PQA ANTIRETROVIRAL MEDS. Medications must not have a comment of RETURNED TO STOCK.

**Antiretroviral medications are:**

**2.6.1.5 Patient Lists**
• List of patients 13 and older with HIV diagnosis during the Report Period who received CD4 test only.
• List of patients 13 and older with HIV diagnosis during the Report Period who did not receive CD4 test only.
• List of patients 13 and older with HIV diagnosis during the Report Period who received HIV viral load only.
• List of patients 13 and older with HIV diagnosis during the Report Period who did not receive HIV viral load only.
• List of patients 13 and older with HIV diagnosis during the Report Period who received CD4 and HIV viral load.
• List of patients 13 and older with HIV diagnosis during the Report Period who did not receive CD4 and HIV viral load.
• List of patients 13 and older with HIV diagnosis during the Report Period who received CD4 or HIV viral load.

• List of patients 13 and older with HIV diagnosis during the Report Period who did not receive CD4 or HIV viral load.

• List of patients 13 and older with HIV diagnosis during the Report Period who received a prescription for an antiretroviral medication.

• List of patients 13 and older with HIV diagnosis during the Report Period who did not receive a prescription for an antiretroviral medication.

2.6.2 Sexually Transmitted Infection Screening

2.6.2.1 Owner: Contact

Andria Apostolou, PhD, MPH

2.6.2.2 Denominators

1. HIV/AIDS screenings needed for key Sexually Transmitted Infection (STI) incidents for Active Clinical patients that occurred during the defined period. Broken down by gender.

2.6.2.3 Numerators

1. Count only (no percentage comparison to denominator). The total count of Active Clinical patients who were diagnosed with one or more key STIs during the period 60 days prior to the Report Period through the first 300 days of the Report Period.

2. Count only (no percentage comparison to denominator). The total count of separate key STI incidents for Active Clinical patients during the defined period.

3. For use with Denominator 1: Number of needed HIV/AIDS screenings performed from one month prior to the date of first STI diagnosis of each incident through two months after.

Note: This numerator does not include refusals.
2.6.2.4 Definitions

Key STIs
Chlamydia, gonorrhea, HIV/AIDS, and syphilis. Key STIs defined with the following POVS:

- Chlamydia: ICD-9: 079.88, 079.98, 099.41, 099.50 through 099.59; ICD-10: A56.*, A74.81 through A74.9
- Gonorrhea: ICD-9: 098.0 through 098.89; ICD-10: A54.*, O98.2*
- HIV/AIDS: ICD-9: 042, 042.0 through 044.9, 079.53, 795.71, V08; ICD-10: B20, B97.35, R75, Z21, O98.711 through O98.73 [BGP HIV/AIDS DXS]
- Syphilis: ICD-9: 090.0 through 093.9, 094.1 through 097.9; ICD-10: A51.* through A53.*

Logic for Identifying Patients Diagnosed with Key STI (Numerator #1)
Any patient with one or more diagnoses of the key STIs defined above during the period 60 days prior to the beginning of the Report Period through the first 300 days of the Report Period.

Logic for Identifying Separate Incidents of Key STIs (Numerator #2)
One patient may have one or multiple occurrences of one or multiple STIs during the year, except for HIV. An occurrence of HIV is only counted if it is the initial HIV diagnosis for the patient. Incidents of an STI are identified beginning with the date of the first key STI diagnosis (see definition above) occurring between 60 days prior to the beginning of the Report Period through the first 300 days of the Report Period. A second incident of the same STI (other than HIV) is counted if another diagnosis with the same STI occurs 2 months or more after the initial diagnosis. A different STI diagnosis that occurs during the same 60-day time period as the first STI counts as a separate incident.

Table 2-1: Example of patient with multiple incidents of single STI

<table>
<thead>
<tr>
<th>Date</th>
<th>Visit</th>
<th>Total Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 1, 2017</td>
<td>Patient screened for Chlamydia</td>
<td>0</td>
</tr>
<tr>
<td>August 8, 2017</td>
<td>Patient diagnosed with Chlamydia</td>
<td>1</td>
</tr>
<tr>
<td>August 15, 2017</td>
<td>Patient diagnosed with Chlamydia</td>
<td>2</td>
</tr>
<tr>
<td>October 25, 2017</td>
<td>Follow-up for Chlamydia</td>
<td>2</td>
</tr>
<tr>
<td>November 15, 2017</td>
<td>Patient diagnosed with Chlamydia</td>
<td>2</td>
</tr>
<tr>
<td>March 1, 2018</td>
<td>Patient diagnosed with Chlamydia</td>
<td>3</td>
</tr>
</tbody>
</table>
Denominator Logic for Needed Screenings (Denominator #1)

One patient may need multiple screening tests based on one or more STI incidents occurring during the time period.

To be included in the needed HIV screening tests denominator, the count will be derived from the number of separate non-HIV STI incidents. HIV screening tests are recommended for the following key STIs: Chlamydia, Gonorrhea, Syphilis.

“Needed” screenings are recommended screenings that are further evaluated for contraindications. The following are reasons that a recommended screening is identified as not needed (i.e., contraindicated).

- Only one screening for HIV is needed during the relevant time period, regardless of the number of different STI incidents identified. For example, if a patient is diagnosed with Chlamydia and Gonorrhea on the same visit, only one screening is needed for HIV/AIDS.
- A patient with HIV/AIDS diagnosis prior to any STI diagnosis that triggers a recommended HIV/AIDS screening does not need the screening ever.

Numerator Logic

To be counted in the numerator, each needed screening in the denominator must have a corresponding lab test or test refusal documented in the period from 1 month prior to the relevant STI diagnosis date through 2 months after the STI incident.

HIV/AIDS Screening

Any of the following during the specified time period:

- CPT 86689, 86701 through 86703, 87389 through 87391, 87534 through 87539, 87806, 80081 [BGP CPT HIV TESTS]
- Site-populated taxonomy BGP HIV TEST TAX
- LOINC taxonomy

2.6.2.5 Patient Lists

- List of Active Clinical patients diagnosed with an STI who were screened for other key STIs.
- List of Active Clinical patients diagnosed with an STI who were not screened for other key STIs.
- List of Active Clinical patients diagnosed with an STI who were screened for HIV.
- List of Active Clinical patients diagnosed with an STI who were not screened for HIV or who had a prior HIV diagnosis.
2.7 Other Clinical Measures Group

2.7.1 Asthma

2.7.1.1 Owner: Contact
Chris Lamer, PharmD

2.7.1.2 National Reporting
Not reported nationally

2.7.1.3 Denominators
1. Active Clinical patients broken down by age groups: younger than 15 years, 15 through 34 years, 35 through 64 years, 65 years and older.

2.7.1.4 Numerators
1. Patients who have had two asthma-related visits during the Report Period or with persistent asthma.

2.7.1.5 Definitions
Asthma Visits
Asthma visits are defined as diagnosis (POV) ICD-9: 493.*; ICD-10: J45.* [BGP ASTHMA DXS].

Persistent Asthma
Any of the following:

- Problem List entry where the status is not Inactive or Deleted for ICD-9: 493.*; ICD-10: J45.* [BGP ASTHMA DXS]; SNOMED data set PXRM ASTHMA with Severity of 2, 3 or 4 at any time before the end of the Report Period
- Problem List entry where the status is not Inactive or Deleted for SNOMED data set PXRM ASTHMA PERSISTENT at ANY time before the end of the Report Period or
- Most recent visit-related asthma entry (i.e., V Asthma) with Severity of 2, 3, or 4 documented any time before the end of the Report Period.
2.7.1.6 **Patient Lists**
List of Active Clinical patients diagnosed with asthma.

2.7.2 **Medication Therapy for Persons with Asthma**

2.7.2.1 **Owner: Contact**
Chris Lamer, PharmD

2.7.2.2 **Denominators**
1. Active Clinical patients ages 5 through 50 years with persistent asthma within the year prior to the beginning of the Report Period and during the Report Period, without a documented history of emphysema or COPD.

2.7.2.3 **Numerators**
1. Suboptimal Control: Patients who were dispensed more than three canisters of a short-acting Beta-2 agonist inhaler during the same 90-day period during the Report Period.
2. Absence of Controller Therapy: Patients who were dispensed more than three canisters of short acting Beta-2 agonist inhalers over a 90-day period and who did not receive controller therapy during the same 90-day period.

2.7.2.4 **Definitions**

**Denominator Exclusions**
Patients diagnosed with emphysema or COPD at any time on or before the end of the Report Period are excluded from the denominator.

**Emphysema**
Any visit at any time on or before the end of the Report Period with POV or Problem List entry where the status is not Deleted:
- ICD-9: 492.*, 506.4, 518.1, 518.2; ICD-10: J43.*, J68.4, J68.8, J98.2, J98.3. [BGP EMPHYSEMA DXS]
- SNOMED data set PXRM BGP EMPHYSEMA (Problem List only)
COPD
Any visit at any time on or before the end of the Report Period with POV or Problem List entry where the status is not Deleted:

- ICD-9: 491.0, 491.1, 491.2*, 491.8, 491.9, 493.2*, 496, 506.4; ICD-10: J41.*, J42, J44.*, J68.4, J68.8 [BGP COPD DXS]
- SNOMED data set PXRM BGP COPD (Problem List only)

Persistent Asthma
Meeting any of the following four criteria within the year prior to the beginning of the Report Period and during the Report Period:

- At least one visit to Clinic code 30 (Emergency Medicine) with primary diagnosis ICD-9: 493.*; ICD-10: J45.* (asthma) [BGP ASTHMA DXS]
- At least one acute inpatient discharge with primary diagnosis ICD-9: 493.*; ICD-10: J45.* [BGP ASTHMA DXS]. Acute inpatient discharge defined as Service Category of H
- At least four outpatient visits, defined as Service Categories A, S, or O, with primary or secondary diagnosis of ICD-9: 493.*; ICD-10: J45.* [BGP ASTHMA DXS] and at least two asthma medication dispensing events (see definition that follows)
- At least four asthma medication dispensing events (see definition that follows). If the sole medication was leukotriene modifiers, then must also have at least one visit with POV ICD-9: 493.* [BGP ASTHMA DXS]; ICD-10: J45.* in the same year as the leukotriene modifier (i.e. during the Report Period or within the year prior to the beginning of the Report Period.), or

Meeting any of the following criteria:

- Problem List entry where the status is not Inactive or Deleted for ICD-9: 493.*; ICD-10: J45.* [BGP ASTHMA DXS]; SNOMED data set PXRM ASTHMA PERSISTENT with Severity of 2, 3 or 4 at any time before the end of the Report Period
- Most recent visit-related asthma entry (i.e., V Asthma) with Severity of 2, 3, or 4 documented any time before the end of the Report Period.

Dispensing Event
One prescription of an amount lasting 30 days or less. For prescriptions longer than 30 days, divide the days’ supply by 30 and round down to convert. For example, a 100-day prescription is equal to three dispensing events:

$$100 \div 30 = 3.33, \text{rounded down to 3}$$
Also, two different prescriptions dispensed on the same day are counted as two different dispensing events. Inhalers should also be counted as one dispensing event.

**Note:** If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:
- Rx Date: November 15, 2018
- Discontinued Date: November 19, 2018
Recalculated number of Days Prescribed:
November 19, 2018 – November 15, 2018 = 4

- Asthma medication codes for denominator defined with medication taxonomies:
  - BGP HEDIS ASTHMA MEDS
  - BGP HEDIS ASTHMA LEUK MEDS
  - BGP HEDIS ASTHMA INHALED MEDS
  - Medications are: Antiasthmatic Combinations (Dyphylline-Guaifenesin, Guaifenesin-Theophylline), Antibody Inhibitor (Omalizumab), Inhaled Steroid Combinations (Budesonide-Formoterol, Fluticasone-Salmeterol, Formoterol-Mometasone), Inhaled Corticosteroids (Beclomethasone, Budesonide, Ciclesonide CFC Free, Flunisolide, Fluticasone CFC Free, Mometasone), Lekotriene Modifiers (Montelukast, Zafirlukast, Zileuton), Mast Cell Stabilizers (Cromolyn), Methylxanthines (Dyphylline, Theophylline), Short-Acting, Inhaled Beta-2 Agonist inhalers (Albuterol, Levalbuterol). Medications must not have a comment of RETURNED TO STOCK.

**Numerator Inclusion**

To be included in the Suboptimal Control and Absence of Controller Therapy numerators, patient must have one or more non-discontinued prescriptions for short acting Beta-2 Agonist inhalers totaling at least four canisters in one 90-day period. Short acting Beta-2 Agonist inhaler medications defined with medication taxonomy BGP PQA SABA MEDS. (Medications are: Albuterol, Levalbuterol). Medications must not have a comment of RETURNED TO STOCK.

**Controller Therapy**

At least one non-discontinued prescription of controller therapy medications during the same 90-day period.

**Controller Therapy Medications**
Controller therapy medications defined with medication taxonomy BGP PQA CONTROLLER MEDS. (Medications are: Beclomethasone, Budesonide, Budesonide-Formoterol, Ciclesonide, Flunisolide, Fluticasone, Fluticasone-Salmeterol, Fluticasone-vilanterol, Formoterol, Luticasone-salmeterol, Mometasone, Mometasone-Formoterol, Montelukast, Salmeterol, Theophylline, Zafirlukast, Zileuton). Medications must not have a comment of RETURNED TO STOCK.

2.7.2.5 Patient Lists

- List of Active Clinical patients ages 5 through 50 years with asthma who were dispensed more than three canisters of a short-acting Beta-2 agonist inhaler during the same 90-day period.
- List of Active Clinical patients ages 5 through 50 years with asthma who were not dispensed more than three canisters of a short-acting Beta-2 agonist inhaler during the same 90-day period.
- List of Active Clinical patients ages 5 through 50 years with asthma who did not receive controller therapy.

2.7.3 Proportion of Days Covered by Medication Therapy

2.7.3.1 Owner: Contact

Chris Lamer, PharmD

2.7.3.2 Denominators

1. Active Clinical patients ages 18 and older who had two or more prescriptions for beta-blockers during the Report Period.

2. Active Clinical patients ages 18 and older who had two or more prescriptions for RAS Antagonists and no documented history of ESRD or one or more prescriptions for ARB/Neprilysin inhibitor combination medications during the Report Period.

3. Active Clinical patients ages 18 and older who had two or more prescriptions for calcium channel blockers (CCB) during the Report Period.

4. Active Clinical patients ages 18 and older who had two or more prescriptions for biguanides and no documented history of ESRD during the Report Period.

5. Active Clinical patients ages 18 and older who had two or more prescriptions for sulfonylureas and no documented history of ESRD during the Report Period.
6. Active Clinical patients ages 18 and older who had two or more prescriptions for thiazolidinediones and no documented history of ESRD during the Report Period.

7. Active Clinical patients ages 18 and older who had two or more prescriptions for DiPeptidyl Peptidase (DPP)-IV Inhibitors and no documented history of ESRD during the Report Period.

8. Active Clinical patients ages 18 and older who had two or more prescriptions for Diabetes All Class medications and no documented history of ESRD during the Report Period.

9. Active Clinical patients ages 18 and older who had two or more prescriptions for statins during the Report Period.

10. Active Clinical patients ages 18 and older who had two or more prescriptions for non-warfarin oral anticoagulants during the Report Period.

11. Active Clinical patients ages 18 and older who had two or more prescriptions for antiretroviral agents during the Report Period.

12. Active Clinical patients with COPD who had two or more prescriptions for long-acting inhaled bronchodilators and no prescriptions for nebulized bronchodilators during the Report Period.

13. Active Clinical patients ages 18 and older who had two or more prescriptions for non-infused disease modifying agents treating multiple sclerosis (MS) totalling 56 days supply or more and no prescriptions for infused medications treating MS during the Report Period.

2.7.3.3 Numerators

1. Patients with Proportion of Days Covered (PDC) 80% or more during the Report Period.

2. Patients with a gap in medication therapy 30 days or longer.

3. Patients with PDC 90% or higher during the Report Period (with Denominator 11).

2.7.3.4 Definitions

Denominator Inclusion
Patients must have at least two prescriptions for that particular type of medication on two unique dates of service at any time during the Report Period. Medications must not have a comment of RETURNED TO STOCK. Note: Outside medications and e-
prescribed medications (prescription number begins with "X" or days' supply is zero) will not be included in these measures.

For the Non-warfarin anticoagulants measures, the two unique dates of service must be at least 180 days apart and the patient must have received greater than a 60-day supply of the medication during the Report Period. Patients who received one or more prescriptions for warfarin, low molecular weight heparin (LMWH), heparin, or an SC Factor Xa inhibitor (defined by medication taxonomy BGP PQA WARFARIN) will be excluded from the denominator.

**Index Prescription Start Date**
The date when the medication was first dispensed within the Report Period. For all measures except Non-warfarin anticoagulants, this date must be greater than 90 days from the end of the Report Period to be counted in the denominator.

**Medications**
Medications are defined with the following taxonomies:

- **BGP PQA BETA BLOCKER MEDS**
  - Beta-blocker medications (Acebutolol HCL, Atenolol, Betaxolol HCL, Bisoprolol fumarate, Carvedilol, Labetalol HCL, Metoprolol Succinate, Metoprolol Tartrate, Nadolol, Nebivolol HCL, Penbutolol Sulfate, Pindolol, Propranolol HCL, Timolol maleate); Beta-Blocker combination products (Atenolol-chlorthalidone, Bisoprolol-HCTZ, Nadolol-Bendroflumethiazide, Metoprolol-HCTZ, Propranolol-HCTZ, Nebivolol-valsartan)

- **BGP PQA RASA MEDS**
  - Angiotensin Converting Enzyme Inhibitors (Benazepril, Captopril, Enalapril, Fosinopril, Lisinopril, Moexipril, Perindopril, Quinapril, Ramipril, Trandolopril); Antihypertensive Combinations (Amlodipine-benazepril, Benazepril-HCTZ, Captopril-HCTZ, Enalapril-HCTZ, Fosinopril-HCTZ, Lisinopril-HCTZ, Moexipril-HCTZ, Quinapril-HCTZ, Trandolapril-Verapamil); Angiotensin II Inhibitors (Azilsartan, Candesartan, Eprosartan, Irbesartan, Losartan, Olmesartan, Telmisartan, Valsartan); Antihypertensive Combinations (Aliskiren-Valsartan, Amlodipine-Valsartan, Amlodipine-Valsartan-HCTZ, Amlodipine-olmesartan, Azilsartan-Chlorthalidone, Candesartan-HCTZ, Eprosartan-HCTZ, Irbesartan-HCTZ, Losartan-HCTZ, Olmesartan-Amlodipine-HCTZ, Olmesartan-HCTZ, Telmisartan-Amlodipine, Telmisartan-HCTZ, Valsartan-HCTZ, Nebivolol-valsartan); Direct Renin Inhibitors (Aliskiren); Direct Renin Inhibitor Combination Products (Aliskiren-amlodipine, Aliskiren-Amlodipine-HCTZ, Aliskiren-HCTZ, Aliskiren-valsartan)
• BGP PQA CCB MEDS
  – Calcium-Channel Blocker medications (Amlodipine Besylate, Diltiazem HCL, Felodipine, Isradipine, Nicardipine HCL, Nifedipine (long acting only), Verapamil HCL, Nisoldipine); CCB Combination Products (Amlodipine besylate-benazepril HCL, Amlodipine-valsartan, Amlodipine-valsartan-HCTZ, Akiskiren-amlodipine, Aliskiren-amlodipine-HCTZ, Telmisartan-amlodipine, Amlodipine-olmesartan, Perindopril-amlodipine, Trandolapril-verapamil HCL, Amlodipine-atorvastatin, Olmesartan-amlodipine-HCTZ)

• BGP PQA BIGUANIDE MEDS
  – Biguanides (Metformin); Combination Products (Glipizide-metformin, Glyburide-metformin, Rosiglitazone-metformin, Pioglitazone-metformin, Repaglinide-metformin, Sitagliptin-metformin IR-SR, Saxagliptin-metformin SR, Linagliptin-metformin, Alogliptin-metformin, Dapagliflozin-Metformin, Canagliflozin-Metformin)

• BGP PQA SULFONYLUREA MEDS
  – Sulfonylureas (Chlorpropamide, Glimepiride, Glipizide, Glyburide, Tolazamide, Tolbutamide); Combination Products (Glipizide-metformin, Glyburide-metformin, Rosiglitazone-glimepiride, Pioglitazone-glimepiride)

• BGP PQA THIAZOLIDINEDIONE MEDS
  – Thiazolidinediones (Pioglitazone, Rosiglitazone); Combination Products (Rosiglitazone-metformin, Pioglitazone-metformin, Rosiglitazone-glimepiride, Pioglitazone-glimepiride, Alogliptin-pioglitazone)

• BGP PQA DPP IV MEDS
  – DPP-IV Inhibitors (Sitagliptin, Linagliptin, Saxagliptin, Alogliptin); Combination Products (Sitagliptin-metformin IR-SR, Saxagliptin-metformin SR, Sitagliptin-simvastatin, Linagliptin-metformin, Alogliptin-metformin, Alogliptin-pioglitazone, Linagliptin-empagliflozin)

• BGP PQA DIABETES ALL CLASS
  – Biguanide medications (see list above); Sulfonylurea medications (see list above); Thiazolidinedione medications (see list above); DPP-IV Inhibitor medications (see list above); Incretin Mimetic Agents (Albiglutide, Exenatide, Liraglutide, Dulaglutide, Lixisenatide); Meglitinides (Nateglinide, Repaglinide, Repaglinide-metformin); Sodium glucose co-transporter2 (SGLT2) inhibitors (Canagliflozin, Dapagliflozin, Empagliflozin, Dapagliflozin-Metformin, Linagliptin-empagliflozin, Canagliflozin-Metformin, Empagliflozin-metformin)

• BGP PQA STATIN MEDS
- Statins (Lovastatin, Rosuvastatin, Fluvastatin, Atorvastatin, Pravastatin, Pitavastatin, Simvastatin); Combination Products (Niacin-lovastatin, Atorvastatin-amlodipine, Niacin-simvastatin, Sitagliptin-simvastatin, Ezetimibe-simvastatin, Ezetimibe-atorvastatin)
- BGP PQA NON-WARFARIN ANTICOAG
  - (Apixaban, Dabigatran, Rivaroxaban, Edoxaban)
- BGP PQA WARFARIN
  - (Warfarin, Dalteparin, Fondaparinux, Enoxaparin, Heparin)
- BGP PQA ANTIRETROVIRAL MEDS
- BGP PQA ARB NEPRILYSIN INHIB
  - ARB/Neprilysin Inhibitor Combinations (Sacubitril/Valsartan)
- BGP PQA LA INHALED BRONCHO MED
  - Aclidinium bromide powder, Budesonide-formoterol fumarate dihydrate aerosol, Fluticasone propionate-salmeterol xinafoate powder, Fluticasone-vilanterol, Formoterol inhalation capsule, Glycopyrrolate, Glycopyrrolate-formoterol, Indacaterol maleate inhalation powder, Indacaterol-glycopyrrolate, Olodaterol aerosol, Salmeterol xinofoate, Tiotropium bromide powder, Tiotropium bromide-olodaterol, Unmeclidinium, Unmeclidinium-vilanterol
- BGP PQA NEBULIZED BRONCHO MEDS
  - Albuterol Sulfate, Arformoterol Tartrate, Formoterol Fumarate, Ipratropium Bromide, Ipratropium-Albuterol, Levalbuterol HCl
- BGP PQA NON-INFUSED MS MEDS
  - Beta-Interferons (Interferon beta 1a, Interferon beta 1b, Peginterferon beta-1a); Immunomodulators (Glatiramer, Fingolimid, Daclizumab); Pyrimidine Synthesis Inhibitors (Teriflunomide); Nrf2 Activators (Dimethyl Fumerate)
- BGP PQA INFUSED MS MEDS
Alemtuzumab, Mitoxantrone, Natalizumab, Ocrelizumab

**ESRD**

Any of the following ever:

- CPT 36145 (old code), 36147, 36800, 36810, 36815, 36818, 36819, 36820, 36821, 36831 through 36833, 50300, 50320, 50340, 50360, 50365, 50370, 50380, 90918 through 90925 (old codes), 90935, 90937, 90939 (old code), 90940, 90945, 90947, 90951 through 90970, 90989, 90993, 90997, 90999, 99512, G0257, G0308 through G0327 (old codes), G0392 (old code), G0393 (old code), G9231, S2065, S9339 [BGP ESRD CPTS]
- Diagnosis (POV or Problem List entry where the status is not Deleted):
  - SNOMED data set PXRM END STAGE RENAL DISEASE (Problem List only)
- Procedure ICD-9: 38.95, 39.27, 39.42, 39.43, 39.53, 39.93 through 39.95, 54.98, 55.6* [BGP ESRD PROCS]

**Chronic Obstructive Pulmonary Disease (COPD)**

Any of the following during the Report Period:

- COPD: Diagnosis (POV or Problem List entry where the status is not Deleted):
  - ICD-9: 491.20, 491.21, 491.22, 493.2*, 496, 506.4; ICD-10: J44.*, J68.4, J68.8 [BGP COPD DXS]
  - SNOMED data set PXRM BGP COPD (Problem List only)
- Emphysema: Diagnosis (POV or Problem List entry where the status is not Deleted):
  - ICD-9: 492.*, 506.4, 518.1, 518.2; ICD-10: J43.*, J68.4, J68.8, J98.2, J98.3 [BGP EMPHYSEMA DXS]
  - SNOMED data set PXRM BGP EMPHYSEMA (Problem List only).

**Each PDC Numerator**

The PDC equals the number of days the patient was covered by at least one drug in the class divided by the number of days in the patient's measurement period.

The patient’s measurement period is defined as the number of days between the Index Prescription Start Date and the end of the Report Period. When calculating the number of days the patient was covered by at least one drug in the class, if prescriptions for the same drug overlap, the prescription start date for the second prescription will be adjusted to be the day after the previous fill has ended.
**Note:** If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:
- Rx Date: November 15, 2018
- Discontinued Date: November 19, 2018
Recalculated number of Days Prescribed:
November 19, 2018 — November 15, 2018 = 4

**Example of PDC**

Report Period: January 1 through December 31, 2018

- First prescription:
  - Index Rx Start Date: March 1, 2018
  - Days’ Supply: 90
  - Prescription covers patient through May 29, 2018

- Second prescription:
  - Rx Date: May 26, 2018
  - Days’ Supply: 90
  - Prescription covers patient through August 27, 2018

- Third prescription:
  - Rx Date: September 11, 2018
  - Days’ Supply: 180
  - Gap:
    - September 11, 2018 — August 27, 2018 = 15 days
  - Prescription covers patient through March 8, 2019

Patient's measurement period:

March 1, 2018 through December 31, 2018 = 306 days

Days patient was covered:

March 1, 2018 through August 27, 2018 +
September 11, 2018 through December 31, 2018 = 292 days

PDC:

292 ÷ 306 = 95%
Each Gap Numerator

CRS will calculate whether a gap in medication therapy of 30 or more days has occurred between each consecutive medication dispensing event during the Report Period. A gap is calculated as the days not covered by the days’ supply between consecutive medication fills.

Example of Medication Gap 30 Days or Longer:

Report Period: January 1 through December 31, 2018

- First prescription:
  - Rx Date: April 1, 2018
  - Days’ Supply: 30
  - Prescription covers patient through April 30, 2018

- Second prescription:
  - Rx Date: July 1, 2018
  - Days’ Supply: 90
  - Gap #1:
    \[
    \text{July 1, 2018} - \text{April 30, 2018} = 61 \text{ days}
    \]
    Prescription covers patient through September 28, 2018

- Third prescription:
  - Rx Date: October 1, 2018
  - Days’ Supply: 90
  - Gap #2:
    \[
    \text{October 1, 2018} - \text{September 28} - 2018 = 2 \text{ days}
    \]
    Prescription covers patient through December 29, 2018

\[\text{Gap #1} \geq 30 \text{ days}\]

Patient will be included in the numerator for that medication.

2.7.3.5 Patient Lists

- List of Active Clinical patients 18 and older whose PDC for beta-blockers is 80% or more.
- List of Active Clinical patients 18 and older whose PDC for beta-blockers is less than 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their beta-blocker medication therapy.
- List of Active Clinical patients 18 and older whose PDC for RAS Antagonists is 80% or more.
- List of Active Clinical patients 18 and older whose PDC for RAS Antagonists is less than 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their RAS Antagonist medication therapy.
- List of Active Clinical patients 18 and older whose PDC for CCBs is 80% or more.
- List of Active Clinical patients 18 and older whose PDC for CCBs is less than 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their CCB medication therapy.
- List of Active Clinical patients 18 and older whose PDC for biguanides is 80% or more.
- List of Active Clinical patients 18 and older whose PDC for biguanides is less than (<) 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their biguanide medication therapy.
- List of Active Clinical patients 18 and older whose PDC for sulfonylureas is 80% or more.
- List of Active Clinical patients 18 and older whose PDC for sulfonylureas is less than (<) 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their sulfonylurea medication therapy.
- List of Active Clinical patients 18 and older whose PDC for thiazolidinediones is 80% or more.
- List of Active Clinical patients 18 and older whose PDC for thiazolidinediones is less than (<) 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their thiazolidinedione medication therapy.
- List of Active Clinical patients 18 and older whose PDC for DPP-IV is greater than or equal to (>=) 80%.
- List of Active Clinical patients 18 and older whose PDC for DPP-IV is less than (<) 80%.
• List of Active Clinical patients 18 and older who had a gap greater than or equal to (\(\geq\)) 30 days in their DPP-IV medication therapy.

• List of Active Clinical patients 18 and older whose PDC for Diabetes All Class is greater than or equal to (\(\geq\)) 80%.

• List of Active Clinical patients 18 and older whose PDC for Diabetes All Class is less than (\(<\)) 80%.

• List of Active Clinical patients 18 and older who had a gap greater than or equal to (\(\geq\)) 30 days in their Diabetes All Class medication therapy.

• List of Active Clinical patients 18 and older whose PDC for statins is 80% or more.

• List of Active Clinical patients 18 and older whose PDC for statins is less than (\(<\)) 80%.

• List of Active Clinical patients 18 and older who had a gap of 30 days or more in their statin medication therapy.

• List of Active Clinical patients 18 and older whose PDC for antiretroviral agents is 90% or more.

• List of Active Clinical patients 18 and older whose PDC for antiretroviral agents is less than (\(<\)) 90%.

• List of Active Clinical patients with COPD whose proportion of days covered for long-acting inhaled bronchodilators is greater than or equal to (\(\geq\)) 80%.

• List of Active Clinical patients with COPD whose proportion of days covered for long-acting inhaled bronchodilators is less than (\(<\)) 80%.

• List of Active Clinical patients 18+ whose proportion of days covered for non-infused disease modifying agents is greater than or equal to (\(\geq\)) 80%.

• List of Active Clinical patients 18+ whose proportion of days covered for non-infused disease modifying agents is less than (\(<\)) 80%.

### 2.7.4 Primary Medication Non-adherence

#### 2.7.4.1 Owner and Contact

Chris Lamer, PharmD

#### 2.7.4.2 National Reporting

Not reported nationally
2.7.4.3 Denominators

1. Number of e-prescriptions for newly initiated drug therapy for chronic medications for Active Clinical patients ages 18 and older.

2.7.4.4 Numerators

1. Number of medications returned to stock within 30 days.

2.7.4.5 Definitions

Denominator Inclusion
To be included in the denominator, the e-prescription must be for a chronic medication during the Report Period.

Denominator Exclusions
- Any prescription where there is a prescription dispensing record in the preceding 180 days for the same drug.
- Any duplicate medications, defined as any medication that has been e-prescribed twice in a 30-day period with no prescription fill in between the e-prescriptions.
- Any prescription sent to an outside pharmacy, as it is not possible to know if the medication was returned to stock.

Chronic Medications
Defined by the following taxonomies:

- BGP PQA ASTHMA INHALED STEROIDS
  - Beclomethasone, Budesonide, Ciclesonide, Fluticasone, Flunisolide, Fluticasone-salmeterol, Fluticasone-vilanterol, Mometasone, Budesonide-formoterol, Mometasone-formoterol
- BGP PQA COPD
- BGP PQA DIABETES ALL CLASS
  - Biguanides (Metformin); Biguanide Combination Products (Gliclazide-metformin, Glyburide-metformin, Rosiglitazone-metformin, Pioglitazone-metformin, Repaglinide-metformin, Sitagliptin-metformin IR-SR, Saxagliptin-metformin SR, Linagliptin-metformin, Alogliptin-metformin, Dapagliflozin-metformin, Empagliflozin-metformin, Canagliflozin-
metformin); Sulfonylureas (Chlorpropamide, Glimepiride, Glipizide, Glyburide, Tolazamide, Tolbutamide); Sulfonylurea Combination Products (Glipizide-metformin, Glyburide-metformin, Rosiglitazone-glimepiride, Pioglitazone-glimepiride); Thiazolidinediones (Pioglitazone, Rosiglitazone); Thiazolidinedione Combination Products (Rosiglitazone-metformin, Pioglitazone-metformin, Rosiglitazone-glimepiride, Pioglitazone-glimepiride, Alogliptin-pioglitazone); DPP-IV Inhibitors (Sitagliptin, Linagliptin, Saxagliptin, Alogliptin); DPP-IV Inhibitor Combination Products (Sitagliptin-metformin IR-SR, Saxagliptin-metformin SR, Sitagliptin-simvastatin, Linagliptin-metformin, Alogliptin-metformin, Alogliptin-pioglitazone, Linagliptin-empagliflozin); Incretin Mimetic Agents (Albiglutide, Exenatide, Liraglutide, Dulaglutide, Lixisenatide); Meglitinides (Nateglinide, Repaglinide, Repaglinide-metformin); Sodium glucose co-transporter2 (SGLT2) inhibitors (Canagliflozin, Dapagliflozin, Empagliflozin, Dapagliflozin-metformin, Linagliptin-empagliflozin, Canagliflozin-metformin, Empagliflozin-metformin)

- **BGP PQA RASA MEDS**
  - Angiotensin Converting Enzyme Inhibitors (Benazepril, Captopril, Enalapril, Fosinopril, Lisinopril, Moexipril, Perindopril, Quinapril, Ramipril, Trandolapril); Antihypertensive Combinations (Amlodipine-benazepril, Benazepril-HCTZ, Captopril-HCTZ, Enalapril-HCTZ, Fosinopril-HCTZ, Lisinopril-HCTZ, Moexipril-HCTZ, Perindopril-amlodipine, Quinapril-HCTZ, Trandolapril-verapamil); Angiotensin II Inhibitors (Azilsartan, Candesartan, Eprosartan, Irbesartan, Losartan, Olmesartan, Telmisartan, Valsartan); Antihypertensive Combinations (Amlodipine-valsartan, Amlodipine-valsartan-HCTZ, Amlodipine-olmesartan, Azilsartan-Chlorthalidone, Candesartan-HCTZ, Eprosartan-HCTZ, Irbesartan-HCTZ, Losartan-HCTZ, Olmesartan-amlodipine-HCTZ, Olmesartan-HCTZ, Telmisartan-amlodipine, Telmisartan-HCTZ, Valsartan-HCTZ, Nebivolol-valsartan); Direct Renin Inhibitors (Aliskiren); Direct Renin Inhibitor Combination Products (Aliskiren-amlodipine, Aliskiren-amlodipine-HCTZ, Aliskiren-HCTZ)

- **BGP PQA STATIN MEDS**
  - Statins (Lovastatin, Rosuvastatin, Fluvastatin, Atorvastatin, Pravastatin, Pitavastatin, Simvastatin); Combination Products (Niacin-lovastatin, Atorvastatin-amlodipine, Niacin-simvastatin, Sitagliptin-simvastatin, Ezetimibe-simvastatin, Ezetimibe-atorvastatin)

**Numerator Inclusion**

To be included in the numerator, the e-prescription medication must have a comment of RETURNED TO STOCK within 30 days of the prescription date (i.e., visit date).
2.7.4.6 **Patient List**
List of Active Clinical patients ages 18 and older with an e-prescription for a chronic medication that has been returned to stock.

2.7.5 **Medication Therapy Management Services**

2.7.5.1 **Owner: Contact**
Chris Lamer, PharmD

2.7.5.2 **National Reporting**
Not reported nationally

2.7.5.3 **Denominators**
1. Active Clinical patients 18 and older with Medications dispensed at their facility during the Report Period.

2.7.5.4 **Numerator**
1. Patients who received Medication Therapy Management (MTM) during the Report Period.

2.7.5.5 **Definitions**
**Patients Receiving Medications**
Identified by any entry in the VMed file for your facility.

**MTM**
- CPT 99605 through 99607 [BGP CPT MTM]
- Clinic codes: D1, D2, D5

2.7.5.6 **Patient List**
List of patients 18 and older receiving medications with MTM, if any.

2.7.6 **Public Health Nursing**

2.7.6.1 **Owner: Contact**
Tina Tah, RN, BSN, MBA
2.7.6.2 Denominators

No denominators. These measures are total count only, not a percentage.

2.7.6.3 Numerators

1. Count only (no percentage comparison to denominator). Number of visits to User Population patients by PHNs in any setting, including Home.
   A. Number of visits to patients, ages 0 through 28 days (Neonate) in any setting.
   B. Number of visits to patients, ages 29 days through 12 months (infants) in any setting.
   C. Number of visits to patients, ages 1 through 64 years in any setting.
   D. Number of visits to patients ages 65 and older (Elders) in any setting.

2. Count only (no percentage comparison to denominator). Number of visits to User Population patients by PHNs in Home setting.
   A. Number of Home visits to patients, ages 0 through 28 days (Neonate).
   B. Number of Home visits to patients, ages 29 days through 12 months (infants).
   C. Number of Home visits to patients, ages 1 through 64 years.
   D. Number of visits to patients, ages 65 and older (Elders) in any setting.
   E. Number of PHN driver/interpreter (Provider code 91) visits in a HOME setting.

2.7.6.4 Definitions

PHN Visit-Any Setting
Any visit with primary or secondary Provider codes 13 or 91.

PHN Visit-Home
Any visit with one of the following:
- Clinic code 11 and a primary or secondary provider code of 13 or 91, or
- Location Home (as defined in Site Parameters) and a primary or secondary Provider code 13 or 91

2.7.6.5 Patient Lists

- List of patients with a PHN visit in any setting, including Home.
- List of patients with a PHN visit in Home setting
2.7.7 Use of High Risk Medications in the Elderly

2.7.7.1 Owner and Contact
Dr. Bruce Finke

2.7.7.2 National Reporting
Not reported nationally

2.7.7.3 Denominators
1. Active Clinical patients ages 65 years and older with no hospice indicator during the Report Period. Broken down by gender and age groups: 65 through 74 years, 75 through 84 years, and 85 years and older.

2.7.7.4 Numerators
1. Patients who received at least one high risk medication for the elderly during the Report Period.
2. Patients who received at least two high risk medications of the same high-risk medication class for the elderly during the Report Period.

2.7.7.5 Definitions

Note: The logic below is a deviation from the logic written by PQA, and more closely matches the HEDIS logic.

- For nitrofurantoin, a patient must have received a single dispensing event with a day’s supply greater than 90 days for any nitrofurantoin product during the Report Period.
- For nonbenzodiazepine hypnotics (BGP HEDIS NONBENZODIAZ MEDS), a patient must have received a single dispensing event with a day’s supply greater than 90 days for any nonbenzodiazepine hypnotic products during the Report Period.
- For medications dispensed during the report period, include any days’ supply that extends beyond the end of the report period. For example, a prescription of a 90-day supply dispensed on the last day of the report period counts as a 90-day supply.

Hospice
- CPT 99377, 99378, G9473 through G9479, G9687 [BGP CPT HOSPICE]
• SNOMED codes 170935008, 183919006, 183920000, 183921001, 284546000, 305336008, 305911006, 385763009, 385765002, 444933003, 445449000, 444933003, 428361000124107, 428371000124100

High Risk Medications for the Elderly
Defined with medication taxonomies:

• BGP HEDIS ANTICHOLINERGIC MEDS
  – First-generation antihistamines (Includes combination drugs)
    (Brompheniramine, Carbinoxamine, Chlorpheniramine, Clemastine, Cyproheptadine, Dexampheniramine, Dextchlorpheniramine, Dimenhydrinate, Diphenhydramine (oral), Doxylamine, Hydroxyzine, Promethazine, Meclizine, Tripolidine); Antiparkinson agents (Benztropine (oral), Trihexyphenidyl); Antispasmodics (Atropine (excludes ophthalmic), Belladonna alkaloids, Clidinium-Chlordiazepoxide, Dicyclomine, Hyoscyamine, Propanetheline, Scopolamine)

• BGP HEDIS ANTITHROMBOTIC MEDS
  – (Ticlopidine, Dipyridamole, oral short-acting)

• BGP HEDIS ANTI-INFECTIVE MEDS
  – (Nitrofurantoin)

• BGP HEDIS CARDIOVASCULAR MEDS
  – Alpha blockers, central (Guanfacine, Guanabenz, Methyldopa, Reserpine); Cardiovascular, other (Disopyramide, Digoxin, Nifedipine, immediate release)

• BGP HEDIS CENTRAL NERVOUS MEDS
  – Antidepressants (Includes combination drugs) (Amitriptyline, Amoxapine, Clomipramine, Desipramine, Doxepin, Imipramine, Nortriptiyline, Paroxetine, Protriptyline, Trimipramine); Barbiturates (Amobarbital, Butabarbitral, Butalbital, Mepbarbital, Pentobarbital, Phenobarbital, Secobarbital); Central Nervous System, other (Meprobamate); Nonbenzodiazepine hypnotics (Eszopiclone, Zolpidem, Zaleplon); Vasodilators (Ergoloid mesylates, Isoxsuprine)

• BGP HEDIS ENDOCRINE MEDS
  – Endocrine (Desiccated thyroid, Estrogens with or without progesterone (oral and topical patch products only), Megestrol); Sulfonylureas, long-duration (Chlorpropamide, Glyburide)

• BGP HEDIS PAIN MEDS
  – Pain medications (Meperidine, Pentazocine); Non-COX-selective NSAIDs (Indomethacin, Ketorolac (includes parenteral))
• BGP HEDIS SKL MUSCLE RELAX MED
  
  – (Includes combination drugs) (Carisoprodol, Chlorzoxazone, Cyclobenzaprine, Metaxalone, Methocarbamol, Orphenadrine)

  **Note:** For each medication, the days’ supply must be greater than zero (> 0). If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:
  - Rx Date: November 15, 2018
  - Discontinued Date: November 19, 2018
  Recalculated number of Days Prescribed: November 19, 2018 − November 15, 2018 = 4

  Medications must not have a comment of RETURNED TO STOCK.

2.7.7.6 Patient Lists

• List of Active Clinical patients 65 years of age and older with at least one high-risk medication.

• List of Active Clinical patients 65 years of age and older without at least one high-risk medication.

2.7.8 Use of Benzodiazepine Sedative Hypnotic Medications in the Elderly

2.7.8.1 Owner and Contact

Chris Lamer, PharmD

2.7.8.2 National Reporting

Not reported nationally

2.7.8.3 Denominators

1. Active Clinical patients ages 65 and older.

2.7.8.4 Numerators

1. Patients who received at least two prescription fills for any benzodiazepine sedative hypnotic medications for more than 90 days.
2.7.8.5 Definitions

- The patient must have received a cumulative day’s supply for any benzodiazepine sedative hypnotic products greater than 90 days during the Report Period.

- Benzodiazepine sedative hypnotic medications defined with medication taxonomy BGP PQA BENZODIAZ MEDS. (Medications are: Estazolam, Flurazepam, Quazepam, Temazepam, Triazolam)

Note: For each medication, the days’ supply must be greater than zero (\( > 0 \)). If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:
- Rx Date: November 15, 2018
- Discontinued Date: November 19, 2018
Recalculated number of Days Prescribed:
November 19, 2018 − November 15, 2018 = 4
Medications must not have a comment of RETURNED TO STOCK.

2.7.8.6 Patient Lists

- List of Active Clinical patients 65 and older with two or more prescriptions for benzodiazepine sedative hypnotic medications.

- List of Active Clinical patients 65 and older without two or more prescriptions for benzodiazepine sedative hypnotic medications.
# List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE</td>
<td>Angiotensin Converting Enzyme</td>
</tr>
<tr>
<td>ACEI</td>
<td>Angiotensin Converting Enzyme Inhibitor</td>
</tr>
<tr>
<td>ADR</td>
<td>Adverse Drug Reaction</td>
</tr>
<tr>
<td>AI/AN</td>
<td>American Indian/Alaska Native</td>
</tr>
<tr>
<td>AMA</td>
<td>Against Medical Advice</td>
</tr>
<tr>
<td>AMI</td>
<td>Acute Myocardial Infarction</td>
</tr>
<tr>
<td>APT</td>
<td>Acute Phase Treatment</td>
</tr>
<tr>
<td>ARB</td>
<td>Angiotensin Receptor Blocker</td>
</tr>
<tr>
<td>ART</td>
<td>Patient Allergies File</td>
</tr>
<tr>
<td>ASA</td>
<td>Acetylsalicylic Acid (Aspirin)</td>
</tr>
<tr>
<td>BH</td>
<td>Behavioral Health</td>
</tr>
<tr>
<td>BHS</td>
<td>Behavioral Health System</td>
</tr>
<tr>
<td>BNI</td>
<td>Brief Negotiated Interview</td>
</tr>
<tr>
<td>BP</td>
<td>Blood Pressure</td>
</tr>
<tr>
<td>CABG</td>
<td>Coronary Artery Bypass Graft</td>
</tr>
<tr>
<td>CCB</td>
<td>Calcium Channel Blocker</td>
</tr>
<tr>
<td>CHD</td>
<td>Coronary Heart Disease</td>
</tr>
<tr>
<td>CHR</td>
<td>Community Health Representative</td>
</tr>
<tr>
<td>CK</td>
<td>Creatine Kinase</td>
</tr>
<tr>
<td>CLD</td>
<td>Chronic Lung Disease</td>
</tr>
<tr>
<td>COPD</td>
<td>Chronic Obstructive Pulmonary Disease</td>
</tr>
<tr>
<td>CPT</td>
<td>Current Procedural Terminology</td>
</tr>
<tr>
<td>CRS</td>
<td>Clinical Reporting System</td>
</tr>
<tr>
<td>DEP</td>
<td>Depression</td>
</tr>
<tr>
<td>DM</td>
<td>Diabetes Mellitus</td>
</tr>
<tr>
<td>DNKA</td>
<td>Did Not Keep Appointment</td>
</tr>
<tr>
<td>DPST</td>
<td>Demo/Test Patient Search Template</td>
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<tr>
<td>ER</td>
<td>Emergency Room</td>
</tr>
<tr>
<td>ESRD</td>
<td>End Stage Renal Disease</td>
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<tr>
<td>ETDRS</td>
<td>Early Treatment Diabetic Retinopathy Study</td>
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<tr>
<td>EX</td>
<td>Exercise</td>
</tr>
<tr>
<td>GFR</td>
<td>Glomerular Filtration Rate</td>
</tr>
<tr>
<td>GPRA</td>
<td>Government Performance and Results Act of 1993</td>
</tr>
<tr>
<td>Acronym</td>
<td>Meaning</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
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<tr>
<td>HEDIS</td>
<td>Healthcare Effectiveness Data and Information Set</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>HPV</td>
<td>Human Papillomavirus</td>
</tr>
<tr>
<td>ICD</td>
<td>International Classification of Diseases</td>
</tr>
<tr>
<td>IHD</td>
<td>Ischemic Heart Disease</td>
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<tr>
<td>IHS</td>
<td>Indian Health Service</td>
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<tr>
<td>IVD</td>
<td>Ischemic Vascular Disease</td>
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<tr>
<td>LDL</td>
<td>Low-Density Lipoprotein</td>
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<tr>
<td>LOINC</td>
<td>Logical Observations Identifiers Names and Codes</td>
</tr>
<tr>
<td>LVAD</td>
<td>Left Ventricular Assistive Device</td>
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<tr>
<td>LVS</td>
<td>Left Ventricular Systolic</td>
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<tr>
<td>MTM</td>
<td>Medication Therapy Management</td>
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<tr>
<td>NMI</td>
<td>Not Medically Indicated</td>
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<td>ONM</td>
<td>Other National Measure</td>
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<tr>
<td>PCC</td>
<td>Patient Care Component</td>
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<tr>
<td>PCI</td>
<td>Percutaneous Coronary Intervention</td>
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<tr>
<td>PDC</td>
<td>Proportion of Days Covered</td>
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<td>PDEP</td>
<td>Postpartum Depression</td>
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<tr>
<td>PHN</td>
<td>Public Health Nursing</td>
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<tr>
<td>POV</td>
<td>Purpose of Visit</td>
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<tr>
<td>PRC</td>
<td>Purchased and Referred Care</td>
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<tr>
<td>RAS</td>
<td>Renin Angiotensin System</td>
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<tr>
<td>RCIS</td>
<td>Referred Care Information System</td>
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<tr>
<td>STI</td>
<td>Sexually Transmitted Infection</td>
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<tr>
<td>TCA</td>
<td>Tricyclic Antidepressants</td>
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<tr>
<td>UACR</td>
<td>Urine Albumin Creatinine Ratio</td>
</tr>
<tr>
<td>ULN</td>
<td>Upper Limit of Normal</td>
</tr>
</tbody>
</table>
Contact Information

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