

**If line of business not labeled, measure is Commercial only*

ADULT PREVENTIVE CARE

MEASURE	Age Range (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
Adult BMI <i>(Medicare)</i>	18-74	Medicare members ages 18-74	BMI value (if patient ≥ 20) OR BMI percentile (if patient < 20) recorded during an outpatient visit in 2016 or 2017	<ul style="list-style-type: none"> • Pregnancy • Members in hospice
Chlamydia Screening	Women 16-24	Sexually active women ages 16-24 <i>*Sexual activity is defined through a combination of 2017 pharmacy and claims data - i.e. by rx for oral contraceptives and codes for pregnancy, sexual activity, and/or pregnancy test</i>	Chlamydia Screen in 2017 (Cervix or Urine Test)	<ul style="list-style-type: none"> • A pregnancy test in 2017 AND a prescription for isotretinoin on the date of or within 6 days after the pregnancy test • A pregnancy test during the measurement year AND an x-ray on the date of or within 6 days after the pregnancy test • Members in hospice
Colorectal Cancer Screening <i>(Commercial and Medicare)</i>	50-75	Adults ages 50-75	Any of the following: <ul style="list-style-type: none"> • FOBT in 2017 • FIT-DNA Test 2015 to 2017 • Sigmoidoscopy 2013 to 2017 • CT Colonography 2013 to 2017 • Colonoscopy 2008 to 2017 	<ul style="list-style-type: none"> • Colorectal cancer • Total colectomy • Members in hospice

ADULT PREVENTIVE CARE (Cont'd)

MEASURE	Age Range (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
<p style="text-align: center;">Cervical Screening</p>	<p style="text-align: center;">21-64</p>	<p style="text-align: center;">Women ages 21-64</p>	<p>Women 21-64 with cervical cytology in last three years (2015 to 2017) OR Women 30-64 with cervical cytology/HPV co-testing in the last five years (2013-2017)*</p> <p><i>*Cervical cytology and HPV testing may occur up to 4 days apart.</i></p>	<ul style="list-style-type: none"> • Women without a cervix: i.e. women with hysterectomy and no residual cervix, cervical agenesis or acquired absence of cervix, and/or transgender women • Members in hospice
<p style="text-align: center;">Breast Cancer Screening <i>(Commercial & Medicare)</i></p>	<p style="text-align: center;">50-74</p>	<p style="text-align: center;">Women ages 50-74</p>	<p>One or more mammograms between October 1, 2015 and December 31, 2017</p> <p><i>*Other diagnostic screenings such as ultrasounds, biopsies, MRIs or tomosynthesis (3D mammography) are not counted for this measure</i></p>	<ul style="list-style-type: none"> • Bilateral or two unilateral mastectomies • Members in hospice

CARDIOVASCULAR MEASURES

MEASURE	Age Range (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
Persistent Meds DIURETICS	≥ 18	Adults 18 years and older who are taking diuretics who received at least 180 ambulatory treatment days	At least one serum potassium and one serum creatinine test in 2017.	<ul style="list-style-type: none"> • Members with an inpatient stay in 2017 • Members in hospice
Persistent Meds ACE/ARBs		Adults 18 years and older who are taking ACE/ARBs who received at least 180 ambulatory treatment days	<i>*Criteria may be met with individual tests or with lab panel tests.</i>	
Persistent Meds DIGOXIN		Adults 18 years and older who are taking Digoxin who received at least 180 ambulatory treatment days	At least one serum potassium , one serum creatinine , and one serum digoxin test in 2017. <i>*Criteria may be met with individual tests or with lab panel tests.</i>	
Controlling High Blood Pressure	18-85	Adults 18-85 with hypertension diagnosis and without diabetes	Most recent blood pressure in 2017 within controlled range: <ul style="list-style-type: none"> •Adults 18-59: <140/90 •Adults 60-85: <150/90 	<ul style="list-style-type: none"> • Diabetes • Gestational diabetes • Steroid-induced diabetes • Members in hospice

CARDIOVASCULAR MEASURES (Cont'd)

MEASURE	Age Range (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
Statin Therapy for Patients with Cardiovascular Disease	Males 21-75 Females 40-75	Males 21-75 and females 40-75 with atherosclerotic cardiovascular disease (ASCVD)	<ul style="list-style-type: none"> • Prescribed one or more high or moderate-intensity statin medications during 2017* • Remained on statins for at least 80% of the treatment period (from prescription date to end of 2017) <p style="text-align: center;"><i>*For a list of qualifying medications see Figure 1 in "Medication Appendix" on the next tab in this workbook.</i></p>	<p>Any of the following in 2016:</p> <ul style="list-style-type: none"> • Discharged with an MI • Discharged with a CABG • Members who had PCI • Members who had any other revascularization procedure <p>Any of the following in 2016 or 2017:</p> <ul style="list-style-type: none"> • Members with ischemic vascular disease (IVD) who had at least one outpatient visit OR one acute inpatient encounter with IVD dx. <ul style="list-style-type: none"> • Pregnancy • In vitro fertilization • At least one prescription for clomiphene <ul style="list-style-type: none"> • ESRD • Cirrhosis <p>Any of the following in 2017:</p> <ul style="list-style-type: none"> • Myalgia, myositis, myopathy, or rhabdomyolysis • Members in hospice
Proportion of Days Covered by Medications RAS <i>(Commercial and Medicare)</i>	≥ 18	Patients who filled at least 2 prescriptions for a RAS antagonist or RAS/ARB combination on 2 unique dates of service during the treatment period (from prescription date to end of 2017)	Remained on RAS medication for at least 80% of the treatment period	<ul style="list-style-type: none"> • ESRD • Dispensed at least one prescription for an ARB/Neprilysin Inhibitor Combination Medication • Members in hospice

CARDIOVASCULAR MEASURES (Cont'd)

MEASURE	Age Range (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
<p>Proportion of Days Covered by Medications - Statins <i>(Commercial and Medicare)</i></p>	<p>≥ 18</p>	<p>Patients who filled at least 2 prescriptions for a statin or statin combination two separate times during the treatment period (from prescription date to end of 2017).</p>	<p>Remained on statins for at least 80% of the treatment period</p>	<p>Any of the following in 2016:</p> <ul style="list-style-type: none"> • Discharged with an MI • Discharged with a CABG • Members who had PCI • Members who had any other revascularization procedure <p>Any of the following in 2016 or 2017:</p> <ul style="list-style-type: none"> • Members with ischemic vascular disease (IVD) who had at least one outpatient visit OR one acute inpatient encounter with IVD dx. <ul style="list-style-type: none"> • Pregnancy • In vitro fertilization • At least one prescription for clomiphene <ul style="list-style-type: none"> • ESRD • Cirrhosis <p>Any of the following in 2017:</p> <ul style="list-style-type: none"> • Myalgia, myositis, myopathy, or rhabdomyolysis • Members in hospice

DIABETES CARE

MEASURE	Age Range (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
DM A1C Screening	18-75	Adult 18-75 with DM Type I or II	At least 2 HbA1C tests in 2017 performed 14 or more days apart	<ul style="list-style-type: none"> • Gestational diabetes • Steroid-induced diabetes • Members in hospice
DM Good Control A1C <8			Most recent A1C value in 2017 < 8	
DM A1C Poor Control >9 <i>(Commercial and Medicare)</i>			Most recent A1C value in 2017 > 9 OR No A1C result in 2017	
DM Eye Exam <i>(Medicare)</i>	18-75	Medicare members 18-75 with DM Type I or II	<ul style="list-style-type: none"> • A retinal or dilated eye exam by an eye care professional (optometrist or ophthalmologist) in 2017 • A negative retinal or dilated eye exam by an eye care professional in 2016 	
DM BP Control <140/90	18-75	Adults 18-75 with DM Type I or II	Most recent blood pressure in 2017 lower than 140/90 <i>*If there are multiple BP readings on the same date of service, use the lowest reading</i>	

DIABETES CARE (Cont'd)

MEASURE	Age Range (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
Statin Therapy for Patients with Diabetes	40-75	Adults 40-75 with DM Type I or II who do not have clinical atherosclerotic cardiovascular disease (ASCVD)	<ul style="list-style-type: none"> • Prescribed at least one statin medication of any intensity during 2017* • Remained on statins for at least 80% of the treatment period (from prescription date to end of 2017) <p><i>*For a list of qualifying medications see Figure 2 in "Medication Appendix" on the next tab in this workbook.</i></p>	<p>Any of the following in 2016:</p> <ul style="list-style-type: none"> • Discharged with an MI • Discharged with a CABG • Members who had PCI • Members who had any other revascularization procedure <p>Any of the following in 2016 or 2017:</p> <ul style="list-style-type: none"> • Members with ischemic vascular disease (IVD) who had at least one outpatient visit OR one acute inpatient encounter with IVD dx. <ul style="list-style-type: none"> • Pregnancy • In vitro fertilization • At least one prescription for clomiphene <ul style="list-style-type: none"> • ESRD • Cirrhosis <p>Any of the following in 2017:</p> <ul style="list-style-type: none"> • Myalgia, myositis, myopathy, or rhabdomyolysis <p>• Members in hospice</p>
Proportion of Days Covered by Medications - Diabetes	≥ 18	Patients who filled at least 2 prescriptions for a Diabetes All-Class medication on 2 unique dates during the treatment period (from prescription date to end of 2017)	Remained on DM medication/s for at least 80% of the treatment period	<ul style="list-style-type: none"> • ESRD • Members prescribed insulin • Members in hospice

DIABETES CARE (Cont'd)

MEASURE	Age Range (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
DM Nephropathy Monitoring <i>(Medicare)</i>	18-75	Medicare members 18-75 with DM Type I or II	<ul style="list-style-type: none"> • Nephropathy screening in 2017: <ul style="list-style-type: none"> - Urine microalbumin test <li style="text-align: center;">OR -ACE/ARB dispensing event <li style="text-align: center;">OR • Nephropathy treatment in 2017, including one or more of the following: <ul style="list-style-type: none"> - Nephrologist consultation - Dx: Diabetic nephropathy, ESRD, CRF, CKD IV, Renal insufficiency, Renal dysfunction, Acute renal failure (ARF), Proteinuria, AND/OR Albuminuria - Dialysis, hemodialysis or peritoneal dialysis <li style="text-align: center;">- Kidney transplant 	<ul style="list-style-type: none"> • Gestational diabetes • Steroid-induced diabetes • Members in hospice

PEDIATRIC PREVENTIVE CARE

**Commercial Only*

MEASURE	Age (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
Tdap	13	Adolescents who turn 13 during 2017	At least one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between their 10th and 13th birthday	<ul style="list-style-type: none"> • Contraindication to vaccine: anaphylactic reaction • Members in hospice
Meningococcal			At least one meningococcal conjugate vaccine on or between their 11th and 13th birthday	
HPV			Three doses of HPV administered on three different dates between their 9th and 13th birthday	
IMA COMBO 1			One meningococcal vaccine and one Tdap vaccine.	
IMA COMBO 2			One meningococcal vaccine, one Tdap, and at least 3 HPV vaccines	

PEDIATRIC PREVENTIVE CARE (Cont'd)

**Commercial Only*

MEASURE	Age (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
Rotavirus	2	Children who turn 2 during 2017	<ul style="list-style-type: none"> •At least 2 doses of the 2-dose RV, OR •At least 3 doses of the 3-dose RV, OR •At least 1 dose of the 2-dose RV AND at least 2 doses of the 3-dose RV on or before the 2nd birthday <p style="text-align: center;"><i>*All on different dates at least 42 days after birth</i></p>	<ul style="list-style-type: none"> • Contraindication to vaccine: anaphylactic reaction • Members in hospice
VZV			<ul style="list-style-type: none"> •At least 1 Varicella vaccine on or before the 2nd birthday OR •Documented history of the illness 	
Hep A			<ul style="list-style-type: none"> •At least 1 Hep A vaccination on or before the 2nd birthday OR •Documented history of the illness 	
Pneumococcal			<p style="text-align: center;">At least 4 pneumococcal vaccines on or before the 2nd birthday.</p> <p style="text-align: center;"><i>*All on different dates at least 42 days after birth</i></p>	
MMR			<p style="text-align: center;">At least 1 MMR vaccination on or before the 2nd birthday OR documented history of the illness</p>	

PEDIATRIC PREVENTIVE CARE (Cont'd)

**Commercial Only*

MEASURE	Age (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
IPV	2	Children who turn 2 during 2017	At least 3 Polio vaccines on or before the 2 nd birthday <i>*All on different dates at least 42 days after birth</i>	<ul style="list-style-type: none"> • Contraindication to vaccine: anaphylactic reaction • Members in hospice
HiB			At least 3 HiB vaccinations on or before the 2nd birthday. <i>*All on different dates at least 42 days after birth</i>	
Hep B			<ul style="list-style-type: none"> • At least 3 Hep B vaccinations with different dates of service on or before the 2nd birthday <li style="text-align: center;">OR • Documented history of the illness 	
DTap			At least 4 DTap vaccinations on or before the 2nd birthday <i>*All on different dates at least 42 days after birth</i>	
Influenza			At least 2 influenza vaccinations on or before the 2nd birthday. <i>*All on different dates at least 6 months (180 days) after birth</i>	
CIS combo			DTaP, IPV, MMR, HiB, Hep B, VZV, PVC, HepA, RV, and Influenza vaccinations all administered before the 2nd birthday	

MUSCULOSKELETAL

MEASURE	Age Range (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
Rheumatoid Arthritis DMARD Therapy <i>(Medicare)</i>	<p style="text-align: center;">≥ 18</p>	<p style="text-align: center;">Medicare members 18 years and older who were diagnosed with RA</p>	<p>At least one ambulatory prescription for a disease modifying anti-rheumatic drug dispensed in 2017*</p> <p><i>*For a list of qualifying medications see Figure 3 in "Medication Appendix" on the next tab in this workbook.</i></p>	<ul style="list-style-type: none"> • Diagnosis of HIV or pregnancy in 2017 • Members in hospice
Use of Imaging Studies for Low Back Pain	<p style="text-align: center;">18-50</p>	<p style="text-align: center;">Adults 18-50 seen for primary diagnosis of uncomplicated low back pain (LBP)</p>	<p style="text-align: center;">MUST NOT HAVE an imaging study within 28 days of diagnosis.</p> <p style="text-align: center;">Imaging studies include: -X ray -CT scan or -MRI</p>	<ul style="list-style-type: none"> • Recent trauma 90 days before through 28 days after the earliest visit for low back pain <ul style="list-style-type: none"> • History of IV drug abuse • Neurological impairment • Cancer or history of malignant neoplasms <ul style="list-style-type: none"> • HIV • Spinal infection • Major organ transplant • Prolonged use of corticosteroids (90 consecutive days) • Observation or ED visit that results in inpatient stay • Members in hospice

RESPIRATORY

MEASURE	Age Range (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
Asthma Medication Ratio	5-85	Ages 5-85 with persistent asthma	<ul style="list-style-type: none"> • Members receive both asthma controller and reliever meds in 2017 <li style="text-align: center;">AND • Members use controller medications at least half as often as reliever medications <p style="text-align: center;"><i>*Ratio of controller medications to total asthma medication 0.50 or greater</i></p>	<ul style="list-style-type: none"> • Members with any of the following: Emphysema, COPD, Cystic Fibrosis, Acute Respiratory Failure, Obstructive Chronic Bronchitis, Chronic Respiratory Conditions Due to Fumes/Vapors • Members without asthma controller or reliever medications • Members in hospice

OTHER MEDICARE MEASURES

MEASURE	Age Range (Years)	Denominator (i.e. How selected/identified)	Numerator (Needed Items)	Exclusion/s
High Risk Medications <i>(Medicare)</i>	≥ 65	Medicare members 65 and older	<p>Fill two or more prescriptions for a high-risk medication on two different dates in 2017*</p> <p style="text-align: center;"><i>*For a list of qualifying medications see Figure 4 in "Medication Appendix" on the next tab in this workbook.</i></p>	Members in hospice

Figure 1 - Statin Therapy for Patients with Cardiovascular Disease

Table SPC-B: High and Moderate-Intensity Statin Medications

Description	Prescription
High-intensity statin therapy	<ul style="list-style-type: none"> • Atorvastatin 40–80 mg • Amlodipine-atorvastatin 40-80 mg • Ezetimibe-atorvastatin 40-80 mg • Rosuvastatin 20–40 mg • Simvastatin 80 mg • Ezetimibe-simvastatin 80 mg
Moderate-intensity statin therapy	<ul style="list-style-type: none"> • Atorvastatin 10–20 mg • Amlodipine-atorvastatin 10-20 mg • Ezetimibe-atorvastatin 10-20 mg • Rosuvastatin 5–10 mg • Simvastatin 20–40 mg • Ezetimibe-simvastatin 20-40 mg • Niacin-simvastatin 20-40 mg • Sitagliptin-simvastatin 20-40 mg • Pravastatin 40–80 mg • Lovastatin 40 mg • Niacin-lovastatin 40 mg • Fluvastatin XL 80 mg • Fluvastatin 40 mg bid • Pitavastatin 2–4 mg

Figure 2 - Statin Therapy for Patients with Diabetes

Table SPD-B: High, Moderate and Low-Intensity Statin Prescriptions

Description	Prescription
High-intensity statin therapy	<ul style="list-style-type: none"> • Atorvastatin 40–80 mg • Amlodipine-atorvastatin 40–80 mg • Ezetimibe-atorvastatin 40–80 mg • Rosuvastatin 20–40 mg • Simvastatin 80 mg • Ezetimibe-simvastatin 80 mg
Moderate-intensity statin therapy	<ul style="list-style-type: none"> • Atorvastatin 10–20 mg • Amlodipine-atorvastatin 10–20 mg • Ezetimibe-atorvastatin 10–20 mg • Rosuvastatin 5–10 mg • Simvastatin 20–40 mg • Ezetimibe-simvastatin 20–40 mg • Niacin-simvastatin 20–40 mg • Sitagliptin-simvastatin 20–40 mg • Pravastatin 40–80 mg • Lovastatin 40 mg • Niacin-lovastatin 40 mg • Fluvastatin XL 80 mg • Fluvastatin 40 mg bid • Pitavastatin 2–4 mg
Low-intensity statin therapy	<ul style="list-style-type: none"> • Simvastatin 10 mg • Ezetimibe-simvastatin 10 mg • Sitagliptin-simvastatin 10 mg • Pravastatin 10–20 mg • Lovastatin 20 mg • Niacin-lovastatin 20 mg • Fluvastatin 20–40 mg • Pitavastatin 1 mg

Figure 3 - Rheumatoid Arthritis DMARD Therapy

Table ART-A: DMARDs

Description	Prescription
5-Aminosalicylates	• Sulfasalazine
Alkylating agents	• Cyclophosphamide
Aminoquinolines	• Hydroxychloroquine
Anti-rheumatics	<ul style="list-style-type: none"> • Auranofin • Gold sodium thiomalate • Leflunomide • Methotrexate • Penicillamine
Immunomodulators	<ul style="list-style-type: none"> • Abatacept • Adalimumab • Anakinra • Certolizumab • Certolizumab pegol • Etanercept • Golimumab • Infliximab • Rituximab • Tocilizumab
Immunosuppressive agents	<ul style="list-style-type: none"> • Azathioprine • Cyclosporine • Mycophenolate
Janus kinase (JAK) inhibitor	• Tofacitinib
Tetracyclines	• Minocycline

Figure 4 - High Risk Medications

Table HRM-A: High-Risk Medications

Description	Prescription	
Anticholinergics (excludes TCAs), first-generation antihistamines (as single agent or as part of combination products)— <i>excludes OTC products</i>	<ul style="list-style-type: none"> • Brompheniramine • Carbinoxamine • Chlorpheniramine • Clemastine • Cyproheptadine • Dexchlorpheniramine 	<ul style="list-style-type: none"> • Diphenhydramine (oral) • Doxylamine • Hydroxyzine • Promethazine • Triprolidine
Anticholinergics (excludes TCAs), anti-Parkinson agents	<ul style="list-style-type: none"> • Benzotropine (oral) 	<ul style="list-style-type: none"> • Trihexyphenidyl
Antithrombotics	<ul style="list-style-type: none"> • Dipyridamole, oral short-acting (does not apply to the extended-release combination with aspirin) 	<ul style="list-style-type: none"> • Ticlopidine*
Anti-infective	<ul style="list-style-type: none"> • Nitrofurantoin (include when cumulative day supply is >90 days) (A) 	
Cardiovascular, alpha blockers, central	<ul style="list-style-type: none"> • Guanfacine* • Methyldopa* 	<ul style="list-style-type: none"> • Reserpine (>0.1mg/day)* (B) • Guanabenz*
Cardiovascular, other	<ul style="list-style-type: none"> • Disopyramide* • Digoxin (>0.125mg/day) (C) 	<ul style="list-style-type: none"> • Nifedipine, immediate release*
Central nervous system, tertiary TCAs (as a single agent or as part of a combination product)	<ul style="list-style-type: none"> • Amitriptyline • Clomipramine • Doxepin (>6mg/day) (D) 	<ul style="list-style-type: none"> • Imipramine • Trimipramine
Central nervous system, antipsychotics, first-generation (conventional)	<ul style="list-style-type: none"> • Thioridazine 	
Central nervous system, barbiturates	<ul style="list-style-type: none"> • Amobarbital* • Butabarbital* • Butalbital • Pentobarbital* 	<ul style="list-style-type: none"> • Phenobarbital • Secobarbital* • Mephobarbital*
Central nervous system, other	<ul style="list-style-type: none"> • Chloral hydrate 	<ul style="list-style-type: none"> • Meprobamate
Central nervous system, Nonbenzodiazepine hypnotics (include when cumulative day supply is >90 days) (E)	<ul style="list-style-type: none"> • Eszopiclone • Zolpidem 	<ul style="list-style-type: none"> • Zaleplon
Central nervous system, vasodilators for dementia	<ul style="list-style-type: none"> • Ergot mesylates* 	<ul style="list-style-type: none"> • Isoxsuprine
Endocrine system	<ul style="list-style-type: none"> • Desiccated thyroid • Estrogens** with or without progesterone (oral and topical patch products only) 	<ul style="list-style-type: none"> • Megestrol
Endocrine system, sulfonylureas, long-duration	<ul style="list-style-type: none"> • Chlorpropamide 	<ul style="list-style-type: none"> • Glyburide
Gastrointestinal system	<ul style="list-style-type: none"> • Trimethobenzamide 	
Pain medications	<ul style="list-style-type: none"> • Meperidine 	<ul style="list-style-type: none"> • Pentazocine*
Pain medications, non-COX-selective NSAIDS***	<ul style="list-style-type: none"> • Indomethacin 	<ul style="list-style-type: none"> • Ketorolac
Skeletal muscle relaxants (as a single agent or as part of a combination product)	<ul style="list-style-type: none"> • Carisoprodol • Chlorzoxazone • Cyclobenzaprine 	<ul style="list-style-type: none"> • Metaxalone • Methocarbamol • Orphenadrine

*Infrequently used drugs. *Abbreviations:* TCAs, tricyclic antidepressants; OTC, over the counter.

** Conjugated estrogen, esterified estrogen, estradiol, estropipate (includes combination products and the following routes of administration: oral, and transdermal).

***Includes oral and injectable (IJ, SC, IM, IV) routes only.