CY2011 Medicare Part D Plan Ratings Technical Notes: September 2010

The master table includes reporting time periods for each Medicare Part D performance or quality measure shown. All data are reported at the contract level. The following plan and organization types are excluded: National PACE, Cost plans, Employer Group Health plans (EGHPs), Continuing Care Retirement Community demonstrations (CCRCs), End Stage Renal Disease Networks (ESRDs), and Demonstration plans. The Medicare Part D enrollment averages used in some of the measure calculations are based on the Health Plan Management System (HPMS) data for each contract.

CMS has identified some issues with contracts attempting to manipulate data or erroneously report data in an attempt to receive higher ratings. In these cases, the contract will receive a "1" star rating for each of the measures and a note that says "CMS identified issues with this plan's data."

I. Drug Plan Customer Service
A. Time on Hold When Customer Calls Drug Plan
1. This measure is defined as the average time spent on hold by the call surveyor following the navigation of the Interactive Voice Response (IVR) or Automatic Call Distributor (ACD) system and prior to reaching a live person for the "Customer Service for Current Members – Part D" phone number associated with the contract. This measure is calculated by taking the sum of the total time (mm:ss) it takes for a caller to reach a Customer Service Representative (CSR) for all eligible calls made to that Part D contract beneficiary customer service call center divided by the number of eligible calls made to a Part D contract beneficiary customer service call center. For calls in which the caller terminated the call due to being on hold for greater than 10 minutes prior to reaching a live person, the hold time applied is truncated to 10:00 minutes. Note that total time excludes the time navigating the IVR/ACD system and thus measures only the time the caller is placed into the "hold" queue.
2. The CMS standard for this measure is an average hold time of 2 minutes or less.
3. Data Source: Call center monitoring data collected by CMS. The "Customer Service for Current Members – Part D" phone number associated with each contract was monitored.
4. Exclusions: Data were not collected from MA-PDs and PDPs under sanction or from organizations that did not have a phone number accessible to the survey callers.

B. Time on Hold When Pharmacist Calls Drug Plan
1. This measure is the same as A.1 above, but the "Pharmacy Technical Help Desk" phone number was used in place of the Customer Service for Current Members number.
2. The CMS standard for this measure is an average hold time of 2 minutes or less.
3. Data Source: Call center data collected by CMS. The "Pharmacy Technical Help Desk" phone number associated with each contract was monitored.
4. Exclusions: Data were not collected from MA-PDs and PDPs under sanction or from organizations that did not have a phone number accessible to survey callers.

C. Accuracy of Information Members Get When They Call the Drug Plan
1. This measure is defined as the percent of the time CSRs answered questions correctly. The calculation of this measure is the number of times the CSR answered the questions correctly divided by the number of questions asked.
2. Data Source: Data were collected by CMS; the "Customer Service for Prospective Members – Part D" phone number associated with each contract was monitored.
3. Exclusions: Data were not collected from MA-PDs and PDPs under sanction or from organizations that did not have a phone number accessible to survey callers.

D. **Availability of TTY/TDD Services and Foreign Language Interpretation When Members Call the Drug Plan**
   1. This measure is defined as the percent of the time a foreign language interpreter or TTY/TDD service was available to callers who spoke a foreign language or were hearing impaired. The calculation of this measure is the number of successful contacts with the interpreter or TTY/TDD divided by the number of attempted contacts.
   2. Data Source: Data were collected by CMS; the "Customer Service for Prospective Members – Part D" phone number associated with each plan was monitored.
   3. Exclusions: Data were not collected from MA-PDs and PDPs under sanction or from organizations that did not have a phone number accessible to survey callers.

E. **Drug Plan's Timeliness in Giving a Decision for Members Who Make an Appeal**
   1. This measure is defined as the rate of cases auto-forwarded to the Independent Review Entity (IRE) because decision timeframes for coverage determinations or redeterminations were exceeded by the plan. This is calculated as: [(Total number of cases auto-forwarded to the IRE) / (Average Medicare Part D enrollment)] * 10,000.
   2. Data Source: Data were obtained from the IRE contracted by CMS for Part D reconsiderations.
   3. Exclusions: This rate is not calculated for contracts with less than 800 enrollees.

F. **Fairness of Drug Plan's Denials to a Member's Appeal, Based on an Independent Reviewer**
   1. This measure is defined as the percent of IRE confirmations of upholding the plans' decisions. This is calculated as: [(Number of cases upheld) / (Total number of cases reviewed)] * 100. Total number of cases reviewed is defined as the number of cases Upheld + Fully Reversed + Partially Reversed. Dismissed, remanded and withdrawn cases are not included in the denominator. Auto-forward cases are included, as these are considered to be adverse decisions per Subpart M rules.
   2. Data Source: Data were obtained from the IRE contracted by CMS for Part D reconsiderations.
   3. Exclusions: A percent is not calculated for contracts with fewer than 5 total cases reviewed by the IRE.

G. **Drug Plan Provides Pharmacist with Up-To-Date and Complete Enrollment Information About Plan Members**
   1. This measure is defined as the percent of time CMS generated enrollments completed within the 72 hour processing time frame requirement. This measure's calculation is based on the percentage of the number of successful transactions with 4Rx information received within 120 hours from when the Transaction Reply Report (TRR) was sent divided by the total number of CMS-generated enrollment transactions sent to the plan on the TRR.
   2. Data Source: Medicare Advantage Prescription Drug System (MARx)
   3. Exclusions: Contracts with a total of 5 or fewer transactions in the measurement period are excluded from this data set.

II. **Drug Plan Member Complaints and Medicare Audit Findings**
   A. **Complaints about Joining and Leaving the Drug Plan**
      1. For each contract, this rate is calculated as: [(Number of complaints related to enrollment and disenrollment issues logged for the plan in the Complaints Tracking Module (CTM)) / (Average Contract enrollment)] * 1,000 * 30 / (Number of Days in Period).
      2. Data Source: Data were obtained from the CTM based on the contract entry date (the date that complaints are assigned or re-assigned to contracts; also known as the "contract assignment/reassignment date") for the reporting period specified. Complaint rates per 1,000 enrollees are adjusted to a 30-day basis.
         These complaints include the following subcategories:
         - Delayed enrollment processing
         - Inconsistent enrollment practices in same state

- Enrollment denied inappropriately
- Inappropriate enrollment
- Inappropriate disenrollment
- Beneficiary has not received Part D card or enrollment materials
- Delayed Disenrollment processing
- Difficulty switching between plans
- Low Income Subsidy (LIS)
- Retroactive Disenrollment (RD)
- Enrollment Reconciliation - Dissatisfied with Decision
- Retroactive Enrollment (RE)
- Other Enrollment/Disenrollment issue

B. All Other Complaints about the Drug Plan
1. For each contract, this rate is calculated as: [(Total number of all other Part D complaints logged into the CTM for the plan regarding issues other than enrollment and disenrollment) / (Average Contract enrollment)] * 1,000 * 30 / (Number of Days in Period).
2. Data Source: Data were obtained from the CTM based on the contract entry date (the date that complaints are assigned or re-assigned to contracts; also known as the "contract assignment/reassignment date") for the reporting period specified. Complaint rates per 1,000 enrollees are adjusted to a 30-day basis.
3. Exclusions: Complaints included in measure II.A. are excluded from this data set.

*General Notes about Complaint Measures:
- Enrollment numbers used to calculate the complaint rate were based on the average enrollment for the time period measured for each contract.
- A contract's failure to follow CMS' CTM Standard Operating Procedures will not result in CMS' adjustment of the data used for these measures.
- Data Exclusions: Some complaints that cannot be clearly attributed to the plan are excluded. These complaints include the following complaint types: complaints regarding 1-800-MEDICARE, websites, State Health Insurance Programs (SHIPs), Social Security Administration (SSA), or Medicare Drug Integrity Contractors (MEDICs); enrollment reconciliation issues, facilitated enrollment issues; beneficiary loss of LIS status/eligibility; enrollment exceptions; complaints identified as a CMS issue; or Part D premium overcharge issues.
- Exclusions: Complaint rates are not calculated for plans with enrollment less than 800 beneficiaries.

C. Beneficiary Access Problems Medicare Found During an Audit of the Plan
1. This score is based on CMS's audit findings of health and drug plans. A health or drug plan may be audited as part of CMS's routine monitoring and oversight activities, or as an ad-hoc activity due to CMS identifying an issue or concern. Standardized CMS audit guides are used to review many different areas of a contract's operations. Only elements from CMS audit guides representing potential harm to beneficiaries either through financial impact or access to services or medications are included.
   - Each element in CMS's audit guides were categorized by the potential harm to beneficiaries either through financial impact or access to services or medications, or if a contract did not meet CMS's standards. Each category was then assigned a point value. The following points were assigned to each category:
      i. No beneficiary harm, with no risk of financial impact – 1 point*
      ii. No beneficiary harm, with financial impact – 3 points*
      iii. Beneficiary harm, with no risk of financial impact - 5 points
      iv. Beneficiary harm, with risk of financial impact – 7 points

> > v. Beneficiary harm, with risk of impact to access to services or medications – 10 points
> > vi. For each failed ad-hoc audit – additional 10 points
> *As of 8/19/10, this category is excluded from this measure's calculation.

- For contracts audited in the measurement time period, a score was calculated using the formula: contract score = ((Sum of points for failed elements)/ Sum of points for audited elements))*100) + (Points from failed ad-hoc audits). The maximum score a contract could receive was 100.
- Contracts that were neither audited in the measurement time period nor had an ad hoc finding are displayed as, "No data available". A footnote also states, "No information is shown because Medicare did not audit this plan during the previous year. This is neither good nor bad, because Medicare does not always audit plans every year."

2. Data Source: Findings of CMS audits and ad-hoc activities performed during the measurement time period.
3. Exclusions: Contracts with 3 or fewer reviewed elements or that were not audited in the measurement period were not assigned a score.

III. Member Experience with Drug Plan

A. Drug Plan Provides Information or Help When Members Need It
1. This case-mix adjusted measure is used to assess member satisfaction related to getting help from the drug plan. The Consumer Assessment of Healthcare Providers and Systems (CAHPS) score uses the mean of the distribution of responses. The mean is converted into the percentage of maximum points possible. The score shown is the percentage of the best possible score each contract earned.
2. Data Source: Results from the CAHPS survey.

B. Members' Overall Rating of Drug Plan
1. This case-mix adjusted measure is used to assess member satisfaction related to the beneficiary's overall rating of the plan. The CAHPS score uses the mean of the distribution of responses. The mean is converted into the percentage of maximum points possible. The score shown is the percentage of the best possible score each contract earned.
2. Data Source: Results from the CAHPS survey.

C. Members' Ability to Get Prescriptions Filled Easily When Using the Drug Plan
1. This case-mix adjusted measure is used to assess member satisfaction related to the ease to which a beneficiary gets the medicines his/her doctor prescribed. The CAHPS score uses the mean of the distribution of responses. The mean is converted into the percentage of maximum points possible. The score shown is the percentage of the best possible score each contract earned.
2. Data Source: Results from the CAHPS survey.

IV. Drug Pricing and Patient Safety

A. Completeness of the Drug Plan's Information on Members Who Need Extra Help
1. For each contract, this percentage calculation is based on the following:
   - Beneficiary-weighted monthly average of the Low-Income Subsidy (LIS) matching rate: Each month's LIS match rate used in the average is calculated as follows:
     (Number of LIS beneficiaries on CMS enrollment file that has matching enrollment and benefit records (or more favorable benefits) on plan sponsors' enrollment files) / (Number of LIS beneficiaries on CMS enrollment file).
     For a given low income subsidy beneficiary to be considered a match, the plan sponsor must have the beneficiary enrolled, must indicate that the beneficiary is eligible for a

> low income subsidy, and must have premium and co-payment levels that match (or are more favorable than) CMS records.
>   - If two or more monthly LIS match rates cannot be calculated due to a sponsor not submitting enrollment data or not submitting a valid file format, the lowest match rate of the reporting period will be substituted in the weighted monthly average calculation. Note: the first incidence of a non-submission or non-validation will be dismissed.

2. Data Source: Data on the LIS match rates are obtained from a CMS contractor based on enrollment data supplied by Part D sponsors compared to enrollment data based on CMS records.
3. Exclusions: Any contract which exclusively service U.S. territories is excluded from the match rate analysis. Also, sponsors that did not have any LIS beneficiaries enrolled in their plan during the analysis period did not have match rates available.

B. Drug Plan Provides Accurate Price Information for Medicare's Plan Finder Web site and Keeps Drug Prices Stable During the Year
1. This measure evaluates both stability in a plan's prices using prescription drug event (PDE) data, and the accuracy of drug prices posted on the Plan Finder tool. A contract's score is a combination of a price stability index and a price accuracy index. A separate methodology paper is posted along with these technical notes and details this measure's calculation.
2. Data Source: Data were obtained from a number of sources: Prescription Drug Event (PDE) data, MPF Pricing Files, HPMS approved formulary extracts, and data from First DataBank, Medispan, and Verispan. PDE adjustments made post-reconciliation are not reflected in this measure.
3. Exclusions: A contract must have 30 claims for the price stability index, and 30 claims for the price accuracy index to be included in this measure.

C. Drug Plan's Members 65 and Older Who Received Prescriptions for Certain Drugs with a High Risk of Side Effects, when There May Be Safer Drug Choices
1. This measure calculates the percentage of Medicare Part D beneficiaries 65 years or older who received at least one prescription for a drug with a high risk of serious side effects in the elderly (a.k.a. High Risk Medication or HRM). This percentage is calculated as:
[(Number of Member-Years of Enrolled Beneficiaries 65 years or older who received one HRM during the period measured)/ (Number of Member-Years of Enrolled 65 years and older during the period measured)].
2. Data Source: Data were obtained from PDE data files submitted by drug plans to Medicare for the reporting period. PDE claims are limited to members over 65 years of age, and for those Part D covered drugs identified to have high risk of serious side effects in patients 65 years of age or older. PDE adjustments made post-reconciliation were not reflected in this measure.
3. This measure, also named the High Risk Medication measure, was first developed by the National Committee for Quality Assurance (NCQA), through its Healthcare Effectiveness Data and Information Set (HEDIS), and then adapted and endorsed by the Pharmacy Quality Alliance (PQA). This measure is also endorsed by the National Quality forum (NQF).
4. High Risk Medication Measure Medication List: See attachment 1 for the medication list for this measure. The National Drug Code (NDC) lists for these measures have been updated by the Pharmacy Quality Alliance (PQA), and the changes at the drug name level compared to last year are highlighted in red. The complete National Drug Code (NDC) lists will be posted along with these technical notes.
   - Note: Part D drugs do not include drugs or classes of drugs, or their medical uses, which may be excluded from coverage or otherwise restricted under section 1927(d)(2) of the Act, except for smoking cessation agents. As such, these drugs, which may be included in the medication or NDC lists, are excluded from CMS analyses.
5. Exclusions: A percentage is not calculated for contracts with 30 or fewer enrolled beneficiaries 65 years or older.

D. **Using the Kind of Blood Pressure Medication That Is Recommended for People with Diabetes**

1. This is defined as the percentage of Medicare Part D beneficiaries who were dispensed a medication for diabetes and a medication for hypertension who were receiving an angiotensin converting enzyme inhibitor (ACEI) or angiotensin receptor blocker (ARB) medication. This percentage is calculated as: [(Number of Member-Years of Enrolled Beneficiaries from eligible population who received an ACEI or ARB medication during period measured)/ (Number of Member-Years of Enrolled Beneficiaries in period measured who were dispensed at least one prescription for an oral hypoglycemic agent or insulin and at least one prescription for an antihypertensive agent during the measurement year)].

2. Data Source: Data were obtained from PDE data files submitted by drug plans to Medicare for the reporting period. PDE claims were limited to members who received at least one prescription for an oral diabetes drug or insulin and at least one prescription for a high blood pressure drug. Members who received the ACEI or ARB medication were identified. PDE adjustments made post-reconciliation were not reflected in this measure.

3. This measure, also named the Diabetes Treatment measure, is adapted from the Diabetes Suboptimal Treatment measure which was developed and endorsed by the Pharmacy Quality Alliance (PQA). The measure was submitted to the National Quality Forum for review by their Medication Management Steering Committee. The NQF Consensus Standards Committee endorsed this measure in July 2009.

4. Diabetes Treatment Measure Medication List: See attachment 1 for the medication list for this measure. The National Drug Code (NDC) lists for these measures have been updated by the Pharmacy Quality Alliance (PQA), and the changes at the drug name level compared to last year are highlighted in red. The complete National Drug Code (NDC) lists will be posted along with these technical notes.

   - Note: Part D drugs do not include drugs or classes of drugs, or their medical uses, which may be excluded from coverage or otherwise restricted under section 1927(d)(2) of the Act, except for smoking cessation agents. As such, these drugs, which may be included in the medication or NDC lists, are excluded from CMS analyses.

Attachment 1: Medication Lists

Part D drugs do not include drugs or classes of drugs, or their medical uses, which may be excluded from coverage or otherwise restricted under section 1927(d)(2) of the Act, except for smoking cessation agents. As such, these drugs, which may be included in the medication or NDC lists, are excluded from CMS analyses.

High Risk Medication Measure Medication List

Table A: High Risk Medications

Description	Prescription		
Antianxiety (includes combination medications)	• aspirin-meprobamate	• meprobamate	
Antiemetics	• scopolamine	• trimethobenzamide	
Analgesics (includes combination medications)	•	• ketorolac	
Antihistamines (includes combination medications)	• acetaminophen-diphenhydramine • diphenhydramine-magnesium salicylate • APAP/dextromethorphan/diphenhydramine • APAP/diphenhydramine/phenylephrine • APAP/diphenhydramine/pseudoephedrine • acetaminophen-diphenhydramine • carbetapentane/diphenhydramine/phenylephrine • codeine/phenylephrine/promethazine • codeine-promethazine • cyproheptadine • dexchlorpheniramine • dexchlorpheniramine/dextromethorphan/PSE • dexchlorpheniramine/guaifenesin/PSE • dexchlorpheniramine/hydrocodone/phenylephrine • dexchlorpheniramine/methscopolamine/PSE	• dexchlorpheniramine-pseudoephedrine • dextromethorphan-promethazine • diphenhydramine • diphenhydramine/hydrocodone/phenylephrine • diphenhydramine-magnesium salicylate • diphenhydramine-phenylephrine • diphenhydramine-pseudoephedrine • hydroxyzine hydrochloride • hydroxyzine pamoate • phenylephrine-promethazine • promethazine •	
Antipsychotic, typical	•	• thioridazine	
Amphetamines	• amphetamine-dextroamphetamine • benzphetamine • dexmethylphenidate	• dextroamphetamine • diethylpropion • methamphetamine • methylphenidate	• phendimetrazine • phentermine
Barbiturates	• butabarbital	• mephobarbital • pentobarbital • phenobarbital	• secobarbital
Long-acting benzodiazepines (includes combination medications)	• amitriptyline-chlordiazepoxide • chlordiazepoxide	• chlordiazepoxide-clidinium • diazepam	• flurazepam
Calcium channel blockers	• nifedipine—short-acting only		
Gastrointestinal antispasmodics	• dicyclomine	• propantheline	

Table A: High Risk Medications (continued)

Description	Prescription		
Belladonna alkaloids (includes combination medications)	• atropine • atropine/hyoscyamine/PB/scopolamine • atropine/CPM/hyoscyamine/PE/scopolamine • atropine-difenoxin • atropine-diphenoxylate • atropine-edrophonium • belladonna	• belladonna/ergotamine/phenobarbital • butabarbital/hyoscyamine/phenazopyridine • digestive enzymes/hyoscyamine/ phenyltoloxamine • hyoscyamine • hyoscyamine/methenam/m-blue/phenyl salicyl •	
Skeletal muscle relaxants (includes combination medications)	• ASA/caffeine/orphenadrine • ASA/carisoprodol/codeine • aspirin-carisoprodol •	• aspirin-methocarbamol • carisoprodol • chlorzoxazone • cyclobenzaprine	• metaxalone • methocarbamol • orphenadrine
Oral estrogens (includes combination medications)	• conjugated estrogen • conjugated estrogen-medroxyprogesterone	• esterified estrogen • esterified estrogen-methyltestosterone	• estropipate
Oral hypoglycemics	• chlorpropamide	•	
Narcotics (includes combination medications)	• ASA/caffeine/propoxyphene • acetaminophen-pentazocine • acetaminophen-propoxyphene • belladonna-opium • meperidine	• meperidine-promethazine • naloxone-pentazocine • pentazocine • propoxyphene hydrochloride • propoxyphene napsylate	
Vasodilators	• dipyridamole—short-acting only	• ergot mesyloid • isoxsuprine	
Others (including androgens and anabolic steroids, thyroid medications, urinary anti-infectives)	• methyltestosterone • nitrofurantoin • nitrofurantoin macrocrystals	• nitrofurantoin macrocrystals-monohydrate • thyroid desiccated	

Note: Includes all dosage forms. Medication list updated based on NCQA/Hedis Table DAE-A (Hedis 2010)
list; available at: http://www.ncqa.org/tabid/1091/Default.aspx.

Diabetes Treatment Measure Medication List

Table B: Oral Hypoglycemic, Insulin, Incretin Mimetics

Biguanides and Biguanide Combination Products		
• metformin • pioglitazone & metformin • rosiglitazone & metformin	• repaglinide & metformin • sitagliptin & metformin •	• glyburide & metformin • glipizide & metformin
Sulfonylureas and Sulfonylurea Combination Products		
• acetohexamide • chlorpropamide • glipizide & metformin	• glimepiride • glipizide • glyburide & metformin	• glyburide • rosiglitazone & glimepiride • pioglitazone & glimepiride	• tolazamide • tolbutamide
Meglitinides and Meglitinide Combination Products		
• nateglinide	• repaglinide	• repaglinide & metformin
Alpha- Glucosidase Inhibitors		
• acarbose	• miglitol	
Thiazolidinediones and Thiazolidinedione Combination Products		
• pioglitazone • pioglitazone & glimepiride	• pioglitazone & metformin • rosiglitazone	• rosiglitazone & glimepiride • rosiglitazon & metformin
Incretin Mimetic Agents		
• exenatide		
Amylin Analogs		
• pramlintide		
DPP-IV Inhibitors and DPP-IV Inhibitor Combination Products		
• sitagliptin	• saxagliptin	• sitagliptin & metformin
Insulins		
• insulin aspart • insulin aspart Protamine & Aspart • insulin detemir • insulin glargine • insulin glulisine	• insulin isophane & regular human insulin • insulin isophane (human N) • insulin lispro • insulin lispro Protamine & Insulin lispro • insulin regular (human R)	• insulin regular (human) buffered • insulin regular inhalation powder • insulin zinc (Lente) • insulin zinc extended (human Ultralente)

Note: The active ingredients are limited to oral and injectable formulations only (includes all dosage forms).

Table C: Antihypertensive Agents

Beta-Blocker Medications			
• acebutolol HCL • atenolol • betaxolol HCL •	• bisoprolol fumarate • carteolol HCL • carvedilol • labetalol HCL •	• metoprolol succinate • metoprolol tartrate • nadolol • nebivolol	• penbutolol sulfate • pindolol • propranolol HCL • timolol maleate
Beta-Blocker Combination Products			
• atenolol & chlorthalidone • bisoprolol & HCTZ	• metoprolol & HCTZ	• nadolol & bendroflumethiazide	• propranolol & HCTZ • timolol & HCTZ
Calcium-Channel Blocker Medications			
• amlodipine besylate • diltiazem HCL	• felodipine • isradipine	• nicardipine HCL • nifedipine (long acting only)	• nisoldipine • verapamil HCL
CCB Combination Products			
• amlodipine besylate & benazepril HCL • amlodipine & valsartan •	• enalapril maleate & felodipine • amlodipine & valsartan & HCTZ	• trandolopril & verapamil HCL • amlodipine & olmesartan • amlodipine & atorvastatin	• telmisartan & amlodipine

Note: Active ingredients are limited to oral formulations only. Excludes the BB sotalol because it is indicated for the treatment of ventricular arrhythmias (and not for hypertension). Excludes CCB nimodipine since it has a limited indication for use following a subarachnoid hemorrhage.

Table D: ACE/ARB Medications

ARB Medications			
• candesartan • eprosartan	• irbesartan • losartan	• olmesartan • telmisartan	• valsartan
ACE Inhibitor Medications			
• benazepril • captopril	• enalapril • fosinopril	• lisinopril • moexipril	• perindopril • quinapril	• ramipril • trandolopril
ACE Inhibitor Combination Products			
• amlodipine & benazepril • benazepril & HCTZ • captopril & HCTZ	• enalapril & HCTZ • enalapril & felodipine • fosinopril & HCTZ	• lisinopril & HCTZ • moexipril & HCTZ • lisinopril & nutritional supplement	• quinapril & HCTZ • trandolopril-verapamil HCL
ARB Combination Products			
• candesartan & HCTZ • eprosartan & HCTZ • telmisartan & amlodipine	• irbesartan & HCTZ • losartan & HCTZ • amlodipine & olmesartan	• olmesartan & HCTZ • telmisartan & HCTZ • aliskiren & valsartan	• valsartan & HCTZ • amlodipine & valsartan • amlodipine & valsartan & HCTZ

Note: Active ingredients are limited to oral formulations only.

Attachment 2: Methodology for Star Assignments

For each individual measure, CMS assigns a star-rating based on a 5 star scale. CMS also assigns a star-rating for each of the 9 topic areas and an overall summary rating for each contract.

Calculating Individual Measure Scores:
CMS assigns stars for each measure by applying one of three different methods: relative distribution and clustering; relative distribution and significance testing; and CMS standard, relative distribution, and clustering. Each method is described in detail below.

A. Relative Distribution and Clustering:
This method is applied to the majority of CMS' plan ratings for star assignments, ranging from operational and process-based measures, as well as HEDIS and other clinical care measures. The following sequential statistical steps are taken to derive thresholds based on the relative distribution of the data. The first step is to assign initial thresholds using an adjusted percentile approach and a two-stage clustering analysis method. These methods jointly produce initial thresholds to account for gaps in the data and the relative number of contracts with an observed star value. The adjusted percentile approach adjusts the initial percentile breakpoints created by any regular percentile approach to account for gaps in the data.

Detailed description:
1. By using Euclidean metric (defined in Appendix 1), scale the raw measures to comparable metrics, and group them into clusters. Clusters are defined as contracts with similar Euclidean distances between their data value to the center data value. Six different clustering scenarios are tested, where the smallest number of clusters is 10, and the largest number of clusters is 35. The results from each clustering scenario are evaluated for potential star thresholds. The formula for scaling a contract's raw measure value (X) for a measure (M) is the following, where $Scale_{min} = 0.025$ and $Scale_{max} = 0.975$:

$$\text{Scaled measure value} = (Scale_{max} - Scale_{min}) * \frac{(X - M_{min})}{(M_{max} - M_{min})} + Scale_{min}$$

2. Determine up to five star groupings and their corresponding thresholds from the means of each cluster derived in the Step 1.

In applying these two steps, goodness of fit analysis using an empirical distribution function test in an iterative process is performed as needed to test the properties of the raw measure data distribution in contrast to various types of continuous distributions. Additional sub-tests are also applied and include: Kolmogorov-Smirnov statistic, Cramer-von Mises statistic, and Anderson-Darling statistic. See Appendix 1 for definitions of these tests.

Following these steps, the estimates of thresholds for star assignments derived from the adjusted percentile and clustering analyses are combined to produce final individual measure star ratings.

B. Relative Distribution and Significance Testing:
This method is applied to determine valid star thresholds for CAHPS measures. In order to account for the reliability of scores produced from the CAHPS survey, the method combines evaluating the relative percentile distribution with significance testing. For example, to obtain 5 stars a contract's CAHPS measure score needs to be ranked above the 80th percentile and be statistically significantly higher than the national average CAHPS measure score. A contract is assigned 4 stars if it does not meet the 5 star criteria, but the contract's average CAHPS measure score exceeds a cutoff defined by the 60th percentile of plan means in 2009 CAHPS reports for the same measure. To obtain 1 star, a contract's CAHPS measure score needs to be

ranked below the 15th percentile and the contract's CAHPS measure score is statistically significantly lower than the national average CAHPS measure score.

C. *CMS Standard, Relative Distribution, and Clustering:*
For measures with a CMS published standard, the CMS standard has been incorporated into star thresholds. Currently, the only measures in which this method applies are the call center hold time measures. Contracts meeting or exceeding the CMS standard are assigned at least 3 stars. To determine the thresholds of the other star ratings (e.g. 1, 2, 4, and 5 stars), the steps outlined above for relative distribution and clustering are applied.

Calculating Domain Scores:
In order for a domain score to be calculated, more than half of the individual measures in the domain must have a star rating. Each contract's domain score is then calculated as the average of the individual measure star ratings, rounded to the nearest whole star resulting in a value of 1 to 5.

Calculating Summary Scores:
Each contract's summary score is a number in the range of 1.0 to 5.0 that summarizes all of the individual performance measures. A minimum of 9 individual measures must have a star rating to calculate a contract's summary score. A simple average of the star ratings for the individual measures for a contract is computed, and then adjusted to account for low variance and high performance across the individual measures. This adjustment enables CMS to reward contracts for consistently obtaining a high rating for individual measures. Finally, the summary scores are rounded to the nearest half-star scale ranging up to 5.0 stars.

Detailed description of steps:
1. Calculate the mean and the variance of the individual performance measure stars at the contract level.

2. Categorize the variance into three categories of low, medium, and high percentile groupings.

3. Add adjustments for variability and performance to the mean overall score by contract. Example adjustments made for MA-only measures are as follows:
   - 0.4 (for contract w/low-variability and high-mean (mean >= 85th percentile)
   - 0.3 (for contract w/medium-variability and high-mean (mean >= 85th percentile)
   - 0.2 (for contract w/low-variability and relatively high-mean (mean >= 65th & < 85th percentile)
   - 0.1 (for contract w/medium-variability and relatively high-mean (mean >= 65th & < 85th percentile)
   - 0.0 (for other types of contracts)

4. Develop final summary score using 0.5 as the star scale (create 10 possible overall scores as: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, and 5.0).

5. Apply rounding to final summary score such that stars that are within the distance of .25 above or below any half star scale will be rounded to that half star scale.

Appendix 1: Glossary of Statistical Terms

Euclidean metric is the ordinary distance between two points that one would measure with a ruler.

Kolmogorov-Smirnov test (KS-test) uses a non-parametric technique and determines if two datasets are significantly different. It compares a sample with a reference probability distribution (one-sample K–S test), or compares two samples (two-sample K–S test).

Cramér-von-Mises criteria is used to judge the goodness of fit of a probability distribution, compared to a given empirical distribution function or to compare two empirical distributions.

Anderson–Darling test compares the similarity of an observed cumulative distribution function to an expected cumulative distribution function.