HEDIS®
2007 Volume 2

Technical Specifications

NCQA
National Committee for Quality Assurance

NCQA Customer Support: 888-275-7585

NCQA Policy Clarification Support (PCS): www.ncqa.org/programs/faq/PCS.asp

Item #10284-100-07

Acknowledgments

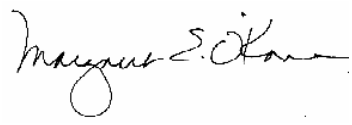
NCQA is proud to release HEDIS 2007, the Health Plan Employer Data and Information Set for the 2006 measurement year. HEDIS 2007 would not have been possible without the contributions of many stakeholders, external and internal to NCQA. In particular, the members of the Committee on Performance Measurement (CPM) generously donated their time, energy and intellect toward developing the final HEDIS 2007 specifications.

The four measures introduced into HEDIS 2007 enhance NCQA's ability to assess quality of care as it relates to patient safety with drug-disease interactions and to provide a standardized approach to the measurement of resource use. The latter involves relative resource use metrics; when coupled with the current quality of care, these HEDIS measures provide more information about the *efficiency* or *value* of services rendered by a health plan.

HEDIS would not be possible without contributions of a wide range of collaborators. Multum, a division of the Cerner Corporation, assisted with the National Drug Code (NDC) lists for pharmacy-related measures. The members of NCQA's Measurement Advisory Panels (MAP), Technical Advisory Group (TAG) and HEDIS Expert Panels contributed greatly to the 2007 version of HEDIS as well.

We would also like to recognize these NCQA staff for their contribution to the volume's production: Lori Andersen, Mary Braman, Kai Carter, Leia Friend, Min Gayles, Stephanie Hoch, Mary Beth Kiser, Tanya Medrano, Cindy Ottone, Zakiya Pierre, Donna Pillittere, Aisha Pittman, Anne Smith, Sarah Sampsel, Sally Turbyville and Amanda Zides for their help in refining the volume's content; Carolyn Moeller, Courtney Breece, Gerald Collins, Owen Doherty and Suzanne Porter for their help in producing the final copy; Kathi Mudd, Phil Renner and Patrick Dahill, for their leadership on this project; Judy Lacourciere, for her editorial work.

Sincerely,



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Overview

Overview

HEDIS 2007

HEDIS 2007 is the latest edition of the Health Plan Employer Data and Information Set. It is the most widely used set of performance measures in the managed care industry, developed and maintained by the National Committee for Quality Assurance (NCQA), a not-for-profit organization committed to assessing, reporting on and improving the quality of care provided by organized delivery systems. HEDIS has become more than a set of measures; it is part of an integrated system to establish accountability in health care.

HEDIS 2007 is an important and remarkable multipurpose tool. Originally designed to address private employers' needs as purchasers of health care, it has been adapted for use by public purchasers, regulators and consumers. Quality improvement activities, health management systems and provider profiling efforts have all used HEDIS as a core measurement set. HEDIS is equally at home as part of a purchaser request, as an element of NCQA Accreditation and Certification or as the basis of a consumer report card for managed care organizations (MCO). It is also the model for emerging systems of performance measurement in other areas of health care delivery.

How HEDIS 2007 Was Developed

NCQA's Committee on Performance Measurement (CPM), which includes representatives of purchasers, consumers, MCOs, providers and policy makers, oversees the evolution of the measurement set. The Measurement Advisory Panels (MAP) provide the clinical and technical expert knowledge required to develop measures for particular clinical areas or specific populations. Additionally, the HEDIS Expert Panels and the Technical Advisory Group (TAG) provide invaluable assistance by identifying methodological issues related to the current measurement set and recommending solutions as well as providing feedback on new measure specifications.

HEDIS 2007 is published in multiple volumes and includes 71 measures across 8 domains of care.

- Effectiveness of Care
- Access/Availability of Care
- Satisfaction With the Experience of Care
- Health Plan Stability
- Use of Services
- Cost of Care
- Informed Health Care Choices
- Health Plan Descriptive Information

Volume 1: *Narrative*	This volume provides a general overview about HEDIS measures and how they are used.
Volume 2: *Technical Specifications*	This volume contains the technical specifications for the HEDIS nonsurvey measures applicable to MCOs. The technical specifications explain how to collect data and perform the necessary result calculations for each nonsurvey measure, as well as general guidelines for data collection, reporting and sampling.
Volume 2 (PPO Version): *Technical Specifications*	This volume contains the technical specifications for the HEDIS service measures applicable to preferred provider organizations (PPO). A HEDIS 2007 Update for this publication will be posted to the NCQA Web site (www.NCQA.org) in October 2006.

Volume 3: *Specifications for Survey Measures*

This volume contains technical specifications for HEDIS survey measures applicable to MCOs. Satisfaction with the experience of care is assessed through two standardized surveys from the Consumer Assessment of Healthcare Providers and Systems (CAHPS®[1]) program.

- CAHPS Health Plan Survey 4.0H, Adult Version
- CAHPS Health Plan Survey 3.0H, Child Version

Measures collected using the HEDIS CAHPS surveys are also included.

- Medical Assistance With Smoking Cessation
- Flu Shots for Adults Ages 50–64
- Flu Shots for Older Adults
- Pneumonia Vaccination Status for Older Adults
- Children With Chronic Conditions

Volume 3 (PPO Version): *Specifications for Survey Measures*

This volume contains technical specifications for HEDIS survey measures applicable to PPOs.

Volume 4: *A Road Map for Information Systems*

This volume provides an overview of the information systems environment necessary to support HEDIS. It is an important report on a key issue facing the evolution of performance measurement. The most recent version of this volume was published in 1998.

Volume 5: *HEDIS Compliance Audit™: Standards, Policies and Procedures*

This volume is an essential tool for ensuring the consistency and integrity of HEDIS data and describes the accepted method for auditing the HEDIS production process, including an overall information systems capabilities assessment and an evaluation of compliance with HEDIS specifications.

Volume 5 contains the standards and policies and procedures that NCQA Certified HEDIS Compliance Auditors must use when conducting a HEDIS audit.

Volume 6: *Specifications for the Medicare Health Outcomes Survey*

This volume contains the technical specifications for the Health Outcomes Survey (HOS), the first "outcome" measures for the Medicare population included in HEDIS.

Measures collected using the HOS survey are also included.

- Management of Urinary Incontinence in Older Adults
- Physical Activity in Older Adults
- Fall Risk Management
- Osteoporosis Testing in Older Women

[1] CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

What's New in HEDIS 2007, Volume 2?

Revised measures

NCQA updates HEDIS technical specifications annually. HEDIS 2007 incorporates the following major changes.

Breast Cancer Screening

The lower age limit was lowered to 40 years.

Cervical Cancer Screening

The lower age limit was raised to 21 years.

Controlling High Blood Pressure

- The lower age limit was lowered to 18 years.
- The adequately controlled blood pressure level was changed to <140/90 mm Hg.
- The method for determining representative blood pressure was changed to using the most recent lowest systolic and lowest diastolic blood pressure regardless of posture.

Cholesterol Management for Patients With Cardiovascular Conditions

- The LDL-C (<130 mg/dL) control indicator was retired.
- The LDL-C control (<100 mg/dL) value was changed to represent the most recent screening in the measurement year.

Note: *NCQA will conduct a field test this summer to determine changes to the measure's denominator. Following the field test, NCQA will conduct a brief Public Comment period. Modifications to the denominator will be announced in the Volume 2* Technical Update *in October. If a final decision is available before October, revised specifications will be sent to all stakeholders.*

Comprehensive Diabetes Care

- HbA1c good control (<7.0%) indicator was added.
- The LDL-C (<130 mg/dL) control indicator was retired.
- The LDL-C screening and control criteria were restricted to require testing in the *measurement year*.
- Use of ACE/ARBs for numerator compliance was added for the medical attention to nephropathy indicator.
- Two blood pressure control indicators (<130/80 mm Hg and <140/90 mm Hg) were added.

Flu Shots for Older Adults

The survey question was revised to incorporate the entire flu season.

Adults' Access to Preventive/Ambulatory Health Services

The exclusions for mental health and chemical dependency services were dropped.

Children and Adolescents' Access to Primary Care Practitioners

The exclusions for mental health and chemical dependency services were dropped.

Frequency of Selected Procedures

- A "back surgery 65+ years" category was added to the commercial product line.
- A "back surgery" category was added to the Medicare product line.

CAHPS Health Plan Survey 4.0H, Adult Version

As part of its Ambulatory CAHPS initiative, the Agency for Healthcare Research and Quality (AHRQ) replaced the CAHPS 3.0 Adult Survey with the CAHPS Health Plan Survey 4.0, Adult Version. The HEDIS versions of the adult surveys (commercial and Medicaid) were updated for consistency with the 4.0 version.

Revisions include changes to the number, order and wording of survey questions, as well as changes to composites. The revised specifications for this measure are included in *HEDIS Volume 3: Specifications for Survey Measures*.

Retired measures

- Claims Timeliness
- Practitioner Turnover

New measures

Potentially Harmful Drug-Disease Interactions in the Elderly

This measure assesses the percentage of Medicare members 67 years of age and older who have evidence of an underlying disease, condition or health concern during the measurement year or in the year prior to the measurement year and who received an ambulatory prescription for a potentially harmful therapeutic agent concurrent with or after the diagnosis.

Relative Resource Use

The Relative Resource Use measures in the Cost of Care domain summarize relative resource use for members with chronic and acute conditions during the measurement year. The following measures will be reported and collected for HEDIS 2007.

- Relative Resource Use for People With Diabetes
- Relative Resource Use for People With Asthma
- Relative Resource Use for People With Acute Low Back Pain

The "mock" standard price tables will be available on NCQA's Web site in July and the final standard price tables will be available in December.

Technical updates

To allow MCOs sufficient time to finalize the HEDIS data collection systems, NCQA will freeze the specifications—with the exception of the NDC lists—in the HEDIS 2007 Volume 2 Technical Update. The update will be posted to the NCQA Web site on October 2, 2006; the NDC lists will be posted on November 15, 2006.

The MCO is accountable for all changes included in the Volume 2 Technical Update, but is not required to use information posted after the freeze date, with the exception of the NDC lists.

Auditors assess compliance based on HEDIS 2007, Volume 2, the NDC lists and the HEDIS 2007, Volume 2 Technical Update only. NCQA provides only clarifications after the specifications freeze date.

Volume 2 (PPO Version)

A new version of HEDIS Volume 2 for PPO plans will be released in October 2006. This volume will contain specifications and measures specifically for PPO plans. Public Comment for the proposed specifications will be held in summer 2006.

First-year measure evaluation

At the conclusion of the HEDIS 2006 data collection period, NCQA will evaluate the first-year measures.

- Use of Spirometry Testing in the Assessment and Diagnosis of Chronic Obstructive Pulmonary Disease (COPD)
- Disease Modifying Anti-Rheumatic Drug Therapy in Rheumatoid Arthritis
- Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication
- Drugs to Be Avoided in the Elderly
- Annual Monitoring for Patients on Persistent Medications
- Inappropriate Antibiotic Treatment for Adults With Acute Bronchitis
- Antibiotic Utilization
- Enrollment by State

Evaluation includes analysis of first-year data, MCO input and input from certified auditors and survey vendors.

Overall changes

Electronic health records

Added General Guidelines for electronic health records and their use in HEDIS data collection.

Appendices

Two appendices were added to the appendix set.

- Practitioner Type Definitions
- HEDIS Compliance Audit *Guidelines for Advertising and Marketing*

Coding tables

A new style template was applied to standardize the presentation of HEDIS codes across measures. Changes include renaming and reordering rows and columns within the tables. New tables for select measures have been created to present codes that were previously not included in a table (e.g., CBP, ASM tables) and to separate diagnosis codes from codes to identify visit types (e.g., CDC, LBP).

The HEDIS Expert Coding Panel conducted a comprehensive review of Effectiveness of Care measure tables to identify outpatient, nonacute inpatient, acute inpatient and emergency department visits to ensure consistency of codes across measures. As a result of this effort, a standardized template was applied to visit type tables, appropriate codes were added and inappropriate codes were deleted. Added and deleted codes are listed in the *Summary of Changes* section for each measure.

For HEDIS 2008, the HEDIS Expert Coding Panel will conduct a comprehensive review of tables for Use of Service measures and behavioral health and chemical dependency measures. Updates will be reflected in HEDIS 2008.

HCPCS codes

Codes from the Healthcare Common Procedure Coding System (HCPCS) have been added to the measures.

NDC codes and Public Comment

There will be a Public Comment period for NDC codes from September 1–30, 2006. Preliminary lists and instructions will be posted to the NCQA Web site at www.ncqa.org. The final NDC codes will be released on November 15, 2006.

Read the entire guidelines section and measure specifications before implementing HEDIS 2007.

Changes for HEDIS 2008

Relative Resource Use for People With Uncomplicated Hypertension	The measure specification is included in the Cost of Care domain; however, it will not be collected until ***HEDIS 2008***.
Relative Resource Use for People With Cardiac Conditions	The measure specification is included in the Cost of Care domain; however, it will not be collected until ***HEDIS 2008***.
Relative Resource Use for People With COPD	The measure specification is included in the Cost of Care domain; however, it will not be collected until ***HEDIS 2008***.
Board Certification	The following will be implemented for ***HEDIS 2008***: • Measure active certification • Recategorize physician specialists: – Family medicine physicians – Internal medicine physicians – Pediatricians – OB/GYN physicians – Geriatricians – All other physician specialists and subspecialists

How This Volume Is Organized

General Guidelines	The *General Guidelines* include descriptions, instructions and definitions that should be applied consistently to all measures across all domains.
Guidelines for Calculations and Sampling	The *Guidelines for Calculations and Sampling* contain detailed descriptions of the Administrative and Hybrid methods, as well as instructions for systematic sampling.
Measure specifications and specific guidelines	These sections contain measure specifications by domain and, where applicable, domain-specific guidelines.
Appendices	The appendices include the following. • A summary table of changes to HEDIS 2007 • A discussion of technical considerations relating to the new measures • A list of practitioner types • A list of data element definitions • A list of measure abbreviations • The HEDIS Compliance Audit *Guidelines for Advertising and Marketing* • A list of contributors

If You Have Questions About the Specifications

Policy Clarification Support System

NCQA's Policy Clarification Support (PCS) system provides different types of policy support to customers, including frequently asked questions (FAQ), Policy Updates and a function that allows customers to submit specific policy interpretation questions to NCQA staff. The PCS system is accessible via the NCQA Web site at www.ncqa.org/programs/faq/PCS.asp.

FAQs

The FAQs clarify HEDIS uses and specifications and are posted to the NCQA Web site on the 15th of each month.

Additional Resources

In addition to the specification volumes, NCQA provides a variety of resources to help MCOs understand measure specifications, collect HEDIS data and report results:

- Each MCO implementing HEDIS is strongly encouraged to join NCQA's HEDIS Users Group (HUG) for technical assistance and guidance on interpreting the specifications. Membership benefits include NCQA HEDIS and accreditation publications, newsletters, Internet seminars, discount vouchers for HEDIS conferences and publications and up-to-date technical information.
- All HEDIS publications are available as easy-to-use electronic publications (e-pubs) that contain the complete text of NCQA printed publications and are sold by user licenses. E-pubs are protected Microsoft Word and Excel files sent to the purchaser via e-mail. E-pubs are simple to download onto a PC, network or intranet.
- Save programming hours, eliminate the manual search for codes and reduce keying errors with the HEDIS Electronic Coding Tables (ECT). Available in Microsoft Excel, the ECTs provide an easy way to incorporate CPT[2], HCPCS, ICD-9-CM, UB-92, DRG and Logical Observation Identifiers Names and Codes (LOINC®[3]) into an MCO's data collection program.
- NCQA produces many publications that are relevant to MCOs. To obtain a list or to order publications, call the NCQA Publications Center at Customer Support at 888-275-7585 or go to www.ncqa.org.
- NCQA educational seminars provide valuable information on NCQA standards and the survey process. Several course offerings range from a basic introduction to HEDIS and NCQA standards to advanced techniques for quality improvement. For information about NCQA conferences, go to www.ncqa.org/Education or call NCQA Customer Support at 888-275-7585.

[2]CPT codes copyright 2005 American Medical Association. All Rights Reserved. CPT is a trademark of the AMA. No fee schedules, basic units, relative values or related listings are included in CPT. The AMA assumes no liability for the data contained herein. Applicable FARS/DFARS restrictions apply to government use.

[3]LOINC® is a registered trademark of the Regenstrief Institute.

General Guidelines for Data Collection and Reporting

General Guidelines for Data Collection and Reporting

SUMMARY OF CHANGES TO HEDIS 2007

- Modified NCQA HEDIS Compliance Audit section.
- Deleted General Guideline: *Point-of-Service Self-Insured Members.*
- Added General Guideline: *Accessing Medical Records Prior to Enrollment.*
- Clarified Internally Built Administrative Database criteria for database entries.
- Added General Guidelines for using Electronic Health Records in HEDIS data collection.
- Clarified valid data error criteria.
- The final *HEDIS 2007 Volume 2 Technical Update* memo will be issued on October 2, 2006.
- Following a Public Comment period from September 1–30, 2006, the final NDC lists for pharmacy-related measures will be posted to the NCQA Web site by November 15, 2006.

HEDIS Reporting

1. Product-Line Reporting

HEDIS results must be collected and reported separately for populations covered by commercial insurance, Medicare and Medicaid.

2. Product-Specific Reporting

At the discretion of individual MCOs, HEDIS results may be reported separately by product line (HMO or point of service [POS]) or combined (HMO/POS).

Health maintenance organization

A **health maintenance organization (HMO)** is an organized health care system that is accountable for both the financing and delivery of a broad range of comprehensive health services to an enrolled population.

An HMO is accountable for assessing access and ensuring quality and appropriate care. Practitioners affiliated with the health care system render health care services. In this type of MCO, members must obtain all services from affiliated practitioners and must usually comply with a predefined authorization system to receive reimbursement.

A **practitioner** is a professional who provides health care services and is usually required to be licensed as defined by law.

Point of service

A **point-of-service (POS)** product is an HMO with an opt-out option. In this type of MCO, members may choose to receive services either within the MCO's health care system (e.g., an in-network practitioner) or outside the MCO's health care delivery system (e.g., an out-of-network practitioner).

The level of benefits or reimbursement is generally determined by whether the member uses in-network or out-of-network services. Common uses of the term "POS" include references to products that enroll each member in both an HMO (or HMO-like) system and in an indemnity product.
A POS product is also referred to as an "HMO swing-out plan," an "out-of-plan

benefits rider to an HMO" or an "open-ended HMO."

Preferred provider organization

A **preferred provider organization (PPO)** is an accreditable entity whose performance NCQA assesses using the NCQA PPO Plan Accreditation standards. PPO plans take responsibility for providing health benefits-related services to covered individuals and for managing a practitioner network. They may administer health benefits programs for employers, either by assuming insurance risk or by providing only administrative services.

3. Measures Not Reported by Product-Line or Product

One measure captures detail about the organization for all product lines. The MCO should complete this measure once and submit the same information for each product line:

- Years in Business/Total Membership.

4. HEDIS Submission for MCOs Seeking Accreditation

MCO HEDIS results must reflect the exact product line/product combination for which the MCO seeks accreditation. NCQA defines the MCO for accreditation and HEDIS reporting as part of the MCO accreditation application process.

5. HEDIS Submission for MCOs Not Seeking Accreditation

To determine how many HEDIS reports to produce, the organization must first define the MCO using the criteria specified by NCQA. An MCO unable to determine the HEDIS reporting entity should submit written documentation relating to the criteria described below to the NCQA Policy Department via the PCS system at www.ncqa.org/programs/faq/PCS.asp or by fax to 202-955-3599. NCQA staff review the MCO's structure and make the final determination.

Defining an MCO for HEDIS Reporting and Accreditation

NCQA defines an MCO based on the legal and management structure and delivery system that support the product-line reporting used for HEDIS and accreditation. An MCO is usually a single legal entity that offers one provider network and is marketed under one name. When defining an MCO, NCQA's goal is to arrive at HEDIS reporting and accreditation decisions that reflect the organization (as defined by its providers and practitioners) that is accountable—legally and financially—for care provided to members.

The following outlines the structural issues NCQA considers when deciding how to define an MCO for accreditation and HEDIS reporting. As described below, NCQA evaluates the issues from a number of perspectives. NCQA's goal is to ensure that members have accreditation and HEDIS information that accurately reflect the organizational unit responsible for their health care.

Legal entity

The first factor that NCQA considers when defining an organization is its legal structure. The goal is to identify the legal entity accountable for care provided to a specific membership.

If the organization consists of multiple legal entities within a state, but otherwise operates as a single statewide organization (i.e., same management structure; a single practitioner/provider network for the entire state; centralized key functions, including quality improvement, credentialing and utilization management), NCQA awards accreditation decisions for each legal entity, but the organization may submit one statewide HEDIS submission that is applied to each legal entity.

Provider network

The MCO must have a single network from which a member chooses a practitioner or provider. If there are separate and distinct provider networks, NCQA considers each network, along with the accompanying management structure, to be a separate MCO.

NCQA recognizes that MCOs sometimes market individual products with provider networks that are subsets of a larger provider network. In this case, NCQA may define the MCO at the level of the broader network.

Centralization

NCQA considers the degree to which key functions assessed by accreditation standards are centralized. The MCO should have a single quality improvement and preventive health program and a single set of UM policies and procedures for credentialing and a single set of members' rights and responsibilities.

If key functions are decentralized, with distinct policies and procedures, NCQA may determine that there is more than one MCO.

Licensure

NCQA takes into account licensure when defining an MCO. One MCO may have multiple licenses, particularly if its service area crosses state lines.

On the other hand, if an organization has multiple licenses within a state, NCQA may conclude that there are multiple MCOs and consider this along with the other structural issues discussed above.

6. Model Type and Mixed-Model Type MCOs

Model type

Model type is the type of structure the MCO uses to provide members with care (Staff, Group, IPA, Direct Contract, Mixed, Network).

Mixed-model MCOs (e.g., an MCO with an IPA and a group model) should report data for all model types combined.

7. Reporting HEDIS for Medicaid

Separate Medicaid HEDIS reports should be produced for each state with which the MCO has a Medicaid contract.

If the MCO contracts with a local entity (e.g., a county) rather than a state and contracts with each locality in which it provides service, the state and MCO should discuss providing one comprehensive Medicaid HEDIS report by each MCO to encompass all geographic areas served by the MCO in that state.

8. Reporting HEDIS for Medicare

HEDIS reporting is required for:

- Medicare Advantage contracts
- Section 1876 cost contracts
- certain demonstration projects.

All members covered under these contracts are included in the MCO Medicare HEDIS report. An MCO with a Medicare Advantage contract with cost enrollees remaining from a previous cost contract should include only risk members for HEDIS reporting.

An MCO that expanded the service area of a given contract at any point during the measurement year must include information regarding beneficiaries from the entire contract service area who meet the denominator

specifications for a given measure. In addition, an MCO with certain demonstration contracts must prepare a separate HEDIS report reflecting these product lines.

The Centers for Medicare & Medicaid Services (CMS) communicates directly with all contracted MCOs on additional reporting requirements (e.g., market area reporting, patient identifier information). Refer to the *Medicare Managed Care Manual, Chapter 5: Quality Assessment* on the CMS Web site at www.cms.gov.

9. Reporting HEDIS for the State Children's Health Insurance Program (SCHIP)

SCHIP

Approximately six million children are enrolled in State Children's Health Insurance Programs (SCHIP). States may contract with an MCO to provide care to SCHIP enrollees as part of the MCO's Medicaid product line, the commercial product line, or separate from both the Medicaid and commercial product lines. A state that contracts with an MCO to care for SCHIP enrollees should enable the contracting MCO to identify SCHIP enrollees, when possible.

Reporting guidelines

Reporting performance measures for SCHIP enrollees should be consistent with the MCO's Medicaid contracting status and the direction of the state.

If the state has identified SCHIP enrollees to a contracting MCO and the contracting MCO is also collecting and reporting Medicaid HEDIS results, the MCO should, as directed by the state, either:

- report required HEDIS measures separately for SCHIP enrollees, ***or***
- include SCHIP enrollees in its Medicaid product-line reports.

The MCO must exclude SCHIP enrollees from its commercial product-line reports, because including SCHIP enrollees in HEDIS reports for commercially enrolled populations may affect MCO-to-MCO comparisons

In addition, an MCO with a small number of eligible SCHIP enrollees should follow *General Guideline 39: Small Numbers.* The MCO should consult with its respective states to determine specific SCHIP HEDIS reporting requirements.

NCQA will continue to work with CMS, the Agency for Healthcare Research and Quality (AHRQ), states and MCOs to gain additional experience with issues and opportunities for future reporting on children covered by SCHIP.

Continuous enrollment requirements

Whether the SCHIP population is reported separately or included in the Medicaid HEDIS report, the MCO should follow the Medicaid product line specifications and continuous enrollment requirements.

The NCQA HEDIS Compliance Audit

The HEDIS Compliance Audit is a concurrent process to HEDIS Data Collection. The audit allows comparability across plans and ensures validity and integrity of HEDIS data. It is required for plans seeking NCQA Accreditation or for reporting in NCQA public reporting products, including Quality Compass®. The audit is required by many states and employer groups.

10. Audit Preparation

Contracting with an audit firm

The MCO should request an application for a HEDIS Audit from an NCQA Licensed Organization (http://www.ncqa.org/Programs/Audit/HEDIS/LicOrgs.pdf), and is responsible for determining fees and entering into contracts.

The first activity in audit preparation is contract execution. The MCO should contact the NCQA Licensed Organization for bids and select a firm to conduct the HEDIS audit. The contracting phase includes assessing measures to report, executing the contract with all the necessary ancillary agreements (e.g., confidentiality and conflict of interest) and negotiating a timeline. All Licensed Organizations employ or contract with Certified Auditors and select an audit team for the MCO.

Baseline Assessment Tool

The **Baseline Assessment Tool (BAT)** is a comprehensive instrument that auditors use to review information about the MCO's systems for collecting and processing data to produce HEDIS reports. The BAT also describes the operational and organizational structure of the MCO. It includes detailed questions about all audit standards and is used by auditors to plan the site visit.

11. Reporting

Audit results

HEDIS Compliance Audits™ result in measure-specific approvals indicating the suitability of measures for public reporting. The auditor approves the rate or report status of each measure and survey included in the MCO's submission.

…for HEDIS measures

- *A rate or numeric result.* The MCO followed the specifications and produced a reportable rate or result for the measure.
- *Small denominator (NA).* The MCO followed the specifications but the denominator was too small (<30) to report a valid rate.
- *Benefit not offered (NB).* The MCO did not offer the health benefit required by the measure (e.g., Mental Health/Chemical Dependency).
- *Not Report (NR).* The MCO calculated the measure but the rate was materially biased or the MCO chose not to report the measure.

…for Survey Sample Frames

- *Report (R).* The Survey Sample Frame was reviewed and approved; the measures and components may be reportable.
- *Not Report (NR).* The MCO did not produce an accurate survey sample frame or the MCO did not use an NCQA-Certified survey vendor.

Material bias

The MCO cannot report a rate for a measure that the auditor determines is biased. Bias is based on the degree of data completeness for the data collection method used and differs according to measure and domain. Two assessments of bias are listed below. (For a list of which assessments apply to specific measures, refer to Appendix 10 in Volume 5.)

- *Bias Determination 1:* A measure is materially biased when an error causes a (+/-) 5 percentage point change in the reported rate.
- *Bias Determination 2:* A measure is materially biased when any error causes a (+/-) 10 percent change in the reported rate.

12. Marketing

Release of HEDIS Audit results by the MCO must be in accordance with the NCQA HEDIS Compliance Audit *Guidelines for Advertising and Marketing* (refer to Appendix 6). The MCO may release the entire Final Audit Report without prior authorization from NCQA; however, it must obtain written authorization from NCQA before releasing any information abridged, summarized or quoted from the Final Audit Report.

Requirements for Measure Rotation

13. How Rotation Works

To reduce the overall HEDIS reporting burden and allow the MCO to allocate resources to improvement activities, NCQA instituted a measure rotation strategy where the MCO may rotate selected commercial and Medicaid measures on a biennial basis.

Measure rotation allows the MCO to use the audited and *reportable* rate from the prior year's data collection in lieu of collecting the measure for the measurement year. Each year NCQA specifies a list of measures eligible for rotation. Measures are rotated on a structured schedule and are eligible for rotation every other year. The MCO may not rotate a measure in a year that the measure is not eligible for rotation.

14. Criteria for Eligibility

The following criteria must be satisfied in order for the MCO to rotate a measure.

- The measure is on the list of those eligible for rotation in 2007.
- The MCO has an audited and reportable rate from the prior year for the measure.
- The MCO reporting entity has remained constant since the preceding year.
- If the MCO had a reportable NA result on the previous year's audit, the NA status must still apply.

15. Measures for Rotation

Measure rotation applies to the commercial and Medicaid product lines only; however, the MCO should defer to state regulatory agencies about individual state decisions regarding the rotation strategy. Exclude Medicare measures because of the limited number of hybrid and survey measures relevant to the product line.

Measures eligible for rotation for HEDIS 2007 are:

- Childhood Immunization Status
- Adolescent Immunization Status
- Colorectal Cancer Screening
- Beta-Blocker Treatment After a Heart Attack
- Well-Child Visits—First 15 Months
- Well-Child Visits—Third, Fourth, Fifth and Sixth Years of Life

- Adolescent Well-Care
- CAHPS Health Plan Survey 3.0H, Child Version
- Children With Chronic Conditions

16. Rotation and HEDIS Scoring for Accreditation and the QI Standards

The HEDIS measure rotation strategy affects two key aspects of accreditation:

- Scoring HEDIS measures
- Use of measures to demonstrate compliance with standard *QI 11: Clinical Quality Improvements* and *QI 12: Service Quality Improvements*.

A number of measures eligible for rotation are used for accreditation scoring. NCQA intends to hold thresholds constant for rotated measures. The MCO may rotate measures and retain its HEDIS results and accreditation scores; it may also collect and report rotated measures and update HEDIS results to increase the accreditation score, or for other reasons. When deciding to rotate a measure, an MCO in the NCQA Accreditation process should consider if its accreditation score on the measure was satisfactory.

Measure rotation does not affect the use of HEDIS measures to demonstrate improvement, since NCQA looks across four measurement years to determine significant improvement (i.e., the last year of the previous accreditation period and the three years of the current period). Since no measure is rotated more than twice in four measurement years, there should be sufficient measurements to demonstrate improvement.

17. How Measure Rotation Affects the HEDIS Compliance Audit™

Measure rotation does not affect the NCQA HEDIS Audit. Measures rotated in a given year are not subject to audit *if:*

- They were audited in the previous year
- Their final audited results were reportable
- The reported rate was NA, and this still applies
- The reporting entity has not changed.

Certified auditors use the audited results from the previous year for rotated measures. The HEDIS Compliance Audit methodology may include selecting a core set of measures for source code review. Even if the MCO fully exercises the rotation option, the certified auditor can select an appropriate core set (excluding rotated measures) and conduct the audit.

18. Measure Rotation and Data Submission

The MCO must use the Data Submission Tool (DST) to indicate which measures are rotated. The MCO retains responsibility for completing the DST annually and submitting it to NCQA by the HEDIS reporting deadline. NCQA provides detailed instructions for completing the DST in the *DST Users Guide.*

In Which Reports Should HEDIS Members Remain?

19. Eligible Population

The **eligible population** for any measure is all members who satisfy all specified criteria, including any age, continuous enrollment, benefit, event or anchor-date enrollment requirement.

- With the *Administrative method,* the rate is calculated using the eligible population after any exclusions are removed.
- With the *Hybrid method*, the denominator is a systematic sample drawn from the eligible population.

Note: *Refer to the measurement specifications for the criteria of* **eligible population** *for a specific measure.*

20. Commercial Members

Members enrolled through an employer group policy or through an individual or family policy should be included in the commercial HEDIS report.

21. Employer-Specific HEDIS Reports

NCQA does not recommend calculating employer-specific HEDIS reports because of confidentiality concerns, statistical concerns arising from small numbers and the medical record review burden for measures collected using the Hybrid method.

22. The "Working Aged" and Retirees

Include employees 65 years of age or older and retirees in the product line that provides their primary coverage (Medicare or commercial).

Do not include in the Medicare report, members 65 or older whose secondary insurer is Medicare and whose primary coverage is commercial; include them in the MCO's commercial HEDIS report only.

23. Medicaid/Medicare-Eligible Members

Include these members in *both* the MCO's Medicaid and Medicare HEDIS report only if the members are enrolled in a Medicare Advantage contract, or a Section 1876 Cost Contract and a Medicaid managed-care contract. Members who have Medicare Fee-for-Service or unknown Medicare coverage as their primary insurer may be excluded from the Medicaid report.

24. Members With Dual Coverage in Different MCOs, Product Lines or Products

The MCO should not adjust its data to reflect coordination of benefits (COB) with other insurance carriers, product lines or products because the burden of doing so is excessive and the impact is likely to be small. Include members with dual coverage in different MCOs and product lines in both HEDIS reports. For example, dependent children have dual coverage if they are enrolled in the organization's commercial product line under the mother's insurance and enrolled in another organization's commercial product line under the father's insurance. NCQA recommends that both MCOs include the children in their commercial HEDIS report, regardless of which insurer is primary.

If the MCO reports the HMO and POS products separately, include members with dual coverage in the MCO's HMO product and POS product in both HEDIS reports. If the MCO reports the HMO and POS products combined, include members with dual coverage in the MCO's HMO product and POS product only once in the HMO/POS combined report.

25. Members With Dual Membership in Same MCO

Members with dual membership in the same HEDIS reporting product should be represented only once within each HEDIS measure. This guideline applies across all HEDIS domains. For example, dependent children have dual membership if they are enrolled in the organization's HMO commercial product line under the mother's insurance and are enrolled in the same organization's HMO commercial product line under the father's insurance. Count these children only once in the commercial HMO HEDIS report.

26. Self-Insured Members

Administrative Services Only

For self-insured members for whom the MCO provides administrative services only (ASO), include these members in the MCO's HEDIS reports within the appropriate product line if:

- These members are managed in the same way as those for whom the MCO assumes financial risk, ***and***
- The MCO is responsible for administering both in-network and out-of-network claims for them, whether or not this is done through a third party.

Membership Changes

27. Members Who Switch MCOs

The MCO may count members who switch MCOs as continuously enrolled, provided the members joined an MCO that assumes ownership of or responsibility for the member's administrative data and medical records for the entire period of continuous enrollment specified in the measure.

An MCO that chooses to report these members as continuously enrolled must follow the same definition of continuous enrollment as described in *General Guideline 31*, and must follow all other guidelines affecting continuous enrollment (i.e., allow switching between products [HMO and POS] or product lines [Medicaid, commercial, Medicare]). An MCO that adopts this guideline must do so consistently across all measures.

28. Members Who Switch MCOs as a Result of a Merger or Acquisition

Measures with a continuous enrollment period

The MCO has the option of counting as continuously enrolled members who switch MCOs because of a merger that occurred during the measurement year. An MCO that adopts this guideline must do so consistently across all measures.

Measures without a continuous enrollment period

The surviving MCO has the option of including in the eligible population members from the nonsurviving entity starting on the official date of the merger or acquisition. For example, if the merger or acquisition occurred on March 1 of the measurement year, the surviving MCO should exclude the members acquired from the nonsurviving entity from the eligible population for the months of January and February. An MCO that exercises this option must do so consistently across all measures.

29. Members Who Switch Product Lines

Measures with a continuous enrollment requirement

Members enrolled in different product lines (commercial, Medicaid, Medicare) at different times during the measurement year should be reported in the product line to which they belonged at the end of the continuous enrollment period.

For example, a member enrolled in the Medicaid product line who switches to the commercial product line during the continuous enrollment period is reported in the commercial HEDIS report. Members who "age in" to a Medicare product line that began mid-year are considered continuously enrolled, provided that they were members of the MCO through another product line (e.g., commercial) during the continuous enrollment period and their enrollment did not exceed any allowable gaps.

Measures without a continuous enrollment requirement

Assign members to a category based on the product line in which they were enrolled on the date of service (outpatient services) or date of discharge (inpatient services).

30. Members Who Switch Products

Measures with a continuous enrollment requirement

If the MCO reports separately by product, members who switch from the commercial HMO product to the commercial POS product (or vice versa) in the time specified for continuous enrollment for a measure are continuously enrolled and should be included in the product-specific HEDIS report in which they were enrolled as of the end of the continuous enrollment period. For HMO or POS HEDIS reporting, count enrollment in a PPO product in the same manner as a gap in continuous enrollment.

Measures without a continuous enrollment requirement

If the MCO reports commercial HEDIS separately by product (e.g., HMO, POS), members who switch from the commercial HMO product to the commercial POS product (or vice versa) during the measurement year should be reported in the product to which they were enrolled on the date of service (outpatient services) or date of discharge (inpatient services).

Required Enrollment Periods and Benefits

31. Continuous Enrollment

Continuous enrollment specifies the minimum amount of time that a member must be enrolled in the MCO before becoming eligible for a measure.

The intent of continuous enrollment is to ensure that the MCO has a sufficient amount of time to render services to its members to be accountable for providing those services. Continuous enrollment is one of several criteria used to identify the eligible population. The continuous enrollment period is specified in each measure, along with any allowable gap for the period. Gaps of only one day should be considered administrative and are not counted as a distinct enrollment gap.

An allowable gap can occur any time during continuous enrollment. For example, the *Comprehensive Diabetes Care* measure requires continuous enrollment throughout the measurement year (i.e., January 1–December 31) and allows one gap in enrollment of up to 45 days. A member who enrolls for the first time on February 8 of the measurement year is considered continuously enrolled as long as there are no other gaps in enrollment throughout the remainder of the measurement year. That member has one 38-day gap (January 1–February 7).

32. Medicaid Continuous Enrollment

For an MCO that applies a full-month eligibility criterion to Medicaid beneficiaries and an MCO that verifies enrollment prospectively in monthly intervals (in increments of 1 month), the one gap in enrollment during the continuous enrollment period may not exceed 45 days. A member whose coverage lapses for 2 months (60 days) is not considered continuously enrolled.

If the MCO is prospectively notified of member enrollment, use the actual date of enrollment to calculate continuous enrollment, not the notification date.

Retroactive eligibility

The **retroactive eligibility period** is the elapsed time between the actual date on which the MCO became financially responsible for the Medicaid enrollee and the date it received notification of the new enrollee.

For measures with a continuous enrollment requirement, the MCO has the option to exclude a member if the retroactive eligibility period exceeds the allowable gap requirement. If the MCO excludes Medicaid enrollees with retroactive eligibility gaps, it must do so consistently across all measures.

33. Continuous Enrollment Over Multiple Years

Unless otherwise specified, for measures that span more than one year, during each year of continuous enrollment members are allowed one gap of up to 45 days in which they are not enrolled. A gap in enrollment that extends over multiple years of a continuous enrollment period may exceed 45 days. For example, in the *Breast Cancer Screening* measure (which requires 2 years of continuous enrollment), a member who disenrolls November 30 of the year prior to the measurement year and who reenrolls February 1 of the measurement year is considered continuously enrolled as long as there are no other gaps in enrollment during either year. The member is considered to have one gap of 31 days (December 1–31) in the year prior to the measurement year and one gap of 31 days (January 1–31) in the measurement year.

34. Anchor Dates

If a measure requires a member to be enrolled by a particular date, the specified allowable gap must not include that particular date. For example, a 30-year-old woman who has only one gap in enrollment from November 30 of the measurement year throughout the remainder of the year is not eligible for the *Cervical Cancer Screening* measure. Although the member meets the continuous enrollment criteria, she does not meet the anchor date criteria, which requires her to be enrolled as of December 31 of the measurement year.

35. Required Benefits

…at the plan level

The MCO is responsible for reporting HEDIS measures requiring a specific benefit that it provides to members, either directly or through a contractor.

The MCO is not responsible for reporting HEDIS measures requiring a specific benefit that it does not offer.

…at the member level

Members who do not have a specific benefit that a measure requires should not be counted in that measure. For example, exclude members who do not have a pharmacy benefit from the *Outpatient Drug Utilization* measure.

For a member whose benefit is lost or exhausted during the time specified in the measure, only services or procedures that occurred while the member had the benefit should be included. For example, for a member whose pharmacy benefit is exhausted on November 1 of the measurement year, only the outpatient drug expenses that occurred from January 1–October 31 should be reported.

Exhausted benefits *(optional)*

Some Effectiveness of Care measures require benefits other than medical (e.g., pharmacy or mental health). These benefits must be active for the period of continuous enrollment, accounting for any allowable gaps. The MCO has the option to exclude the member if the period when the benefit is exhausted exceeds any allowable gaps or anchor date. For example, the *Use of Appropriate Medications for People With Asthma* measure requires a pharmacy benefit during the measurement year. The MCO may exclude a member whose pharmacy benefit is exhausted in September of the measurement year, since this gap exceeds the 45-day allowable gap period.

Including members whose benefits are carved out *(optional)*

Some plans can obtain the necessary information from a carved-out entity and may choose to include these members in their measures. For example, an employer contracts directly with a pharmacy benefit manager (PBM), which shares pharmacy information with the health plan. The health plan may choose to include the employer's members in the measure.

36. Accessing Medical Records Prior to Enrollment

A health plan that can access data from a complete medical record should use this data to calculate a measure; however, a plan that cannot access data from a medical record, because it was updated before the a member was enrolled should calculate the measure with only the data available.

HEDIS Data Submission and Reporting

37. HEDIS Reporting Date

The previous calendar year is the standard measurement year for HEDIS data. The MCO should submit data to NCQA on or before June 15 of the current year (e.g., June 15, 2007 for HEDIS 2007). State Medicaid agencies will notify a Medicaid-contracting MCO of the submission date for Medicaid HEDIS 2007 data; however, an MCO with a Medicaid product in the accreditation process must meet the submission deadline of June 15, 2007. CMS will notify a Medicare-contracting MCO of the submission date for Medicare HEDIS 2007 data; however, an MCO with a Medicare product in the accreditation process must meet the submission deadline of June 30, 2007.

38. Required Data Elements

The MCO should report HEDIS data that are based on all claims incurred through December 31 of the measurement year, not claims paid through that date. An MCO that submits HEDIS data to NCQA must report the data elements identified in each measure specification. Data elements are standard for hybrid measures and administrative measures. A complete list of data elements and their definitions is included in Appendix 4. Data elements with an asterisk (*) are considered optional and are used by NCQA as part of first-year analysis and included only for the first two years of data collection.

39. Small Numbers

Effectiveness of Care and Access/ Availability of Care domains

If during the entire measurement year fewer than 100 members are in the eligible population for a reported measure, include in the denominator all members who meet the criteria and report a 95 percent confidence interval. Reporting a confidence interval is required because the small denominator leads to a rate that is not as precise as a rate based on a larger denominator. If the denominator used to calculate a measure is smaller than 30 using either the Administrative or Hybrid method, the MCO is not required to report the rate but must provide all other information, including the following.

- A count of all members eligible for the measure, as defined by the measure specification (the **eligible population/denominator**)
- A count of all members who received the treatment or service as indicated (the **numerator**)

Separate reporting of numerator and eligible population/denominator information allows CMS and states to aggregate the data with those of other MCOs to produce national or statewide data or to calculate a rate. It also serves as a reminder of the threat of small numbers to the credibility of performance measures. The *Guidelines for Calculations and Sampling* contain more information on sample size and selection and confidence interval calculation.

Tabular Use of Services measures

The MCO should not suppress reporting for any particular cell in the table (discharges; discharges/1,000 member years; procedures; days/1,000 member years), regardless of the total member months or member years for the particular age or sex cohort or the number of measured events (visits, days, discharges, stays, procedures).

Use of Services measures that request a percentage

For Use of Services measures that request a percentage (*Well-Child Visits in the First 15 Months of Life; Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life; Adolescent Well-Care Visits;* and *Frequency of Ongoing Prenatal Care*), follow the instructions for Effectiveness of Care measures described above.

Data Collection

40. Data Collection Methodology

HEDIS measures are specified for one or more of three data collection methodologies.

- Administrative
- Hybrid
- Survey

The MCO must use the data collection methodologies specified in a measure for reporting.

Administrative method

The **Administrative method** requires the MCO to identify the eligible population and numerator using transaction data or other administrative databases. The MCO reports a rate based on all members who meet the eligible population/denominator criteria and who are found through administrative data to have received the service identified in the numerator.

Hybrid method

The **Hybrid method** requires the MCO to identify the numerator through both administrative and medical record data. The denominator consists of a systematic sample of members drawn from the measure's eligible population. The MCO reports a rate based on members in the sample who are found through either administrative or medical record data to have received the service identified in the numerator.

Survey method

The **Survey method** requires data to be collected through a survey. Specifications for survey measures are included in *HEDIS Volume 3: Specifications for Survey Measures; HEDIS Volume 3 (PPO Version): Specifications for Survey Measures* and *HEDIS Volume 6: Specifications for the Medicare Health Outcomes Survey.*

41. Administrative Database

Guidelines

An **administrative database** is automated data used by the MCO to manage the delivery of health care services to members. When collecting data from an administrative database, the MCO should adhere to the following.

- Information from an automated appointment scheduler used for HEDIS reporting must be able to distinguish between scheduled and kept appointments; only kept appointments count toward HEDIS compliance.
- The date of service is required for all services rendered.
- All data elements specified in the measure (e.g., date of service, procedure, prescriptions) must be identified as rendered by the time specified in the measure (e.g., a mammogram during the measurement year or the year prior to the measurement year for the *Breast Cancer Screening* measure).

42. Internally Built Administrative Database

Member surveys

Plans may create internal databases containing information from patient-reported surveys, which must be sent to the entire eligible population. In addition, these completed surveys must be sent to the provider for review and added to the members' medical records before data is added to a database to be used for HEDIS measures. The survey should include all the data elements necessary for the measure (e.g., lab results, date of service, exclusion criteria).

Medical record data

The MCO may create and use internal databases for HEDIS reporting, such as case management databases, utilization management databases or databases populated with medical record information. This information should be used as administrative data, not as medical record data.

Data pulled from medical records as a result of chart review for a hybrid measure can be used to populate a database, but the elements must comply with the guidelines concerning information obtained from the medical record. (Refer to Guidelines 44 [*The Medical Record*], 45 [*Obtaining Information From Medical Records*], 46 [*Additional Instructions for Using Electronic Health Records].*)

Required data elements

The database must include all data elements specified in the measure (date of service, procedure, prescription, practitioner type), and services must be identified as having been rendered within the time frame specified in the measure. All database entries must be made and all services must be rendered by the deadline for delivery of the service established in the measure (e.g., by the child's second birthday for the *Childhood Immunization Status* measure). Retrospective entries do not count toward HEDIS.

The health plan should not use practitioner attestation forms because they do not require the practitioner to verify services using the medical record.

Audit requirements

An MCO that uses this option must have standardized and consistent processes in place to update and maintain the database and must evaluate the accuracy and reliability of the information. Auditors evaluate the documented policies and procedures for the database as well as the overall management of the data, including how data are collected, imported and reported.

43. External Administrative Database

Any automated data supplied by contracted practitioners or vendors or public agencies (e.g., pharmacy, lab, immunization registries, schools, state public health agencies) constitute an **external administrative database**. The MCO must use this information as administrative data, not as medical record data.

Audit requirements The MCO is not required to directly test the accuracy and validity of data obtained from external databases; however, it must obtain documentation showing that the agency/organization responsible for the data has reasonable data accuracy processes in place. The MCO must provide this documentation to its auditor, who will evaluate data credibility. The MCO must also demonstrate to the auditor that it evaluated the policies and procedures for collecting, importing and reporting from the external database.

Required data elements The database must include all data elements specified in the measure (date of service, procedure, prescription, practitioner type), and services must be identified as having been rendered within the time frame specified by the measure.

44. The Medical Record

The **medical record** is the collective accumulation of notes kept by all practitioners who treat a member. It constitutes the official record of patient visits and treatments. The medical record includes all test results (e.g., reports from the laboratory, pathology, radiology). The complete record may be located in more than one place (e.g., part in the primary care practitioner's office, part in specialists' offices). Electronic medical records are considered official medical records.

An **electronic health record** (EHR) is an electronic medical record (EMR) developed and maintained at the health plan or system level. Electronic medical records are typically developed and maintained at the physician office level. However, the terms may be used interchangeably. The complete patient visit and treatment information captured and recorded in EHR systems may vary, and the EMRs in physician offices may or may not be integrated (or linked) to the health plan system. Depending on the level of integration, plans may use data from EMRs for HEDIS.

45. Obtaining Information From Medical Records

An MCO using the Hybrid method is responsible (as are its contractors) for determining compliance with HEDIS measurement specifications. Information from the medical record may be abstracted by:

- The MCO or contractors hired to conduct chart audit, ***or***
- Practitioners of care.

MCO or contractor abstraction The MCO may count a service if the medical record contains:

- A note indicating the date the service was rendered
- The result (when applicable).

Entries made in the medical record when the service was provided must include:

- The date and the result (when applicable), ***or***
- A consultation, laboratory or imaging report.

All medical record entries must be made and all services must be rendered by the deadline for delivery of the service established in the measure (e.g., by the child's second birthday for the *Childhood Immunization Status* measure). Retrospective entries do not count toward HEDIS.

Abstraction of electronic medical records

The MCO may review the electronic medical record screens at the practitioner's office, or review print-outs (including screen shot print-outs) of the record containing the patient's name, the practitioner's name and the date from the practitioner's office. The MCO should develop and implement confidentiality guidelines consistent with electronic medical record abstraction. See *General Guideline 46* for further information.

Practitioner abstraction

The MCO may review a mailed copy of the record containing the patient's name, the practitioner's name and the date from the practitioner's office. Although faxing relevant portions from the medical record is acceptable, it is not a preferred method because of patient confidentiality issues. Regardless of the method used, the MCO should develop and implement confidentiality guidelines. NCQA does not approve or review medical record abstraction tools or training materials.

Guidelines for practitioner abstraction

An MCO for which a practitioner supplies measure-specific information from a medical record must use an abstraction tool to:

- Provide guidelines for abstraction.
- Complete quality control processes, such as interrater reliability or rater-to-standard reliability validation.

The MCO must provide guidelines for practitioner abstraction. Verbal or written guidance should include clear instructions for applying the technical specifications to medical record review. Instructions are subject to review by the HEDIS Compliance Auditor. The MCO does not need to use the same tool for practitioner chart abstraction that it uses for the chart abstractions its contracted vendors perform; however, all abstraction tools are required to have all necessary data elements and are subject to review by the HEDIS Compliance Auditor.

Processes used to determine the validity and integrity of abstracted data, including interrater reliability, quality control or rater-to-standard tests are subject to review by the HEDIS Compliance Auditor. The MCO must include these records in the HEDIS Compliance Audit medical record review validation.

The MCO should not use practitioner attestation forms because they do not require the practitioner to verify services using the medical record.

46. Additional Instructions for Using Electronic Health Records

When collecting data from an electronic medical record, the MCO should adhere to the following guidelines.

Information from an electronic medical record must be able to distinguish between ordered and completed appointments, procedures, lab and radiology orders; only completed count toward HEDIS compliance. Some EMRs capture and record CPT codes when the practitioner completes a service order in the "order" screen. A CPT code found on the "ordered" list as a stand alone will not comply with the numerator criteria.

Entries made in the electronic medical record and found in the "orders" screen must include:

- The date and the result (when applicable), ***or***
- A consultation, laboratory or imaging report.

All data elements specified in the measure (e.g., date of service, procedure, prescriptions) must be identified as rendered by the time specified in the measure (e.g., a mammogram during the measurement year or the year prior to the measurement year for the *Breast Cancer Screening* measure).

The MCO may count a service if the electronic medical record contains:

- Claims data captured through patient management system linked to the electronic medical record, ***or***
- A note indicating the date the service was rendered.
- The result (when applicable).

All other electronic medical record entries must follow *General Guideline 45.* An MCO that accesses EMRs to retrieve clinical information to meet a Hybrid measure must follow the criteria specified for medical record review.

Retrospective entries do not count toward HEDIS.

47. Date Specificity

HEDIS requires a date to be specific enough to determine that an event occurred during the time established in the measure. For example, in the *Childhood Immunization Status* measure, members should receive three hepatitis B vaccines. Assume a member was born on February 5, 2004. Documentation in the medical record that the first hepatitis B vaccine was given "at birth" is specific enough to determine that it was given prior to the deadline for this measure (i.e., the child's second birthday); however, if the medical record states that the third hepatitis B vaccine was given in February 2006, the MCO would not be able to count the immunization because the date is not specific enough to confirm that it occurred prior to the member's second birthday.

There are instances when documentation of the year alone is adequate; these include most optional exclusions and measures that look for events in the "measurement year or year prior to the measurement year." Terms such as "recent," "most recent" or "at a prior visit" are not acceptable.

For documented history of an event (e.g., documented history of a disease), undated documentation may be used as long as it is specific enough to determine that the event occurred during the time frame specified in the measure. For example, for the *Adolescent Immunization Status* measure, undated documentation on an immunization chart stating "chicken pox at age 6" is specific enough to determine that it occurred prior to the adolescent's 13th birthday.

Similarly, for the *Breast Cancer Screening* measure, undated documentation on a problem list stating "bilateral mastectomy in 1999" is specific enough to determine that this exclusion occurred prior to December 31 of the measurement year.

48. Patient-Report Information

The MCO may use **patient-reported information** (i.e., information obtained while taking a patient's history or from a questionnaire completed in the provider's office), provided:

- The information is in the medical record by the deadline established for the measure, ***and***
- The medical record includes a note indicating the date of service and the result (when applicable).

Retrospective entries do not count toward HEDIS.

49. Measures That Report Screening and Control Rates

There are three instances where screening and control rates are reported for the same indicator.

- *Cholesterol Management for Patients With Cardiovascular Conditions:* LDL-C
- *Comprehensive Diabetes Care:* HbA1c
- *Comprehensive Diabetes Care:* LDL-C

The MCO must use the same methodology for reporting these indicators. For example, both data collection methodologies must be the same when reporting LDL-C screening and LDL-C control level. If screening uses the Hybrid method, control level must use the same method.

50. Using the Hybrid Method to Collect Measures With Multiple Numerator Events

Three measures can be collected using the Hybrid method and require more than one event to satisfy the numerator.

- Childhood Immunization Status
- Adolescent Immunization Status
- Well-Child Visits in the First 15 Months of Life

For example, three separate antigens are collected to report the IPV rate for *Childhood Immunization Status.* For all measures listed above, the MCO may use a combination of administrative and medical record data for a member in the denominator, if the events across both medical record and administrative data are at least 14 days apart.

The MCO may count two IPV vaccines identified through administrative and the third IPV identified through medical record review for a member in the denominator, if the medical record date of service is not within 14 days of either administrative date of service. The MCO may count three IPVs identified through administrative and four DTaPs identified through medical record data for the same individual.

An MCO that has one event from the medical record and one from administrative data and is unable to determine if the dates are at least 14 days apart must use only the medical record event.

51. Measures That Use Pharmacy Data

Some measures require the use of pharmacy data. Relevant measure specifications provide specific guidelines for documenting the proportion of eligible members for whom the MCO provides or manages the pharmacy benefit. NCQA specifies a standardized list of medications that apply to each pharmacy-dependent measure. The MCO is required to use these lists for the relevant measures.

Final NDC lists for pharmacy-related measures will be posted to the NCQA Web site on November 15, 2006, after the NDC Public Comment period in September.

HEDIS Coding Conventions

52. Coding Systems Included in HEDIS

HEDIS includes codes from the following coding systems.

- Current Procedural Terminology (CPT)
- Healthcare Common Procedure Coding System (HCPCS)
- International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)
- Uniform Bill (UB-92) Revenue and Type of Bill
- Diagnosis-Related Group (DRG)
- Logical Observation Identifiers Names and Codes (LOINC)
- CMS Place of Service (POS)

53. Presentation of Codes

Unless otherwise noted, codes in HEDIS are stated to the minimum specificity required. For example, if a code is presented to the third digit, any valid fourth or fifth digits may be used for HEDIS reporting.

When necessary, a code may be specified with an "x," which represents a required digit; for example, ICD-9-CM Diagnosis code 640.0x indicates a fifth digit is required, but the fifth digit could be any number allowed by the coding manual. All coding systems in the HEDIS specifications use this presentation format. The table below contains examples of codes and the included ranges.

ICD-9-CM Diagnosis Code	Included Ranges
299	299, 299.0-299.9 and 299.00-299.99
299.x	299.0-299.9 and 299.00-299.99
299.xx	299.00-299.99
299.0x	299.00-299.09
299.05	299.05 only

When reading HEDIS coding tables, assume there is an "or" in between each column unless otherwise noted; each code set is not dependent on another code set unless otherwise noted.

54. Principal vs. Secondary Diagnoses

Principal and secondary diagnoses are mentioned throughout HEDIS. Generally, a **principal diagnosis** is the diagnosis given at discharge and the one that is listed in the first position on a claim form. A **secondary diagnosis** is a diagnosis listed on a claim or encounter form that is not classified as the principal diagnosis. A claim form may contain several secondary diagnoses.

The MCO should follow the specifications stated within each particular measure to determine whether a diagnosis must be principal or may be secondary.

Some measures require a specific principal diagnosis for a member to be in the eligible population; other measures allow any diagnosis (principal or secondary) for a member to be eligible. For example, the *Beta-Blocker Treatment After a Heart Attack* measure specifies any diagnosis of an initial AMI is eligible. If a member's claim lists the principal diagnosis as severe head injury trauma, but an initial AMI is listed as a second, third, fourth or fifth diagnosis on the same claim form, the member would still be included in the *Beta-Blocker Treatment After a Heart Attack* measure.

55. CPT Code Modifiers

CPT modifiers are two- or five-digit extensions that, when added to CPT codes, provide additional information about a service or procedure. With the exception of myringotomies and mastectomies in the *Frequency of Selected Procedures* measure, the same procedure should never be counted twice for the same date of service.

The MCO should follow the guidelines below when procedure codes in its databases have modifiers (**xxxxx** denotes the five-digit CPT code).

- **xxxxx-26** indicates the professional component of a service (**xxxxx-TC** is used by some MCOs to indicate the technical component of the same service). For a given procedure, the MCO should count one or the other of these codes, but not both.
- **xxxxx-54** denotes surgical care only; **xxxxx-55** denotes postoperative management only; **xxxxx-56** denotes preoperative management only. For a given procedure, the MCO should count only one of these codes.
- **xxxxx-80** and **xxxxx-82** indicate charges for surgical assistant services; **xxxxx-8**1 indicates a charge for minimum surgical assistant services. If the primary surgeon does not submit a claim for a given procedure, the MCO should count only one of these codes. If a primary surgeon submits a claim, the MCO should not count any of these codes.

In general, if a CPT code specified in HEDIS appears in the MCO database with any modifier other than those specified above, the code may be counted in the HEDIS measure.

56. UB-92 Code Specificity

Uniform Bill (UB) codes, primarily Type of Bill and Revenue codes, are used to identify services. As with the ICD-9-CM codes, an “x” may be used in place of a digit.

HEDIS specifies UB-92 Revenue codes using four digits. The MCO may also use the equivalent three-digit version of the code; for example, it may use 403 or 0403 to demonstrate compliance for the Breast Cancer Screening measure.

Per the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and effective 2003, all health plans must use the four-digit version of UB-92 Revenue codes on claim forms. To accommodate look-back periods for the measures, NCQA will phase out the three-digit versions of the UB-92 Revenue codes in HEDIS 2007 and will require the four-digit versions of the codes in HEDIS 2008.

57. Mapping Proprietary or Other Codes

For any HEDIS measure, an MCO that does not use the coding systems specified (e.g., DRG or ICD-9-CM) must “map” the codes it uses to the codes specified in HEDIS. Plans may map only propriety and NDC codes; they cannot map standard codes or deleted codes to the codes used in the measures. When mapping codes, it is important that the MCO match the clinical specificity required for HEDIS. NDC code mapping should be linked to the generic name, strength/dose and route indicated in the HEDIS NDC lists posted on the NCQA Web site at www.ncqa.org.

For audit purposes, the MCO should document the method used to map codes. At a minimum, documentation should include a crosswalk containing the relevant codes, descriptions and clinical information. The MCO must document the policies and procedures used to implement codes. Auditors may request additional information.

58. Retirement of Codes

NCQA annually tracks billing, diagnostic and procedure codes designated obsolete. NCQA does not remove codes in the year in which they receive the designation because of the look-back period in many HEDIS measures. Codes that have been designated obsolete are deleted from the HEDIS specifications one year after the measure's look-back period is exhausted. For example, since the *Breast Cancer Screening* measure counts a mammogram in the measurement year or the year prior to the measurement year, it has a two-year look-back period. A code for a mammogram that is designated obsolete during the 2005 measurement year is not deleted from the specifications until the 2008 measurement year (i.e., one year after the two-year look-back period).

NCQA uses the National Drug Code (NDC) system. Obsolete NDC codes are phased out of the specifications three years after the look-back period for the measure. This allows pharmacies and MCOs to use up their inventory and change their systems to reflect code changes. NCQA encourages the MCO to update its information systems and to ensure that complete, accurate and consistent coding is used for all encounters and claims so that HEDIS specifications can be followed. This will help the industry move toward a uniform system of performance measurement.

59. Table Names

Measure specifications contain two types of tables: one to present specification requirements and one used by MCOs to submit data. A standardized naming system is used to refer to the tables. Table names begin with the three-character abbreviation for the measure; for example, *Comprehensive Diabetes Care* tables begin with "CDC."

Specification tables Tables that are part of the specifications (i.e., coding and pharmaceutical tables) begin with the measure abbreviation and end with a hyphen (-) and a capital letter to distinguish its order in the measure's specifications. For example, the first table in the *Comprehensive Diabetes Care* measure is assigned CDC-A.

Reporting tables Tables reported in the Data Submission Tool (DST) begin with the measure abbreviation. Each product line (commercial, Medicaid, Medicare) is assigned a number. The reporting tables for *Comprehensive Diabetes Care* are:

- **CDC-1** (Medicaid)
- **CDC-2** (commercial)
- **CDC-3** (Medicare).

If there is more than one table to be reported for a product line, it is assigned a lowercase letter; for example, the Medicaid tables for Enrollment by Product Line are ENP-1a (Total Medicaid) and ENP-1b (Medicaid/Medicare Eligibles).

Measures Reportable With a Partial Year of Data

Table 1 indicates the continuous enrollment requirement for each measure. It also illustrates whether a measure may be reported with partial year of data (e.g., when a new product line/product becomes licensed to operate during the measurement year). In general, a measure without a continuous enrollment requirement is reportable with less than a full year of data.

Measures with a continuous enrollment requirement

For measures with a continuous enrollment requirement, the MCO must assess on a measure-by-measure basis whether the measure may be reported in the current measurement year. For example, an MCO that initiates a new product line/product during the measurement year may be able to report on all or most HEDIS measures if members enrolled in an existing product line/product switch to the new product line/product. These members are considered continuously enrolled and should be reported for the product line/product in which they are enrolled at the end of the continuous enrollment period.

For example, if the MCO's Medicare contract began February 1, Medicare beneficiaries are considered continuously enrolled as long as they have had no other gaps in enrollment throughout the remainder of the measurement year. Measures that can be reported with partial year data are indicated with a "Y."

Measures that require the MCO to further assess if they can be reported are noted "Possible."

Measures that may not be reported with partial year data are indicated with an "N."

Table 1: Measures Reportable With a Partial Year of Data

Measure Name	Partial Year Reporting (Y / Possible / N)	Continuous Enrollment (Y / N)	Continuous Enrollment Period
Effectiveness of Care			
Childhood Immunization Status	Possible	Y	12 months prior to the child's 2nd birthday
Adolescent Immunization Status	Possible	Y	12 months prior to the member's 13th birthday
Appropriate Treatment for Children With Upper Respiratory Infection	Y	Y	30 days prior to the Episode Date through 3 days after the Episode Date (inclusive)
Inappropriate Antibiotic Treatment for Adults With Acute Bronchitis	Possible	Y	1 year prior to the Episode Date through 7 days after the Episode Date (inclusive)
Appropriate Testing for Children With Pharyngitis	Y	Y	30 days prior to the Episode Date through 3 days after the Episode Date (inclusive)
Colorectal Cancer Screening	Possible	Y	Measurement year and year prior to the measurement year
Breast Cancer Screening	Possible	Y	Measurement year and year prior to the measurement year
Cervical Cancer Screening	Possible	Y	***Medicaid:*** Measurement year ***Commercial:*** Measurement year and 2 years prior to the measurement year
Chlamydia Screening in Women	Possible	Y	Measurement year
Osteoporosis Management in Women Who Had a Fracture	Possible	Y	12 months prior to the initial eligible fracture through 6 months post-fracture
Controlling High Blood Pressure	Possible	Y	Measurement year

Table 1: Measures Reportable With a Partial Year of Data **(continued)**

Measure Name	Partial Year Reporting (Y / Possible / N)	Continuous Enrollment (Y / N)	Continuous Enrollment Period
Effectiveness of Care			
Beta-Blocker Treatment After a Heart Attack	Y	Y	7 days after discharge for AMI
Persistence of Beta-Blocker Treatment After a Heart Attack	Y	Y	180 days after discharge for AMI
Cholesterol Management for Patients With Acute Cardiovascular Conditions	Possible	Y	Measurement year and year prior to the measurement year
Comprehensive Diabetes Care	Possible	Y	Measurement year
Use of Appropriate Medications for People With Asthma	Possible	Y	Measurement year and the year prior to the measurement year
Use of Spirometry Testing in the Assessment and Diagnosis of Chronic Obstructive Pulmonary Disease (COPD)	Possible	Y	540 days prior to the anchor date through 180 days after the anchor date
Follow-Up After Hospitalization for Mental Illness	Y	Y	30 days after discharge for mental illness
Antidepressant Medication Management	Possible	Y	12-month period of time encompassing the new episode of medication therapy
Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication	Possible	Y	120 days (4 months) prior to the Index Prescription Episode Start Date and 300 days (10 months) after the Index Prescription Episode Start Date
Glaucoma Screening in Older Adults	Y	Y	Measurement year and the year prior to the measurement year
Use of Imaging Studies for Low Back Pain	Y	Y	180 days prior to the Episode Start Date through 28 days after the Episode Start Date
Disease Modifying Anti-Rheumatic Drug Therapy in Rheumatoid Arthritis	Possible	Y	Measurement year
Annual Monitoring for Patients on Persistent Medications	Y	Y	Measurement year
Drugs to Be Avoided in the Elderly	Y	Y	Measurement year
Potentially Harmful Drug-Disease Interactions in the Elderly	Possible	Y	Measurement year and the year prior to the measurement year
Access/Availability of Care			
Adults' Access to Preventive/Ambulatory Health Services	Possible	Y	***Commercial:*** Measurement year and the 2 years prior to the measurement year ***Medicare/Medicaid:*** Measurement year
Children and Adolescents' Access to Primary Care Practitioners	Possible	Y	***Children 12-24 months, 25 months-6 years:*** Measurement year ***Children 7-11 years, adolescents 12-19 years:*** Measurement year and the year prior to the measurement year
Prenatal and Postpartum Care	Y	Y	43 days prior to delivery to 56 days after delivery
Initiation and Engagement of AOD Treatment	Y	Y	60 days prior to 44 days after the Index Episode Start Date

Table 1: Measures Reportable With a Partial Year of Data (continued)

Measure Name	Partial Year Reporting (Y / Possible / N)	Continuous Enrollment (Y / N)	Continuous Enrollment Period
Access/Availability of Care			
Annual Dental Visit	Possible	Y	Measurement year
Call Answer Timeliness	Y	N	
Call Abandonment	Y	N	
Health Plan Stability			
Years in Business/Total Membership	Y	N	
Use of Services			
Frequency of Ongoing Prenatal Care	Y	Y	43 days prior to delivery to 56 days after delivery
Well-Child Visits in the First 15 Months of Life	Possible	Y	31 days to 15 months of age
Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life	Possible	Y	Measurement year
Adolescent Well-Care Visits	Possible	Y	Measurement year
Frequency of Selected Procedures	Y	N	
Inpatient Utilization—General Hospital/ Acute Care	Y	N	
Ambulatory Care	Y	N	
Inpatient Utilization—Nonacute Care	Y	N	
Discharges and Average Length of Stay—Maternity Care	Y	N	
Births and Average Length of Stay, Newborns	Y	N	
Mental Health Utilization—Inpatient Discharges and Average Length of Stay	Y	N	
Mental Health Utilization—Percentage of Members Receiving Inpatient, Day/Night Care and Ambulatory Services	Y	N	
Chemical Dependency Utilization—Inpatient Discharges and Average Length of Stay	Y	N	
Identification of Alcohol and Other Drug Services	Y	N	
Outpatient Drug Utilization	Y	N	
Antibiotic Utilization	Y	N	
Cost of Care			
Relative Resource Use for People With Diabetes	Possible	Y	Measurement year
Relative Resource Use for People With Asthma	Possible	Y	Measurement year and the year prior to measurement year
Relative Resource Use for People With Acute Low Back Pain	Y	Y	180 days prior to the Episode Start Date through 28 days after the Episode Start Date

***Table 1: Measures Reportable With a Partial Year of Data* (continued)**

Measure Name	Partial Year Reporting (Y / Possible / N)	Continuous Enrollment (Y / N)	Continuous Enrollment Period
Health Plan Descriptive Information			
Board Certification	Y	N	
Enrollment by Product Line	Y	N	
Enrollment by State	Y	N	
Race/Ethnicity Diversity of Membership	Y	N	
Language Diversity of Membership	Y	N	
Weeks of Pregnancy at Time of Enrollment in the MCO	Y	N	

Guidelines for Calculations and Sampling

Guidelines for Calculations and Sampling

This section contains guidelines relating to calculating rates based on the Administrative and Hybrid methods, as well as specifications for sampling when using the Hybrid method. An MCO using this method must follow the systematic sampling methodology described in this chapter or must receive written authorization from NCQA for an alternative sort or sampling method. Proper utilization and implementation of these methods is assessed as part of NCQA's HEDIS Compliance Audit™.

How to Use the Administrative Method

An MCO that uses the Administrative method to collect and report measures must complete the following five steps:

Step 1 Identify the eligible population. This number becomes the denominator for the measure.

Step 2 Search administrative systems to identify numerator events for all members in the eligible population.

Step 3 If applicable, for members for whom administrative data does not show a positive numerator event, search administrative data for an exclusion to the service/procedure being measured.

Note: *This step applies only to measures for which optional exclusions are specified and for which the MCO has chosen to search for exclusions. The MCO is not required to search for optional exclusions.*

Step 4 Exclude from the eligible population members from Step 3 for whom administrative system data identified an exclusion to the service/procedure being measured.

Step 5 Calculate the rate.

Guidelines for the Hybrid Method

Drawing the sample

Measures that can be collected using the Hybrid method are listed in Table 2. For each measure, the eligible population is based on:

- Membership data (e.g., women between 24 and 64 years of age for *Cervical Cancer Screening*), ***or***
- Claims data (e.g., members who were discharged with a diagnosis of acute myocardial infarction and who received an outpatient prescription for beta-blockers upon discharge for *Beta-Blocker Treatment After a Heart Attack*).

The MCO is strongly encouraged to draw samples no earlier than January 2007 for the 2006 measurement year. This increases the accuracy and completeness of the eligible population from which the sample is drawn.

If the MCO draws its samples prior to January 2007, it must adhere to the following guidelines.

Membership-dependent denominators

For measures in which the eligible population is determined through membership data, do not draw the sample prior to December 1 of the measurement year *(Childhood Immunization Status; Adolescent Immunization Status; Colorectal Cancer Screening; Cervical Cancer Screening; Well-Child Visits in the First 15 Months of Life; Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life; Adolescent Well-Care Visits).*

An MCO that chooses to draw its sample on or between December 1–31 of the measurement year must:

- Oversample to account for individuals included in the sample who, subsequent to December 31 of the measurement year, were found to be noncompliant with the denominator criteria.
- On or after December 31 of the measurement year, verify that members included in the sample remain eligible for the particular measure. For any member who does not meet all the denominator criteria, another record must be substituted.
  - For example, on December 5 of the measurement year, an MCO draws a sample of children who turn two during the measurement year for the Childhood Immunization Status measure.

    On or after December 31 of the measurement year, the MCO must ensure that all members included in the sample remain eligible for the measure (e.g., met the continuous enrollment criteria and were members of the MCO as of their second birthday). Any ineligible member (i.e., does not meet one or more of the denominator criteria) must be excluded and replaced by an eligible member from the oversample group.

Claim-dependent denominators

For measures in which the eligible population is determined through claims data *(Controlling High Blood Pressure; Beta-Blocker Treatment After a Heart Attack; Cholesterol Management for Patients with Cardiovascular Conditions; Comprehensive Diabetes Care; Prenatal and Postpartum Care; Frequency of Ongoing Prenatal Care; Weeks of Pregnancy at Time of Enrollment)*, do not draw the sample before the end of the measurement year.

To be drawn from a complete eligible population, the sample must be selected no earlier than January of the year after the measurement year. The MCO should allow claims incurred through December 31 to be captured on its administrative systems before identifying the eligible population and drawing the sample.

Determining the required sample size

Using the Hybrid method to collect and report a measure requires the MCO to draw a sample from the eligible population. Use Table 2 to determine the appropriate sample size for measures. For hybrid measures reported in the prior year, use the last column of Table 2 to determine if it can use the prior year's audited result to reduce the current year's sample size.

Use Table 3 if the MCO uses the prior year's rate to determine the current year's sample. The MCO may use the product line-specific rate derived from administrative data for the current measurement year and Table 3 to reduce the required sample size. The required sample size decreases as the MCO's rate improves; for example, the MCO calculates a 77 percent administrative rate for the commercial product line for a new measure and decides to implement the Hybrid method. Instead of using a sample size of 411, the MCO reduces the sample size for this measure for its commercial product line by using the 77 percent administrative rate and Table 3. According to Table 3, the minimum required sample size is 296.

Population definition

In some cases, the size of the eligible population for a measure may be smaller than the required sample size. For example, the MCO may have very few inpatient admissions for a measure such as *Beta-Blocker Treatment After a Heart Attack.* In this case, the MCO must use its entire eligible population and report the data with a 95 percent confidence interval.

Why should a 95 percent confidence interval be used when the entire eligible population is included? When these data are used for decision-making, an inference is made to expected future performance or to a group of potential members. In either case, the user is interested in the "process of care," which goes beyond MCO performance in a single year for a static product line.

It is therefore appropriate to consider the MCO's entire eligible population for a measure as a sample from the universe of "all years" or "all populations."

Finite population correction

When calculating the sample size for the Hybrid method, the MCO may be interested in applying a finite population correction (FPC) factor to reduce the sample size; however, since HEDIS views MCO enrollment as a sample from a larger potential population (see above), and the use of the FPC decreases the power to detect differences between plans, it is *not appropriate* to use the FPC for public reporting of HEDIS measures.

Calculating the 95 percent confidence interval

The formula for calculating the 95 percent confidence interval around an MCO's HEDIS rate is:

$$lower = p - 1.96\sqrt{\frac{p(1-p)}{n}} - \frac{1}{2n}$$

$$upper = p + 1.96\sqrt{\frac{p(1-p)}{n}} + \frac{1}{2n}$$

where p = the MCO's rate and n = the sample size.

For example, suppose the MCO has a sample size of 96 eligible women for its Cervical Cancer Screening rate. Of these, 50 received a Pap Test during the year. The calculation would proceed as follows:

$$p = \frac{50}{96} = 52\%$$

$$lower = .52 - 1.96\sqrt{\frac{.52(1-.52)}{96}} - \frac{1}{192} = 41.5\%$$

$$upper = .52 + 1.96\sqrt{\frac{.52(1-.52)}{96}} + \frac{1}{192} = 62.5\%$$

Thus, the user can be 95 percent certain that the MCO's true Pap test rate is between 41.5 percent and 62.5 percent.

Note

- *For rates near 0 percent, the lower limit may be negative. If this occurs, replace the lower limit with 0 percent.*
- *For rates near 100 percent, the upper limit may exceed 100 percent. If this occurs, replace the upper limit with 100 percent.*
- *The DST automatically calculates these percentages.*
- There are more complex confidence interval calculations with better properties at extreme values. This formula is provided because it performs adequately over a wide range of percentages and is simple to compute.

Statistical assumptions for sample size

Sample size is calculated assuming a two-tailed test of significance between two proportions (α = .05, 80 percent power, two-tailed test of significance). A normal approximation to the binomial with a continuity correction was employed in the sample size calculation. The worst-case assumption of a 50 percent expected value was assumed.

The detectable difference for most measures is 10 percentage points. This was chosen because it is a big enough difference to be actionable, it is not unduly burdensome for data collection and it is not so small as to be "swamped" by nonsampling error.

Table 2: Sample Size Information for Hybrid Measures

Measure	Medicaid	Commercial	Medicare	Prior Year's Rate May Be Used to Reduce MY 2006 Sample Size[1]
Domain 1: Effectiveness of Care				
Childhood Immunization Status	411	411	NA	N
Adolescent Immunization Status	411	411	NA	Y[2]
Colorectal Cancer Screening	NA	411	411	Y
Cervical Cancer Screening	411	411	NA	N
Controlling High Blood Pressure	411	411	411	N
Beta-Blocker Treatment After a Heart Attack	411	411	411	Y
Cholesterol Management for Patients With Cardio-vascular Conditions	411	411	411	N
Comprehensive Diabetes Care	411	411	411	N
Domain 2: Access/Availability of Care				
Prenatal and Postpartum Care	411	411	NA	Y[3]
Domain 5: Use of Services				
Frequency of Ongoing Prenatal Care	411	NA	NA	Y[3]
Well-Child Visits in the First 15 Months of Life	411	411	NA	Y[4]
Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life	411	411	NA	Y
Adolescent Well-Care Visits	411	411	NA	Y
Domain 8: Health Plan Descriptive Information				
Weeks of Pregnancy at Time of Enrollment in the MCO	411	NA	NA	Y

[1] Refer to *Table 3: Sample Sizes When Data Are Available on the Product Line Being Measured* in this section to determine the minimum required sample size, whether using the product-line-specific rate derived from the current measurement year's administrative rate or the product-line-specific prior year's rate.

[2] If reducing the sample size based on the product-line-specific current measurement year's administrative rate or the prior year's reported rate, combination 2 for the respective measures must be used.

[3] If reducing the sample size based on the product-line-specific current measurement year's administrative rate or the prior year's reported rate, the lowest of the three rates for Timeliness of Prenatal Care, Postpartum Care and the rate for women who received 81 percent or more of expected prenatal care visits must be used for both Prenatal and Postpartum Care and Frequency of Ongoing Prenatal Care.

[4] If reducing the sample size based on the product-line-specific current measurement year's administrative rate or the prior year's reported rate, the rate for children who received six or more well-child visits must be used.

Table 3: Sample Sizes When Data Are Available on the Product Line Being Measured

The MCO may use a rate calculated from administrative data in the current year or the prior year's reported rate to determine the sample size.

If the Current Year's Administrative Rate or the Prior Year's Reported Rate Is…	…the Sample Size Is	If the Current Year's Administrative Rate or the Prior Year's Reported Rate Is…	…the Sample Size Is
≤50%	411	73%	328
51%	411	74%	321
52%	410	75%	313
53%	410	76%	305
54%	409	77%	296
55%	407	78%	288
56%	405	79%	279
57%	403	80%	270
58%	401	81%	260
59%	398	82%	250
60%	395	83%	240
61%	392	84%	229
62%	388	85%	219
63%	384	86%	207
64%	380	87%	196
65%	376	88%	184
66%	371	89%	172
67%	366	90%	159
68%	360	91%	147
69%	354	92%	134
70%	348	93%	120
71%	342	94%	106
72%	335	≥95%	100

Note

- *Table 2 must be used to determine if the prior year's rate can be used to reduce the sample size for a particular measure.*
- *If reducing the sample size based on the product-line–specific current measurement year's administrative rate, HEDIS 2007 combination 3 for Childhood Immunization Status and combination 2 for Adolescent Immunization Status must be used.*

- *For the Prenatal and Postpartum Care and Frequency of Ongoing Prenatal Care measures, if reducing the sample size based on the current year's administrative rate or prior year's reported rates, the lowest of the three rates for Timeliness of Prenatal Care, Postpartum Care and the rate for women who received 81 percent or more of expected prenatal care visits must be used.*
- *If reducing the sample size based on the product-line-specific current measurement year's administrative rate or the prior year's reported rate, the rate derived for children who received 6 or more well-child visits must be used for Well-Child Visits in the First 15 Months of Life.*

Systematic Sampling Methodology

NCQA implemented a systematic sampling scheme for the Hybrid method. Proper utilization and implementation of this methodology ensures ongoing integrity of HEDIS data and supports increasing requests for audited data. For each hybrid measure, the MCO should complete each of the following steps.

Step 1 Determine the eligible member (EM) population. Develop a list of EMs, including full name (last, first) and date of birth. An MCO that chooses to report on combined HMO/POS products must include all eligible members from both products.

Step 2 Determine the minimum required sample size (MRSS) from Table 2 or Table 3. (If EM $\leq$MRSS, skip to Step 4). This becomes the denominator for the measure. Use either Table 2 or Table 3, as appropriate, to determine the MRSS. (Refer to *Determining the required sample size,* page 46, for instructions.) If the EM is equal to or less than MRSS, proceed to Step 4.

Note: *The MRSS can only be the appropriate value from Table 2 or Table 3.*

Step 3 Determine the final sample size (FSS). The FSS includes the MRSS (from Step 2) plus an adequate number of additional records to make substitutions. The MCO should attempt to oversample only enough to guarantee that the MRSS is met. Keep incomplete records and other exclusion criteria in mind when making this decision.

The following oversampling rates are acceptable.

- 5 percent
- 10 percent
- 15 percent
- 20 percent

An MCO that wants to use oversample rates larger than 20 percent must obtain written approval from NCQA. (Refer to *Oversample requests to NCQA,* page 52*,* for further details.) The FSS is calculated by the following formula:

$$FSS = MRSS + (MRSS \times \text{oversampling rate})$$

(round *up* to the next whole number), where MRSS equals the minimum required sample size (Step 2).

For example, if the MRSS is 411 and a 10 percent oversample is needed,

$$FSS = 411 + (411 \times 0.10) = 453.$$

Step 4 If EM >FSS, go to Step 5. If EM ≤MRSS, all eligible members are included in the sample. If MRSS <EM ≤FSS, proceed to Step 8.

Step 5 Sort the list of eligible members in alphabetical order by the last name, first name and date of birth. An MCO that chooses to report on combined HMO/POS products must alphabetize the combined EM population from both products.

The MCO may sort the list of EMs in reverse alphabetical order (from Z to A) after it obtains prior written approval from NCQA.

Step 6 Calculate N = EM/FSS. Round *down* to a whole number.

Determine N, which is used in the formula to determine which member will start your sample. N is calculated using the equation:

$$N = EM/FSS$$

(round *down* to a whole number), where EM equals the eligible member population (Step 1) and FSS equals the final sample size (Step 3).

Step 7 Calculate START = (RAND × N). Before choosing members, determine the member to start with (START). It is important that the sample be selected from a single pass through the member list. START can have many values and still allow only one pass.

In October 2006, NCQA will release a Random Number (RAND) table that lists a value between 0 and 1 for each measure where the Hybrid method is applicable. Refer to this table to determine the RAND to be used when determining START. The random number for each respective measure should be used to calculate the starting point from which to draw the final sample.

Calculate the number from which to start drawing the final sample as follows:

$$START = (RAND \times N)$$

(round per the .5 rule to the nearest whole number greater than 0), where RAND equals the random number for each respective measure identified from the October 2006 *Volume 2 Technical Update.*

Step 8 Select the sample, choosing every i^{th} member using the formula:

$$i^{th} \text{ member} = START + [(i-1) \times N]$$

For i = 2,3,4, …, FSS where EM equals the eligible member population (Step 1). FSS equals the final sample size (Step 3).

Starting with the member corresponding to the number START, choose every i^{th} member until the MRSS is met. This becomes the primary list of sampled members.

Continue choosing every i^{th} member until the FSS is met. This set of members becomes the auxiliary list of sampled members (i.e., the oversample).

The MCO can stop once the FSS is achieved, or use all members in the primary and auxiliary list.

Note: *From Step 4, if MRSS <EM ≤FSS, sort the eligible members in alphabetical order by the last name, first name and date of birth. Choose the first MRSS eligible members as the primary sample and the remaining eligible members as the auxiliary sample.*

If the oversample was calculated correctly, the majority of members in the auxiliary list should ultimately be used to replace exclusions.

MCOs must document all exclusions, as they may be subject to audit.

Oversample requests to NCQA

Oversample rates larger than 20 percent must be approved annually by NCQA. The MCO must submit a formal request with its rationale to NCQA for approval via the Policy Clarification Support (PCS) system at www.ncqa.org/main/support.htm, or fax to the attention of HEDIS Policy at 202-955-3599.

NCQA provides the MCO with written notification of approval or disapproval within seven business days. The MCO must maintain the documentation for the HEDIS Compliance Audit™.

Oversampling methodology

For hybrid measures, the starting sample size should be higher than the designated sample size because medical records must be substituted if a member is ineligible for the measure; for example, if a member was incorrectly identified as a diabetic through administrative data or meets exclusion criteria for the measure.

To adjust for this, divide the sample size by the proportion of charts expected to be inappropriate for review. Suppose 10 percent of charts are expected to be inappropriate for the measure.

FSS (rounded *up* to the next whole number) = 411 + (411 $\times$ 0.10) = 452.1 (rounded *up* to 453).

The recommended methodology for carrying out substitution is:

- Replace the member's chart with that of the first member in the auxiliary list.
- Continue replacing each ineligible member with the next consecutive member of the auxiliary list.

An MCO that underestimates the oversample and exhausts all members from the auxiliary list without satisfying the MRSS must achieve MRSS and select another systematic sample from the remaining alphabetized list of eligible members. The plan should also use its prior year's data and HEDIS results to determine how large an oversample is needed.

Some plans may calculate rates on their sample and oversample combined. These plans will have no substitutions because the oversample is included in the denominator. A plan that chooses to use this type of reporting must include the entire oversample, regardless of its numerator compliance.

A plan that reports measures using the oversample and the sample must do so consistently across all measures.

Example 1

The eligible population for the commercial product line for *Cervical Cancer Screening* is 9,000. Reduce the minimum required sample size using the commercial rate from the prior year's HEDIS submission, which was 77 percent. Based on experience, estimate a 5 percent oversample rate. Following the systematic sampling scheme:

Step 1 EM = 9,000.

Step 2 From Table 3, the MRSS is 296.

Step 3 FSS = 296 + (296 × .05) = 310.8 (the next whole number *above* is 311, so FSS = 311).

Step 4 Since 9,000 is greater than 311, go to Step 5.

Step 5 Sort the list alphabetically: last name, first name and date of birth.

Step 6 N = 9000/311 = 28.9 (the next whole number *below* 28.9 is 28, so N = 28).

Step 7 For this example, assume that RAND = 0.66, so START = 0.66 x 28 = 18.48.

- Rounding using the .5 rule, START = 18.
- The 18th sorted member is chosen *first.*
- The 2nd member chosen is the 18 + [(2-1) x 28] = 18 + 28 = 46th sorted member.
- The 3rd member chosen is the 18 + [(3-1) x 28] = 18 + 56 = 74th sorted member.
- The 296th member (the last one in the primary list) is the 18 + [(296-1) x 28] = 18 + 8,260 = 8,278th sorted member.
- The last member in the auxiliary sample is the 18 + [(311-1) x 28] = 18 + 8,680 = 8,698th sorted member.

Example 2

The eligible member population for *Beta-Blocker Treatment After a Heart Attack* is 389. This measure was not collected last year, nor will the administrative rate from this year be used to reduce the sample size. Following the systematic sampling scheme:

Step 1 EM = 389.

Step 2 From Table 2, the MRSS is 411. Since 389 is less than 411, skip to Step 4.

Step 3 *Skip this step.*

Step 4 Include all 389 members in your primary list.

Example 3

The eligible member population for *Childhood Immunization Status* is 436. The sample size will not be adjusted using this year's administrative rate. Based on experience with this population, about 10 percent of the members from the primary sample will have to be excluded. Following the systematic sampling scheme:

Step 1 EM = 436.

Step 2 From Table 2, the MRSS is 411.

Step 3 FSS = 411 + (411 × .10) = 452.1 (the next whole number *above* is 453, so FSS = 453).

Step 4 Since 411 is less than 436, skip to Step 6.

Step 5 *Skip this step.*

Step 6 Sort the list and choose the first 411 as the primary list. The remaining 25 members become the auxiliary list.

Complex Probability Sampling

The MCO's responsibility

Properly applied, other techniques such as stratified sampling, cluster sampling and other complex probability approaches can improve precision and increase sampling efficiency. An MCO that uses a probability sampling approach different from the one specified must provide written rationale and documentation of the approach to NCQA through the PCS at www.ncqa.org/main/support.htm or by fax at 202-955-3599, to the attention of HEDIS Policy. The MCO must demonstrate that the sampling approach is auditable and that it does not introduce bias against particular members being chosen. A committee of statisticians and health policy experts staffed by NCQA reviews the approach. Written notification of NCQA approval or disapproval is provided within 10 business days.

If complex sampling methodologies are used, the estimated rate should be reported, in addition to any information required to perform a valid test of significance between that rate and another MCO's rate.

The MCO should also report the sample size (if different from the HEDIS recommendation) and document the method used in the calculation (including software used, if applicable). The MCO should consult a statistician before implementing a complex sampling methodology.

Substituting Medical Records

Acceptable circumstances for substitution

Unless otherwise noted in the specifications for a particular measure, the MCO should not drop members from the sample or make substitutions, except under the three circumstances described below. The MCO may not substitute from a measure members who are noncompliant because they refused the service or because the MCO is unable to locate the chart. The MCO should also specify the percentage of records it substitutes.

Errors in sampling data

The first circumstance for substitution is if chart review reveals the member was included in error and does not meet the eligibility criteria for inclusion in the sample. Data errors can be due to incorrect member or clinical information. The following are examples of valid data errors.

- A member selected for the *Childhood Immunization Status* sample is found to be 22 years old.
- A member in the *Comprehensive Diabetes Care* sample has a diagnosis in the chart that shows a prescription for oral hypoglycemics was not due to diabetes.
- A member in the *Cholesterol Management for Patients With Cardiovascular Conditions* sample because of a diagnosis of ischemic vascular disease is ruled out by a negative test result.
- A member in the sample for any measure has a notation, entered by the deadline established for the measure, explaining the reason for the erroneous inclusion or stating the member does not have the condition.

The medical record must have evidence that a member does not meet the criteria for the measure; a chart without any notation either substantiating or refuting the diagnosis is not evidence that the member does not have the condition being measured.

Exclusion to treatment being measured

The second circumstance is the discovery that a member has a valid exclusion to the treatment being measured; for example, a member with chronic obstructive pulmonary disease (COPD) is a valid exclusion in the denominator for the *Beta-Blocker Treatment After a Heart Attack* measure.

Valid exclusions are included in the measure specifications. An MCO that removes members based on exclusions may do so only for members in the denominator for whom administrative data or medical record data do not show that the service/procedure was rendered within the appropriate time frame specified. The MCO must verify that the exclusion occurred by the deadline established for the measure.

Selecting an MCO employee/ dependent for the sample

The third circumstance is the discovery that an MCO employee or dependent has been selected for the sample and the employee or dependent's medical record must be reviewed to determine compliance with the measure. An MCO that excludes employees and their dependents may do so only in this circumstance.

Hybrid Method

Three methods

There are three approaches to conducting the Hybrid method; they differ only in the timing of when to identify individuals in the denominator who have a valid exclusion.

The first two approaches allow the MCO to first select the sample and then search for valid exclusions. The third allows the MCO to search for valid exclusions on the entire eligible population prior to selecting the sample. The MCO may use any of the three approaches.

Method 1

Step 1 Search the administrative systems for numerator events for the sampled members. Starting with the primary list, follow the administrative specification to search administrative systems for numerator events.

Step 2 Search the administrative systems for an exclusion. For members for whom administrative data does not show a positive numerator event, search administrative data for an exclusion to the service/procedure being measured, if applicable.

Note: *This step applies only to measures for which optional exclusions are specified and in which the MCO has chosen to search for exclusions. The MCO is not required to search for optional exclusions.*

Step 3 From the oversampled population, substitute for the excluded records.

Step 4 Search the medical records for numerator events for the sampled population. Review the medical records of members in the sample for whom a numerator event or exclusion to the service/procedure being measured was not identified using administrative data.

For measures in which more than one service is captured (e.g., four DTaPs are needed to satisfy the DTaP rate for Childhood Immunization Status), the MCO may combine services identified through administrative and medical record data as long as the dates of service between the administrative and the medical record dates are at least 14 days apart.

Step 5 Search the record for an exclusion to the service/procedure being measured. For members for whom the medical record does not show a positive numerator event, search the record for an exclusion to the service/procedure being measured, if applicable.

Note: *This step applies only to measures for which optional exclusions are specified and in which the MCO has chosen to search for exclusions. The MCO is not required to search for optional exclusions.*

Step 6 Remove members with medical record identified exclusions. Remove from the denominator members for whom the medical record identified an exclusion.

Step 7 From the oversampled population, substitute for the excluded records. (Refer to *Substituting Medical Records,* page 54.

Step 8 Use either administrative or medical record data to identify the numerator event for additional members used as replacements.

Step 9 Determine the numerator. Include in the numerator for the measure only members in the sample who were identified through either administrative data or medical record review as having had received or experienced the numerator event.

Step 10 Calculate the rate. The MCO may calculate a rate using the denominator (MRSS with substitutions) or the denominator plus the entire oversample (FSS), but should be consistent across measures.

Method 2

Step 1 Search the administrative systems for numerator events for the sampled members. Starting with the primary list, follow the administrative specification to search administrative systems for numerator events.

Step 2 Search the medical records for numerator events for the sampled population. Starting with the primary list, review the medical records of members in the sample for whom a numerator event was not identified using administrative data. For measures in which more than 1 service is captured (e.g., 4 DTaPs are needed to satisfy the DTaP rate for *Childhood Immunization Status*), the MCO may include services identified through administrative data and medical record review, provided that each date of service is at least 14 days apart.

Step 3 Search for administratively identified and medical record exclusions. For members for whom administrative data or the medical record does not show a positive numerator event, search administrative data or the medical record for an exclusion to the service/ procedure being measured, if applicable.

Note: *This step applies only to measures for which optional exclusions are specified and in which the MCO has chosen to search for exclusions. The MCO is not required to search for optional exclusions.*

Step 4 Remove members with exclusions identified in administrative data or in the medical record. Remove from the denominator members from Step 3 for whom administrative data or the medical record identified an exclusion to the service/procedure being measured.

Step 5 From the oversampled population, substitute for the excluded records. (Refer to *Substituting Medical Records.)*

Step 6 Use either administrative or medical record data to identify the numerator event for additional members used as replacements.

Step 7 Determine the numerator. Include in the numerator for the measure only members in the sample who were identified through either administrative data or medical record review as having had received or experienced the numerator event.

Step 8 Calculate the rate. The MCO may calculate a rate using the denominator (MRSS with substitutions) or the denominator plus the entire oversample (FSS), but should be consistent across measures.

Method 3

Step 1 Identify the EM population (members who satisfy all of the denominator criteria).

Step 2 Search the administrative systems for numerator events for the entire EM population. Follow the administrative specifications to search administrative systems for numerator events for the eligible member population identified in Step 1.

Step 3 Search for administratively identified exclusions. For members for whom administrative data does not show a positive numerator event, search administrative data for an exclusion to the service/procedure being measured, if applicable.

Note: *This step applies only to measures for which optional exclusions are specified and in which the MCO has chosen to search for exclusions. The MCO is not required to search for optional exclusions.*

Step 4 Exclude members with administratively identified exclusions. Remove from the eligible population members from Step 3 for whom administrative data identified an exclusion to the service/procedure being measured.

Step 5 Determine the final sample size (FSS). The final sample size can be determined using the guidelines for *Systematic Sampling Methodology*.

Step 6 Search the administrative systems for numerator events for the sampled members. From the members identified as compliant for numerator events from Step 2, pull the members included in the FSS.

Step 7 Search the medical records for numerator events for the sampled population. Review the medical records of members in the sample for whom a numerator event or exclusion to the service/procedure being measured was not identified using administrative data.

For measures in which more than 1 service is captured (e.g., 4 DTaPs are needed to satisfy the DTaP rate for *Childhood Immunization Status*), the MCO may combine services identified through administrative and medical record data, provided that the dates of service are at least 14 days apart.

Step 8 Search for medical record exclusions. For members for whom administrative data or the medical record does not show a positive numerator event, search the medical record for an exclusion to the service/procedure being measured, if applicable.

Note: *This step applies only to measures for which optional exclusions are specified and in which the MCO has chosen to search for exclusions. The MCO is not required to search for optional exclusions.*

Step 9 Exclude members with medical record identified exclusions. Remove from the denominator members for whom the medical record identified an exclusion.

Step 10 From the oversampled population, substitute for the excluded records. (Refer to *Substituting Medical Records*.)

Step 11 Use either administrative or medical record data to identify the numerator event for additional members used as replacements.

Step 12 Determine the numerator. Include in the numerator for the measure only members in the sample who were identified through either administrative data or medical record review as having had received or experienced the numerator event.

Step 13 Calculate the rate. The MCO may calculate a rate using the denominator (MRSS with substitutions) or the denominator plus the entire oversample (FSS), but should be consistent across measures.

References

Deming, W.E. On the interpretation of censuses as samples. *Journal of the American Statistical Association* 36 (1941): 45–49.

Fleiss, L. *Statistical Methods for Rates and Proportions.* 2nd Ed. (New York: John Wiley & Sons, Inc.): 38–42.