

## NEW MEMBER ORIENTATION/EDUCATION

### Summary of changes from HEDIS 2.5 and/or Medicaid HEDIS

---

- *This measure, from Medicaid HEDIS, now applies to the commercial and Medicare populations as well.*
  - *A question on educational efforts targeted at particular populations has been added.*
- 

### Description

This measure solicits a narrative description of plan efforts to orient and educate new members (Medicaid, commercial and Medicare risk populations). It is reported separately for each population.

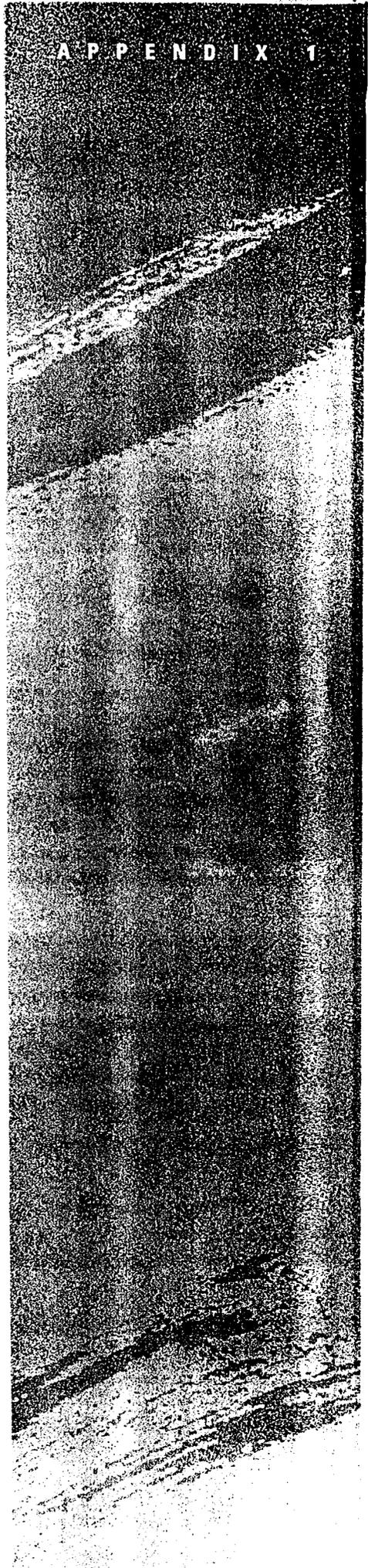
### Specification

In 250 words or less (per population), describe:

- procedures used to educate and orient new members on methods for appropriately accessing and using plan services and
- any special targeted efforts to educate and orient particular populations (Medicaid, commercial and/or Medicare risk).

# GUIDELINES

*for Sampling  
and Calculations*



## SAMPLE SIZE

### *New Measures or New Populations*

In general, for new measures or payer populations for which a measure is new, plans should use Table I to determine the appropriate sample size. A plan collecting HEDIS data for the first time must use Table I.

### *Existing Measures*

In general, if a plan has calculated a particular measure in the previous year, and is planning to use the hybrid method, it should use the rate derived from administrative data for the current year or the previous year's reported rate (whichever most accurately reflects the expected performance) along with Table II to determine the appropriate sample size. Do NOT use Table I in this case. As a plan's rate improves, the sample size will decrease. Because of the changes in specifications from HEDIS 2.5 to HEDIS 3.0, the previous year's rate cannot be used in 1997 for measures brought forward from HEDIS 2.5 to HEDIS 3.0.

In some cases, plans will not be able to achieve the desired sample size. For example, a plan may have very few inpatient admissions for a measure such as Follow-Up After Hospitalization for Mental Illness. When the sample size is between 30 and 100, the measure will have little power to detect differences between plans that are smaller than 20 percentage points. Because such measures are still very valuable, however, plans should collect and report them along with 95% confidence intervals (See Calculation of the 95% Confidence Interval in this Section for instructions). For sample sizes less than 30, the requirements for reporting vary by payer. Refer to Guidelines for Data Collection and Reporting for details.

**Table 1: Sample Sizes for First-Year Reporting**

Measure	Medicaid	Commercial	Medicare Risk
<b>Effectiveness of Care</b>			
Childhood Immunization Status	411	411	N/A
Adolescent Immunization Status	411	411	N/A
Advising Smokers to Quit	1860	1860	1860
Flu Shots for Older Adults	N/A <sup>2</sup>	N/A <sup>2</sup>	To be provided <sup>1</sup>
Breast Cancer Screening	411	411	411
Cervical Cancer Screening	411	411	N/A
Prenatal Care in the First Trimester	411	411	N/A
Low Birth-Weight Babies	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>
Check-Ups After Delivery	411	411	N/A
Treating Children's Ear Infections	411	411	N/A
Beta Blocker Treatment After a Heart Attack	411	411	411
Eye Exams for People with Diabetes	411	411	411
The Health of Seniors	N/A <sup>2</sup>	N/A <sup>2</sup>	1,000
Follow-Up After Hospitalization for Mental Illness	411	411	411
<b>Access/Availability of Care</b>			
Initiation of Prenatal Care	411	411	N/A
Annual Dental Visit	411	N/A	N/A
<b>Satisfaction with the Experience of Care</b>			
Member Satisfaction Survey	N/A	1860	N/A
<b>Use of Services</b>			
Well-Child Visits in the First 15 Months of Life	411	411	N/A
Well-Child Visits in the Third, Fourth, Fifth and Sixth Year of Life	411	411	N/A
Adolescent Well-Care Visit	411	411	N/A
Frequency of Ongoing Prenatal Care	411	N/A	N/A

1. This measure will be collected using the CAHPS Survey. Sample size will be provided in the CAHPS manual.

2. The number of individuals age 65 and over whose primary coverage is commercial or Medicaid is extremely small. It is not feasible to collect this measure for those populations.

3. Administrative data only — no sample size required.

**Table II: Sample Sizes for Subsequent Years Reporting**

For subsequent years, plans may use a rate calculated from administrative data in the current year or last year's reported rate, whichever is likely to be closest to current performance, to determine the sample size.

<b>If Administrative Rate is</b>	<b>Sample Size is</b>	<b>If Administrative Rate is</b>	<b>Sample Size is</b>
50% or less	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% or higher	100

## STATISTICAL ASSUMPTIONS FOR SAMPLE SIZE

- Sample size is calculated assuming a two-tailed test of significance between two proportions (= 5%, 80% 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% 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 non-sampling error. The only exception is *Advising Smokers to Quit*, for which the difference is 20 percentage points. This is because there is likely to be a 20 percentage point difference between plans that have intervention programs and those that do not. Therefore, a 20 percentage point difference is meaningful for this measure.

## SAMPLING METHODOLOGY

Plans could use many strategies to select samples of medical records. Acceptable methods for HEDIS 3.0 fall into two general classes:

- *Simple Random Sampling* — This strategy is assumed in the sample size calculations above. The simplest method for simple random sampling is to assign a uniform random number to each individual in an available eligible population and sort the available eligible population in ascending order by the random number. The sample is then selected from the top of the list.
- *Complex Probability Sampling* — Properly applied, other techniques — stratified sampling, cluster sampling, and other complex probability approaches — can improve precision and increase sampling efficiency. If complex sampling methodologies are used, the estimated rate should be reported along with any information required to perform a valid test of significance between that rate and another plan's rate. The plan 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). Health plans should consult a statistician before implementing a complex sampling methodology.

## OVERSAMPLING AND SUBSTITUTION OF MEDICAL RECORDS

For measures where the hybrid method is used, the starting sample size should be higher than the designated sample size. This is because medical records must be substituted if the patient is found to be ineligible for the measure (e.g. a member is found to have been incorrectly identified as a diabetic through administrative data, or a member is contraindicated for the procedure being measured). To adjust for this, divide the sample size by the proportion of charts expected to be appropriate for review. For example, suppose 20% of charts are expected to be inappropriate for the measure. Thus, 80% should be appropriate. The final sample size =  $411/80\% = 514$ . A health plan may

choose not to increase the sample size. However, this may result in a reduction in the ability to detect a meaningful difference between plans. The recommended methodology for carrying out substitution is as follows:

- After selecting the sample of 411 and an appropriate oversample, leave the list in random order, and split the list into the primary list consisting of the first 411 members and an auxiliary list consisting of the oversampled members. Both lists should be in random order.
- Begin abstraction for members of the primary list. Upon finding that a member is ineligible for the measure, replace the member's chart with that of the first member in the auxiliary list.
- Continue abstraction, replacing each ineligible member with the next consecutive member of the auxiliary list.

## POPULATION DEFINITION

In some cases, plans may not have enough eligible members in their entire enrollment to meet the sample size requirements. In these cases, plans must use their entire eligible enrollment and report the data with 95% confidence intervals. Why should 95% confidence intervals be used when the entire enrollment is included? The answer is in how the population is defined, which is determined by how the data are used. When data are used for decision-making, by definition, inference is made either to a future expected performance or to a group of potential members. In either case, the user is interested in the "process of care," which goes beyond the performance of the plan in a single year for a static population. Thus, it is appropriate to consider the entire available enrollment of a plan as a sample from the universe of all years or all populations from which such a sample could be drawn.

## FINITE POPULATION CORRECTION

When calculating the sample size using the hybrid method, plans naturally consider applying a finite population correction (FPC) factor in sample size calculation to reduce the sample size. Given that HEDIS 3.0 views the plan's enrollment as a sample (see discussion above) and the use of the FPC decreases the power to detect differences, it is not appropriate to use the FPC for public reporting of HEDIS measures.

## CALCULATION OF THE 95% CONFIDENCE INTERVAL

The formula for calculating the 95% confidence interval is:

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

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

where  $p$  = the plan's rate,  $n$  = the sample size.

For example, suppose a plan has a sample size of 411 eligible women for its Breast Cancer Screening rate. Of these, 300 received a mammogram during the year. The calculation would proceed as follows:

$$p = \frac{300}{411} = 73\%$$

$$\text{lower} = .73 - 1.96 \sqrt{\frac{.73(1-.73)}{411} - \frac{1}{822}} = 68.6\%$$

$$\text{upper} = .73 + 1.96 \sqrt{\frac{.73(1-.73)}{411} - \frac{1}{822}} = 77.4\%$$

Thus, the user can be 95% certain that the plan's true mammography rate is between 68.6% and 77.4%

### Notes

- For rates near 0%, the lower limit may be negative. If this occurs, replace the lower limit with 0%.
- For rates near 100%, the upper limit may exceed 100%. If this occurs, replace the upper limit with 100%.

There are more complex confidence interval calculations that have better properties at extreme values. This formula is provided because it performs adequately over a wide range of percentages, and is computationally simple. Quality Compass will likely use a more complex formula; confidence intervals calculated by Quality Compass may not exactly match plan-reported intervals, but should be close over a wide range of values.

### References

- *Statistical Methods for Rates and Proportions 2nd ed.*, Joseph L. Fleiss, John Wiley & Sons, Inc., New York, pp. 38-42
- *Clinical Practice Guideline Number 18: Smoking Cessation*, AHCPR Publication number 96-0692, April, 1996
- On the Interpretation of Censuses as Samples, W. E. Deming (1941) *Journal of the American Statistical Association*. Volume 36, pp. 45-49.