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Demonstration Project: Services Provided Through
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WHAT HEDIS IS

and Why We Need It

HEDIS 3.0 is a giant step forward in the nation's effort to develop a standard set of measures that will give purchasers and consumers the ability to assess the value of the increasingly costly health care services they buy and use. At a time of political gridlock and an era of rampant discord, a broadly constituted committee representing different and often competing interests achieved consensus across a broad range of issues. The product of this consensus — HEDIS 3.0 — is a set of performance measures of unprecedented scope and reach. It is also a process for the continued enhancement of that set, through the systematic, open and rigorous solicitation and evaluation of the new measures the public will need as we move toward the 21st century.

In the chapters that follow, we will describe how HEDIS 3.0 came to be and the details of the measures that are included in it. You will learn how much effort went into its construction and how comprehensive is the result. In the remaining sections of this chapter, we'd like to provide some context for HEDIS 3.0 — to help you understand why that level of effort was required and why the result is so important.

WHAT IS HEDIS?

HEDIS — the Health Plan Employer Data and Information Set — is a set of standardized performance measures, designed to ensure that the public has the information it needs to reliably compare the performance of managed health care plans. The development of HEDIS was sponsored and staffed by the National Committee for Quality Assurance (NCQA), a not-for-profit organization committed to evaluating and reporting on the quality of managed care plans.

NCQA's primary objective is to develop strategies and systems to establish accountability in the managed care industry. HEDIS is one component of a larger accountability system. HEDIS is about the results that health plans achieve. It operates as a complement to NCQA's Accreditation program. NCQA Accreditation is a rigorous and expert evaluation of how managed care plans are organized and how they operate. In combination, the results from NCQA Accreditation and from HEDIS measurement provide the most complete view of health plan quality available to purchasers and consumers today. HEDIS 3.0 extends that view significantly beyond NCQA's earlier work.

WHY DO WE NEED HEDIS?

The past two decades have been years of extremely rapid increase in health care costs. As costs have increased, those who purchase health benefits — both the large corporations that purchase care on behalf of their employees and the public Medicare and Medicaid programs that purchase care on behalf of the senior population and the poor — have become increasingly concerned that the “value” of health care has not risen proportionately. As health benefits consume an ever-larger proportion of the expense sheet, these purchasers have sought means to assess the relative value of the care offered by the managed care health plans with which they contract. HEDIS offers that possibility. In addition, HEDIS helps purchasers and consumers distinguish among plans on the basis of comparative quality, instead of simply on cost differences.

HEDIS is a set of standardized measures that supports market-based reform in health care: If those who choose their health care plan do so based on demonstrated value, then the market will drive health plans to improve performance as well as to reduce cost. The result can be higher levels of quality, without excessive regulation that could limit innovation.

The value that HEDIS represents exists on two fronts. First, HEDIS measures give the public an unprecedented ability to understand how well health plans are achieving the results that matter — how effective and satisfying is the care and service delivered; how accessible is that care; how well is the plan equipping its members to make informed choices about their own health care; and so on. But just as important, HEDIS measures ensure that results will be comparable across health plans. Because HEDIS measures are defined with attention to detail — and because the development of HEDIS measures has taken advantage of the knowledge of those who understand health plan operations and health plan data systems — HEDIS measures are uniquely able to provide information that allows comparison.

Much of the work of developing HEDIS is “simply” the work of turning a straightforward concept (are children with asthma getting the care they need?) into a set of rules that can be unambiguously interpreted and consistently applied across health plans, and that account for differences in data systems (and in population risk) that might affect results independent of health plan performance. We have learned that this kind of translation is nowhere near as simple as it seems, and that without considerable attention to the operational details, conceptually attractive measures in fact offer no useful information. A considerable — and unique — component of the value of HEDIS is the extraordinary attention to these (and to other equally challenging) statistical details.

WHAT IS HEDIS 3.0?

HEDIS 3.0 is the third such set NCQA has produced. NCQA's first set — HEDIS 2.0 — was an enhancement of an earlier version (HEDIS 1.0) developed by a consortium of large corporations (Bull HN Information Systems, Inc., Digital Equipment Corporation, GTE and Xerox Corporation), Towers Perrin, and health plan representatives from The HMO Group (a coalition of group- and staff-model HMOs that organized the effort). HEDIS 2.0 was released in November 1993 and moved rapidly into the managed care marketplace. In 1996, more than 330 health plans are producing HEDIS statistics, and a majority of the large corporations that purchase managed care benefits are using HEDIS data to help guide their managed care purchasing decisions.

With the release of HEDIS 2.0, there was great interest in developing performance measures for publicly insured populations as well. With assistance from the Health Care Financing Administration (HCFA) and the American Public Welfare Association (APWA), NCQA organized a broadly constituted committee of representatives from state Medicaid programs, Medicaid advocacy groups, health plans and others with relevant expertise, and undertook to adapt the HEDIS 2.0 statistics for application to the Medicaid program. This work took nearly two years; the product of this "Medicaid Workgroup" (Medicaid HEDIS) was released in February 1996.

Medicaid HEDIS resembles HEDIS 2.0 quite closely; differences arise primarily from demographic differences in the Medicaid population (which is disproportionately composed of women of child-bearing age and young children) and from technical modifications to measures necessary to account for rapid turnover in the Medicaid population (less than half of Medicaid enrollees stay in a health plan for a year or more).

The demand for information relevant to the Medicare program, and useful to the senior population for whom Medicare operates, prompted discussion about the development of a set of performance measures for the Medicare risk population — a "Medicare HEDIS" — to supplement HEDIS 2.0 (which was renamed HEDIS 2.5 after a set of technical modifications in 1995) and the Medicaid set. Discussions among NCQA, the Health Care Financing Administration and the Kaiser Family Foundation, however, suggested that efforts to develop measures for the Medicare risk population should be folded into NCQA's planning for HEDIS 3.0, which was intended to be, from the outset, a performance measurement set made up of statistics that permitted integration of measurement across the public and private sectors.

Why were HEDIS 2.5 and Medicaid HEDIS brought together and a Medicare set developed as part of that integration? There are many reasons:

- It is extremely costly to develop and maintain the structures required to build performance measurement sets. A process for supporting a single, integrated set of measures is far more efficient to build and maintain than would be processes for multiple, independent sets.

- It can be highly burdensome for health plans to produce performance measures. A single set of measurement specifications that can be used for different populations is less costly for health plans than multiple specifications.
- There is more statistical power in evaluating a single (large) population than in evaluating smaller subpopulations. A single specification that permits data to be aggregated across populations (e.g., diabetic members insured under both commercial policies and Medicare) creates the potential for statistically more powerful measures.
- A single measurement specification used for different populations makes it possible to compare results not only across plans, but also across populations in a plan.

But the most compelling reason to develop a single set of measures has nothing to do with cost or statistical power. It follows from a basic philosophical tenet that underlies the planning for this work: **High quality care should be the same no matter who is paying for that care.** Women should receive mammograms when clinical circumstances require; breast cancer should be detected early no matter who is paying the bill. The objective of a single set of measures embodies the belief that health plans should be held accountable to the same standard of care for all patients; and that the standard should be dictated by medical science, not by insurance programs nor by patient circumstance. For a number of reasons, the CPM was unable to achieve full integration of the measurement set. However, the CPM expects full integration in the next 24 to 36 months.

THE REMAINDER OF THIS DOCUMENT

The remainder of the document will provide more details about HEDIS 3.0, beginning in the next chapter with the process that led to its construction. In Chapter 3, we describe the components of the set. Chapter 4 is a discussion of issues related to the interpretation and use of HEDIS 3.0 data, and Chapter 5 offers some thoughts about the future of HEDIS in particular and performance measurement in general.

Three appendices follow. The first is a series of acknowledgments of those individuals and organizations who volunteered their time and/or entered into other partnership with NCQA to make the development of HEDIS 3.0 possible. Appendix 2 is an acknowledgment of those many organizations and individuals who responded to our Public Call for Measures: those who provided the raw materials from which HEDIS 3.0 was built and who share in the authorship of this work. Appendix 3 provides a list of selected references used in the development of each HEDIS 3.0 measure.

BUILDING HEDIS 3.0

HEDIS 3.0 was developed by a broad-based committee — the Committee on Performance Measurement. The CPM was organized and staffed by the National Committee for Quality Assurance (NCQA); funding for its work came from a wide variety of public and private sources. The members of the CPM were chosen to reflect the diversity of constituencies that performance measurement must serve: purchasers, both private and public (Medicare and Medicaid); consumers; organized labor; medical providers; public health officials, and health plans. In addition, a number of other individuals were asked to serve, to bring other important perspectives as well as additional expertise in the areas of quality management and the science of measurement.

STRATEGIC PLAN

The CPM began its work in September 1995. Its goal was to develop HEDIS 3.0 and manage the evolution of this standardized set of performance measures over time. Five priorities shaped its strategy:

- First, there was a need to begin to fill some of the gaps that had been identified since the release of HEDIS 2.0. There was a need for more measures related to acute and chronic illness, for measures that applied to populations other than the commercially insured (particularly Medicare), for measures that were more relevant to the consumers of health care, for measures that were more balanced with respect to the populations covered (e.g., conditions relevant to adult males were not as well addressed as adult females), and for measures that focused to a greater extent on the results that health plans achieve, rather than on the processes used to achieve them. There was also a commitment to begin to address some of the technical limitations of HEDIS 2.0 measures, particularly the absence of a strategy for adjusting for differences in the characteristics of the populations that health plans serve; differences that might affect measured results, but that were not related to health plan performance.
- Second, NCQA wanted to integrate the recently released Medicaid HEDIS measures into the broader measurement set. The Medicaid work had begun two years before the strategy envisioned for HEDIS 3.0. Given that the 3.0 set was to be expanded to the Medicare population as well, NCQA was concerned about the potential burden created by separate and possibly redundant measurement sets for each population. Moreover, if measurement was made consistent across

populations, comparisons could be more easily made. Thus, where appropriate, systems-based quality improvement activities could yield more powerful results for a greater number of members, more efficiently.

- Third, given the reach of HEDIS, it was clear that the process needed to include a broader range of "end-users" than had been previously involved. These included consumers, public health officials, measurement experts, unions and public purchasers. Incorporating these perspectives into the development of HEDIS 3.0 explicitly addressed the desire to expand its relevance beyond the privately insured, and to build an efficient process for meeting the diverse information needs of various users. A complete list of the 24-member CPM is found in the Acknowledgments section.
- Fourth, the field of performance measurement, while still young, is active — with significant work occurring in many different settings throughout the country, including research organizations, managed care plans, medical specialty societies, pharmaceutical research departments, health care institutions, and voluntary health organizations. Many of these efforts focus on levels of measurement other than the health plan itself. However, NCQA believed that the development of HEDIS 3.0 should attempt, wherever possible, to build on these efforts rather than to duplicate or ignore them. Thus, NCQA's strategy was to begin the process of evolving HEDIS by reaching out to bring in the best-available measures and by then assessing to what extent those measures were likely to meet the information needs of the public. By doing so, the Committee was not only able to leverage current work, but was also able to identify promising measures for "cultivation," and to identify areas in which focused research and development was needed to create measures for the future.
- Finally, the resources devoted to collecting and reporting HEDIS, its potential impact on employer and consumer decisions and the importance of measurement in setting the strategic direction of managed care organizations all emphasized the need to ensure that developers incorporate scientific rigor into their methods. In formulating the procedures for developing HEDIS 3.0, every reasonable effort was made to build in mechanisms that subjected proposed measures to a critical evaluation based on such criteria as relevance to users, scientific validity and operational feasibility.

Given its objectives — to develop a HEDIS that met the broad information needs of public and private payers and members and to develop a process to assure that future sets would continue to do so — the CPM began to map out its strategy for moving quickly toward those ends. An early commitment was to begin with the HEDIS measures that were already available — those developed for commercial enrollees (HEDIS 2.5) and those developed for the Medicaid program (Medicaid HEDIS). The CPM's strategy here was to integrate these measures into a single, non-duplicative set and then to expand those measures (where feasible and appropriate) to include the Medicare population as well. Thus, the platform from which HEDIS 3.0 was built were its predecessors — HEDIS 2.5 and Medicaid HEDIS — measures already in use in more than 330 health plans across the country.

It was clear from the beginning, however, that there were issues that were not adequately addressed by available HEDIS measures. At its first meeting, the CPM began to map out a strategy to develop additional measures — for HEDIS 3.0 and future generations of HEDIS as well. The CPM immediately recognized that the task of developing new measures was beyond its ability — that a Committee organized to manage the process of measures development could not possibly include all the knowledge required to build measures. More than that, the CPM recognized that the task of expanding HEDIS could best be accomplished by taking advantage of the collective knowledge and expertise of clinical and measurement experts across the country. As a result, it laid out an open process for developing measures: one that began with the CPM communicating to those outside of it the information that the public needed to assess the relative performance of health plans. It required, as well, that the CPM develop criteria to evaluate measures, to enable the Committee to systematically and objectively assess the extent to which measures brought to it responded to the needs the Committee had articulated.

EVALUATION OF NEW MEASURES

The CPM was fortunate to be able to draw upon the expertise and knowledge of so many individuals and organizations. To help members understand what information was important to purchasers and consumers, the Committee commissioned an expert subcommittee to prepare a report on the information needs of the Medicare program and its beneficiaries; it reviewed the work of NCQA's Medicaid Workgroup, which had produced Medicaid HEDIS; it commissioned a synthesis of available knowledge about how privately insured consumers make choices about health plans, and brought a number of experts in that field to its meetings, and it commissioned focus groups to assess consumer reaction to possible measures.

To help members understand the science and state of the art in performance measurement, the Committee organized a Technical Advisory Committee (TAC), and commissioned papers by leading experts in the field. These papers and the TAC brought unprecedented levels of science and evidence to the Committee's deliberations.

With these resources and NCQA staff support, the Committee set about first to try to understand the information needs to which HEDIS 3.0 had to respond and the characteristics (or "attributes") of measures that would make them useful to purchasers and consumers to assist in health plan selection. The Committee laid out eight "domains," or categories, which represent the broad areas in which results matter. (These domains are described in more detail in the next chapter.) These, the Committee decided, were the areas in which measures needed to focus:

Effectiveness of care: Is care achieving the gains in health expected?

Access/availability of care: Is care available to those who need it, without inappropriate barriers and delay?

Satisfaction with the experience of care: Is the experience of care satisfying, as well as clinically effective?

Cost of care: Is care high value?

Stability of the health plan: Is the health plan stable — or will I experience the sort of change that could disrupt my care?

Informed health care choices: Is the health plan successful at helping members to be active and informed partners in health care decisions?

Use of services: How are resources used? Is there evidence of too much — or too little — care?

Health plan descriptive information: How is the plan organized? What type of doctors participate, and how many?

In each of these domains, the CPM sought measures that would help purchasers and consumers compare health plans. The Committee thought long and hard about the characteristics of measures that would make them useful for such a purpose. With the assistance of TAC members, the Committee laid out a series of criteria that defined the attributes that it felt important for measures to possess in order to be included in HEDIS 3.0 and future generations of HEDIS. These attributes fell into three major categories:

Relevance. Measures had to be relevant to purchasers and/or consumers if they were to be considered for inclusion in HEDIS 3.0. Measures were relevant to the extent that they addressed issues that were known to significantly affect health outcomes, to the extent that those issues were controllable (or at least could significantly be influenced by) the health plan, to the extent that there was known or suspected significant differences between health plans (or between average performance and ideal performance) and to the extent that there was evidence that purchasers and/or consumers would use that information in selecting a health plan.

Scientific soundness. Measures had to be scientifically sound for the CPM to have confidence that the information produced through measurement would lead to better decisions. To be sound, the Committee sought measures that were reproducible (i.e., that produce the same results when repeated in the same populations and setting), valid (i.e., make sense logically and relate to other measures looking at the same aspect of care) and accurate (i.e., measure what is actually happening). Measures also had to have sufficient statistical power to detect differences of the magnitude expected between health plans (or the measures would not be useful for comparison) and had to include a strategy to adjust results for other factors (such as characteristics of the health plan population) that might lead to measured differences in health plan results.

Feasibility. The CPM was interested in producing a measurement set that was useful in 1996. While it was unwilling to be tightly bound by the limitations of current information systems — an explicit objective of the CPM was to use HEDIS measures to stimulate improvements in those information systems — it was also clear that those potential HEDIS measures that were easy to produce would be of most value in the short run. In order to be feasible, a measure needed to be clearly specified (and specified in a manner that could be calculated with data that might be available), it had to be possible to produce the measure at a reasonable cost and the collection of data for the measurement could not threaten the confidentiality of any patient information.

The CPM recognized that few available measures were likely to have all of these attributes to the extent desired, but agreed that the long-term requirements for HEDIS measures should be established and communicated as early as possible. More than that, the Committee used these attributes to guide its evaluation of potential HEDIS measures and to identify issues that could be resolved empirically where measures fell far short.

The domains and attributes were summarized in the CPM's December 1995 "Public Call for Measures." That solicitation of input was mailed to more than 1,700 organizations; hundreds more obtained it via the Internet. By March 1996, 826 measures (in various stages of development) had been submitted to NCQA.

Over the next three months, these measures were evaluated by NCQA staff, by a multi-disciplinary review team of 17 experts (including members of the CPM and TAC, but also individuals involved in the development of earlier versions of HEDIS and experts from outside the process) and by the CPM itself. The review team (and a second special panel, constituted to review measures in the area of behavioral health) used multi-voting processes to choose subsets of the most promising measures.

These relatively smaller sets of measures were exhaustively "worked up" by experts in the fields relevant to their analysis. Again, the CPM was fortunate to be able to draw upon the very best scientific resources: the U.S. Centers for Disease Control and Prevention (CDC), the Agency for Health Care Policy and Research (AHCPR), the Health Care Financing Administration (HCFA) and the RAND Corporation, as well as a number of individuals (acknowledged elsewhere) who are, without question, among the leaders in their fields. In addition, the HEDIS Users Group — primarily a group of health plans that have worked with NCQA to improve earlier HEDIS measures — provided invaluable assistance developing the detailed specifications for potential measures. Work-ups analyzed available evidence relevant to each of the attributes important to the CPM; these analyses were summarized in 10- to 30- page papers that CPM members read before meetings. At the final CPM meetings, measures were voted into HEDIS 3.0. New measures that were felt to possess important attributes to the extent necessary were voted into the set of measures to be made the new national reporting standard. Descriptions of these measures are in the next chapter, and detailed specifications are included in Volume 2.

There were a number of new measures that addressed very important issues, but for which available evidence and expert judgment raised significant concerns about the measures' scientific soundness or feasibility. The Committee had vigorous (and often passionate) debate about these measures — trying to determine the right balance between the need to respond to the urgent demand for information on critically important issues and the need to prevent the diversion of precious resources into the collection of data that might produce invalid information. The CPM realized that some of the things we might hope to measure are simply not measurable right now. But it also realized that — by taking an active role in developing new measures — its process could accelerate the rate at which knowledge is gained.

BALANCING A PERFORMANCE MEASUREMENT SET

The Committee chose to create a new element of HEDIS: a set of promising measures that address important issues but are as yet "immature," and that will be tested and refined under the CPM's direction. This "Testing Set" is one of the ways that the CPM hopes to facilitate the development of the measures that are needed to close remaining gaps in HEDIS; it is a "garden" of measures that will — as it matures — feed subsequent generations of HEDIS. Descriptions of these measures (with some of the outstanding issues that need to be addressed) are also in the next chapter, but specifications for Testing Set measures are not included in Volume 2.

As the CPM was considering the addition of new measures, it also considered whether measures from earlier versions of HEDIS were still necessary. In fact, several measures were retired — either because clearly superior measures came to light that made older measures redundant, because experience had established that these measures were not sound or not feasible or because the marginal value associated with a measure seemed small relative to the burden associated with it.

In addition to removing specific measures from the Reporting Set, the CPM also identified a number of strategies that could be implemented to assure that full compliance with HEDIS was within the financial and logistical reach of both large and small health plans. The CPM solicited comments during a 45-day comment period regarding how to make the transition to HEDIS 3.0. Comments from 300 organizations were received and were summarized for review by the CPM.

On September 25 and 26, 1996, the CPM met to consider these comments and to make final changes to the measurement set. One fundamental clarification involved the time-frame over which the transition to HEDIS 3.0 from earlier versions of HEDIS reporting will be expected. In short, for the Effectiveness of Care, Health Plan Stability, Cost of Care, Informed Health Care Choices and Health Plan Descriptive Information domains, all HEDIS 3.0 measures are required for all populations to which they are applicable in Reporting Year 1996 (data to be reported in 1997). For the Use of Services and Access/Availability of Care domains, measures that originated in HEDIS 2.5 will be upgraded to 3.0 specifications and applicable to the appropriate populations in Reporting Year 1996, and measures that originated in Medicaid HEDIS will be upgraded to HEDIS 3.0 specifications but applicable only to the Medicaid populations until Reporting Year 1997 (data reported in 1998). Health plans should be prepared to report their HEDIS information to external requesters by June 1, 1997. Refer to the Reporting Year 1996 and Reporting Year 1997 matrices in *Volume 2: Technical Specifications* for more detailed instructions.

THE HEDIS
DOMAINS
*and Descriptions
of the Measures*

In this chapter, we describe the eight general areas, or domains, in which HEDIS provides information and the measures that constitute each domain. Two kinds of measures are described: those in the HEDIS 3.0 Reporting Set and those in the HEDIS 3.0 Testing Set.

Health plans are expected to provide information on measures in the Reporting Set. Instructions for calculating the Reporting Set measures are in Volume 2. Health plans will not be able to provide information on Testing Set measures; NCQA will collaborate with researchers, health plans and purchasers to resolve any issues with these measures, so that the research questions can be answered as soon as possible. We include them in this document to offer health plans a "heads up" and to give consumers, purchasers and others a preview of the information we hope to make available to them in the future. Within the description of each Testing Set measure is a brief list some of the issues to be tested. As the testing of measures will be comprehensive, this list of issues to be tested is not meant to be exhaustive; rather, it is intended to give a sense of the important questions and issues surrounding each measure.

This chapter provides some guidance regarding use of HEDIS information for assessing health plan performance. Please note that each measure may or may not be applicable to each of the three populations assessed by HEDIS (those covered by Medicaid, those commercially insured, and those covered by Medicare); the specifications for each Reporting Set measure (in Volume 2) indicate to which populations the measure applies.

HEDIS 3.0 REPORTING SET MEASURES

Effectiveness of Care

Childhood Immunization Status
Adolescent Immunization Status
Advising Smokers to Quit
Flu Shots for Older Adults
Breast Cancer Screening
Cervical Cancer Screening
Prenatal Care in the First Trimester
Low Birth-Weight Babies
Check-Ups After Delivery
Treating Children's Ear Infections
Beta Blocker Treatment After a Heart Attack
Eye Exams for People with Diabetes
The Health of Seniors
Follow-Up After Hospitalization for Selected Mental Illnesses

Access/Availability of Care

Adults' Access to Preventive/Ambulatory Health Services
Children's Access to Primary Care Providers
Availability of Primary Care Providers
Availability of Mental Health/Chemical Dependency Providers
Availability of Obstetrical and Prenatal Care Providers
Initiation of Prenatal Care
Low Birth-Weight Deliveries at Facilities for High-Risk Deliveries and Neonates
Annual Dental Visit
Availability of Dentists
Availability of Language Interpretation Services

Satisfaction with the Experience of Care

Member Satisfaction Survey
 Survey Descriptive Information

Health Plan Stability

Disenrollment
 Provider Turnover
 Years in Business/Total Membership
 Indicators of Financial Stability
 Narrative Information on Rate Trends, Financial Stability and Insolvency Protection

Use of Services

Frequency of Ongoing Prenatal Care
 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 Visit
 Frequency of Selected Procedures
 Inpatient Utilization — General Hospital/Acute Care
 Ambulatory Care
 Inpatient Utilization — Nonacute Care
 Discharge and Average Length of Stay — Maternity Care
 Cesarean Section and Vaginal Birth After Cesarean (VBAC-Rate)
 Births and Average Length of Stay, Newborns
 Mental Health Utilization — Inpatient Discharges and Average Length of Stay
 Mental Health Utilization — Percentage of Members Receiving Inpatient, Day/Night Care and Ambulatory Services
 Readmission for Selected Mental Health Disorders
 Chemical Dependency Utilization — Inpatient Discharges and Average Length of Stay
 Chemical Dependency Utilization — Percentage of Members Receiving Inpatient, Day/Night Care and Ambulatory Services
 Readmission for Chemical Dependency
 Outpatient Drug Utilization

Cost of Care

- Rate Trends
- High-Occurrence/High-Cost DRGs

Informed Health Care Choices

- New Member Orientation/Education
- Language Translation Services

Health Plan Descriptive Information

- Board Certification/Residency Completion
- Provider Compensation
- Physicians Under Capitation
- Case Management
- Utilization Management
- Risk Management
- Quality Assessment and Improvement
- Recredentialing
- Preventive Care and Health Promotion
- Arrangements with Public Health, Educational and Social Service Organizations
- Pediatric Mental Health Services
- Chemical Dependency Services
- Family Planning Services
- Total Enrollment
- Enrollment by Payer
- Unduplicated Count of Medicaid Members
- Diversity of Medicaid Membership
- Weeks of Pregnancy at Time of Enrollment in the Health Plan

HEDIS 3.0 TESTING SET MEASURES

Effectiveness of Care

Substance Counseling for Adolescents
Number of People in the Plan Who Smoke
Smokers Who Quit
Flu Shots for High-Risk Adults
Stage at Which Breast Cancer Was Detected
Chlamydia Screening
Colorectal Cancer Screening
Aspirin Treatment After a Heart Attack
Follow-Up After an Abnormal Pap Smear
Follow-Up After an Abnormal Mammogram
Use of Appropriate Medications for People with Asthma
Monitoring Diabetes Patients
Prevention of Stroke in People with Atrial Fibrillation
Outpatient Care of Patients Hospitalized for Heart Failure
Cholesterol Management of Patients Hospitalized for Coronary Artery Disease
Controlling High Blood Pressure
Assessment of How Breast Cancer Therapy Affects the Patient's Ability to Function
Prescription of Antibiotics for the Prevention of HIV-Related Pneumonia
Screening for Chemical Dependency
Continuity of Care for Substance Abuse Patients
Failure of Substance Abuse Treatment
Continuation of Depression Treatment
Availability of Medication Management and
Psychotherapy for Patients with Schizophrenia
Appropriate Use of Psychotherapeutic Medications
Family Visits for Children Undergoing Mental Health Treatment
Patient Satisfaction with Mental Health Care

Access/Availability of Care

Problems with Obtaining Care

Satisfaction with the Experience of Care

Consumer Assessments of Health Plans Study (CAHPS)

Disenrollment Survey

Satisfaction with Breast Cancer Treatment

Use of Services

Use of Behavioral Health Services

Cost of Care

Health Plan Costs Per Member Per Month

Informed Health Care Choices

Counseling Women About Hormone Replacement Therapy

EFFECTIVENESS OF CARE

When comparing health plans, most people want to know how well the plans treat their members' medical problems. Information about the clinical quality of health care actually delivered by health plans has long been elusive, leaving consumers and purchasers to rely on the anecdotal opinions of others or the unsubstantiated claims of the plans themselves.

Effectiveness of Care measures generally look at the impact of care delivered to certain populations enrolled in a health plan. In most cases, the measured impact is positive, and the higher the score on a measure the better. For example, in a measure on treatment for patients who have had a heart attack, one would look for a high score indicating that the plan took certain clinical actions to help reduce the chances that another heart attack will occur. Of course, some people enrolled in health plans are sicker than others, which makes it more difficult to measure clinical quality. Measurement strategies need to incorporate mechanisms to adjust for these differences in patient populations (taking these factors into account when reporting statistics is referred to as "risk adjustment").

Measures in the Effectiveness of Care domain give consumers and purchasers important information about the quality of the clinical care provided by different plans. The measures have been grouped by the type of care they address (preventive, early detection and screening, maternity, acute, chronic and behavioral health), and the population of concern (children, adolescents, adults, and seniors). They take into account how well the plan incorporates widely accepted preventive practices (such as childhood immunizations), recommended screenings for common diseases (like breast and cervical cancer) and treatment for pregnant women (such as prenatal care in the first trimester) into the health care it provides. Effectiveness of Care measures also help consumers compare how plans are treating members who are already ill (for example, patients who have had a heart attack or children with ear infections) as well as those who have chronic diseases (such as asthma and diabetes) that need to be managed in order to avoid or minimize complications.

For some of the measures, we have been able to provide the performance goals in *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*, which was issued by the Public Health Service in 1990 and updated in 1995.

Keeping People Healthy: Health Maintenance and Disease Prevention

CHILDREN

Childhood Immunization Status

Childhood immunizations help prevent serious illnesses, such as polio, tetanus, whooping cough and meningitis. Vaccines are an easy, proven way to help a child stay healthy and avoid the potentially harmful effects of childhood diseases such as the mumps and measles. The Centers for Disease Control and Prevention, American Academy of Pediatrics, American Academy of Family Physicians and Advisory Committee on Immunization Practices all recommend that by their second year of life, children should have received four shots of DTP (diphtheria-tetanus-pertussis); three

OPV/IPV (oral or injectable polio virus) vaccines, one dose of MMR (measles-mumps-rubella) vaccine, a minimum of three Hib (Haemophilus influenza type B) vaccines, and three HepB (hepatitis B) vaccines. The *Healthy People 2000* goal is to increase to 90% the proportion of children up to 2 years of age who are fully immunized.

This measure estimates the percentage of children in the plan who received the appropriate immunizations by their second birthday. *This measure is required for reporting.*

ADOLESCENTS

Adolescent Immunization Status

Immunizations are a proven defense against serious illnesses, such as hepatitis B, polio, tetanus and diphtheria, so health plans should help ensure that adolescents are vaccinated according to schedule. Experts in the field recommend that by the time children are 13 years old, they should have received the following immunizations: MMR-2 (second dose of measles-mumps-rubella), HepB (hepatitis B), Td (tetanus-diphtheria booster) and VZV (chicken pox), if they haven't already had the disease. The *Healthy People 2000* goal is to increase to 90% the proportion of children up through age 12 who are fully immunized.

This measure estimates the percentage of 13 year olds in the plan who received all of the appropriate immunizations. *This measure is required for reporting.*

Substance Counseling for Adolescents

Adolescence is a time of dramatic physical, cognitive, social and emotional changes. Such change can lead to alcohol, tobacco and drug use, all of which can raise the risk of health problems. In the United States, 1 in 5 adolescents has smoked cigarettes and 1 in 11 has drunk alcohol by the age of 11. By the age of 15, 1 in 7 adolescents smokes on a daily basis, while 1 in 3 has drunk excessively at least once. Many experts agree that health care providers should counsel adolescents to help prevent alcohol and other drug abuse problems, identify adolescents in trouble, and offer referrals to self-help resources and treatment services. The *Healthy People 2000* goal is to reduce the proportion of young people who have used alcohol, marijuana and cocaine in the past month: by 13% for alcohol use among 12-17 year olds and by 29% among 18-20 year olds, by 3% for marijuana use among 12-17 year olds and by 8% among 18-20 year olds and by 1% for cocaine use among 12-17 year olds and by 2% among 18-20 year olds.

This measure estimates the percentage of adolescents 12 to 21 years old who were counseled on substance abuse during the reporting year. *This measure is being evaluated for inclusion in a future reporting set.* We need to determine the extent to which plans are recording substance abuse counseling accurately and completely, and how often substance abuse counseling is done as part of adolescent well-care visits. In addition, we need to determine at what age this counseling should begin. These issues, among others, will be evaluated during the testing phase.

ADULTS

Number of People in the Plan Who Smoke

Smoking is the leading preventable cause of death in the United States and is responsible for more than 400,000 deaths each year. One out of two lifelong smokers will die from a smoking related disease. In addition, the total economic cost of smoking (including loss of productivity) was about \$100 billion in 1990, with the direct medical costs associated with smoking amounting to 7.1% of national medical expenditures.

The 1990 Surgeon General's Report concluded that quitting smoking reduces the risk of premature death. In fact, it can reduce a person's risk of dying in the next 15 years by about 50%. Measuring how many adult plan members currently smoke can be used to determine how important a problem smoking is for a plan. Furthermore, changes over time may demonstrate how successful a health plan's efforts to get people to stop smoking have been.

This measure estimates the percentage of adults in the plan who smoke. *This measure is being evaluated for inclusion in a future reporting set.* The impact that plans can make on prevalence may be as low as 1% per year. Thus, the use of smoking prevalence to distinguish between plans needs to be assessed. A risk-adjustment strategy may be needed to enable this measure to be used for plan comparisons. These issues, among others, will be evaluated during the testing phase.

Advising Smokers to Quit

Seventy percent of smokers are interested in stopping smoking completely and smokers report that they would be more likely to stop smoking if a doctor advised them to quit. A number of clinical trials have demonstrated the effectiveness of clinical quit-smoking programs. Getting even brief advice to quit is associated with a 30% increase in the number of people who quit.

This measure looks at the percentage of adult smokers or recent quitters who received advice to quit smoking from a health professional in the plan. *This measure is required for reporting.*

Smokers Who Quit

Twenty-five percent of Americans (46 million adults) were smokers in 1993. Quitting smoking reduces the risk of lung and other cancers, heart attack, stroke and chronic lung disease. Women who stop smoking before pregnancy or during the first three months of pregnancy reduce their risk of having a low-birth weight baby to the same risk as women who never smoked. The excess risk of coronary artery disease is reduced by about half after one year of quitting and then continues to decline gradually. Studies have also shown that quitting smoking saves money. Smokers who quit before age 45 are likely to avoid 54% to 67% of expected lifetime economic losses due to smoking and those over age 70 are likely to avoid 32% to 52% of such costs.

This measure estimates the percentage of adult smokers in the plan who quit smoking in the past year. *This measure is being evaluated for inclusion in a future reporting set.* Plans may experience success at first, with smokers who are less entrenched in the habit.

However, over time, a plan's success may diminish as it tries to influence the more hard-core smokers. Because plans will be at different stages in their efforts, a risk-adjustment strategy may be needed to make this a valid measure for comparing between plans. These issues, among others, will be evaluated during the testing phase.

Flu Shots for High-Risk Adults

People with chronic conditions, such as heart or lung disease, diabetes, immunodeficiency, Hodgkin's disease or cancer have a higher risk of suffering from complications of influenza, such as pneumonia, and dying from these complications than otherwise healthy people. Experts recommend that these individuals receive flu shots every year to prevent the flu or to reduce the risk of complications if they become infected.

This measure estimates the percentage of adult plan members who have underlying health problems that put them at risk for complications from the flu who received the influenza vaccine during the past year. *This measure is being evaluated for inclusion in a future reporting set.* The need for flu shots among high-risk patients is clear; however, the definition of "high-risk" is so broad that the ability of plans to effectively change the immunization rate for the group as currently defined is questionable. To avoid encouraging the inefficient use of resources, a more actionable population definition needs to be developed. Flu shots are often given out of plan, and there is no requirement for documenting the flu shot, as there is for childhood immunizations. It may be more feasible to collect these data through survey. These issues, among others, will be evaluated during the testing phase.

SENIORS

Flu Shots for Older Adults

Influenza accounts for 10,000 to 40,000 or more deaths each year in the United States. Older adults are at high risk for developing more serious infections, such as pneumonia, following the flu. For that reason, experts recommend that all adults over age 65 receive flu shots every year to reduce the risk of developing serious complications if they become infected. Vaccination programs against influenza have been shown to reduce the incidence of illness and death, as well as to be cost effective. The *Healthy People 2000* goal is to increase to at least 80% the proportion of seniors immunized against influenza.

This measure looks at the percentage of plan members over 65 who received the influenza vaccine prior to the past year's flu season. *This measure is required for reporting.*

Early Detection and Screening

Breast Cancer Screening

Breast cancer is the most common type of cancer among American women. Experts estimate that a woman in this country stands a one in nine (about 11%) chance of developing breast cancer at some point in her life, assuming she lives to age 85. In fact, each year in the United States, more than 175,000 women are diagnosed with breast cancer—equivalent to another woman learning she has breast cancer every three minutes. An estimated 46,000 women die of the disease every year, according to the American Cancer Society. Yet death from breast cancer can be significantly reduced by identifying and treating the cancer as early as possible.

Mammograms are the most effective method for detecting breast cancer at the time it is most treatable. A mammogram is an x-ray of the breast that can reveal tumors too small to be felt by hand and can show other changes in the breast that may suggest cancer. When high-quality equipment is used and the x-rays are read by well-trained radiologists, 85% to 90% of cancers are detectable. Breast cancer is most commonly found in women between 50 and 64 years old. The *Healthy People 2000* goal is to increase to at least 60% the proportion of women who had at least one mammogram during the past two years.

This measure estimates the percentage of the plan's female members between the ages of 52 and 69 who had at least one mammogram during the past two years. *This measure is required for reporting.*

Stage at Which Breast Cancer Was Detected

The survival rate for breast cancer patients is only 18% when the cancer has spread to distant organs (late-stage cancer), but it is 73% when the cancer has not spread beyond the surrounding region, and 94% when the cancer is still localized.

This measure assesses the effectiveness of screening by evaluating in how many women breast cancer was detected in the later stages. *This measure is being evaluated for inclusion in a future reporting set.* The small number of expected breast cancer cases may make it impossible to calculate rates that are meaningful or that permit detection of differences between plans. This issue, among others, will be evaluated during the testing phase.

Cervical Cancer Screening

Approximately 13,000 new cases of cervical cancer (cancer of the opening of the uterus, or womb) are diagnosed annually. Cervical cancer can be detected in its early stages by regular screening using a Pap smear test, which has been credited with reducing the number of deaths from cervical cancer by as much as 75%. A number of organizations, including the American College of Obstetricians and Gynecologists, the American Medical Association, and the American Cancer Society, recommend Pap testing every one to three years for all women who have been sexually active or who are over 18 years old. The *Healthy People 2000* goal is to increase to at least 85% the proportion of women who received at least one Pap smear during the past three years.

This measure estimates the percentage of women in the plan age 21 to 64 who had at least one Pap smear during the past three years. *This measure is required for reporting.*

Chlamydia Screening

Chlamydia is not widely known, but it is an important health problem. It is the most common sexually transmitted bacterial disease in the United States, with an estimated 2 million new infections in women each year. It is usually a silent illness; about 70% of infected women have no symptoms. Left untreated, chlamydia can cause pelvic inflammatory disease, infertility, ectopic pregnancy and chronic pelvic pain. Regular screening for the infection by testing for it during annual gynecological check-ups is often the only way to detect it so it can be treated before complications arise. Detection and treatment also help keep the person from spreading the disease.

This measure estimates the percentage of women between the ages of 15 and 25 who were screened for chlamydia in the past year. *This measure is being evaluated for inclusion in a future reporting set.* Since sexually active women are the group of interest for chlamydia screening, a reliable method needs to be developed to distinguish women who are sexually active from those who are not. We also need to assess how reliably chlamydia screening is reported. These issues, among others, will be evaluated during the testing phase.

Colorectal Cancer Screening

Cancer of the colon or rectum is the second leading cause of death from cancer, accounting for 14% of cancer deaths in men and 15% of deaths among women. Annually, about 150,000 new cases of colorectal cancer are diagnosed and another 56,000 individuals die from the disease. Detection of this cancer at an early stage greatly increases a person's chances for survival. Five-year survival rates are 91% for those diagnosed with localized cancer, compared to 60% for cancers that have spread throughout the region and 6% for those that have spread to distant organs.

Five screening interventions are used to detect colorectal cancer: digital rectal examination (the doctor inserts a gloved finger into the rectum to check for abnormalities), fecal occult blood testing (a lab test that checks for blood in the stool), sigmoidoscopy (a thin, flexible optical device allows the doctor to examine the last two feet of the colon), air contrast barium enemas (a chalky liquid is released into the colon and then an x-ray is taken of the colon wall), and colonoscopy (a thin, flexible optical device allows the doctor to examine the colon and remove any small protrusions or cancers). Fecal occult blood testing and sigmoidoscopy have been suggested for use in screening the general population, while barium enema and colonoscopy are recommended for use only among those at increased risk for developing the disease.

This measure estimates the percentage of plan members age 55 and older who have been screened for colorectal cancer. *This measure is being evaluated for inclusion in a future reporting set.* While colorectal cancer screening is important, some screening procedures are uncomfortable, and some patients may decide not to have the screening even if it is recommended. A valid way of dealing with patient compliance needs to be developed. This issue, among others, will be evaluated during the testing phase.

Maternity Care

Prenatal Care in the First Trimester

Health plans that provide timely, thorough and effective prenatal care can help reduce a woman's likelihood of delivering a low birth-weight infant and can detect and address maternal health problems early in the pregnancy. Early prenatal care is also an essential part of what is needed to help a pregnant woman prepare to become a mother. Good prenatal care plays a critical role in reducing infant mortality. Regular prenatal visits help health care providers identify and treat or prevent problems early. Problems are often easily corrected when discovered early, but left untreated they can threaten the health of both mother and child. The *Healthy People 2000* goal is to increase to 90% the proportion of women receiving prenatal care during the first trimester.

This measure estimates the percentage of pregnant women in the plan who began prenatal care during the first 13 weeks of pregnancy. *This measure is required for reporting.*

Low Birth-Weight Babies

In the United States, 263,000 low birth-weight babies are born each year. Low birth-weight infants weigh less than 5.5 pounds, while very low birth-weight babies weigh less than 3.3 pounds. Low birth weight is associated with higher risk of both infant death and disability. While many risk factors for low birth weight fall outside the control of the health care provider, timely and comprehensive prenatal care and the careful management of women at high risk for premature delivery can lower the possibility of having an underweight baby. The *Healthy People 2000* goal is to reduce to 5% or less the proportion of babies born underweight.

This measure estimates what percentage of babies born to plan members were underweight (either low or very low birth weight). *This measure has been deferred for the 1996 reporting year, because of persistent problems with risk adjustment and the difficulty of identifying low birth-weight infants using administrative data. Improved specifications will be developed and the measure will be required for the 1997 reporting year.*

Check-Ups After Delivery

The six weeks after giving birth are a period of physical, emotional and social changes for the mother, during a time when she is also adjusting to caring for her new baby. So that the new mother can be evaluated and receive any necessary assistance, the American College of Obstetricians and Gynecologists recommends that women see their health care provider at least once by the 42nd day after giving birth. The first postpartum visit includes a physical examination, and also provides an opportunity for the health care provider to answer parents questions and give family planning guidance and counseling on nutrition.

This measure estimates the percentage of women who had live births who had a postpartum visit within six weeks after delivery. *This measure is required for reporting.*

Treating Acute Illness

CHILDREN

Treating Children's Ear Infections

By their first birthday, about half of all children born in the U.S. have had at least one ear infection (otitis media) and 20% have had more than three. Ear infections account for 40% of all antibiotics prescribed to children. Prescribing the wrong antibiotic can cause serious problems. Using new, broad-spectrum antibiotics for uncomplicated infections may create resistance to those antibiotics and leave providers with no way to treat subsequent ear infections. It also creates a risk that these antibiotics won't work for other, more serious infections.

This measure looks at how often children with acute otitis media were given the appropriate treatment. *This measure is required for reporting.*

ADULTS

Beta Blocker Treatment After a Heart Attack

About 1.5 million Americans annually experience a heart attack (or myocardial infarction) and about 500,000 of them die from it. The American Heart Association estimates that the total annual cost of medical care and lost productivity due to heart attacks is \$12 billion to \$24 billion. A heart attack occurs when the blood supply to part of the heart muscle is severely reduced or stopped and heart tissue is destroyed by a lack of oxygen. People who have had a heart attack are at higher risk of having another one. One medical therapy that has been shown to lower that risk is the use of beta blockers, which lower blood pressure and reduce how hard the heart has to work.

This measure estimates the number of plan members who were discharged from the hospital after a heart attack (and did not show evidence that beta blockers might have negative side effects for them) were dispensed a prescription for beta blockers. *This measure is required for reporting.*

Aspirin Treatment After a Heart Attack

Like beta blockers, aspirin is a drug that is given to people after a heart attack to reduce their risk of having another one. Aspirin affects the way the blood clots by making platelets (a certain group of blood cells) less "sticky"; this both reduces the accumulation of platelets that can block an artery and prevents the formation of a clot when bleeding occurs. Taking aspirin after a heart attack can reduce the chances of death and stroke, in addition to reducing the chances of having another heart attack.

This measure looks at how many plan members who were discharged from the hospital after a heart attack were instructed to take aspirin. *This measure is being evaluated for inclusion in a future reporting set.* Aspirin is an over-the-counter drug, so no prescription is filled, which may prevent plans from getting accurate data for the measure. The small number of patients who have heart attacks may also limit the measure's power to detect differences between health plans. These issues, among others, will be evaluated during the testing phase.

Follow-Up After an Abnormal Pap Smear

In 1994, approximately 15,000 women were diagnosed with cervical cancer and 4,600 died from it. Routine Pap smears, which detect cell changes that may lead to cancer, are the preferred method for detecting this disease at an early stage. Women whose Pap smear detects a problem need additional diagnostic tests to guide appropriate intervention. At the very least, a second Pap smear should be performed to confirm the results of the first. An abnormal Pap test that is not followed up creates a real risk that there will be a needless delay in the diagnosis of cancer and that the likelihood of cure will decrease.

This measure estimates the percentage of women with abnormal Pap smears who received timely follow-up evaluation. *This measure is being evaluated for inclusion in a future reporting set.* A valid way of defining and measuring what constitutes an abnormal Pap smear needs to be developed. Also, since different levels of abnormalities require different kinds of follow-up, a way of determining what follow-up should be considered appropriate needs to be defined. The small number of women whose Pap smears are abnormal may limit the usefulness of this measure for detecting differences between health plans. These issues, among others, will be evaluated during the testing phase.

Follow-Up After an Abnormal Mammogram

Because survival of breast cancer is highly dependent on the stage of the cancer when it is detected, a key step in the process of treating the disease is following up with a patient whose mammogram shows a tumor or abnormal growth to determine if cancer is present, so that necessary treatment can be started as soon as possible. Timeliness of follow-up is important for preserving treatment options (such as breast-conserving surgery), diminishing the psychological stress associated with uncertainty and ensuring the best results.

This measure estimates the percentage of women with abnormal mammograms who received appropriate follow-up care within 60 days. *This measure is being evaluated for inclusion in a future reporting set.* A valid way of defining and measuring what constitutes an abnormal mammogram needs to be developed. Also, since different levels of abnormalities require different kinds of follow-up, a way of determining what follow-up should be considered appropriate needs to be defined. The small number of women whose mammograms are abnormal may limit the usefulness of this measure for detecting differences between health plans. These issues, among others, will be evaluated during the testing phase.

Treating Chronic Illness

Use of Appropriate Medications for People with Asthma

If asthma is not properly managed, the patient is likely to have an attack (an episode where the airways become constricted and it becomes very hard to get enough oxygen) severe enough to require hospitalization or even lead to death. Proper management of asthma includes the use of appropriate medications that act directly to reduce the inflammation of the airways. There are two medications — corticosteroids (often called steroids) and cromolyn sodium — that are the mainstays of maintenance therapy for people with moderate or severe asthma.

This measure estimates the percentage of enrollees with asthma who were dispensed at least one prescription for inhaled corticosteroids and/or cromolyn during the past year. *This measure is being evaluated for inclusion in a future reporting set.* The drugs mentioned above are not medically appropriate for people with mild, intermittent asthma; therefore a valid way of distinguishing among levels of severity needs to be developed. Further, among moderate and severe asthmatics, the duration of treatment can be quite long. A single prescription is likely not adequate to assess whether effective care is being given. A valid way of measuring the entire regimen needs to be developed. The Robert Wood Johnson Chronic Care Initiative is evaluating and testing asthma measures. NCQA is collaborating in this effort to assure the best measure is developed for this important clinical area. These issues, among others, will be evaluated during the testing phase.

Eye Exams for People with Diabetes

Diabetes is the leading cause of adult blindness in the United States. Therefore, it is important that people with diabetes have their eyes examined regularly so that appropriate treatment can be initiated at the first sign of a problem. To determine if there are any problems, the eye doctor examines the retina, a light-sensitive layer of tissue in the back of the eye that receives and transmits visual information to the brain.

How often diabetics should have the eyes examined is currently a matter of some debate. Clearly, diabetics with advanced disease require examinations every year. However, diabetics with mild, or no, eye disease can be safely screened every other year.

This measure estimates the percentage of diabetic plan members who received an eye exam in the past year. Because some diabetics can be screened less frequently than annually, one would not necessarily expect a screening rate of 100% in each plan. We are working to develop a measure that will take into account the appropriate screening interval for diabetics with different needs, and will replace this measure with one that is more refined when such a measure is available. *This measure is required for reporting.*

Monitoring Diabetes Patients

This year alone, 160,000 Americans will die from diabetes—more than from breast cancer, AIDS and other chronic diseases combined. Diabetes costs Americans more than \$92 billion in health care expenditures and lost productivity annually. Diabetes is the single leading cause of kidney failure and amputations not related to accidents. However, many health problems associated with the condition can be prevented or moderated with proper care, ensuring that most diabetics can live long, healthy lives.

An important part of managing diabetes, therefore, involves making sure glucose levels are kept within acceptable limits. To evaluate whether glucose is being maintained within acceptable limits, it is important to regularly perform a blood test called a glycohemoglobin (glycosylated hemoglobin) level test.

This measure estimates the percentage of diabetic patients enrolled in the plan who received at least two blood tests to check glycohemoglobin levels during the past year. *This measure is being evaluated for inclusion in a future reporting set.* The screening recommendations for insulin-dependent diabetics are different from those for non-insulin-dependent diabetics. Thus, a sound methodology for distinguishing between insulin-dependent and non-insulin-dependent diabetics is needed. It is also not clear whether the number of screenings or the actual screening results should be measured. These issues, among others, will be evaluated during the testing phase.

Prevention of Stroke in People with Atrial Fibrillation

Atrial fibrillation is a disorder found in 2.5 million Americans. It causes the two small chambers of the heart — the atria — to quiver instead of beating effectively. Because of this, blood is not pumped completely out of them when the heart beats — blood pools and may clot. If a blood clot from one of the atria becomes lodged in an artery in the brain, a stroke results. According to the American Heart Association, 15% of strokes occur in people with atrial fibrillation. Taking warfarin, a prescription blood-thinning (anticoagulant) medication, decreases by two-thirds the probability that people with this condition will have a stroke and lowers their risk of death by one-third.

Surprisingly, current evidence suggests that a very large number of people with atrial fibrillation are not receiving warfarin. This means that these people are at much higher risk for stroke than they need to be.

This measure estimates the percentage of plan members who have been diagnosed with chronic atrial fibrillation who received a prescription for warfarin. *This measure is being evaluated for inclusion in a future reporting set.* Warfarin is used at different stages in the management of atrial fibrillation. Also there are some patients who should not take warfarin at all, thus, a method for identifying which patients should be on warfarin needs to be developed. These issues, among others, will be evaluated during the testing phase.

Outpatient Care of Patients Hospitalized for Heart Failure

About 2 million Americans annually experience heart failure, a condition in which the heart keeps working but pumps ineffectively, causing a buildup of fluid in the body. Heart failure can be caused by many forms of heart disease, including coronary artery disease, past heart attack, and high blood pressure. Mortality rates from heart failure are 10% within 1 year of a cardiac problem due to heart failure and 50% within 5 years. In addition, the fatigue and the swelling of the feet and legs (called edema) caused by the condition may significantly affect a person's ability to perform everyday tasks. In 1990, \$7 billion was spent on hospitalization and \$10 billion was spent on overall health care for this condition.

A type of prescription drug called angiotensin-converting enzyme (ACE) inhibitors significantly reduces death rates and symptoms in patients with heart failure. ACE inhibitors cause arteries to expand, making it easier for blood to flow, thus reducing the heart's work load. Medical literature on the subject strongly suggests that most patients with heart failure should receive ACE inhibitors as part of their post-hospital discharge treatment program.

This measure estimates the percentage of plan members who were prescribed ACE inhibitors within 90 days of discharge after hospitalization for heart failure. *This measure is being evaluated for inclusion in a future reporting set.* A risk-adjustment strategy needs to be developed to make it a valid measure for comparing between plans. Some plans may also have difficulty collecting sufficient data for this measure. A strategy needs to be developed for dealing with cases in which ACE inhibitors are not recommended. It must also be decided whether to look at all patients with congestive heart failure or just newly diagnosed ones. These issues, among others, will be evaluated during the testing phase.

Cholesterol Management of Patients Hospitalized for Coronary Artery Disease

About 1.5 million Americans annually are diagnosed with coronary artery disease, where the arteries supplying the heart muscle with blood are narrowed, blocking blood flow. Another 490,000 Americans die from the disease each year. The annual direct and indirect health care costs from the condition are estimated to be \$47 billion. One of the changeable factors that contributes to excess death among persons with heart disease is high cholesterol. Those with very high cholesterol levels have a four-fold increased risk of death. Therefore, it is important for patients who have been hospitalized for coronary artery disease to keep their cholesterol below the recommended level.

Total cholesterol levels are composed of two parts: low-density lipoprotein cholesterol (LDL-C) and high-density lipoprotein cholesterol (HDL-C). The association between cholesterol and increased risk of death from heart disease is more strongly linked to LDL-C.

This measure estimates the percentage of plan members hospitalized for coronary artery disease whose LDL-C level was below 100 mg/dL 12 months after the hospitalization. *This measure is being evaluated for inclusion in a future reporting set.* Whether it is better to measure cholesterol relative to a target value (100 mg/dL) or to look at changes in cholesterol level over time needs to be determined. A risk-adjustment strategy may need to be developed to account for plans that have patients with more treatment-resistant disease. These issues, among others, will be evaluated during the testing phase.

Controlling High Blood Pressure

High blood pressure, or hypertension, is one of the most common chronic diseases among American adults. About 43 million people — 30% of the adult population — have hypertension. It is considered a risk factor for heart disease because it increases the heart's work load, causing it to enlarge and weaken over time. Controlling high blood pressure is essential in preventing heart disease. For people with a personal or family history of high blood pressure, it is important to know how well a plan manages the blood pressure of members with hypertension. A doctor or nurse uses a stethoscope and a pressurized cuff to measure the pressure in an arm artery at two times: during a

heartbeat (systolic pressure) and between beats (diastolic pressure). For most adults, a blood pressure reading less than 140/90 means there is no cause for alarm.

This measure looks at the proportion of adult members with a diagnosis of hypertension whose blood pressure is adequately controlled. *This measure is being evaluated for inclusion in a future reporting set.* We need to determine whether to measure control of hypertension in terms of an absolute level of blood pressure or a change in blood pressure over time. This issue, among others, will be evaluated during the testing phase.

Assessment of How Breast Cancer Therapy Affects the Patient's Ability to Function

Adequate treatment of breast cancer must include attention to the clinical, psychological and functional outcomes of care. How the patient herself rates the repercussions of the treatment provides valuable information about how both the disease and treatment affect an individual's ability to function in everyday life.

This measure involves a 28-item self-administered survey designed to assess the patient's quality of life following treatment for cancer. It includes questions about the patient's physical, emotional and functional well-being, social and family situation and relationship with her doctor. *This measure is being evaluated for inclusion in a future reporting set.* Because the number of breast cancer cases is relatively low, this measure may not be useful for comparing health plans. The small numbers of cases may also threaten individual patient confidentiality. We need to determine how to summarize the results of the survey in a valid way. These issues, among others, will be evaluated during the testing phase.

The Health of Seniors

Maintaining the ability to function in everyday life is critically important to a person's quality of life. This measure reflects the belief that high quality health care can either improve or at least slow the rate of decline in its senior members' ability to lead an active and independent life.

Information on ability to function may help a health plan select an appropriate treatment program for a member. How well a person is functioning may also be used to predict other factors, such as whether people will need long-term care or how long they might live. For example, one study showed that persons age 70 to 79 who rated their health as poor or bad were 19 times more likely to die within three years as those who rated their health as excellent.

This measure assesses how effectively the plan is helping its elderly members maintain a high quality of life, by using a survey that asks them to rate whether their ability to function has improved or worsened over time. *This measure is required for reporting.*

Prescription of Antibiotics for the Prevention of HIV-Related Pneumonia

Pneumocystis carinii pneumonia is the most common infection among patients with advanced HIV infection. In fact, it occurs in approximately 50%-66% of HIV-infected adults and it is the most common cause of hospitalization and death for those with HIV infection. Fortunately, giving HIV-infected patients small doses of the same antibiotics used to treat this type of pneumonia can help prevent it from developing in up to 80% of cases. The Centers for Disease Control and Prevention recommend prophylaxis (the use of antibiotics to prevent rather than treat a disease) for all HIV-infected patients with T-cell counts below 200 (which indicates severe suppression of their immune systems).

This measure estimates the percentage of HIV-infected plan members with T-cell counts below 200 who have been prescribed appropriate antibiotics. *This measure is being evaluated for inclusion in a future reporting set.* Although HIV has been established as a reportable infection by the CDC, there is some concern about providers' willingness to release records and other information about HIV patients. Since the number of HIV patients is expected to vary considerably from region to region, some plans may not have enough of these patients to calculate a meaningful statistic for plan-to-plan comparison. These issues, among others, will be evaluated during the testing phase.

Behavioral Health

Follow-Up After Hospitalization for Selected Mental Illnesses

According to the National Institute for Mental Health, a significant percentage of individuals experience some form of mental illness (including manic depression, paranoia and schizophrenia), yet only a small proportion of these are medically diagnosed. Suicide, the most serious risk to those with mental illness, causes 15% of the deaths associated with untreated mood disorders. Those deaths tend to occur 4 to 5 years after the first clinical episode. The *Healthy People 2000* goal is to reduce to less than 10% the prevalence of mental disorders among children and adolescents.

It is important to provide regular follow-up therapy to patients after they have been hospitalized for mental illness. An outpatient visit with a mental health practitioner within 30 days of discharge is necessary to make sure that the patient's transition to the home or work environment is supported and that gains made during hospitalization are not lost. It also helps health care providers detect early post-hospitalization reactions or medication problems and provide continuing care.

This measure estimates the percentage of plan members age 6 and over who were hospitalized for selected mental disorders and who were seen on an outpatient basis by a mental health provider within 30 days after their discharge. *This measure is required for reporting.*

Screening for Chemical Dependency

Alcohol and drug abuse take an enormous toll — physical, psychological and financial — on millions of lives. According to the American Psychiatric Association, 10 million U.S. adults and 3 million children under age 18 are alcoholics. Others place the total estimate as high as 22 million. The National Academy of Science's Institute of Medicine estimates that more than 5.5 million Americans use drugs to the extent of suffering physical and psychological distress if they stop. Unfortunately, chemical dependency is a condition that frequently goes undetected for long periods. Diagnosis is necessary to help the affected person get appropriate treatment.

This measure estimates whether a plan is trying to identify members with chemical dependency problems by educating their health care providers. It does this by asking plan members if their doctor has asked them about alcohol or drug abuse during the past year. *This measure is being evaluated for inclusion in a future reporting set.* More needs to be known about how well respondents' answers reflect whether they were actually screened for substance abuse problems. Also, we need to establish whether routine screening actually results in treatment for substance abuse. These issues, among others, will be evaluated during the testing phase.

Continuity of Care for Substance Abuse Patients

Recovery from substance dependence and abuse does not follow a straight, even course. Relapses are extremely common, especially during early recovery, when the stress may be hardest to handle. In substance abuse rehabilitation, individuals often must change their approaches to handling stress, relationships and habits that contribute to the substance abuse. The best way to help patients "stay on the wagon" after detoxification is to provide appropriate follow-up care.

That is why it is important to examine the effectiveness of the plan's system for providing continuity of care to members with substance abuse problems. This measure looks at the number of patients discharged from a detoxification program to determine how many received follow-up care and how many were readmitted. *This measure is being evaluated for inclusion in a future reporting set.* The categories of follow-up encounters that are reported for patients discharged from the hospital after substance abuse detoxification need to be further defined with regard to the appropriateness of the care given and whether they may signify continuous care or a relapse. The applicability of this measure, which was originally designed for use by behavioral health care organizations, to all health plans needs to be evaluated. These issues, among others, will be evaluated during the testing phase.

Failure of Substance Abuse Treatment

When a patient who has undergone detoxification treatment for chemical dependency requires the same treatment again within a short period of time, this signifies that the treatment of this patient's substance abuse problem may not have been successful. Patients may require repeated detoxification for a number of reasons, such as severity of the illness that makes it difficult for the patient to respond to treatment, or problems in the provision of effective treatment by the health plan, and other factors.

This measure estimates the percentage of people who required repeated treatment. *This measure is being evaluated for inclusion in a future reporting set.* A risk-adjustment strategy addressing the characteristics of the substance abuse problem and sociodemographic factors of the enrolled population needs to be developed to assure that the measure is valid for comparing plans. The applicability of this measure, which was originally designed for use by behavioral health care organizations, to all health plans needs to be evaluated. These issues, among others, will be evaluated during the testing phase.

Continuation of Depression Treatment

Major depression and recurrent depression (dysthymia) are among the most prevalent mental disorders, affecting about 10% of all adults each year. According to the Agency for Health Care Policy Research's *Guideline on Depression in Primary Care*, clinical depression may include apathy, anxiety or irritability, rather than or in addition to sadness. These problems may continue for months and severely impact a person's functioning in everyday life.

Fortunately, about 65%-70% of people with major depression respond to antidepressant medication. The treatment of clinical depression includes several phases. After the treatment of the acute phase of the depression, a therapy program must be set up to prevent relapses. Patients who initially received antidepressants should continue to take these medications until they and their physicians agree it is safe to decrease or discontinue them. Premature discontinuation of treatment is associated with a 25%

relapse rate within two months. The World Health Organization recommends indefinite maintenance therapy for patients who have experienced two episodes of depression within a 5-year period.

This measure looks at the percentage of people with major depression who are taking antidepressants and who were prescribed at least four months of antidepressants. *This measure is being evaluated for inclusion in a future reporting set.* We need to know more about the influence of patient compliance on the rates reported in this measure. A method is needed to identify patients who received a prescription for a new episode of depression, so that patients in a later phase of therapy who appropriately discontinued their medication can be excluded from the measure. The method of data collection is likely to have an influence on the rates reported in this measure and affect comparability of data. These issues, among others, will be evaluated during the testing phase.

Availability of Medication Management and Psychotherapy for Patients with Schizophrenia

Schizophrenia, one of the most debilitating mental disorders, affects about 1% of American adults. It is characterized by a changed sense of reality, probably caused by certain changes in the brain chemistry. This condition affects every aspect of psychological functioning, including all the ways in which people think, feel, view themselves and relate to others.

Schizophrenic patients are usually treated with powerful drugs called antipsychotics or neuroleptics, which can reduce confusion, anxiety, delusions and hallucinations. According to the National Mental Health Advisory Council and the American Psychiatric Association, more than 60% of those with schizophrenia can be relieved of acute symptoms with proper therapy. As schizophrenia often runs its course over many years, patients may need to take medications for long periods. However, like other medications, psychiatric drugs have side effects and must be used with care. Ideally, psychiatrists should monitor their patients to be sure they continue to do well on their medication. This is important to regulate the appropriate doses and types of medications, monitor undesirable medication effects and coordinate care with family members, social agencies and other physicians and/or mental health practitioners involved in the care of the patient.

The purpose of this measure is to assess whether a plan adequately manages the drug treatment of this group of mentally ill members. To do this, it determines the number of adult members with schizophrenia who had a least four medication-management visits or psychotherapy visits with a psychiatrist in the past year. *This measure is being evaluated for inclusion in a future reporting set.* This measure's ability to predict improved outcomes is not known. We need to know more about the influence of patient compliance on the rates reported in this measure. The applicability of this measure, which was originally designed for use by behavioral health care organizations, to all health plans needs to be evaluated. The low prevalence of schizophrenia may make it difficult for smaller plans to obtain meaningful data. These issues, among others, will be evaluated during the testing phase.

Appropriate Use of Psychotherapeutic Medications

Prescribing psychotherapeutic drugs to patients who do not really need them is of particular concern, because many of these drugs have serious side effects and may affect the person's normal functioning.

This measure tries to assess to what extent the plan uses these drugs appropriately by determining what percentage of enrollees given psychotherapeutic drugs were diagnosed with a condition that warrants such a prescription (including senile or presenile psychosis, alcoholic psychosis, drug psychosis, transient organic psychosis, chronic psychosis, schizophrenic psychosis, affective psychosis, paranoid states or other non-organic psychoses). *This measure is being evaluated for inclusion in a future reporting set.* This measure depends heavily on health plans' ability to link diagnostic and pharmaceutical data, and more needs to be known about how this influences rates reported for the measure. This issue, among others, will be evaluated during the testing phase.

Family Visits for Children Undergoing Mental Health Treatment

An important factor in the treatment of patients with behavioral health disorders is understanding the importance of their home environment as it contributes to stress or serves as support for the patient. This is especially true of children, where involving family/caregivers in the treatment process may be vital to its success.

This measure assesses to what extent the health plan tries to involve family/caregivers in the treatment of children age 12 and under by counting the number of them who had at least one family visit during the calendar year. *This measure is being evaluated for inclusion in a future reporting set.* More needs to be known about how to identify children who received family services, as these may not be coded as behavioral health services. It may also be difficult to identify children receiving treatment for behavioral health problems, as practitioners may be hesitant to document a mental health diagnosis for a child in order to avoid stigmatization. The applicability of this measure, which was originally designed for use by behavioral health care organizations, to all health plans needs to be evaluated. These issues, among others, will be evaluated during the testing phase.

Patient Satisfaction with Mental Health Care

For many consumers, an important factor in making a health care decision is how satisfied people similar to themselves were with the health care they received. This measure provides information on how adults rated three aspects of the mental health care provided by their plan. These include their overall satisfaction with the care received, whether the care they received helped them, and whether they were able to get an appointment in a timely fashion. When making comparisons across plans based on these ratings, consumers should keep in mind that many factors can influence patients' answers. While mental health professionals can positively influence their patients in helping them understand what treatment goals are realistic for them, factors such as patients' familiarity with managed care, and the severity and potential for improvement of their conditions can also influence patients' answers.

This measure is being evaluated for inclusion in a future reporting set. A risk-adjustment strategy addressing patients' diagnoses and sociodemographic factors may need to be developed to make this measure useful for comparing plans. Confidentiality may be of some concern because of the sensitive nature of the diagnoses, and patient permission may be required if the survey is being administered by an independent group. The applicability of this measure, which was originally designed for use by behavioral health care organizations, to all health plans needs to be evaluated. These issues, among others, will be evaluated during the testing phase.

USE OF SERVICES

This domain provides information on how a plan manages and expends its resources, which may give consumers and purchasers a sense of the plan's priorities. Consumers and purchasers should be aware, however, that use of services is affected by many member characteristics that can vary greatly among health plans, including age and sex, current medical condition, socioeconomic status and race. To make the best use of this information, consumers and purchasers should use it as a starting point for discussions with the health plan.

There are two different kinds of measures in this domain:

- "Traditional" Use of Services measures, which are often expressed as rates of service use per 1,000 member years (a number which is usually close to the number of members enrolled in a year) or member months (which can be thought of as the number of members enrolled in a year multiplied by 12) and
- Use of Services measures that express the percentage of members who received certain services. These measures are similar to the measures in the Effectiveness of Care domain in that they report information on members who were continuously enrolled in the health plan for a certain period of time.

Frequency of Ongoing Prenatal Care

Complications can arise at any time during pregnancy. For that reason, continued monitoring throughout pregnancy is necessary. The frequency and adequacy of ongoing prenatal visits, therefore, is an important factor in minimizing pregnancy problems. The American College of Obstetricians and Gynecologists recommends that prenatal care begin as early in the first trimester of pregnancy as possible, with additional visits every 4 weeks for the first 28 weeks of pregnancy, every 2 to 3 weeks for the next 8 weeks, and then weekly until delivery.

This measure tracks plan members who had live births during the past year to determine the percentage of recommended prenatal visits they had. *This measure is required for reporting.*

Well-Child Visits in the First 15 Months of Life

Well-child visits, or regular check-ups, are one of the best ways to detect physical, developmental, behavioral and emotional problems so appropriate treatment can be given. They also provide an opportunity for the physician to offer guidance and counseling to the parents. These visits are of particular importance during the first year of life, when an infant undergoes substantial changes in abilities, physical growth, motor skills, hand-eye coordination and social and emotional growth. The American Academy of Pediatrics (AAP) recommends 6 well-child visits in the first year of life: the first within the first month of life and then around 2, 4, 6, 9 and 12 months. The *Healthy People 2000* goal is to increase to at least 90% the proportion of all babies 18 months old and younger who receive the recommended primary care services.

This measure estimates the percentage of children who had one, two, three, four, five or six well-child visits by the time they turned 15 months of age. *This measure is required for reporting.*

Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life

Well-child visits during the pre- and early-school years are particularly important to help children reach their full potential and become productive and successful members of society. By detecting vision, speech and language problems early, a child can be helped to improve communication skills and avoid or reduce language and learning problems. The AAP recommends annual well-child visits for 2 to 6 year olds.

This measure assesses the percentage of children who are 3, 4, 5 and 6 years of age who received at least one well-child visit with a primary care physician during the past year. *This measure is required for reporting.*

Adolescent Well-Care Visit

An annual preventive health care visit that addresses the physical, emotional and social aspects of health and promotes a healthy lifestyle as well as disease prevention is extremely important for adolescents. Adolescence is a time of transition between childhood and adult life and is accompanied by dramatic changes. Unintentional injuries, homicide and suicide are the leading causes of adolescent death, while sexually transmitted diseases, substance abuse, pregnancy, and antisocial behavior are important causes of physical, emotional and social adolescent problems. The American Medical Association *Guidelines for Adolescent Preventive Services*, the federal government's Bright Futures program and the new AAP guidelines all recommend comprehensive annual check-ups for adolescents.

This measure reports the percentage of plan members age 12 to 21 who had one or more well-care visit with a primary care provider during the past year. *This measure is required for reporting.*

Frequency of Selected Procedures

This measure lists several, mostly surgical, procedures that are frequently performed and that contribute substantially to expenses. Considerable variation has been observed in how often these procedures are performed. These rates are likely to be strongly influenced by the way a health plan manages care. *This measure is required for reporting.*

Inpatient Utilization — General Hospital/Acute Care

Inpatient utilization estimates the extent to which health plan members received inpatient hospital treatment, either because of pregnancy and childbirth, for surgery or for non-surgical medical treatment. Plans report how many hospital stays occurred during the reporting year, how long patients stayed in the hospital on average and other data. *This measure is required for reporting.*

Ambulatory Care

This measure estimates members' use of four different kinds of ambulatory services: outpatient visits, emergency room visits, ambulatory surgery and observation room stays. Outpatient visits include office visits or routine visits to hospital outpatient departments. A health plan that effectively manages ambulatory treatment of patients should be able to keep the number of emergency room visits low. Looking at inpatient surgery (see the previous measure) and ambulatory surgery together can help purchasers

and members assess how much of the surgery done in the plan is performed on an outpatient basis. Observation rooms are usually part of hospitals' outpatient departments, where patients may stay for one or two days "for observation," during which time the physician decides whether an inpatient admission is necessary. *This measure is required for reporting.*

Inpatient Utilization — Nonacute Care

This measure describes the extent to which members received inpatient treatment in nursing homes or rehabilitation centers. Plans report the number of stays in institutions for nonacute care in the reporting year and how long patients stayed in these institutions on average. *This measure is required for reporting.*

Discharge and Average Length of Stay — Maternity Care

Childbirth is a very common reason for hospitalization. This measure describes how many women enrolled in the health plan gave birth during the reporting year and how long the women remained in the hospital on average after vaginal births or Cesarean section deliveries. *This measure is required for reporting.*

Cesarean Section and Vaginal Birth After Cesarean (VBAC-Rate)

Cesarean sections are among the most frequently performed surgical procedures, and there has been concern that they are not always necessary to perform. For this reason, many women may want to know the Cesarean-section rate of a hospital or a health plan when deciding which one to choose. Women may also be interested in knowing the VBAC-rate, which tells how many women delivered vaginally after a previous Cesarean section, instead of having another Cesarean section. *Health plans are required to report the C-Section Rate. Reporting the VBAC-Rate is not required for the 1996 reporting year. The measure VBAC-Rate has been deferred because of persistent problems with the identification of numerator and denominator for this rate from administrative sources. Health plans should develop a method to track VBAC's and repeated C-Sections, e.g., utilizing the newly introduced CPT-4 codes 59610-59622. This measure will be required for the 1997 reporting year.*

Births and Average Length of Stay, Newborns

This measure estimates how many infants were born in the health plan during the reporting year and how long these newborns remained hospitalized on average. Average length of hospital stay is listed for well newborns and for those who had medical problems. *This measure is required for reporting.*

Mental Health Utilization — Inpatient Discharges and Average Length of Stay

Purchasers may be interested in rates of use of mental health services by members. This measure estimates how many hospitalizations for mental health disorders occurred during the reporting year and how long patients stayed in the hospital on average. *This measure is required for reporting.*

Mental Health Utilization — Percentage of Members Receiving Inpatient, Day/Night Care and Ambulatory Services

Several "intensity levels" of mental health care are identified: hospital treatment, day/night care (a level of intermediate care where a patient may live at home and visit a therapeutic institution during the day) and ambulatory treatment. Purchasers may want to know the percentage of members who received mental health services in each of these intensity levels. *This measure is required for reporting.*

Readmission for Selected Mental Health Disorders

This measure estimates how many patients who got hospital treatment for mental health disorders (such as schizophrenia or depression) needed intensive treatment again, based on readmission to inpatient treatment within 3 months and a year after the first hospitalization. Patients may require readmissions for a number of reasons such as severity of illness that makes it difficult for patients to respond to effective treatment, or problems in the provision of effective treatment by the health plan, and other factors. *This measure is required for reporting.*

Chemical Dependency Utilization — Inpatient Discharges and Average Length of Stay

Chemical dependency, most commonly alcohol dependency, is very costly to purchasers. Purchasers may be interested to know rates of use of chemical dependency services by health plan members.

This measure estimates how many hospitalizations for chemical dependency occurred during the reporting year and how long patients stayed in hospital on average. *This measure is required for reporting.*

Chemical Dependency Utilization — Percentage of Members Receiving Inpatient, Day/Night Care and Ambulatory Services

Several "intensity levels" of care for chemical dependency are listed: hospital treatment, day/night care and ambulatory treatment. Purchasers may want to know the breakdown of members who received mental health services in these intensity levels. *This measure is required for reporting.*

Readmission for Chemical Dependency

This measure estimates how many patients who needed hospital treatment for chemical dependency problems had to be readmitted to inpatient treatment within 3 months and within a year after the first hospitalization. Patients may require readmissions for a number of reasons, such as severity of illness that makes it difficult for patients to respond to effective treatment, problems in the provision of effective treatment by the health plan, and other factors. *This measure is required for reporting.*

Use of Behavioral Health Services

Access to necessary care is of particular interest to managed care consumers. Many want to know whether a plan that offers mental health coverage in any way restricts access to those services. This measure provides information about the percentage of plan members with this type of coverage who received mental health services — either a face-to-face visit or a hospital stay — during the year. This information is reported separately for patients in different age groups and with different diagnoses. Since the use of services varies depending on factors such as the age of the patient and the diagnosis, these contingencies have to be considered by the consumer when using this data for plan comparisons.

This measure is being evaluated for inclusion in a future reporting set. Plans' variable benefit structures may need to be accounted for to make this a valid measure for comparing plans. The applicability of this measure, which was originally designed for use by behavioral health care organizations, to all health plans needs to be evaluated. These issues, among others, will be evaluated during the testing phase.

Outpatient Drug Utilization

Purchasers may be interested in information on the use of prescription drugs by members and the associated costs, such as the total costs for prescribed drugs, the average cost for drugs per member and the average number of prescriptions per member within a year.

This measure provides this information for members with a pharmacy benefit. Users should keep in mind that use of pharmaceuticals is influenced by many factors, and that prescription costs may differ from plan to plan for a number of reasons, such as proportion of health plan members with a chronic condition. *This measure is required for reporting.*

INFORMED HEALTH CARE CHOICES

People need to take an active role in their health care planning; to do so, they need to have the information and understanding necessary to make informed choices about treatment options. The measures in this domain look at how well plans are helping their members to participate in decisions about their own health care.

This domain includes three measures. One asks the plan to describe its efforts to ensure that new members know how the plan works and what alternatives, resources and grievance procedures are available to them. Another measure determines whether the plan makes its informational and educational materials available in different languages for non-English speaking members. The final measure in this domain gauges the extent to which the plan is counseling menopausal women on the risks and benefits of hormone replacement therapy.

New Member Orientation/Education

Plans should inform members about how the plan works. Consumers may want to know how a plan initiates its members into the network, and what resources it makes available to help new patients make the most of plan services.

This measure allows a plan to describe the procedures it uses to orient and educate new members on how to use its services. *This measure is required for reporting.*

Language Translation Services

In some communities, language barriers undermine the level of care that some patients in the plan receive, and members and purchasers may be interested in the extent to which a plan provides written materials in languages other than English.

This measure asks for an inventory of all non-English language member materials. *This measure is required for reporting.*

INTERPRETATION
AND USE
of the HEDIS Measures

INTERPRETATION OF HEDIS DATA

HEDIS 3.0 is a tool that will provide individuals with more information to help them assess the relative performance of health plans. In this section, readers are offered some guidance on how these measures can help them to assess the relative value of their health plan choices.

Different people will, and should, look at HEDIS information differently. Some are interested in getting a picture of how well a health plan performs overall. A young couple starting a family may be most interested in how well a health plan does in providing maternal and child health services. Someone with asthma might be interested in how well the health plan takes care of asthmatics. How individuals use HEDIS will depend on what they want to know. Even so, there are certain things all users should think about when they begin to use this data to make comparisons among plans.

First, no single statistic should be interpreted in isolation of others. HEDIS is a set of measures, and many of the measures are best understood in the context of others. The user should look for patterns in the data — these patterns will reveal the picture more clearly. What sort of patterns are more important? We suggest that users try to group measures that are related in some way, and look for health plans that are consistently better than (or worse than) a comparison group. Here are some of the ways that measures might be grouped to identify important patterns of performance:

- **By “domain”:** Clearly, we believe there are common issues that underlie the measures in the various HEDIS 3.0 domains (Effectiveness of Care, Access/Availability of Care, Satisfaction with Care, Cost of Care, and so on). Health plans that perform consistently within one domain may be demonstrating that they have solved (or failed to solve) some of the basic problems that we are concerned about. For example, a plan that has consistently high scores on Effectiveness of Care measures may have chosen its network of providers extraordinarily well and may be providing them — across the board — with the tools (guidelines, feedback, information systems support) that they need to achieve superior outcomes. On the other hand, a plan that scores poorly on a number of Access/Availability measures may have a network that is too small or may have care management programs that are unduly restrictive and that create inappropriate barriers to access. A consistent pattern of performance within a domain should tell the user something important about how well a health plan is achieving the results that define the need for that category of measurement. That pattern is far more meaningful than isolated performance excellence or deficit.

- **By “type of care” (underlying health care process):** Health care is an exceedingly complex process, but it is possible to think of it as having some fundamental components (or “subprocesses”). The CPM identified several, to help organize its approach to measurement. Grouping measures along the following lines will help us understand whether the health plan effectively manages these components of care:

Disease Prevention	How effectively is the health plan preventing illness?
Screening and Early Detection	How effectively is the health plan detecting illness at the stage at which it is most treatable?
Acute and Chronic Care	How effectively is the health plan returning those who are acutely and chronically ill to their baseline level of health?
	How effectively is it preventing the loss of health and function in persons with chronic illness?

For example, a health plan with consistently high rates of mammography, immunization, Pap testing, flu vaccination for the senior population and retinal exam screening for diabetics is very likely to be actively working to prevent disease and to detect it early. That success probably means that the health plan is educating its members about the importance of this care, is reaching out to members to alert them when routine care is required, is working to lower barriers to access for that care, is providing incentives to its providers to deliver necessary care, and is tracking members so that it recognizes when a member has (or has not) received the care needed. A conclusion about the success of the plan at achieving results by type of care is far more important than a conclusion about any single measure. And the confidence we can have that this more important conclusion is justified is much higher if we observe a pattern across measures, rather than success on an isolated measure.

- **By population:** The care needs of different populations vary, and health plan systems for managing care may be quite population-specific. The most obvious example, of course, is the network of providers: it may be pediatricians who care for children and internists who care for adults — but among adults it may be obstetrician/gynecologists who provide much of the care to women, and geriatricians who provide much of the care to seniors. As a result, looking at the set of measures that relate to children’s health, or to women’s health, or to senior’s health may tell us something important about a health plan’s overall ability to meet the needs of one population or another.
- **By clinical condition:** Similarly, the care needs of persons with different medical conditions will vary, and health plan systems for managing care may be quite condition-specific. To get a clearer sense of how effectively a plan is managing care for patients with specific conditions (heart disease, breast cancer, diabetes, and so on), look for a pattern across measures to evaluate different aspects of care for those conditions. A pattern of excellence here might suggest that a health plan has coherent and integrated strategies for managing care for those conditions, and that it has implemented those strategies successfully.

Second, there are many reasons why measured results might differ. Of course, in many cases, results will differ because one plan is doing something — providing higher quality care — that others are not. What, for example, might a health plan be doing to account for higher rates of immunization of children? Perhaps it stays open during hours (such as evenings or weekends) that are more convenient for working parents to bring in their children. Perhaps it has a computer system for tracking immunizations, so that it can determine who has missed a shot and notify those in need. Perhaps it has educated its pediatricians and family physicians about when it is appropriate to immunize a child. (Many physicians, for instance, still do not recognize that a cold or low-grade fever is no reason to delay giving a necessary vaccination.) Perhaps the plan has offered parents an incentive to bring in a child for needed shots: a chance to win a gift, a coupon for diapers, or a birthday reward when the basic immunization series is completed at age two.

These are all steps that a plan can take — and some have taken — to improve childhood immunization rates. There are other strategies, as well, that innovative health plans committed to high-quality care are using. The power of HEDIS is that it enables users to recognize those plans that have made successful efforts to improve care.

But are there other reasons that HEDIS measures may vary across plans, reasons other than differences in quality? Unfortunately, the answer is yes. While HEDIS 3.0 represents a big step forward, performance measurement is still a young and relatively immature science. There is a need for the science of measurement to improve before HEDIS data will be free of potential confounders. In the meantime, it's important that those who use HEDIS data have some sense of what other factors need to be considered when interpreting HEDIS results.

What other factors could cause HEDIS measures to vary, aside from quality of care? Here are four possible answers:

- We live in a world of chance; there is some possibility that a health plan's reported HEDIS results are different from a "true value" simply because there is some randomness in the world. This is particularly a problem because HEDIS data is often estimated from samples of health plan data. Sampling itself introduces chance into measurement — there is always some chance that the sample chosen does not truly reflect the underlying population from which it was drawn. The larger the sample, the less likely this is — but even with the relatively large samples required for HEDIS calculations, we cannot be sure that the estimated value is in fact correct. For most statistics, samples are required so that we can be quite confident that the true value is within 5-10% of the estimate. But plans that differ by less than 10% may not be truly different; that is, we may be observing differences that are due to chance (not differences in quality).
- The characteristics of the population — as well as the performance of the health plan — can affect outcomes. For example, suppose one health plan serves a group of women that is at higher risk for having low birth-weight babies because many of the women are older than 35. If this plan is compared to another plan with a younger female population, one would expect a difference in the percentage of babies that are low birth weight, even if both plans were delivering care identically. There are, in fact, many things (such as the composition of the health plan's population with respect to age, sex, race, and standard of living) that may affect health plan results, over which the plan has little or no control.

It is possible, with the right data and the right formulas, to adjust HEDIS measures so that two plans are truly comparable to each other. This is called risk adjustment, because it adjusts the rates for factors that increase the risk of bad outcomes. Getting the right data and formulas for risk adjustment takes time and effort. One of the HEDIS 3.0 measures — The Health of Seniors — includes a specific risk adjustment protocol. In general, though, techniques for risk adjusting are still needed. NCQA will be working with researchers and with health plans to develop such techniques for many of the measures that are most likely to be affected by population risk. These measures will not be reported until those techniques have been developed. Even so, virtually any statistic can be affected by differences in health plan populations if those differences are large enough; it is worth considering how population risk might affect any measured result.

- There is variation in the type, quality, and completeness of the data plans use to estimate HEDIS measures. This variation (what goes into the calculation) can cause variation in results (what comes out of the calculation). Some health plans rely on automated data (from submitted claims or transaction records, or from laboratory or pharmacy systems); others rely more heavily on the paper medical record. Neither data set is perfect; more than that, there are differences in the nature of the imperfections that might cause measures that are calculated differently to vary. Administrative datasets, for example, may underestimate rates at which services that are not reimbursed on a per-service basis are provided: estimates of immunization and screening test rates from administrative datasets may be low if those services are covered under capitated (per member, not per service) contracts; and estimates of prenatal care visit rates may be low if prenatal care visits are paid for as part of a global fee for delivery (and not specifically identified in transaction records). On the other hand, administrative records of birth weight may be inaccurate; as a result, rates calculated from hospital discharge data may underestimate the rate of low birth weight. When comparing plans, it is important to know something about the type and quality of the data used by the plans. If plans vary significantly in these regards, then there might need to be vast performance differences in order to conclude that we are really observing differences in quality of care.
- There can be errors in the calculations. Each measure in HEDIS 3.0 has clearly defined instructions for how it is to be calculated. Nevertheless, the instructions are complicated, and programmers, medical record reviewers and quality managers can and do make mistakes.

There is no protection against such errors, except to have HEDIS production systems audited by an independent third party. Some health plans have already begun to undergo such audits, to offer assurance to the users of their data that it is free of such error. NCQA believes strongly that such audits are required and is working to standardize the approach to HEDIS audits. We anticipate that the quality of HEDIS data will improve rapidly, as audits become a routine component of HEDIS reporting. NCQA hopes to make significant progress in 1996 and 1997, in order to make that possible in 1998.

USE OF HEDIS DATA

How HEDIS data will be used will depend upon the user and the user's objective. There are a number of users and uses for which HEDIS was designed.

First, purchasers — both private and public — will use HEDIS data to make comparisons among health plans. These comparisons should be informed by the issues above but, where significant and important differences between plans exist, these comparisons should help to direct health plan selection and help to support contracting and performance target-setting initiatives that currently depend only on price. HEDIS data should also stimulate a dialogue between purchasers and their health plan suppliers — a dialogue about performance, about the reasons that performance may vary from desired levels, about efforts underway at the plan to improve performance, and about other evidence that the plan may have to demonstrate that those efforts have been (or promise to be) successful.

Second, health plans will use HEDIS data to identify opportunities for improvement and to monitor the success of their efforts to improve. HEDIS data provides not only a means to track improvement internally; as a set of measurement standards, HEDIS gives health plans the ability to compare their results with other plans. This will help a given plan understand the gap between the plan's performance and the best achievable, and will help plan management set realistic targets for improvement over time.

Third, regulators — state and federal — may use HEDIS data as part of their oversight processes. Strategies for doing so are still being defined, but the potential for regulators to use available performance information to eliminate burdensome regulations seems clear. NCQA is working with a number of states to incorporate HEDIS and performance measurement into oversight processes that are streamlined and cost-effective.

Finally, we anticipate that consumers will use HEDIS data to assist them when they make choices about health plans. Some of this information may come to them directly; some of it may come from another source (their employer, or publications such as *Health Pages* and *Washington Consumers' Checkbook*, or mainstream magazines and newspapers). Some information may come to them as raw data; it is very likely that others will try to summarize raw HEDIS data to make it easier for consumers to understand.

All of these uses are appropriate, yet all of them should consider the need for thoughtful interpretation. And all of them should be made drawing on the fullest set of data available. It is important to remember that HEDIS exists as one component of a larger system for providing information about the quality and performance of health plans. As valuable as HEDIS data is in general — and as HEDIS 3.0 data will be in particular — NCQA Accreditation results provide an important complementary view. We strongly encourage users of HEDIS data — whether they be purchasers, public sector program managers, other regulators, or consumers — to use both data sets to help guide their choices among health plans. This data is readily and inexpensively available — from public sources, from health plans, or through NCQA's *Quality Compass Reports*, and should be used together to provide the most complete view possible.