

# VITAL HEALTH STATISTICS

## **Statistical Aspects of Physician Payment Systems**

**A Report of the National  
Committee on Vital and  
Health Statistics**

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Findings and conclusions concerning current and anticipated needs of users of data from the patient-physician encounter in the ambulatory care setting are summarized in this report. The report emphasizes the increasing plurality of data uses and of sites of care in the ambulatory arena and underscores the value of standard definitions to facilitate comparison of different data bases across systems and to achieve as much uniformity as possible at the national level.

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# Preface

This report is the culmination of 2 years of work by the National Committee on Vital and Health Statistics (NCVHS) Subcommittee on Statistical Aspects of Physician Payment Systems and its predecessor work group. The NCVHS is a legislatively mandated advisory committee to the Secretary of the Department of Health and Human Services. The report was approved by the full NCVHS at its meeting on June 6, 1986, and was submitted to the Assistant Secretary for Health in July 1986.

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# Contents

Preface . . . . .	iii
National Committee on Vital and Health Statistics . . . . .	iv
Subcommittee on Statistical Aspects of Physician Payment Systems . . . . .	v
Introduction . . . . .	1
Background . . . . .	2
Activities of the work group . . . . .	3
Activities of the Subcommittee . . . . .	4
General findings and conclusions . . . . .	5
Summary . . . . .	11
<b>Appendixes</b>	
I. Uniform Ambulatory Medical Care Minimum Data Set . . . . .	13
II. Minutes of the NCVHS Subcommittee on Statistical Aspects of Physician Payment Systems . . . . .	14
III. Place of service designations (Figures II–VI) . . . . .	29
IV. Data flow for traditional fee-for-service physician reimbursement (Figure VII) . . . . .	33

# Statistical Aspects of Physician Payment Systems

## Introduction

A number of forces are currently converging to increase interest in ambulatory care data and stimulate reevaluation of the Uniform Ambulatory Medical Care Minimum Data Set. The changing patterns for delivering and financing patient care are all having an impact on the ambulatory care arena. Procedures previously performed exclusively within hospitals increasingly are now taking place on an ambulatory or outpatient basis. The technological advancements and changes in insurance coverage which have made these shifts possible have stimulated the growth of various alternate care sites, such as free-standing surgical centers and urgent centers, as well as the expansion of existing hospital outpatient services. The public and private commitment in this decade to health promotion and disease prevention has been reflected in a growing interest in primary care and self-help involving ambulatory care services. The emphasis in care for our aging population is also on independent living and ambulatory care.

The Medicare Prospective Payment System (PPS), enacted for hospitals in 1983, has put increased pressure on institutions to reduce inpatient stays and costs per case. Under PPS and other cost containment measures, efforts to shift care to outpatient, and potentially less costly, sites are likely to continue. Recent national statistics show that for the first time since 1965 hospital care expenditures have declined as a share of

total health care dollars, from 41.9 percent in 1983 to 40.8 percent in 1984. For Medicare, this shift from inpatient to outpatient care has significant fiscal implications, because the trust fund for hospital care is financed exclusively through Social Security taxes, whereas physician services are financed through a combination of beneficiary premiums and general revenues and involve considerably more beneficiary cost sharing. Adequate and comparable statistical data will be necessary to track and assess these possible shifts.

The emerging interest in ambulatory care services has coincided with the growing focus on reimbursement for physician services. The legislation enacting PPS required the Department of Health and Human Services (DHHS) to study and report on the advisability and feasibility of covering inpatient physician services within the hospital's prospective payment rate. Because physician services, inpatient and outpatient, now generally are reimbursed by Medicare on a fee-for-service basis, and because an episode of care frequently includes both types of physician services, the broadening of concern to the full spectrum of physician services has followed naturally. Current approaches being considered by the Department for reimbursing physician inpatient services all have implications for ambulatory care services as well.

# Background

Recognizing the numerous statistical issues involved in current and future policy choices for delivering and reimbursing physician services, the National Committee on Vital and Health Statistics (NCVHS) formed a work group in May 1984 to gather further information and to make recommendations to the full Committee. Originally charged to examine statistical aspects of a pre-payment system for physician services, at its first meeting the work group expanded its investigation to encompass the adequacy of any data systems related to the provision of physician services, whether designed for reimbursement, planning, or research. It was decided to give particular attention to services rendered in ambulatory care settings and to the information needed about these services. The ultimate goals of the work group's inquiry were to encourage comparability and standardization; to enhance the multiple utility of data bases; to assure that data requirements by third-party payers and others were justified; and to prevent unnecessary duplications. Underlying the effort was the conviction that in times of decreasing resources, high quality statistics become increasingly important in making optimal allocation decisions. The work group was also aware that there would be growing pressure on the analysis of ambulatory care data and that development of standard definitions, adoption of those standards, and training in their application would be necessary first steps toward turning that data into useful information.

The NCVHS had contributed to the standardization of hospital data through the development of the Uniform Hospital Discharge Data Set (UHDDS) in the early 1970's and the recent reassessment of the UHDDS in 1984. The UHDDS has been approved for use in Department of Health and Human

Services (DHHS) programs since 1974 and is widely accepted and implemented in the public and private sectors.

Developments in standardization of ambulatory care data have been considerably slower, even though ambulatory care is the largest component of the health care system in this country, accounting for approximately 1 billion contacts with medical doctors per year. Traditionally, ambulatory care records have been far less standardized than records of hospital care, and patient complaints and episodes of care have been less clearly defined and documented. There has been no parallel in the ambulatory care field to the private sector development of abstracting services for inpatient care, although computer applications to physician offices have proliferated in recent years.

Following the lead of the UHDDS, a Uniform Ambulatory Medical Care Minimum Data Set was developed by the NCVHS in the mid-1970's and revised in 1980 (see appendix I). Reflecting the state of the art at that time, the focus was on defining what information should be entered in patients' ambulatory medical care records rather than on what information should be abstracted from existing records.

Although the NCVHS submitted the revised version of the ambulatory data set to the Secretary of DHHS in 1981, no official action has been taken in response to this transmittal. Although the data set has received wide distribution, it is not known to be in current use in its entirety in any programs of the Department. In 1983, the DHHS Health Information Policy Council (HIPC) gave reexamination of the data set a lesser priority than the review of the UHDDS and the Long-Term Care Minimum Data Set.

## Activities of the work group

The work group formed by the full Committee met on three occasions between June and October 1984 to obtain information on current and proposed Departmental data activities and to identify issues that would merit further NCVHS study and assessment. Because physician payment systems are a major source of data on ambulatory services, and Medicare requirements often influence activities in the private sector, detailed information was sought and obtained on the data requirements related to Medicare reimbursement for physician services. The work group received extensive background on the Medicare data requirements, the data bases maintained by HCFA at the national level, and studies underway to assess physician reimbursement methods.

The review of data requirements, data bases, studies, and data sets by the work group focused on the following five areas: patient identification, physician identification, place of service designation, diagnostic information, and procedure coding systems. Many of the issues explored, although specific to Medicare, represented generic concerns that had surfaced during the earlier minimum data set development.

The work group concluded that the evolving activities related to changes in methods for physician reimbursement, particularly in the ambulatory care setting, are likely to have significant implications for each of these data areas and for the comparability of data through time and across health care settings. Continuing liaison among the Health Care Financing Administration (HCFA), the National Center for Health Statistics (NCHS), and the NCVHS concerning the data systems

to support these activities was considered desirable, at least until the systems have been fully defined. Therefore, the work group recommended to the NCVHS at its meeting in December 1984 that a subcommittee be established to provide this liaison and address the following tasks as its charge:

- Determine more clearly the specific needs of users of data from patient-physician encounters in the ambulatory care setting.
- Develop a schematic overview of the flow of data from various ambulatory settings into the multiple data bases.
- Define better the different sites of care in the ambulatory setting and the types of services delivered so that understanding of data requirements can be improved.

The results of these tasks were to be input into the possible review and revision of the Uniform Ambulatory Medical Care Minimum Data Set.

The National Committee accepted the recommendations of the work group and designated a Subcommittee on Statistical Aspects of Physician Payment Systems, consisting of William R. Felts, Jr., M.D., Chairman, Professor of Medicine at George Washington University Medical Center; Theodore Allison, Vice President for Government and Industry Relations, Metropolitan Life Insurance Company; and Carmalt B. Jackson, Jr., M.D., Medical Advisor for Baptist Memorial Hospital System in San Antonio, Texas. Staff from NCHS and HCFA were requested and assigned to work with the Subcommittee.

# Activities of the Subcommittee

The Subcommittee held four meetings to hear testimony on June 19, September 10, October 15, 1985, and January 14, 1986 (see minutes in appendix II), in order to pursue further the work group goals and to address the specific tasks included in its charge. Following the extensive information received from the Medicare program during the work group meetings, the Subcommittee continued to be updated on Medicare activities and sought to obtain comparable information from other public and private insurers. The latter provided an overview of the ambulatory care data requirements and the flow of data for the patient-physician encounter in their respective programs or organizations, discussed uses of data and data problems, and described any work currently underway to resolve data inadequacies and improve data quality. Researchers and planners who use data from the patient-physician encounters also contributed to the discussions. Dr. Felts and Dr. Jackson, both of whom have had extensive involvement with provider data systems and strong affiliations with national professional organizations, offered the additional perspective of practicing physicians. A representative of the American Medical Association and other observers representing professional associations also attended the sessions.

The purpose of these meetings was to:

- Gather information related to the Subcommittee's charge.
- Anticipate changes in physician payment systems that may require collection and analysis of additional items of data.
- Examine the possible impact of these changes and additions on availability, quality, and comparability of data.
- Analyze the applications of data for trend analysis, research, and program administration.

The meetings also served to bring together interested organizations in the public and private sectors to share mutual concerns and seek common solutions.

The organizations, grouped by type, that have made presentations to the Subcommittee and the primary focus of their remarks follow:

<i>Organization</i>	<i>Primary focus</i>
Public insurers and data users	
Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), Department of Defense	<ul style="list-style-type: none"> <li>● Program requirements</li> <li>● Ambulatory care data needs</li> </ul>

Centers for Disease Control	<ul style="list-style-type: none"> <li>● Ambulatory care data needs for epidemiologic surveillance</li> </ul>
Department of the Army, Department of Defense	<ul style="list-style-type: none"> <li>● Ambulatory Care Data Base Project</li> </ul>
Medicare Program, HCFA	<ul style="list-style-type: none"> <li>● Claims processing</li> <li>● Statistical system</li> </ul>
National Center for Health Statistics	<ul style="list-style-type: none"> <li>● National Ambulatory Medical Care Survey</li> <li>● Ambulatory Visit Groups</li> </ul>
Medicaid Program, HCFA	<ul style="list-style-type: none"> <li>● National Medicaid reporting system</li> </ul>
Pennsylvania Department of Public Welfare	<ul style="list-style-type: none"> <li>● State Medicaid program data requirements</li> </ul>
Peer Review Organization Program, HCFA	<ul style="list-style-type: none"> <li>● Data needs and plans</li> </ul>
Veterans Administration	<ul style="list-style-type: none"> <li>● Program requirements</li> <li>● Ambulatory care data needs</li> </ul>
Commercial insurers	
Metropolitan Life Insurance Company	<ul style="list-style-type: none"> <li>● Claims processing</li> <li>● Uses of claims data</li> </ul>
Prudential Life Insurance Company	<ul style="list-style-type: none"> <li>● Medicare and Medicaid carrier data requirements</li> <li>● Uses of claims data</li> </ul>
Blue Cross Blue Shield	
Blue Cross and Blue Shield Association	<ul style="list-style-type: none"> <li>● Data needs</li> <li>● Uses of claims data</li> </ul>
National Capital Area Blue Cross Blue Shield	<ul style="list-style-type: none"> <li>● Claims processing</li> <li>● Uses of claims data</li> </ul>
Health Maintenance Organizations	
Group Health Association of America	<ul style="list-style-type: none"> <li>● Current data requirements of different HMO model types</li> <li>● Data needs</li> </ul>
Health planners	
United Hospital Fund	<ul style="list-style-type: none"> <li>● Collection and use of hospital outpatient data</li> </ul>
Self-insured employer	
Honeywell, Inc.	<ul style="list-style-type: none"> <li>● Data needs of employers and business coalitions</li> <li>● Uses of data</li> </ul>

The Subcommittee also requested the views and perspectives of the House and Senate Subcommittees on Health but was unable to arrange a mutually convenient meeting time. Information on activities was sent to the House subcommittee, at the latter's request.

# General findings and conclusions

Several themes emerged from the numerous presentations heard by the Subcommittee:

- All presenters recognized the increasing need for ambulatory care data.

After two decades of focusing almost exclusively on the utilization and cost of inpatient care, public and private insurers are beginning to turn their attention to outpatient services. The Medicare Program has given considerable priority to the development of the data system for Part B, which reimburses for physician services, durable medical equipment, and laboratory services. The Part B Medicare Data System (BMAD) includes beneficiary, provider, procedure, and prevailing charge files. The Subcommittee believes that this data base represents the most important step at the national level to standardize and use aggregate data on physician services for policy evaluation. The Peer Review Organizations (PRO's), while currently reviewing hospital care for Medicare and Medicaid beneficiaries, strongly recognize the need to examine pre-care and after-care in the ambulatory care setting. Commercial insurers and Blue Cross Blue Shield plans are following the lead of the Medicare Program in addressing data needs from the patient-physician encounter. A self-insured corporation reported increased interest in examining ambulatory care data, noting that its expenditures for ambulatory care have shifted from 30 percent of total dollars spent to 55 percent in the past 2 years. The Department of the Army has undertaken a study in six sites with the purpose of establishing a major new reporting system for ambulatory services. The United Hospital Fund has recently completed a study of hospital-based ambulatory care visits in New York City, of which there are between 10 and 12 million annually. One Medicare carrier has initiated a study, with HCFA support, of overutilization of physician office visits by beneficiaries.

In the area of epidemiologic research, both the Centers for Disease Control and the Department of the Army emphasized the importance of ambulatory care data.

- Demands upon ambulatory care data systems for more extensive data elements and more comparative analyses will continue to increase. Those collecting and analyzing the data must exercise caution that the quality and context of the data merit the interpretations that are made. The community of users must assure accurate, meaningful, and responsible reporting.

Many presenters predicted that data will be sought to perform more complex and sophisticated analyses once the basic systems are in place. Subcommittee members expressed concern that policymakers may attempt to subject data to uses for which the data were not originally designed. Examples were cited of release of aggregate data on physician reimbursement under public programs in the late 1970's and more recently on hospital mortality rates for Medicare patients, each of which resulted in erroneous and potentially damaging conclusions. Data inaccuracies and inappropriate use of raw data were both at issue. Relevant public and private sector organizations must set standards not only for data definitions but also for data quality, adequate sample sizes, and meaningful computations. Public organizations collecting potentially sensitive information may need stricter confidentiality legislation to protect raw data files adequately from misuse.

- There are both many commonalities and some significant differences in the needs of data users. The data variations stem primarily from administrative requirements.

First, current ambulatory care data requirements differ considerably depending on the reimbursement system. Perceived data needs similarly differ widely among insurers. The fee-for-service environment, whether in the public or private sector, requires considerably more encounter-level data than a capitation system for payment. Even within the Health Maintenance Organization (HMO) approach, the particular model of HMO impacts significantly on the type of data collected. Second, each system has specific and often unique administrative requirements related to determining eligibility and coverage of services and coordinating benefits. These are the most variable items collected by the different data systems but are crucial for benefit management.

- The data currently collected by public and private insurers meet most of their current needs for reimbursement but may be quite inadequate for alternative reimbursement methods. Third party payers are interested in reviewing quality of care and in conducting relevant research, but the basic data needed for processing and paying claims continue to govern their data requirements, and data are more limited for other uses.

Making changes and adding items to a claim form can be very costly to the insurers and providers. The Pennsylvania State Medicaid program reported that changing invoices costs about a million dollars. The Group

Health Association of America reported that the type of data system used in fee-for-service plans would be onerous and drive up the costs of an HMO, reducing its competitive position. At the same time, public programs and employers are finding the data available from capitation systems inadequate to meet their needs.

- Many public programs and private insurers and their trade organizations currently are undertaking efforts to achieve greater uniformity within their own data systems.

HCFA reported that in the past 5 years the program has made two major changes that have enhanced the uniformity of data collection in the Medicare program. First, the HCFA Common Procedure Coding System (HCPCS) was adopted for coding of procedures. Second, a common claims form, the HCFA 1500, was instituted for all physician-submitted claims. Further uniformity is to be achieved as regulations have been published to require Medicaid State agencies to use both HCPCS and the 1500 by the end of 1986. The Medicaid program has also undertaken a tape-to-tape project with the goal of standardizing unit record data in a common format across States.

The Group Health Association of America (GHAA) is developing a summary level data base for Health Maintenance Organizations using standardized definitions. This effort is in partial response to the lack of uniformity in source documents and definitions used for encounter level data even within the same HMO system.

The Veterans Administration is in the process of automating its clinical data system and moving toward collection of more detailed information on demographic variables and services rendered on 100 percent of its patients. The CHAMPUS and DOD programs are also examining changes in their outpatient data systems.

- Presenters also supported the concept of standard definitions to facilitate comparison of different data bases across systems and to achieve as much uniformity as possible at the national level. There is particularly wide support for standardization of coding systems and definitions of units of patient care. Less support was expressed for standardized claim forms, although many data collectors and users recognize their advantages.

The United Hospital Fund reported the difficulty in collecting data on outpatient department and emergency room visits in New York City due to inconsistent definitions used by hospitals across the city. A self-insured corporation actively involved in a business coalition described the significant challenge of developing a standard, uniform data base from a variety of indemnity carriers, Blue Cross Blue Shield plans, and HMO programs. The CHAMPUS program cited as a major problem the incompatibility between data from its system and data from the military hospital system. For example, the CHAMPUS program defines a visit as a face-to-face encounter with a health care professional, whereas the military system includes telephone contacts as encounters. GHAA noted similar inconsistencies among HMO's.

Most presenters concluded that the recent efforts undertaken by HCFA have fostered standardization in the industry. The commercial insurers and Blue Cross Blue Shield plans that testified have adopted HCPCS, whereas most of the other public and private insurers reported currently to be using CPT-4, on which HCPCS is based. A number of public and private insurers are using the HCFA 1500 or a variant of this form. The Uniform Claim Form Task Force, chaired jointly by HCFA and the American Medical Association with representation from the Blue Cross and Blue Shield Association and the Health Insurance Association of America, agreed in June 1985 to pursue greater standardization of the claim form. At the same time, the Task Force identified approximately 14 additional new items for consideration, many of which relate to determining eligibility and coordination of benefits.

The Pennsylvania State Medicaid Program reported considerable resistance in that State to use of the HCFA 1500 and argued strongly for common definitions rather than common claim forms. The latter, it was noted, can be very difficult to use, because they contain unnecessary items for some insurers and the same item can have multiple definitions depending on the insurer. The HCFA staff estimated that approximately 75 percent of the States can use the 1500. Representatives of the National Medicaid Program and the self-insured corporation both noted that flexibility and decentralization of public and private programs are often at odds with uniformity.

It was clear to the Subcommittee that there are significant benefits to achieving as much conformity as possible but that the variable administrative items must be accommodated by any common form and preclude total uniformity.

The Department of the Army has pursued encounter form development, because its needs are performance measurement and epidemiologic research rather than claims payment. Under a pilot study to establish a new ambulatory care data collection and reporting system, the Department has developed a series of forms with common administrative and demographic data but with diagnoses and procedures, coded in ICD-9-CM and CPT-4, respectively, tailored to particular specialties.

- The increasing demands of employers for data from the reimbursement systems may force greater standardization of data.

Insurers reported that employers are becoming very aggressive with cost containment measures and are providing a major impetus for encouraging use of outpatient settings. As a result, they are demanding comparable data, which will permit them to make informed decisions about carriers and benefit packages as well as to assess the use and outcome of outpatient services delivered to their beneficiaries. In addition, the growing number of business coalitions are interested in sharing data from many different employers and insurance companies. The self-insured corporation, in its presentation, confirmed these needs and demands of employers and business coalitions.

tions and described two related activities. First, the corporation is developing a competitive medical arrangement request for proposal, with a management information system requirement, for local divisions to use in soliciting bids from Preferred Provider Organizations. Second, the Minnesota Coalition on Health Care Costs is developing a uniform data reporting request from the employers to the HMO's.

- Even as public and private insurers move toward greater use of capitation, some forms of which require considerably less data for reimbursement, management information from the encounter level will continue to be needed to assess quality, efficiency, cost, and accessibility of care.

Public and private insurers, the Peer Review Organizations, employers, and business coalitions are all concerned about the current and future availability of data from HMO's and similar capitated systems. Presenters generally concluded that data similar to what is being collected currently from the fee-for-service systems will be needed but that it will be more difficult to obtain outside of a billing mechanism. There was general agreement that tying data to reimbursement does improve overall reporting, even though it may influence the way some data are reported. The representative from the GHAA acknowledged that Government and employers are demanding more utilization information about their enrollees, but urged development of a data system specific to HMO's rather than applying the fee-for-service system to the HMO environment.

- Although data needs for operational purposes may become more decentralized under capitation plans, there remain needs for data at the national level to evaluate policy options, recommend program changes, and monitor performance. In a dynamic situation such as currently exists in the health care arena, data can provide a clue as to whether specific medical interventions and reimbursement mechanisms are having a positive, negative, or neutral impact on the outcome of medical care.

It was suggested that encounter-level data will still be available at the carrier or local level, but it was clear that this will not completely substitute for national level data. In addition to meeting needs for program development and monitoring responsibilities, data of adequate breadth and coverage are needed to address outcome issues.

- Some of the needs for policy-relevant information and health services research can be met by survey data, and such survey mechanisms must be supported. Current survey data on ambulatory medical care are collected on an intermittent basis and are quite limited in their coverage of different types of outpatient facilities.

NCHS reported on the National Ambulatory Medical Care Survey (NAMCS), which operated continuously as an annual survey from 1973 until 1981, when it was placed on a triennial basis due to resource constraints. After an additional 1-year delay, the NAMCS was most recently conducted in 1985, collecting information on

approximately 75,000–80,000 encounters from a sample of 5,000 office-based physicians. Funding is not contained in the FY 1987 budget for the next cycle of NAMCS, originally scheduled to be conducted in 1988. Although NCHS has done research on expanding the survey beyond office-based physicians to include hospital-based physicians, funding also has not been obtained for this component. The Centers for Disease Control (CDC) reported that from their perspective NAMCS is an important national resource and should be maintained at least on its current triennial basis. The Subcommittee confirmed that further survey delays will interrupt the ability to evaluate trends and changes in ambulatory care. The Subcommittee also noted that the information obtained by surveys differs from that acquired in remuneration data bases and, therefore, is not redundant but complementary.

HCFA also reported on a number of surveys and special studies either underway or being planned to help inform policy decisions. Presenters and Subcommittee members encouraged these activities to expand the information base concerning different policy options.

- It is timely to undertake a full review of the adequacy of the Uniform Ambulatory Medical Care Minimum Data Set. The current data set defines those items that should be entered in the records of all ambulatory health care. A revision should bring the data set into accordance with the Uniform Hospital Discharge Data Set by also specifying those items that should be abstracted uniformly from existing records.

The increasing interest in comparable ambulatory care data bases with standardized definitions, evidenced by the presentations made before the Subcommittee, supports the reassessment of the Uniform Ambulatory Medical Care Minimum Data Set at this time. Significant changes in the care delivered in ambulatory settings and in the requirements for data have occurred since the last review and revision.

Although it was not the charge of the Subcommittee to undertake a systematic review of the Uniform Ambulatory Medical Care Minimum Data Set nor to develop a full revision, the extensive presentations received by the Subcommittee did address many of the key items in the data set. The Subcommittee's findings and conclusions related to these items follow:

- Patient identification

Much of the testimony was supportive of a unique patient identifier across the health care system which would facilitate managed care and linkage of records. Subcommittee members recognize both the advisability of a unique patient identifier and the difficulty of implementation. Confidentiality and privacy concerns make this an extremely complicated issue which requires more deliberation.

All Medicare records contain the same unique identifier for each individual served: the Social Security Number with an associated beneficiary ID code. Medicaid, CHAMPUS, and private insurers collect the patient's name but do not have unique identifiers for the insured and

his or her dependents. Furthermore, other record systems, such as those used by institutions, frequently use their own identifiers and do not retain the patient's Medicare, Medicaid, or insurance number. The new national Medicaid reporting system will require all States reporting on tape to provide a unique recipient ID number. Although the Social Security Number (SSN) is not mandated, the program notes that the SSN is a requirement for eligibility and predicts its eventual availability on the data files.

Unique patient identifiers are desirable to track patients, profile utilization patterns, link episodes of care in the same setting and across different settings, and coordinate benefits. The multiple sources of care currently available to patients increase the importance of this capability.

- **Provider identification**

Presentations supported the need for a unique number that distinguishes the provider from all other providers and is the same for the provider in all settings where he may be in practice. The Subcommittee members concur with this requirement.

In reimbursing physician services, Medicare identifies the billing entity, such as a group practice or outpatient clinic, rather than the individual practitioner providing the services, except where the practitioner is in solo private practice where the practitioner is individually identified. Thus, the same practitioner may bill for services under several different identifiers, and a single identifier can represent many different practitioners. This system makes linkage of an individual's total practice patterns virtually impossible, even within the Medicare program. HCFA is responding to this problem by developing a plan for a HCFA-assigned number (HAN) which would provide a unique identifier for each physician rendering services.

The new national Medicaid reporting system contains a provider file but it was reported that the identifying information on this file is not considered reliable and will require a major cleanup. Unique provider ID numbers are considered particularly problematic in the ambulatory care setting.

The CHAMPUS program also reported problems with identifying individual providers. The program would like to be able to identify specific individual providers by specialty in its data system. The pilot Ambulatory Reporting System under development by the Department of the Army does include a unique provider identifier.

- **Place of service**

The presentations before the Subcommittee frequently addressed the increasingly different settings for services developing in the health care system. The Subcommittee concluded that a consensus group, such as the CPT Editorial Board or the NCVHS, should evaluate the definitions currently in use for place of service and determine the extent to which standardization is feasible. Survey mechanisms, such as the NCHS National Ambulatory Medical Care Survey, should continue to be supported to address some of the research questions, with attention to more specificity of sites.

The distinctions between institutional and ambulatory care and the definitions for different types of care settings are frequently unclear. Services provided in a hospital emergency room or out-patient clinic are often identical to those provided in inpatient settings. Some free-standing facilities substitute for acute inpatient care while others are extensions of private physician offices.

In some cases, the specific place of service must be designated for reimbursement purposes. More broadly, reasonable specificity is needed for management and research activities. Place of service designations vary widely among insurers. Medicare, Medicaid, commercial insurers, and Blue Cross Blue Shield all have their own sets of definitions (see appendix III). The HCFA 1500 has 16 different place of service codes, but the BMAD instructions condense these down to 10 codes. The Blue Cross and Blue Shield Association reported 34 different place of service designations a Plan can use in processing claims, although the place of service codes most commonly filled in by the person completing the claim form are more comparable to those used on the HCFA 1500. A commercial insurer presented 19 facility designations with 3 clinic modifiers.

CHAMPUS does not currently collect place of encounter, but program officials feel it would be beneficial, particularly in the area of ambulatory surgery. The Medicaid program reported that it has always collected place of service of physician visits but has encountered a great deal of difficulty with standard definitions across States and has essentially dropped that requirement.

- **Diagnosis**

Presenters recognized the value of accurate recording of patient problems and diagnoses, but reported that this information is frequently unavailable in ambulatory care reimbursement systems and often is of questionable quality where available. The Subcommittee reaffirmed the importance of capturing information on all patient problems and diagnoses requiring attention at the encounter, so as to make judgments on medical necessity and appropriateness of services, plan resource allocation, and carry out other policy analyses. The members concluded that the development of guidance and instructions on collecting and coding diagnoses in the ambulatory setting should be a consensus activity, and that the Federal government, as an interested participant, should be an organizer of this activity.

The Subcommittee further determined:

The International Classification of Diseases and its clinical modification (currently ICD-9-CM) is widely used by systems coding diagnoses and should continue as the standard coding convention for this purpose. There should be a consensus process for developing interim codes which can be utilized in a timely manner by individual countries between revisions to identify newly recognized conditions and reflect new knowledge.

Separate information on the patient's stated reason for encounter can be useful for planning, administrative,

and research purposes. The ICD should be the basis for any reason for encounter classification system.

Different definitions currently exist in the inpatient and outpatient environments for designating the first-listed diagnosis in a data system as either principal or primary. The terms are sometimes used interchangeably but in other cases have very different meanings. The selection of a particular definition generally reflects the purpose for which the data element will be used. If definitions are not clear or standardized, there is an impact on data analyses and trends. This problem is further compounded by the fact that recording of secondary diagnoses also varies among data systems. If all relevant diagnoses or problems are not captured by the data system, it may not be possible to retrieve the patient's most serious or life-threatening condition or to identify comorbidity.

The presentations touched upon a number of important uses of diagnostic information. Accurate diagnoses or problem descriptions are essential for assessing the quality of care delivered. They are needed to determine what types of health problems are being seen and treated in the different types of ambulatory care facilities and for assessing the appropriateness of the setting used to perform the services. Information on multiple diagnoses is important for developing severity indexes and assessing the resource requirements of individual cases. Further, several proposed reimbursement reforms, such as bundling of services by episodes of care and prospective payment based on Ambulatory Visit Groups, a categorization being developed by the Health System Management Group at Yale University, would require information on the patient's diagnosis. Finally, use of ambulatory care records for epidemiologic surveillance, the unique function of the Centers for Disease Control, is dependent on the recording and reporting of diagnoses.

The presentations also revealed current limitations and problems associated with collection of diagnoses. Under Medicare accurate designation of principal and secondary diagnoses with ICD-9-CM codes are a necessity for reimbursing hospital services, whereas procedures, not diagnostic information, are the basis for reimbursing physician services. Most Medicare carriers require the physician or patient submitting a claim to provide a reason for encounter, nature of impairment, or diagnosis. The Medicare program also plans to begin requiring carriers to have the capability to keep diagnosis in their claims processing system. However, much of the diagnostic information obtained is not considered reliable by HCFA due to the large number of beneficiary-submitted claims, and thus, carriers are not required to report the item to the national level. Even with the new requirements, carriers probably will only need to retain diagnosis where it is necessary for specific reimbursement decisions. Over half of the claims for physician services are for office visits, and the vast majority of claims are paid without reference to diagnosis. Given the sheer volume of claims, approximately 260 million in Fiscal Year 1985, the Medicare

program considers it prohibitive to match diagnoses with procedures on a routine basis.

Diagnosis, coded in ICD-9-CM, is a "desirable" rather than required data item on the subfile for physician claims in the new national Medicaid reporting system. The Veterans Administration (VA) expressed considerable concern about the accuracy of diagnostic information on outpatient VA records and noted that this information is not tracked. The CHAMPUS program reported that only the "primary diagnosis," defined as the reason for outpatient care, is captured by its data system and coded in ICD-9-CM. The forms include room for additional diagnoses but these are not transmitted on the tape. Thus the coded diagnosis does not necessarily correspond to the most expensive treatment or procedure, and there is not a diagnosis associated with each procedure. The presenter stated that this seriously limits information for utilization review.

The current Medical Summary Reporting System used by the Department of the Army is based on number and type of visits and contains no coded diagnostic information. However, the Ambulatory Reporting System being initiated by the Department on a pilot basis requires a primary diagnosis, coded in ICD-9-CM, and permits multiple secondary diagnoses. The encounter forms used in the system contain detailed lists of diagnoses tailored to particular specialties as an aid to completion.

Private fee-for-service insurers report interest in collecting more specific diagnostic information for professional services but encounter problems similar to the public programs. The GHAA indicated that very few HMO's record or code diagnosis on an encounter form in the ambulatory setting and that, even on the hospital side, many HMO's currently do not analyze diagnosis trends.

Finally, the Subcommittee members received information on the International Classification of Primary Care (ICPC) through their participation in the NCVHS Subcommittee on Disease Classification and Automated Coding of Medical Diagnoses. This classification was developed chiefly for the use of primary care providers, with particular application to ambulatory settings, and is undergoing a number of field tests.

- Procedures

The testimony reinforced the value of uniform coding of procedures and the positive impact the HCFA Common Procedure Coding System (HCPCS) has had on standardization. The Subcommittee reaffirmed the NCVHS position that strong efforts should be made to develop a single procedure coding system for inpatient and ambulatory care in the United States.

The Subcommittee further believes that HCPCS, which is a live system based on CPT-4, should be the core for a national common procedure code for physician services. Concerning coding of nonphysician services, the Subcommittee supports the considerable work carried out for HCPCS and encourages continuation of this work.

Additional study on implementation of a common coding system for both physician and nonphysician services should be undertaken.

The presentations confirmed that information is more widely available on procedures than on diagnoses in ambulatory care data systems, because procedures are the basis for reimbursement in the fee-for-service environment. Accurate recording of procedures serves many of the same purposes described above for diagnoses, as well as meeting reimbursement needs. Even when procedures are recorded, however, a number of coding issues remain.

The differing Medicare reporting requirements for reimbursing hospital services, on the one hand, and for reimbursing physician inpatient and outpatient services, on the other, result in the use of two separate coding systems for the designation of procedures. Volume 3 of ICD-9-CM is required for hospital reporting, whereas

the HCFA Common Procedure Coding System (HCPCS) is used for coding physician services, regardless of the site in which they have been provided. In instances where hospital billing offices also perform billing services for their staff physicians, both systems must be maintained for each procedure.

Until the recent implementation of HCPCS, there were an estimated 120 different systems used in reporting physician services for Medicare. Public and private insurers, for the most part, reported current use of either HCPCS or CPT-4 for physician services. If the latter is used, the insurer independently has extended the coding system for nonphysician services and to meet other unique requirements. Coordination with HCPCS codes for nonphysician services has not occurred in these cases. As noted earlier, Medicaid State Agencies will be shifting to HCPCS by the end of 1986.

# Summary

The Subcommittee has addressed each aspect of its charge, as follows:

- The Subcommittee has established excellent liaison with NCHS and HCFA, as well as between the public and private sectors. In many respects, the NCVHS seems uniquely qualified to play this role for data issues that cut across Departmental programs and heavily involve the private sector.
- Through the series of meetings with representatives from the public and private sectors, the Subcommittee has made significant progress in identifying more clearly the specific needs of users of data from patient-physician encounters in the ambulatory care setting.
- The discussions with users have provided input to a schematic overview of the flow of data from various ambulatory settings into the various data bases in the fee-for-service environment (see appendix IV). Because the data systems differ considerably depending upon the method of reimbursement, it is difficult to capture the variations in one schema. However, the diagram does help to demonstrate some of the data requirements, complexities, and interrelationships.
- Presentations by the various public and private insurers have described the multiple definitions and distinctions for ambulatory sites of care. Further work is required to evaluate the definitions currently in use and determine the extent to which standardization is feasible. The Subcommittee has recommended that this activity be carried

out by a consensus group, such as the CPT Editorial Board or the NCVHS, and be supplemented by survey mechanisms.

- The Subcommittee's investigation has underscored the value of a Uniform Ambulatory Medical Care Minimum Data Set. This report summarizes the Subcommittee's findings and conclusions related to specific items in the data set addressed by the various presentations. Because some items require further study and others were not considered, the Subcommittee recommends a thorough and systematic review of all items in the Uniform Ambulatory Medical Care Minimum Data Set for the purpose of developing a revised version that meets current needs. This review and revision process should be carried out by the National Committee on Vital and Health Statistics and, concurrently, by an interagency task force established within the Department. The interagency task force should also have input to the definition of sites of care. Such an approach would parallel the process used for the reexamination of the Uniform Hospital Discharge Data Set and the Long Term Care Minimum Data Set and should be coordinated with these two data sets to assure comprehensiveness, minimize redundancy, and facilitate episode linkage. Attention should also be given to training in use of the data set, other approaches for assuring data quality, and standards for reliable and meaningful analyses.

# Appendixes

## Contents

I. Uniform Ambulatory Medical Care Minimum Data Set . . . . .	13
Section 1. Summary of recommendations . . . . .	13
Patient data items . . . . .	13
Provider data items . . . . .	13
Encounter data items . . . . .	13
II. Minutes of the NCVHS Subcommittee on Statistical Aspects of Physician Payment Systems . . . . .	14
June 19, 1985 meeting . . . . .	14
Medicare claims processing . . . . .	14
Medicare statistical system . . . . .	15
Commercial insurance data requirements . . . . .	15
Ambulatory visit groups . . . . .	16
Blue Cross and Blue Shield Association (BCBSA) data needs . . . . .	16
September 10, 1985 meeting . . . . .	17
Health Maintenance Organizations (HMO's) . . . . .	17
Figure I. HMO model types . . . . .	17
Medicare update . . . . .	18
Medicaid data requirements . . . . .	19
October 15, 1985 meeting . . . . .	20
National Medicaid reporting system . . . . .	20
Data needs of a Medicare carrier . . . . .	21
Data needs of employers and business coalitions . . . . .	21
Data needs of Peer Review Organizations (PRO's) . . . . .	22
Data needs of a Blue Cross Blue Shield plan . . . . .	22
January 14, 1986 meeting . . . . .	24
Ambulatory care data needs of Veterans Administration (VA) programs . . . . .	24
Ambulatory care data needs of Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) program . . . . .	25
Ambulatory care data base project of the Department of the Army . . . . .	26
Collection and use of hospital outpatient data . . . . .	26
Ambulatory care data needs of Centers for Disease Control (CDC) programs . . . . .	27
III. Place of service designations (Figures II–VI) . . . . .	29
Figure II. HCFA 1500 . . . . .	29
Figure III. Medicare Carriers Manual, Part 3—claims process . . . . .	30
Figure IV. Metropolitan Life Insurance Company place of service codes . . . . .	32
Figure V. Blue Cross and Blue Shield Association place of service codes—claim form . . . . .	32
Figure VI. Blue Cross and Blue Shield Association place of service codes—processing . . . . .	32
IV. Data flow for traditional fee-for-service physician reimbursement (Figure VII) . . . . .	33

# Appendix I.

## Uniform Ambulatory Medical Care Minimum Data Set

[From the Report of the National Committee on Vital and Health Statistics, April 1981]

### Section 1. Summary of recommendations

The consultants of the Uniform Ambulatory Medical Care Minimum Data Set Technical Consultant Panel (TCP), National Committee on Vital and Health Statistics, recommend that the following items constitute the minimum data set that should be entered in the records of all ambulatory health care. When so recorded, routinely and uniformly, the value of health records to the patient care process, and the potential of health records as an information source are greatly enhanced.

#### Patient data items

1. Personal identification
2. Residence
3. Date of birth
4. Sex
5. Race and ethnic background

#### Provider data items

6. Provider identification
7. Location or address
8. Type of practice
9. Profession

#### Encounter data items

10. Date and place of encounter
11. Patient's reason for encounter
12. Diagnostic services
13. Problem, diagnosis, or assessment
14. Therapeutic services
15. Preventive services
16. Disposition
17. Expected principal source of payment
18. Total charges

This content reflects several changes from the previous data set that the consultants recommend be adopted by the National Committee on Vital and Health Statistics. These modifications are proposed in order to accommodate the changing environment of ambulatory care. Specifically:

1. The consultants propose a data set that is patient oriented as opposed to provider oriented. The structure of the data set is therefore modified to reflect all the services provided for the patient during the course of an encounter as opposed to the services rendered by one provider.
2. In accordance with this concept of a patient-oriented data set, the consultants recommend an expansion of the scope of the data set. The definition of encounter is modified

to clarify the role of the provider and so capture a greater proportion of those services provided by nonphysicians.

The following points concerning the Uniform Ambulatory Medical Care Minimum Data Set (UAMCMDS) should be emphasized:

1. The items constitute a *minimum* data set. As such, the data set was designed to meet common data needs among multiple user groups, not to meet the total data needs of any one user group. Providers of ambulatory care and collectors of ambulatory care data should feel free to expand this minimum data set in accordance with their particular requirements.
2. The data set is recommended for *inclusion in health records*. Providers of care should record these data in at least the detail specified using the recommended definitions. Although desirable, all items need not be recorded in the individual patient health record. Some items, for example, may be included in registration or billing records. In such instances, however, the capability should exist to link data from the various record sources. In addition, some data items need only be recorded once and updated when necessary.
3. Neither a survey or other data collection system nor a data collection "form" is recommended. Data systems and forms will generally vary according to the data needs of individual programs. It is recommended, however, that when UAMCMDS items are included in a data system, the recommended definitions and minimal classifications be followed.

The consultants recommend that the Uniform Ambulatory Medical Care Minimum Data Set be accepted by the U.S. Department of Health and Human Services, and other Federal agencies that fund ambulatory health care programs. It is further recommended that the U.S. Department of Health and Human Services designate an office to have responsibility for promulgation of the data set. Such promulgation would include the adoption of the Uniform Ambulatory Medical Care Minimum Data Set and its definitions by those Federal programs requiring reporting of ambulatory care events. This would encourage uniformity in Federal reporting for the items described in the minimum data set. The consultants also reiterate previous recommendations of the National Committee on Vital and Health Statistics that private health care institutions, professional organizations, and insurance carriers endorse and agree to use the data set.

# Appendix II.

## Minutes of the NCVHS Subcommittee on Statistical Aspects of Physician Payment Systems

### June 19, 1985 meeting

The National Committee on Vital and Health Statistics (NCVHS) Subcommittee on Statistical Aspects of Physician Payment Systems held its first meeting on June 19, 1985. The Subcommittee members had previously held three meetings as a work group between June and October 1984.

Participants were William R. Felts, M.D., Chairman, and Theodore Allison, NCVHS members; William F. Stewart, James Delozier, and Marjorie Greenberg, National Center for Health Statistics (NCHS); Alan Bradt and Jean Harris, Health Care Financing Administration (HCFA); David Zimmerman and David Rinaldo, Metropolitan Life Insurance Company; and Steven Culler, Blue Cross and Blue Shield Association. In addition, approximately 8 persons attended as observers, including a representative from the Pennsylvania State Medicaid Program. The third NCVHS member of the Subcommittee, Carmalt B. Jackson, Jr., M.D., was unable to attend due to illness.

Representatives of the Medicare program, Metropolitan Life Insurance Company, and the Blue Cross and Blue Shield Association each provided an overview of ambulatory care data flow for the patient-physician encounter in their respective organizations. Current data procedures, requirements, and problems, as well as anticipated future data needs, were discussed.

#### Medicare claims processing

Jean Harris, Division of Carrier Procedures, provided extensive information on claims processing for Medicare Part B, which includes physician services, durable medical equipment, and laboratory services. The program has approximately 30 million beneficiaries. In FY 1985, HCFA anticipates processing about 260 million claims, each of which will have two to three services per claim. Due to the size of the system and the cost of operating it, the program tries to keep data items to a bare minimum.

Medicare Part B claims can be submitted by either the patient or physician, which has enormous implications for the quality of the data. In the past 5 years, the program has made two major changes that have enhanced the uniformity of data collection. First, a common claims form, the HCFA 1500, was instituted for all physician-submitted claims. Second, the HCFA Common Procedure Coding System (HCPCS) was adopted for coding of procedures.

The Medicare program also is actively encouraging sub-

mission of claims in electronic media; currently between 10 and 20 percent of claims are submitted in this form.

Carriers retain data for future use for four purposes:

- To maintain a history of the beneficiary (to check for duplicate claims and medical necessity).
- To update reasonable charge screens.
- To perform post-payment utilization review.
- To monitor fees of nonparticipating physicians.

Because Medicare is no longer always the primary payer, it has become necessary to collect more patient information than in the past for coordination of benefits.

Patient-submitted claims represent a significant problem for reporting diagnosis or reason for encounter. On these claims only symptoms or complaints can be requested. Due to the unreliability of much of the information, carriers do not routinely enter diagnosis into their data bases, unless data are submitted in electronic media. Currently HCFA is considering an instruction to carriers that will require them to have the capability to keep diagnosis in their claims processing systems. However, carriers probably will only need to retain diagnosis for paper claims where it is necessary for specific reimbursement decisions. Over half of the claims are for office visits and the vast majority of claims are paid without reference to diagnosis. Given the volume of claims, it will probably be prohibitive to match diagnoses with procedures on a routine basis. Mr. Stewart suggested consideration should be given to collecting the complaint or symptoms, as well as a diagnosis, on physician-submitted claims.

Availability of diagnostic information will improve with an increase in physician-submitted claims. About 29 percent of physicians and suppliers currently are classified as participating physicians in the Medicare program, and in the past year there has been a dramatic rise in the assignment rate from 53 percent to 68 percent of the claims. In some cases, physicians complete the claims form even when they do not accept assignment. At the same time, valid questions still can be raised about the accuracy of some of the diagnostic and, to a lesser extent, procedure codes received, because coding usually is performed by office personnel who are not specifically trained in medical coding. When codes are not recorded and must be entered by the carrier, additional inaccuracies can occur. Dr. Felts and others raised questions about the appropriateness of carriers changing codes for various reasons.

In the area of physician identifiers, most carriers are

able to distinguish the individual physician who performed the service, even when the physician is in a group which uses a single identifier. However, it is virtually impossible to pull together all of the services rendered by a given physician in a variety of practice settings. It would be very costly and sensitive to give each provider a unique number.

The Uniform Claim Form Task Force met in early June and agreed to pursue greater standardization of the claim form (HCFA 1500) by eliminating local variants. The Task Force is chaired jointly by HCFA and the American Medical Association and includes representation from Blue Cross and Blue Shield Association and the Health Insurance Association of America. The Task Force also reaffirmed the enormous costs to third-party payers and providers alike of making changes in the claims form and concurred that we may be on the verge of significant reimbursement reform for physicians. The latter would provide the next opportunity to make major changes in the claims form. The Task Force identified approximately 14 additional new items for consideration; many relate to determining eligibility and coordination of benefits.

Since the implementation of prospective payment for hospitals in October 1983, HCFA is requiring intermediaries to send Part A data, which cover hospital services, to the carriers who process the respective Part B data. In addition to preventing double billing for nonphysician services during a hospitalization, there is also the concept that if a hospital stay or a portion thereof is denied for reasons of medical necessity, then perhaps some physician services should also be denied or their intensity reduced. HCFA is also supporting a number of research studies involving linked Part A and Part B records.

### Medicare statistical system

Alan Bradt, Bureau of Data Management and Strategy, updated the Subcommittee on Medicare Part B data activities. There are basically four statistical systems:

- Bill summary record—5 percent sample of beneficiaries.
- Payment record—100 percent of payments.
- BMAD—Part B Medicare Data System, consisting of four files; it may make the previous two files archaic.
- Peer Review Organization (PRO) data—currently only Part A data, but the PRO's may expand to reviewing Part B services as well.

Details of the different data sets are contained in the minutes to the work group meeting of June 14, 1984.

Standard data files and reports from the BMAD will be published and available. The 1984 data currently are being processed; approximately 95 percent are reporting HCPCS codes, although some of the codes have been converted from previous coding systems. No information is available from health maintenance organizations.

Uses of the statistical files include the following:

- Merging Part A and BMAD data for the report due to Congress July 1, 1985, on prospective payment for physicians. This report will also look at other possible physician reimbursement reforms, such as fee schedules, relative value scales, and capitation.

- HCPCS maintenance.
- Prevailing charge tables.
- Administrative cost containment analyses.

HCFA is developing an on-line access system which will greatly facilitate special studies by the different components. This system will probably not be operational by October 1, as originally planned.

There was general agreement that the method for communicating to physicians and carriers the rationale behind deleting old procedure codes and adding new ones to HCPCS should be improved.

### Commercial insurance data requirements

David Zimmerman, Assistant Vice President, described the data requirements at Metropolitan Life Insurance Company, which he considered similar to other commercial carriers.

Claims are submitted to the insurer by individuals, providers, employers, and electronically through a clearinghouse. Electronic submissions account for approximately 5 percent of the claims. The majority of claims come from the individual or the employer, who often must verify eligibility. Claims average three services and two providers per claim.

Basically, the HCFA 1500 satisfies most of the data requirements. One new item which probably will be needed is the spouse's month and day of birth to determine the primary carrier for children of two insured parents. The National Association of Insurance Commissioners has recommended the use of whichever parent's birthday comes earlier in the year as an unbiased decision rule. Greater detail on place of service is also desired by many companies, which are encouraging people to use outpatient care as much as possible.

Employers are becoming very aggressive with cost containment measures and increasingly are making demands for data. Two factors will force greater standardization of data collection. First, employers are tending to switch insurance companies far more frequently than in the past. Second, business coalitions are interested in sharing data.

Following the lead of Medicare, the commercial insurers are moving to ICD-9-CM for diagnostic coding and CPT-4 for procedure coding. There are no immediate plans to use HCPCS, but the CPT modifiers eventually will be accommodated.

David Rinaldo, Statistical Consultant at Metropolitan Life, reported on typical uses of the claims history data. These include:

- Reporting to policyholders on service utilization and expenditures.
- Tracking of savings from cost containment programs.
- Identifying aberrant patterns of practice.
- Identifying efficient patterns of practice.

Mr. Rinaldo suggested that in the future, data needs will be greater than the items currently contained on health insurance forms. Specifically, there will be a need to link treatment and charges data for a series of encounters to construct a defined episode of care. Questions on whether

the condition is chronic or acute, whether this is the first treatment for the illness, and on referrals would facilitate this construction. The stimulus for these data will probably come from employers. Although most of the focus has been on inpatient costs, there is an increasing interest in the ambulatory arena.

Ms. Harris noted that packaging services is attractive due to the sheer volume of claims, but that to date efforts to bundle have had minimal success. It has been estimated that packaging could reduce the annual number of claims from 260 million to 150 million. Dr. Felts pointed out that patient outcome must be considered when looking at episodes of care and expressed concern about the state-of-the-art for examining and making judgments on outcomes from different treatment patterns.

### **Ambulatory visit groups**

Jim DeLozier, Ambulatory Care Statistics Branch, NCHS, described the research currently being conducted at Yale with support from HCFA on Ambulatory Visit Groups (AVG's). Data from the National Ambulatory Medical Care Survey (NAMCS) conducted by NCHS are being analyzed to develop groups with a common pattern of resource use. Patients are classified primarily by diagnosis, but in some cases the patient's complaint is also a factor. The goal is to develop an ambulatory patient classification capable of serving as the basis for a per case prospective reimbursement system.

It was noted that, whereas certain reimbursement approaches, such as AVG's, might require data not currently collected, others such as capitation would require practically no data for reimbursement. However, data for utilization review are still necessary in the HMO setting to identify underutilization.

### **Blue Cross and Blue Shield Association (BCBSA) data needs**

Steven Culler, Manager of Professional and Institutional Payments, reported on BCBSA data requirements. The BCBSA is basically a coordinating agent for 88 independent plans, providing research, actuarial marketing, and educational services. Claims processing is performed by the individual plans, and there is no national aggregation of claims data. The majority of claims are submitted by participating physicians, and eligibility is usually determined by the plan and not the employer.

Blue Shield uses a claim form very similar to the HCFA 1500. A collapsed CPT-4 coding system is used for reimbursement purposes. The extent to which the coding system is collapsed varies among the plans.

Uses of the data include reimbursement, utilization review, auditing, and antifraud efforts. Hospital records have improved considerably for all patients since the Prospective Payment System was implemented for Medicare, and similar improvements are anticipated in ambulatory records as outpatient care is scrutinized. The emphasis is expected to be on improved data quality and more analysis rather than major new data requirements. Mr. Culler concurred with Mr. Rinaldo that interest in outpatient review is relatively recent but on the rise. Employers are providing a major impetus for encouraging use of outpatient settings.

For institutional review, the emphasis is on pre-admission review rather than post-admission denials. The plans are trying to identify cost-effective physicians by making comparisons with comparable peer groups. Mr. Culler acknowledged that there are problems defining the correct peer groupings and determining efficiency. Also more profiling of claims data by physicians will be needed in the outpatient area. In some cases, profiling of patients is also necessary to identify over-utilizers. BCBSA has made some preliminary efforts to develop visit categories, which would require better collection of the reason for encounter, but the individual plans have not been enthusiastic about this approach. Fraud and abuse activities require evidence from outside the claims form, but there is tremendous variation in the backup records available in ambulatory settings.

The Subcommittee agreed that it would not be necessary to meet again July 9 as tentatively scheduled. The next Subcommittee meeting will be September 10. Subsequently, a meeting was also scheduled for October 15.

Dr. Felts identified the following groups as possible presenters at future meetings: other insurers, such as Medicaid, Kaiser, Worker's Compensation, Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), and the Veterans Administration; State personnel; chairmen of the relevant congressional committees or their staffs; Peer Review Organizations; Institute of Medicine; employer groups; other DHHS components; and the research-epidemiology community.

Prepared by: Marjorie S. Greenberg, OPPEC, NCHS.

# September 10, 1985 meeting

The National Committee on Vital and Health Statistics (NCVHS) Subcommittee on Statistical Aspects of Physician Payment Systems held its second meeting on September 10, 1985.

Participants were William R. Felts, Jr., M.D., Chairman, Theodore Allison and Carmault B. Jackson, Jr., M.D., NCVHS members; James Delozier, Marjorie Greenberg, and William F. Stewart, National Center for Health Statistics (NCHS); Alan Bradt and Bob Silva, Health Care Financing Administration (HCFA); David Plotnick, Group Health Association of America (GHAA), and Gerald Radke, Pennsylvania Department of Public Welfare.

Dr. Felts opened the meeting by reviewing the major concerns of the Subcommittee. These concerns include identifying data items that are not collected in a uniform manner from the patient-physician encounter, anticipating changes in physician payment systems which may require collection and analysis of additional items of data, and examining the possible impact of these changes and additions on comparability of data and trend analysis.

The first Subcommittee meeting on June 19, 1985, focused on Medicare and private insurer data requirements. This meeting emphasized data requirements of Health Maintenance Organizations and a State Medicaid program.

## Health Maintenance Organizations (HMO's)

Mr. Plotnick, Director of Research and Development at GHAA, provided background on his organization and the types of HMO's it represents. The GHAA was founded in 1959 as a National Trade Association of prepaid group practice and staff model HMO's. The organization currently represents 130 HMO's, which account for about 12-13 million enrollees or approximately 75 percent of the Nation's enrollment in HMO's. At present about one quarter of the HMO's enroll persons on Medicare but many more are contemplating it due to the new Tax Equity Fiscal Responsibility Act of 1982 (TEFRA) requirements.

In addition to group and staff model HMO's, there are other models, including independent practice associations (IPA's) which are represented by a separate organization.

Mr. Plotnick, who is responsible for developing a comparative data base on HMO's, emphasized that the structure of an HMO affects the organization's data collection and contributes to the lack of uniformity among different types of HMO's. The GHAA recently examined the different HMO reporting requirements through a HCFA grant.

Basically, there are three different HMO models—staff, group, and IPA—(see figure I), plus mixed models. In each case the HMO is responsible for marketing the health plan, collecting premiums, and then contracting with other organizations or hiring providers. The unique aspects of each model and their impact on data requirements are as follows:

- *Staff model*—Group Health Association of Washington, D.C., is an example. Staff are salaried and represent a fixed cost. No claim forms are generated, and there is minimal examination of specific units of service or specific encounters. The HMO contracts for inpatient care with individual hospitals which prepare the HCFA uniform bill. Specialty care is provided either on a fee-for-service or retainer basis.
- *Group model*—This model is exemplified by the Kaiser Medical Care Program. The HMO either sets up its own

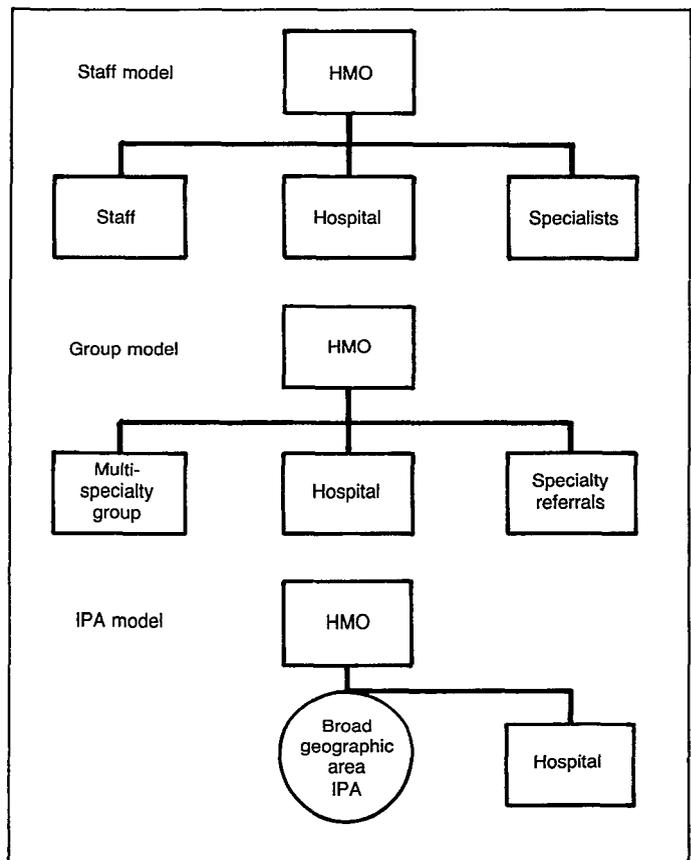


Figure I. HMO model types

multi-specialty medical group or contracts with an existing medical group. In the latter case the HMO is dependent upon the data system used by the group. The HMO generally pays by capitation, putting the group at risk for medical services and, in some cases, ancillary and even hospital services. Again it is not necessary to look at specific units of service for reimbursement. Some larger group models own their own hospitals, while others contract for hospital services as in the staff model. Some specialty services may be purchased.

- *IPA model*—The IPA model is set up to contract with a number of providers covering a broad geographic area. This model may use capitation or fee for service. Claim forms are used for each encounter, and thus generally there is more information than in the other two models. Community hospitals are used, as in the other models, but there are usually very few referrals for specialty care outside the IPA.

In recent years many HMO's are mixing the model types, and the lines are becoming less clearcut.

The source documents used for encounter data lack uniformity, even within the same HMO system, such as the decentralized Kaiser Program. Some HMO's use appointment books rather than encounter forms, and even the definition of an encounter may vary. The recommended definition of an encounter is "a *face-to-face* contact between an HMO member and a provider of health care services who exercises *independent judgment* in the care and provision of health service(s) to the member." However, some HMO's count a telephone contact as an encounter, and others may count a series of services ordered by a physician as separate encounters. HMO's also differ on whether they can document the actual number of encounters or types of services provided by specialty providers.

The reason for the encounter may appear in the medical record but rarely is recorded on an encounter form. Very few HMO's code diagnosis in the ambulatory setting, and even on the hospital side many HMO's currently do not analyze diagnosis trends.

HMO's routinely track provider productivity, queuing time and waiting time. Quality of care and underutilization are monitored more frequently through chart review than through the data systems. HMO's will be subject to review by Peer Review Organizations under procedures currently being negotiated with HCFA.

Although HMO's, to the extent that they are community rated, don't need group specific experience data for administrative purposes, government and employers are demanding more utilization information about their enrollees. As these demands increase and as the HMO industry becomes more competitive in negotiating with providers, HMO's are under pressure to develop more sophisticated data systems, to improve coding of procedures and diagnoses, and to capture more information.

However, it will probably be 5 to 10 years before the HMO data system capabilities are significantly improved. Even then, the type of data system used in the fee-for-service environment would be onerous and drive up the costs of an HMO, reducing its competitive advantage. A system specific to

HMO's would be preferable. Only one HMO, the Harvard Community Health Plan, uses an automated medical record, and this is said to be generally disliked by the physicians.

Currently the IPA's, which are the fastest growing model type, have much better utilization data than staff or group models because payment is usually tied to a claim form. Since IPA's have to manage utilization over a whole geographic area to providers who may not be seeing many HMO patients, the claims are examined fairly carefully. Larger centralized systems established by chains and management companies will naturally have better and more uniform data collection systems.

Although there are data supporting both adverse and favorable selection by HMO enrollees, there are very inadequate data, in general, on why people choose certain health plans over others. Another area where more data are needed is technology utilization. The GHAA recently conducted two surveys on organ transplants. Perhaps 15 to 20 HMO's have their own research departments, and Kaiser Health Plan in Oregon has its own health services research center. For research projects, these plans typically generate their own data set, drawing directly from the medical records. The National Ambulatory Medical Care Survey (NAMCS) conducted by NCHS, which uses its own data collection form, includes HMO physicians in its survey of office-based physicians and is trying to tighten its definitions in this area in the 1985 survey.

In partial response to the overall lack of uniformity in data collection, GHAA is developing a summary level data base, using standardized definitions. The data base should be able to provide numbers of encounters by different types of providers for the whole industry. Funded by the Henry J. Kaiser Foundation, the project currently is collecting data from 14 HMO's across the country. Eventually HMO's will participate on a subscription basis and receive comparative data by which they can measure their own performance.

## Medicare update

Alan Bradt, Bureau of Data Management and Strategy, reported on Medicare data activities. The issue of a unique physician supplier identifier is being addressed at an internal HCFA meeting on September 11. Currently a single physician can have multiple I.D. numbers within the same carrier service area, as well as differing numbers in different carrier areas. The probable approach will be a HCFA-assigned number (HAN), which would be unique to HCFA and not tie into any other existing systems. The carrier would use the HAN to replace any identifiers currently in use.

Coding maintenance is continuing on the HCFA Common Procedure Coding System (HCPCS). The carriers basically have converted to HCPCS, but there are communication problems. Not all carriers are using all the codes and not all codes are being paid properly. Staff will be working on achieving more uniformity in coding applications across the country.

Coding standardization activities underway include the Mandex contract to develop an index for HCPCS and CPT, BMAD data analysis to identify trends or patterns of services

which will help standardize coding applications, and validating and reviewing the two adapters that have been developed for placing Volume 3 ICD-9-CM and CPT codes into common DRG's. Mandex is also conducting the latter effort and is encouraged by preliminary results.

The 1984 BMAD data are in house, with approximately 50 percent edited and accepted. The data base should be ready for HCFA use and analysis by October 1, 1985, and the on-line system should become available by February or March 1986. Access to the latter will be menu driven, permitting users to work with manageable data files that meet their specific needs. All carriers will have converted to HCPCS by the end of September and corrections of erroneous conversions are moving along slowly.

One BMAD application currently under study by HCFA is development of national fee schedules. Other groups within HCFA are examining relative value scales and extension of DRG's to cover physician payment. Each of these research efforts relates to the report to Congress on Physician DRG's, which was due July 1, 1985, and is currently undergoing Departmental clearance.

Finally, HCFA is looking at ways to streamline the Part B data system to reduce carrier burden and expense. One approach would be to increase the BMAD submittal and eliminate other components, such as the payment record.

### **Medicaid data requirements**

Gerald Radke, Deputy Secretary for Medical Assistance and Medicaid Director in the Pennsylvania Department of Public Welfare, reported on Medicaid data requirements from the perspective of his State. Mr. Radke emphasized that there is little central direction to the 54 separate Medicaid programs at the operational level and that, to some extent, each State makes its own decisions on coverage and reimbursement.

Data requirements are driven by both political considerations, such as sensitivity to public perceptions of fraud and abuse, and the following administrative-structural problems:

- Since the legal contract is with the provider, not the beneficiary, all the controls are on the provider side.
- Further, because it is an open-ended contract, the controls are after-the-fact controls which seek to examine medical necessity. This is the focus of most of the information collected, although the diagnostic information is not very good. The most frequent procedure is an office visit.

As the payor of last resort, the Medicaid program must spend a lot of time making sure it doesn't pay

bills covered by another payment source. Trauma codes, in particular, are closely monitored for alternative compensation.

In addition, there are Federal requirements related to timeliness and accuracy. At the same time, there is pressure at the State level to reduce administrative costs. Pennsylvania has reacted to these cross pressures by putting the burden on the provider to fill out the invoice correctly or have it returned.

Like most large States, Pennsylvania uses a fee schedule. Since 1979, the State has been making a concerted effort to upgrade the schedule, beginning with the primary care area. As a result, statewide payments to the physician community have doubled over a two-year period.

The Medicaid program currently uses ICD-9 for coding diagnoses and a variation of CPT-3 for coding procedures, but will probably convert to HCPCS by July 1986. Mr. Radke noted that the Medicaid data bases have tremendous potential for research, but the primary focus must be on collecting information to administer the respective State Medicaid program.

Although supporting uniform minimum data sets, Mr. Radke stated he was strongly against common claim forms. The latter are very difficult to use, because they contain unnecessary items and the same item can have multiple definitions depending on the insurer. As a result, it is difficult to train people to fill them out and there are potential problems with data accuracy. The physicians in Pennsylvania have refused to use the HCFA 1500 for Medicaid reimbursement, preferring a simplified State invoice. The 1500 is totally inadequate for determining coordination of benefits, an important issue for Medicaid programs. Hospitals may start using the UB82, even though it is considered inappropriate for DRG's, but the UB82 will never be used for outpatient services in Pennsylvania. Every time the State changes invoices it costs the Medicaid program about \$1 million.

Pennsylvania Medicaid is in the process of implementing a prepaid capitation project for 100,000 Philadelphians. The providers will submit encounter forms to a contractor, who will feed information back to the physicians and the Medicaid program.

Following the presentations, the Subcommittee reviewed the agenda for the October 15 meeting, which will begin with Subcommittee business at 9:00 a.m. It was tentatively agreed that an additional meeting would be held in January.

Prepared by: Marjorie S. Greenberg, OPPEC, NCHS.

# October 15, 1985 meeting

The National Committee on Vital and Health Statistics (NCVHS) Subcommittee on Statistical Aspects of Physician Payment Systems held its third meeting on October 15, 1985.

Participants were William R. Felts, Jr., M.D., Chairman, Theodore Allison and Carmalt B. Jackson, Jr., M.D., NCVHS members; James Delozier and Marjorie Greenberg, National Center for Health Statistics (NCHS); Alan Bradt, Richard Bale, Ph.D., Richard Beisel, Donald Muse, Ph.D., and Donald Sikora, Health Care Financing Administration (HCFA); Thomas J. Beatty and Brenda Freitag, Prudential Insurance Company of America; Susan McAllister, Honeywell, Inc.; and Barry Wilson, Group Hospitalization and Medical Services, Inc.

The meeting began with discussion of Subcommittee business, including preparation of the Subcommittee's report to the full Committee. Mrs. Greenberg agreed to draft an interim report for review by Subcommittee members and distribution to all NCVHS members prior to the November 7-8 NCVHS meeting. The Subcommittee decided to hold an additional meeting on January 14, 1986, to hear presentations from other Federal agencies, such as the Centers for Disease Control, the Veterans Administration, and the Department of Defense, and to obtain more information on hospital outpatient data needs. Subcommittee members and staff will also meet the following day, January 15, to prepare the Subcommittee's final report.

Following Subcommittee business, presentations were heard on the following topics related to data needs and current data practices in the ambulatory care arena:

- The new person-based national Medicaid reporting system.
- Data needs of a Medicare carrier.
- Data needs of employers and business coalitions.
- Data needs of Peer Review Organizations.
- Data needs of a Blue Cross Blue Shield plan.

## National Medicaid reporting system

Dr. Donald Muse, Director, Division of Medicaid Estimates, Office of Actuary, described the evolution of the national Medicaid reporting system. Between 1965 and 1981, Medicaid had a paper system based on a 12-page required form. Beginning in 1981, the form was expanded to 47 pages and a quality review system was instituted with financial penalties for noncompliance. More importantly, a tape-to-tape project was undertaken with the goal of standardizing unit record data in a common format across States.

The tape project determined that certain variables could be collected uniformly. As a result, States were given the option either to continue submitting the aggregate paper report or to begin submitting unit record data on tape. Thirty States have chosen the tape option, with eight selected initially to provide data on FY 1985 payments. Reports will be available 3 months after the close of the fiscal year. Currently the Medicaid fiscal year reports are based on the date-of-payment rather than the date-of-service. Within a year, HCFA may require all States to submit Medicaid data on tape in response to pending Congressional action regarding special adjustments in Medicare payments to hospitals that serve large numbers of poor patients. In order to implement this requirement, it would be necessary to link Medicaid and Medicare data on hospital services.

The tape system consists of the following three files:

- Paid claims.
- Eligibility.
- Provider.

The paid claims file contains three separate subfiles for hospital inpatient claims, long-term care institution claims, and other provider or physician claims. Each subfile has required data elements, desirable data elements, and State-specific codes. Since the paid claims file and the eligibility file both are used extensively by the States for payment and utilization control, the data on these files are considered more reliable than the data on the provider file. The latter will require a major clean-up over time as use of the file increases.

Although the long-term goal is to have the Medicaid data comparable to Medicare data, the initial objective was to make the system operational. Thus it was not possible to achieve standardization for certain elements, such as diagnosis and procedure codes, where widespread variation exists at the State level. Diagnoses, coded in ICD-9-CM, are "desirable" rather than required data items on all three claim subfiles. Procedure codes are "desirable" on the inpatient claim subfile and required on the "other" or physician claim subfile. In both cases a number of different coding systems are accepted for procedures, with each State designating which system it is using. No procedure codes are requested on the long-term care subfile. In addition, the inpatient subfile includes as "desirable" a principal procedure *category*, which is to be selected from a standard list of very broad surgical categories, such as "Surgery Cardiovascular System." If these files become involved with payment mechanisms for Medicaid, as many expect, significant efforts will be made to increase standardiza-

tion. However, the Medicaid program has a history of flexibility at the individual State level, which is often at odds with uniformity.

Other items of interest to the Subcommittee included place of service and personal identifiers. Dr. Muse noted that the Medicaid program has always collected place of service of physician visits but has encountered a great deal of difficulty with standard definitions across States and has essentially dropped that requirement. Concerning personal identifiers, every State reporting on tape must provide a unique recipient ID number, which will probably be the person's Social Security number by the end of the decade. Unique provider ID numbers are considerably more problematic, particularly in the ambulatory care setting.

The first priority for data production will be the basic reporting by service types and types of eligibles. Initial analysis will probably focus on long-term care data. Eventually, public use data files should be available, but procedures must be developed to draw useful samples from the approximately 600 million records submitted per year by the thirty States.

### **Data needs of a Medicare carrier**

Mr. Thomas Beatty, Vice President for Federal Programs, reviewed Prudential Insurance Company's experience converting three States and four programs from California Relative Value (CRV) to the HCFA Common Procedure Coding System (HCPCS). Prudential is the Medicare (Part B) carrier for New Jersey, North Carolina, and Georgia as well as the Medicaid contractor in New Jersey, processing nearly 25 million claims per year. Prudential is also the Medicare (Part A) fiscal intermediary for approximately 500 providers. The conversion difficulties Prudential encountered were not with the actual crosswalk between the two coding systems but with the inconsistency in definitions for related data elements across the three States. These elements included followup days, surgical procedures which required an assistant, method for measuring oxygen, etc. Since the payment safeguards are related to these elements, Prudential felt it was crucial to standardize them across the States. After considerable effort, all three States now are recording the HCPCS elements uniformly, with the exception of risk on anesthesia. In addition, the dentists participating in the New Jersey Medicaid program did not agree to the conversion to HCPCS and were permitted to retain their current coding system. Although the conversion from CRV to HCPCS was fairly direct, Mr. Beatty expressed limited confidence in conducting trend analyses using data from the two coding systems.

Mr. Beatty and Ms. Freitag also described the work Prudential currently is conducting under a 2-year HCFA grant to examine patient-induced overutilization. Prudential became interested in this area during the 1970's after analyzing data for visits by one patient to numerous physicians or excessive visits by one patient to one or two physicians. The latter type of overutilization was labeled "patient-induced and provider-condoned." The HCFA grant will permit interviews with over 1200 patients who had 47 or more office visits per year, and with their physicians. In addition, clinical informa-

tion on patients with 25-46 visits per year will be requested from their physicians by mail. After all the cases are reviewed, some patients may be placed on a form of pre-care authorization.

The review of Medicaid utilization patterns by Prudential is facilitated by the availability of diagnosis on the automated record. Mr. Beatty noted that if physicians could access this information base to review a patient's previous treatment and prescriptions, it might be possible to reduce expenses and increase the quality of patient care.

Prudential discontinued inputting diagnosis on the Medicare Part B records when the Department of Health, Education, and Welfare decided not to pay for the item and to charge the carrier with an error if the item were erroneous. Mr. Beatty stated that it would be helpful to have a diagnosis on the Part B claim for hospital visits but was less sure of its value for ambulatory care visits. In particular, he expressed concern about the quality of the information since the majority of claims are submitted by the patients. Matching Part A and Part B records is considered a valuable tool.

Prudential estimates that in the State of New Jersey, for every dollar spent on monitoring, \$25 are saved. The ratio in the South is approximately 1:15.

### **Data needs of employers and business coalitions**

Susan McAllister, Corporate Manager for Health Data and Administration, presented an overview of the Honeywell health benefits program, which encompasses 68,000 employees in 40 different business units and 200,000 dependents. Honeywell has been self-insured for 13 years and offers 400 different medical plans. It is administered through two indemnity carriers and four Blue Cross Blue Shield plans. One business unit, located in Phoenix, Arizona, is self-administered. The company is committed to self-insurance but has more questions about self administration. Although the latter may reduce the costs of claims processing and produce more timely data, it requires considerable expertise of staff.

The divergence of plans and a corporate culture which encourages flexibility and decentralization make it extremely difficult to develop a standard, uniform data base. Many of the plans in the field operations with very few employees are HMO's. In addition, 75 percent of the employees in the largest unit, located in Minneapolis, are enrolled in HMO's.

Honeywell has worked very strongly with the Minnesota Coalition on Health Care Costs to develop a uniform data reporting request from the employers to the HMO's. The request represents a compromise but should help alleviate some of the current inadequacies in the HMO data. Ms. McAllister stated that HMO's are beginning to respond to the pressure from employers to produce utilization data. Inpatient data will become available first, followed by outpatient data. The IPA's currently are in the best position to provide the data requested.

The indemnity carriers also differ in their ability to produce data. The private carriers which deal nationally across many different plans have been much more willing and able to

provide adequate data than the local Blue Cross Blue Shield plans which have a monopoly in their area.

Currently, Honeywell is developing a competitive medical arrangement request for proposal (RFP), which includes a management information system requirement. The RFP will be made available to the local divisions to put out to Preferred Provider Organizations (PPO's) for bids or to evaluate offerings coming to them.

Honeywell also has an arrangement with McGraw Hill-Systemetrics, which is developing a standard data base from the six different carriers. The data are on a mainframe file to which Honeywell has online access. One analysis has attempted to attach DRG's to the inpatient claims data. Interest in analyzing ambulatory care data is also growing since expenditures for ambulatory care have shifted from 30% of total dollars spent to 55% in the past two years.

In addition to using data for purchasing decisions, Honeywell is also interested in educating its employees about their health care. At the same time, the Company must be sensitive to confidentiality and privacy issues.

Ms. McAllister noted that the imposition of a uniform bill by the Medicare program has helped foster standardization, resulting in improved data. State-wide data bases also offer some promise since many Honeywell divisions outside of Minneapolis are quite small and cannot, themselves, produce adequate data on providers. The ability to request profiles from the Peer Review Organizations at the institutional level will also be pursued. Ms. McAllister supports strong research data bases for developing standards and benchmarks of care.

The Minnesota Coalition is interested in acquiring data on diagnoses and procedures but has not finalized the taxonomies. Currently Honeywell is dealing with ICD-9 codes for diagnoses and ICD-9 or CPT-4 codes for procedures.

### **Data needs of Peer Review Organizations (PRO's)**

Donald Sikora, Chief of the Systems Management Branch, HCFA, presented a paper on the data needed by the PRO program to carry out review functions. Mr. Sikora emphasized that many of the policies concerning physician review and related data requirements are evolving and subject to change.

Planned uses of the PRO data are as follows:

- Track patient health care histories and build a scenario of the patient's multiple encounters with the health care system.
- Generate statistics on patient care by DRG, geographical location of service, age, type of care, charges, etc.
- Examine changes in practice patterns and in the health care delivery system.

Currently, the PRO's are reviewing hospital care, but the need to examine pre-care and after-care in the ambulatory setting is strongly recognized. Plans are underway for eight or nine PRO's to review ambulatory care on an experimental basis. Mr. Sikora presented two record formats for data collection to facilitate hospital and ambulatory review. The inpatient PRO record format (FI Unibill), which was promul-

gated on January 1, 1985, is an outgrowth of the PSRO Hospital Discharge Data Set (PHDDS). The proposed record for PRO review of ambulatory services is in the preliminary discussion phase, and no decisions have been made on coding systems and how the data will be collected. Mr. Sikora emphasized that a good ambulatory record would make a contribution to the health care delivery system.

Review of Health Maintenance Organizations by the PRO's is still under consideration. They will probably review the hospital stays of HMO patients, but review of the total ambulatory care is questionable. Although the proposed record formats should allow the PRO to establish whether a patient was an HMO enrollee, identifying enrollees in PPO's or self-insured groups would be more difficult. This limitation would need to be addressed if a PRO moved into private review, which is encouraged by the legislation.

Standardizing the definitions for sites of care will also be necessary for the PRO's to carry out their responsibility to deny services or the cost of services, where indicated. Alan Bradt confirmed that the information Medicare collects on place of service is adequate for current processing but probably will not meet future needs or the needs of other programs.

### **Data needs of a Blue Cross Blue Shield plan**

Barry Wilson, Vice President for Public Affairs, described the data flow at the Blue Cross Blue Shield Plan of the National Capitol Area. As is the case with all health insurers, the major focus of the Plan's data systems is to process and pay claims rather than perform utilization analyses. The Plan serves approximately 1.1 million participants, contracting with 35 hospitals, 6000 physicians, 1500 dentists, over 30 home health care agencies, and a wide range of other types of institutional and professional providers.

Currently 20 to 25 percent of the physician claims are submitted electronically, and a number of hospitals submit tapes for use in processing and payment. The Plan is implementing a new claims processing system which will gradually replace the multiple electronic and manual systems and will bring together the Blue Cross and Blue Shield data. The new system employs ICD-9-CM coding for diagnoses and HCPCS coding for procedures, but analysis of this data will still be limited. Because Blue Shield pays on the basis of procedures and Blue Cross pays for patient days of care, only three digits of the diagnosis are collected on professional claims and procedural data are collected only incidentally on hospital claims. Thus date of service must be used to match hospital and professional services rather than diagnosis or procedure codes. Up to 60 percent of the data can be lost in this kind of matching process. The importance of collecting more specific diagnostic information for professional services is recognized in house, but it has had a low priority in the claims payment process. Recording of place of service is also limited to three categories needed for payment: inpatient, outpatient, and physician's office.

The situation is compounded by the UB82 claim form,

which all hospitals in the Plan are adopting, and the Interplan Data Record required by the National Blue Cross and Blue Shield Association. Neither of these formats breaks out ancillary services in sufficient detail to be useful for studying utilization, particularly of specific laboratory and radiological exams and other related services. Finally, patient-physician encounters outside of the hospital and many other ambulatory care services are reimbursed only under the major medical coverage for which claims are submitted by the subscriber rather than the provider. Early next year the Plan intends to accept physician-submitted claims for all outpatient services, including office visits, which should improve the quality of data received and the ability to construct patient care histories. Within the Plan there is no difficulty identifying individual participants because the patient name and birth date are available, upon enrollment and on each claim.

Mr. Wilson noted that even within the current constraints, the Plan is able to conduct a number of analyses with the data base derived from the paid claims file. These analyses are used to redesign benefit structures and to consider implementation of cost containment features, such as pre-

admission authorization and second surgical opinions. The data are also used in the aggregate to identify potentially aberrant patterns of practice which then must be investigated on a manual basis. At the same time the Plan has conducted demonstration or pilot programs to acquire the data needed to evaluate health care services, such as home care and hospices, in terms of their appropriateness for coverage. The Plan's data support a 5-percent savings from pre-admission authorization, but there is less evidence of cost savings from second surgical opinion programs.

Analysis of data on trends and practice patterns is complemented by a strong educational approach. The Plan believes that the key to quality, cost effective care is obtaining professional consensus for given protocols and then developing the benefits structure to support these protocols. This approach is in the embryonic stage, but is viewed as promising by the medical community as well as the Plan. Good quality data are useful both in developing the protocols and in tracking compliance with them.

Prepared by: Marjorie S. Greenberg, OPPEC, NCHS.

# January 14, 1986 meeting

The National Committee on Vital and Health Statistics (NCVHS) Subcommittee on Statistical Aspects of Physician Payment Systems held its fourth meeting on January 14, 1986.

Participants were William R. Felts, Jr., M.D., Chairman, Theodore Allison and Carmalt B. Jackson, Jr., M.D., NCVHS members; James Delozier, Gail F. Fisher, Ph.D., and Marjorie Greenberg, National Center for Health Statistics (NCHS); Alan Bradt, Health Care Financing Administration (HCFA); Major Stuart Baker and Colonel Donald Rosenberg, M.D., Department of the Army; Kenneth Zimmerman, Civilian Health and Medical Program of the Uniformed Services (CHAMPUS); Emily Goodwin, United Hospital Fund of New York; Michael M. Lawson, Veterans Administration (VA), and John Livengood, M.D., Centers for Disease Control (CDC).

The meeting began with an update on HCFA and NCHS data activities relevant to the Subcommittee's work. Alan Bradt reported on the following HCFA issues:

- Staff are researching current proposals for physician payment reform but are awaiting further congressional guidance. The Harvard AMA study on relative value scales was funded, and projects on vouchers and carrier capitation are among those under consideration.
- The Medicare data bases are being strengthened, with 1984 calendar year data in house and instructions for submittal of 1985 data under development. The contractor currently is testing the on-line system and training for the system will begin in February.
- Regulations have been published requiring Medicaid State agencies to use the HCFA 1500 and the HCFA Common Procedure Coding System (HCPCS) by the end of 1986.
- Work continues on the HCFA assigned number (HAN) which will provide a unique identifier for each physician rendering services. The associated data base will indicate the physician's specialty and related credentials and demographic variables. A staff paper on the HAN will be available for administrative consideration by the end of February, and a decision is expected by the end of the year. Implementation would proceed state by state and take approximately a year to a year and a half to complete.

Dr. Felts asked about the impact on data if the capitation approach predominates in the Medicare program. It was noted that incentives inherent in capitation may lead to underutilization, and to assure quality of care may require different approaches to data collection and analysis. Mr. Bradt stated

that data similar to what is currently being collected will still be needed, but that it will be more difficult to obtain outside of the billing mechanism. Dr. Jackson suggested that more data will reside at the carrier and local level but agreed that data at the national level for policy decisions may suffer. Mr. Bradt also observed that reliability of data is more questionable when the data are not tied to a billing mechanism.

Jim Delozier reported that data collection for the 1985 National Ambulatory Medical Care Survey (NAMCS) conducted by NCHS is being completed and that data from the survey should be available by the end of 1986. The 1985 NAMCS collected information on approximately 75,000 to 80,000 encounters from a sample of 5,000 physicians. Funding in FY 1987 for the next cycle of NAMCS, scheduled to be conducted in 1988, currently is in doubt. Although NCHS has done research on expanding the survey beyond office-based physicians to include hospital-based physicians, funding for this component also has not been obtained. Dr. Felts noted that trend data from the 1981 and 1985 NAMCS should be of interest, because the Medicare prospective payment system was instituted between the two time periods. Mr. Delozier agreed but pointed out that expected source of payment, indicating Medicare or Medicaid status, will be available only for the 1985 survey.

Following the NCHS and HCFA updates, presentations were received on the following topics:

- Ambulatory care data needs of Veterans Administration (VA) programs.
- Ambulatory care data needs of Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) program.
- Ambulatory care data base project of the Department of the Army.
- Collection and use of hospital outpatient data.
- Ambulatory care data needs of Centers for Disease Control (CDC) programs.

## **Ambulatory care data needs of Veterans Administration (VA) programs**

Mr. Michael Lawson, Director of the Medical Administration Service, and members of his staff described ambulatory care data requirements of the VA programs. The VA delivers ambulatory care through the following two distinct approaches:

- Two hundred and twenty-six outpatient VA clinics associated with 172 hospitals and accounting for 17 million outpatient visits per year.
- Direct contract with private providers, resulting in approximately \$250 million in expenditures per year. Eligibility for contract care is much more restricted than for clinic care and usually must be authorized in advance by the VA. There is a \$75/month limitation, although this can be exceeded after approval of a treatment plan.

The data systems supporting the two approaches are totally independent and currently are not compatible. The outpatient clinics use a manual system and collect only two items on 100 percent of the visits in order to perform work load analysis—the patient's eligibility category and whether or not the visit is scheduled, is for a compensation claim, or is to apply for medical care. More detailed information on demographic variables and services rendered is collected on a 20 percent sample and on special categories of patients. The VA is in the process of automating the clinic data system and moving towards collection of all items on 100 percent of the patients.

There is no mechanism at this time within the clinic system for identifying and tracking any services by an individual provider. Mr. Lawson has considerable concern about the accuracy of diagnostic information on outpatient VA records, and this information also is not tracked. Concerns about resource allocation are creating pressures to code ambulatory surgeries, but questions also exist about the accuracy of this data. General categories of surgery may be used as a compromise.

The data system for contract care is a fee system which basically enrolls vendors, receives and keypunches bills, and makes payments. Providers include on their usual bill a brief description of the reason for encounter and the service rendered, but no medical coding of diagnoses or procedures is performed or retained by the data system. Clerks manually check the condition treated on the bill against the veteran's eligibility for treatment. Although the VA fully recognizes the limitation of this data system, there is reluctance to burden the fee-basis physicians with additional data requirements.

### **Ambulatory care data needs of Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) program**

Mr. Kenneth Zimmerman, Health Care Data Analyst in the CHAMPUS Statistics Branch, provided an overview of the CHAMPUS program and ambulatory care data requirements. The mission of CHAMPUS is to augment the military direct health care system for the approximately 6.5 million dependents of active duty members, retirees, and their dependents, whenever care cannot be provided by a military hospital. The actual users of CHAMPUS in a given year comprise fewer than 20 percent of the eligible population, or 1.1 million people worldwide.

Approximately 875,000 of the CHAMPUS users receive some reimbursed care in the ambulatory setting, accounting for 4.5 million visits in Fiscal Year 1984, and 85 percent

of the claims. Outpatient expenditures are approximately 16 percent of the total CHAMPUS budget of \$1.4 billion or about \$225 million. Although the majority of resources and cost controls are on the inpatient side, utilization and expenditures are increasing in the ambulatory sector.

The program is set up very similarly to a Blue Cross Blue Shield high option plan. Five fiscal intermediaries are under contract with CHAMPUS to process claims for the beneficiaries, which are submitted on one of several forms. About 65 percent of the billing comes in on the CHAMPUS 500 form, with another 15 percent submitted on the HCFA 1500 (CHAMPUS 501) form. Outpatient claims are also submitted on the UB 82. The fiscal intermediaries are responsible for coordinating benefits, since CHAMPUS is always the secondary payer, except to Medicaid. Charges are profiled and paid on a "usual, customary, and reasonable" basis at the 80th percentile for outpatient services. Payment tapes, containing some of the data items abstracted from the claims form, are submitted to CHAMPUS. Mr. Zimmerman reviewed the specific items of interest to the Subcommittee:

- *Patient identification*—Considerable information is required to determine eligibility, including the sponsor's social security number. The patient's name is collected but no unique number is assigned.
- *Provider identification*—The IRS tax number is used for identifying the provider. Since there are some inconsistencies and duplications across fiscal intermediaries, the program is trying to move towards a central provider data base to be updated and maintained by the intermediaries. Problems will still exist with multiple providers within a group or clinic sharing the same ID number. The program would like to be able to identify in the data system specific individual providers by specialty, particularly in the psychiatric area.
- *Diagnoses*—Only the "primary diagnosis," defined as the reason for outpatient care, is captured by the data system and coded in ICD-9-CM. The forms include room for additional diagnoses but these are not transmitted on the tape. Thus the coded diagnosis does not necessarily correspond to the most expensive treatment or procedure, and there is not a diagnosis associated with each procedure. This seriously limits information for utilization review.
- *Procedures*—Coding of procedures is by CPT-4 with several hundred additional CHAMPUS-assigned codes for nonphysician services and mental health services. The latter codes have not been coordinated with the HCFA Common Procedure Coding System (HCPCS). If other coding systems are submitted by providers, the fiscal intermediaries must convert to CPT-4 and CHAMPUS codes.
- *Encounter data*—The data system captures date of encounter, but when there are multiple encounters for the same procedure, only the number of times the procedure is billed on the claim is recorded, not the specific dates of care. Place of encounter is not collected, but program officials feel it would be beneficial, particularly in the area of ambulatory surgery.

A limited data audit function currently exists at CHAMPUS, but the program is hoping to implement a data integrity study, which will be the first in-depth examination of data quality and accuracy.

Utilization review is confined at this point primarily to mental health care. A small Office of Program Integrity does selected reviews of suspected provider fraud and abuse.

Because the CHAMPUS budget has risen from under \$1 billion in Fiscal Year 1981 to over \$1.4 billion at the present time, there is a great deal of pressure to implement cost-efficient payment mechanisms which take advantage of competitive forces in the marketplace. A number of Health Maintenance Organization (HMO) and Preferred Provider Organization (PPO) demonstrations currently are underway. Mr. Zimmerman noted that it will be important in these arrangements to define clearly the essential set of data items required.

A major data problem for CHAMPUS is the incompatibility between the CHAMPUS data system and the military hospital data system. Definitions are not standardized, for example, on patient units of care. Whereas the CHAMPUS program defines a visit as a face-to-face encounter with a health care professional, the military system includes telephone contacts as encounters. Also, although a patient may receive only a portion of his care under CHAMPUS, the program does not have ready access to the data for the care provided in the military health system.

The CHAMPUS program developed a strategic information plan almost a year ago to revise totally the way data are summarized from a claims-based approach to an encounter-based system. This plan is on hold pending other decisions on future CHAMPUS directions for reimbursing inpatient and outpatient care.

### **Ambulatory care data base project of the Department of the Army**

Major Stuart Baker and Colonel Donald Rosenberg presented a briefing on the Army Medical Department (AMEDD) Performance Measurement Study, which is now a Department of Defense, Tri-Service initiative. The AMEDD Performance Study was initiated in 1983 in response to a need for better epidemiologic and performance information (particularly in the outpatient environment) in the Army Medical Department (AMEDD) Health Care Delivery system. The Army already had a specific inpatient reporting system which collected discharge data largely consistent with the data elements represented in the Uniform Hospital Discharge Data Set.

The contribution of the AMEDD Performance Measurement Study to the inpatient system has been to examine the application of the Diagnosis Related Group (DRG) classification to the military beneficiary population in an attempt to explain variations in practice patterns and hospital performance. On the ambulatory side, the purpose is to establish a major new data collection and reporting system to replace the current Medical Summary Reporting System which, like the VA system, is based on the number and type of visits (e.g., cardiology, OB, etc.) and cannot describe the nature or complexity of the ambulatory practice and services from

a diagnostic, procedural or demographic perspective. Both the inpatient and outpatient components of the study are being coordinated with the current work on DRG's and Ambulatory Visit Group (AVG) research, which is ongoing in the Health System Management Group (HSMG) at Yale University's School of Organization and Management. From an ambulatory perspective, one of the main purposes in maintaining a collaborative relationship with HSMG was to insure compatibility with the newly proposed AVG "GROUPEE."

The Ambulatory Reporting System was designed to address three responsibilities—measuring performance, gathering occupational health medical information, and meeting epidemiologic data requirements. The system currently is being used by six sites within the Army Medical Department. The scope of the study extends the collection and management of the ambulatory data through October 1987.

The system included a patient registration process, patient encounter (visit) forms, and a provider registration process. The patient is identified by the social security number of the sponsor and a two-digit prefix referred to as the Family Member Prefix. A unique number has been developed to identify each provider. These two elements are the "keys" to the data base.

The system employs microcomputers, mark sense forms, and scanners to update the data base. Each remote site can produce data locally or address the main data base at Fort Detrick, where the central data base is maintained. Encounter forms were developed by panels of physicians on a consensus basis for nearly three dozen specialties. The forms include common administrative and demographic data as well as diagnoses and procedures tailored to the particular specialty. Diagnoses are coded in ICD-9-CM and procedures in CPT-4. Both coding conventions have been "extended" to describe provider-demanded uniqueness. The form requires a primary diagnosis, which is the primary reason for the visit, and permits multiple secondary diagnoses.

Physician acceptance of the reporting system has varied. Some who were initially resistant are recognizing the potential of the data for special studies and practice profiling. The major complaint is that it takes about a minute to complete the encounter form for every patient.

The future of the reporting system after the demonstration ends has not been decided. Consideration is being given to promulgating it throughout the Department of the Army, which has some 400 separate reporting outpatient facilities or clinics (not hospital-based) accounting for the majority of the 24 million outpatients treated annually by the AMEDD. Interest also exists in implementation across the three services.

### **Collection and use of hospital outpatient data**

Emily Goodwin described an ambulatory care data project carried out in 1983-84 by the United Hospital Fund, which provides philanthropic support to the voluntary hospitals in New York City. The project centered on patient origin information from hospital-based ambulatory care visits. There are between 10 and 12 million outpatient department and

emergency room visits annually in New York City, and many hospitals have attributed their poor financial condition to the provision of these services. Success with a patient-origin study on inpatient care in 1978 provided the impetus for this undertaking.

Overall goals of the study were to allow public policy decisionmaking to be based on information, to provide new hospital management planning tools, to improve and provide for consistent information practices at the hospitals, and to provide opportunities for health services research.

The first step was a data capacity study, which revealed a number of inconsistencies across hospitals, including the definition of a visit. Because the Fund had to rely on voluntary hospital cooperation and could not reimburse the clinics for submitting data, the original goals of obtaining a year's worth of data from all 83 voluntary and municipal proprietary hospitals in machine-readable form had to be modified. The final study focused on the second quarters of 1983 and 1984, with all hospitals participating in the 1984 data collection. Specific data problems and issues were as follows:

- The study's intention to collect a unique patient identifier within each hospital and a primary payer patient ID number for linkage across hospitals did not prove feasible due to confidentiality concerns.
- Separate hierarchical classification schemes had to be developed to accommodate the detail submitted on payment source and clinic type. The scheme for the latter was quite complex but turned out to be more of an administrative categorization than a reflection of medical specialization, as originally desired.
- The Fund experienced tremendous problems getting hospitals to follow simple formats and coding instructions.
- Reliance on the hospitals' outpatient billing system for in-scope visits created some difficulties. For example, same-day admissions were not contained in this system, whereas ancillary service visits were included.
- Recording of primary diagnosis, or the reason the patient presented for the visit, was subject to considerable clerical error. After correcting the most obvious problems, the data appeared consistent with other information.
- The volume of data—approximately 1.6 million outpatient department visits and 650,000 emergency room visits—initially proved overwhelming for analysis. Development of special condensed and summarized files alleviated this problem.

The Fund concluded that the information collected was reasonably accurate and had considerable value for planning purposes. If the study were repeated, the Fund would definitely consider sampling visits so that more detail could be collected. Patient ID continues to be of interest, as are procedures.

Mrs. Goodwin endorsed the need for standard definitions but noted that voluntary compliance has limitations, and the existence of clout usually improves reporting.

## **Ambulatory care data needs of Centers for Disease Control (CDC) programs**

Dr. John Livengood provided the Centers for Disease Control's perspective as a user of ambulatory care data. The unique function of CDC is epidemiologic surveillance, which requires a systematic approach to collection, analysis, and interpretation of health data. This process must be closely integrated with the dissemination of knowledge to the people who need to know, which is linked to CDC's primary focus on prevention.

Although an explicit purpose of a surveillance system is to detect and control epidemics, in Dr. Livengood's experience this is seldom accomplished through routine data reporting. Ambulatory records, however, have the potential of identifying an epidemic several weeks before it shows up in mortality records. Ambulatory surveillance data also can be used to test hypotheses about modes of transmission of illness, to report trends in illness, to evaluate control measures and public health interventions, to monitor changes in infectious agents, and to detect changes in the pattern of general health practice.

Increased attention to the ambulatory care setting reflects a growing interest in describing the total effect of illness, not only on costs but on overall quality of life. Dramatic shifts of care to the ambulatory setting have also increased the importance of data from this sector.

Sources of data used by CDC include vital statistics, hospital discharge surveys, physician visit surveys, and surveys of the general population, such as the National Health and Nutrition Examination Surveys. Dr. Livengood noted that the National Ambulatory Medical Care Survey conducted by NCHS is an important national resource and should be maintained at least on its current triennial basis. The CDC's most basic surveillance is through the Notifiable Disease Reports, which are designed to trigger a local response and subsequently are transmitted to CDC on a State-by-State basis. These reports suffer from underreporting but do permit detection of trends.

Three other data sources that CDC uses are the National Drug and Therapeutic Index (NDTI), the Ambulatory Sentinel Practice Network (ASPN), and the National Electronic Injury Surveillance System (NEISS). The NDTI has been operated by IMS America since 1960 and collects utilization data from office-based physicians with an emphasis on prescription drugs. The ASPN began in 1981 and is a voluntary system of office-based family practice physicians which focuses on specific conditions over a defined time period. The NEISS is a stratified random sample of hospital emergency rooms, initiated in 1972, and providing particularly valuable information on involvement of consumer products in injuries.

Dr. Livengood also described the Behavioral Risk Factor Telephone Surveys, which are being conducted by more than 23 States with CDC involvement.

Major problems with the data sources include lack of timeliness, limitations in scope, concerns about data validity, and insufficient detail at the geographic and condition level.

Dr. Livengood noted a number of areas where additional outpatient data would be desirable, including diabetes and hypertension control, technology assessment, and use of self-testing devices. An ideal list of data items would contain information on patient disability, occupation, risk factors, circumstances of injury, product involvement, and onset and duration of illness, as well as the more standard items.

For data improvement, Dr. Livengood would support procedures for validation of diagnosis and development of an algorithm for the underlying cause of visit. Better methods

for tracking patients and following back on patients are also needed.

Dr. Felts concluded the meeting by noting that the numerous presentations heard by the Subcommittee demonstrate both the commonalities and differences in user data needs. They all support, however, the essential need for information regardless of the reimbursement approach adopted by public and private programs. These needs include monitoring the system and making judgments about adequacy of utilization and medical necessity. Maintaining comparability of data sets will be an ongoing challenge.

Prepared by: Marjorie S. Greenberg, OPPEC, NCHS.

# Appendix III.

## Place of service designations (Figures II–VI)

Figure II. HCFA 1500

BECAUSE THIS FORM IS USED BY VARIOUS GOVERNMENT AND PRIVATE HEALTH PROGRAMS, SEE SEPARATE INSTRUCTIONS ISSUED BY APPLICABLE PROGRAM.

### REFERS TO GOVERNMENT PROGRAMS ONLY

**MEDICARE AND CHAMPUS PAYMENTS:** A patient's signature requests that payment be made and authorizes release of medical information necessary to pay the claim. If item 9 is completed, the patient's signature authorizes releasing of the information to the insurer or agency shown. In Medicare assigned or CHAMPUS participation cases, the physician agrees to accept the charge determination of the Medicare carrier or CHAMPUS fiscal intermediary as the full charge, and the patient is responsible only for the deductible, coinsurance, and noncovered services. Coinsurance and the deductible are based upon the charge determination of the Medicare carrier or CHAMPUS

fiscal intermediary if this is less than the charge submitted. CHAMPUS is not a health insurance program and renders payment for health benefits provided through membership and affiliation with the Uniformed Services. Information on the patient's sponsor should be provided in those items captioned "Insured"; i.e., items 3, 6, 7, 8, 9 and 11.

**BLACK LUNG AND FECA CLAIMS:** The provider agrees to accept the amount paid by the Government as payment in full. See Black Lung FECA instructions regarding required procedure and diagnosis coding systems.

### SIGNATURE OF PHYSICIAN OR SUPPLIER (MEDICARE, CHAMPUS, FECA AND BLACK LUNG)

I certify that the services shown on this form were medically indicated and necessary for the health of the patient and were personally rendered by me or were rendered incident to my professional service by my employee under immediate personal supervision, except as otherwise expressly permitted by Medicare or CHAMPUS regulations.

For services to be considered a 'incident' to a physician's professional service, 1) they must be rendered under the physician's immediate personal supervision by his/her employee, 2) they must be an integral,

although incidental part of a covered physician's service, 3) they must be of kinds commonly furnished in physician's offices, and 4) the services of nonphysicians must be included on the physician's bills.

For CHAMPUS claims, I further certify that neither I nor any employee who rendered the services are employees or members of the Uniformed Services (refer to 5 USC 5536). For Black Lung claims, I further certify that the services performed were for a Black Lung related disorder.

No Part B Medicare benefits may be paid unless this form is received as required by existing law and regulations (20 CFR 422.510).

NOTICE: Any one who misrepresents or falsifies essential information to receive payment from Federal funds requested by this form may upon conviction be subject to fine and imprisonment under applicable Federal laws.

### NOTICE TO PATIENT ABOUT THE COLLECTION AND USE OF MEDICARE, CHAMPUS, FECA, AND BLACK LUNG INFORMATION.

We are authorized by HCFA, CHAMPUS and OWCP to ask you for information needed in the administration of the Medicare, CHAMPUS, FECA, and BLACK LUNG programs. Authority to collect information is in section 205(a), 1872 and 1875 of the Social Security Act as amended and 44 USC 3101, 41 CFR 101 et seq and 10 USC 1079 and 1086; 5 USC 8101 et seq; and 30 USC 901 et seq.

The information we obtain to complete claims under these programs is used to identify you and to determine your eligibility. It is also used to decide if the services and supplies you received are covered by these programs and to insure that proper payment is made.

The information may also be given to other providers of services, carriers, intermediaries, medical review boards and other organiza-

tions or Federal agencies as necessary to administer these programs. For example, it may be necessary to disclose information about the benefits you have used to a hospital or doctor.

With the one exception discussed below, there are no penalties under these programs for refusing to supply information. However, failure to furnish information regarding the medical services rendered or the amount charged would prevent payment of claims under these programs. Failure to furnish any other information, such as name or claim number, would delay payment of the claim.

It is mandatory that you tell us if you are being treated for a work related injury so we can determine whether workers' compensation will pay for treatment. Section 1877 (a) (3) of the Social Security Act provides criminal penalties for withholding this information.

### MEDICAID PAYMENTS (PROVIDER CERTIFICATION)

I hereby agree to keep such records as are necessary to disclose fully the extent of services provided to individuals under the State's Title XIX plan and to furnish information regarding any payments claimed for providing such services as the State Agency or Dept. of Health and Human Services may request. I further agree to accept, as payment in full, the amount paid by the Medicaid program for those claims submitted for payment under that program, with the exception of authorized deductibles and coinsurance.

I understand that payment and satisfaction of this claim will be from Federal and State funds, and that any false claims, statements, or documents, or concealment of a material fact, may be prosecuted under applicable Federal or State laws.

#### PLACE OF SERVICE CODES:

- 1 - (IH) - Inpatient Hospital
- 2 - (OH) - Outpatient Hospital
- 3 - (O) - Doctor's Office
- 4 - (H) - Patient's Home
- 5 - - Day Care Facility (PSY)
- 6 - - Night Care Facility (PSY)
- 7 - (NH) - Nursing Home
- 8 - (SNF) - Skilled Nursing Facility
- 9 - - Ambulance
- 0 - (OL) - Other Locations
- A - (IL) - Independent Laboratory
- B - (ASC) - Ambulatory Surgical Center
- C - (RTC) - Residential Treatment Center
- D - (STF) - Specialized Treatment Facility
- E - (COR) - Comprehensive Outpatient Rehabilitation Facility
- F - (KDC) - Independent Kidney Disease Treatment Center

#### TYPE OF SERVICE CODES:

- 1 - Medical Care
- 2 - Surgery
- 3 - Consultation
- 4 - Diagnostic X-Ray
- 5 - Diagnostic Laboratory
- 6 - Radiation Therapy
- 7 - Anesthesia
- 8 - Assistance at Surgery
- 9 - Other Medical Service
- 0 - Blood or Packed Red Cells
- A - Used DME
- F - Ambulatory Surgical Center
- H - Hospice
- L - Renal Supplies in the Home
- M - Alternate Payment for Maintenance Dialysis
- N - Kidney Donor
- V - Pneumococcal Vaccine
- Y - Second Opinion on Elective Surgery
- Z - Third Opinion on Elective Surgery

Field Number	Position	Number of Item Columns	Description	Comment	
4.	10	(1)	HCPCS Indicator	<p>Indicate the procedure code reported as follows:</p> <p>1 = HCPCS</p> <p>2 = Other</p>	<p>1) HCPCS codes include: All CPT-4 codes, HCFA national codes and local codes (WXYZ) assigned by you.</p> <p>2) Other codes include: any code used before conversion to HCPCS.</p>
5.	11-12	(2)	Modifier	<p>Show HCPCS 2-digit modifiers received on the claim. If multiple modifiers are reported, show 99. If no modifier was used leave blank. Also show any modifier you add for administrative purposes. If you have not converted to HCPCS, show the "special action code" or other code used to modify the procedure code. Provide documentation of these special codes.</p>	
6.	13	(1)	Place of Service	<p>This field denotes the place of service. Use the following codes:</p> <p>"1" = Office</p> <p>"2" = Home</p> <p>"3" = Inpatient Hospital</p> <p>"4" = SNF</p>	<p>These codes are consistent with the codes and definition used for the Payment Record, § 13030.4</p>

Field Number	Position	Number of Item Columns	Description	Comment
(6. cont.)			"5" = Outpatient Hospital "6" = Independent Laboratory "7" = Other "8" = Independent Kidney Disease Treatment Center "9" = Ambulatory Surgery Center "H" = Hospice	
7.	14	(1)	<b>Type of Service</b> This field represents the type of service. Use the following codes: "1" = Medical Care "2" = Surgery "3" = Consultation "4" = Diagnostic X-Ray "5" = Diagnostic Laboratory "6" = Radiation Therapy "7" = Anesthesia "8" = Assistance at Surgery "9" = Other Medical Service "0" = Whole Blood or Packed Red Cells "A" = Used DME "F" = Ambulatory Surgical Center (Facility Usage) "L" = Renal supplier in the home "M" = Monthly Capitation Payment (Dialysis) "N" = Kidney Donor "V" = Pneumococcal Vaccine "Y" = Second Opinion on Elective Surgery "Z" = Third Opinion on Elective Surgery	These codes are consistent with the codes and definition used for the Payment Record, S1303.4.
8.	15-20	(6)	<b>Frequency</b> Show the total number of times that this procedure code/modifier, occurred within this locality, specialty, T/S, P/S sequence and was recorded in History. This	

**Figure IV. Metropolitan Life Insurance Company place of service codes**

Type of Facility
01 – Hospital (Regular—General)
02 – Clinic
03 – Psychiatric Hospital
04 – Christian Science Hospital
05 – Osteopathic Hospital
06 – Nursing Home
07 – Extended Care Facility
08 – Sanitarium
09 – School Custodial/Developmental
10 – School—Teaching
11 – Health Resort
12 – Ambulatory Surgicenter
13 – Drug/Alcohol Rehabilitation Center
14 – Home Health Agency
15 – Infirmary
16 – Veterans Administration
17 – Medical Rehabilitation Facility
18 – Hospice (terminally ill)
19 – Birthing Centers

Clinic Modifiers
1 – Hemodialysis Treatment Center
2 – Hemophilia Treatment Center
3 – Freestanding Emergency Treatment Center

**Figure V. Blue Cross and Blue Shield Association place of service codes—claim form**

[Place of service codes filled in by person completing claim form]

Place of service codes:
1 – (IH) – Inpatient Hospital
2 – (OH) – Outpatient Hospital
3 – (O) – Doctor's Office
4 – (H) – Patient's Home
5 – – Day Care Facility (PSY)
6 – – Night Care Facility – (PSY)
7 – (NH) – Nursing Home
8 – (SNF) – Skilled Nursing Facility
9 – – Ambulance
0 – (OL) – Other Locations
A – (IL) – Independent Laboratory
B – – Other Medical Surgical Facility
C – (RTC) – Residential Treatment Center
D – (STF) – Specialized Treatment Facility

NOTES: This code is on the back of claim form.

The number and list may vary from plan to plan but this is the most common list used by Blue Shield plans.

**Figure VI. Blue Cross and Blue Shield Association place of service codes—processing**

[Place of service filled in by person processing the claim at the plan]

Description
1. Hospital, inpatient
2. Hospital-affiliated hospice
3. Rehabilitation hospital, inpatient
4. Hospital, outpatient
5. Hospital-based ambulatory surgical facility
6. Hospital, outpatient hospice services
7. Rehabilitation hospital, outpatient
8. Provider's office (includes Professional Other Provider)
9. Hospice services rendered in the provider's office
10. Patient's home
11. Hospice services rendered in the patient's home
12. Psychiatric facility, inpatient
13. Psychiatric facility, outpatient
14. Psychiatric day-care facility
15. Psychiatric night-care facility
16. & 17. Residential substance abuse treatment facility (includes Alcoholism Treatment Facility and Drug Abuse Treatment Facility)
18. & 19. Outpatient substance abuse treatment facility (includes Alcoholism Treatment Facility and Drug Abuse Treatment Facility)
20. Independent clinical laboratory
21. Nursing home
22. Skilled nursing facility/extended care facility
23. Ambulance; ground
24. Ambulance; air
25. Ambulance; sea
26. Other unlisted licensed facility (Facility Other Provider)
27. Hemophilia treatment center
28. Freestanding ambulatory medical facility
29. Freestanding dialysis facility
30. Freestanding ambulatory surgical facility
31. Freestanding alternate birthing center
32. Freestanding cardiac rehabilitation facility
33. Freestanding hospice facility
34. Pharmacy

NOTES: Most plans only record the detailed service site for National Accounts.

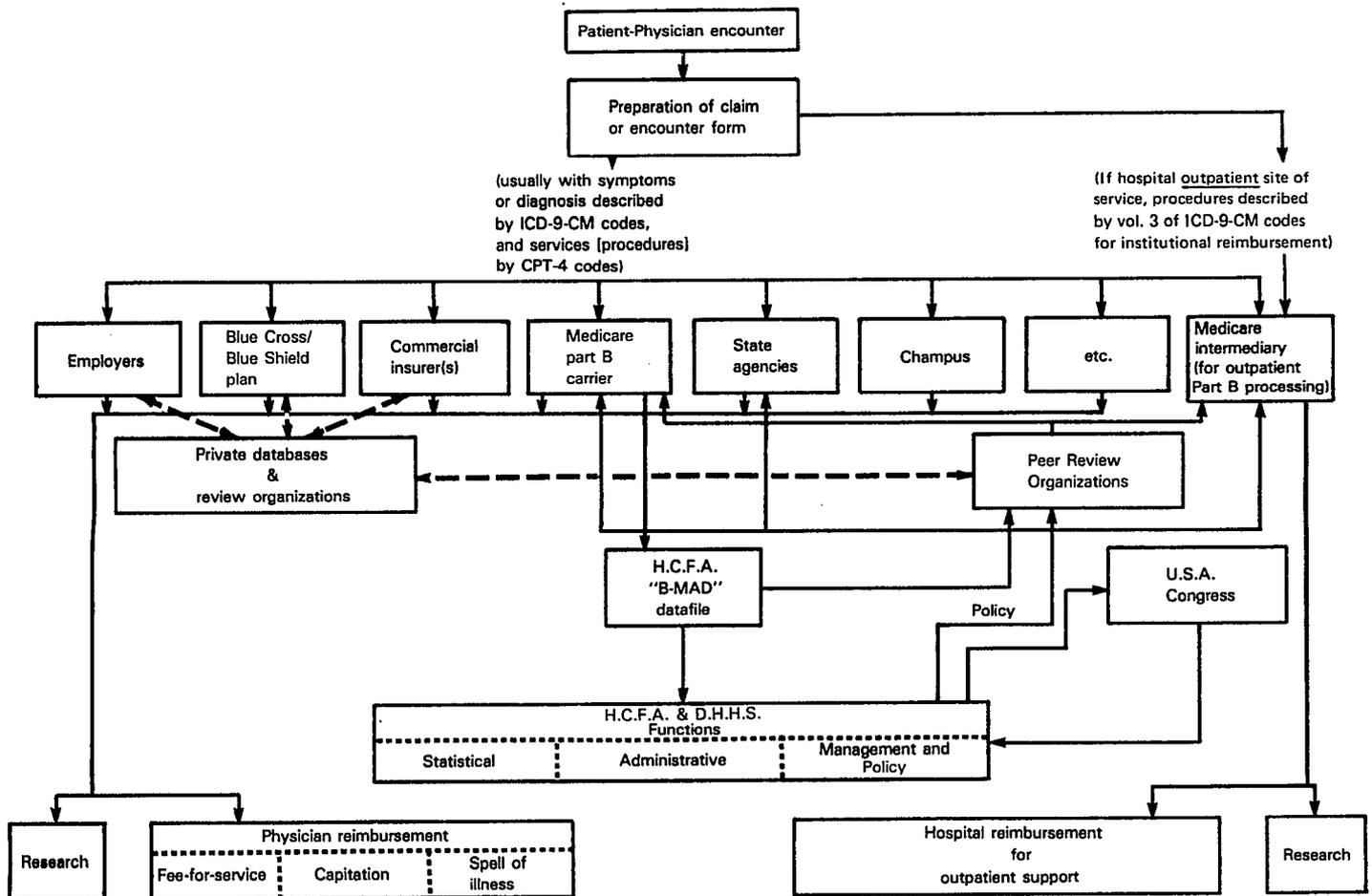
Information provided on the diagnosis and procedure codes allows plan personnel to determine the appropriate place of service from the claim form.

The actual location of the service site cannot be determined for every claim.

# Appendix IV.

## Data flow for traditional fee-for-service physician reimbursement (Figure VII)

Figure VII. Data flow for traditional fee-for-service physician reimbursement



Note: The schematic does not reflect the data flow for capitation and HMO physician reimbursement. Data collection and data flow for capitation systems, such as some parts of DOD, VA, CHAMPUS, and other public or private sector organizations, are limited to administrative needs with local application, retention, and distribution.

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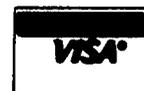
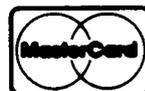
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