RECORD OF SOCIETY OF ACTUARIES 1989 VOL. 15 NO. 1

HEALTH DATA COLLECTION

Moderator: PETER M. THEXTON
Panelists: W. EDWARD BACON*

JON R. GABEL**
SAM GUTTERMAN

Recorder: PETER M. THEXTON

o Industry survey results

o Can they be both timely and useful?

MR. PETER M. THEXTON: We have three experts to talk about health data and how they resolve the conflict between timeliness and usefulness. Our experts are from the federal government, the Society of Actuaries and the Health Insurance Association of America (HIAA). These are by no means, of course, the only sources of data available for statistical analysis of health care, but they are prominent and we have to start someplace. Other sources include the American Hospital Association, the American Dental Association, the Blue Cross Blue Shield Association, private organizations such as the Rand Corporation, and the Commission on Professional and Hospital Activities.

There are several other agencies within the government. From an actuarial point of view, most of the data is not, unfortunately, directly useful for pricing and reserving, but it can be adaptable if some side-by-side insured data can be found. At the HIAA we are working on a compendium of health care data sources, but it is not yet ready.

Jon Gabel is associate director of research at the Health Insurance Association. He is in charge of contract research (the Association contracts with private research persons outside to conduct various levels of research). He was formerly an economist with the National Center for Health Services Research and is the author of some thirty published articles published by the Health Care Finance Administration (HCFA), the Millbank Quarterly, The New England Journal of Medicine and other publications.

Ed Bacon is the director of the Division of Health Care Statistics at the National Center for Health Statistics, a unit of the federal government's Centers for Disease Control in the Department of Health and Human Services. He is responsible for administering national surveys which collect information on the nation's use of health resources.

He has many other accomplishments and has worked on the statistics of the public health service for most of his working life. He, also, has published over thirty articles and is a member of numerous professional societies including the American Statistical Association, the American Public Health Association and the Society for Epidemiological Research.

Sam Gutterman is a consulting actuary at Price Waterhouse. He is a member of the Board of Governors of the Society of Actuaries and is chairman of its Committee on Experience Studies, its Individual Health Experience Studies Committee, and the Experience Task Force on Long-Term Care.

MR. JON R. GABEL: I want to talk about the role of data analysis in public and private decision making. The topic of this session goes to the heart of how decisions are made in the private and public sectors. The quality of decisions that are made in both public and private sectors is

- * Dr. Bacon, not a member of the sponsoring organizations, is the Director of the Division of Health Care Statistics at the National Center for Health Statistics in Hyattsville, Maryland.
- ** Mr. Gabel, not a member of the sponsoring organizations, is Associate Director of Research at the Health Insurance Association of America in Washington, District of Columbia.

dependent upon the quality of the data and the usefulness of data that we can provide. In my view the role of data and analysis is to reduce the level of uncertainty in making decisions. Decisions will be made whether we like them or not.

Let me digress at this point. My observation is we have two classes in both public and private organizations. The first class produces information. It is easier to identify. It tends to wear hush puppies and tweeds and talks very slowly. This gives an impression of being very thoughtful.

On the other hand, the opposite is a lobbyist. Lobbyists talk very fast. They dress very well and they transmit our numbers to decision makers. I think the frightening thing is those who produce information talk in caveats. They are aware of the limitations of data and they are very uncomfortable sometimes with the limitations. In contrast, people who must make decisions and make them very quickly, basically do not have the time and may not have the training to understand the limitations, even when the lobbyists transmit them accurately. Give them a number that reduces their level of uncertainty, and they feel very comfortable with it.

I believe there are three phases to any research. The first phase is what I call bean counting. There's not a great deal of glory in bean counting. You are not going to become a tenured professor by being a bean counter, but it is the essential activity in the first phase. The second phase is the analysis phase and the third phase is the policy prescription phase.

Now, who are some of the decision makers that I was speaking of before? I was thinking of the executives in the private sector; I was thinking of managers, of congressional staff; I was thinking of lobbyists; I was thinking of federal executives. All these people must make decisions and they must make decisions very often and much faster than research is capable of producing relevant new data. So, the fundamental problem for the information-producing class is to get the best available data, but the fundamental dilemma is our credibility. Very often we may be forced to put out information before it is ready. This may reduce the level of uncertainty for the decision maker, but it could jeopardize our credibility in the long run.

I think what makes it a little more difficult is that for every issue and every question, there really is a unique data set which is required to address that question. People in the decision-making class sometimes have a difficult time understanding. They think if we could have just one data set out there it could serve all purposes. Of course, this is not so.

Now, let me give you an example of a unique data set. Suppose we want to address the question, is managed care working? Well, the data set we need is a claims experience file, but that is not sufficient. For our multivariant analysis we have to hold statistically constant many other factors which are changing at the same time, such as how the population is changing or how the client population is changing.

We need control groups to address the questions basically. We need before-and-after observations. Unfortunately, the world does not allow us to experiment. The Rand Experiment is an exception. The world is not very cooperative. If we could just randomly assign people to different groups and observe behavior before and after, it would be so easy. Unfortunately, the rest of the world is unwilling to jeopardize their health and their finances in order for us to answer research questions.

Now, in my limited time, let me just address some of the unique circumstances of the HIAA for which I now have three years of experience. I believe that at HIAA our unique advantage over the rest of the world is that we have access to the commercial health insurance industry.

We represent about 85% of the commercial insurance in the country. Our burdens are many. We operate in a very fast paced world, sometimes, I think, bordering on the frenetic. We come to work and we may not know what we are working on until the newspapers are opened in the morning. We find out our assignment in the latest news article. How will we respond? We are a very small research department, the hard disc of the HIAA. We need the information which will help us reply to what the story is in The Wall Street Journal this morning, or the story in The New York Times. Of course, people at The Wall Street Journal and The New York Times really think we have the answers to these questions.

Now before I came to the HIAA, I used to call the HIAA for information. I would ask questions and when I couldn't get answers I used to think, "My gosh, these people are kind of deceptive and slippery." Then I got here and I realized they were telling the truth. It wasn't that they were dishonest, they honestly did not have the answers. They honestly did have very limited data bases and I want to talk a little more about those in the future. A very serious limitation is that we do not have the claims history files from our member companies. The most difficult questions, what works and what doesn't work, are very difficult to address without a claims history file.

Now, let's just talk about who our constituents are. We are the hard discs. Who do we have to give the information to? Foremost are the lobbyists in the Health Insurance Association and the commercial insurance companies. The lobbyists want to know what the impact is on the price of health insurance if a state mandates mental health coverage. It is not a very easy question to answer although we have attempted to answer that one.

We also want to provide information to strategic planners at the companies. They may want to know what the direction is of the industry. For example, what is the course of managed care? How much is it really growing?

At the same time, people in government and congressional committees very often want to know answers to other questions. For example, they want to know how the market is changing now that catastrophic legislation is passed.

Then, lastly, the opinion makers of the country are constantly calling us and asking us for questions, all the way from the columnists of *Newsweek*, the *Post*, and television. They are always on the phone and I can tell you, these people want answers and they want them very quickly. They would like you to drop what you are doing and get the answer out to them in half an hour. They move at a very fast pace and sometimes the fast pace hinders accuracy of the response. Sometimes you must decide very quickly whether you can really give them an accurate answer. On the other hand, if you don't give them an answer, somebody else will and they may misrepresent the situation more than if you had given hem a response.

Now, let's talk about the sources of information that we basically have at HIAA. The fact that we do not have the claims history file means that we have gone to the telephone survey as our principle source of information. Telephone surveys have certain advantages. They are very fast and they are relatively inexpensive. You can get a very quick picture of peoples' opinions. You can get very good pictures of black boxes, but you don't know what goes on inside the black box.

I can tell you how many of our companies are involved in PPOs. I can tell you how our companies are paying hospitals and doctors under PPOs. I cannot tell you, though, the day-to-day workings of a PPO and what makes for a successful one and an unsuccessful one. A telephone survey just cannot get at that kind of depth.

Well, whom will we survey in the principle surveys which we do on an ongoing basis at HIAA? For the past three years, we have surveyed the nation's employers. We talked to approximately 2,000 employers last year. This year it is 2,500. We talk to them about their health benefit plans. We hear about their premiums. We hear about their enrollments. From this survey, we know a lot about trends, broad trends in the group health insurance market in America, and we can come out with it relatively quickly.

We go out this spring with a survey and hopefully we will be able to report the results in November of this year. Yet, as fast as I think it is -- in fact, I think it is too fast and I wish we could do it a little more slowly -- to many of our constituencies, it is not fast enough. It is not fast enough to many commercial insurers who would like to make strategic planning decisions. The newspapers want to know the answers. The New York Times is one of the them. The New York Times calls very frequently and they keep on telling me, "Your survey is great, but can you get it out by August or so?" Well, I would like to get it out in August, but I don't really think we can.

Anyway, this is our principle source of information. Because we know the county that every employer is located in, we can look at certain changes which have taken place at the state level using multivariant analysis. Perhaps, this works in the broadest sense, but this is certainly at best a second-best solution; but, we, unfortunately, live in a second-best world.

We have surveyed our member companies for many years for information on premiums and benefits by line of business. We have this for each individual company though we don't have 100% reporting. So, we know this about each company and we can plot it. We can see the underwriting cycle which you may have heard Carl Schramm talk about earlier.

Another survey we have done for ten years is called Monitoring the Attitudes of the Public (MAP). We survey 1,500 adults. We ask them the same core questions every year. We may delete or add others. I find this one of the most interesting of all the surveys we do. The results of this survey conflict greatly with anecdotal-based views of the world. For example, there is much talk about declining quality of care among policyholders. The concern is very legitimate, yet we find Americans' satisfaction with the quality of their physician care or their hospital care has changed little during the last ten years.

We also conduct special surveys. We have surveyed by telephone the nation's PPOs and we have conducted that survey every two years. We can survey member companies about their managed care practices or any other type of business. When we survey our member companies we arrange a 15- or 20-minute interview with a group vice-president and we obtain a 100% response rate.

In fact, we have never had anything but a 100% response rate in the last two years. This is one of our strengths; the cooperation which we get from our member companies, their willingness to talk to us. Of course, we have to promise confidentiality, so no individual company is ever identified.

Our principal limitation is that we do not have a file of paid claims. Therefore, we cannot document practice patterns and all those questions which a paid claims file can address. Now if there were a pot at the end of the rainbow that we could have, it would be that we possessed a nationally representative sample, a paid claims file of providers and of beneficiaries, over many years. I am nowhere near finding that pot. So we will, again, follow second-best methods to address issues which, whether we like it or not, we must answer.

DR. W. EDWARD BACON: The National Center for Health Statistics (NCHS) is the federal government's principle agency for vital and health statistics. For more than 25 years, the NCHS has been collecting data covering the full spectrum of concerns in the health field from birth to death. Currently, the center has more than a dozen data systems for collecting information. Data are collected through vital records, personal interviews, physical examinations, laboratory tests, and provider records. The data systems are designed to provide general purpose information which will be useful to a variety of policymakers, planners, researchers and others in the health community including actuaries.

I am going to limit my discussion to three health care surveys -- the National Ambulatory Medical Care Survey (NAMCS), the National Hospital Discharge Survey (NHDS) and the National Nursing Home Survey (NNHS). These surveys are provider-based surveys in that information about providers and about the use of health care is collected directly from the providers of that care or from the providers' records. Information is collected about individual patients, about their clinical conditions and about the services and treatments received. The center also collects information on health care use through the population-based surveys such as Nursing Home Information Service (NHIS) where the person receiving the care provides the information. However, these surveys have limitations, particularly the accuracy of the medical data collected. On the other hand, the provider-based surveys are limited in that the information collected is event-based not person-based. The surveys, with a few exceptions, do not provide estimates on the number of persons receiving care but on the number of events, e.g., hospitalizations, visits. I will briefly describe each survey, provide you with graphic illustrations of the type of data collected by each survey and finally indicate how one can access the data.

NATIONAL AMBULATORY MEDICAL CARE SURVEY

The NAMCS collects information about medical care provided by physicians in an office-based practice. The survey was conducted annually from 1973 through 1981, again in 1985, and, beginning this year, is back on an annual schedule. The NAMCS is limited to collecting data on the ambulatory care provided by physicians in the U.S. who spend at least 50% of their practice time in an office-based setting. Visits to hospital-based physicians are excluded. Also excluded are visits to specialists in anesthesiology, pathology, and radiology; visits to physicians primarily engaged in teaching, research, or administration; visits to physicians in Alaska and Hawaii; and

visits to physicians employed by the federal government. Approximately 30% of all visits to physicians for ambulatory care services fall outside the scope of the survey.

Sixteen data items are collected by the survey, including the date and duration of the visit; the patient's birthdate, sex, race, ethnicity, and problem or complaint; whether the patient was seen before and whether he/she was referred by another physician; the physician's diagnosis; diagnostic and therapeutic services; disposition; and the name of all medicines administered or prescribed during the visit.

The survey obtains information on approximately 50,000 visits per year from the physicians in the sample. At present, the sample consists of 2,500 physicians, approximately 75% of whom we expect from past experience to participate in the 1989 survey. They are drawn from a universe of about 220,000 physicians.

Physicians whose usual work load is 10 patients or fewer per day complete a patient record form for each patient seen during a one-week period. Physicians whose work loads average more than 10 patients a day provide information about a sample of approximately 10 visits each day. The sample is selected systematically using a patient log or register. The one-week reporting periods are distributed over the 52 weeks of the calendar year.

Physicians return completed forms to field staff, who edit each form manually for consistency. Patients' complaints, physicians' diagnoses, and medications prescribed are coded centrally at the center. After key entry, data are machine-edited for consistency and valid codes and then weighted to produce national and regional estimates of the number of visits.

DATA

Graph 1 shows trends in visit rates by physician specialty from 1975 to 1985 based on data from the NAMCS. Although the overall visit rate has remained relatively constant, note that the number of visits per person to physicians in a general or family practice has decreased, whereas visits to a specialist, particularly a medical specialty, have increased. Graph 2 shows visit rates for 1985 by geographic region. Note that there is considerable geographic variation, with the highest visit rates occurring in the South and the lowest in the Midwest region. The final example of NAMCS data shows the number of visits by "Reason for Visit." For most reasons, the number of visits to physicians in an office-based practice has remained relatively constant but a few have changed. For example, the number of visits for a general or physical examination has increased over the 10-year period from about 30 million visits in 1975 to over 50 million in 1985.

NATIONAL HOSPITAL DISCHARGE SURVEY

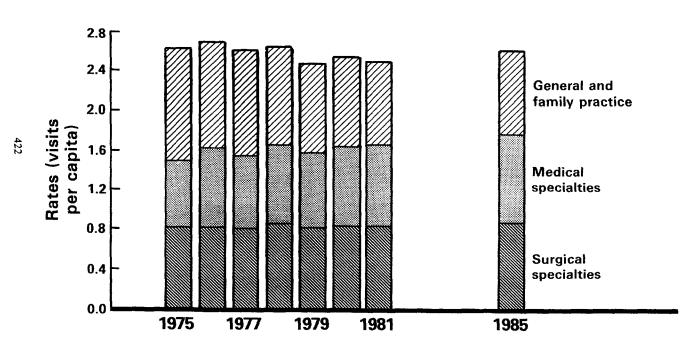
The NHDS is an annual survey that collects data on inpatient hospital care provided in the nation's nonfederal short-stay hospitals. The survey began in the fall of 1964 and, with the exception of updating the sample of hospitals, operated through 1987 with relatively minor changes. In 1988, the survey was redesigned using a different sampling approach and new probability sample of hospitals. The data set remains the same and, with the exception of accepting data in machine-readable form from the hospitals, the data collection procedures are unchanged.

Data are obtained from the medical records of sampled patients and include the medical record number, admission and discharge date (from which length of stay is calculated), birthdate, sex, race, ethnicity, marital status, source of payment, disposition of patient, all diagnoses, all procedures, and dates of procedures. Through 1987, medical information was copied verbatim from the medical records onto the survey forms and up to seven diagnoses and four procedures were coded centrally at the center. Now almost half the sample hospitals submit coded data.

Data are collected about discharges by systematically selecting a sample of the records from hospitals in the survey sample. The total number of hospitals in the current sample is 542, of which 86% participate. They provide information about approximately 400,000 discharges or a little more than 1% of the estimated 37 million discharges yearly.

Data are abstracted throughout the year by staff in the medical records departments of the hospitals or by field staff of the Bureau of Census who are sent to the hospitals to gather the information. Hard copy abstracts are reviewed for completeness, accuracy, and legibility by the Census Bureau and are then forwarded to the data processing facility at the National Center. The

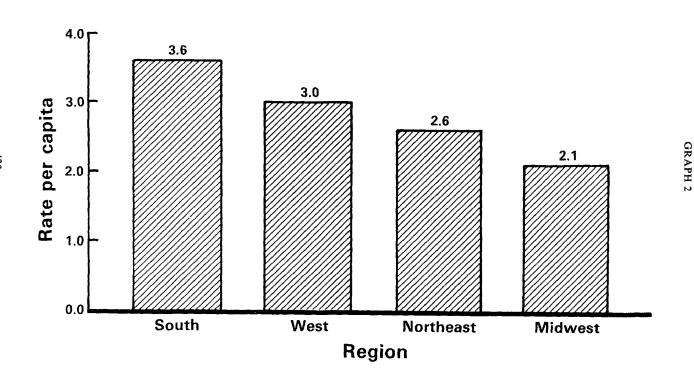
Visit rates by specialty group



PANEL DISCUSSION

GRAPH 1

SOURCE: National Center for Health, unpublished data



information on each abstract is concurrently coded and keyed onto disk. The codes are checked for validity and consistency through an edit program and are then transferred from disk to tape to become part of the permanent file. Machine-readable abstracts are received biannually on tape either directly from the hospital or the hospital's abstract service. Records are edited and added to the permanent file. Finally, the sample data are weighted or inflated to produce national and regional estimates.

DATA

Graph 3 and 4 show trends in the number and rates of C-section deliveries based on 23 years of data from the NHDS. Note that C-sections remained relatively stable at one procedure per 20 deliveries until the early 1970s. Since then, the rate has increased to where one delivery in four is by C-section. C-section rates vary by geographic region and by payment source. Rates tend to be higher in the Northeast and lower in the West and are one third higher when payment is by private insurance then when payment is "out-of-pocket."

NATIONAL NURSING HOME SURVEY

Ad hoc national surveys of nursing homes and their residents have been conducted by the NCHS since 1963. The most recent was conducted from August through December 1985 by the NNHS. This sample survey collects a wide range of information about the facility, about the services provided, about staff and staffing levels, about revenues and expenses, and about current and discharge residents. Each time the survey has been conducted the range of information has increased.

The 1985 NNHS collected information from a stratified probability sample made up of 1,220 nursing homes, or 6% of the universe of 20,000 nursing homes in the coterminous U.S. Information was collected by means of a scries of questionnaires and a number of sampling techniques. Facility information was collected through interviews with the nursing home administrators, who were asked about the number of beds and residents, the services provided, certification status, the number and kinds of employees, and various utilization measures.

Expense information was collected through self-administered questionnaires completed by the facilities' accountants or administrators. The information included the facilities' expenses broken down into their major components, such as labor, fixed, operating, and miscellaneous expenses and the facilities' revenues by source.

Information about registered nurses was collected through a self-administered questionnaire. A maximum of four RNs were sampled per facility from a list of the RNs scheduled to work on the survey day. The questionnaire asked about the employee's demographic characteristics, prior work experience, education, salary, current work activities and employment conditions.

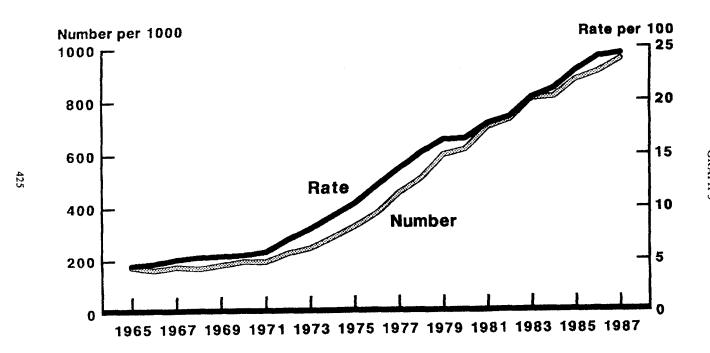
A maximum of five current residents were sampled per facility for a total of about 5,400. The sample was based on the number of patients on the register of each facility on the evening before the survey. The current resident questionnaire asked about the resident's demographic characteristics, health status, functional status, services received, monthly charges, and source of payment. The information was collected through a personal interview with the nurse responsible for the resident's care. The nurse referred to the medical record for much of the information.

Up to six discharged residents were sampled from a roster of persons discharged alive or dead from each facility during the previous 12 months. The discharged resident questionnaire asked for data items that were the same or similar to the current resident questionnaire; the information was collected by personal interview in the same manner as for the current resident questionnaire.

A next-of-kin survey was conducted as part of the 1985 NNHS to obtain information about current and discharged residents that was not available from the facility. A "best respondent," usually a family member, was identified at the time of the survey. Following the visit to the facility, information about the resident's financial status, functional status prior to admission, reasons for admission and prior nursing home use was collected by a computer-assisted telephone interview.

Responses obtained by each questionnaire were checked for accuracy during the course of the survey. Missing or incorrect data items that could not be supplied or corrected during field follow-ups were generally imputed on the basis of answers given by similar institutions from

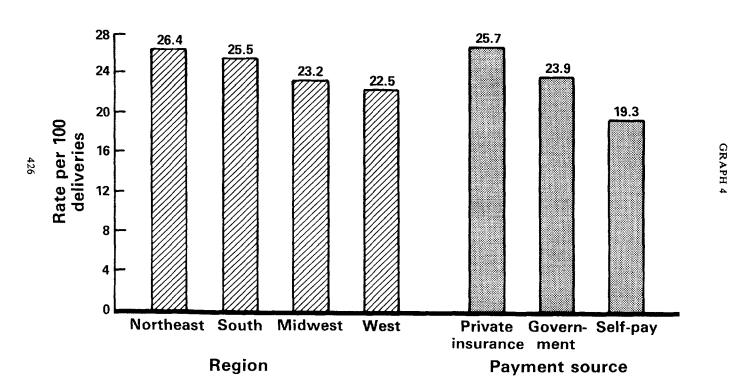
Caesarean section deliveries



HEALTH DATA COLLECTION

SOURCE: National Center for Health, unpublished data

C-section rates by geographic region and payment source



PANEL DISCUSSION

which data could be obtained. The data were then weighted to provide national and regional estimates.

Of the 1,220 nursing homes sampled, 1,079 participated in the 1985 NNHS or 93% of the in-scope homes. Response rates for the individual questionnaires varied from 68-100%. These rates generally reflect the data collection procedure -- response rates to personal interviews are generally higher than to self-administered questionnaires.

DATA

Graph 5 shows the average monthly charges by geographic region and functional status of the current residents. Functional status is determined by the number of dependencies on six activities of daily living or ADLs; i.e., does the resident require assistance eating, bathing, dressing, walking, etc.? Charges are highest in the Northeast and the lowest in the South. Not unexpectedly, charges are higher the more dependencies the resident has. I note this relationship of charges to functional status because nursing home residents may be of poorer functional status (sicker) now than in the past and this may account for part of the rising cost of nursing home care. Graph 6 shows the age-adjusted nursing home populations in 1977 and 1985 by number of functional dependencies. Note that there was a smaller percent of residents with three or fewer dependencies but a larger percent of residents with five and six dependencies in 1985 than in 1977.

AVAILABILITY OF SURVEY DATA

How does one access NCHS data and data from the health care surveys in particular? An important part of the mission of NCHS is to disseminate its vital and health statistics to as wide an audience as possible. Information is made available in three ways: publications, public use data files and unpublished tabulations.

The principle source of published information based on data from the health care survey is Series 13 of Vital and Health Statistics Series and the Advance Data from Vital and Health Statistics reports. The latter is a brief summary report that provides the first release of data from the surveys.

The NCHS also has an extensive program of data release through the sale and distribution of public-use data files. Computer tapes with unit records are available for each of three health care surveys. Diskettes for PC use are also available for later years of the NHDS. The capability to provide data on CD ROM is currently being developed.

Finally, special tabulations can be produced at nominal cost for users without computer resources. Many statistics are provided free by calling our Scientific and Technical Information Branch. This unit operates a full-service, centralized information clearinghouse for data users and will assist in locating and using NCHS data in any format. The telephone number is (301) 436-8500.

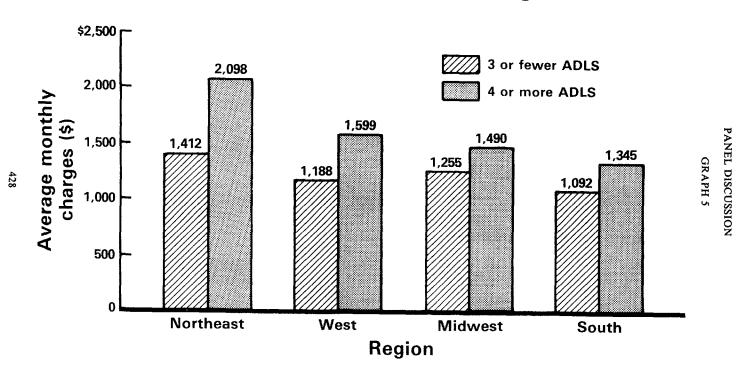
MR. SAM GUTTERMAN: The objectives of my presentation include a discussion of the following aspects of health experience data availability and development by the Society of Actuaries: past efforts of the Society and its members in the development and dissemination of health-related experience data, experience data the Society provides today and current developmental efforts in this area.

HISTORICAL BACKGROUND

The Society of Actuaries has a long tradition of developing experience data relating to areas of interest to its members. This data has primarily, but not exclusively, covered the experience of insurance companies.

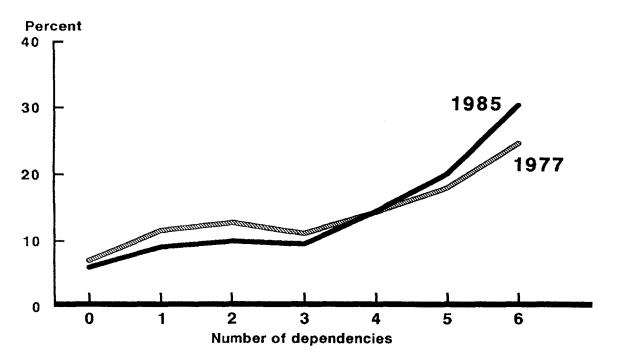
Health actuaries have sometimes felt that these efforts have emphasized the individual life insurance area, possibly at the expense of health insurance. I believe that this apparent demphasis of health experience data, particularly in the nondisability income area, has resulted from the relative difficulty in providing meaningful information, including: (1) the variety in benefits provided and factors that affect costs by company are greater than for life coverage, thereby making it more difficult to combine companies in a meaningful intercompany study; and (2) the greater need for timeliness in reporting health experience has limited the amount and significance of the Society's traditional intercompany experience data collection activities compared to that for life experience. Actually, relative to the number of actuaries active in the health area, there may have been a greater than proportional output of health experience, but still not enough to satisfy the health actuaries' needs, and even less so recently.

Average monthly charges by functional status and region



SOURCE: National Center for Health, unpublished data

Percent nursing home population (65 years and older)



SOURCE: National Center for Health, unpublished data

GRAPH 6

I categorize historical efforts into four areas: intercompany experience of disability income coverage, intercompany experience of medical expense coverage, development of valuation tables, and encouragement of members to contribute their own company's experience through papers published in the *Transactions*.

Gathering and reporting of experience on an intercompany basis for disability income coverage has been conducted for individual disability income and group disability since the 1950s. Although at times, the amount of experience contributed in comparison to the size of the disability income industry has not been as great, results have generally been satisfactory. The last published study for individual disability coverage included benefit years ending in 1982 and 1983, while the study for 1984 and 1985 will be available shortly. The last published study for group long-term disability income coverage was for 1981. A study of the 1982-1986 years is currently in the planning stage. It has recently been decided to discontinue future studies for group short-term disability due to lack of contributors.

Gathering experience on an intercompany basis for medical expense coverage has had few recent successes. Such studies also began in the 1950s, but the last published study of group experience was conducted in the late 1960s and was stopped due to a lack of willing contributors and to the inability to provide timely data reporting. The last individual policy study covered 1981 and 1982, but in its last several years it had become less relevant, due to a declining number of contributors, a declining number of companies writing the business studied and the inability of companies writing the larger volumes to contribute data in an appropriate format.

The Society has been responsible for the development of several tables used for both the valuation and pricing of health insurance, including the relatively recent 1985 Commissioners Individual Disability Tables and the 1987 Commissioners Group Long-Term Disability Table, and in earlier periods various medical expense tables published in the 1950s that are still being used for valuation purposes.

Over the years, the Society has published in its *Transactions* a number of papers written by its members covering experience data for health insurance and health care, primarily covering the experience of a single company or government program. The most recent example of this was a paper written by Peter L. Hutchings and Richard E. Ullman entitled "Prepaid Hospatal Care Age/Sex and Hospital Continuation Study" covering the experience of prepaid hospital care and the hospital continuation study of Blue Cross and Blue Shield of Greater New York, published in *TSA* 35.

CURRENT SITUATION

The Society is currently in a transitional state in many areas of research; the collection and dissemination of health experience data is no exception. Current activities are being continued, but are in the process of being reviewed. New activities are being investigated, action plans have been initiated, and questions of feasibility and funding are being explored.

The only current reports in this area are the results of the ongoing experience studies of individual disability income and group long-term disability coverage, as briefly described earlier. Even here, both of these studies are in transition that I will mention shortly.

Intense recent efforts have been completed, focused on the development of new tables for these coverages. Although articles for the *Transactions* have been encouraged, no articles in this area have been published during the last few years. In summary, a relatively small amount of output can be seen from the Society's recent efforts.

CURRENT DEVELOPMENTAL EFFORTS

The Society is in the process of reviewing all of its experience-related research and is prepared to develop new areas for future study. Before explaining the current plans in this area, let me briefly describe the structure we have put in place.

The Research Policy Committee is responsible for establishing research policy, with the approval of the Society's Board of Governors. Within the last year, the Research Policy Committee has developed an issues management process, designed to help surface research issues that the Society should tackle. This process has surfaced several issues in the health care area that are currently being addressed.

Two committees directly report to the Research Policy Committee: the Committee on Experience Studies, which is responsible for the management of ongoing experience studies, together with the experience committees reporting to it, reviews all existing studies; and the Research Management Committee, a new committee, which is responsible for the development of new research efforts, will form small groups of design and directly supervise each potential research project.

Within this context, the following briefly describes some of the current plans for the near future: the current individual disability income study will be overhauled; additional contributors are being solicited; seriatim exposure submissions are being encouraged; and additional variables and data are being requested, such as experience for the first five years of benefit, residual and partial disability experience, persistency experience, more detailed occupation and cause of disability data, and investigation of the possibility of initiating an early indicator system of changes in experience.

- The current group long-term disability income study will be revised with additional contributors to be solicited.
- o By means of the availability of publishing articles in the *Transactions* and discussions of experience reports in the *Record*, additional experience will hopefully be published in the future.
- O Another attempt will be made to study experience for credit life and health insurance.
- A new study of experience for long-term care insurance is being initiated. A request for contributions for experience was recently made for 1984 through 1988. This is an exciting development, because it marks the first study of a developing coverage in a long time. I cannot predict when results of this study will be available, but I hope that it will occur during 1990. In addition, investigation of other data sources in this area is being made. Society staff is currently assisting several states in their development of meaningful experience in this area, an effort that may prove fruitful in other areas in the future.
- o An attempt will be made to study experience of continuing care retirement communities (CCRCs). Significant problems will have to be overcome to get CCRCs to collect their own experience for the Society to analyze. The success of this research project may depend on the cooperation of other organizations, together with appropriate funding.
- o A research project that is underway is the study of antiselection, attempting to quantify on a statistical basis the level of antiselection that occurs as policies age.
- O Currently, the experience of certain writers of individual major medical insurance is being studied. If successful, this may lead to a study of other coverage such as small group health or to a more comprehensive experience study.
- A research project that is just getting started is entitled Health Data Base. This project has gotten significant input from a survey of Health Section members last year. Results of this survey indicated that there was an almost unanimous feeling that the Society should play a larger role in the dissemination of health experience data. No specific direction was agreed to by those surveyed. However, this direction is what the project group will attempt to further refine. Initial efforts will include investigation of various medical care data bases that are available, covering both public and private programs; identification of specific needs and niches of experience data that may prove useful to health actuaries; and recommendation as to how to proceed to fill these needs and niches.

As can be seen, activity is heating up in this area after a long period of relative inactivity. Results in a few of these areas may be relatively slow in developing; certain of these research efforts may turn out to be failures. However, if such efforts are not made, we will be certain to continue our relatively weak current position in this important area.

The Society is always interested in its members' input and ideas in this area, as well as volunteer assistance in improving its performance. Please get in touch with me with your thoughts at any time.

MR. THEXTON: Are there any plans to tell the membership from time to time what progress is being made in these various future plans in the programs that you described, particularly an estimate of when we will see the first results about long-term care? I just wonder if anything is going to come out in *The Actuary* or, from time to time, perhaps in a bulletin from the committee?

MR. GUTTERMAN: The Committee on Experience Studies which I chair is in the middle of instituting a planning process to review all its studies in all the areas, to try and identify whether or not it is being focused properly to meet the needs of actuaries and other interested parties into trying to set up a more timely production of those results.

In addition, there have been seven research projects that have been written up in *The Actuary* several months ago that are being focused on various series, and the health care area is certainly one of them. We hope to be able to publish on a periodic basis, through *The Actuary*, the status of those projects.

Again, we are interested in ideas. The issues management process that we have instituted is not a one-time thing. Hopefully, we will be doing this every year to reevaluate where we are and improve the priorities that are being set in the research area.

MS. NEELA RANADE: Dr. Bacon, you said that the nursing home survey produced amounts of fees charged, but you did not have similar information for physicians' fees or hospital fees. Is there a reason for that? Is there any more to do to incorporate that kind of data?

DR. BACON: Yes, there is. At one time, we did collect charges in our hospital discharge survey, but because of resource constraints, we have not done that for a number of years and there is no plan at the moment to do that. We have never attempted to collect physicians' fees mainly because we felt it would be very difficult to get the physicians to participate in the survey if we tried to collect that information. So, we have no plans to do that. Now, the Center does conduct some surveys that collect some limited information on fees and payments in their survey called the Medical Care Utilization and Expenditure Survey, last conducted in 1980. That is a population-based survey and the information is collected from respondents from the general population, but they keep diaries of their medical expenses over a period of time and we get some information from that survey. Also, in that survey, they went back to the providers of care that the respondents identified to check the respondent information in the providers' records.

MS. RANADE: When will that survey be repeated again?

DR. BACON: There is a survey that has just been completed by the National Center for Health Services Research which is a sister agency of the National Center for Health Statistics called the Medical Expenditures Survey or Medical Care Expenditures Survey. That, I believe, collected similar kinds of information and that would have been for the year 1987; but you would have to contact that organization to get that information.

MS. RANADE: Is there any differentiation by age, by over- and under-65, for instance, for the information on utilization? Is there a distinction made by age of the person getting the care?

DR. BACON: All our surveys collect birthdate so you can calculate age. There is no limitation. In other words, we don't survey only up to age 70 or 80. It is a probability random sample and if a very elderly person falls into the sample, we collect information.

MS. RANADE: What I was interested in was utilization data on those people who are over-65 and typically on Medicare separately and those people who are under 65. I was interested in whether you have any kind of tabulations done distinctly by the over-65 group.

DR. BACON: Most of our publications do use 65 as a cut-off; that is, we have age groups up to 65 and age groups over 65, in those publications. Some publications break the population over 65 out into ten-year age groups up to 85. Others group them a little more broadly. On the data tapes you can break the age groups any way you want just by using birthdate.

MR. THOMAS J. STOIBER: Sam, you mention there has been a reluctance for carriers to submit statistical information on medical-type policies. So I was a little surprised to hear that the request for information on long-term care that is going to cover the period from 1984-1988 has met with

less reluctance. Have you gotten confirmation of companies willing to contribute and is the data base statistically significant enough to work on and be done by 1990?

MR. GUTTERMAN: We requested experience about three weeks ago and I have gotten positive responses from five companies so far for that period. However, I have several companies that have yet to respond. I don't know yet until I look at the data how good that data will be in terms of being credible. For example, several carriers are recently in the market and there may very well be difficulties in the use of long-term care data in the first two years since issue, so that is a problem that we will be looking at. We have, however, gotten at least responses from ten other companies that have said that they have just recently gotten into the marketplace and they are hoping to be able to contribute either in 1990 for 1989 data or the following year for 1990 experience. So, it looks like so far there has been relatively good response considering the number of companies in the marketplace. There have been two companies, however, that have wanted to know or be given assurances that they wouldn't be just giving away their own data; in other words, that we are having a general intercompany study. That is something that we will be dealing with when they actually send in the contributions in the coming months.

MR. JOSHUA JACOBS: I would like to ask Mr. Gabel about a number of these employer surveys that seem to be put out by the large accounting firms and some of the consultants and so on. There seem to be so many of them and frequently because of a difference in time, some of them relate back a whole year. They report a trend from 1987-1988 and others are reporting an instantaneous trend that is very confusing. Also, they seem to contradict each other frequently and I think it has something to do with the way the questions are asked or the way the sample is done. I wonder if you can comment on the general approach.

Another thing I noticed is there seems to be subjective questions, such as, "Employers no longer like HMOs but they like PPOs. They think PPOs save money." Then you see a statistical report of 67% saying this and 42% saying that and this gets repeated in the newspapers and so on. I wish you would comment generally on employer surveys.

MR. GABEL: Your question is well taken. We need to know what we are measuring. We need to know how the questions are asked. This is why I made the comment that those of us who produce information are very, very conscious of its limitations. Unfortunately, one of the difficulties dealing with the press is that they have to convert everything to a sound bite and our caveats get lost in the process. Now, we believe that our information is as good as there is.

There are two other surveys that I think are most credible surveys. The Bureau of Labor Statistics (BLS) has unpublished data on employer cost. It is unpublished, nobody knows about it, but it is there and if you call them up, you can get it from them. Another one is the BLS survey of midsized and large firms. The problem with that data is that it does not include small employers and they cannot tell you on the tape where the firm is located so you can't do much analysis with it.

I believe the HIAA survey is better than that of the consulting firms. We conduct a probabilistic survey. We have a sample which is supposed to represent the U.S. We are concerned with the nonresponse bias. Most consulting firms' surveys fail to describe their sample; they can't tell you the response rate. Very often, they are using a client base.

They ask opinion questions. There is nothing wrong with opinion questions as long as analysts know they are opinion questions. What we have tried to do is ask the same questions every year and that way you pick up trends. For example, we ask employers every year how satisfied they are overall. We found a real difference in 1987 and 1988. We saw the employers were extremely satisfied with PPOs in 1987 and we saw in 1988 there was a great deal less satisfaction with their ability to control cost.

HIAA figures are very close to BLS figures. Also, the various surveys report slightly different data, but if you plot trends in premiums over many years, where this is available, you will see that they move in tandem. You will see, for example, Hay-Huggins is typically about three or four points higher than other surveys, but moves in tandem with other surveys.

So, I guess about the only thing I can say is, yes, I believe there is a difference in their quality. I believe we are as good as anybody. The BLS is good and I think we are very good and you just

have to be careful of what is being asked and how it is being asked. Unfortunately, if you get your news from radio or TV, you will miss out on all those details and you need to get the reports and understand how the question was phrased and how the authors measured their variables.

MR. THEXTON: Ed, in the 1985 Nursing Home Survey, the comment that I hear from a lot of people is that every time someone was discharged to a hospital and then went back to the nursing home after a few days, he was treated as a new entry into the nursing home, a discharge and a new entry. It is believed that there is a lot of that, and, therefore, the average stay and the frequencies are distorted. So, what I wonder is, has this problem been described to you and do you have any comments on overcoming it?

DR. BACON: Yes, it has and you are absolutely right. Some nursing homes will discharge a patient to a hospital for two or three days and then readmit. Other nursing homes will hold the bed open for that two- or three-day period and not discharge and so you do get this problem when you try to calculate a length of stay and what the policy is of a particular nursing home. In the 1985 Nursing Home Survey, we did collect information in regard to whether a patient was formally discharged to a hospital and then readmitted or whether the patient was transferred to a hospital and the bed was left open. So, we do have some information. Also, when we conducted the next-of-kin component and contacted family members, we tried to get at that question too as to their prior nursing home utilization and whether they went from the home to a hospital and back to the home.

I might mention that we are also conducting a longitudinal study from the nursing home survey. We are continuing to follow-up on those current residents and discharged residents that were sampled in the 1985 survey, again, by contacting the next-of-kin. We have completed two follow-ups and two more are scheduled so that by the time we finish, we will have followed most of those residents from the nursing home to the grave.

FROM THE FLOOR: When will those results be available or be initially processed or analyzed?

DR. BACON: The results from the first two follow-ups should be out very shortly. I believe it is this summer that the third follow-up will begin, so it will be a while before that is out.