

IMPROVING THE VALIDITY OF SURVEY DATA

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To narrow the range of the topic, participants were invited to suggest aspects in which they had special interests. This led to suggestions as numerous and varied as the backgrounds of the participants.

Discussion began with responses to inquiries about the ASA pilot project on the assessment of survey practices and the problems of frame building to be faced in conducting a nationwide study. The directors have proposed a combination of methods in developing frames: construct lists of sponsors and surveys done for each; construct lists of survey-taking organizations and surveys conducted by each. Political polling and market research appear to be the most difficult areas for frame building. It was suggested that the universe of political polling might be limited to polls related to a particular election or class of elections (e.g., national presidential). Consideration of the problems encountered in constructing a frame of establishments conducting market research surveys led to a discussion of the importance of a clear, working definition not only of establishment but of any other term having a determinative role.

Nonresponse in relation to household personal interview surveys soon dominated the conversation. The frequently mentioned components of nonresponse and problems in dealing with them were reviewed. How nonresponse is defined and calculated has broad interpretations that vary with survey organizations. Nor was there expressed agreement among participants. It was suggested that in the case of quota samples, there should be a reporting of the number of households contacted in order to fill the assigned quotas. Otherwise, when data from such surveys are archived and distributed, analysts have interpretive difficulties. It was pointed out that one way to avoid this problem was to use probability samples.

Refusals may occur for many reasons. Interviewers concerned about their personal safety may refuse to go into some areas. Householders fearing strangers may not respond to a knock at the door. Entrances to apartment buildings may be barred by locked doors or by doormen. The sponsorship of a survey or the subject area may be grounds for refusals. The questionnaire design or the length of the interview may result in a partial refusal. We lack an understanding of why respondents refuse. It was strongly suggested that this issue should be investigated.

Over time there are changing ideas and changing perceptions of what is an acceptable approach to data collection. To illustrate, rather than asking respondents direct questions about voting in a past election, we might obtain names and addresses and go directly to voting records to determine who did or did not vote.

Little attention was given to sampling error as a factor contributing to the validity of survey data. However, there was a request that organizations distributing data sets and analytical programs also include programs for a proper calculation of sampling variability when data are not derived from simple random samples.

Exclusive of nonresponse, there remains a broad area of nonsampling errors that may have important effects on survey data. It is generally agreed that attention focuses largely on nonresponse because it is highly visible. Less visible are the effects of questionnaire design, question wording, interviewer error or bias, interviewer training and response error or bias. A high response rate does not guarantee high quality of data. What have we gained in pursuing a reluctant respondent until he agrees to grant an interview if his responses are irresponsible? It is not clear nor was there agreement on which effect should have more attention: nonresponse or response errors. More research is needed in these areas.

STATISTICS FOR HEALTH PLANNING

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The National Health Planning and Resources Development Act (P.L. 93-641) was signed into law in January 1975. It was designed to create and support the capability for health planning to assure that needed health services are available, accessible and of high quality, but at the same time that there is not a costly, duplicative proliferation of services.

The nation has been divided into 212 Health Service Areas, and there is a Health Systems Agency (HSA) for each area which is responsible for area-wide planning. The agencies' functions include assembly and analysis of data, review of proposed new health services, reduction of unnecessary duplication of services and promotion of better services, and (in time) review of the appropriateness of existing services. The HSAs advise the State on Certificates of Need for new services.

The HSAs must develop Health Systems Plans for their area, which are statements of the goals for health investments in the community. These goals must be specific and quantitative wherever possible.

The P.L. 93-641 placed considerable emphasis on the acquisition and use of health statistics to analyze the health systems' strengths and weaknesses and determine the need for new services and identify areas which may have a surfeit of facilities and services. The goals and objectives of the planning process, evidenced in the Health Systems Plans, must be derived from the thoughtful analysis and interpretation of empirical data.

The HSAs must assemble and analyze the data for their area on health status, use and effect of the health care delivery systems, health resources, health financing and the environmental and occupa-

tional exposure factors affecting immediate and long-term health conditions.

In acquiring the data, agencies must tap existing sources of information and coordinate with the Co-operative Health Statistics System (CHSS), as well as PSROs, State, county and city health departments, other planning bodies, etc. Clearly, those involved in health statistics, can play a key role in making certain that data are available to planners to meet their challenging responsibilities.

Planning agencies are being advised to develop a population-based approach to data acquisition and planning. They are expected to build their information resources in a manner in which they can link events (births, deaths, discharges, etc.) to a defined population, such as by using a geocode (census designation or zip code).

Vital statistics are especially important to planners. The number and rates of births and fertility rates are indicators of the age distribution of the population (which affects the need for health services), as well as significant direct indicators of need for specific health services.

Questions concerning environmental and occupational safety and health are of increasing interest to planners. There are few sources of data on risk factors, morbidity or injury, particularly from reliable sources which are linked to a defined population. However, studies of mortality cross-classified by area of residence and occupation and business or industry could help to identify these jobs and geographic areas which have disproportionately high rates of death especially among the younger workers.

It was generally agreed among round table participants that mortality data tend not to be the best measures of the "health" of a population, at least in an advanced industrial society. The most important untapped source of information from vital records for planning purposes is in-

formation on patient utilization patterns of health services, especially hospitals.

The CHSS will be a major means of meeting the needs of the HSAs. The CHSS will help mold the current fragmented data collection activities throughout the country into a cohesive system that will produce comparable data in the detail required for most users.

The National Center for Health Statistics (NCHS) has the responsibility for developing the CHSS. When CHSS is fully developed, each State will have the capability to ensure availability at the local level of the same types of data that have in the past been available only at the national level. The CHSS, administered by NCHS, and authorized through P.L. 93-353 is an effort to build a health data system which will serve as the basis for effective planning at all levels of government in all areas of the country.

The NCHS and Bureau of Health Planning Resources Development (BHPRD) have an agreement and work-plan to develop the data activities to meet the needs of the planning enterprise. NCHS has developed a source book on current national data that provides information to guide staff as to where data on health status, health resources, and health utilization are currently available.

NCHS is also developing and distributing "Statistical Notes for Health Planners" that are providing the methodology to HSAs for use of existing data available from Federal programs in an easily accessible and easily updated format. These "notes" will add to the library of statistical information to each HSA.

NCHS has a firm commitment to combine the best efforts of health statisticians and health planners toward the development and uses of a coordinated statistical support capability which will allow the best possible planning and resource allocation to take place in the health care delivery system.

MEASUREMENT OF DISABILITY: ROUNDTABLE DISCUSSION

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The session focused on the measurement of work disability in the adult population by household surveys. The following definition of disability was used to assure a common frame of reference. Disability is the result of functional limitations arising from a mental or physical condition(s) interacting with a host of other factors such as age, work history, education, family situation, etc. to leave an individual incapable of adequately performing his/her generally accepted social role, e.g., working, keeping house, or going to school.

This definition, itself, highlights several significant difficulties of measurement. First, knowledge of the underlying disease or condition is not sufficient. More important are the residual physiological, anatomical or mental losses or abnormalities, i.e., impairments, that result.

Impairments contribute to disability through the nature and extent of the functional limitations they cause. For example, loss of muscle strength may lead to an inability to lift, while the loss of a limb may mean an inability to walk. Identification and quantification of such limitations are very important for measurement.

Second, not every impairment results in a disability. Identical impairments with the same degree of severity may even result in different levels of disability. Thus, muscle weakness is much more limiting to a laborer than to an accounting clerk, while the opposite is true for good eyesight or manual dexterity (fingering).

Third, disability is determined by the interaction of limitations in function with situational and environmental factors. In the case of