
The INSURE Project on Lifecycle Preventive Health Services

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THE LIFECYCLE PREVENTIVE HEALTH SERVICES (LPHS) study was recommended by an advisory group on health education of the private life and health insurance companies and was announced by the industry's Clearinghouse on Corporate Social Responsibility in July 1980 (1). The project is a 3-year feasibility study involving the planning, implementation, and evaluation of preventive health services (including health education) in primary medical care. The lifecycle health-monitoring approach to be used includes specific preventive services for 10 age groups. A quasi-experimental research design will be used in the LPHS study, whereby three study (experimental) sites are matched with three control sites. The sample size is 4,500 patients and approximately 100 physicians. An analysis will be made of the proximal impact of the preventive services on consumers, providers, and third-party payers, as well as of the costs.

The project is being conducted by INSURE, a nonprofit organization whose board of directors includes members of the Advisory Council on Education for Health and executives of life and health insurance companies. The project staff, which is housed at the

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Metropolitan Life Insurance Company in New York City, consists of four full-time professionals.

The objectives of the project are as follows:

1. to define age-specific procedures and packages of preventive health services, including patient education, for all age groups
2. to implement the LPHS packages at sites in different areas of the United States
3. to recruit primary care physicians in group practices at each of the study sites
4. to develop educational materials and protocols for physicians and review with study physicians the LPHS approach
5. to promote LPHS among patients at these study sites
6. by using a quasi-experimental study design, to determine the short-term effects of the project on physicians and patients.

Several group practice sites will be used for the LPHS study. The packages of preventive services for the "well" population were reviewed in consultation with health professional groups, experts in preventive medicine, and third-party payers. The costs of providing the recommended preventive services, including patient education, are based on the fee schedules of the participating group practice clinics, and they are estimated to be relatively low. The project will pay a negotiated amount to the provider of the services at the selected sites.

The impact of these preventive services on health knowledge, attitudes, and behavior and on the related

use of health care resources will be assessed. Data on utilization, costs, services, and manpower requirements will be collected. Recommendations will be made as to which specific preventive services should be part of primary care as well as on ways to integrate these services into various practice settings. The degree to which the health insurance industry could improve health care by changes in benefit plans will also be explored.

Background

In 1973, the National Institutes of Health, anticipating an emphasis on prevention at the Federal level, initiated a series of studies to review and evaluate the field of prevention. In these studies, problems in the application of preventive methods were defined and gaps in the knowledge base requiring further research were identified.

Among the recommendations generated by the subsequent National Conference on Preventive Medicine, sponsored by the National Institutes of Health, were guidelines for age-specific preventive procedures for patient care. In 1977, the lifetime health monitoring program of Breslow and Somers (2) provided visibility to this concept of including "cost effective and health effective preventive measures" in health care. The authors proposed a framework in which clinical and epidemiologic criteria would be used to identify goals and services for 10 age groups, from prenatal care through geriatric care, and which would replace the annual physical examination. The issue of insurance coverage for these preventive services was also raised.

During this time, the Ad Hoc Advisory Group on Preventive Services of the Division of Health Promotion and Disease Prevention of the Institute of Medicine (IOM) was drawing up recommendations for preventive services for the well population. The IOM group prepared a summary report in April 1978 that became part of the Surgeon General's report, "Healthy People" (3). The consensus IOM report further specified what health history, physical examination procedures, clinical laboratory tests, and patient counseling should be included in preventive services for 10 age groups. For example, the procedures listed for routine prenatal care, including health counseling, are similar to the recommended obstetrical services of the American College of Obstetrics and Gynecology. Also, the recommended preventive services for infants and children incorporate most of the standards developed by the American Academy of Pediatrics for well-baby and well-child care. The recommendations for adults, however, represent a departure from the annual checkup that had been practiced in the past.

"Healthy People, the Surgeon General's Report on Health Promotion and Disease Prevention," which appeared in the fall of 1979, included the statements that ". . . 75 percent of all deaths in this country are due to degenerative diseases such as heart disease, stroke, and cancer . . . accidents rank as the most frequent cause of death from age one until the early forties . . . environmental hazards and behavioral factors also exact an unnecessarily high toll on the health of our people (3)." The report called for a new commitment to preventive services through disease prevention and health promotion.

The report of the Canadian Task Force (CTF) on the Periodic Health Examination, published in 1979, was the most detailed and comprehensive evaluation of screening and casefinding involving healthy persons to that date (4). The members of the task force began by setting the criteria to judge the scientific validity of the diagnostic and therapeutic procedures that a physician might use in providing a periodic health examination for a well person. The task force also reviewed the mortality, morbidity, and disability related to 78 health conditions and evaluated the potential effect of treatment. Finally, the recommended procedures were grouped into 18 health protection packages to be performed at 35 specified times between pregnancy and old age.

Perhaps the most obvious feature of the CTF packages is the exclusion of a number of traditional diagnostic procedures performed on normal, healthy adults, such as chest roentgenograms, electrocardiograms, and sigmoidoscopy, as well as the annual checkup. As the CTF noted, most disease-detection procedures used in periodic health examinations were included because they had been useful in the diagnosis of symptomatic patients. That does not necessarily mean, however, that these procedures would be as useful in the early detection of presymptomatic disease or in the reduction of risk factors.

As a result of the renewed interest in the prevention of illness, disability, and premature death, the concept of reducing risk factors, whether they arise from the environment or personal behavior, has come to be viewed as a necessary part of health care.

Risk factors consist of personal habits or lifestyle such as cigarette smoking, lack of exercise, and alcohol abuse, and such physical characteristics as high blood pressure and elevated serum cholesterol, as well as environmental risk factors. Progress has been made in identifying and quantifying these factors and controlled trials are now beginning to provide results in terms of lowering the risk factors for coronary heart disease. These data will be analyzed for the effect of risk factors on cardiovascular disease, as for example, in the Multiple Risk Factor Intervention Trial (5). The MRFIT approach is an example of the medical model in risk factor reduction in which the individual patient at risk is identified and treated. The community model aims educational and environmental measures at a whole community to improve the health-related behavior of an entire population and reduce its risk factors, as for example, in the three-community study conducted by the Stanford Heart Disease Prevention Program (6). In addition, in the worksite model attempts are made

to improve the health and lifestyle of employees by providing preventive services at the place of employment. Another aim of these worksite programs is to decrease the rise in the costs of health benefits. To achieve this aim, both business and labor have begun to establish health promotion or "wellness" programs at the worksite.

Questions inevitably begin to arise regarding the definition of health promotion, its future in clinical medicine, and more particularly its role in primary medical care. Health promotion has been broadly defined as the study and application of methods to augment physical and emotional well-being, increase longevity, and enhance the quality of life (7). Unfortunately, health promotion lacks a solid foundation of scientific knowledge; the literature on the subject is filled with generalities and good intentions. Because of this disadvantage and the problem-oriented approach of most practicing physicians, clinicians have lacked interest in health promotion. A major disincentive to the clinical use of health promotion and preventive health services in office practice has been the lack of third-party coverage for these services. Medicare does not cover preventive care except pneumococcal vaccine, and Blue Cross-Blue Shield coverage is primarily limited to hospital-based inpatient health education. Private insurance companies expect the patient to pay for nonillness-related routine medical services.

Cost effectiveness is a term frequently used in the LPHS study because the technique has been applied to certain preventive health programs with some success. In cost-effectiveness analysis, an attempt is made to summarize all health program costs into one number and the effectiveness or benefits into a second number and to base the rules for policy decisions on the relationship between the two numbers. Put another way, cost-effectiveness analysis is a method to determine which health programs achieve a given goal at the minimum cost. Effectiveness is expressed in descriptive terms such as added years of life; no attempt is made to apply a dollar value to benefits as in cost-benefit analysis (8).

The LPHS study will not be able to directly measure cost effectiveness, because in the initial phase it will not be possible to answer the question, Does the intervention lead to better health outcomes? A determination will first be made of the feasibility of introducing the services and changing the attitudes and behavior of providers and consumers. If the study shows that these objectives are feasible, then morbidity and mortality data may be pursued. The study design will include a strategy to determine cost effectiveness if the study continues beyond 3 years.

The term lifecycle is used in this study to describe the lifestyles of people as they mature and grow older and, in particular, to describe how the attitudes and behavior of "well" patients change over time. Social scientists, using the concept of a "family life cycle," have demonstrated that a combination of age, marital status, and parental condition explains a broad range of economic behavior better than age alone, as well as providing an explanation of the etiology of some mental disorders, patterns of work and leisure time, and adult socialization and morale (9,10). A question for the LPHS study is the extent of the relationship between lifecycle (defined in terms of age and marital and parental status) to patterns of health behavior among asymptomatic, healthy people. This health behavior contrasts with illness behavior, which is the way that people respond to symptoms of disease.

The Intervention

Primary care providers are the source of regular medical care for most of the U.S. population (11), and the incorporation of preventive services, including patient education and counseling, into the existing system of medical care is a logical and appropriate step. Support for the potential effectiveness of this approach is illustrated by the responses to a national poll conducted by Louis Harris and Associates (12). Fifty-seven percent of the respondents in the poll stated that they would be greatly helped in achieving a healthy diet if they received recommendations from their doctor, and a majority of smokers believed that medical advice would be effective in helping people to stop smoking. Yet the current practice of medicine does not reflect this potential—according to the Harris poll, only 16 percent of the people who have gone on a diet at all say they were prompted to do so by their doctor's advice. In contrast, 47 percent of the public say they currently get a great deal of information about health and medical care from their doctors. This is a much smaller proportion than the 70 percent who express the belief that information from their doctors would be very useful and reliable. This discrepancy between the potential and actual roles of the physician in prevention, and in patient education in particular, probably has complex and structurally perpetuated origins. Medical practice patterns are well established, and the demands that illness care makes on the physician's time and skills are substantial. For the practicing physician, a complete reorientation toward preventive care is unlikely, given his or her current interests and skills.

Despite the difficulties of incorporating prevention into the practice of primary care, the potential benefits

have begun to lead health professionals into an exploration and demonstration of the role that practicing physicians can play in health promotion and disease prevention. It has been shown that after exposure of physicians to a single teaching session, they spend more time teaching hypertensive patients (13), and these patients adhere better to drug regimens and achieve better control of their blood pressure. With regard to smoking, those patients of general practitioners, in a British experimental study, whose physicians gave them simple but firm advice to stop smoking, in the physician's own style and in 1 or 2 minutes, were significantly more likely to stop than control patients (14).

The orientation of physicians to the LPHS protocols and their education in the preventive health behaviors that they are subsequently to teach their patients are part of the same process; together they comprise the LPHS intervention. Both the LPHS medical procedures and patient education will be provided by, or under the supervision of, physicians in primary care practice.

The recommended LPHS protocols are based on the work of Breslow and Somers (2), the Institute of Medicine Ad Hoc Advisory Group (15), and the Canadian Task Force's report on the periodic health examination (4). The protocols represent a merger of these three reports. The current LPHS version is a guide to the minimum procedures that a physician will use during an LPHS patient visit. Physicians will want to use their clinical judgment and add or delete procedures according to the patient's history and physical examination. For example, a heavy smoker with a chronic, productive cough may require a chest X-ray even though chest X-rays are not included in the recommended LPHS guidelines.

Patients will receive the LPHS examination and education from their own primary care physician. It is fundamental to the LPHS approach that preventive services be delivered in primary care settings by the patient's own physician. Any patient education provided directly by another health professional already employed in the office practice (for example, a nurse or health educator) will be done with the expressed support and direction of the physician; the importance of communicating to the patient the physician's support of these other professionals' efforts will be stressed in orientation sessions with the physicians.

The physician orientation sessions are the major focus of the LPHS orientation process. As a first step (see chart) the project staff and consultants will conduct a walkthrough of the clinic site to gain an ap-

preciation of the procedures and dynamics of the group practice. In addition, a focused interview will be conducted at this time, in which several participating physicians will discuss with the project staff the issues related to the implementation of LPHS in their practice, including the physicians' current practice patterns and feelings about their role in health promotion and disease prevention. The impressions gained from the walkthrough and the first focused interview, as well as from data obtained in physician interviews at time 1 (see under "Study Design," page 314), will be used in needs assessment to determine the appropriate tone and emphases for the orientation sessions.

The recommended packages of LPHS services (including patient education) and a means for incorporating them into office practice will be discussed at the physician orientation sessions. At these sessions not only will the preventive services that physicians will be providing under LPHS be introduced, but physicians also will be oriented as to how to implement patient counseling in a typical office visit. Since physician-patient communication affects patients' attitudes and health outcomes (16-19), the LPHS physician orientation sessions will incorporate some of the practical implications of this association, such as how to assess the patient's current knowledge and health-related behavior (including his concerns about lifestyle problems of smoking, alcohol, and exercise). The sessions, however, are not intended to radically alter the practice styles of the participating physicians; they are intended to increase physicians' awareness of the process involved in patient interactions and the extent to which the level of a patient's motivation and skill determines that patient's compliance with the physician's recommendations. The sessions are not designed to introduce structural change, to turn physicians completely away from curative medicine, or to require them to arrive at skills in communication that are more appropriately a function of individual style and years of practice. Instead, the sessions are designed to stimulate thought and discussion in these areas and to instill an appreciation of those kinds of improvements in patients' health that occur slowly and have broad—rather than dramatic—individual and clinical impacts on health outcomes.

Two sessions will be held, each scheduled as a dinner meeting and planned to last 3½ hours. Physicians will receive Category I Continuing Medical Education credit for participation. A consultant to the project who has had success in orienting physicians to their role in cardiovascular risk reduction will present much of the material on physician-patient communication. The agenda for the two sessions includes:

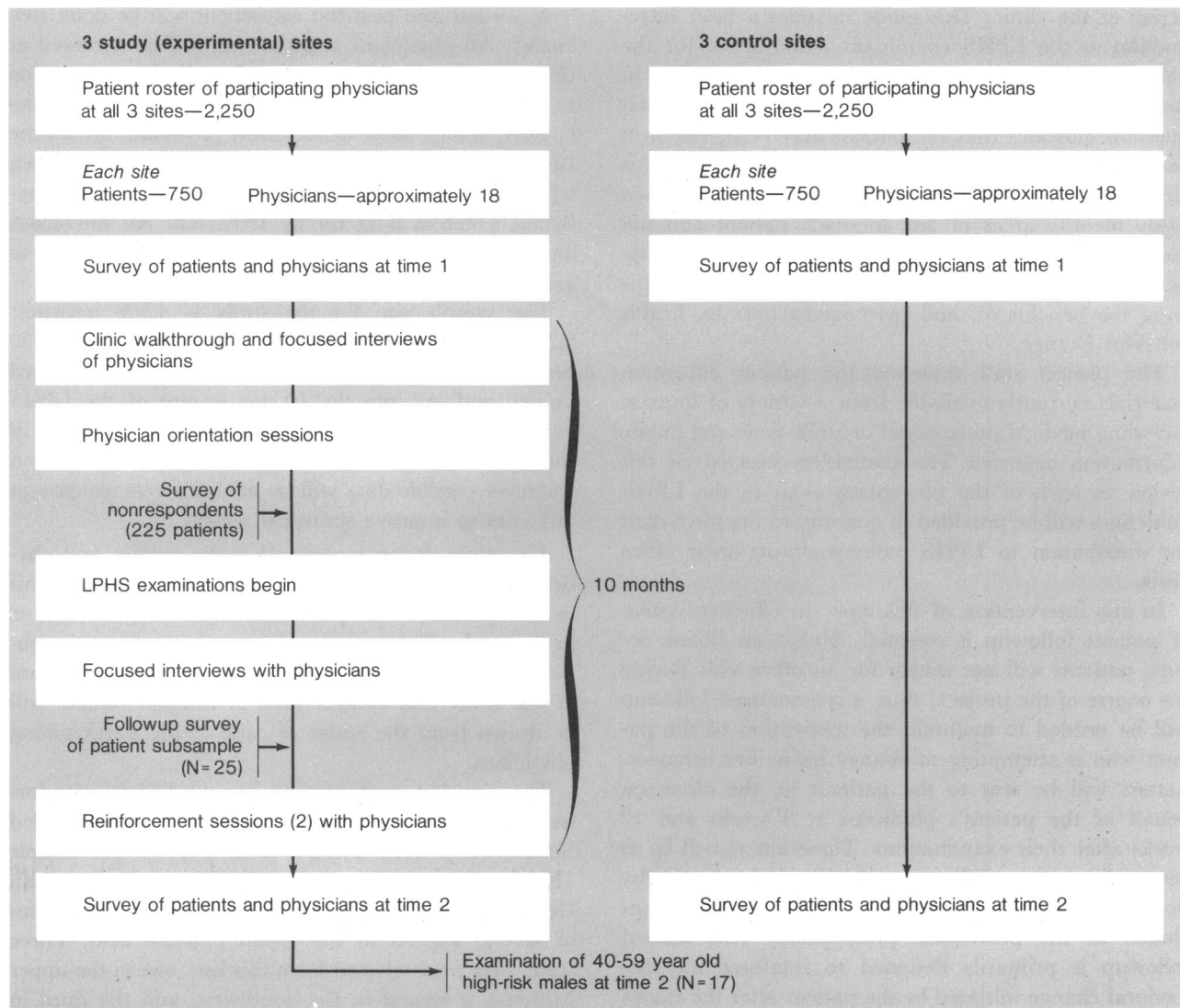
- a lecture on the physician's role in risk reduction in coronary heart disease
- review and discussion of LPHS guidelines and encounter forms for 10 patient groups
- role-playing session of a physician-patient interaction
- summary of the principles of physician-patient communication
- review of LPHS physician's manual and patient's guide (detailed in the next paragraph)
- data collection and administrative procedures.

These sessions will have a varied format emphasizing small group discussion; patient case histories will be used to illustrate the material discussed. The orientation sessions, as well as the written materials that will be used, are being prepared by the project staff in conjunction with the Dartmouth Medical School Department of Community and Family Medicine.

A LPHS physician manual has been prepared, which supplements the orientation sessions and provides a reference for the physicians throughout their participation in the project. Each physician will receive a copy of this manual, which has tabs to facilitate reference to (a) the LPHS guidelines, (b) the encounter forms and instructions for their use, (c) study procedures, (d) references to the literature, and (e) the detailed section on patient communication and strategies for patient education in each of the risk areas addressed in the LPHS guidelines. The LPHS encounter forms were prepared so as to reflect the age-specific guidelines and to remind the physician during a patient's office visit of the medical procedures and educational topics appropriate for the patient's age group. Besides serving as a reminder and instrument for medical data collection, the encounter form has space to note the primary risk areas for each patient and the physician's perception of the degree of motivation the patient has to change his or her health-related behavior.

The encounter form also includes a prevention prescription form on which physicians will make specific recommendations to the patient for behavioral change. Copies of this prevention prescription will be kept in the patient's medical records for subsequent followup, and copies will be retained by the project staff for data collection purposes. A copy also will be given to the patient to take home as a reminder of the discussion and the recommendations made during the visit. By capitalizing on the stimulus for change that has developed during the physician-patient interaction, this technique is expected to aid in motivating the patient to initiate behavioral change. The prevention prescription represents an approach that does not substantially

Study design for lifecycle preventive health services study



deviate from normal medical practice patterns and, thus, is not expected to seem strange or inappropriate either to physicians or patients.

Two reinforcement-feedback sessions will be held with physicians during the period in which they are providing LPHS examinations. The first will occur 4 to 6 weeks after the orientation sessions and the second, 10 to 12 weeks after them. At these feedback sessions the project staff will carry out the following actions.

1. Provide physicians with feedback on a subsample of 25 patients who were among the first to receive an LPHS examination. These data will be obtained in telephone interviews with this subsample of patients shortly after their LPHS examinations. Patients' behavioral change data, satisfaction with the LPHS ex-

amination, and other data on their attitudes will be discussed.

2. Obtain physicians' reactions to the use of LPHS and to any problems that have arisen. Their reactions will provide some qualitative measure of the program's effect and will also be helpful in implementing LPHS at other sites.

3. Reinforce the motivation of the physicians to use the LPHS protocol and discuss their questions and problems. There will be a final wrap-up session to summarize the experience.

Patient Education Materials

The prevention prescription given by the physician to each patient is a major source of direction for the patient. In addition to the prescription, all patients will receive the "Patient's Guide to LPHS" when they

arrive at the clinic. This guide includes a brief introduction to the LPHS examination and space for the patient to write in the answers to specific questions in each of several risk areas. If the answer to any given question indicates that the patient may be at risk in a particular area, the response is shown on a tab that is clearly visible to the physician. The physician can then easily identify areas of risk for each patient and use the guide as a focus for discussion during the visit. The patient is given the guide to use at home for identifying the benefits of, and personal barriers to, health behavior change.

The project staff reviewed the patient education materials currently available from a variety of sources, including medical professional organizations and public information agencies. The pamphlets selected in this review in each of the prevention areas in the LPHS guidelines will be provided in quantity to the physicians for distribution to LPHS patients during their office visits.

In any intervention of this type, an effective system of patient followup is essential. Unless an illness occurs, patients will not return for an office visit during the course of the project; thus, a systematized followup will be needed to maintain the motivation of the patient who is attempting to change his or her behavior. Letters will be sent to the patients by the clinic on behalf of the patient's physician at 3 weeks and 12 weeks after their examinations. These letters will be as personalized as possible and will refer to recommendations made during the patient's visit which were included in the prevention prescription. This limited followup is primarily designed to reinforce any behavioral change initiated by the patient after the examination. It requires none of the major system changes in a group practice that might be necessary for the administration of a more elaborate followup system. The cost of this limited followup will be considered part of the LPHS examination and will be paid by the INSURE project.

Study Design

The LPHS study and evaluation is being conducted among patients and physicians at six group practices in different areas of the United States. A quasi-experimental research design is used; three group practices that have been designated as study sites will receive the intervention program, and three matched control sites will not. Although random assignment within one site would be preferable, the problem of possible contamination of control subjects requires that they be drawn from a different and geographically separate population.

A pre-test and post-test assessment will be done (see chart). All physicians and patients will be surveyed at time 1 for baseline data on health attitudes, orientation to prevention, and self-reported preventive health behaviors, among other items. Study physicians attend the LPHS orientation sessions, and study patients are then scheduled for their LPHS examination with their physician, which is paid for by INSURE. All physicians and patients are then surveyed 10 months later to assess changes in the outcome measures.

The sample size for the study is 4,500 patients: 2,250 study subjects and 2,250 controls, or about 750 people at each of the 6 sites. The sample is stratified by age and sex into the 10 age groups of the LPHS guidelines. Since stratification of the sample into 10 subgroups presents difficulties for statistical power, wherever possible data will be pooled across age groups and sites to improve statistical power.

The study design requires that the patient and physician samples be linked; for each patient selected, his or her primary care physician must be participating in the study. The sampling frame, therefore, is the patient roster of the participating primary care physicians at the study and control sites. A random sample will be drawn from the roster of each of the participating physicians.

The six sites participating are traditional, fee-for-service group practices in different areas of the United States. They were selected from a purposive sample ($N=28$) generated from the Directory of the American Group Practice Association and the recommendations of several experts in the group practice field. Three study sites were selected from this list: one in the upper Midwest, a second in the Southwest, and the third in the Southeast. Control sites were then selected from the list, which matched the study locations as closely as possible in terms of the following criteria: size (number of physicians), specialty mix, and community served.

For feasibility purposes, group practice represents the most appropriate practice type in which to initially test the LPHS approach. The presence of an administrative structure with similar procedures for a group of physicians simplifies some of the methodological problems of sampling as well as physician participation and involvement. Group practice represents a significant and growing part of ambulatory medical care. More than two-fifths of ambulatory services are provided in group practice (20). Although it is recognized that another feasibility question is the impact of the practice type, the study will be limited to one practice type for this phase of the investigation. A subsequent larger study, should it be conducted, would implement

LPHS in a range of practice types, including solo practice, HMOs (health maintenance organizations), neighborhood health centers, and hospital-based practices.

The study has been designed to evaluate the effects of the LPHS program as an intervention. This evaluation has twin foci: (a) feasibility and (b) the effects of the program, taken as a whole, on physicians and patients. Because the program has not been tested, the feasibility focus is important. Among the feasibility questions the study addresses are: Can age-specific protocols of preventive services, including patient education, be developed? Can these be implemented? Will physicians agree to participate in such a program? Will they be willing and able to attend orientation sessions on a lifecycle approach to prevention? Will they use the protocols with their study patients? Will they change their practice pattern to incorporate the LPHS recommendations? Can administrative procedures for the study be devised that will facilitate the introduction of this program into primary care settings and be congruent with the usual way patients' appointments are made, examinations are performed, and patients' charges are recorded?

There are also feasibility questions concerning insurance reimbursement issues. Among these are problems of cost, utilization, and reimbursement. There are a range of feasibility questions concerning patients, such as: When offered a reimbursed preventive examination, what proportion of patients will actually make use of it? Will participation-utilization be uniform across age groups, or will it vary by age group? Finding answers to these questions is vital for the success of the intervention, both in the project itself and for its widescale adoption.

The second focus of the evaluation is on the effects of the intervention on patients and physicians. The best measures with which to assess the impact of an intervention aimed at health promotion and disease prevention would be mortality and morbidity. However, given the constraint of time (the interval between time 1 and time 2 data collection is 10 months), these data will simply not be available. The impact of the program, therefore, will be measured by assessing short-run attitudinal and self-reported behavioral changes. Evidence has accumulated linking personal behavior and lifestyle with morbidity and premature mortality (5,21,22). Because of the breadth of the issues addressed in the study design, which necessitate a stratified sample at multiple sites, the impact of the total program on different outcome measures is examined.

In summary, the following short-term impact measures are examined:

1. changes in patients' preventive health behavior and attitudes toward prevention
2. physicians' use of and adherence to LPHS guidelines
3. patient's utilization and adherence to LPHS guidelines
4. physicians' professional evaluation of LPHS
5. levels of patients' satisfaction with LPHS.

Site selection is an important part of the study design. Although the element of self-selection of sites cannot be completely eliminated in a feasibility study (the physicians and group practice administrators accepted our invitation to participate in the project), none were volunteers in the strict sense of the word. Announcement of the INSURE project brought forth many offers from clinics and facilities to serve as study sites. It was believed, however, that the self-selection bias among volunteers would be too great, and all six sites in the study were first approached by INSURE.

At each of the selected group practices, all primary care physicians are invited to participate in the study. Four primary care specialties are included: family practice and general practice, pediatrics, obstetrics, and general internal medicine. Physicians at the study sites receive information and attend the orientation sessions in LPHS; control physicians do not. The assumption is that control physicians will continue to practice in their usual fashion. One hundred primary care physicians are included in the study.

Patients are selected for the study from the billing roster of the group practices. The samples are drawn by the group practice according to criteria specified by study staff. Only active established patients of participating physicians are eligible for selection. Patients must have visited their physician at least once in the last 2 years. In addition, patients with chronic and disabling conditions will be excluded from this study, which focuses on services for the asymptomatic patient. The same criteria are used to select patients at the study and control sites. Selection of only active established patients will limit the generalizability of any conclusions to an active patient population. Included in the sample is a subgroup of male patients aged 40-59 who are at high risk for coronary heart disease. An extra sample of 75 men aged 40-59 is selected at each study site. It is expected that there will be approximately 112 men aged 40-59 at each study site, of whom roughly 15 percent (or 17 men), will have multiple risk factors for coronary heart disease. A special intensive intervention program will be conducted for these approximately 50 (17 \times 3 sites) men.

Patients are notified of their selection for the study

in an advance letter describing it. The letter is signed by the administrative and clinical leadership of the group practice and by the director of the INSURE Project.

Data Collection

Survey data will be collected by mail and telephone questionnaires; medical data for study subjects will be collected from the LPHS encounter form that is completed by the physician during a patient's LPHS examination. Patients will be surveyed at times 1 and 2 by mail questionnaire. Children under 12 years of age will be sent a proxy questionnaire to be completed by their parents. Adolescents (ages 12–17) will be interviewed by telephone. The patient survey instrument is designed to assess self-reported preventive health behaviors in addition to measuring health attitudes and orientation toward prevention; perceived health status; health knowledge; utilization behavior; attitudes toward the physician; and satisfaction with medical care.

Among the preventive health behaviors to be measured are cigarette smoking, alcohol use, weight reduction, diet and cholesterol intake, exercise, seat-belt use, breast self-examination for women, and management of blood pressure-hypertension. In addition, the instrument includes sociodemographic variables and measures of aspects of patients' health insurance coverage with regard to preventive services. A standard instrument will be used for adults, which has special supplements for pregnant women and the elderly. In order to begin to assess the degree of self-selection among respondents to the questionnaire, a random sample of 225 nonrespondents will be interviewed by telephone with a shortened survey instrument.

The physicians will be interviewed by telephone. The physician survey instrument measures professional characteristics, including background and training; current practice characteristics, with an emphasis on preventive care; and attitudes toward prevention and preventive services in the physician's practice, including patient education about lifestyle and health behaviors. The physician instrument also measures aspects of the physician's personal preventive health behavior. A self-administered checklist of preventive services will be sent to each physician, on which he is to indicate which services he routinely provides in a preventive checkup for patients in each of the 10 LPHS age groups. This checklist will be completed again at time 2 to assess change in the physician's preventive practice pattern.

A 10-minute telephone interview will be conducted with a random subsample of 150 patients at the study

sites, following their LPHS examination, to assess their reactions to the examination as well as short-term behavioral changes. These interviews will provide data for presentation to physicians at the scheduled feedback sessions. In addition, patient recollection of which services were provided—especially the areas in which counseling was provided—serves as one means of validating the information that physicians provide on the encounter form.

The data analysis plan calls for careful analysis of the feasibility issues by using both the quantitative survey data and the qualitative data from the focused interviews that were conducted with a subsample of the physicians. Patient change data will be studied in a series of panel analyses that will range from a comparison of the mean change scores between the study and control groups to complex multivariate analyses in which the independent and interaction effects of different groups of variables on change scores will be examined.

Present Status of Project

At this point (May 1982), the LPHS program has been implemented at the first study site, a small fee-for-service group practice in the upper Midwest. In the surveys conducted there, a 60 percent response rate was achieved for the patient questionnaire, and a 100 percent response rate for the physician instrument. Orientation sessions have been held with participating physicians, and 300 LPHS examinations have been performed. In a followup survey of a subsample of 25 patients at this site, the response to the LPHS examination was positive, especially to the patient education. A substantial number reported that they had already begun to initiate the behavioral changes suggested by their physician at the time of the LPHS examination.

Funding of INSURE Project

The INSURE project established by the private insurance industry in 1980 was originally funded by nine insurance companies. Twelve more companies have since joined in its support. To supplement the funding for research activities of the project and to provide adequate evaluation, the project staff applied for and received additional funding from the Robert Wood Johnson Foundation and the John D. and Catherine T. MacArthur Foundation. The project represents a significant joint effort by the insurance industry and philanthropic foundations to support research in the health sciences. Insurance company funds represent approximately two-thirds of the total 1.2 million dollar

budget, and foundation support accounts for approximately one-third. If the initial phase of the project is successful, funding for a longitudinal study will be sought.

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SYNOPSIS

LOGSDON, DONALD N. (INSURE Project, New York), ROSEN, MATTHEW, and DEMAK, MICHELE M.: *The INSURE Project on Lifecycle Preventive Health Services. Public Health Reports, Vol. 97, July-August 1982, pp. 308-317.*

The INSURE Project on Lifecycle Preventive Health Services is a 3-year study to determine the feasibility of implementing preventive services in primary medical care as a health insurance benefit and to assess the short-term impact of this implementation on providers and consumers. Initiated by the life and health insurance companies, the project has received additional support from private philanthropic foundations.

Preventive services, which will be provided under a lifecycle approach according to the age and sex of the patient and include education of patients on health-related behavior, will range from prenatal care through geriatrics. A quasi-experimental design will be used in which three study (experimental) group practice sites are matched with three control group practice sites. At the study sites, the primary care physicians will participate in orientation sessions on recommended preventive services and patient education procedures; they will also examine and counsel the study patients. The study and control physicians and patients will be surveyed before and after the program of inter-

vention is conducted at the study sites to assess their knowledge, attitudes, and behavior toward health behavior practices.

The data from this study should contribute to the discussion of several policy questions regarding the delivery of preventive services in primary medical care as well as the discussion of cost-containment issues. The analyses to be conducted of physicians' practice patterns and of patients' attitudes and beliefs in respect to behavioral change should add to the growing literature in medical care and health education, particularly to that regarding health-related behavior.