PUERTO RICAN ELDERLY: HEALTH STATUS AND USE OF HEALTH SERVICES*

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INTRODUCCION:

Over the last two decades, Puerto Rico's population has experienced dramatic growth. Between 1960 and 1988 the proportion of persons 65 years or older rose from 5 to 10 percent, while that of persons under 15 years declined drastically from 43 to 28 percent. The median age of 18 years for the entire population remained fairly constant from 1860 to 1960. However, in 1970 the median age increased to 22 years and to 28 years in 1987. (Junta de Planificación 1988).

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The rapid graying process of the Puerto Rican population is the result of a combination of factors. First, over the past 29 years, the birth rate has decreased from 32 per 1,000 inhabitants in 1960 to 18 in 1986, which represents a reduction of 44 percent. It is expected that the present demographic will continue since the mortality rate is expected to remain almost stationary, while the birth rate will continue to decrease gradually. Second, as regards migration rates, a greater number of young adults between the ages of 20 to 34 years emigrate to the United States, while the largest proportion of return-migrants are 55 years or older. No substantial changes in the patterns of emigration of young adults and of the return-migration of elderly cohorts are expected.

The present and potential increase in the numbers and proportions of the elderly sector represents a challenge for the delivery of health and social services. This paper is concerned with a preliminary analysis of data on the socio-demographic characteristics of the aged in Puerto Rico and their health status as measured by Shana's Index of Illness (Shanas, 1962). Special attention is given to the utilization of and satisfaction with health services by the elderly as an indicator of the present crisis in the delivery of health services in Puerto Rico. The final section of the paper proposes a collaborative model to help direct efforts to remediate priority concerns in health care for the aged.

METHODOLOGY

Data was gathered from a random survey of 300 patients at the outpatient clinics of the San Juan Medical Center. The outpatient clinics provide general and specialized health care to the islandwide population. For purpose of this study, the health services were divided into 9 principal services: (1) ophthalmology, (2) urology and gynecology, (3) speech therapy and ENT, (4) dental, (5) dermatology, (6) orthopedics, (7) general medicine, (8) neurology, and (9) blood pressure and diet follow-ups. The clinics at the Medical Center handle an average of 15,000 visits per month. Two hundred and one (201) of the respondents were 65 years of age and over (the target population) and 99 respondents were between the ages 35 to 44. The latter age group served as a comparison group and data concerning this group will be presented only when differences with the elderly are relevant.

The questionnaire consisted of 50 items divided into five areas: socio-demographic characteristics of the respondents, health practices and utilization of clinics, health status, transportation and mobility and, lastly, social support and recreation. The respondent's satisfaction with services received was also assessed.

Shana's Index of Illness (1962) was used as an indicator of the respondents' perceived health status. The index consists of a series of items about illnesses that the subject has experienced during the four weeks prior to the

interview, specific health problems, and the degree of restricted activities due to health conditions during the past year (Stahl, 1984). The lower scores are correlated with a high perceived rating of health. Shanas' index establishes a dichotomy between "very sick" (persons with a score of 9 or more) and all others (score under 9).

HEALTH STATUS AND SOCIO-DEMOGRAPHIC FINDINGS

The resulting Shanas' index for those aged 65 plus fluctuated between 0 and 21. The mean score was 9 for the elderly (46%) and 8 for those aged 35 to 44 (33%). Unlike Shanas, who by dichotomizing the index into "very sick" and all others partially obscured any clear test of the predictive validity of the index, the author's grouped those with score 0-4 as in good health, those between 5-8 as having average health, and those of 9 or more as having poor health. According to this classification, twenty-five percent of the older cohorts were classified as having good health, 29 as having average health status, and 46 percent as having poor health. The 35-45 age cohort were evenly distributed over the three health status categories.

When the health index was dichotomized into "the very sick" (9 or more) and other (under 9) following Shanas' classification and cross tabulated by the sex of the respondent, the results revealed that more elderly women than men had poor health (61% in comparison to 41%). Furthermore, when marital status was factored in fewer married and/or widowed elderly individuals scored high in

the health index as compared to their single and/or separated counterparts (49% vs. 80%). Divorced individuals were evenly divided among the "very sick" and the "other" category (50% each). Almost four times as many "very sick" elderly indicated having difficulty understanding their physicians' explanations (39% vs. 10%) as compared with their "less sick" counterparts. Of the 8 percent of the aged group who expressed dissatisfaction with the services rendered at the Medical Center, 87 percent fell in the "very sick" category.

When Shanas' Index of Illness was analyzed according to the educational level of the respondents, an inverse relationship between level of education of the older sample and the index of illness was found. As education increased, the proportion of those in the "very sick" group diminished. Thus, 51 percent of those that had never attended school or finished the first grade were classified in the "very sick" category, while those with 7 years or more of schooling represented only 27 percent of the "very sick" category.

The five health problems most frequently mentioned by the aged group were: hypertension (50%), arthritis (47%), diabetes (37%), heart ailments (30%), and cataract (21%) (multiple response item). In contrast, in the younger sample the most frequently mentioned health problems were hypertension, arthritis, and diabetes, each with 15 percent. When the elders were asked to indicate the health condition

that they considered as their most serious illness, heart diseases ranked first followed by arthritis and diabetes.

When the index of illness was compared with the five most reported health problems, 82 percent of the aged with heart ailments were classified in the "very sick" category. Reported differences were not significant for the other health problems most frequently mentioned by the aged (hypertension, arthritis, diabetes and cataracts). Likewise, the elderly respondents' perception of their health was closely associated with their scores on the illness index. For example, among those subjects with an index under 5, only 10 percent rated their health as poor; as compared to those subjects with an index of 9 or more ("very sick"), where as 56 percent rated their health as poor.

Only one percent of the older respondents (65+) rated their health as excellent, 11 percent as good, 54 percent as average, and 34 percent as poor.

HEALTH PRACTICES AND UTILIZATION OF HEALTH SERVICES

An analysis was made of medical care services most often used by the sample population. The elderly sample stated that they principally utilized those public services offered by the P.R. Department of Health. The facilities most often visited were municipal and regional hospitals, and the diagnostic and treatment centers (secondary and primary levels, respectively).

Nine percent of the elderly reported taking prescribed medication for their health problems during the prior month. More than half of the subjects related having financial difficulties in obtaining the prescribed medication. Fifty-three percent had to pay for their own medicine, while 39 percent indicated that the medication was provided free of charge at the medical facilities they attended. The remaining 8 percent stated that they partially paid for the medicines.

All the elderly respondents indicated that they were enrolled in a health plan. Eighty-two percent stated that they received Medicare benefits, while 90 percent indicated that they received Medicaid. Only four percent of the aged were enrolled in a private health plan. The study findings reveal that the vast majority of the elder sample were receiving benefits from more than one medical insurance plan, with Medicare/Medicaid being the most frequent combination (82%).

With regard to the utilization of medical services during the six months period prior to the interview, it was found that 95 percent of the aged received health services from a nurse and 86 percent stated they were attended by a general practitioner. The medical services most often received were: ophthalmology (42%), urology/gynecology (21%), dentistry (19%), ENT (18%), and gastroenterology (14%). The elderly visited a physician more often than the young-middle aged adults in all medical service categories with the exception of dentistry and gynecology/urology.

Ninety-six percent of the elderly, in contrast to 73 percent of the younger respondents, had visited a physician at least once during the five months prior to the interview. Half of the elderly stated that they customarily visited a physician once a month. Thirty-seven percent of the elderly and 30 percent of their younger counterparts had been hospitalized at least one night during the year prior to the survey.

A large majority of the elderly (82%) mentioned that they had experienced no difficulty in explaining their health problem to their physicians. Similarly of this same group over three-fourths (77%) indicated facing no difficulties in understanding their physicians' explanation of their health problems and prescribed treatments. These results were similar to those percentages found in the younger sample.

Seventy-two percent of the aged stated that a person generally accompanied them to the clinics. The two reasons most often mentioned for this fact were that the escort facilitated the bureaucratic process of admission to the services and offered security and protection regarding the health condition. Those who most frequently served as escorts were their children (43%), spouses (17%), and other relatives, friends or neighbors (12%). The fact that a little over one fourth (28%) of the aged subjects went unaccompanied to the health facilities cannot be overlooked by service providers. This group must be specially

attended, particularly when one fifth of them reported difficulties in understanding their physicians' explanations regarding their health condition and the prescribed treatment.

Study findings further indicate that more of the elderly patients with poor health status were accompanied by someone when seeking formal health assistance (52%). It is however, noteworthy that 43 percent of the elderly classified as "very sick" went alone. As regards use of public transportation to attend medical services, it was found that fifty-two percent of the aged out-patients who used public transportation to get to the Medical Center had index scores of 9 or more. Among those who used their own car or a relative's car, 42 percent scored 9 or more on the Index.

Over two thirds (71%) of the older adults evaluated the health services for the elderly as adequate, and 29 percent as needing improvement. Twice as many of the younger sample compared to their older counterparts evaluated the medical services received as inadequate (70% vs. 40%). The elders enumerated those aspects of medical care in need of improvement as: more medical personnel; (44%) greater availability of prescribed medications (44%), more cordial and respectful treatment from health services personnel (20%); better quality of health services (15%); and, a reduction in the waiting period to receive medical services (18%).

PUERTO RICAN HEALTH SYSTEM

The relatively high levels of dissatisfaction with the quality of health services for the aged may be related to new service demands being generated by the increasing numbers of elderly. The problem of health care delivery is complicated by the imposition of new service demands on a public health system which historically has been plagued by a series of system wide problems. As early as 1957, Puerto Rico began to experiment with a plan for the regionalization of health services in order to improve the quality of care; avoid the unnecessary duplication of services and facilities; and, maximize human resources. In 1960, the regionalization experiment was extended to the entire public health system.

As in other countries, the Puerto Rican regionalization plan involves two basic elements: structure and process. The regionalization scheme includes various attempts to identify different health regions for the island, organize a tiered hierarchy of health care institutions for the delivery of primary, secondary, and tertiary services, and create a decision-making network to monitor the integration and coordination of services. As part of the regionalization process, strategies have been implemented to forge linkages and to promote reciprocal exchanges among the different service levels and institutions. (Arbona and Ramírez de Arellano, 1978).

After twenty-nine years of development plannings, Puerto Rico's regionalized health structure has confronted two principal obstacles. While the structural elements of the plan were designed and introduced rapidly, the development of linkages and exchanges between the service levels and institutions has been less successful. Arbona and Ramírez de Arellano (1978) have indicated the consequences of this failure.

> "The linkages between levels and the flow of patients, personnel, and information need to be encouraged and nurtured, shaped and guided. In the absence of on going monitoring, institutional autonomy reasserts itself, communication breakdowns occur and consultation and continuing education stop. (p. 77)."

Likewise, the Puerto Rican Health Department has favored the growth of tertiary and secondary services as reflected in budgetary allocations. At present, the Health Department allocates 49% of its budget to hospitals and only 15% to other health services and institutions. Such health policy decisions undermine and weaken the fundamental role of primary care as the foundation of regionalization. It is argued that weak primary level services overburden the system's other levels, which in turn justifies increased budgets for secondary and tertiary services and facilities. A vicious cycle is set in motion that not only has structural implications, but directly produce negative effects on patients, such as those mentioned by the study's respondents (long waiting periods before receiving treatment, scarcity of prescribed medications, insufficient

medical personnel and dissatisfaction with the quality of health care services in general).

COLLABORATIVE MODEL

The most important yet unanticipated product of this study is the need to propose a collaborative model directed towards establishing research linkages as to health care issues and the elderly. A further concern of the proposed model is to focus on ameliorating and if possible correcting already-mentioned problems experienced by an overburdened public health system. The proposed model encourages collaborative research efforts amongst academicians, health professionals and health-system administrators. The model should assure space for interdisciplinary and inter-institutional research teams. In the case of Puerto Rico, the model intends to combine research efforts between personnel at the University of Puerto Rico's Medical Sciences Campus and the Puerto Rican Department of Health.

Based on the study's preliminary findings and the needs of Puerto Rico's public health system, the author's have identified a preliminary list of research areas that are priority issues for the collaborative approach. The proposed research agenda includes the following:

1. Basic research

The rapid increase of the elderly has obligated the Puerto Rican Department of Health to design and deliver services in the absence of adequate information. Consequently, health services have been insufficient,

inefficient and fragmented. Collaborative research is needed to ascertain the specific characteristics, health status and behavior patterns services needs and health resources of the aged and of sub-groups within the elderly population with specialized needs.

Likewise, basic research is needed to delineate the historical development of the health services for the aged as well as operant professional values, attitudes and behavior towards the aged and the impact on the delivery of health services to the elderly. To date little information has been generated in terms of family structure and resources vis-a-vis integration and care of the elderly in Puerto Rico.

2. Repackaging Information

In general, health research is produced by and for academicians and/or professionals. A multi-disciplinary and multi-institutional research team does not in itself guarantee that research will reach health care providers and consumers in the public and private sectors. Collaborative work is sorely needed to repackage research findings in such a way as to make them accessible and useful to all health information consumers.

3. Education

Education is not only a goal of the health system, but a method by which adequate services are provided. Education efforts are especially necessary when designing and implementing programs for a new populations, such as the

elderly, in a health system geared to servicing younger population groups.

Collaborative research efforts directed towards the elderly population are needed in the following areas:

a. curriculum reform as a central part of the training of future health professionals and administrators is needed to provide basic information about biological and social aspects of aging, methods and concepts of public health, community education and human relations.

b. In-service and continuing education programs designed to keep health professionals abreast of new developments in aging and the changing needs of the public health system.

c. educational programs to foster public awareness and active participation in the design and management of health services.

4. Evaluation

Ongoing or periodic evaluation of health programs is essential in order to reassess goals, modify strategies and reallocate resources. Due to limited funds and the high costs of administrating and providing health services, little importance is given to the need for evaluation of programs in Puerto Rico. The development of evaluative

methodologies sensitive to changes in target populations and the delivery of care, constitutes an important area for collaborative efforts.

SUMMARY

The population of Puerto Rico has aged considerably during the past three decades. The median age increased from 18 years in 1960 to 28 in 1987, and the proportion of the population 65 years old and over has increased from 5 to 10 percent, respectively. The growth in numbers of the aged and their meager economic resources exert pressure on the public health sector. Health services in Puerto Rico are not yet adequately oriented to satisfy the needs of this segment of the population.

A collaborative research model is proposed to partially bridge the gap between client-demand and service-offerings particularly related to the elderly in Puerto Rico. The proposed collaborative effort is modeled on an interdisciplinary and multi-institutional research. The primary research areas are: basic research on the aged; repacking of research information for service providers; health education alternatives; and, program evaluation.

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