

A profile of the 7500 people in aged-care institutions in Auckland

Ruth Bonita PhD, Masonic Senior Research Fellow; Joanna Broad, Masonic Research Analyst; David E Richmond FRACP, Professor; Jonathan J Baskett FRACP, Senior Lecturer, Department of Medicine, University Geriatric Unit, North Shore Hospital, Auckland 9

Abstract

A study was carried out in 1988 to describe the residents and patients of aged-care institutions in Auckland against which future measures, including planned changes in licensing and funding, could be made. Information was collected for each patient in every hospital (public and private) and each resident in all old people's homes in the Auckland region between January and June 1988. Of the 7516 people surveyed (99.4% response rate), 70% were residents in old people's homes, 25% were patients in private hospitals and 6% were cared for in the public hospital sector. Of the people surveyed, 71% were women. The average age of women, 82 years, was 6.5 years older than that of men. Three-quarters of all women and 44% of men in care were widowed. Women had a higher rate of admission to institutions than did men with almost one in two women and one in four men in the age group 85 years and over being in long term care. Rates of institutionalisation for Maoris and Pacific Islanders were the same as for Europeans. The majority of elderly people received regular contact and concern from family members. This study has demonstrated that Auckland has a higher proportion of the elderly population (7.6% of the population 65 years and over) in long term care compared with other areas of New Zealand.

NZ Med J 1990; 103: 553-5

Introduction

A wide variety of institutions provide long term residential care and accommodation for the elderly, including geriatric hospitals and old people's homes (also referred to as rest homes). The complicated system of benefits and subsidies has been widely criticised. So has the prominent role played by the private sector homes and hospitals which are run on a commercial basis, to whom the government has given responsibility through state subsidies [1-3]. The cost of funding long stay hospital and community care in New Zealand is considerable [1] and yet only limited information

has been collected which attempts to monitor trends in bed availability and the levels of dependency of residents and patients. Information about the age-sex specific rate of institutionalisation is crucial in helping to plan services for an increasingly ageing population.

There have been a number of studies in recent years describing the long term care and provision of institutional care [4-9] but none have been conducted in Auckland, which has both the largest concentration of elderly people and also unique features which distinguish it from other parts of the country with regard to the provision of care for the aged frail.

This paper focuses on the overall results of a study which was planned to gather information to allow comparisons with other centres in New Zealand and to provide baseline information against which future measures could be compared, given the significant changes to the old people's homes regulations which came into operation in July 1988. These changes included the grading of homes, assessment procedures for eligibility for subsidies, a tightening up of the regulations governing the conditions to be met in order to obtain (or maintain) a licence, and a refocusing on the needs and concerns of older people, rather than mentally or physically disabled residents of any age.

Methods

The Department of Health provided updated lists of all licensed old people's homes and private hospitals in the Auckland region (total population 1986 census: 876 279; population 65 years and over 89 736) together with the names and addresses of the managers and matrons and the number of licensed beds. The numbers of long stay geriatric beds in public hospitals were obtained from the strategic plan of the Auckland Hospital Board [10]. Each old people's home or private hospital was telephoned to confirm the bed numbers before the start of the survey.

Details of the conduct of the survey have been published elsewhere [11,12]. Briefly, between January and June 1988 questionnaires, sufficient for each resident or patient occupying a long term bed, were sent or delivered to each old people's home or hospital accompanied

by a letter of introduction, a description of the objectives of the study, and an instruction sheet giving details for the correct completion of each form by a person familiar with the daily care of each resident or patient. This questionnaire covered demographic and admission details and dependency ratings based on a widely used and validated questionnaire developed by the unit for social service research at Sheffield University [13]. The scale closely resembles that used by the Department of Social Welfare in determining levels of subsidies. This instrument was used in New Zealand in the dependency surveys in Dunedin and Canterbury [5-8] and results of this aspect of the study have been published [12].

In order to check the reliability of the results of the questionnaire, a 10% random sample was taken of the old people's homes and a proportion of the residents were selected randomly from these homes. Staff were asked to repeat the survey for these residents. This reliability exercise indicated that factual information such as age, marital status, ethnic origin and source of admission did not alter.

Results

Table 1 summarises the extent of the survey and includes all people occupying beds in geriatric hospitals and old people's homes except for four old people's homes which did not participate in the survey. Overall, 88.5% of the 8530 designated long stay beds in Auckland were occupied at the time of the survey. Data were obtained for 7516 people representing a 99.5% response rate. Overall, 7.6% of all Auckland residents in the age group 65 years and over were represented in this survey.

Seventy percent of the population surveyed were residents in old people's homes, 41% in beds provided by the private sector and 28% by religious and welfare organisations. Private hospitals accounted for 25% of the care which included 14% in the private sector and 11% in the religious and welfare sector. The remainder (6%) were being cared for in public hospitals, either in long stay wards or psychogeriatric hospitals.

Table 1.—Numbers of people surveyed in each aged-care institutional sector

	Private sector		Religious and welfare		Hospital board [1]		Total	
	n	%	n	%	n	%	n	%
Old people's homes	3126	(42)	2087	(28)	-		5213	(69)
Private hospitals	1039	(14)	826	(11)	-		1865	(25)
Public hospitals	-		-		438	(6)	438	(6)
Total	4165	(55)	2913	(39)	438	(6)	7516	(100)

[1] now Auckland Area Health Board

The majority of residents and patients in long term care was European, but after adjusting for the differences in age structures between different ethnic groups, the rates of institutionalisation for both Maoris and Pacific Islanders were the same as that for Europeans. Overall, the majority of residents were women (71%), and their average age, 82 years, was six and a half years older than the average age for men.

Although the survey covered long term care beds which are normally regarded as providing for the placement of people over the age of 65, 645 places (8.6%) were occupied by persons under that age, the majority of whom were resident in private rest homes. The ratio of men to women was equal in this younger age group. With each decade thereafter, there was an increasing proportion of women, a difference only partly explained by the increasing female:male ratios within the different age groups.

Table 2 shows the age-sex-specific bed occupancy rates for those over 65. The likelihood of being in long term care increases dramatically with age. Although the rates for men and women were similar in all age groups up to 80 years, in women 80 years and over these were considerably higher than the rates for men in the same age group. The proportion of women aged 85 years and over was almost one in two (447/1000 population) compared to one in four men (250/1000 population) in this age group. After adjusting for age, women over 65 were more than a third (36%) as likely as men over 65 to be in institutional care.

Table 2.—Age-specific rates (per 1000 population) for men and women in aged-care institutions, Auckland 1988

Age group	Men		Women	
	n	rate	n	rate
65-69	197	14.9	214	13.3
70-74	258	24.3	391	27.5
75-79	370	52.5	798	75.9
80-84	450	118.7	1315	190.6
85-89	342	222.6	1319	366.1
90+	166	335.2	1047	628.6
Total and crude rate	1783	155.7	5084	264.8
Age-adjusted rate		56.8		85.6

There were major differences between men and women with regard to marital status. Table 3 compares the marital status of men and women 65 years and over in institutional care with that of the general population. Only 10% of women and 27% of men in institutional care were currently married which contrasts markedly with the general population in which 39% women and 72% men over 65 years were currently married. Three-quarters of the women and 44% of the men in institutional care were widowed. This high proportion is atypical of the general population 65 years and over in Auckland, where only half of all women and 16% of men are widowed. The average age of admission of widowed people (80 years) was greater than that of married people (77 people).

Table 3.—Marital status of people 65 years and over in aged-care institutions in Auckland compared with the general population (percent)

Marital status	People in aged-care institutions		General population	
	Men	Women	Men	Women
Married	27.3	9.6	72.2	39.0
Widowed	44.3	75.0	15.6	48.5
Never married	19.1	12.6	6.1	7.4
Separated/divorced	9.3	2.8	6.1	5.1

Almost 60% of all admissions to old people's homes came from people living in private homes or flats although the referral pathway differed markedly between the commercial sector old people's homes and the religious and welfare organisations, with a greater proportion of residents admitted to religious and welfare organisations coming from a private home. Almost all referrals from psychiatric institutions to old people's homes were to the commercial sector who also took a larger share of the patients discharged from general wards of public hospitals. The referral pathway for private hospitals indicates that religious and welfare hospitals received twice as many people from other private institutions as did the commercially run private hospitals, and commercially run private hospitals had almost twice the proportion of referrals from public hospitals as did the religious and welfare private hospitals.

Patients in private hospitals had been there an average of two years at the time of the survey, and residents in old people's homes an average of three years. In contrast, the average length of stay of patients in public hospital beds (general and psychiatric combined) was 4.4 years for men and 6.6 years for women. The very long length of stay (more than 10 years) of a small proportion of the patients (388 persons), most of whom were in the public hospital system, explains the surprisingly high mean length of hospital stay (3.1 years).

Overall, 70% of all residents received regular contact and concern from family members. Ten percent (10%) reported having had no family living in the Auckland region. Of the remainder, most had only infrequent contact with their family members (16%) and a small proportion (3%) had no contact at all with their family, although their family members resided in the Auckland region.

Discussion

This survey of all residents and patients in institutions in the Auckland region has demonstrated the extent of provision of care of the aged frail by the public, private and voluntary and

religious organisations. It confirms that the need for such care is largely a problem for old women who were overrepresented in this survey. The proportion of the Auckland population 65 years and over in institutional care in 1988, 7.6%, is higher than has been reported in studies elsewhere in New Zealand where between 4% and 6% of people in this age group were in institutional care [2,4,14]. This high rate of institutionalisation in the Auckland region could partly be explained by the differences between urban and rural living. On the other hand, the low occupancy rate of the institutions at the time of the survey (largely accounted for by 800 vacant beds in the private rest home sector), suggests that there was at the time of the study, an oversupply of rest home beds. This phenomenon is not unique to Auckland. In a study in a rural area in 1986, 7% of the available beds were unoccupied [9].

A feature which is unique to Auckland is the use of aged-care facilities by people less than 65 years of age. Of concern, the proportion of all places occupied by these younger people has increased from 5.3% in 1981 [15] to 8.6% in 1988 and raises questions about the appropriateness of this form of care for these younger people, more than half of whom were referred directly from a psychiatric hospital [11]. As with older people, almost all referrals from psychiatric institutions to old people's homes were to the private sector reflecting the policy at the time of the survey that residents in religious and welfare homes were not eligible for a special rest home subsidy. Since this survey, old people's homes regulations have tightened up the definition of what constitutes a suitable age for a resident in old people's homes and this may have a significant impact. Altering the regulations without adequate alternative financial provisions could potentially create even more difficulties for the care of this group of people who appear to fall outside the responsibility of both psychiatric and frail aged services.

This study confirms that social factors play an important role in the management and care of our frail elderly population. Nearly three times as many institutionalised men and twice as many institutionalised women were widowed compared with the general population, suggesting that there are extra burdens placed on elderly people living alone. This particularly applies to old men who are less likely than old women to have family members living in the Auckland region and less likely to have frequent contact with what family they have [11]. On the other hand, the majority of all residents and patients received regular contact and concern from family members contradicting any suggestion that many people, once admitted to an old people's home, are abandoned by disinterested families.

This survey highlights the large number of elderly women in care especially those 85 years and over. Previously published data have indicated the high rates of long term care in people 80 years and over in New Zealand [15]. The age and sex profile of people in this broad age group however, is masked by grouped data. A marked divergence in the five year age groups above 80 years of age is apparent in this study with women experiencing almost twice the rate of institutional care in the oldest age groups than men. These differences are

not explained by higher rates of dependency in women in these advanced age groups [12]. The study design does not provide an opportunity for understanding the reasons for the sex differences in the rate of institutional care, although clearly, the higher rate of widowhood in older women than older men may be a precipitating factor. Even so, the average age of admission of widowed people was greater than that of married people suggesting that the at risk group are not necessarily those who are living alone, but those who are by their increasing frailty, placing too much demand on equally aged partners.

This survey has demonstrated that a high proportion of the elderly are currently being cared for in long term care institutions in Auckland and raises the issue of whether such a model of care is sustainable in the future. New regulations governing the licensing and management of aged care facilities and changes in the system of subsidies since this survey was undertaken are likely to have an impact on the provision of care of the elderly. This survey provides a profile of the residents and patients in long term care against which future changes can be measured.

Acknowledgments: the authors wish to thank the staff of the homes and hospitals who participated in this survey for their willing assistance, and Sarah Thomson for her efficient coordination of the survey. The support of the New Zealand Private Rest Home Association, the New Zealand Private Hospitals' Association and the Association of Religious and Welfare Organisations, is also acknowledged. Wendy Smith prepared the manuscript. The study was funded by the Medical Research Council of New Zealand and the Order of Freemasons of New Zealand.

Correspondence: Dr Ruth Bonita, Department of Medicine, University Geriatric Unit, North Shore Hospital, Private Bag, Takapuna, Auckland 9.

References

1. Scott C, Fougere G, Marwick J. Choices for health care: report of the health benefits review. Wellington: Department of Health, 1986.
2. Gibbs A, Fraser DR, Scott PJ. Unshackling the hospitals: report of the hospital and related services taskforce. Wellington: Hospital and Related Services Taskforce, 1988.
3. Craig T, Mills M. Care and control: the role of institutions in New Zealand. Wellington: Social Monitoring Group, NZ Planning Council, 1987.
4. Salmund GC. The accommodation and service needs of the elderly. Wellington: Management Services and Research Unit, Department of Health, 1976.
5. Campbell AJ, Shelton EJ, Caradoc-Davies T, Fanning JC. Dependency levels of elderly people in institutional care in Dunedin. *NZ Med J* 1984; 97: 12-5.
6. King BE, Fletcher MP, Main LP. Institutional provisions for the aged: a survey of one region. Wellington: Health Services Research and Development Unit, Department of Health, 1985 (Special Report Series No 74).
7. Campbell AJ, Bunyan D, Shelton EJ, Caradoc-Davies T. Changes in levels of dependency and predictions of mortality in elderly people in institutional care in Dunedin. *NZ Med J* 1986; 99: 507-9.
8. Sainsbury R, Fox KM, Shelton EJ. Dependency levels of elderly people in institutional care in Canterbury. *NZ Med J* 1986; 99: 375-6.
9. King BE. The elderly in Taranaki: the six percent in care. Wellington: Elderly, Disabled and Handicapped Programme, Department of Health, 1987.
10. Auckland Hospital Board. Strategic plan. Auckland: Auckland Hospital Board, 1986.
11. Bonita R, Broad J, Richmond DE, Baskett JJ. Long term care in Auckland: a study of elderly people in public and private institutions. Auckland: University of Auckland, 1989.
12. Bonita R, Broad J, Richmond DE, Baskett JJ. Dependency levels of people in aged care institutions in Auckland. *NZ Med J* 1990; 103: 500-3.
13. Booth T. Home truths: old people's homes and the outcome of care. Aldershot: Gower, 1985.
14. Flight R. Accommodation and service needs of the elderly. *NZ Health Rev* 1987; 7: 25-8.
15. Bed Occupancy Survey. Wellington: National Centre for Health Statistics, Department of Health, 1981.