The Health Status of the Silver Generation in Fiji

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ABSTRACT

The proportion of the population aged 55 years and over in Fiji has increased over the years as progress in social and economic conditions extends. The best possible health of the elderly population is of obvious importance to their families, the community and the nation as a whole. This paper examines the demographic, social and economic factors that determine the health status of our elderly people. The importance of this study lies in the dearth of current knowledge on the health status of elderly persons in Fiji. It will contribute to the literature on elderly issues in Fiji and the wider Pacific. Given that ageing issues do not gain much attention in Fiji's national policies, our hope is that with ample knowledge of their health status, we can help government and other stakeholders work towards upholding the standard of living of the elderly in Fiji. The study used a structured questionnaire to interview 815 elderly in both rural and urban areas of Fiji. The application of the proportional odds model showed that marital status, ethnicity, area of residence, age and household size are significant determinants of the health status of the elderly. The poor economic status of the elderly is also an important determinant because it affects their use of health services, ability to purchase western medicine and their ability to have a healthy life in general.

Key words: *ageing, economic, demographic, health status, social, social disability*

INTRODUCTION

The global trend to population ageing is not by-passing the Pacific Islands. For Fiji this is the result of demographic transition as the country is experiencing declining birth rates, a slow increase in natural increase and declining death rates. Improvement of medical care, water supply, sanitation and diet has contributed tellingly to increase in life span. The shape of Fiji's age structure is transforming steadily as the proportion of people aged fifty-five years and over has grown in the last three decades.

Table 1: *Distribution of population in Fiji by broad age groups (%), 1956-2050*

	1956	1966	1976	1986	1996	2007	2050
0–14	46(159153|	47(222739)	41(241854|	38(273463|	35(274164|	29|243121)	18(260909|
15–55	49(168858|	50(235679)	55(32732)	57(406517|	60(461106|	63|531280)	58(840705|
60+	5(17270)	4(18065)	4(23771)	5(33032|	5(39807)	8(62940)	23(333383|

Source: *United Nations World Prospect*

Concurrently, overall life expectancy has improved from approximately 60 years in 1970 to 70 years in 2015 (Table 2), and the median age of the population has increased from 16.7 years in 1956 to 25.1 years in 2007(Fiji Bureau of Statistics, 2015). This, for Fiji, is a new phenomenon and raises many questions. Will ageing go together with good health or will it mean more burden for families and the community?

Table 2: *Life expectancy at birth for Fiji by sex (years)*

Period	Both Sexes (Males & Females|	Males	Females
1956	51	52	54
1966	58	56	59
1976	62	60	63
1986	65	63	66
1996	67	65	69
2007	70	68	71

Source: *Fiji Island Bureau of Statistics, 2007*

Numbers in the age category 55 years and above are increasing as the proportion of people living longer expands. Yet, for many this is a difficult time, all too often marred by the loss of a partner, loss of siblings, loss of peers, loneliness, declining health, reduction or loss of income and partial or complete loss of decision-making responsibility or recognized competence within the household. Among this group within the population, much anxiety and a feeling of worthlessness may develop.

Fiji as is the norm in most other developing countries has no social safety net for the elderly. It lacks a developed society-wide social security system and pension. The elderly in most cases live with their children or other family members in a multi-generational household. The mean daily wage in Fiji of FJD28, imposes on many families to make hard choices in the households

(Fiji Bureau of Statistics, 2015). The working members of the family have a heavy social responsibility to invest in their children as well as fulfilling their traditional social responsibility of caring for their parents and their other elderly kin. This of course results in conflict, especially when resources are limited and competing demands on family resources are increasing.

The reality in Fiji is that many people aged 55 and above are already living in retirement. In 2009, the government decreed a mandatory retirement age of 55 for all civil servants. The reduction from 60 years was part of the interim Government's 'clean up' plan to reform governance and spread resources further by enforcing a 30 per cent reduction in the size of the civil service. It is not unusual for countries with a high unemployment rate to find the need to down size the civil service and enforce early retirement of older workers to create work opportunities for school leavers wanting to work: the older workers are often swept aside as expensive, less productive and of limited employability. The loss of experience and wisdom acquired in the workforce is rarely foregrounded.

The retirees rely heavily on their pensions which often are inadequate to sustain them to old age. Most of the elderly that had access to superannuation funds had already used a large proportion of their savings in financing their children's education, financing housing needs and meeting other family obligations, partial withdrawals that had effectively reduced the amount of money sitting in their superannuation account. After exhausting all their savings, the elderly are generally expected to depend completely on the support from their children or relatives. Many of the elderly people find that after retirement their role has shifted from head of the family – a status conferred more by earning status than by age or genealogical position, to that of a passive recipient of someone else's decision making. This role change lowers their self-esteem as well as making their position in the household more vulnerable. The eldest of the elderly oldest old in particular are usually severely affected in this regard.

Another challenge ageing represents arises from the fact that the older population is much more likely to be sick, infirm or disabled than children, young people or the middle-aged. The top causes of death in Fiji in 2011-13 were diabetes, heart diseases, hypertensive diseases, cerebro vascular diseases, diseases of genitourinary systems many of which afflict the elderly more prominently (Ministry of Health, Fiji 2013). Sickness, infirmity and disability further diminish the ability of the old to participate in the labour force to earn income or provide for their own subsistence. A typical elderly person is one who is not mobile, and or has some form of disability or other serious medical ailments that need constant medical attention and health care. This is costly and an elderly person who is not financially able to support him/herself will inevitably become a burden to the family or the government. Elderly women especially those living alone are more vulnerable than men.

In Fiji, approximately 53 percent of the elderly people are rural residents while the rest live in the urban areas (Bureau of Statistics, 2015). Many, particularly those in the developing countries, are vulnerable to greater socio-economic and health marginalization mainly due to inadequate provision of services and economic deprivation. As with the urban elderly, visual and hearing disabilities, diabetes and hypertension are common among rural elders also.

The severe change in the life style of the elderly in Fiji following retirement is characterized by loss of income, loss in decision making power, increase in cost of living, poor pension and inadequate retirement benefits and lack of physical work. It is critical therefore to examine the health status of the elderly during their twilight years.

This study is crucial as there are some lacunae in the knowledge on the health status of elderly persons in the country. It will contribute to the literature on elderly issues in Fiji and in the Pacific and we hope that with a comprehensive knowledge of health status of the elderly, we can help government and other stakeholders work towards upholding the standard of living of Fiji's elderly.

AGEING AND HEALTH EXPLAINED`

The United Nations World Health Organization has defined health as *"A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"*. Although increased life expectancy has been an achievement of the 20th and 21st century through advances in medicine and public health, increases in degenerative diseases were also observed. Older people are subject to both physical and mental ailments. In developing countries, the elderly suffer from chronic diseases such as high blood pressure, diabetes, arthritis and heart disease (Manton, 1990). The wear and tear theory first put forward by Angus Weismann explains degeneration associated with the elderly (Goldsmith, 2014). He posited that the effects of ageing are caused by the damage to cells caused by excessive consumption of fat, sugar, and alcohol and accompanied by physical and emotional stresses. All these are known to cause the deterioration of physical functions.

The disengagement theory proposed by Cumming and Henry (1961) is another ageing theory; they postulate that ageing would result in withdrawal or disengagement from personal relationships or the community (Hochschild, 1975; Kowalczyk, D. nd)

As the deterioration of age affects their bodies and mobility, the elderly tend to withdraw and disengage from society; some of their social networks for those who had been in employment are bound to weaken after retirement. This theory may apply less to people in rural areas and those who had not been in employment at all in Fiji, as continuation of their engagement in village, neighbourhood and church networks would nonetheless be expected for as long as they were physically capable.

However, the activity theory was articulated as a response to the disengagement theory (Kowalczyk, nd.) The activity theory posits that successful ageing is mainly a consequence of maintaining positive and outward-looking attitudes and activities during one's working life. When roles change, the elderly will attempt to find full day substitute activities that are engaging and fulfilling. Elderly persons who remain active tend to be healthier, to be in touch with what is happening around them and tend to age gracefully. Of course this is true of people of all ages. In addition, this theory ignores the fact that in the normal course of events, elderly people will vary in their degree of health and mobility. In addition some elderly people continue to be employed because of their circumstances.

Continuity theory was also a response to the disengagement theory (Kowalczyk, D. nd). Continuity theory argues that people who age well continue on into retirement with much of the lifestyle they led from midlife. This may not always be a good thing; some people have unhealthy lifestyles such as having poor diet and not exercising during mid-life and health will inevitably suffer as they age.

Study of the elderly has received little attention in Fiji because scholars have focused mainly on the challenges of the youthful portion of the population. Martin (1989) studied the elderly in Fiji together with those from Korea, Malaysia and the Philippines. This comparative study focused on living arrangements. More recently, Hayes's (2009) study was mainly an overview of population ageing in the Pacific from 1950 to 2050. Similarly Lewai (2009) focused mainly on current trends and challenges of ageing in Fiji.

The studies that are related to the current study are those that were undertaken by Plange and later by Panapasa. Plange undertook a number of studies on the elderly in the late nineteen eighties and early nineties (1985, 1991). He indicated in his work on the elderly in 1985 that care of the elderly in Fiji rested with the family and illustrated the importance of having children in supporting their parents in old age. He highlighted that social disability which is the lack of resources available to the elderly to maintain a healthy lifestyle was a major challenge. Nor did the extended family support system appear to remove the challenge (Plange, 1991).

Panapasa's study (2002) showed that elderly women who were widowed had a higher risk of disability because they were vulnerable to poverty and their needs for health care and support services had remained unmet. They were also unlikely to remarry and formed small independent households when they were not taken in by their children. These households were often poor and obtained little direct support from family members. However, the social rank of the elderly within a household plays an important role in their ability to obtain care. In general the elderly must contribute in some measure to the maintenance of the household to receive care from members of their household.

Another study by Maharaj and Panapasa (2002) examined stroke as an intensifying health problem for the elderly in Fiji. They found that the incidence of stroke – whose associated medical condition is hypertension - increased with age and showed no real difference by gender. They also found that only 50 per cent of stroke victims had family support available to them and such support was particularly low for those who suffered multiple strokes. This present study looks at the different socio-economic factors that influence the health status of the elderly in Fiji.

OBJECTIVES

This discussion based on the current literature makes it obvious that much research needs to be done on the elderly in Fiji. As its broad objective, this study undertakes the examination of the effects of demographic, social, economic and behavioural factors on the health status of the elderly in Fiji.

The specific objectives are:

- to examine the relationship between selected demographic, social and economic factors on the health status of the elderly in Fiji.
- to determine the magnitude of the effects of the selected demographic, social and economic factors on the health status of the elderly in Fiji.
- to assess the applicability of the selected theories on ageing to the study population

METHODOLOGY

This research applied a quantitative research approach which was complemented by a qualitative research method. A semi- structured questionnaire was administered to the sample population (815). The questionnaires were administered by a number of enumerators who were allocated to the various localities selected for this study.

The study population and sampling frame is the proportion of the population who were 55 years and older in Fiji during the 2007 Census of Housing and Population. Fiji's population stood at 837,271 in 2007 (Fiji Bureau of Statistics, 2008). The number of the population 55 years and over stood at 94101 or approximately 11 per cent of Fiji's whole population. The urban sample for the urban elderly population was 400. The rest of the respondents were from the rural areas and this is proportionate to the distribution for the whole population.

The selected socio-economic and demographic characteristics used in the study include age, sex, marital status, ethnicity, living arrangements, household size, income, place of residence and education. From the questions on the elderly's wellness, a health index was created using the following dichotomous variables: taking of medication, insurance, chronic disease and disability. At the multivariate level, a proportional odds model was employed to predict the contribution of the different socio-economic variables to the health status of the elderly.

SOCIAL AND ECONOMIC CHARACTERISTICS OF THE ELDERLY IN FIJI

Table 3: *Social and economic characteristics of the elderly in Fiji*

Socio-demographic characteristics	Urban n = 411 (%)	Rural n = 404 (%)	Total n = 815 (%)
Age			
55–59yrs	117 (14.4)	169 (20.7)	286 (35.1)
60–69yrs	201 (24.7)	150 (18.4)	351 (43.1)
70–79yrs	79 (9.7)	69 (8.5)	148 (18.2)
80+	14 (1.7)	16 (2.0)	30 (3.7)
			0.001*
Gender			
Males	207 (25.4)	220 (27.0)	427 (52.4)
Females	204 (25.0)	184 (22.6)	388 (47.6)
P Value=			0.242
Ethnicity			
I-Taukei	225 (27.6)	278 (55.3)	503 (61.7)
Indo-Fijian	186 (22.8)	126 (15.5)	312 (38.3)
			0.000*
Marital Status			
Currently Married	290 (35.6)	266 (32.6)	556 (68.2)
Ever Married and Single	121 (14.8)	138 (16.9)	259 (31.8)
			0.249
Living Arrangements			
Living Alone	121 (14.8)	152 (18.7)	273 (33.5)
Living with Others	290 (35.6)	252 (30.9)	542 (66.5)
			0.013*
Number of Children			
0–3	240 (33.2)	194 (26.9)	434 (60.1)
4–6	116 (16.1)	121 (16.8)	237 (32.8)
>6	34 (4.7)	17 (2.4)	51 (7.1)
			0.049*
Income			
<FJD15,000 per year	382 (46.9)	397 (48.7)	779 (95.6)
>FJD15,000 per year	29 (3.6)	7 (0.9)	36 (4.4)
			0.000*
Education Qualification			
<Primary Education	226 (27.7)	291 (35.7)	517 (63.4)
>Secondary Education	185 (22.7)	113 (13.9)	298 (36.6)
			0.000*
Health Status			
Not so healthy	102 (12.5)	115 (14.1)	217 (26.6)
Healthy	170 (20.9)	187 (22.9)	357 (43.8)
Very Healthy	139 (17.1)	102 (12.5)	241 (29.6)
			0.027*
Makes Decisions			
No	94 (11.5)	65 (8.0)	159 (19.5)
Yes	317 (38.9)	339 (41.6)	656 (80.5)
			0.015*

Source: *Working Elderly Survey, 2011–2012*

The demographic and socio-economic characteristics of the elderly are presented in Table 3. The 815 respondents' age range is 55–89 years and the average age is 64 years. There is slightly high proportion of female (51.2 per cent) in the older age category (75 years and above). There are approximately 62 per cent ethnic-Fijians and the rest are Indo-Fijians. A higher proportion of the Indo Fijian elderly live in urban areas than in rural areas.

The typical Indo-Fijian elderly citizen is one with secondary education, who is self-employed and lives alone, whereas a typical ethnic-Fijian elderly citizen is most likely to have attained a primary level of education, be engaged as a full-time home maker, in co-residence with children, family members or relatives, and poor. Among the elderly who are living alone, a significant number are widows and widowers and they are most likely to suffer from diabetes and or hypertension particularly rural ethnic Fijian elderly. A few elderly who were interviewed were bedridden and cared for by their children. The finding is consistent with Plange's work (1985).

A significant number of women head their households. In the survey female elderly in employment are still playing a significant role in household decision making. A number of the elderly are living with their children and or grandchildren and receive financial and physical care and support from their children and grandchildren. This again supports findings by Plange (1985). Conversely, a few elderly take care of their grandchildren. The majority of the elderly (80 per cent) lived in a one-family house with their children and children's family. Twenty-eight per cent of the elderly were working before they went into retirement. Approximately ten per cent of the elderly are earning income from renting out their properties.

Among the elderly who have been educated up to tertiary level (11.8 per cent), 12 per cent are employed in the formal sector. In the study, approximately 60 per cent of all the elderly under study are homemakers while 24 per cent are self-employed. Thirty-five per cent of all Indo-Fijians and nine per cent of all ethnic Fijians interviewed mentioned that their children are residing overseas and that remittances are their main source of income.

Typically, an elderly person in the urban areas spends the day resting, watching TV and cleaning the house. An elderly male in the rural areas spends his day in the farm (subsistence farming) while elderly women pursue household chores and other activities including weaving and fishing.

SOCIAL AND ECONOMIC CORRELATES OF THE HEALTH STATUS OF THE ELDERLY IN FIJI

Table 4: *Health Index by the Demographic, Social and Economic Variables*

SOCIO-ECONOMIC VARIABLES	URBAN HEALTH INDEX			RURAL HEALTH INDEX		
	Not so healthy	Healthy	Very Healthy	Not so healthy	Healthy	Very Healthy
Gender						
Males	52 (25.1)	86 (41.5)	69 (33.3)	102 (23.9)	200 (46.8)	125 (29.3)
Females	50 (24.5)	84 (41.2)	70 (34.3)	115 (29.6)	157 (40.5)	116 (29.9)
	0.976			0.012*		
Age						
55–64 yrs	48 (19.8)	94 (38.8)	100 (41.3)	55 (22.3)	125 (50.6)	67 (27.1)
= or >65 yrs	54 (32.0)	76 (45.0)	39 (23.1)	114 (35.0)	138 (42.3)	74 (22.7)
	0.009*			0.002*		
Marital Status						
Currently Married	64 (22.1)	120 (41.4)	106 (36.6)	60 (22.6)	134 (50.4)	72 (27.1)
Ever Married and Single	38 (31.4)	50 (41.3)	33 (27.3)	55 (39.9)	53 (38.4)	30 (21.7)
	0.075			0.001*		
Ethnicity						
Ethnic Fijian	46 (20.4)	92 (40.9)	87 (38.7)	78 (28.1)	125 (45.0)	75 (27.0)
Indo-Fijian	56 (30.1)	78 (41.9)	52 (28.0)	37 (29.4)	62 (49.2)	27 (21.4)
	0.026*			0.485		
Education Level						
≤ Primary Education	67 (29.6)	86 (38.1)	73 (32.3)	84 (28.9)	132 (45.4)	75 (25.8)
≥Secondary Education	35 (18.9)	84 (45.4)	66 (35.7)	31 (27.4)	55 (48.7)	27 (23.9)
	0.041*			0.833		
Living Arrangements						
Living Alone	27 (22.3)	48 (39.7)	46 (28.0)	35 (23.0)	72 (47.4)	45 (29.6)
Living with spouse, children and children's family	32 (18.7)	75 (43.9)	64 (37.4)	21 (18.9)	58 (52.3)	32 (28.8)
Living with children only	31 (35.2)	34 (38.6)	23 (26.1)	50 (43.5)	47 (40.9)	18 (15.7)
Living with other family members or relatives	12 (38.7)	13 (41.9)	6 (19.4)	9 (34.6)	10 (38.5)	7 (26.9)
	0.026*			0.001*		
Income						
<F$9000	86 (26.3)	131 (40.1)	110 (33.6)	115 (29.9)	170 (44.3)	99 (25.8)
≥F$9000	16 (19.0)	39 (46.4)	29 (34.5)	0 (0.0)	17 (85.0)	3 (15.0)
	0.352			0.001*		

AGEING AND HEALTH STATUS

Table 4 shows the relationship between socio-economic and demographic variables with the health index. In both rural and urban areas, the majority of the elderly who are healthy and very healthy are in the age range of 64 years or less. Conversely, the minority of the elderly who are 65 years old and above are very healthy. It is well documented that when age increases, health problems also increase (Chayovan & Knodel, 1997; Wongsit & Siriboon, 1998; Jitapunkul, 2000). Weisman's theory posited that as one ages, physical health also deteriorates because of the lack of physical activity apart from other factors including diet and life style in the middle years. As age increases, the proportion of the elderly living without any disability declines and the proportion of the elderly living with disabilities increases (Table 5).

Table 5: *Self- Reported Disability Prevalence by age group and gender*

Sex [Males & Females]	Forms of Disability [Per Cent]				Total (N)
	No Disability	One Form of Disability	Two Forms of Disability	More than Two Forms of Disability	
Males					
55–64	82.0	13.6	3.2	1.2	250
65–79	58.4	31.9	6.6	3.0	166
80+	45.5	27.3	9.1	18.2	11
Females					
55–64	73.6	24.7	0.8	0.8	239
65–79	53.1	36.2	7.7	3.1	130
80+	31.6	42.1	15.8	10.5	19
Total					
55–64	77.9	19.0	2.0	1.0	489
65–79	56.1	33.8	7.1	3.0	296
80+	36.7	36.7	13.3	13.3	30

Source: *Working Elderly Survey, 2011–2012*

*Pearson Chi-Square- 0.000***

Table 5 shows that females are more susceptible to disability than males. It was noted that among the elderly who are aged 80 years and above, it is most likely that female elderly suffer from at least one form of disability. The result supports Wongsit and Siriboon (1998) and Jitapunkul (2000) that males are likely to be physically healthier than females because women are faced with many more drawbacks in pursuing every day activities than are men. Rural elderly ethnic Fijian women aged 65 years and above are mostly poor, uneducated, unemployed, dwelling in big households and not cared for well by younger household members. Notably, Table 4 shows that while the majority of the rural elderly aged 65 years and above is healthy (42 per cent), still a significant proportion (35 per cent) accounts for those that are unhealthy. Nevertheless there are more females than males in the age group 80 years and above (Table 5). This shows that women's survivorship is higher than men's although the women are not so healthy.

Visual impairment and movement difficulty turned out to be the most common forms of

disability amongst the elderly. While age is an important predictor of disability amongst the elderly in Fiji, a number of elderly also reported that their disability has been fuelled by chronic diseases that include diabetes and arthritis. Generally, the epidemiological shift has been from infectious to non-communicable diseases, and in this scenario the elderly is a group that is at risk. Approximately 47 per cent of the elderly indicate that they have at least one chronic disease (Table 6).

Table 6: *Self-Reported Disease Prevalence by Gender and Marital Status*

Scale [Self-Reported Illness]	Respondents' Marital Status					
	Married	Single	Divorced	Widow/ Widower	Living Together	Total [N]
Total						
Elderly has no health problem	64.6	6.2	1.5	27.7	0.0	65
Elderly suffers from seasonal health problem (like cold & flu, minor headaches)	84.2	1.6	1.6	12.5	0.0	368
Elderly suffers from one of the chronic diseases (e.g. diabetes or hypertension)	32.9	4.1	1.4	61.6	0.0	73
Elderly suffers from more than one chronic disease (e.g. diabetes and hypertension)	57.6	8.7	2.6	30.4	0.6	309
Males						
Elderly has no health problem	83.3	3.3	.0	13.3	0.0	30
Elderly suffers from seasonal health problem (like cold & flu, minor headaches)	90.9	1.9	.5	6.7	0.0	209
Elderly suffers from one of the chronic diseases (e.g. diabetes or hypertension)	42.5	5.0	.0	52.5	0.0	40
Elderly suffers from more than one chronic disease (e.g. diabetes and hypertension)	69.6	10.8	2.7	16.2	0.7	148
Females						
Elderly has no health problem	48.6	8.6	2.9	40.0	0.0	35
Elderly suffers from seasonal health problem (like cold & flu, minor headaches)	75.5	1.3	3.1	20.1	0.0	159
Elderly suffers from one of the chronic diseases (e.g. diabetes or hypertension)	21.2	3.0	3.0	72.7	0.0	33
Elderly suffers from more than one chronic disease (e.g. diabetes and hypertension)	16.6	6.8	2.5	43.5	0.6	162

Source: *Working Elderly Survey, 2011–2012*

Chi-Square- P=0.080

MARITAL STATUS

HEALTH STATUS OF WIDOWS

In the rural areas, ever married elderly are more likely not to be healthy than the currently married elderly (Table 4). Ever married elderly are most likely to suffer from more than one chronic disease (Table 6). The majority of the ever married elderly are widows. The widows in the study are mainly uneducated, unemployed and are living with their extended families or relatives. Elderly widows in the rural areas rely on subsistence means because they do not have any source

of income. These elderly women rely on public health centres for medication. However, the rural health centres frequently run out of medication, resulting in the use of herbal medicine, whose popularity is all the greater because it is free. Nevertheless, financial challenges also fuel an unmet need for western medicine.

As table 6 shows, elderly widows are more likely to suffer from more than one chronic disease, most commonly diabetes and hypertension. It is notable that elderly people who are suffering from diabetes and hypertension are more likely to be strict with their diet. Many elderly widows who are living with their relatives and other family members complain that often they feel lonely and neglected by their children. Elderly widows aged 75 years and above are eager to share their stories during the interviews. Chayovan and Knodel (1989) found that in Thailand widows and widowers are more likely to manifest psychological effects such as depression or loneliness, which can spill over into an overall effect on their mental and physical health condition.

LIVING ARRANGEMENTS AND HEALTH STATUS OF THE ELDERLY

Table 4 shows that elderly living with their children, family members and other relatives are most likely to have health ailments. In the rural areas the elderly are most likely to live with their children and children's family. The children provide care to their elderly parents and in a few cases elderly parents provide economic support for their children. In the rural areas, children who provide care for their elderly parents cook their meals, attend to general household chores, bathe and feed the elderly in cases of the bedridden. For the social welfare recipients, mostly rural elderly indicated that their children collect the social welfare money on their behalf and this is used to purchase basic household food items including rice, flour and sugar. Rural elderly widowers who live alone indicate that they intend to move in to a relative's house as they age and as their physical strength diminishes, when their independence becomes less attractive.

ETHNIC AND RESIDENTIAL DIFFERENCES IN HEALTH STATUS OF THE ELDERLY

The relationship between ethnicity and health status is significant. Table 4 shows that a significant number of the Indo-Fijian elderly in the urban areas are not so healthy (30 per cent). The elderly Indo-Fijians are most likely to be living alone and aged 65–74 years and their lower health status is likely to be linked to their reluctance to engage in many physical activities.

In the urban areas, the elderly who have attained only primary education or less are most likely to be less healthy; those educated to secondary level or above are most likely to be healthy or very healthy (Table 4). These elderly would have previously worked and they are always active. It was noticeable in the urban areas that elderly Indo-Fijian retired civil servants, in particular retired teachers, spend most of their time reading and are highly engaged in church activities and community work. This finding supports the activity theory's supposition that as role changes people find substitute activities that are engaging and fulfilling to keep active. According to Table 6, the educated elderly are more likely to do physical exercise, for example morning and afternoon walks; the elderly who have attained secondary education or more are most likely to have been employed and accumulated savings to sustain them in their old age. The elderly

who have attained primary level education or less are most likely to have been employed in the informal and subsistence sectors and are totally dependent on other family members for sustenance. They live in poor quality housing in big households and their needs are not met. Priority is given to the younger family members' needs. The elderly indicate that they can barely afford the high cost of fruits and vegetables and in many cases there is no land to plough and to plant. These are factors that are most likely to affect the health of the elderly.

There is a tendency for ethnic Fijians in the rural areas to depend on herbal medicines and they do not visit the health centre for proper treatment. In the rural areas the elderly use Fijian herbs to control for two commonly self-reported chronic diseases, diabetes and hypertension. In the rural areas, elderly people earning F$9000 or less are most likely to be not so healthy or healthy when compared to elderly who are earning above F$9000, who are more likely to report being healthy or very healthy. The elderly earning F$9000 or less cannot afford western medication. The finding is consistent with Bourne and McGrowder (2010), who discovered that the elderly in rural Jamaica who reported of having a chronic medical condition do not actively engage in seeking health care because they do not see it as affordable.

WORK AND HEALTH STATUS OF THE ELDERLY

The working elderly are mainly those who are aged 55–60 years. They still support their family financially. They look after their children and their children's family. In the rural areas elderly people living with children, relatives and other family members are most likely to be not so healthy and they are most likely to be widows and widowers. They are unemployed or they have never been employed and their children have never been employed either. The ethnic Fijian elderly in the rural areas have struggled to make ends meet and to provide economic support for their children and their children's family. This places a lot of anxiety and pressure on the elderly and puts them at risk of health ailments. The very old (elderly aged 75 years and above) have lost decision-making power and their role as heads of households because they do not earn and provide for the family. Elderly informants indicate that although they own the property, the children pay for all household expenses and make decisions. As a result, the elderly suffer low self-esteem associated with feeling themselves counted as helpless and useless. In several cases, too, the elderly being looked after by their children are specifically cases of bedridden and otherwise sickly elderly.

The type of work the elderly did before retirement was most likely to affect their health. Pang, and others (2004) found that almost all elderly aged 50–60 years and healthy had participated in the formal sector labour force of rural China. Table 7 shows that in the present study too, there is a relationship between self-reported illness and the type of employment sector in the rural areas. The table shows that rural elderly who are working in the formal sector are healthier than rural elderly working in the informal sector.

Table 7: *Percentage distribution of the elderly by occupation and type of disease*

Disease	Employment Sector		Total
	Informal [%]	Formal [%]	[N]
Urban			
Elderly has no health problems	62.5	37.5	24
Elderly suffers seasonal health problems like cold and flu	77.5	22.5	80
Elderly suffers from of chronic diseases like diabetes, hypertension and arthritis	75.0	25.0	16
Elderly suffers from more than one chronic disease (e.g. diabetes and hypertension)	76.9	23.1	39
P=0.506			
Rural			
Elderly has no health problems	100	0	7
Elderly suffers seasonal health problems like cold and flu	76.4	23.6	55
Elderly suffers from one chronic disease like diabetes, hypertension and arthritis	100	0	5
Elderly suffers from more than one chronic disease (e.g. diabetes and hypertension)	95.2	4.8	63

Source: *Working Elderly Survey, 2011–2012*
Chi square- P= 0.009

The elderly who are working in the formal sector, which is the minority of the respondents, are most likely to be insured and they purchase their medicine from private pharmacies. The elderly who are working in the informal sector are not insured and they are most likely to go to public hospitals and health centres.

MULTIVARIATE ANALYSIS

Table 8: *The effect of socioeconomic variables on Health Status of the Elderly in Fiji, 2011-2012*

Socioeconomic Indicators	Odds Ratio	P Value
Marital Status		
Married	1.000	
Ever Married	0.633814	0.007**
Ethnicity		
Indo-Fijian	1.000	
Ethnic Fijian	2.356082	0.000***
Area of Residence		
Rural	1.000	
Urban	1.413403	0.026*
Age		
65 yrs+	1.000	
55-64yrs	1.538796	0.005**
Household Size		
4 and above	1.000	
1-3	1.377128	0.057*
Income		
F$9000 and above	1.000	
Less than F$9000	0.931462	0.750
Education		
Secondary Education or more	1.000	
Primary Education or Less	0.90303	0.503
Living Arrangements		
Living with other family members or relatives	1.000	
Living Alone	0.470952	0.518
Living with Spouse, Children and Children's family	0.370834	0.391
Living with children only	0.27999	0.279
Gender		
Female	1.000	
Males	1.007025	0.962

*Pseudo r2= 0.085 Legend:*p<0.05**p<0.001***p<0.0001*

A proportional odds model was employed to determine the contributions of the socio-economic and demographic variables to the health status of the elderly in Fiji (Table 8). The odds model was used because the variables were ordinal and mostly dichotomous. From the observed significance level in Table 8, it shows that age, household size, ethnicity, marital status and area of residence are significant in explaining the health status of the elderly when the effects of all social and economic factors that determine the health status of the elderly in Fiji are taken together. Ethnicity is the strongest determinant of the health status of the elderly in Fiji (Table 8).

Ethnic Fijian elderly are more likely to be very healthy compared to the Indo Fijian elderly. There is differential in lifestyle of the ethnic Fijian and Indo Fijian. Ethnic Fijian elderly live with their extended family members and relatives. They are more likely to be physically active and have a diet that is lower in fat and oil content (vegetables). On the other hand, the Indo-Fijian elderly are more likely to be living alone. The children of Indo Fijian elderly are most likely to be

well educated and live in their own homes with their own families. In many cases their children or immediate family members have migrated and live abroad. The Indo-Fijian elderly are thus most likely to be lonely and depressed at times. It was notable that Indo-Fijian elderly hardly receive assistance from their children. They are also likely to be physically inactive and have a diet that is high in fat and oil content or have their vegetables overcooked with subsequent loss of nutritive value.

As age increases, the proportion of the elderly living without any disability declines and the proportion of the elderly living with disabilities increases. The youngest old (55-64) were more active than the oldest old (65 years and above). They reported being physically active. The majority of the youngest elderly category does gardening and exercise regularly. The oldest of the elderly, on the other hand are mostly suffering from arthritis and have difficulty moving. The oldest old are most likely to be immobile and take no or little physical activity and exercise.

Elderly who live in a household size of 4 and above are less likely to be very healthy than elderly who live in household sizes of 3 or fewer. In the rural areas, elderly are most likely to live with their children and other relatives in multigenerational households. Most of the elderly live with their children and their children's family. This represents hard choices and potentially fierce competition for limited resources. The working children look after the welfare of both younger and older family members. For the majority, the priority is to look after the welfare of the family as a whole by providing food and basic necessities; and minor priority is given to the health and welfare of the elderly. For many, daily survival of all members of the household is more important than anything else- so putting food on the table is a priority. The elderly household members generally do not make any decision in the household if they do not earn.

Ever married elderly are less likely to be very healthy than the married elderly. Ever married elderly are most likely to be unemployed and are living with their extended family members. Elderly widows in the rural areas rely on subsistence means because they do not have any source of income. In the survey, widows indicated feeling lonely and depressed at times and thus their health is affected. It was apparent from the study data that elderly people who have re-married after the death of their spouse were most likely to be living a happy and healthy life. In a number of cases, elderly widows prefer to live alone because their relations with their in laws are tense and not healthy. They would have no other choice but to live alone because of an unhappy experience with their in laws. The elderly widows may not want to live with their own kin because of the length of time they have lived away from them.

Urban elderly are more likely to be very healthy than the rural elderly. The elderly who reside in urban areas have alternatives for health services. They have the choice to visit public health centres or private health services for special attention or for more specialized services. A number of urban elderly indicated that they visit private hospitals because they provide efficient service obviate the long queues in the public health centres. In terms of hygiene, the urban elderly are more likely to enjoy the advantage of access to proper sewage disposal, treated drinking water and the electricity grid when compared to rural elderly. On the other hand, rural health centres frequently run out of medication, resulting in the rural elderly people's greater use of herbal medicine. In the rural areas, the elderly attend regular medical checkups only if they

have been diagnosed with a chronic disease. The majority of the elderly in rural areas live in multigenerational households where housing and living conditions are poor. The concern in many of these rural dwellings is to have food for the family with little emphasis placed on health care of the elderly.

DISCUSSION

This section will discuss and validate the different theories used in this study. Weisman's wear and tear theory posits that as age increases there is a high tendency for physical disability to develop. The results of the study confirm that as age increases, the proportion of the elderly living without any disability declines and the proportion of the elderly living with disabilities increases (Table 5).

The activity theory claims that successful ageing is mainly a consequence of maintaining positive and outward-looking attitudes and activities during one's working life. When roles change, the younger members of the category will attempt to find full day substitute activities that are engaging and fulfilling. The theory is applicable to the elderly in Fiji, particularly for ethnic Fijian elderly. The elderly do not suffer from loneliness and depression but are ageing healthy because they continue to maintain a positive outward-looking attitude towards their family, church and community even after retirement.

The retired elderly attend family gatherings and events including wedding, funeral and all associated ceremonial occasions. The elderly also attend church services and church group meetings and events including cell groups, men and women's fellowship and choir practice. In their community or villages the elderly reported belonging to social groups and participating in social activities including community support groups, e.g., village steering committees in health and education, men and women's group, veteran sports group and village clan (*'mataqali'*) meetings. Many of the retired elderly are also engaged in productive activities e. g gardening and or farming, art and craft (especially weaving), sewing, fishing and in self-employed businesses. Twenty nine per cent of the elderly who are currently working indicated that self-employed businesses in which they are engaged include running small canteens, selling sweets, kava and handicrafts. The retired elderly were well acquainted with their current affairs. Forty two per cent rated reading as the second most important activity in a day, prayer being their most important activity. In Fiji elderly who have lost their partner are most likely to suffer from loneliness and depression particularly widows. An elderly Indo-Fijian widow age 64 years and living in rural Ba complained about her loneliness because she lives alone and her four children rarely visit. The widow appreciated the opportunity to be able to share her story with the interviewer.

Conversely, the disengagement theory does not seem to hold for Fiji. The theory suggests that ageing would result in withdrawal or disengagement from personal relationships or the community. Although elderly persons have lost their networks or in some cases the networks have weakened after they have retired, they still establish new but smaller network with their family, church and community. The retired elderly in Fiji are actively involved in social activities at the family, church and community or village, hence some of the elderly persons do not suffer from loneliness and depression and they maintain good health.

Continuity theory argues that people who age well continue on into retirement with much the lifestyle they led from midlife. The theory holds for the working elderly in Fiji. The majority of the elderly (93 per cent) who continued working and had maintained the same work after reaching 55 years indicated that a poor state of health is the only factor that will stop them from continuing to work. Fifty per cent mentioned that good health keeps them working. For the elderly who have changed occupation after reaching the 55 year cut-off, 88 per cent stated that a poor state of health is the only factor that will stop them from continuing work. For the elderly who changed occupation 62 per cent mentioned that good health will keep them working.

On the other hand, the continuity theory does not hold for the elderly who have completely changed their lifestyle as they aged. It was noted that elderly people diagnosed with diabetes and hypertension became strict with their diet only after they were diagnosed with the disease. They have never been strict with their diet during their mid-life. The continuity theory is therefore not conclusive in Fiji.

CONCLUSION AND POLICY IMPLICATIONS

The paper has examined the relationship between factors of age, sex, marital status, living arrangements, usual place of residence, income, work, decision-making power, access to health facilities, medication, physical activity and insurance on the health status of the elderly in Fiji. Age, household size, ethnicity, marital status and area of residence are the significant factors, of which ethnicity was the most influential. The majority of the elderly in the sample are healthy. The elderly who are not so healthy are most likely to be older, less educated, and poor and more likely to report having a chronic illness.

The elderly who are 64 years of age or less are more likely to be healthy than elderly who are 65 years and above. Females are more vulnerable to disability than males. In the rural areas, ever married elderly are more likely not to be healthy than the currently married elderly. The majority of the ever married elderly are widows and the widows in the study are mainly uneducated, unemployed and are living with their extended families or relatives.

Indo-Fijian elderly in the urban areas are not so healthy. The Indo-Fijian elderly are most likely to be living alone and aged 65–74 years. In the urban areas, elderly who have attained primary education or less are most likely to be not so healthy. Elderly educated to secondary level or above are most likely to be healthy or very healthy. There is a tendency for ethnic Fijians in the rural areas to depend on herbal medicines and they do not visit the health centre for proper treatment. Poor health status was more dominant among elderly with poor economic status in the rural areas. The elderly who are working in the formal sector, which is a minority of the respondents, are more likely to be insured and they purchase their medicine from private pharmacies. Elderly who are working in the informal sector are not insured and they are most likely to go to public hospitals.

The poor economic status of the elderly in Fiji definitely hinders their full utilization of health services, purchase of western medication and ability to live a healthy life in general. The epidemiological shift from infectious to non-communicable diseases accompanied by a shift

in dietary pattern and lifestyle has resulted in making the elderly more vulnerable to chronic diseases, most commonly diabetes and hypertension.

The results of this study attest the need for health policies and strategies to address the health care needs of the elderly in Fiji. It is also important to note that the number of the elderly in Fiji will continue to increase in future and there will be growing concerns about their health and well-being. There is a need for public health care targeting older people in Fiji. There must be regular public health visits to the elderly in villages for health checks including, blood pressure, sugar level, vision and ear checks. Many elderly particularly in rural areas do not make regular visits to health centres for general medical checkups. The elderly visit the health centre only when they are very sick.

There should be village and community champions to motivate the elderly to participate in physical exercises and activities to enhance their lives and to age healthily. There should be coordination between the agriculture extension department and the community champions to provide training for the elderly in particular elderly who are 55-65 years of age on traits such as planting vegetables. The rural elderly must encourage to make use of the village halls for recreational activities such as making crafts, weaving, sewing quilts and exercise. The elderly in the rural areas could also meet in the village halls to share their stories, feelings and thoughts.

Apart from the government volunteer scheme for retirees, there should be a country pool of knowledge that comprises retired workers including nurses, doctors, teachers and other professions. These retirees could build on the networks and, knowledge sharing their experience and skills by giving relevant advice to various arms of governments and other stakeholders thus adding value to the nation and enhancing the lives and health of the elderly.

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