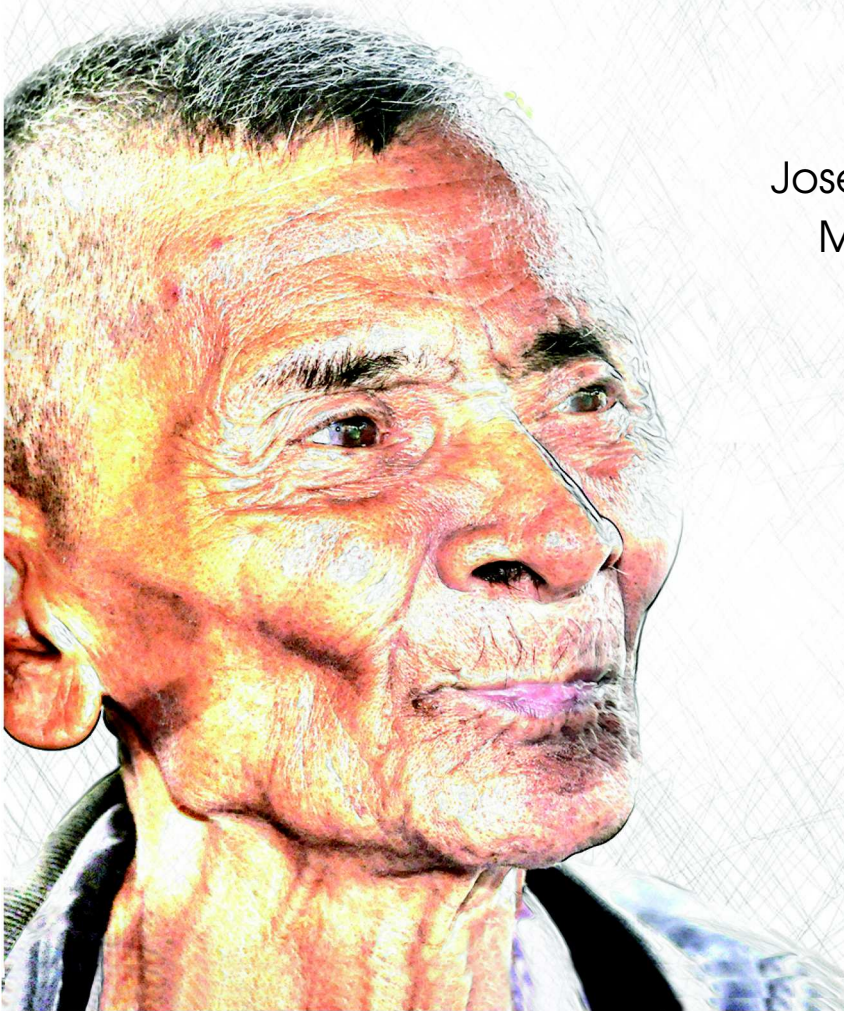


# Aging in the Philippines:

Findings from the  
2007 Philippine Study on Aging

Grace T. Cruz  
Josefina N. Natividad  
Melissa L. Gonzales  
Yasuhiko Saito





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Published by  
University of the Philippines Population Institute  
and Demographic Research and Development Foundation, Inc.  
3/F Palma Hall, University of the Philippines  
Diliman, Quezon City 1101

Layout artist: Ariel Manuel  
Cover design by Ryan Descallar

ISBN 978-621-95457-0-9

Suggested citation:

Cruz, G. T., Natividad, J. N., Gonzales, M. L., & Saito, Y. (2016). *Aging in the Philippines: Findings from the 2007 Philippine Study on Aging*. Quezon City: University of the Philippines Population Institute and Demographic Research and Development Foundation, Inc.

# *Table of Contents*

PREFACE .....	x
EXECUTIVE SUMMARY .....	xiii
Chapter 1 BACKGROUND .....	1
Aging Research in the Philippines .....	3
State Policies and Programs for the Well-Being of Older Filipinos .....	6
Other Initiatives .....	8
The Demography of Aging in the Philippines .....	9
Chapter 2 THE 2007 PHILIPPINE STUDY ON AGING .....	17
About the Study .....	17
Study Design .....	17
Conceptual Framework .....	25
Data Processing .....	26
Chapter 3 THE FILIPINO OLDER PERSONS .....	28
Household Population and Housing Characteristics .....	28
Characteristics of the Filipino Older Persons .....	31
The Filipino Older Persons and Their Children .....	36
Chapter 4 ECONOMIC WELL-BEING .....	39
Chapter 5 HEALTH STATUS .....	49
Self-Assessed Health Status .....	50
Self-Reported Illnesses .....	52
Vision .....	54
Hearing .....	56
Oral Health .....	56
Sleep .....	60
Pain .....	60
Depression .....	62
Incontinence .....	65
Functional Health .....	67
Active Life Expectancy .....	72
Health Risk Behaviors .....	75
Life Satisfaction .....	78
Anthropometric Measurements .....	80
Health Care and Health Utilization .....	84

Chapter 6	LIVING ARRANGEMENT .....	93
	Perceived Best Living Arrangement .....	95
	Attitudes Toward Institutional Living Arrangements .....	97
Chapter 7	FAMILY SUPPORT AND INTERGENERATIONAL EXCHANGES .....	104
	Grandparenting .....	113
Chapter 8	LEISURE, RELIGIOUS ACTIVITIES, AND SOCIAL INVOLVEMENT .....	117
	Leisure Activities .....	117
	Religious Activities .....	120
	Membership in Organizations and Volunteerism .....	122
	Knowledge and Use of New Communication Technology: Cell Phones and E-Mail .....	122
Chapter 9	BELIEFS AND KNOWLEDGE OF SERVICES FOR OLDER PEOPLE .....	125
	Beliefs About Child Support, Remarriage, and Gender Roles .....	125
	Knowledge of Services for the Older People .....	126
Chapter 10	CONCLUSION, DISCUSSION, AND RECOMMENDATIONS .....	130
	REFERENCES .....	134
	ANNEX 1 Consent Forms .....	141
	RESEARCH TEAM .....	144
	FIELD PERSONNEL .....	145



## LIST OF TABLES

Table 1.1.	Philippine laws directly or indirectly affecting senior citizen welfare .....	7
Table 1.2.	Life expectancy at birth and at age 60 by sex, Philippines: 1970 and 2010 .....	14
Table 2.1.	Sample areas, number of sample barangays per area, and sample size .....	18
Table 2.2.	Duration of interview and use of proxy by age and sex .....	23
Table 2.3.	Reason for using a proxy during interview by sex .....	23
Table 2.4.	Proxy's relationship to the respondent by sex .....	24
Table 3.1.	Household and housing characteristics .....	30
Table 3.2.	Sociodemographic characteristics of older persons by sex .....	32
Table 3.3.	Educational attainment of the household population by age and sex .....	33
Table 3.4.	Work and occupation of older persons by sex, age, marital status, and education .....	35
Table 3.5.	Number of children by sex, age, marital status, and education .....	37
Table 3.6.	Profile of coresident and noncoresident children .....	38
Table 4.1.	Sources of income and median monthly income by sex, age, marital status, and education .....	41
Table 4.2.	Most important source of income by sex, age, marital status, and education .....	42
Table 4.3.	Percent of older persons who own various assets and percent who have liabilities by sex, age, marital status, and education.. ..	44
Table 4.4.	Percent distribution of older persons by wealth index by sex, age, marital status, and education .....	45
Table 4.5.	Sufficiency of household income to meet household expenses by sex, age, marital status, and education .....	46
Table 5.1.	Self-assessed health of older persons by sex, age, marital status, and education .....	51
Table 5.2.	Illnesses of older persons by sex, age, marital status, and education .....	53
Table 5.3.	Vision of older persons by sex, age, marital status, and education .....	55
Table 5.4.	Hearing of older persons by sex, age, marital status, and education .....	57
Table 5.5.	Oral health of older persons by sex, age, marital status, and education .....	59
Table 5.6.	Sleeping habits of older persons by sex, age, marital status, and education .....	61
Table 5.7.	Percent of older persons who experienced pain in the past month by sex, age, marital status, and education .....	63
Table 5.8.	Percent of older persons who are depressed by sex, age, marital status, and education .....	66
Table 5.9.	Percent who experience loss of bladder or bowel movement control by sex, age, marital status, and education .....	66
Table 5.10.	Percent who experience difficulty with activities of daily living (ADLs) by sex, age, marital status, and education .....	68
Table 5.11.	Percent who experience difficulty with instrumental activities of daily living (IADLs) by sex, age, marital status, and education .....	70

Table 5.12. Percent who experience difficulty with activities requiring physical ability and agility (Nagi indicators) by sex, age, marital status, and education .....	71
Table 5.13. Healthy life expectancy by age and sex .....	74
Table 5.14. Percent of older persons who smoke cigarettes/cigars by sex, age, marital status, and education .....	76
Table 5.15. Percent of older persons who drink alcohol by sex, age, marital status, and education .....	77
Table 5.16. Life satisfaction of older persons by sex, age, marital status, and education .....	79
Table 5.17a. Anthropometric measurements of older males by sex, age, marital status, and education .....	81
Table 5.17b. Anthropometric measurements of older females by sex, age, marital status, and education .....	82
Table 5.18. Person who usually takes care of older person when he/she is sick by sex, age, marital status, and education .....	85
Table 5.19. Inpatient utilization of older persons by sex, age, marital status, and education .....	86
Table 5.20. Outpatient utilization of older persons by sex, age, marital status, and education .....	88
Table 5.21. Unmet need for health care among older persons by sex, age, marital status, and education .....	89
Table 5.22. Health insurance coverage of older persons by sex, age, marital status, and education .....	89
Table 6.1. Living arrangement of older persons by sex, age, marital status, and education .....	94
Table 6.2. Place of residence of nearest noncoresident child by sex, age, marital status, and education .....	96
Table 6.3. Preferred living arrangement for older couples, widows, and widowers by sex, age, marital status, and education .....	98
Table 6.4. Percent of older persons who think they are better off living with a son or daughter by sex, age, marital status, and education .....	99
Table 6.5. Attitudes toward homes for the aged by sex, age, marital status, and education .....	101
Table 6.6. Reasons for opinion on having homes for the aged .....	102
Table 7.1. Exchanges of support between older persons and noncoresident children by sex, age, marital status, and education .....	106
Table 7.2. Receipt of non-financial support of older people from noncoresident children by type of non-financial support by sex, age, marital status, and education .....	107
Table 7.3. Provision of non-financial support of older people to noncoresident children by type of non-financial support by sex, age, marital status, and education .....	109
Table 7.4. Receipt of support of older persons from coresident children by sex, age, marital status, and education .....	110

Table 7.5.	Provision of non-financial support of older persons to coresident children by sex, age, marital status, and education .....	111
Table 7.6.	Remittances of OFW children by sex, age, marital status, and education .....	112
Table 7.7.	Attitudes toward family support of older persons by sex, age, marital status, and education .....	114
Table 7.8.	Involvement of older persons in the care of grandchildren by sex, age, marital status, and education .....	116
Table 8.1.	Leisure activities of older persons by sex, age, marital status, and education .....	119
Table 8.2.	Religious activities of older persons by sex, age, marital status, and education .....	121
Table 8.3.	Membership of older persons in organizations by sex, age, marital status, and education .....	123
Table 8.4.	Access to information technology by sex, age, marital status, and education .....	124
Table 9.1.	Beliefs of the older persons by sex, age, marital status, and education .....	127
Table 9.2.	Awareness and use of services for the elderly by sex, age, marital status, and education .....	129

## LIST OF FIGURES

Figure 1.1.	Age and sex structure of the Philippines and Japan: 2010 .....	10
Figure 1.2.	Age and sex structure of the Philippines and South Korea: 2010 .....	10
Figure 1.3.	Age and sex structure of the Philippines and Thailand: 2010 .....	11
Figure 1.4.	Age and sex structure of the Philippine population: 1970, 2010, and 2045 .....	12
Figure 1.5.	Total population (in millions) and proportion of population 60 and over, Philippines: 1960–2045 .....	13
Figure 1.6.	Population growth rate by age group, Philippines: 1960–2045 .....	13
Figure 1.7.	Sex ratio among older people by age, Philippines: 2010 .....	15
Figure 1.8.	Percent share of 60 years old and over to total population by region: 2010 .....	16
Figure 2.1.	Location of sample areas in the Philippines .....	19
Figure 2.2.	Conceptual framework .....	27

# Preface

THE UNIVERSITY OF THE PHILIPPINES POPULATION INSTITUTE (UPPI) received a grant from the Nihon University Population Research Institute of Japan to conduct a collaborative study on the older Filipinos. The primary aim of the study was to investigate the health status and well-being of the Filipino older people and its possible correlates and determinants. It was designed to be the first wave of a longitudinal study on aging in the Philippines that is comparable to the Nihon University Japanese Longitudinal Study of Aging. Although the follow-up study was not carried out, the 2007 Philippine Study on Aging (PSOA) generated the second nationally representative sample of older Filipinos, which is a comprehensive source of information to support policy and program formulation for this sector of the population. The 2007 PSOA expanded and updated the methodology and data collected in the first nationally representative study on older Filipinos, the 1996 Philippine Elderly Survey, which was conducted by the Demographic Research and Development Foundation, Inc. New information collected include anthropometric measures such as blood pressure, grip strength, body mass index, and other dimensions of health including oral health, sleep, and pain measurement. Methodological innovations were also introduced, including the collection of data on vignettes as well as facial photographs of the respondents, which hope to unveil a deeper understanding of the issues and concerns of older people.

The 2007 PSOA has been an important data source for various reports, journal articles, book chapters, theses, and dissertations on aging in the Philippines. These written reports and articles, whether published or not, have initiated discussions on the various issues and concerns of the older people and have since generated important conclusions and recommendations, some of which eventually fed into policy and program formulation designed to promote older people's welfare.

This project report provides a comprehensive analysis of key themes covered in the 2007 PSOA. It is composed of 10 chapters:

Chapter 1, *Background*, describes the development of aging research in the Philippines and provides the current profile of older Filipinos, particularly in terms of demographic and socioeconomic background. The chapter also traces important state policies and programs that promote the well-being of older Filipinos.

- Chapter 2, *The 2007 Philippine Study on Aging*, presents the study design, conceptual framework, methodology, and data analysis.
- Chapter 3, *The Filipino Older Persons*, focuses on the household characteristics of respondents, as well as their individual and family characteristics.
- Chapter 4, *Economic Well-Being*, looks at key economic variables such as labor force participation, older people's sources of income, assets, and self-assessed economic status.
- Chapter 5, *Health Status*, presents findings on older people's self-assessed health status, reported illnesses, and assessment of their vision, hearing, and oral health. The chapter also includes analyses on the experience of pain; sleep; depression; incontinence; functional health measured through activities of daily living, instrumental activities of daily living, and Nagi measures of functioning; active life expectancy; health risk behaviors; life satisfaction; health care and health care utilization; and a description of key anthropometric measures.
- Chapter 6, *Living Arrangement*, explores the existing living arrangement of older people, their preferred living arrangement, and their attitude toward institutional care and living arrangement.
- Chapter 7, *Family Support and Intergenerational Exchanges*, describes the exchange of support between older people and their children, particularly in terms of financial and non-financial support. Grandparenting was also explored in this chapter.
- Chapter 8, *Leisure, Religious Activities, and Social Involvement*, deals with older people's activities such as membership in organizations, experience in volunteerism, and knowledge and use of new communication technology.
- Chapter 9, *Beliefs and Knowledge of Services for Older People*, explores older people's perceptions of child support, remarriage, gender roles, and the need for services for older people.
- Chapter 10, *Conclusion, Discussion, and Recommendations*, discusses key findings of the study and provides recommendations.

This important undertaking would not have been possible without the collective help and expertise of our research team. We wish to acknowledge our field researchers and administrative staff for their untiring effort and time during the data collection phase. In particular, we express our thanks to our field coordinators: Prof. Melba Manapol, Prof. Christine Joy Ballada, Prof. Cristabel Parcon, and Prof. Hernanita Pelino. We also acknowledge the administrative help of Imelda Reyes, Josephine Pariñas, and Renea Santos.

Sincere appreciation is due to Dr. Erniel Barrios for his technical expertise as the statistical consultant of the project. We also acknowledge the efficient work and contribution of Assoc. Prof. Maria Paz Marquez, who coordinated the data processing; Ryan Descallar, programmer as well as book cover designer; and the rest of the data processing team.

We also extend our special thanks to Dr. Elma Laguna for her constructive comments and editorial assistance in the writing of this report. We also value the research and technical assistance of the following: C. Joy Cruz, Connille Abellera, and Armand Camhol.

The project would not have been possible without the support given by the Nihon University Population Research Institute. This work was supported by a grant obtained by the Nihon University Population Research Institute from the “Academic Frontier Project for Private Universities,” a matching fund subsidy from the Ministry of Education, Culture, Sports, Science, and Technology, 2006–2010. Special thanks goes to Dr. Nasu Ikuo from the Nihon University School of Dentistry at Matsudo for his assistance in developing the oral health section of the study questionnaire.

Finally, we are forever grateful to the 3,105 older Filipinos who willingly participated in the study. We also deeply acknowledge the other older respondents who shared their life stories and pictures—it is in their honor that we dedicate this book.

# *Executive Summary*

THE 2007 PHILIPPINE STUDY ON AGING (PSOA) is the second nationally representative survey of older persons (aged 60 and over) in the Philippines. It is a collaborative effort between the University of the Philippines Population Institute and the Nihon University Population Research Institute and was designed to serve as the first wave of a panel study on aging. The survey aimed to investigate the health status and well-being of the Filipino older persons and its possible correlates and determinants. It was also designed to be comparative with the Nihon University Japanese Longitudinal Study of Aging and the Singaporean Longitudinal Study of Aging through the use of a common survey instrument.

The study employed a multiple-stage sampling design and yielded a total of 3,105 respondents from the sample areas of Sultan Kudarat, Laguna, Bulacan, Negros Occidental, Iloilo, Eastern Samar, and the National Capital Region (NCR). Information was gathered using a household questionnaire, individual questionnaire, and anthropometric questionnaire.

This report presents results on the various aspects of the conditions of older Filipinos, differentiated across four specific factors: age, sex, marital status, and education.

## **THE FILIPINO OLDER PERSONS**

Females constitute 58 percent of the sample and are about two years older than the males (mean age of 70 vs. 68, respectively), reflecting the higher female life expectancy. The sex ratio declines from 93 among those in their early 60s to 58 among the oldest age group (90+). The great majority of males are married, whereas the females are mostly widowed.

Older Filipinos exhibit a relatively poor educational profile, with elementary education as the modal educational attainment. About two in three received at most an elementary education. However, the educational profile is improving across cohorts. This is evident in the dramatic increase in the proportion with at least some high school education which increased from 33 percent among the older people to 74 percent among their children. Many older people continue to be economically productive, with nearly half of older males and one third of older females still working. This is largely due to the high proportion who work in the blue collar and agriculture sectors, where there is no retirement age to speak of.

Older Filipinos on the average have had 5.6 children ever born, an indication of the high fertility experience of the older cohorts. Half of the older persons' living children are currently living with them. About one fourth of older Filipinos have at least one child living abroad.

### ECONOMIC WELL-BEING

Older persons in the Philippines are generally not materially well off, as shown by their low incomes and low assets. They reported a median monthly income of PhP2,000 (or US\$43 assuming the exchange rate of PhP46.15), with no significant differences by age or sex. The currently married reported a lower per capita median income than those not currently married (PhP1,750 vs. PhP2,400). Median income increases significantly as education level increases (from PhP1,238 for those with no schooling to PhP5,000 for those with college education). Older Filipinos reported multiple sources of income, with money from children within the country (58%), income from a family business or farm (36%), and earnings from work (29%) as the three most commonly cited income sources. Income from pension was mentioned by only 22 percent of older Filipinos, indicating the low reliance on the formal support system in old age.

The most commonly mentioned major income source is earnings from work (25%). More men, more of the younger older persons (aged 60–69), and more of the currently married mentioned this as their most important income source. The second most commonly mentioned major income source is money from children in the country (22%). This was more commonly mentioned by women, those in the oldest age group (80+), those not currently married, and those with no education.

The most common asset owned by the older persons is the house they currently reside in (77%). Only 6 percent have bank accounts, 12 percent have cash, and 11 percent have real estate. In addition, 15 percent of the older persons have liabilities.

The wealth index was calculated based on the older person's household assets and housing structure. Significant age, gender, and education differentials in wealth inequality are evident, with a higher proportion among the males, those in their 70s, and the least educated in the poorest quintile.

Respondents were also asked whether their household income was sufficient to meet everyday expenses. About four in ten reported that their household income is just enough for them to pay expenses with no difficulty. A third reported some difficulty in meeting household expenses, while one in five said they had considerable difficulty in meeting expenses. Only 7 percent said they had enough with some left over. Expectedly, there is an inverse relationship between education and self-assessed economic well-being; more among the better educated reported that there is enough money with some left over, while more among the least educated reported considerable difficulty in meeting household expenses.



## HEALTH STATUS

### Self-assessed health

About half of the older Filipinos considered themselves to be of average health. A fourth considered themselves somewhat unhealthy, while about 7.5 percent said they are very healthy. The college educated consistently showed the most positive health assessment, while those in the oldest age group had the poorest self-perception of health.

### Illnesses

For the results of self-reported disease status, the diseases were grouped into those that are readily apparent by their symptoms alone (Group 1) and those that require medical diagnosis (Group 2). Arthritis/neuralgia/rheumatism is the most prevalent (54%) of all diseases. Overall, the prevalence of Group 1 diseases is high and increases with age. Among the Group 2 diseases, the most prevalent diseases are high blood pressure (36%) and heart attack/angina/myocardial infraction (20%), both of which are more common among women than among men. Findings on the prevalence of diseases suggest that access to health care may bias self-reports toward higher prevalence of these diseases among the better educated and, by implication, those who are better able to secure a medical diagnosis.

### Vision and hearing

A high 94 percent of older Filipinos have vision in both eyes. Of those who have vision, 57 percent wear corrective glasses or contact lenses. This proportion decreases with age but increases with educational attainment. The differential by education may be yet another indicator of lack of access to medical care, in this case to assistive devices to improve one's vision.

A similarly high percentage (93%) reported that they could hear in both ears. This proportion decreases significantly as age increases and as education level decreases. Of those who can hear (with both ears and one ear only), only 56 percent reported that they could hear very well.

### Oral health

Older Filipinos have an average of 9.6 natural teeth, which indicates poor oral health. The average number of teeth is higher among men (11.0) than women (8.6) and progressively decreases as age increases. About a third of the older persons reported that they have dentures, more among women (40%) than men (24%). But of those who have dentures, only 78 percent use them every time they eat. The proportion who have dentures increases monotonically with increasing education. Six in ten older persons brush at least twice a day, only 17 percent reported visiting the dentist in the past year.

**Sleep**

Older Filipinos get an average of 6.1 hours of nighttime sleep, with no significant differences by age, sex, marital status, and education. Eight in ten are satisfied with their sleep. Four in ten take regular naps, with a mean duration of 52 minutes.

**Pain**

The majority (65%) of older Filipinos said they had experienced pain in the 30 days prior to the survey. Of these, 34 percent experienced mild pain, 22 percent experienced moderate pain, and 8 percent experienced severe to extreme pain. Among those who experienced any pain in the past 30 days, 14 percent said pain affected their daily activities often or all the time, while 24 percent were affected sometimes. A great majority of chronic pain cases involve arthritis/rheumatism. The proportion who reported experiencing severe to extreme pain increases with age but decreases monotonically as education increases.

**Depression**

Depression was measured using a short version of the 20-item Center for Epidemiologic Studies-Depression Scale. About one in four (26%) of older Filipinos are depressed. The proportion is higher among women, the oldest age group, the not currently married, and those with no formal schooling.

**Functional health**

Fifteen percent of older people have difficulty performing at least one activity of daily living (ADL). The activities that the highest proportion of the sample have difficulty performing are standing up from a bed/chair (10%) and going outside/leaving the house (10%). Meanwhile, 19 percent have difficulty performing at least one instrumental activity of daily living (IADL). Of these activities, taking public transportation (jeep/bus) to leave the house was reported by the highest proportion of respondents as difficult to perform. For both ADLs and IADLs, significantly higher proportions of females, the older cohort, those not currently married, and those with no formal schooling reported difficulty performing at least one activity. Slightly more than half (55%) of all older people experience difficulty performing the Nagi measures of physical functioning.

**Active life expectancy**

The number of years and the proportion of remaining life in an inactive state by age and sex were calculated using the Sullivan method. A considerable proportion of the older people's remaining life is lived in an inactive state, with a significant gender disparity. Females have an advantage in terms of the number of remaining years lived, but they experience more years and a relatively greater proportion of their remaining life in disability compared with the males.

**Incontinence**

Seven in ten older Filipinos do not suffer from loss of bladder or bowel control. The remaining 30 percent reported incontinence, mostly loss of bladder control, with the proportion increasing with age. More women than men reported suffering from incontinence.

**Health risk behaviors**

About half of all older Filipinos have ever smoked. The proportion is much higher among men (82%) than women (33%). However, many have given up the habit, as only 26 percent were current smokers at the time of the survey. The proportion currently smoking decreases with age and education.

A little over half (55%) of older Filipinos have ever drunk alcoholic beverages, but only 28 percent are current drinkers. As with smoking, a much higher proportion of men (49%) than women (13%) currently drink alcohol. Many of those who are current drinkers say they only drink occasionally; still, 17 percent among those who currently drink do so every day, and 30 percent do so at least once a week.

**Life satisfaction**

Older Filipinos tend to have average self-assessed life satisfaction, with women showing a slightly higher level of satisfaction than men. The more highly educated also showed a higher level of satisfaction than the less educated.

**Anthropometric measurements**

The 2007 PSOA is the first survey on a nationally representative sample of Filipino older people to gather anthropometric data. The anthropometric questionnaire collected information on standing and sitting height, weight, waist circumference, knee length, grip strength, number of teeth, blood pressure, and blood sugar.

Older men and older women have an average height of 159 centimeters and 147.8 centimeters, respectively. The average weight is 56.7 kilograms for men and 49.7 kilograms for women, while the mean waist circumference is 81.6 centimeters for men and 82.7 centimeters for women. For both men and women, the height and weight decrease with increasing age and increase as education level increases.

The majority of both men and women are within the normal body mass index (BMI) range. More women than men are underweight (18% vs. 16%), and more men than women are overweight (20% vs. 18%).

## HEALTH CARE AND HEALTH UTILIZATION

### Informal care

Older Filipinos mainly rely on family for their informal care. The older person's children were the most commonly identified caregivers in times of illness (48%), followed by the spouse (35%). The spouse is the usual caregiver for men, while the children are the usual caregivers for women.

### Formal care

Sixteen percent of the older people reported having stayed at least overnight in a health facility because of an illness or accident in the year preceding the survey. Around half (52%) of those who sought inpatient care went to a public health facility, while about four in ten went to a private facility. The prevalence of hospitalization is highest among those aged 80 and older (21%). For six out of ten hospitalized older people, their children paid the most for their hospital confinement. One in four older Filipinos shouldered the bills themselves. Among the hospitalized, less than half availed of PhilHealth benefits (46%).

About four out of ten older Filipinos received outpatient care in the year preceding the survey. The most commonly consulted health practitioner was a physician (94%). Financial constraint was the most common reason for unmet need for health care. Unmet need due to financial constraint is highest among those with mid-level education (elementary and high school) but lower among both the least and the most educated. Unmet need due to financial constraint increases monotonically with age.

### Health insurance

Only 15 percent of older Filipinos have health insurance, mostly PhilHealth (88%). The proportion with health insurance decreases with age, partly because health insurance through Medicare was only introduced in 1969. Half of the college educated have health insurance coverage compared with only 4 percent among the least educated.

## LIVING ARRANGEMENT

The PSOA findings are generally consistent with past surveys in that they show coresidence with children as the predominant living arrangement of older Filipinos. Seven in ten reported that they are coresiding with a child (regardless of whether the spouse or other relatives are also in the household). More men, the younger older persons, the currently married, and those with higher education live with unmarried children, while more women, the older older persons, the not currently married, and those with lower education live with married children. Only 4.5 percent live alone. More women than men live alone, while more men live with their spouse only in a two-person household—a differential partly accounted for

by the lower life expectancy of men as well as the higher remarriage rate among the Filipino males. Not all those who live alone are completely isolated from their children as findings show around 66 percent among those who live alone have at least one child living next door or in the same barangay.

However, the actual living arrangements do not coincide with the respondents' perceived best living arrangements. Respondents believe that it would be best for older couples to either live by themselves or to live by themselves but near one or more children. For those who said that the best living arrangement for an older person is to live with a child, there is a bias toward living with a daughter.

Eight in ten older Filipinos support the idea of having homes for the aged or older persons in the Philippines, but only two in ten said they would ever want to live in such a home.

#### **FAMILY SUPPORT AND INTERGENERATIONAL EXCHANGES**

At least 92 percent of older Filipinos exchanged visits and 74 percent exchanged calls, text messages, or letters with noncoresident children in the year prior to the survey. Older Filipinos received a high level (85%) of support from noncoresident children, with financial support more common than non-financial support. The currently married received a higher level of financial support than the not currently married. Older females and those in the oldest age group (80+) received a higher level of non-financial support from their noncoresident children relative to the males and the younger older persons. Food or meals and other material goods are the most common types of non-monetary support that older people receive from their noncoresident children.

There is a higher level of support from coresident children compared with noncoresident children, not only in terms of companionship, but also in terms of material goods and consultation.

Older Filipinos also provide support to their children, although less in financial terms and more in non-financial types of support, mostly in the form of food/meals, consultation and advice, and grandparenting. They give more than what they receive in non-financial terms to noncoresident children. The currently married and those in their 60s have a higher propensity to give non-financial support, while older males tend to give more financial support to their children than the women do.

Older people give a higher level of support to their coresident children relative to their noncoresident children, but they give equal support in the care of grandchildren regardless of their living arrangement with their children. Of those with at least one grandchild, a little over half (56%) reported being involved in the care of any of their grandchildren. Among those who help care for a grandchild, 35 percent are solely responsible for the care of that child.

## **LEISURE, RELIGIOUS ACTIVITIES, AND SOCIAL INVOLVEMENT**

### **Leisure activities**

Watching TV is by far the most common sedentary activity, with 69 percent of older Filipinos watching TV daily. However, the majority of older Filipinos remain physically active. Nearly six out of ten engage in physical exercise daily, while 14 percent exercise at least once a week. Physical exercise is more common among the men, the younger older persons, and the better educated.

The proportion engaged in social activities is well below that of the sedentary and non-sedentary activities. Only 18 percent attend social gatherings monthly, and 26 percent hang out with friends daily. Attendance in social activities is more common among the younger older persons and the better educated.

### **Religious activities**

Daily private prayer is the most commonly performed religious activity (89%), followed by weekly attendance in religious services (51%). For these and other religious activities such as attending religious services via radio or TV, performing religious activities at home with other family members, and reading the bible or religious materials at least weekly, engagement is higher among the women, the younger older persons, and the better educated.

### **Membership in organizations**

Only 23 percent of older Filipinos are members of any non-religious organization, with the proportion rising as educational attainment increases. Although older Filipinos are actively engaged in religious activities, only 19 percent reported being a member of a religious group or organization. Only about one in five reported being engaged in volunteer work in the community or the church. Involvement in organizations and volunteerism are more common among the younger older persons and the better educated.

### **Use of cell phones and e-mail**

Only about 12 percent of older persons said they know how to use a cell phone to send a text message, and just 11 percent actually use a cell phone for texting. Knowledge about how to use a cell phone to call is marginally higher; two in ten know how to use a cell phone to call and actually use it for calling someone. Slightly more males, the younger older persons, the currently married, and the college educated know how to and actually use a cell phone for texting and for calling. Only 1 percent said they know how to use e-mail.

## **BELIEFS AND KNOWLEDGE OF SERVICES FOR OLDER PEOPLE**

### **Child support, remarriage, and gender roles**

Results confirm the strong correspondence between the real conditions and the prevalent beliefs regarding children as a source of support. Nine out of ten older persons agree that a child is expected to support and take care of his/her parents out of a sense of gratitude for having been raised by them.

The older generation tends to espouse beliefs that reflect the thinking of their time. In particular, they are not keen on having people of their own age falling in love and (re)marrying, and most agree that traditional gender roles are acceptable. However, there is a sharp decrease in the proportion who support traditional gender roles among the college educated.

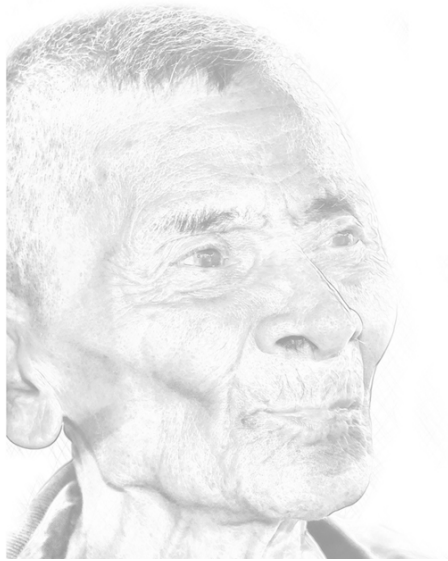
### **Knowledge of services for the older people**

The proportion who are aware of senior citizen privileges rose significantly from 56 percent in the 1996 survey to 89 percent in the 2007 survey. The level of awareness increases with education but decreases with age.

Despite the generally high level of awareness on senior citizen privileges, only six in ten have registered as a senior citizen and thus have a senior citizen's ID card. More women than men have availed of the senior citizen privileges. For the discount-based privileges, those with low education (none or elementary level) have the lowest proportion availing of the discounts. This implies that the discount-based privileges provided by law are disproportionately beneficial to those who are better off in the first place. Those who have limited purchasing power, such as those with lower education, are unable to access discount privileges because of their inability to purchase goods in the first place.







## CHAPTER 1

# *Background*

IT IS OFTEN SAID THAT WE START to age the moment we are born. In the broadest sense, aging is the accumulation of changes over time, beginning from birth and ending at death. It is part of the natural cycle of things. But in everyday life, when we talk of aging, what we normally refer to are the changes associated with the advanced years. As conceived in gerontology, aging consists of four distinct processes: chronological aging, biological aging, psychological aging, and social aging (Hillier & Barrow, 2011).

The study of individual aging has come to recent attention in social science research as a result of the increasingly prevalent phenomenon of population aging, a condition that occurs when a large proportion of a given population is in the so-called advanced years. The United Nations (UN) has given an arbitrary cut-off as to what age should constitute the marker of entry into the “advanced years.” This cut-off age is 60 years (United Nations, 1993). By this definition, those who are aged 60 and above are called the elderly, or alternatively, older persons. The UN itself is cognizant of the arbitrariness of setting a specific age at which a person will be considered old, as different societies may have different notions of when old age begins and the pace of biological, psychological, and social aging can likewise vary considerably among individuals. In societies where life expectancy is low, one may be old at 50, while in an aging society, the usual cut-off for old age is 65. Age 60 captures an average age of entry into the older persons years, given this diversity of experience with the aging process across societies. In the future, when life expectancy increases further even in the developing countries of today, the age of entry into old age may also very well rise.

While individual aging naturally happens to everyone, population aging does not. At present, mostly Western societies and developed countries in East and Southeast Asia are experiencing it. When then can a population be considered aging? There are several measures for an aging population, including median age (30 or over), the proportion

of people under age 15 (under 25%), the ratio of the number of older persons to the number of children or the aged-child ratio (over 30), and the proportion of aged persons (10% or more are age 65 and above) (Siegel & Swanson, 2004). Based on the latter definition, which considers a population to be aging based on the proportion of the population who are 65 years old and above (or for others, 60 years old and above), the Philippines, with 6.8 percent of its population at age 60 and over as of the last census in 2010, is not quite an aging population.

The effects of population aging are often cast in a negative light. As noted by Hermalin (2002), there is a tendency in many publications on population aging to present the situation as problematic due to the increased numbers of older people conceived to be past the economically productive years and in greater need of health and medical services. These views obscure the fact that population aging actually represents a remarkable human achievement in altering the course of fertility and mortality. Population aging is an unprecedented phenomenon in the history of the human race. While there have always been older persons in a population, their proportionate share has always been low. But with population aging, more people live to old age—that is, life expectancy rises. This represents a vast improvement in the control of mortality. Moreover, in an aging society, the fertility rate has been on a long trajectory of decline, so the proportionate share of young people in the population is also decreasing. Similarly, this represents progress in the control of fertility.

Population aging is the consequence of completing what demographers describe as the demographic transition, or the transition from a period of high births and high deaths to one of low births and low deaths. Because this phenomenon is unprecedented, the social and cultural structures to deal with it are still evolving. For this reason, it is important for a society to study aging at the level of both the individual and the population to better prepare the society to deal with the new demographic configuration. For one, it can prepare the appropriate institutional arrangements and perhaps in time the appropriate values and norms as well to cope with this fundamental change.

Population aging is generally a slow process. Its socioeconomic consequences tend to unfold gradually and in a fairly predictable pattern. Thus, if policy makers understand how this process plays out, then the country can anticipate its likely effects and better prepare for it. The only way to understand the phenomenon is to study it systematically, both by research on the process as it unfolds within the country and by examining the experience of other societies, especially those that are further along in the population aging path.

In 2001, the Committee on Population and Committee on Statistics of the National Research Council of the United States convened the Panel on a Research Agenda and New Data for an Aging World composed of an international group of the leading researchers on the study of aging at that time. The panel's recommendations for a research agenda on

aging were based on the premise that human aging is a universal phenomenon; thus, its study would merit from the following:

- 1) An interdisciplinary perspective;
- 2) A cross-cultural perspective that will look at commonalities as well as divergences in the aging process across societies; and
- 3) The use of common research protocols and instruments and rigorous study designs across nations for improved inter-country comparability

The panel further recommended that longitudinal studies are the ideal way to study aging because this design allows for a more thorough understanding of the process of change and transitions as persons get older. In a standard panel study, the same respondent interviewed in the first survey or at Wave 1 is reinterviewed in the next survey or at Wave 2 and in subsequent waves using the same set of questions as in Wave 1. In this design, each respondent becomes his/her own control. Panel studies are better suited to the understanding of causes and effects in the aging process rather than a series of cross-sectional surveys, where the use of new samples from one survey round to the next makes the inference of causation problematic and prone to internal validity threats.

### **AGING RESEARCH IN THE PHILIPPINES**

The systematic study of aging through quantitative methodologies is of relatively recent origin in the social sciences in the Philippines. Surveys on older people started in the country only in the early 1980s. This is not an uncommon situation, as the phenomenon of aging population structures came to prominence only at about this time when the first World Assembly on Aging was held in Vienna in 1982 (United Nations, 1988). One of the earliest studies was the Nutrition and Health Survey of individuals aged 60 and over in the provinces of Batangas and Laguna (Garcia, Luther, Serrano, & Tan, 1982). With a sample of 100, the survey obtained information on dietary intake based on a 24-hour recall, physical assessment with health history and limitation of activity status, and selected anthropometric measurements.

In 1984, a four-country comparative study called "Aging in the Western Pacific" was conducted under the sponsorship of the World Health Organization (WHO) included the Philippines, along with Fiji, Malaysia, and the Republic of Korea. The Philippine component had a sample of 827 respondents aged 60 and over who were residents of Metropolitan Manila and 10 other Tagalog provinces. A comparative analysis of the health and economic status of the older persons in these four countries was done to guide decision makers on the proper health care and social programs for the older sector of the population in these countries (Andrews, Esterman, Braunack-Mayer, & Rungie, 1986). Four years after the WHO study, a similar study, "Socioeconomic Consequences of the Aging of the Population," was conducted

with funding from the Australian Government's Association of Southeast Asian Nations (ASEAN) Population Program. Five members of the ASEAN—Indonesia, Malaysia, the Philippines, Singapore, and Thailand—participated in the study. Domingo and Feranil (1990), through the Demographic Research and Development Foundation (DRDF), conducted the Philippine component. The Philippine study took a comprehensive look at the status of the older persons, focusing on demographic and socioeconomic characteristics, family relationships, economic circumstances, health, and policies on the older persons. The Philippine survey used a non-probability sample of 1,321 persons aged 60 years and over residing in households in six survey sites chosen based on the predominant language spoken and urban-rural classification (Domingo & Feranil, 1990).

In 1996, the first survey with a nationally representative sample of older persons in the Philippines was conducted. Called the 1996 Philippine Elderly Survey (PES), this was also part of a comparative study of four Asian countries, this time the Philippines, Singapore, Taiwan, and Thailand, in the research project "Rapid Demographic Change and the Welfare of the Elderly." The research project was carried out under the leadership of the University of Michigan's Population Studies Center with a grant from the U.S. National Institute on Aging. DRDF implemented the Philippine component. The study was designed to investigate how rapid demographic change, specifically fertility and mortality decline, had affected the older persons in these four Asian countries. Two of these countries (Singapore and Taiwan) were known to be experiencing rapid population aging, while the Philippines and Thailand were yet to make that transition at that time. The sample for the 1996 PES consisted of two groups: the near older persons (aged 50–59) and the older persons (aged 60 and over). The total sample was 2,285, of which 1,254 were aged 60 and over. For a more detailed discussion of the sampling design, please refer to Hermalin (2002).

The rich data provided by the 1996 PES brought about a better understanding of older Filipinos as well as their counterparts in the comparison countries. Comparative analyses were subsequently done on aspects of aging such as self-assessed health (Zimmer, Natividad, Lin, & Chayovan, 2000), intergenerational transfers (Agree, Biddlecom, Chang, & Perez, 2002), and economic support and well-being (Ofstedal, Reidy, & Knodel, 2004). Standalone studies on the Philippines using this data set analyzed living arrangements (Natividad & Cruz, 1997), functional disability and limitation (Cruz, 2005), and labor migration and economic well-being (Cruz & Laguna, 2010).

In 2000, data were collected from a subsample of the 1996 PES to explore the feasibility of using a panel design in the study of aging in the Philippines. A subsample of the 1996 PES respondents (i.e., the respondents from the National Capital Region and Visayas provinces) were followed up and reinterviewed four years after the first survey with the same instrument used in the 1996 survey round. The data collected in this follow-up survey were used in a pioneering work to estimate healthy life expectancy and health transitions among older Filipinos (Cruz, 2005). The study also demonstrated that it was feasible to adopt a

panel design for a survey on aging in the Philippines, as loss to follow-up was not unduly high (Natividad & Cruz, 2001).

Also in 2000, the National Institutes of Health and the Department of Health conducted the Baseline Survey on the National Objectives of Health of Older Persons. The study had a sample size of 2,690 and assessed the health conditions of the older persons and their access to medical facilities and health services.

In 2005, the Cultural Validation WHO Quality of Life study was conducted among ambulatory community-dwelling older Filipinos (De la Vega, 2005). The study was part of the WHO Quality of Life project, which aimed to develop and validate a quality of life assessment instrument that could later be applied to any country. A total of 120 respondents aged 60 years and above from four selected communities in the National Capital Region (NCR) participated in the study and were recruited by convenience sampling.

In 2007, the Philippine Study on Aging<sup>1</sup> (PSOA), the focus of this monograph, was conducted. Data sources other than surveys for the study of aging in the Philippines have also been explored, the most notable of which is Philippine census data (Abejo, 2004; Domingo, Medina, & Domingo, 1994; Watkins & Ulack, 1991). The 2010 Philippine census included questions on disability using a functional ability framework, allowing the estimation of health expectancy at various ages including the older years using the Sullivan method (Abalos, 2014).

While there is a growing body of research about older persons in the Philippines, there is a need to keep the study of this segment of the population going, as the findings will help inform policy making and the creation of programs for older persons that are more attuned to reality. Policy making about older Filipinos should be evidence based to avoid possible costly mistakes. For example, proposals for lowering or increasing the retirement age in the country should be informed by a proper understanding of the demographic trajectory of population aging in the Philippines. Similarly, the pension system should be mindful of the needs of older persons and balanced by an appreciation of the economic realities faced by the country. The nature and level of older people's needs should be established based on empirical research. Questions such as whether the retirement age should be lowered to 50, as proposed by Congresswoman Maria Carmen S. Zamora of the 1<sup>st</sup> District of Compostela Valley to the 16<sup>th</sup> Congress (House Bill 242), are best answered first by a demographic analysis of the implications of such a move. Given increasing life expectancy at older ages, can the Philippines afford to pay pension to an increasing cohort of 50+ year olds who are expected to live at least 20 more years without being economically productive anymore?

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<sup>1</sup> The original study title was the Philippine Longitudinal Study on Aging; it was renamed the Philippine Study on Aging in this report because the follow-up study was not carried out due to administrative reasons.

### **STATE POLICIES AND PROGRAMS FOR THE WELL-BEING OF OLDER FILIPINOS<sup>2</sup>**

Even with modest research on older persons and on population aging to inform it, the state has been actively cognizant of the needs of its older constituents. The 1987 Philippine Constitution specifically stipulates that “The family has the duty to care for its elderly members but the State may also do so through just programs of social security” (Article XV, Section 4). Perhaps the inclusion of this stipulation was partly in recognition of the growing awareness of older persons’ concerns among the framers of the 1987 Constitution. The previous constitutions of 1935, 1943, and 1973 made no mention of older persons care.

This recognition by government of the concerns of older people is best exemplified by the presidential appointment of a Korean War veteran as the first representative for the veteran and older persons group in the 8<sup>th</sup> Congress (1987–1992). Under Republic Act (R.A.) No. 7941 or the Party-List System Act, party-list representatives of older persons groups won two seats in the 15<sup>th</sup> Congress (2010–2013), a feat that was repeated in the 16<sup>th</sup> Congress.

A landmark legislation championing older persons rights was enacted in 1992. R.A. 7432 or the Senior Citizen’s Act provides senior citizens, defined as Filipinos aged 60 and over, a 20 percent discount on medicines, hotels, restaurants, leisure facilities, and transportation. It exempts seniors from paying a number of fees for dental and medical services in state health institutions, including diagnostic and laboratory fees. The law was twice amended, with R.A. 9257 (2003) and R.A. 9994 (2010) adding more benefits such as automatic enrollment in PhilHealth and a monthly social pension of PhP500.00 awarded on a quarterly basis for indigent senior citizens. In the implementing rules and regulations of R.A. 9994, an indigent senior citizen is defined as “any older persons who is frail, sickly, or with disability, and without pension or regular source of income, compensation or financial assistance from his/her relatives to support his/her basic needs, as determined by the DSWD in consultation with the National Coordinating and Monitoring Board.”

R.A. 7876 of 1995 calls for the building of a senior citizens’ center in every city or municipality. This center is envisioned as a venue for older persons organizations to plan, discuss, and implement projects and programs in coordination with local government units and the Department of Social Welfare and Development (DSWD). A related statute that benefits older persons is R.A. 344 or the 1982 Accessibility Law. Designed to address a broader audience, this statute sets minimum standards and regulations for buildings, facilities, and public utilities to make them accessible to disabled and older persons individuals.

R.A. 9502 or the “Universally Accessible and Quality Medicines Act of 2008” provides for the establishment of price ceilings and the regulation of prices of medicines required to treat or manage lingering ailments and life-threatening conditions, a provision favorable to the older persons in need of medication for chronic diseases. (See Table 1.1 for a listing of existing laws on the older people.)

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<sup>2</sup> This section is largely based on the paper entitled “Family and State Roles in Promoting the Well-Being of Older Filipinos.” For a detailed discussion, see Cruz and Camhol (2014).

Table I.1. Philippine laws directly or indirectly affecting senior citizen welfare

R.A.			Year
9994	An Act granting additional benefits and privileges to senior citizens, further amending Republic Act No. 7432, as amended, otherwise known as “An Act to maximize the contribution of senior citizens to nation building, grant benefits and special privileges and for other purposes”	Second Amendment to R.A. 7432- “Expanded Senior Citizens Act of 2010”	2010
9502	An Act providing for cheaper and quality medicines, amending for the purpose Republic Act No. 8293 or the Intellectual Property Code, R.A. No. 6675 or the Generics Act of 1988, and R.A. No. 5921 or the Pharmacy Law, and for other purposes	“Universally Accessible and Quality Medicines Act of 2008”	2008
9257	An Act granting additional benefits and privileges to senior citizens amending for the purpose R.A. No. 7432, otherwise known as “An Act to maximize the contribution of senior citizens to nation building, grant benefits and special privileges and for other purposes”	First Amendment to R.A. 7432- “Expanded Senior Citizens Act of 2003”	2004
8425	An Act institutionalizing the Social Reform and Poverty Alleviation Program, creating for the purpose the National Anti-Poverty Commission, defining its powers and functions, and for other purposes	“Social Reform and Poverty Alleviation Act”- Senior citizens included in disadvantaged groups	1998
7876	An Act establishing a senior citizens center in all cities and municipalities of the Philippines, and appropriating funds therefor	“Senior Citizens Center Act of the Philippines”	1995
7432	An Act to maximize the contribution of senior citizens to nation building, grant benefits and special privileges and for other purposes	“Senior Citizens Act of 1992”	1992
344	An Act to enhance the mobility of disabled persons by requiring certain buildings, institutions, establishments and public utilities to install facilities and other devices	“Accessibility Law”- Minimum building standards for the disabled	1982

By and large, the efforts of the Philippine government to address the concerns of the older persons sector are a step in the right direction. The most appreciated aspect of the laws for senior citizens is the provision of the 20 percent discount on most purchases, especially medicine. However, assessment of the effect of the discount provision consistently shows that it benefits older persons who have the means to purchase medicines in the first place, such as the better educated and those in the higher wealth quintiles, but has no beneficial effect on those who cannot afford to buy medicines at all (Cruz & Camhol, 2014; Cruz & Laguna, 2010; Natividad, 2000).

In 1999, the first five-year national action plan governing programs and activities for the older persons was crafted. The current Philippine Plan of Action for Senior Citizens (2012–2016) focuses on the upgrading of strategies and programs as well as the building up of collaborative endeavors among stakeholders to enhance the delivery of services for the older persons. Like its predecessor, the current national plan focuses on three main areas of concern: (1) senior citizens and development, (2) health and well-being in old age, and (3) enabling and supporting environments across national, regional, and international bases. Specific areas of attention are the enhancement of geriatric and gerontology services and the prevention of older persons abuse (Villar, 2013).

Besides the existing laws, there are also continuing initiatives at the legislative level. In the pipeline are bills that aim to create a “National Geriatric Health Centre and Gerontology Research Institute” (Senate Bills 2464 and 3278 and House Bills 2927 and 5173) and two bills on the creation of an “Institute for Aging” (Senate Bills 2982 and 1037).

### **OTHER INITIATIVES<sup>3</sup>**

Along with the continuing enactment of the legal framework for the older people are parallel initiatives aimed at responding to the needs of the older sector. One is the enhancement of geriatric education and skills development in the country to address the shortage of skilled health workers who can respond to the unique health needs of older people (De la Vega, 2009). The Coalition of Services for the Elderly has a long-running program of empowering the older persons in the community by training them to be “community gerontologists.” Included in the initiative of the medical sector are the promotion and enhancement of geriatric medicine as a separate field of specialty (Gatchalian & Ramos, 1993). Among the pioneer institutes in this endeavor is the National Institutes of Health-University of the Philippines Manila’s (NIH-UPM) Gerontology and Disabilities Programs Cluster under the Committee on Aging and Degenerative Diseases/Aging Study Group. In 1996, this institute began to treat gerontology care as a separate area of study. In 1997, it started to run postgraduate courses in geriatric medicine for physicians, nurses, and related medical professions. In 2013, the Institute on Aging was created upon the approval of the

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<sup>3</sup> This section is based on consultations with Dr. Shelley De la Vega and Dr. Miguel Ramos.



University of the Philippines Board of Regents as the newest addition to the NIH-UPM. Other institutions such as the University of Santo Tomas and the Cebu Doctors' University College of Medicine also offer teaching modules on aging.

In 1990, St Luke's started a pioneering two-year Clinical Fellowship Training Program in Geriatric Medicine. It has since graduated more than 50 board-certified specialists. The National Center for Geriatric Health, a government hospital established in 2010 and run by the Department of Health, recently joined St. Luke's in offering the same specialists' training program for graduates of internal medicine and family medicine programs in the country.

Professional organizations like the Philippine College of Geriatrics and Gerontology and the Philippine Society of Geriatric Medicine have identified education, training, and awareness on geriatrics issues as one of the priorities in their respective mission and vision. At the same time, the Philippine College of Geriatric Medicine (PCGM), which is under the Philippine College of Physicians, accredits fellowship status in geriatric medicine. The Professional Regulation Commission accredited the PCGM as a continuing professional education provider.

### **THE DEMOGRAPHY OF AGING IN THE PHILIPPINES**

From a demographic lens, population aging is fundamentally a change in population structure. A young population has a characteristic pyramid shape, with the bulk of the population in the youngest ages gradually tapering off in the older years, as exemplified by the Philippine age structure (Figure 1.1). An aging population no longer has a pyramid shape, but it can take various forms depending on the proportion of older people. Figures 1.1 to 1.3 present the Philippine population pyramid compared with that of aging populations in the Asia region including Japan, South Korea, and Thailand, representing various stages in the aging process. These aging countries experienced a drastic drop in their fertility levels, resulting in the maturation in their age structure marked by an increasing number and proportion of the population in the advanced age groups. The data show the significant difference in the age structure, with around 31 percent of Japan's population aged 60 years and over as compared to 6.8 percent in the Philippines as of 2010. The corresponding figures for South Korea and Thailand are 16 and 13 percent, respectively. The higher concentration of older people in Japan relative to South Korea and Thailand reflects the more advanced stage of the aging process in Japan relative to the other countries. The aging structure is also accompanied by a diminished share of the population in the younger ages, reflecting the decline in fertility over time. In 2010, the proportion of the population less than 15 years old in the Philippines was around 33 percent, which is more than twice that of Japan at 14 percent. The corresponding figures for Thailand and South Korea are 20 and 16 percent, respectively.

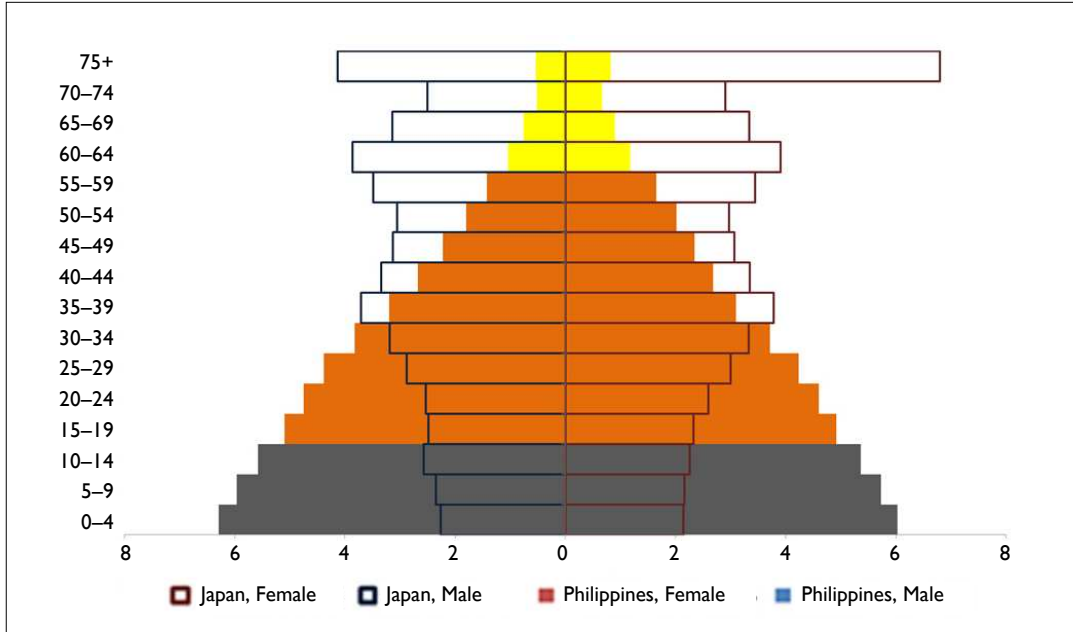


FIGURE 1.1  
Age and sex structure of the Philippines and Japan: 2010

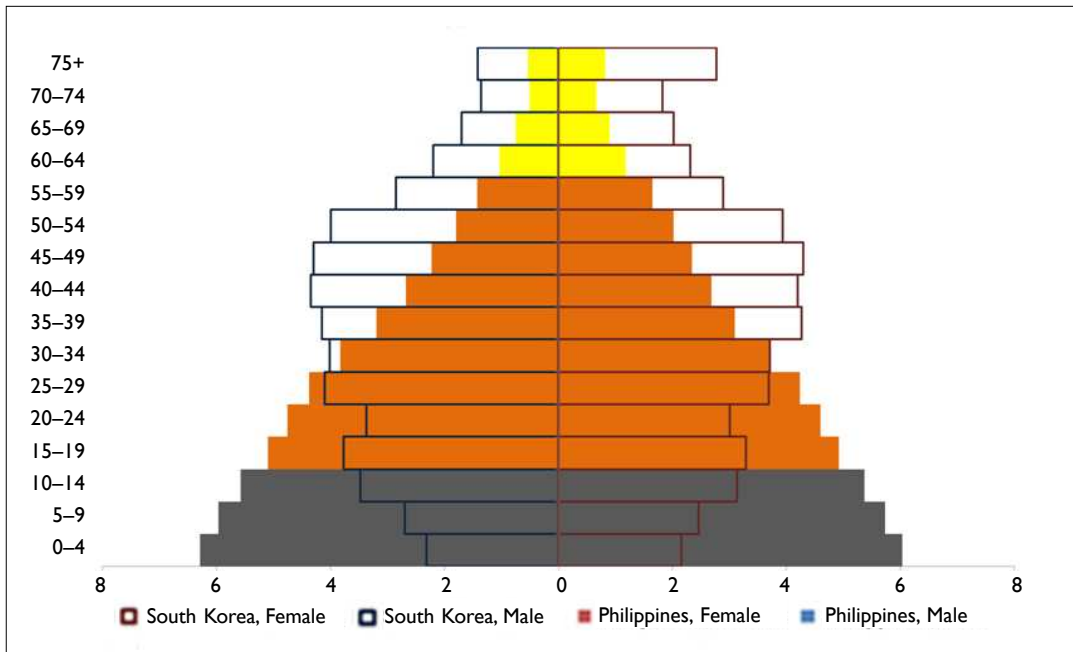


FIGURE 1.2  
Age and sex structure of the Philippines and South Korea: 2010

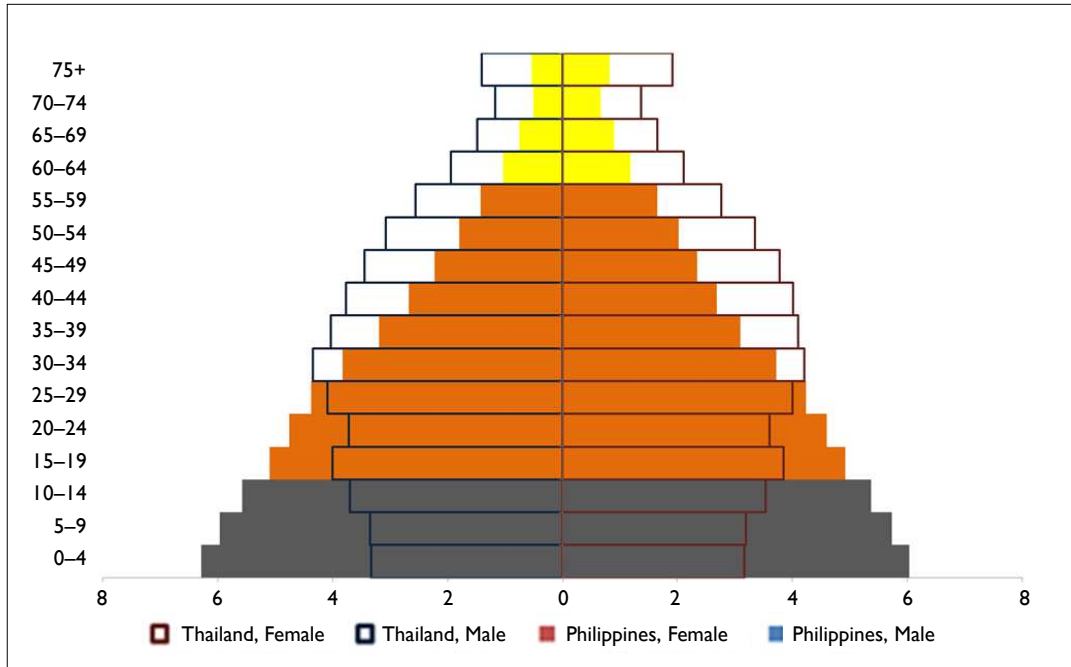


FIGURE 1.3  
Age and sex structure of the Philippines and Thailand: 2010

The Philippines' current young age structure is the result of its past demographic processes marked by a high and slowly declining fertility and a declining mortality. These demographic shifts have resulted in a gradual change in the age structure characterized by a slowly increasing proportion of people in the older ages, although the population remains relatively young. Figure 1.4, which compares the Philippine population structures in 1970, 2010, and 2045 indicates a declining share of the proportion at the youngest ages (0–4 and 5–9). This is accompanied by an increase in the proportion at the older age groups (40–59) and in the older persons years (60 and over).

Despite the low proportionate share of older people in the country, there is a steady increase in absolute terms. In the 2010 census, there were 6.2 million older Filipinos, constituting 6.8 percent of the total population. The number is expected to assume greater prominence in the future, as it is projected to reach 22.6 million by the end of the projection period in 2045. By this time, the Philippine total population is projected to be around 110 million, 16 percent of which will be in the older age group (Figure 1.5).

This increasing proportion and number of the population in the older ages is consistent with the generally high population growth rate of this population sector. Growing at a rate of 3.2 percent per annum in 2000–2010, it is currently the fastest growing population

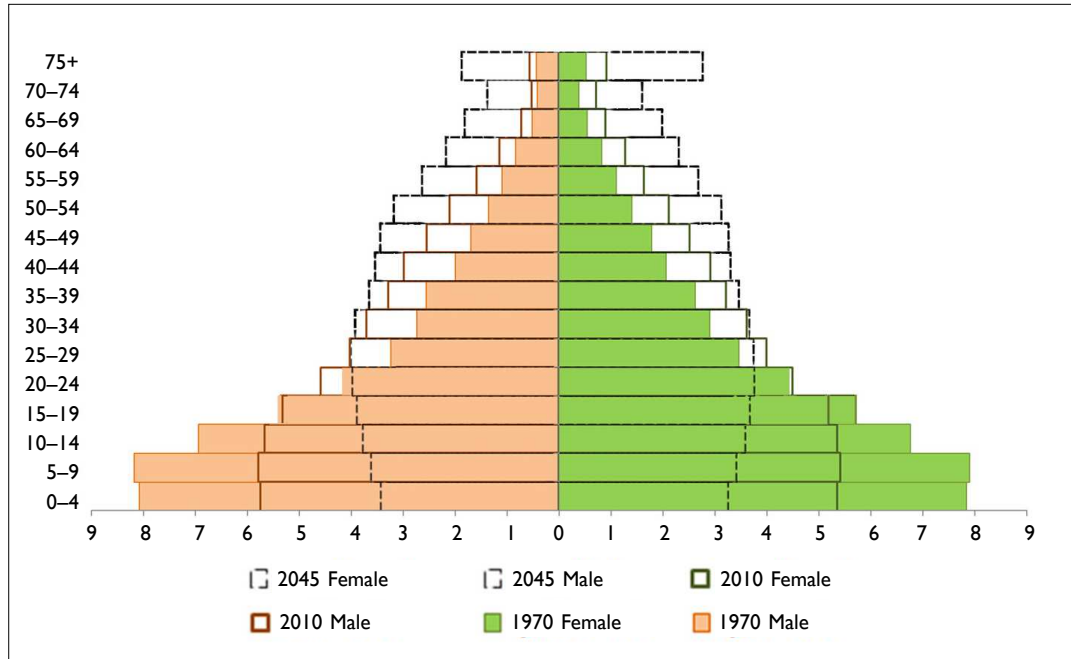


FIGURE 1.4  
Age and sex structure of the Philippine population: 1970, 2010, and 2045

sector in the country, a pattern that is expected to be sustained until the end of the projection period in 2045. This older population growth rate is projected to reach its peak at 4.2 percent in 2010–2020, coinciding with the time that the baby boom generation will reach its older years. By then, the older population growth rate will be more than double the rate of the country’s population growth rate at 1.8 percent. During this peak level of growth, there will be an estimated 9.5 million older people constituting 8.6 percent of the country’s population.

This increasing rate of growth of the older population is in contrast with the generally declining rate of growth for the younger population sectors and the whole population in general, which have registered a decelerating rate of growth since the 1970s (Figure 1.6).

The increasing number of older people is the result of the improving overall health and longevity, as evidenced by the increasing life expectancy at birth. Life table estimates for the country over the past 40 years (1970–2010) reveal an average extension of the life expectancy at birth by about 10 and 11.5 years for males and females, respectively (Table 1.2). The improvement in life expectancy is evident across the various age groups including the older persons years, particularly among the older women, who registered a greater extension in life than the men. Data show that a Filipina who celebrated her

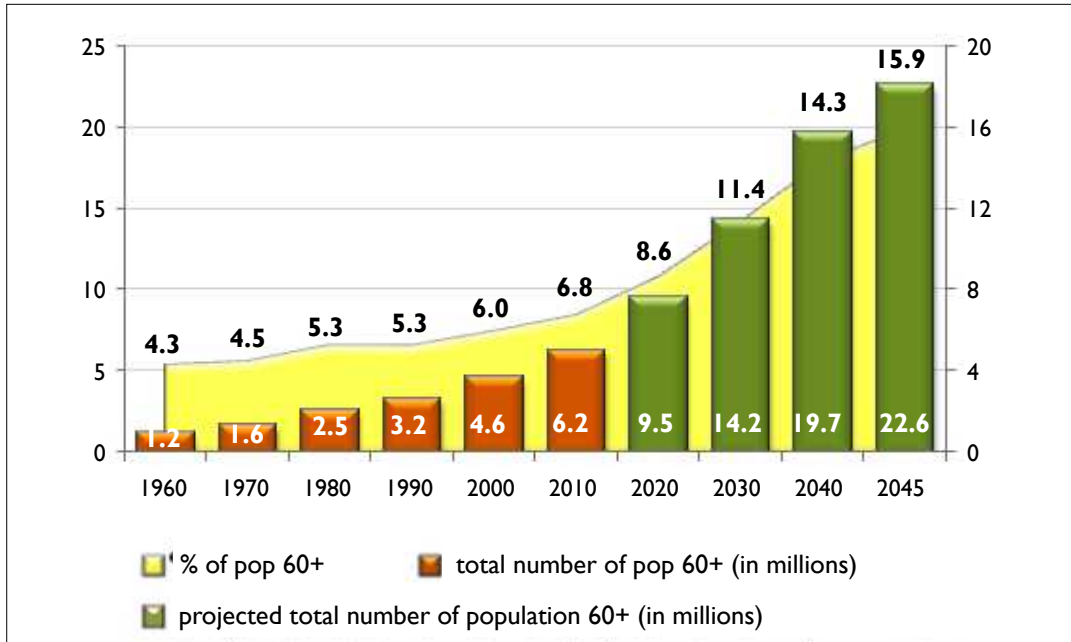


FIGURE 1.5

Total population (in millions) and proportion of population 60 and over, Philippines: 1960–2045

Source: Various census data and the medium-term projection estimates of the Philippine Statistics Authority.

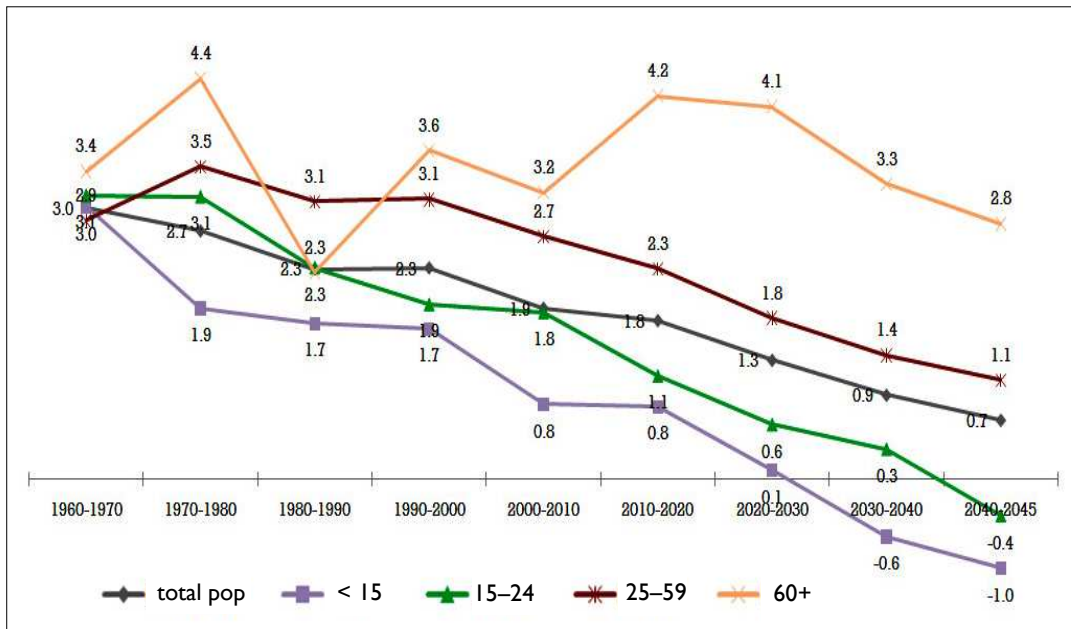


FIGURE 1.6

Population growth rate by age group, Philippines: 1960–2045

60<sup>th</sup> birthday in 1970 can expect to live 17.1 more years, which increased to 20 years in 2010—a three-year gain. No substantial change is noted for her male counterpart, with the average remaining life at 60 more or less stagnant at 16.5 years for the same period covered. These findings suggest that most of the gains in male life expectancy in the last 40 years accrued more to the younger sector than to those in the advanced ages. This is in contrast to their female counterparts, among whom the extensions in life largely benefitted those in the older ages.

Table I.2. Life expectancy at birth and at age 60 by sex, Philippines: 1970 and 2010

Year/period	Life expectancy at birth			Life expectancy at age 60		
	Male	Female	Gender Difference (F–M)	Male	Female	Gender Difference (F–M)
1970	57.3	61.5	4.2	16.3	17.1	0.8
2010	67.0	72.9	5.9	16.5	20.0	3.6

Source: The 1970 estimates are from Flieger and Cabigon (1994), and the 2010 estimates are from the Philippine Statistics Authority (2010).

The higher life expectancy among females relative to males results in the numeric dominance of women in the older ages, with the discrepancy becoming more pronounced with advancing age. This is consistent with the worldwide trend that sees population aging as dominated by women (Mirkin & Weinberger, 2001; Wu & Browning, 2015). The six-year gender difference in the 2010 life expectancy at birth and the 3.6-year difference at age 60 in favor of Filipino women translates to sex ratios lower than 100 in the advanced ages. Results presented in Figure 1.7 show that Filipino older women outnumber the males in all age groups, starting in the age group 60–64 where there are 93 males per hundred females, with the ratio decreasing to 58 males per hundred females in the oldest age group of 90 and over.

The experience of population aging in the country varies not only across gender but also across geopolitical areas, as demonstrated by the significant discrepancy in the aging experiences across the 17 regions. The 2010 census data show the Ilocos region exhibiting the oldest age structure, with 9 percent of its total population aged 60 years and over (Figure 1.8). The Western, Eastern, and Central Visayas regions, with 8.7, 8.2, and 7.8 percent elder population shares, respectively, trail closely behind. It is significant to note the link between the old age structure and outmigration, particularly in the case of the Ilocos region, one of the perennial outmigration areas in the country. Its highly mobile population is historically known to cross local and international boundaries, with many going as far as Hawaii. Many of these migrants who left the region in their

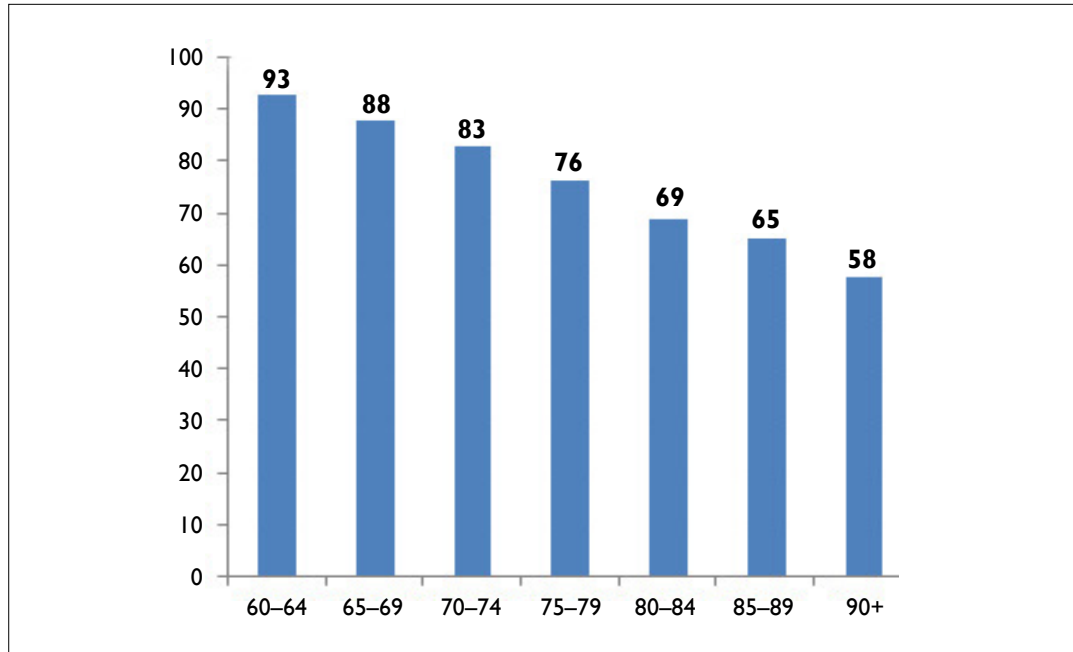


FIGURE 1.7  
Sex ratio among older people by age, Philippines: 2010

younger years return home to retire in their region of origin (Griffiths, 1988). Since the 1960s, the Visayas regions have also been net losing regions. Outmigration, which is largely economically motivated and selective of those in the younger age groups, generally results in a disproportionate share of those in the older ages in migration-sending regions.

At the other extreme of the age structure is the Autonomous Region in Muslim Mindanao (ARMM), which registered the lowest proportion of older population as of 2010. This is also consistent with its very low life expectancy at birth, which is the lowest in the country (Cabigon, 2009). Other regions with a low relative share of older people include SOCCSKSARGEN and the NCR, with older people accounting for merely 5.3 and 5.8 percent of their 2010 population, respectively. The case of NCR is expected largely due to immigration, particularly of young migrants who want to take advantage of the opportunities in the prime financial, commercial, social, cultural, and educational center of the country. It should be noted, however, that NCR has experienced a migration reversal from a consistently immigration region to an outmigration region in recent years (Ogena, 2015).

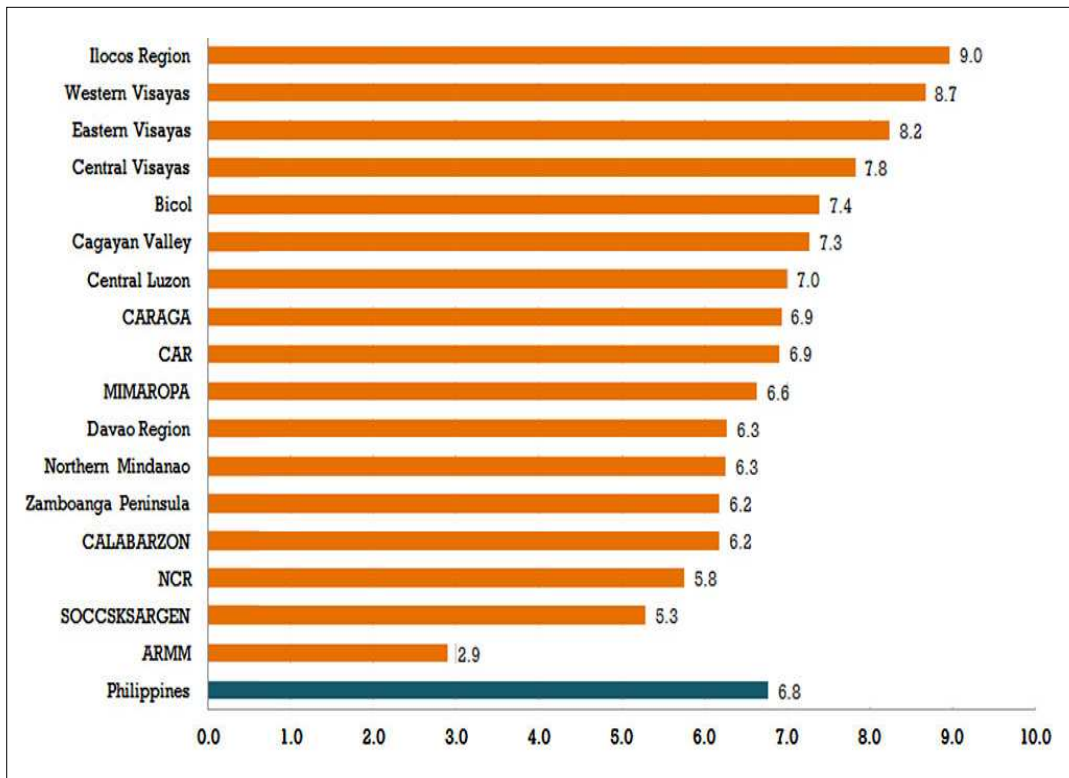


FIGURE 1.8  
Percent share of 60 years old and over to total population by region: 2010





## CHAPTER 2

# *The 2007 Philippine Study on Aging*

### **ABOUT THE STUDY**

THE 2007 PSOA IS THE SECOND NATIONALLY representative survey of older persons (aged 60 and over) in the Philippines. It is a collaborative effort between the UPPI and the NUPRI and was designed to serve as the first wave of a panel study on aging. The primary aim of the survey is to investigate the health status and well-being of the Filipino older persons and its possible correlates and determinants. The survey was also designed to be comparative with the Nihon University Japanese Longitudinal Study of Aging (NUJLSOA) and the Singaporean Longitudinal Study of Aging (SLSOA) through the use of a common survey instrument.

### **STUDY DESIGN**

#### **Sampling**

The PSOA employed a multiple-stage sampling design with the provinces as primary sampling units, the barangays (villages) as secondary sampling units, and the older people as the ultimate sampling units. Sample provinces were drawn from a stratified listing of all provinces in the country, with the proportion of older people in the province in the 2000 census serving as the stratification variable. Provinces were classified into low, medium, and high based on the proportion of older people in the province. An iterative algorithm was used to determine the cut-off for the strata to minimize the stratified variance. From each stratum, two provinces were selected using simple random sampling.

Six sample provinces were drawn. The seventh area, NCR, was purposively included. Being the national capital and the most urbanized area of the country, it was deemed necessary for it to be included in the study to capture a representative picture of the entire Philippines.

Sample barangays were then selected from the seven study areas. The study targeted 75 barangays and 44 respondents<sup>4</sup> from each barangay. The sample barangays were distributed across the seven sample areas proportional to the number of older people per area. Once in the sample barangay, listing all the resident older people in that barangay who were thus considered eligible respondents created a sampling frame. We then stratified the eligible respondents per barangay into three age groups (60–69, 70–79, and 80+) and determined the corresponding sample from each group by distributing the target sample of 44 following the age distribution of the 2000 census. To ensure enough cases in the supposed follow-up survey, we oversampled the proportionate share of the 70–79 age group by 0.5, while we doubled the share of those age 80 years and over. After determining the sample size per age category, the sample was drawn using systematic random sampling from each of the three age groups based on the listing. While 75 barangays were originally targeted, this number was increased to 78 during the actual fieldwork because some of the sampled barangays had less than the desired number of eligible respondents.

The study yielded 3,105 respondents with a response rate of 94.4 percent. Table 2.1 shows the list of sample provinces and the corresponding sample size, while Figure 2.1 shows the location of the seven sample areas in the Philippines.

Table 2.1. Sample areas, number of sample barangays per area, and sample size

Sample areas	Number of sample barangays	Sample size <sup>a</sup>
Sultan Kudarat	5	198
Laguna	11	433
Bulacan	13	506
Negros Occidental	18	742
Iloilo	17	720
Eastern Samar	4	153
NCR	10	353
<b>TOTAL</b>	<b>78</b>	<b>3,105</b>

Note: <sup>a</sup> Unweighted.

<sup>4</sup> This includes a 10 percent allowance for non-response.

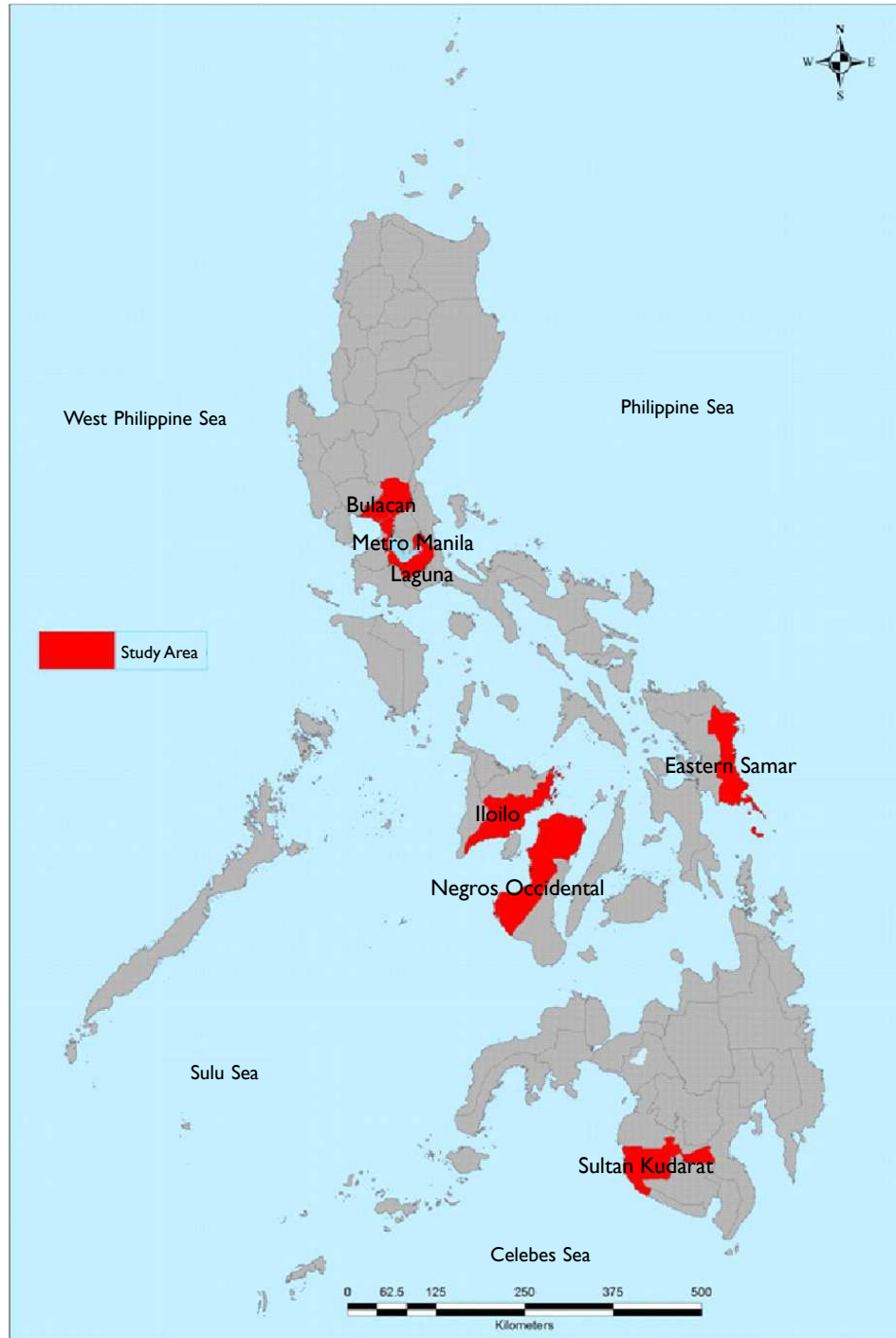


FIGURE 2.1  
PSOA study areas

### Study instruments

The PSOA gathered two types of information: (1) information elicited from the respondents using a survey instrument and (2) information on the anthropometric measurements using various instruments gathered by a certified nurse. The latter included photos of the respondent. For the first type of information, we used two instruments: the household questionnaire and the individual (main) questionnaire. The household and main questionnaires were administered through face-to-face interviews by trained interviewers.

*Household questionnaire.* The household questionnaire was used to obtain information about the household to which the older person respondent belonged. It gathered data on the structure of the household and the basic characteristics of household members (e.g., relationship to household head, age, sex, occupation, education) and other household characteristics such as household amenities. Respondents to the household questionnaire were any responsible adult members of that household.

*Main individual questionnaire.* Being part of an inter-country comparative study, the main survey instrument used a core set of questions that are comparable to those of the NUJLSOA and the SLSOA of Japan and Singapore, respectively. We also added questions relevant to the Philippine setting, particularly questions that were asked in the 1996 PES, to allow for an assessment of trends in some key indicators over time. Additional questions that address emerging concerns such as the potential impact of overseas Filipino labor migration on the welfare of the left-behind older people were likewise included in the main questionnaire.

One innovative inclusion in the PSOA is the section on oral health. To prepare survey questions that will be comparable to those of the Japanese survey, we conducted a pre-survey activity to arrive at a list of common Filipino food that will be equivalent in hardness and chewability to common Japanese food listed in the NUJLSOA survey questionnaire. A research collaborator, Dr. Nasu Ikuo from the Nihon University School of Dentistry, assessed the hardness of various Filipino foods using a machine that he had invented and patented. The food items were then arranged on a scale of hardness/chewability that could be used to assess the respondent's ability to chew based on self-report. The scale was included in the main questionnaire. We also pre-tested the oral health component of the survey on a purposive sample of 60 older people—20 from each of the age groups (60–69, 70–79, and 80+), equally divided between the sexes.

The main questionnaire was translated to Tagalog and pre-tested among older people representing different ages, sexes, and places of residence. The final questionnaire was later translated to three other languages: Ilonggo, Waray, and Cebuano. Together with Tagalog, these are the major languages used in our seven study areas. The translated questionnaires were back translated to English to further check the faithfulness of the translated versions to the original English version.

The main questionnaire has 11 sections:

- Cover Page - Identification and Interview Record
- Block A - Basic Attributes and Family Make-Up
- Block B - Children, Grandchildren, and Exchanges of Support
- Block C - Health Status
- Block D - Physical Ability and Disability
- Block E - Mental Health
- Block F - Health Utilization
- Block G - Tasks and Activities
- Block H - Income and Assets
- Block I - Attitudes and Beliefs
- Block J - Services for the Elderly
- Block K - Vignettes

Block K is a section called Vignettes. This is a methodological innovation in survey research, especially in cross-cultural research where a common question asked in different cultural contexts may yield answers that are not comparable because responses are influenced by the cultural context in ways that are not easily identifiable and thus cannot be isolated. The series of items in the block are called anchoring vignettes. According to the Anchoring Vignettes website, “These are (usually brief) descriptions of hypothetical people or situations that survey researchers can use to correct otherwise inter-personally incomparable survey responses.” These vignettes have their counterparts in the NUJLSOA and SLSOA. The vignettes are about pain, activities of daily living (ADLs), and instrumental activities of daily living (IADLs). Responses to the vignettes are supposed to be used to calibrate responses to the ADL, IADL, and pain items in the questionnaire when cross-cultural analysis (i.e., comparison of the Philippine, Japanese, and Singapore data) on these specific items is conducted.

*Anthropometric instrument.* The 2007 PSOA gathered information on some basic anthropometric measures. A registered nurse and an assistant performed the anthropometric measurements using measuring instruments that they carried with them to the respondent’s home. These included a tape measure, a weighing scale, an electronic sphygmomanometer, a device to measure grip strength, and a blood testing kit for blood sugar. In addition to the physical measures, we also took facial photographs of the respondents (two frontal and one side view) with a digital camera.

Once the sample respondent was identified from the household questionnaire, the nurse and assistant visited the target respondent and conducted the anthropometric tests. The interview using the main questionnaire was conducted by another interviewer specifically trained for the purpose. The interview with the main questionnaire was conducted after the anthropometric measurement on the same or the following day.

### **Ethical clearance**

Ethical clearance to conduct the 2007 PSOA was obtained from the Ethical Review Board of the College of Social Sciences and Philosophy in the University of the Philippines and from the Nihon University Institutional Review Board. A copy of the consent forms that the respondents signed to signify that they agreed to voluntarily participate in the study is provided in Annex 1. Respondents signed two consent forms, one for the interview using the main questionnaire and another for the anthropometric measurements and picture taking. A minimal cash token was given to each respondent.

### **Data collection and proxy interview**

Data collection was done simultaneously in the study sites over a four-month period from December 2007 to March 2008. Four research teams were organized for the data collection and were trained in four separate sets of field interviewer training (see Annex 2 for the list of the project teams). The first day or two in each sample barangay was spent on listing of households to identify those with an eligible respondent (age 60 and above). The household list served as the sampling frame for the barangay.

The interview with the main questionnaire lasted for an average of two hours. There is no significant difference in the average interview duration between men and women (Table 2.2). The anthropometric questionnaires were completed in 15 minutes on average.

In aging surveys, it is an accepted practice to use a proxy if the respondent, for any reason, is unable to participate in the interview. Proxy interviews are done to come up with a representative sample of older persons, not only those who are well enough to answer questions in an interview. Proxy respondents answer questions about the sample respondent's personal circumstances to the best of their knowledge. A proxy is therefore someone who knows the respondent well enough to know the basic facts about him or her. The proxy was not asked attitudinal questions or questions that probe for the respondent's personal feelings or self-assessments (e.g., self-assessed health, life satisfaction).

In the PSOA, 4.4 percent of the interviews were done with a proxy respondent. The rate of proxy interview is higher among respondents age 80 and over and among the women relative to the men. More than a fifth of females age 80 years and over had proxy interviews as compared to about 16 percent among the males (Table 2.2). Difficulty in hearing is the most common reason for use of a proxy for both sexes (Table 2.3). The second most common reason is difficulty in speaking for men and dementia for women. The proxies for men are mostly their spouses or daughters; for women, the main proxies are their daughters (Table 2.4). The high proportion of women as proxy respondents implies the predominance of women as care providers for older people.

Table 2.2. Duration of interview and use of proxy by age and sex

Sex/age	Mean duration of interview (minutes)	Number of cases	% who used a proxy during interview	% who did not use a proxy during interview	Number of cases
<b>Male</b>	<b>122</b>	<b>1,289</b>	<b>4.5</b>	<b>95.5</b>	<b>1,288</b>
60–69	120	828	3.3	96.7	854
70–79	128	323	4.2	95.8	334
80+	119	97	16.0	84.0	100
NR	-	41	-	-	-
<b>Female</b>	<b>119</b>	<b>1,817</b>	<b>4.3</b>	<b>95.7</b>	<b>1,817</b>
60–69	117	1,000	1.1	98.9	1,032
70–79	122	514	2.6	97.4	538
80+	124	241	21.5	78.5	247
NR	-	62	-	-	-
<b>Both sexes</b>	<b>120</b>	<b>3,105</b>	<b>4.4</b>	<b>4.4</b>	<b>3,105</b>
60–69	118	1,827	2.1	97.9	1,886
70–79	124	837	3.3	96.7	873
80+	123	338	19.9	80.1	347
NR	-	103	-	-	-

Note: NR = no response.

Table 2.3. Reason for using a proxy during interview by sex

Reason	Male	Female	Both Sexes
Subject has difficulty hearing	1.3	1.7	1.5
Subject has dementia	0.7	1.4	1.1
Subject has difficulty speaking	1.2	0.8	1.0
Subject has been hospitalized	0.6	0.1	0.3
Subject has difficulty hearing, speaking, has dementia	0.0	0.1	0.1
All of the above	0.2	0.0	0.1
Did not use a proxy	95.6	95.7	95.6
NR	0.5	0.2	0.3
ALL	100.0	100.0	100.0
N	1,288	1,817	3,105

Note: NR = no response.

Table 2.4. Proxy's relationship to the respondent by sex

Relationship	Male	Female	Both Sexes
Spouse	1.9	0.3	0.9
Son	0.2	0.4	0.3
Daughter	1.6	2.2	2.0
Daughter-in-law	0.1	0.4	0.3
Son-in-law	0.0	0.1	0.0
Grandchild	0.1	0.4	0.3
Other relatives	0.4	0.3	0.4
Non-relative	0.0	0.1	0.0
Did not use a proxy	95.6	95.7	95.6
NR	0.2	0.1	0.2
ALL	100.0	100.0	100.0
N	1,287	1,817	3,105

### Sample weights

Since the 2007 PSOA was designed to be a panel study, it was ideal to have enough respondents when the second wave of the survey would be conducted a few years after the first wave. To ensure that this would happen, we oversampled the older respondents so that there would be cases in the follow-up survey, anticipating higher mortality rates among the oldest respondents. In describing the results of the study as referring to a representative sample of the Filipino older persons population, appropriate weights were applied to the raw data. Separate sample weights for individual respondents and households were computed for the study. The following is the procedure for the computation of the sample weights.

For the individual respondents, the weight for a particular respondent was computed using the following formula:

$$W_{ikl} = \frac{O_p P_i M_i^j \mathbf{1}}{o_{SP} M_i B_{ik} R_{ik}}$$

where

- $O_p$  – number of older persons in the Philippines from the 2000 census
- $o_{SP}$  – number of older persons in the seven sample provinces from the 2000 census
- $P_i$  – number of older persons in the  $i^{\text{th}}$  sample province from the 2000 census
- $M_i$  – number of older persons in all sample municipalities in the  $i^{\text{th}}$  sample province from the 2000 census
- $M_i^j$  – number of older persons in the  $j^{\text{th}}$  sample municipality in the  $i^{\text{th}}$  sample province from the 2000 census
- $B_{ik}$  – number of older persons in the  $k^{\text{th}}$  sample barangay in the  $i^{\text{th}}$  sample province from the 2000 census
- $R_{ik}$  – response rate in barangay  $k$  in the  $i^{\text{th}}$  sample province



The response rate refers to the proportion of the number of respondents who were interviewed in the barangay to the total number of eligible respondents in the barangay. Since older respondents (70 years old and over) were oversampled, the resulting weights were further adjusted based on the age group (60–69, 70–79, 80+ years old) to which the respondent belongs. This is to ensure that the sample data will conform to the distribution of the older persons population in the country based on the 2000 census. The weights were scaled down to revert the figures back to the survey sample size.

For the household data, the weight for a particular household was computed using the inverse of the probability of the household being selected adjusted by the response rate of the barangay in which the household is located. As with the individual respondents, scaled-down weights were applied to reflect the survey household sample size.

### CONCEPTUAL FRAMEWORK

A common conceptual framework guided the three-country study. The main dependent variable is the health status, defined according to the different dimensions of health:

1. Self-assessed health
2. Disease status
3. Functional ability (ADLs, IADLs)
4. Mental health (depression) and cognition (word recall)
5. Oral health

Since the PSOA was originally conceptualized as a longitudinal study, the second main dependent variable is the change in the health status (as defined above in a multidimensional way) between two survey waves, or the health transition. From an initial state at baseline of being either healthy or unhealthy, a person can transition to four possible states at the follow-up: healthy, unhealthy, dead, or lost to follow-up. For the follow-up study, the dependent variable is the type of transition:

1. Healthy to healthy
2. Healthy to unhealthy
3. Healthy to dead
4. Healthy to lost to follow-up
5. Unhealthy to healthy
6. Unhealthy to unhealthy
7. Unhealthy to dead
8. Unhealthy to lost to follow-up

We conceived of health status and health transition as the outcome of many processes/factors that can be conceptually delineated into discrete categories, although they all exert their effects in synergistic ways. These factors are contained in boxes with arrows that point toward the hypothesized direction of effect (Figure 2.2).

In this framework, health status/health transition in the older persons years is directly affected by a person's genetic endowment and past experiences/exposures extending all the way back to childhood. It is likewise directly affected by current characteristics such as the demographic (age and sex) and the socioeconomic. Health status is also the outcome of predisposing risk (e.g., smoking, drinking), protective behaviors (e.g., exercise, sleep), and access to health care. Another direct determinant of health status is the social support environment that the older persons is embedded in, as this provides the social capital on which the older person can rely. Anthropometric measures provide objective indicators of precursors to poor or good health status (e.g., blood pressure, blood sugar, body mass index [BMI]). Health behaviors, health care access, and biological measures, while directly affecting health status and the type of health transition experienced, are also conceived to be affected and modified by demographic and socioeconomic factors related to the older person. In this framework, therefore, demographic and socioeconomic factors exert both direct and indirect effects on health status and health transition, the latter by exerting effects on health-related behaviors and on biological markers.

#### **DATA PROCESSING**

Processing of the data consisted of two levels of manual editing. Manual coding was also done prior to data entry using the Census and Survey Processing (CSPPro) software. Data cleaning and statistical analysis were done using SPSS version 13.

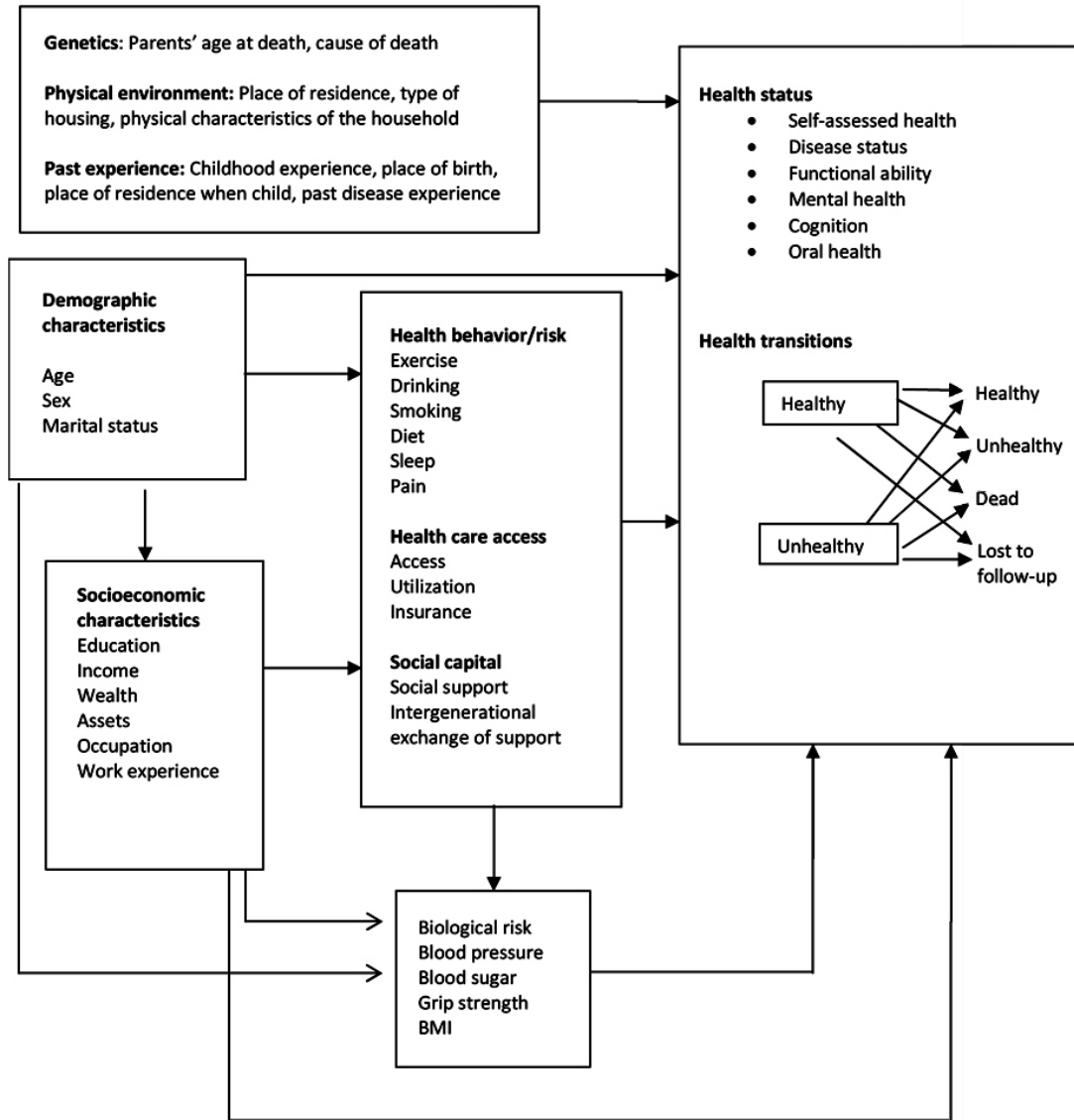


FIGURE 2.2  
Conceptual framework



## CHAPTER 3

# *The Filipino Older Persons*

THE 2007 PSOA CONTAINS EXTENSIVE information on the current condition of the older persons in Philippine society. It is a rich data set, which is expected to be subject to further analysis by other scholars depending on the specific aspect of aging that may be of interest to them. In this monograph, we seek to present a first look at this broad picture. In so doing, we limit the presentation of results to describing various aspects of the conditions of older Filipinos, differentiated across four specific factors: age, sex, marital status, and education. The analysis is bivariate; that is, we present a specific outcome or dependent variable, such as self-assessed health status, across categories of a specific factor, such as sex. We do not show the combined effects of the four factors on one specific outcome all at the same time, as would be done in multivariate analysis.

Bivariate analysis is straightforward and easy to understand, but caution should be made as to its interpretation because it involves the analysis of only two variables to determine their empirical relationship, ignoring the effect of other possible factors.

### **HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS**

Prior to gathering information from the individual older persons respondent, a household survey instrument was used to gather information on the households where older persons people belong. To ensure comparability with other data sources in the country, we adopted the official definition of a household used by the National Statistics Office (now part of the Philippine Statistics Authority): a person or a group of persons who

usually sleep in one housing unit and have common preparation and consumption of food (National Statistics Office & ICF Macro, 2009).

In all, there were 12,411 household members from the 2,646 sampled households covered in the study. The households included in the study have at least one older person and do not include those without any resident older person. Because of the nature of the study design, the sample households are expected to be structurally different from the average Filipino household given their selectivity of those with an older persons household member. One apparent difference is that the sample household composition is older, with an average age of 38 years, compared with 25 years for the Filipino household in 2007. The household size of older persons households is 4.9 members, compared with the average Filipino household size of 4.8. Generally, there is still a significant proportion of older people who assume the headship in their respective households. Results show that more than half (56%) are heads of the households where they currently reside. Quite expectedly, there are more males than females who are heads of households (84% vs. 36%; Table 3.1).

The housing characteristics of the older persons provide an indication of the socioeconomic condition of this sector of the population. More than nine in ten households have electricity. Data on their main sources of drinking water and toilet facilities, which are indicators of health and sanitation, show that about three in ten (31%) get their drinking water from a protected well while a quarter get it from water piped into their dwelling units. A considerable proportion (22%) use bottled water as their main source of drinking water.

The vast majority own a flush toilet (89%); this percentage is higher than the 54 percent level reported in the 2008 National Demographic and Health Survey (NDHS; NSO & ICF Macro, 2009). This suggests a generally good hygienic condition that is likely to have a significant impact on mortality and morbidity conditions in general.

More than six in ten older person households own the lot where their current dwelling unit is located. This is slightly higher than the corresponding percentage (56%) observed in the 2008 NDHS. Most of their housing units are made of durable materials, with three quarters having floors made of concrete (cement/marble/ceramic tiles) and half having walls made of permanent materials (concrete/brick/stone).

Wood is the most commonly used fuel for cooking in the older persons households (46%), which is almost comparable to the figure for the households in the 2008 NDHS (48%), albeit significantly more prevalent in the rural than in the urban areas. LPG is the second most common cooking fuel used (31%).

In terms of gadgets and appliances, which are indicative of economic status, data show that the most common appliances owned are television sets (80%), radios (68%), and cellular phones (65%). Bicycles/pedicabs (20%) and motorcycles/tricycles (17%) are the more commonly owned modes of transportation in households with an older resident.

Table 3.1. Household and housing characteristics

<b>A. Household characteristics</b>	Mean/%	N of cases
Mean age of HH members		
Males	35.6	6,158
Females	40.3	6,788
Both Sexes	38.1	12,945
Mean HH size	4.9	
% of HH headed by an older person	56.2	3,872
% males who are HH heads	84.3	1,624
% of females who are HH heads	35.8	2,248
<b>B. Indicators of housing quality</b>	%	N of cases
% with electricity	91.3	2,646
Main source of drinking water		
Water piped inside house	25.1	663
Protected well	31.0	822
Bottled water/refilling station	22.4	594
Others	21.5	568
% with flush toilet (own)	88.7	2,648
% who own lot of dwelling place	62.5	2,644
% in dwellings with floors made of cement/marble/ceramic tiles	76.2	2,648
% in dwellings with walls made of concrete/brick/stone	53.2	2,648
Type of fuel mainly used for cooking		
Wood	45.6	1,206
LPG	31.4	830
Charcoal	17.8	470
Others	5.3	140
Household appliances		
Radio	67.9	2,635
Television	80.5	2,648
Landline telephone	13.6	2,635
Cellular phone	64.8	2,646
Washing machine	32.1	2,640
Refrigerator/freezer	49.1	2,646
CD/VCD/DVD player	41.4	2,646
Stereo component/karaoke	24.4	2,646
Personal computer	8.4	2,636
Vehicles		
Tractor	3.2	2,648
Motorized banca/boat	1.9	2,646
Car/jeep/van	8.4	2,645
Motorcycle/tricycle	16.7	2,648
Bicycle/pedicab	19.5	2,648

### CHARACTERISTICS OF THE FILIPINO OLDER PERSONS

This section provides a profile of the Filipino older persons 60 years and over based on the representative study sample of respondents. Females have the numeric advantage, constituting 58 percent of the total population (Table 3.2). They are also older by about two years relative to the males, as shown by their mean ages of 70 and 68, reflecting the higher female life expectancy. The female dominance becomes increasingly apparent with advancing age as shown in the sex ratio, which declines from 83 among those in their 60s to 41 among those in the oldest age group (80+years). This implies that while there are 83 males in their 60s for every 100 older females of the same age group, the ratio declines to 41 among the octogenarians. Overall, the sex ratio among older people is 71.

Consistent with the overall population profile, the great majority (85%) of older people are Roman Catholics, with the remaining 15 percent distributed across the other minor religions in the country, including Christianity and *Iglesia ni Kristo*.

Significant gender differences are noted in terms of marital status, with the great majority of males currently in union while the females are mostly widowed, separated, or divorced. Eight out of ten older males are currently married or are in consensual unions compared with about four out of ten females, reflecting the greater tendency of males to remarry. Half of the women are widowed, which is three times the level among the men (16%). Only a small proportion (5%) have never been married; this is more commonly observed among the females than the males (6% and 3%, respectively; Table 3.2).

The older Filipinos exhibit a relatively poor educational profile, with elementary education as the modal educational attainment. About seven in ten reported having at most an elementary education, with no significant difference across the sexes (Table 3.2). Another two in ten received at most a high school education, and 10 percent were able to achieve a college education. A considerable proportion (7%) did not receive formal schooling or received a preschool education at most.

While the older cohort have low educational status, findings indicate significant intergenerational improvements in the level of education. This is clearly demonstrated in the proportion with at least some high school education, which increased from 33 percent among the current cohort of older people to 74 percent among their children (Table 3.6).

Improvements in educational profile across cohorts are likewise reflected in the education data of the household population. This is clearly illustrated in Table 3.3, which shows the highest educational attainment of all the household members by sex. The data for those 15 years old and over, which is the assumed age when elementary education is more or less completed, indicate the declining proportion that have reached at most an elementary education across cohorts. For the males, the proportion declined from a high of 68 percent among those 80 years and over to a low of 15 percent among those in the 15–19 age group. The corresponding figures for the females are 59 percent and 8 percent, respectively. Similarly, the proportion who did not have any formal schooling decreased substantially from 22

Table 3.2. Sociodemographic characteristics of older persons by sex

Background characteristics	Sex		Total
	Male	Female	
<b>Age***</b>			
60–69	66.3	56.8	60.8
70–79	25.9	29.6	28.1
80+	7.8	13.6	11.1
Mean age	68.1	69.9	69.2
<b>Sex ratio</b>			
60–69			82.9
70–79			62.1
80+			40.6
60+			70.9
<b>Marital status***</b>			
Never married	3.4	5.7	4.7
Currently married/live in	79.2	41.6	57.2
Separated/divorced	(1.7)	3.0	2.5
Widowed	15.7	49.7	35.6
<b>Education</b>			
No schooling/preschool	5.5	7.4	6.6
Elementary	61.8	59.9	60.7
High school	22.6	22.1	22.3
College or higher	10.1	10.5	10.3
<b>Religion</b>			
Roman Catholic	82.9	17.1	85.3
Others	14.7	84.3	15.7
<b>All</b>	<b>41.5</b>	<b>58.5</b>	<b>100.0</b>
<b>N of cases</b>	<b>1,288</b>	<b>1,817</b>	<b>3,105</b>

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

percent and 9 percent among females and males in their 80s, respectively, to a negligible proportion among those in the younger age groups. The latter suggests that almost all younger Filipinos have received at least some basic education—an indication of the success of the universal education program in the country.

Data on the relative share of the population who have attained at least some college education confirm this finding. The proportion who reached college increased from a low of 7 percent among the females aged 80 years and over to almost half (46%) of those in the 25–29 age group, a stage where one can safely assume that tertiary education has been completed. The corresponding figures for the males are 6 percent and 33 percent, respectively.



Table 3.3. Educational attainment of the household population  
by age and sex

	No schooling/ preschool	Elementary	High school	College or higher	N of cases
<b>Male</b>					
0-4	97.9	(2.1)	0.0	0.0	466
5-9	37.2	62.8	0.0	0.0	441
10-14	(2.5)	74.0	23.5	0.0	527
15-19	(0.4)	14.9	67.9	16.8	530
20-24	(0.8)	14.0	54.7	30.5	479
25-29	(2.2)	16.2	48.7	32.9	450
30-34	(1.1)	17.2	51.9	29.8	470
35-39	(1.6)	17.4	47.8	33.2	368
40-44	(2.3)	21.7	48.7	27.3	304
45-49	(2.1)	25.0	49.6	23.3	240
50-54	(2.0)	42.6	36.6	(18.8)	101
55-59	(4.1)	39.8	42.9	(13.3)	98
60-64	(3.0)	57.6	25.7	13.7	495
65-69	(3.5)	61.1	24.4	11.0	455
70-74	(6.8)	61.4	22.1	9.7	339
75-79	(9.1)	59.1	23.3	(8.5)	176
80+	(9.3)	68.5	(16.0)	(6.2)	162
All	12.5	36.6	34.6	16.3	6,101
<b>Female</b>					
0-4	98.0	(2.0)	0.0	0.0	457
5-9	25.9	74.1	0.0	0.0	468
10-14	(2.1)	72.3	25.5	0.0	466
15-19	(0.2)	8.3	72.1	19.3	456
20-24	(0.0)	(5.6)	46.7	47.7	411
25-29	(0.9)	11.1	41.9	46.1	458
30-34	(1.1)	(5.8)	48.5	44.5	447
35-39	(2.2)	10.0	44.3	43.5	359
40-44	(0.0)	15.1	45.7	39.2	291
45-49	(0.0)	24.2	43.2	32.6	190
50-54	(3.4)	44.4	35.7	16.4	207
55-59	(0.8)	50.8	29.3	19.1	256
60-64	(1.2)	56.3	25.6	16.9	581
65-69	(4.3)	65.1	24.2	6.5	541
70-74	8.2	61.4	21.8	8.6	464
75-79	(7.8)	59.1	23.0	10.1	296
80+	22.3	58.8	11.6	(7.3)	354
All	11.6	37.7	30.8	20.0	6,702
<b>Both sexes</b>					
0-4	97.9	(2.1)	0.0	0.0	923
5-9	31.4	68.6	0.0	0.0	909
10-14	(2.3)	73.3	24.4	0.0	992
15-19	(0.4)	11.9	69.8	17.9	985
20-24	(0.4)	10.2	51.0	38.4	891
25-29	(1.5)	13.7	45.3	39.5	908
30-34	(1.1)	11.7	50.3	36.9	918
35-39	(1.9)	13.7	46.2	38.2	728
40-44	(1.2)	18.5	47.1	33.2	596
45-49	(1.2)	24.4	47.0	27.4	430
50-54	(2.9)	43.5	36.0	17.5	308
55-59	(1.7)	47.6	33.2	17.5	355
60-64	(2.0)	56.9	25.7	15.4	1,076
65-69	3.9	63.4	24.2	8.5	996
70-74	7.6	61.5	21.8	9.1	802
75-79	8.3	59.2	22.9	9.6	471
80+	18.2	61.8	13.0	7.0	516
All	12.0	37.2	32.6	18.2	12,804

Note: Figures in parentheses are based on less than 30 cases.

The notable gender difference in the education profile across the age groups with interesting reversals across cohorts is another significant finding. Although there are more octogenarian women than men with no education, a significantly higher proportion of females than males have attained tertiary-level education among the younger groups. Among those in the 20–24 age group, for example, 48 percent of the females have college or higher education as compared to 30 percent among their male counterparts (Table 3.3).

Related to the educational background of the older people are their work and occupational involvements. Study findings show that many older people continue to be economically productive, with nearly half (47%) of older males and one third (33%) of older females still working. Significant differences in work status are also found across age groups, with almost half of those aged 60–69, three out of ten of those aged 70–79, and one tenth of those aged 80 and over currently working. This relatively high proportion of older Filipinos still in the labor force is largely due to the high proportion who work in the blue collar and agriculture sectors, where there is no retirement age to speak of. This also explains why fewer college-educated respondents say they are not currently working. Data show they are mostly concentrated in white- and blue-collar jobs, which usually have a formal retirement age.

Among those who are working, half are in blue-collar occupations, four out of ten are in agriculture, and only 6 percent are in white-collar jobs. Agricultural work is more common among men than women (61% vs. 24%, respectively) and among the less educated. More than three fourths (77%) of those who have no education work in agriculture as compared to about a quarter (27%) among those with high school education. The majority of women (69%) and one third of the men are blue-collar workers. Less than 10 percent are white-collar workers; those with college education expectedly dominate this group. Significantly more of those in their 70s are engaged in agricultural work relative to those in the other age groups (Table 3.4).

Regardless of background characteristics, more older people reside in urban than in rural areas. Significantly more women than men (60% vs. 51%) and more currently unmarried than married older Filipinos (59% vs. 54%) reside in urban areas. Almost seven in ten among the college educated live in urban areas as compared to about half among the elementary educated, although a significantly high proportion (66%) among those with no education are also residing in urban areas. There are no significant differences in place of residence by age group.

Table 3.4. Work and occupation of older persons  
by sex, age, marital status, and education

Indicators	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+		
<b>Work status</b>			***				***			***					***	
Currently working	47.2	33.1		48.4	30.4	9.5		42.6	34.1		26.7	42.4	39.5	25.2		39.0
Not currently working	52.8	66.9		51.6	69.6	90.5		57.4	65.9		73.3	57.6	60.5	74.8		61.0
<b>Occupation</b>			***				***			***					***	
White collar	6.4	6.3		7.0	(4.1)	(9.1)		7.5	(4.4)		(1.8)	3.7	(4.7)	40.2		6.4
Blue collar	32.6	69.2		53.1	45.7	(27.3)		43.5	62.8		(21.4)	47.1	68.6	48.8		50.8
Agriculture	61.0	24.5		39.9	50.2	(63.6)		48.9	32.8		76.8	49.2	26.6	(11.0)		42.8
<b>Place of residence</b>			***							*					***	
Urban	50.7	59.8		57.2	54.6	53.9		54.1	58.6		65.5	50.3	62.5	69.8		56.1
Rural	49.3	40.2		42.8	45.4	46.1		45.9	41.4		34.5	49.7	37.5	30.2		43.9

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

### THE FILIPINO OLDER PERSONS AND THEIR CHILDREN

In most developing countries, the informal support system for older people is heavily reliant on kin networks, particularly children. It is therefore important to describe how the Filipino older persons fare in terms of the availability of this source of support. One basic indicator of social support is coresidence. When older parents and their adult children live together, this implies that there is a constantly available source of support for the older person. Likewise, the presence of an older person can also be a source of support for the adult child through such roles as grandparenting. Adult children who do not coreside with their parents are still potential sources of support. Given the widespread phenomenon of temporary labor migration, we distinguish between noncoresident children living or working abroad and those who reside within the country.

Table 3.5 shows that older Filipinos on the average have had 5.6 children ever born, reflecting the high fertility experience of their generation. Of this number, around four children are still living. Childlessness is quite uncommon, with only 6 percent reporting no children ever born. As expected, the level of education is inversely related with fertility, as indicated by the college-educated older people having the lowest number of children on the average (3.4) and those with no education having the highest (7.3).

About half of the older persons' living children are currently living with them, while the rest are living elsewhere including overseas. Coresident children are mostly never married (57%), although a third of them are already married or living in. In contrast, most (85%) of the noncoresident children are currently married or living in and are more likely to be working compared with their counterparts who continue to coreside with their older persons parents (Table 3.6). Coresident children are better educated, as shown by the higher proportion among them who have attained a college education as compared to their noncoresident counterparts (31% vs. 26%, respectively). Despite the educational advantage of the coresident children, more noncoresident children are currently working.

Among the noncoresident children of older people are those who have migrated overseas. More than a fourth (26%) of older Filipinos have at least one child living abroad, indicating the pervasive impact of international labor migration even on those in their older years. This phenomenon is more prevalent among the college educated (38%) than those with lower education. Those who are currently married and in advanced ages also report a higher number of children abroad than their counterparts (Table 3.5).

Table 3.5. Number of children  
by sex, age, marital status, and education

Indicators	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases	
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/ preschool	Elem	HS	College+			Sig
No. of living children			***				***			***					***		
0	5.7	7.4		5.6	8.0	9.0		2.0	13.0		(8.8)	5.8	7.4	(9.0)		6.7	3,104
1	2.8	6.1		4.8	4.7	(4.3)		4.4	5.3		(2.4)	4.2	5.8	(7.2)		4.7	
2	8.9	7.2		8.5	7.5	(5.8)		8.0	7.7		(3.9)	6.4	8.0	19.0		7.9	
3	12.4	11.0		14.1	7.4	8.7		13.3	9.3		(7.3)	10.4	11.7	20.9		11.6	
4	13.6	13.1		14.9	10.5	11.6		14.2	12.1		(7.3)	12.4	16.9	14.3		13.3	
5+	56.5	55.2		52.1	62.0	60.6		58.1	52.6		70.2	60.7	50.2	29.6		55.8	
Mean no. of living children	3.95	3.82		3.84	3.93	3.91		4.08	3.60		4.13	4.01	3.76	3.13		3.87	3,104
No. of coresident children			***				***			***					***		
0	27.6	29.5		24.9	36.5	30.1		26.0	32.3		26.2	28.2	31.6	27.7		28.7	3,105
1	32.1	40.0		33.2	41.1	45.7		32.9	42.0		48.5	36.6	37.2	29.0		36.8	
2	21.6	18.9		23.4	13.9	16.8		23.5	15.3		(14.1)	19.7	19.0	27.7		20.0	
3+	18.6	11.6		18.6	8.6	(7.5)		17.6	10.4		(11.2)	15.5	12.1	15.6		14.5	
Mean no. of coresident children	1.99	1.68		1.97	1.54	1.48		1.95	1.59		1.52	1.83	1.76	1.95		1.81	2,213
No. of children abroad										**					***		
0	74.4	74.1		74.3	73.6	75.4		70.9	78.6		88.3	78.1	65.4	61.7		74.2	3,100
1	16.7	17.3		17.8	17.1	12.7		19.1	14.3		(9.3)	15.5	20.3	23.7		17.1	
2+	8.9	8.6		7.9	9.3	11.8		9.9	7.1		(2.4)	6.4	14.3	14.6		8.7	
Percent with children abroad	25.6	25.9		25.7	26.4	24.6		29.1	21.4		(12.1)	21.9	34.5	38.3		25.8	3,100
No. of children ever born							***			*					***		
0	5.4	6.8		5.4	7.8	(6.9)		1.8	12.2		(7.8)	5.4	6.7	(9.0)		6.3	3,103
1	(2.3)	5.0		3.9	(3.2)	(5.2)		3.7	4.1		(2.9)	2.9	5.5	(6.5)		3.8	
2	7.5	5.9		7.8	5.2	(3.5)		7.1	5.9		(2.4)	5.1	6.5	18.1		6.6	
3	11.8	8.9		12.3	7.6	(4.3)		11.3	8.5		(2.4)	8.8	12.2	18.1		10.1	
4	13.0	11.8		14.4	9.3	8.6		14.1	9.9		(3.9)	11.3	14.9	17.8		12.3	
5	12.5	12.1		13.5	10.9	8.9		13.3	10.8		(8.8)	12.9	13.0	(9.0)		12.3	
6	11.1	9.4		10.0	11.1	(8.1)		10.9	9.0		(8.8)	10.1	12.3	(6.5)		10.1	
7	11.8	10.7		10.8	12.1	10.7		11.1	11.2		(12.7)	11.7	10.1	(8.7)		11.2	
8	8.2	8.4		7.2	9.3	11.8		8.8	7.6		(10.7)	9.8	5.9	(2.8)		8.3	
9	6.2	7.6		6.3	7.8	9.5		6.7	7.5		(10.7)	8.2	5.6	(1.2)		7.1	
10+	10.4	13.3		8.6	15.6	22.5		11.3	13.2		28.8	13.8	7.2	(2.2)		12.1	
Mean number of children ever born	5.6	5.7		5.3	6.0	6.6		5.8	5.4		7.3	6.0	5.1	3.4		5.6	3,103

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

Table 3.6. Profile of coresident and noncoresident children

	Coresident children			Noncoresident children			All children		
	Male	Female	Both	Male	Female	Both	Male	Female	Both
Mean age	35.08	36.54	35.75	40.75	40.43	40.59	39.22	39.54	39.38
N	1,812	1,504	3,316	5,145	5,245	10,390	6,957	6,749	13,706
Marital status									
Never married	61.2	51.0	56.6	9.1	9.9	9.5	22.7	19.1	20.9
Married/live in	32.5	37.3	34.7	87.9	82.4	85.1	73.5	72.3	72.9
Separated/divorced	4.2	5.9	5.0	1.8	2.9	2.3	2.4	3.6	3.0
Widowed	2.0	5.9	3.8	1.2	4.8	3.0	1.4	5.0	3.2
N	1,812	1,503	3,315	5,131	5,219	10,350	6,943	6,722	13,665
Educational attainment									
No education	3.6	2.1	2.9	0.5	0.3	0.4	1.3	0.7	1.0
Some elementary	15.7	10.0	13.1	23.8	18.7	21.2	21.7	16.7	19.2
Completed elementary	10.6	8.0	9.4	3.9	4.2	4.1	5.7	5.1	5.4
Some high school	16.6	9.8	13.5	19.6	20.0	19.8	18.8	17.7	18.2
Completed high school	28.9	30.9	29.8	29.2	27.5	28.4	29.1	28.3	28.7
College or higher	24.6	39.1	31.2	22.9	29.3	26.1	23.4	31.5	27.4
N	1,804	1,493	3,297	5,055	5,129	10,184	6,859	6,622	13,481
% working	69.7	67.1	68.5	90.0	78.3	84.1	84.6	75.8	80.3
N	1,805	1,495	3,300	4,985	5,080	10,065	6,790	6,575	13,365



## CHAPTER 4

# *Economic Well-Being*

ONE OF THE CENTRAL ISSUES TACKLED in the literature on aging is economic well-being in the older persons years. Aging is often associated with a diminishing capacity to fully participate in economically productive activity because advancing age is often associated with poorer health, limiting the capacity to work. In fact, formal systems of social support bank on a pension system to take care of the economic needs of the older persons after a given age cut-off. In most cases, this age cut-off is 60; some countries have either younger or older cut-offs. The traditional sources of social and economic support are the family, especially the children. But the availability of support from children does not routinely translate into economic well-being for the older person, as children may be in dire straits themselves. In this section, we describe the economic well-being of older Filipinos from the perspective of their own sources of economic support, not only support that comes from children and other kin.

Economic well-being is assessed through a number of measures such as median income, main sources of income, assets and liabilities, and a self-assessed measure of economic well-being whereby the older person gives an assessment of the perceived adequacy of the income of his/her household. Sources of income include those of the respondent and his/her spouse if they are living together. Table 4.1 shows that, when asked to list all of their sources of income, the three most commonly cited are money from children within the country (58%), income from a family business or farm (36%), and earnings from work (29%). Income from pension was mentioned by only 22 percent of older Filipinos. About a fifth reported money from children abroad as a source of income, confirming the impact of international migration on the older Filipinos.

Significantly more older men than women reported income from their own work, from pension, and from their family business or farm. On the other hand, more women reported “other sources” as a source of income. Earnings from work are less prominent as age increases,

but what is remarkable is that 9 percent of the older persons aged 80+ continue to rely on earnings from work as a source of income despite their advanced age. As to reliance on pension, the proportion expectedly increases with age but the overall level is low, from 20 percent among the 60–69-year-olds to only 31 percent among those aged 80+. The age pattern of increase is to be expected, as older persons who stop working should start to receive pension if they are covered by the formal system. If all who had been gainfully employed in their productive years were enrolled in the Social Security System (SSS), Government Service Insurance System (GSIS), or other formal systems, there would be much higher percentages relying on pension as a source of income at ages 70–79 and 80+. That this is not so implies that the Philippines still has a long way to go to increase reliance on the formal support system in old age. The differential access to the formal system of social support is clearly demonstrated in the differentials in pension as a source of income by education. For example, among the college educated, 59 percent rely on pension as a source of income compared with only 17 percent among those with no education. This is not surprising considering that those with the lowest education are least likely to have worked in the formal sector and thus were least likely to have been enrolled in the formal support system when they were still active in the labor force.

Reliance on children as a source of income varies across the education background of the older person. Generally, there is a decreasing proportion who rely on money from children in the country as education increases, from 63 percent among those with no education to 42 percent among the college educated. The pattern is reversed when it comes to money from children abroad: 26 percent of the college-educated elders mentioned money from children abroad as a source of income. This proportion monotonically decreases to 10 percent among the least educated. This is expected given earlier findings demonstrating college-educated elders having more children abroad compared with their less educated counterparts (refer Table 3.5). Considering the cost of overseas travel, those who are better educated are more likely to be economically better off and are in a better position to pay for the initial costs entailed by international migration.

Table 4.1 shows all the sources of income mentioned by the older person, while Table 4.2 shows the most important income source as identified by the older persons themselves. Of all the multiple income sources, the most commonly mentioned major income source is earnings from work (25%). More men, more of the younger older persons (60–69), and more of the currently married mentioned this as their most important income source. The second most commonly mentioned is money from children in the country (22%). This is more commonly mentioned by women, those in the oldest age group (80+), those not currently married, and those with no education. Results show a steep monotonic decrease with increasing education in the proportion who reported transfers from their children within the country as their most important source of income. Pension and the family business/farm are the next most commonly mentioned income sources. Only 8 percent of older persons reported money from children abroad as their most important income source.



Table 4.1. Sources of income and median monthly income by sex, age, marital status, and education

Income indicators	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
Sources of income+																	
Earnings from work	37.5	22.7	***	35.4	22.9	8.7	***	32.3	24.4	***	25.2	31.3	26.3	23.1	*	28.9	3,096
Pension	24.8	20.0	**	19.9	23.1	31.0	***	19.8	25.1	***	17.1	14.0	28.5	58.3	***	22.1	3,096
Family business and farm	38.4	33.9	*	39.2	32.5	25.1	***	39.1	31.2	***	23.3	37.6	38.0	28.0	***	35.7	3,096
Money from children within the country	58.4	57.4		56.0	60.6	60.6	*	58.8	56.6		62.9	62.3	51.4	42.1	***	57.8	3,096
Money from children outside the country	19.1	21.5		20.0	21.7	20.6		22.8	17.4	***	10.2	18.8	25.7	26.2	***	20.5	3,096
Othersources++	12.3	19.4	***	14.1	18.9	23.1	***	11.8	22.6	***	18.4	14.3	19.3	21.8	***	16.4	3,096
Median monthly income (in pesos) for those currently married <sup>1</sup>	1,750	1,667		1,750	1,600	1,798		1,750	-		1,500	1,500	2,000	4,537	***	1,750	1,612
Median monthly income (in pesos) for those not currently married	2,000	2,648		2,900	2,000	2,000		-	2,400		1,000	2,000	3,000	6,864	***	2,400	1,156
Median monthly income (in pesos) (All)	1,800	2,000	***	2,000	1,822	2,000		1,750	2,400	***	1,238	1,600	2,500	5,000	***	2,000	2,767

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

<sup>1</sup>Multiple response.

\*\*Includes interest of time deposits, income from rentals, savings, real estate, stocks, and money from other relatives outside the household.

Table 4.2. Most important source of income  
by sex, age, marital status, and education

Indicators	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+		
Most important source of income			***				***			***					***	2,990
Earnings from work	31.9	19.6		31.6	17.2	(5.5)		30.9	16.3		19.9	27.4	22.2	17.9		24.7
Pension	18.5	20.6		16.6	21.9	31.6		18.8	21.1		18.8	13.3	23.2	50.0		19.8
Family business and farm	22.0	18.4		21.7	17.9	15.3		22.2	16.8		(12.6)	22.8	19.3	9.4		19.9
Money from children within the country	17.4	24.6		17.9	25.5	31.9		17.7	26.9		36.6	24.0	16.5	9.7		21.6
Money from children outside the country	6.5	9.4		7.4	10.1	(8.0)		7.9	8.6		(4.2)	6.8	13.5	(6.9)		8.2
Other sources+	3.7	7.4		4.8	7.5	(7.7)		2.5	10.3		(7.9)	5.7	5.4	(6.0)		5.8

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

+Includes interest of time deposits, income from rentals, savings, real estate, stocks, and money from other relatives outside the household.

Figures in parentheses are based on less than 30 cases.

Older Filipinos reported a median monthly income of PhP2,000 (or US\$43 assuming the exchange rate of PhP46.15), with no significant differences by age or sex. Income level is lower among those currently married compared to those not currently married (PhP1,750 and PhP2,400, respectively). Substantial income variance is also displayed across education gradient with those having the highest education registering a median income of PhP5,000 as compared to PhP1,238 for their unschooled counterparts.

Another measure of economic well-being is material well-being. In the survey, the indicators of material well-being include possession of material assets such as a house, other real estate, bank accounts, and motor vehicles. We asked the older persons if they owned any of the given assets in a list. Results in Table 4.3 show that the most commonly owned asset is the house they currently reside in (77%), followed by appliances (60%) and farms/fishponds (21%). It is evident from the data that older persons in the Philippines are generally not materially well off. For instance, only 6 percent said they have a bank account, only 12 percent have cash, and only 9 percent have jewelry. Only one in ten own a motor vehicle, while 11 percent own real estate. In general, a higher proportion of the better educated have assets of various kinds, while the oldest age group (80+) has the lowest proportion who own assets. More men than women own the house they live in (82% vs. 73%).

The flip side of assets is liabilities. Findings show that 15 percent of the older persons report having liabilities; the proportion is higher among men (18%) than women (13%), among the younger older persons (18%) than the older elderly (11% for those aged 70–79, 9% for those aged 80+), and among the college educated (21%) compared with those with the lower education (11%).

To concretize wealth inequality across different sectors of the older population, the study computed the wealth index based on the older person's household assets and housing structure. The computed wealth index is used as a proxy measure of the long-term standard of living of the household (NSO & ICF Macro, 2009). We used the methodology used in the Demographic and Health Surveys as described by Rutstein and Kiersten (2004). For each household, a score was constructed using the weighted sum of selected household assets (e.g., ownership of appliances and vehicles) and housing characteristics (e.g., type of housing materials, source of water, availability of electricity), with the weights assigned based on principal component analysis. The households were then ranked and divided into five equal groups of 20 percent each (quintiles), with 1 being the poorest 20 percent and 5 being the richest 20 percent.

Results presented in Table 4.4 confirm the difficult economic condition of the least educated older persons, who registered the highest proportion of the extremely poor. At least a fourth of the least educated belong to the lowest quintile as compared to 7 percent among the high school educated. On the other hand, the proportion belonging to the richest quintile is 61 percent for the college educated and merely 16 percent for those who did not

Table 4.3. Percent of older persons who own various assets and percent who have liabilities by sex, age, marital status, and education

Household possessions+	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
% with assets																	
House currently residing in**	82.0	72.8	***	79.1	75.7	65.1	***	84.6	66.0	***	65.0	79.1	71.7	79.8	***	76.6	3,091
Other real estate	9.5	12.1	*	11.2	11.0	10.3		10.1	12.3		(5.6)	10.1	12.0	17.6	***	11.0	3,037
Cash	13.0	12.0		12.5	12.7	11.2		12.2	12.6		(11.2)	7.8	13.5	37.6	***	12.4	3,037
Bank accounts	5.7	5.5		5.6	5.1	(6.8)		6.1	4.8		(2.0)	2.8	5.8	22.9	***	5.6	3,037
Farm/fishpond	24.3	18.3	***	20.1	21.6	22.7		22.9	17.9	***	(11.2)	22.8	20.1	16.3	***	20.8	3,037
Business	16.0	19.2	*	21.3	15.1	(5.9)	***	19.7	15.3	*	(8.7)	17.1	22.8	16.9	***	17.8	3,037
Jewelry	6.4	11.0	***	9.3	9.3	(8.0)		8.9	9.3		(2.6)	3.9	13.9	32.5	***	9.1	3,037
Appliances	64.1	57.8	***	64.9	55.2	49.1	***	67.9	50.3	***	42.9	55.3	67.6	85.3	***	60.4	3,037
Motor vehicles	12.6	10.2	*	13.2	8.1	(7.7)	***	13.7	7.6	***	(4.6)	8.5	14.9	21.9	***	11.1	3,037
% with liabilities	18.0	13.2	***	18.2	11.3	8.7	***	17.4	12.1	***	(11.2)	14.9	14.3	21.2	*	15.1	3,095

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

+Multiple response.

\*\*Independently or jointly with spouse/children.

Figures in parentheses are based on less than 30 cases.

Table 4.4. Percent distribution of older persons by wealth index by sex, age, marital status, and education

Wealth Index	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+		
Poorest	18.8	15.0	**	14.8	21.2	13.9	***	14.9	18.9		25.0	21.7	7.0	(1.7)	16.6	2,912
Second	18.5	16.7		17.0	17.1	21.3		17.7	17.1		20.7	20.0	16.5	(3.0)	17.5	
Middle	21.5	20.1		20.4	20.2	23.5		21.1	20.1		20.1	22.6	19.4	13.0	20.7	
Fourth	21.1	22.9		23.0	22.3	17.6		23.1	21.0		18.5	20.4	28.5	21.3	22.2	
Wealthiest	20.1	25.2		24.8	19.2	23.8		23.3	22.8		15.8	15.3	28.5	61.1	23.1	

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

Table 4.5. Sufficiency of household income to meet household expenses  
by sex, age, marital status, and education

Sufficiency of household income to meet expenses	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/ preschool	Elem	HS	College+		
Enough with money left over	6.4	7.5	*	6.2	7.7	10.2		6.1	8.4	***	(3.0)	5.2	8.3	17.9	7.0	3,073
Just enough to pay expenses, with no difficulty	36.8	41.8		39.7	40.0	39.2		37.9	42.2		36.0	37.7	43.6	45.1	39.7	
Some difficulty in meeting expenses	35.7	31.3		34.8	30.9	29.8		36.9	28.1		35.0	34.2	31.7	28.5	33.2	
Considerable difficulty in meeting expenses	21.0	19.4		19.3	21.4	20.8		19.2	21.3		25.9	22.8	16.4	(8.5)	20.1	

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

have any formal education. Significant age and gender differentials in wealth inequality are also evident, with a higher proportion of the males and those in their 70s in the poorest quintile. For males, for example, the proportion belonging to the poorest quintile is 19 percent as compared to 15 percent for the females. The corresponding proportions in the richest quintile are 20 percent and 25 percent, respectively.

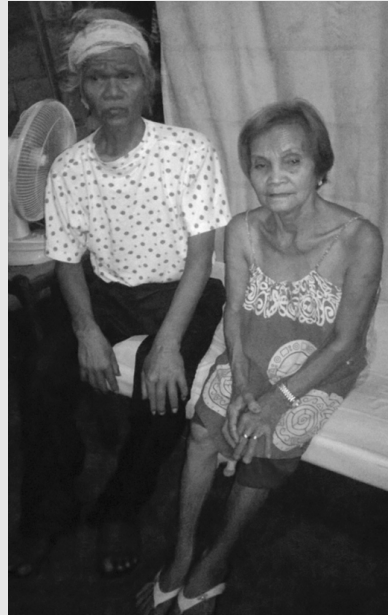
We also explored self-assessed economic well-being by asking for the respondents' perception of the sufficiency of their household income to meet everyday expenses. Household income refers to the pooled income of all earning members of the household, not just the older person's income. The response categories are as follows: (1) there is enough income with money left over, (2) just enough to pay expenses with no difficulty, (3) some difficulty in meeting expenses, and (4) considerable difficulty in meeting expenses. Results in Table 4.5 show that the highest proportion (40%) reported that their household income is just enough for them to pay expenses with no difficulty. A third reported some difficulty in meeting household expenses, while one in five said they had considerable difficulty in meeting expenses, which is an indicator of poor economic well-being. Only 7 percent said they had enough with some left over. Expectedly, there is an inverse relationship between education and self-assessed economic well-being; more among the better educated reported that there is enough money with some left over (18%), while more among the least educated reported considerable difficulty in meeting household expenses (26%). The disparity across education categories was the most significant compared with the disparity across other variables (age, sex, and marital status); this validates the earlier finding on the seemingly significant education effect on the older person's economic well-being.

**Box 1: Snapshots of the Filipino Older Persons**

**CARE CHAIN: Elderly Taking Care of an Elderly**

AT AGE 80, Teresita Bon is taking care of her nearly blind male cousin who is 72 years old, a classic example of an elderly taking care of another elderly. Like one of the many residents in Metro Manila, Teresita was not originally from the area. Born on January 8, 1935 in Magallanes, Sorsogon in Southern Luzon, both of her parents died when she was still a baby, so her grandparents raised her. At the young age of 14, economic circumstances forced her to leave her hometown after her grandfather died. Just two years after leaving Sorsogon, she got married and bore three sons. After eight years, however, her husband left her for another woman and she was left to fend for her children, working mostly as a househelper. She had a tough life as a child and her grandparents instilled in her the value of hard work, so she did not mind laboring in other people's houses to support her family.

Two of her sons died from a stroke, the latest just two years ago. Her remaining son has nine children and lives on the other side of her house, which is partitioned from her own house. She complains that she is not getting any support from her son, material or moral, as she feels that her daughter-in-law even wants her out of her own house. Teresita was left to look after her blind cousin after her son, who was taking care of him for eight years, succumbed to a stroke in 2013 at age 54. Prior to this, she was a volunteer at the nearby Catholic church, doing various things like cleaning, participating in the active lay ministry, and even singing for the choir. For 16 years since 1996, the church was her source of refuge and comfort, where she felt happy and comforted by God. All of this changed when her son died and she had to quit volunteering to stay with her cousin full time.

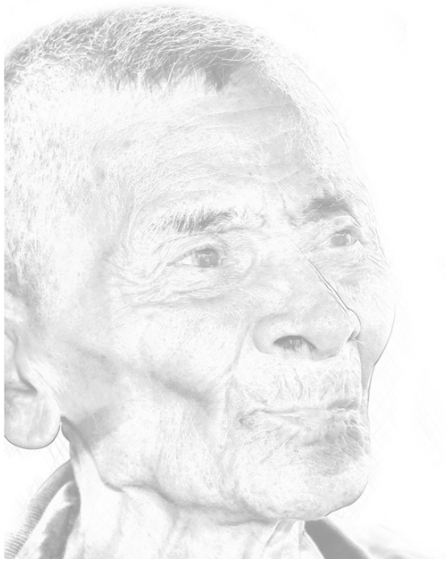


Teresita and her blind cousin

Financially, her situation can be described as better off compared to other elderly in worse situations. Since 2005, she has been working at the Faithful Companion of Jesus (FCJ), which she refers to as “the Center.” The FCJ is a non-government organization run by nuns, which does community organizing and provides livelihood to the urban poor in the community. It facilitates scholarships of students and teaches mothers and the unemployed ways to earn income. Teresita reports to the Center six times a week, Monday to Saturday, from 4 a.m. to 6 a.m. for cleaning tasks and gardening. In return, she receives PhP500.00 per week. The Center also provides a separate allowance of PhP500.00 for her blind cousin. This means that in a month, the two have a combined income of PhP4,000.00 or US\$90.9. Since 2013, she has also been receiving the government’s social pension for the elderly worth PhP500.00 (around US\$11.2) per month given quarterly.

While still strong for her age, Teresita’s hearing has weakened and she has high blood pressure. She also complains about her lower back. She recently fell on the stairs while working in the Center and is afraid that she will not be able to take care of her blind cousin when the time comes. Currently, she relies on herbal medicine bought from the streets of Quiapo, Manila. She badly wants to return to volunteering in the church and has been imploring the interviewer to look for means by which her blind cousin can be brought to a facility. She attributes her longevity to her close relationship with God. “I don’t forget who is in charge out there. I always talk to Him,” she says.





## CHAPTER 5

# *Health Status*

AS ONE ENTERS THE OLDER PERSONS YEARS, concern over one's health typically gains more prominence. While there are huge individual variations in health conditions among older persons, with some in a better state of health than others, the prevalence of health problems is generally higher among older people compared with their younger counterparts. But what is health and how do we determine who is healthy and who is unhealthy? The preamble to the WHO Constitution (1948) defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." Taking its cue from this definition, the principal aim of this study is to describe the health status of older Filipinos from a multidimensional perspective of health. Specifically, we look at the following dimensions:

- a. Self-assessed health status
- b. Self-reported illnesses
- c. Vision
- d. Hearing
- e. Oral health
- f. Sleep
- g. Pain
- h. Depression
- i. Incontinence
- j. Functional health
- k. Active life expectancy

We then look at the health risk behaviors including smoking and drinking and other health indicators including life satisfaction, anthropometric measurements, and finally, health care and health utilization.

### SELF-ASSESSED HEALTH STATUS

Self-assessed health status is a general assessment that fairly measures health status without giving it a specific dimension. It is also an assessment of well-being.

We asked survey respondents to assess their level of health as very healthy, healthier than average, of average health, somewhat unhealthy, or very unhealthy. Most said they are “of average health” (47%) and a fourth said they are somewhat unhealthy (Table 5.1). At least 7.5 percent said they are very healthy, with the college educated registering the highest proportion who declared they are in extreme good health across the different sociodemographic and economic categories being considered. There is no significant difference between men and women and between the currently married and not currently married, while higher proportions in the older groups (70–79 and 80+) have poorer self-assessment relative to those in their 60s.

Compared with the year prior to the survey, about half said that their current health is the same, 21 percent said it is actually better, and 28 percent reported their health to be worse. More among the older groups, the not currently married, those with no education, and those with primary education reported their current health to be worse than it was the year before. Those with college education again registered the highest proportion (25%) who declared their current health status as better relative to the previous year. The oldest age group reiterated their poor self-assessed health, having the highest proportion who declared their health as worse off compared to the preceding year across all categories considered.

When they compared themselves with people of the same age, 48 percent said their health is better; this proportion rises with increasing age and is highest among those aged 80 and above. But the proportion who reported their health to be the same as that of people their age decreases with increasing age.

To gain an idea of their perceived health status while growing up, we also asked the respondents to rate their health from birth to early adolescent years (around age 16). Generally, the respondents reported a very favorable health condition with no significant differences across age, sex, marital status, and education groups. Almost two out of three (62%) claimed to be very healthy, and another third claimed to be either of average or healthier than average health status. Only a tiny proportion (2%) rated their childhood health as poor.

In general, the subjective indicators of health show no significant difference between men and women but notable differences by age and education, with the college educated consistently showing the most positive health assessment and those in the oldest age group having the poorest self-perception of health.

Table 5.1. Self-assessed health of older persons  
by sex, age, marital status, and education

Self-assessed health	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
Current health status							***								***		3,094
Very healthy	8.4	6.9		9.1	6.1	(2.6)		8.5	6.2		(2.4)	7.4	7.1	12.5		7.5	
Healthier than average	14.9	13.4		15.5	12.4	9.9		13.3	15.0		15.1	13.5	17.5	(8.4)		14.0	
Of average health	48.1	47.0		50.3	44.4	39.5		47.4	47.5		44.4	46.4	49.9	50.2		47.4	
Somewhat unhealthy	23.0	26.9		21.3	30.7	33.1		25.1	25.6		26.3	27.0	21.9	22.1		25.3	
Very unhealthy	5.7	5.8		3.8	6.3	14.8		5.8	5.7		11.7	5.7	(3.6)	(6.9)		5.8	
Health compared to one year ago							***								***		3,095
Better	20.4	20.7		22.2	19.0	15.9		20.9	20.2		(8.7)	20.3	22.8	24.9		20.6	
The same	52.9	50.7		53.1	48.6	50.4		52.5	50.3		58.3	50.6	52.8	50.2		51.6	
Worse	26.7	28.6		24.7	32.4	33.6		26.6	29.5		33.0	29.1	24.4	24.9		27.9	
Health compared to people of same age							***			*					***		3,050
Better	47.0	48.2		46.0	49.2	52.6		46.2	49.6		53.2	45.4	49.6	53.7		47.7	
The same	37.9	36.5		40.4	34.4	26.0		39.3	34.1		29.3	38.2	38.8	31.4		37.1	
Worse	15.2	15.3		13.6	16.4	21.3		14.4	16.3		17.6	16.4	11.6	14.9		15.2	
Health while growing up (from birth to age 16)																	
Very healthy	64.2	60.5		61.5	60.2	69.3		61.6	62.5		64.7	62.8	60.3	59.7		62.0	3,094
Healthier than average	14.3	15.4		15.3	15.3	12.0		15.2	14.5		(11.9)	13.3	18.5	18.6		14.9	
Of average health	19.2	21.8		20.8	22.2	17.3		20.9	20.6		19.4	21.8	18.8	19.8		20.7	
Somewhat unhealthy	(2.2)	2.0		2.2	(2.1)	(1.2)		2.0	(2.1)		(3.5)	2.0	(2.2)	(1.9)		2.1	
Very unhealthy	(0.2)	(0.3)		(0.3)	(0.2)	(0.3)		(0.2)	(0.3)		(0.5)	(0.2)	(0.3)	(0.0)		(0.2)	

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

### SELF-REPORTED ILLNESSES

We also asked the respondents about their experience with specific illnesses that are relatively common among older people, especially chronic conditions. In presenting the results for this section, we are cognizant of some major limitations in self-reports of disease status. Some conditions may be asymptomatic in the early stages, so the patients may be unaware that they have the disease (e.g., high blood pressure, osteoporosis). In addition, the diagnosis of some dire illnesses like cancer may be concealed from the patients, so they may be unaware of their disease status. Some diseases require diagnosis by a health professional, which means that the level of awareness of disease status may be more of a function of access to health care rather than reflective of the true prevalence of the disease (e.g., diabetes). Still, there are diseases that are readily apparent by virtue of their symptoms and thus do not require medical diagnosis for them to be recognized by the respondent (e.g., arthritis, stroke, cataracts; Zimmer et al., 2000). In presenting the results of self-reported disease status, we grouped the diseases into those that are readily apparent by their symptoms alone (Group 1) and those that require medical diagnosis (Group 2). In the first group, we included arthritis/neuralgia/rheumatism, chronic back pain, cataracts, and fractures. All other diseases are in the second group.

Results in Table 5.2 show that over half (54%) reported having arthritis/neuralgia/rheumatism. This condition is the most prevalent of all diseases. A fourth (25%) reported having back pains, and nearly a fourth reported having cataracts (24%). In all, there is a high prevalence of diseases in Group 1. Following our basis for classification, these rates are probably close to the true prevalence of these conditions in the older persons Filipino population. Significantly more not married (56%) than currently married (52%) older Filipinos have arthritis. There is a statistically significant increase in prevalence as age increases. There is a slightly higher prevalence among women (55%) than men (52%), but this is not statistically significant.

Significantly more men (28%) than women (23%) reported having chronic back pain. There is a steep gradient in the prevalence of this condition by education. The proportion is highest among those with the lowest education (32%). There is a monotonic decrease as education increases, with the proportion lowest among those with college education (14%). The pattern is similar with cataracts. While 34 percent of those with the lowest education reported having cataracts, the corresponding percentage among those with college education is 21 percent. Cataracts also increase monotonically with increasing age.

In the second group, the most prevalent diseases are high blood pressure at 36 percent and heart problems (heart attack/angina/myocardial infarction) at 20 percent. Significantly more women reported having high blood pressure than men (41% vs. 30%); more among the 70–79-year-olds said they have high blood pressure. The prevalence increases with increasing educational attainment, suggesting that access to a diagnosis may be partly influencing the observed differential, as those with better education have more access to health care.

Table 5.2. Illnesses of older persons  
by sex, age, marital status, and education

Illnesses	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/ preschool	Elem	HS	College+	Sig		
<b>GROUP 1</b>																	
Arthritis/ neuralgia/ rheumatism	52.2	54.9		51.0	56.1	63.3	***	51.8	56.4	*	51.2	54.1	55.0	51.1		53.8	3,085
Chronic back pain	27.7	23.0	**	24.3	26.4	25.0		25.6	24.2		32.5	28.2	19.1	14.0	***	25.0	3,103
Cataracts	23.0	24.0		19.2	28.6	35.0	***	22.1	25.6	*	33.7	23.2	23.0	21.4	**	23.6	3,007
Fractures of the hip, thigh, and pelvis/broken hip	2.3	3.4		2.4	2.6	6.1	***	3.0	2.8		(2.4)	3.3	(1.9)	(3.1)		2.9	3,098
Other fractures	4.8	3.9		4.2	4.1	4.6		5.1	3.2	**	(9.7)	3.8	(3.3)	(5.3)	***	4.2	3,106
<b>GROUP 2</b>																	
High blood pressure	30.3	40.6	***	34.9	39.8	35.8	*	35.3	37.9		24.4	34.8	41.3	42.7	***	36.4	3,066
Angina, myocardial infarction, etc.	18.6	21.8	*	20.9	20.9	16.9		21.8	18.7	*	17.8	20.6	20.9	20.6		20.5	3,050
Cerebrovascular disease	8.9	8.9		8.5	8.7	11.1		10.3	7.0	**	(5.4)	7.8	13.2	(8.4)	***	8.9	3,098
Diabetes	8.6	11.3	*	11.1	9.7	6.3	*	10.4	9.9		(8.6)	9.8	9.2	15.6	**	10.2	3,005
Respiratory illness	16.0	11.8	***	12.2	16.9	12.3	**	14.3	12.5		15.6	13.5	13.3	13.1		13.6	3,089
Digestive illness	11.5	11.4		12.2	10.6	9.6		12.2	10.4		(7.3)	12.8	10.4	(8.8)	*	11.4	3,087
Renal/urinary tract ailments	11.8	9.5	*	10.7	9.8	10.9		12.1	8.2	***	(12.8)	10.3	11.4	(7.5)		10.5	3,056
Osteoporosis	(1.3)	6.1	***	2.2	4.4	13.7	***	2.7	6.1	***	(7.3)	3.9	(3.5)	(4.7)		4.1	3,088
Tuberculosis	6.9	3.7	***	4.4	6.0	(6.1)		5.6	4.3		(6.9)	5.6	(3.5)	(4.1)		5.0	3,077
Liver/gall bladder ailments	2.5	3.1		3.1	(3.2)	(0.9)		3.4	(2.1)	*	(2.9)	2.3	(3.4)	(4.7)		2.8	3,053
Glaucoma	(2.2)	2.7		1.8	(2.9)	(5.1)	***	2.0	3.1		(2.5)	2.6	(2.4)	(1.9)		2.5	3,012
Ever had a heart attack	4.9	3.0	*	3.3	4.9	(3.2)		4.3	3.1		(2.4)	3.8	(2.9)	(6.2)	*	3.8	3,106
Mean age experienced heart attack	63.12	64.05		58.40	68.63	70.38		63.22	64.25		68.32	64.84	62.41	58.37		63.55	105
Currently taking medicine for heart condition	69.8	59.6		73.1	(54.8)	(63.6)		69.1	(57.1)		(50.0)	62.7	(63.2)	(80.0)		64.8	105

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

Heart problems were more common among women than men (22% vs. 19%) and among the currently married than the not currently married (22% vs. 19%). There is no differential by age or by educational attainment. About 4 percent reported having ever experienced a heart attack, significantly more among men than women (5% vs. 3%). The mean age when the heart attack was reported to have happened is 64 years. There are no statistically significant differences by sex, age, marital status, and education in the mean age at heart attack. Of those who said they had a heart attack, only 65 percent reported currently taking medication for their heart condition. Only 10 percent of older Filipinos reported that they have diabetes, again more among women (11%) than among men (9%). The prevalence of self-reported diabetes is highest among the college educated (16%) and lowest among those with the least schooling (9%). Findings on the prevalence of the second group of diseases based on self-reports suggest that it may be better to conduct other studies on prevalence using other methodologies to validate the self-reported rates that we found. The data seem to support our original hypothesis that access to health care may bias self-reports toward higher prevalence of these diseases among the better educated and, by implication, those who are better able to secure a medical diagnosis. Socioeconomic status is related to almost all health outcomes; for instance, in the United States, people with less education have worse health outcomes, although the role of socioeconomic status in producing poor health outcomes appears to be smaller at the older ages than at earlier ages (Crimmins, Hayward, & Seeman, 2004).

### VISION

To assess vision among the Filipino older persons, we asked respondents whether they had vision in both eyes and loss of vision<sup>5</sup> in one or both eyes. We also asked about the use of eyeglasses and contact lenses and the quality of their vision (i.e., how well they can see with their own eyes or through their glasses/contact lenses).

A high 94 percent of older Filipinos have vision in both eyes (Table 5.3). Five percent have vision in one eye, and 1 percent have complete loss of vision. Of those who have vision, 57 percent wear corrective glasses or contact lenses. The proportion who wear eyeglasses/contact lenses decreases with age, from six in ten among the 60–69-year-olds to only four in ten among those aged 80 and over. This proportion increases with educational attainment. Among those with the lowest education, 37 percent wear eyeglasses; the corresponding proportion among the college educated is 83 percent. The differential by education may be yet another indicator of lack of access to medical care, in this case to assistive devices to improve one's vision. As to the age differential, there is a need to investigate the reason behind the observed age pattern in the use of corrective glasses in the further analysis of the 2007 PSOA. On the one hand, vision is known to deteriorate with increasing age, which should lead to greater use of corrective lenses. On the other hand, older people may be less engaged in activities that require good vision, such as reading; thus, they may have lower prevalence of use of corrective lenses even if their vision is poorer than that of the younger older persons.

<sup>5</sup> Loss of vision in a given eye means completely no vision in that eye.

Table 5.3. Vision of older persons  
by sex, age, marital status, and education

Vision indicators	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
% with vision in both eyes	93.2	94.4		95.3	93.8	87.2	***	94.5	93.1		88.8	94.4	94.8	92.2	***	93.9	3,103
% with loss of vision in one eye	5.7	4.7		4.1	5.3	9.9		4.8	5.5		7.3	4.7	4.5	(7.8)		5.1	3,103
% with loss of vision in both eyes	(1.2)	(0.8)		(0.6)	(0.9)	(2.9)		(0.6)	(1.4)		(3.9)	(0.9)	(0.7)	(0.0)		1.0	3,103
Among those with vision in at least one eye, % who wear eyeglasses/contact lenses	53.9	59.2	**	61.1	54.3	41.0	***	58.9	54.5	**	36.9	51.2	66.5	82.6	***	57.0	3,070

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

## HEARING

To assess hearing, we asked respondents whether they could hear in both ears, hear in one ear only, or not hear at all. As with vision, a high percentage (93%) reported that they can hear in both ears (Table 5.4). Six percent can hear in one ear, while 1.4 percent cannot hear at all. The proportion that can hear in both ears decreases significantly as age increases and as education level decreases. Of those who have hearing (both ears or one ear only), only 56 percent reported that they could hear very well, 32 percent can hear quite well, and 12 percent cannot hear too well. The proportion who cannot hear too well rises sharply with increasing age; at age 80+, one third of the Filipino older persons cannot hear too well. Across the education categories, this proportion is also highest among those with the least education at 19 percent.

## ORAL HEALTH

In most aging surveys that study health as a multidimensional construct, the state of oral health is often left out as a component. Yet poor oral health can also lead to negative health outcomes and affect the older person's quality of life, as it is associated with poor chewing ability, poor self-assessed quality of life, and higher risk of malnutrition. The risk of having poor oral health has also been found to be higher among some vulnerable groups including the older persons population and the poor (Petersen, Bourgeois, Ogawa, Estupian-Day, & Ndiaye, 2005).

In the PSOA, oral health was assessed using a number of measures: the number of remaining teeth, use of dentures, and chewing ability based on a scale developed for the study by our research collaborator from Nihon University. We also assessed oral hygiene practices such as making a dental visit in the past year and frequency of brushing teeth.

Table 5.5 presents the results of the oral health measures. Overall, older Filipinos have an average of 9.6 natural teeth.<sup>6</sup> The average number of teeth is higher among men (11.0) than women (8.6) and progressively decreases as age increases. There is no clear education-related pattern, although those with no education exhibited a significantly lower average remaining number of original teeth relative to their educated counterparts. To explain why the average number of natural teeth is low, one should recognize that this cohort spent their childhood and adult years at a time when dental care was not widely accessible and the common remedy for tooth decay was tooth extraction. In the absence of orthodontists, it was a common practice for people in this cohort to have teeth extracted and replaced by dentures, often for aesthetic reasons and not because the teeth were decayed. This explains why there is no education gradient in the average number of teeth.

About a third of the older persons reported that they have dentures, more among women (40%) than men (24%). But of those who have dentures, only 78 percent use them every time they eat. Overall, eight in ten of those who have dentures are satisfied with them. There is a clear education gradient in the proportion that have dentures in that the proportion

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<sup>6</sup> The normal number of adult teeth is 32. Having at least 20 remaining teeth at age 60 and higher is considered an indicator of good oral health (Chen, Andersen, Barmes, Leclercq, & Lyttle, 1997; Petersen & Yamamoto, 2005).



Table 5.4. Hearing of older persons  
by sex, age, marital status, and education

Hearing indicators	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases	
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+			Sig
% able to hear in both ears	92.5	92.7		95.0	92.2	80.6	***	93.9	91.0	**	86.3	92.6	93.6	94.1	***	92.6	3,103
% not able to hear in one ear	6.1	6.0		4.4	6.7	13.3		5.2	7.1		(7.3)	6.4	5.1	(5.6)		6.0	
% not able to hear in either ear	(1.3)	(1.4)		(0.6)	(1.1)	(6.1)		(1.0)	(2.0)		(6.3)	(1.1)	(1.3)	(0.3)		1.4	
Among those with hearing in at least one ear, how well R can hear							***			**					***		3,058
Very well	55.2	56.4		62.3	52.3	27.8		57.9	53.0		41.4	53.7	61.0	65.7		55.9	
Quite well	32.6	32.1		30.6	33.4	38.9		31.5	33.4		39.8	33.5	29.9	25.9		32.3	
Not too well	12.3	11.5		7.0	14.3	33.3		10.5	13.6		18.8	12.8	9.1	(8.4)		11.8	

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

increases monotonically with increasing education. About 58 percent among college-educated older people have dentures as compared to 18 percent among those with no schooling. Evidently, having dentures is related to the ability to pay for them—if we assume education to be a proxy for socioeconomic status.

More than having teeth or dentures, perhaps the more important factor to consider in oral health is how well a person eats given the current state of his/her oral health. To assess this, we asked respondents to indicate what types of food they are able to eat by specifying what types of food they can chew. We categorized food items on a scale of 1 to 5 according to their hardness as measured by an instrument developed by our Japanese colleague from the Nihon University School of Dentistry. The following are the categories:

- 1 - dried squid, *daing na bisugo*
- 2 - *dilis* (fried), fresh carrots, or *pilipit*
- 3 - *singkamas*, red tomato, or *nata de coco*
- 4 - rice, boiled string beans, or fried fish balls
- 5 - banana, ripe mango, boiled mungo, or hardboiled egg

Results of the study show the expected pattern in chewing ability across the studied sectors, with the males, younger cohort, currently married, and those with higher education displaying significantly better chewing ability. Almost two in three (64%) among the college educated say they are able to chew the hardest food group as compared to about 22 percent among those with no education (Table 5.5). The age gradient is also apparent, with half of those in their 60s able to chew the hardest food items, which is twice the level exhibited by those in the extreme old ages (80+). The observed differences in chewing ability for these groups are strongly related to the number of original teeth. This is clearly demonstrated in the education subgroups, with the college educated having 9.2 original teeth on the average as compared to seven for their counterparts with no education. Males have a little over two teeth more than their female counterparts, which could help explain why more of the former relative to the latter say they can still manage to chew on hard food.

Oral hygiene was assessed by asking for the frequency with which the older persons brushed their teeth/cleaned their dentures in a day. The standard for good oral hygiene is to brush at least twice a day. Results in Table 5.5 show that six in ten older persons adhere to the good practice of brushing at least twice a day. Significantly more women practice good oral hygiene. The practice is also more common among the younger older persons and decreases with age. More among the not currently married practice good oral hygiene. There is an observed steep education gradient in good oral hygiene practice. While 82 percent of the college educated brush their teeth at least twice a day, the corresponding proportion among the least educated is only 39 percent.

Another indicator of good oral hygiene is dental visits. Results show that overall performance in this indicator is poor, with only 17 percent of all older persons reporting to have visited the dentist at least once in the past year. The proportions are equally low for

Table 5.5. Oral health of older persons by sex, age, marital status, and education

Indicators of Oral Health	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
Mean no. of original teeth	11.0	8.6	***	11.3	7.9	4.7	***	10.4	8.5	***	7.0	9.7	10.4	9.2	*	9.6	2,941
% who have dentures	24.1	39.6	***	32.0	35.6	33.8		31.4	35.5	*	18.4	29.0	37.4	58.3	***	33.2	3,105
Among those who have dentures, % who always use dentures when they eat	76.1	78.8		80.2	75.8	72.4		79.2	76.7		86.8	77.6	78.8	76.6		78.0	1,027
Among those who have dentures, % who are satisfied with their dentures	82.7	83.3		82.1	84.2	85.7		85.2	80.9		88.9	81.6	85.7	82.9		83.2	1,008
Frequency of brushing teeth/cleaning dentures			***				***			***					***		2,744
Once a day or less	50.7	32.0		36.1	43.8	53.9		41.5	37.1		60.6	44.0	34.6	17.4		39.7	
Twice a day	30.7	32.1		33.3	29.8	23.9		33.4	28.8		28.4	31.8	30.1	34.5		31.5	
Thrice a day or more	18.6	35.9		30.6	26.5	22.2		25.0	34.0		(11.0)	24.2	35.2	48.1		28.7	
% who visited the dentist during the past year	16.5	17.1		18.0	16.2	11.9	*	18.1	15.2	*	(7.3)	13.6	21.9	30.8	***	16.8	3,103

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

men and women, across the age groups, and between the currently married and unmarried. But there is a distinct education differential, with the college educated showing the highest proportion who made a dental visit in the past year. Still, even for this group, the proportion remains quite low at only 31 percent.

### **SLEEP**

Sleep patterns tend to change in the older persons years. At this stage, many people find it harder to go to sleep and tend to awaken more often. Less time is spent in deep, dreamless sleep, and the transition from being asleep to being awake is often abrupt, which gives older people the feeling of being light sleepers (MedlinePlus, 2014). Many older people also suffer from a variety of medical and psychosocial problems that are often associated with sleep disturbances. Among these are psychiatric conditions, particularly depression, cardiovascular disease, upper airway disease, and arthritis (National Institutes of Health, 1990). The most common sleep-related problem of older people is insomnia. Another common problem associated with sleep and caused by an underlying medical condition is sleep apnea.

There are several measures of sleep patterns in the survey: average hours of nighttime sleep, napping, and sleep satisfaction. Table 5.6 shows that the average duration of nighttime sleep is 6.1 hours, with no significant differences by age, sex, marital status, and education. About eight in ten reported being satisfied with their sleep, significantly more among men (84%) than women (81%). About four in ten said they take naps regularly, with the mean duration of naps recorded at 52 minutes. Significantly more men (43%) than women (38%) said they take naps regularly. The proportion increases monotonically with age; among those aged 80+, 58 percent nap regularly compared with 36 percent among 60–69-year-olds. As to the mean duration of naps, men nap longer than women (56 vs. 48 minutes). The oldest respondents take the longest naps at an average of 70 minutes compared with 49 minutes among those aged 60–69 and 70–79. There is also an education gradient; the mean naptime decreases monotonically as education level increases. Among those with the lowest education, the average naptime is 61 minutes, while among the college educated, the corresponding average is only 46 minutes.

### **PAIN**

The experience of pain, especially if unalleviated, has a profound effect on one's quality of life. Older people may experience chronic pain more frequently than younger people because of health conditions that are more prevalent in the older persons years as part of the aging process (Helme & Gibson, 1999). In the previous section on self-reported illness, health conditions that are associated with pain, such as arthritis and chronic back pain, have the highest prevalence of all illnesses in the list. This implies that a substantial proportion of the older population have to deal with pain in their daily lives. In the survey, we asked

Table 5.6. Sleeping habits of older persons  
by sex, age, marital status, and education

Sleeping Habits	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/ preschool	Elem	HS	College+	Sig		
Mean no. of hours of sleep per night	6.08	6.11		6.06	6.15	6.22		6.15	6.03		6.04	6.03	6.24	6.26	6.10	3,076	
% who are satisfied with their sleep	84.3	81.1	*	82.3	82.0	84.1		82.7	82.1		82.7	82.7	80.4	85.1	82.4	3,047	
% who take naps regularly	43.4	37.8	***	36.4	41.1	57.8	***	38.7	42.0	*	38.3	40.1	38.7	44.5	40.1	3,103	
Mean duration of naps (in minutes)	55.8	48.4	***	48.8	49.1	70.3	***	51.7	51.6		61.0	52.2	49.9	46.3	51.7	2,361	

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

respondents about their experience with bodily aches and pains in the 30 days preceding the survey, what parts of the body were affected, and their assessment of the effect that pain had on their daily activities.

Table 5.7 shows that only 35 percent said they had not experienced any pain in the past 30 days. The remaining 65 percent had experienced pain in the 30 days prior to the survey. Of these, 34 percent experienced mild pain, 22 percent experienced moderate pain, and 8 percent experienced severe to extreme pain. There are no significant differences across sex and marital status, but the proportion who experienced pain varies significantly across age and education categories. Among those who experienced any pain in the past 30 days, 14 percent said pain affected their daily activities often or all the time, while 24 percent were affected sometimes. About six in ten of those who experienced pain were rarely or not at all affected by it in their daily activities.

The most commonly reported sites of pain are the joints of the legs (50%), lower back/hip/waist (37%), back (30%), shoulders (27%), and joints of the hands/arms (23%). This suggests that a great majority of chronic pain cases involve arthritis/rheumatism, a highly prevalent chronic condition among the older persons.

There are no notable differences in the experience of moderate, mild, and no pain across sex, age, and marital status. But for severe and extreme pain, there is a significant pattern by age and education. The proportion who reported experiencing severe to extreme pain increases with age; it is a high 15 percent among the oldest age group compared with only 5 percent among the young older persons. In contrast, the proportion experiencing severe to extreme pain decreases monotonically as education increases. Among those with no education, 14 percent experienced severe to extreme pain, decreasing to 4 percent among those with college education.

## DEPRESSION

The WHO (2015) estimates that about 350 million people in the world live with depression and that depression is the leading cause of disability worldwide. Depression often starts at a young age and more commonly affects women. But it is also common among older people, although it is not a normal part of aging. Often, depression in the older persons is an overlooked problem for a number of reasons. It may be triggered by life stresses that happen in the older years, such as the loss of a loved one or a job, where feelings of sadness or grief are not unexpected. Older adults may also be less willing to talk about their feelings or may manifest different symptoms from younger people. Depression is different from usual mood fluctuations and temporary low mood in response to the challenges of everyday life. People cannot “snap out of it” by going out with friends and family or doing other things to distract one from a depressed state. Especially when long lasting and with moderate or severe intensity, depression may become a serious health condition. Depression in younger ages is a known risk factor for suicide.

Table 5.7. Percent of older persons who experienced pain in the past month by sex, age, marital status, and education

Experience of Pain	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/ preschool	Elem	HS	College+	Sig		
Bodily aches/pains experienced in the past 30 days							***								***		3,014
None	36.5	33.9		35.8	34.7	31.2		34.9	35.1		39.3	34.4	31.6	43.3		35.0	
Mild	33.3	35.2		36.9	30.4	31.2		35.5	33.0		23.8	32.6	42.0	35.8		34.4	
Moderate	21.7	23.0		22.0	23.4	22.8		22.0	23.2		23.3	24.4	19.8	16.5		22.5	
Severe	7.0	6.6		4.2	10.1	12.4		6.1	7.5		(9.7)	7.3	6.1	(2.8)		6.7	
Extreme/Cannot function because of pain	(1.6)	(1.3)		(1.2)	(1.5)	(2.3)		(1.5)	(1.2)		(3.9)	(1.4)	(0.6)	(1.6)		1.4	
Among those who experienced bodily aches/pains in the past 30 days, % who said that pain affected their daily activities			*				**								***		1,975
Not at all	35.0	39.9		40.4	34.8	32.2		38.2	37.6		33.3	34.9	43.1	48.0		37.9	
Rarely	24.7	23.3		24.5	21.7	26.1		24.0	23.8		(12.8)	24.8	26.1	19.2		23.9	
Sometimes	24.9	23.3		22.0	28.9	22.6		23.9	24.0		35.9	24.4	19.7	24.3		24.0	
Often	10.0	10.6		9.8	10.6	(12.6)		9.7	11.2		(12.8)	12.1	7.4	(4.5)		10.3	
All the time	5.4	2.9		3.4	(3.9)	(6.5)		4.2	(3.4)		(5.1)	3.8	(3.6)	(4.0)		3.9	
Among those who experienced bodily aches/pains in the past 30 days, body parts that felt pain																	2,013
Lower back/ hip/ waist	39.0	36.2		36.3	35.9	45.6	*	36.6	38.3		30.3	41.6	30.0	31.7	***	37.3	
Head	7.3	10.6	*	8.9	10.9	(8.0)		9.0	9.6		(5.7)	9.3	11.6	(6.0)		9.3	
Joints of the legs	49.0	51.4		43.2	59.6	65.0	***	44.4	58.5	***	49.6	48.5	52.2	59.6	*	50.4	
Joints of the hands/arms	26.0	21.2	*	24.0	21.6	22.3		24.9	20.9	*	(13.8)	22.7	24.7	29.1	*	23.2	
Shoulders	31.7	23.3	***	27.9	26.1	21.8		29.7	22.6	***	24.6	28.3	27.3	(15.4)	**	26.7	
Back	29.8	30.6		32.6	26.4	28.3	*	31.9	28.2		39.3	33.6	25.1	(15.3)	***	30.3	
Neck	8.5	5.7	*	6.7	7.4	(5.9)		7.4	6.0		(7.3)	7.6	(5.3)	(5.5)		6.8	
Others	14.8	17.3		16.2	17.0	15.5		17.6	14.5		(18.7)	14.3	21.4	(14.8)	*	16.3	

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

In the 2007 PSOA, depression was measured using a short version of the 20-item Center for Epidemiologic Studies-Depression Scale (CES-D; Radloff, 1977). The CES-D is one of a number of depression scales used to screen for depression. Based on the population under study, an appropriate cut-off score is determined to distinguish those who are depressed from those who are not. However, these scales are not diagnostic tools. To confirm diagnosis of a person who is screened as potentially depressed based on a score at or above the cut-off, further evaluation by a licensed health practitioner using more stringent criteria such as the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) is required. The CES-D scale is normally used in community surveys to screen for possible depression and to identify those who may need further evaluation and help.

In general, the methodology for a validation study to arrive at an appropriate cut-off score for a population consists of administering the test to a sample with known disease status, using a gold standard such as psychiatric evaluation using DSM-IV criteria conducted by a licensed practitioner. The cut-off score is the score that minimizes the misclassification of people according to their true disease status and their status based on the scale. A scale has high sensitivity if a high proportion of those who truly have a disease also test positive on the scale, while a scale has high specificity if a high proportion of those who truly do not have a disease test negative on the scale. Misclassification occurs when those who truly have no disease test positive on the scale (false positive) or when those who truly have the disease test negative on the scale (false negative).

The 12-item version of the original CES-D has been tested and found as valid for depression screening as the 20-item version. A shorter version is preferred because administering the longer scale will take a considerable amount of interview time in the survey. The 12-item CES-D was also used in the Japanese and Singaporean surveys. The items are as follows:

1. My appetite was poor
2. I felt depressed
3. I felt that everything I did was an effort
4. My sleep was restless
5. I felt happy
6. I felt lonely
7. I felt that people were unfriendly
8. I enjoyed life
9. I felt sad
10. I felt that people disliked me
11. I could not get going
12. I felt hopeful about the future



Each item was read to the respondent, who was then asked if he/she felt that rarely/not at all, sometimes, or often. Responses were coded as 1, 2, and 3, respectively. The positively worded items (items 5, 8, and 12) were reverse coded. The possible score ranges from 12 to 33.

In a validation study using a Filipino sample of older persons who were administered the CES-D scale, some diagnosed by a licensed physician as either depressed or not depressed using DSM-IV criteria, the cut-off score that distinguished the depressed from the not depressed was 19, with a specificity of .85 and sensitivity of .95. Applying this cut-off to the PSOA respondents, we then classified the respondents into either depressed or not depressed based on their CES-D score. Those who scored 19 and above were classified as depressed; those who scored below 19 were classified as not depressed.

Table 5.8 presents the results of the CES-D depression scale. Overall, the mean score is 16.4 (range: 11–33). There are slight differences in the mean score by sex, age, marital status, and education. Women, the older older persons, the not currently married, and those with lower education have marginally higher means than their respective counterparts.

When we subsequently used the cut-off score of 19 to categorize older people into the depressed (score equal to or higher than the cut-off) and not depressed (score below 19), the differences across the control variables remained and were consistently in the same direction, but the differences became dramatically pronounced.

In general, based on this cut-off, 26 percent of older Filipinos are depressed. More women (29%) than men (24%) are depressed. Moreover, the proportion climbs dramatically as age increases; while 24 percent of the young older persons are depressed, the corresponding percent for those aged 80+ is 32 percent. Many more of the not currently married (30%) are depressed compared with the currently married (23%). The differences by education are even more striking. Among those with no education, more than a third (36%) are depressed. The percentage monotonically decreases as education increases and is only 12 percent among the college educated.

### **INCONTINENCE**

Although incontinence is not a disease in itself, it is caused by degenerative changes associated with aging, among other factors (Locher, Burgio, Goode, Roth, & Rodriguez, 2002; Nelson, Norton, Cautley, & Furner, 1995). Table 5.9 shows that the majority of older Filipinos (70%) do not suffer from loss of bladder or bowel control, 18 percent have loss of bladder control, 9 percent have loss of both bladder and bowel control, and 2 percent have loss of bowel control only. A higher proportion of women than men reported loss of both bladder and bowel control. There is also a distinct age gradient, with the proportions increasing with age, but no apparent pattern by education.

Table 5.8. Percent of older persons who are depressed  
by sex, age, marital status, and education

	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
% who are depressed	21.8	29.0	***	24.0	28.6	31.6	**	23.0	30.2	***	36.5	28.4	23.3	12.5	***	26.0	2,949
Mean depression score	16.0	16.7		16.2	16.8	17.1		16.1	16.9		17.2	16.7	16.1	15.0		16.4	2,951

Table 5.9. Percent who experience loss of bladder or bowel movement control  
by sex, age, marital status, and education

Percent who experience:	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
Loss of both bladder control and bowel movement	6.5	10.4	***	7.4	8.1	18.0	***	8.1	9.6	***	(10.7)	8.0	11.0	(6.9)	***	8.7	3,098
Loss of bladder control only	16.4	19.6		15.5	22.0	24.1		16.7	20.4		19.4	19.9	15.9	13.4		18.3	3,098
Loss of bowel movement control only	3.1	2.0		2.8	(1.4)	(3.5)		3.4	(1.3)		(2.4)	(1.5)	5.1	(2.5)		2.5	3,098
No loss of control	74.0	68.0		74.3	68.6	54.5		71.8	68.7		67.5	70.5	68.0	77.3		70.5	3,098

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

### FUNCTIONAL HEALTH

The functional criterion for defining old age health looks at the individual's ability or inability to perform the tasks and obligations of his/her usual roles and normal daily activities (Nagi, 1965). Physical functioning tasks are often classified as ADLs (Katz, Ford, Moskowitz, Jackson, & Jaffe, 1963), which include those necessary for personal care, or IADLs (Lawton & Brody, 1969), which are necessary to manage one's affairs and to live independently in a community. These indicators are based on self-reported assessment and have been widely used as an indicator of health in many studies on the older population (Crimmins, 1996). Conceptually, ADL and IADL are indicators of disability, since they measure the ability to provide personal hygiene and self-care such as bathing and toileting (ADLs) and basic activities necessary to reside independently in the community, such as marketing, housekeeping, and meal preparation (IADLs). In the study, we used three indicators to measure functional health: ability to perform physical tasks (Nagi, 1965), ability to perform ADLs, and ability to perform IADLs.

Katz and colleagues (1963) were the first to propose a set of ADL questions, which is now widely used in aging studies. In our survey, seven measures of ADLs were used: walk (around the house), eat, dress, take a bath/shower by oneself, use the toilet, stand up from a bed or chair/sit down on a chair, and go outside (leave the house). We asked if the respondent had any difficulty performing each of these ADLs by themselves due to their health or physical state. Those who experienced any difficulty were asked to assess further the level of difficulty (somewhat difficult, very difficult, unable to perform the activity).

Table 5.10 shows that 15 percent of older people have difficulty in performing at least one ADL. The proportion is higher among women (18%) than men (12%) and among the currently unmarried (20%) than the currently married (12%). There is a clear age pattern, with the proportion steadily rising as age increases. There is a dramatic rise to 39 percent among the 80+ compared with only 10 percent among the young older persons (60–69). Meanwhile, an inverse relationship is observed between the experience of ADL difficulty and education, with 10 percent of the college educated experiencing at least one ADL difficulty compared with 31 percent among those with no education. The activities that the highest proportion of the sample have difficulty performing are standing up from a bed/chair (10%) and going outside/leaving the house (about 10%). The activity that the lowest proportion have difficulty performing is eating by oneself (2%).

For IADLs, the items are as follows: prepare own meals; leave the home to purchase necessary items or medication; take care of financial matters such as paying utilities (e.g., electricity, water); use the telephone; dust, cleanup, and other light housework; take the bus or the jeepney or public transport to leave the home; and take medication as prescribed.

The set of IADLs used in the study are standard items used in the international literature. However, we recognize that these items may not necessarily apply to the Philippine setting,

Table 5.10. Percent who experience difficulty with activities of daily living (ADL)  
by sex, age, marital status, and education

Percent who experience difficulty with the ff. activities:	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
Take a bath/shower by oneself	4.9	7.2	*	2.9	7.1	22.0	**	4.5	8.6	**	(13.6)	5.7	6.2	(4.7)	**	6.2	3,105
Dress	5.0	5.0		3.1	5.7	13.9	**	4.6	5.6		(10.7)	4.3	5.9	(3.7)	**	5.0	3,105
Eat	2.5	1.8		(1.0)	(2.5)	(7.0)	**	2.0	2.3		(2.9)	1.8	(2.5)	(2.2)		2.1	3,105
Stand up from a bed/chair, sit down on a chair	7.8	11.9	**	6.8	12.7	22.3	**	8.2	12.7	**	16.5	10.1	10.3	(6.3)	*	10.2	3,102
Walk around the house	4.5	7.7	**	3.0	7.3	22.0	**	4.5	8.7	**	(10.7)	5.9	7.1	(4.7)	*	6.3	3,105
Go outside (leave the house)	7.1	11.5	**	5.6	9.5	32.5	**	6.8	13.4	**	22.0	9.2	8.8	(6.2)	**	9.7	3,098
Use the toilet	4.3	6.4	*	2.6	6.3	19.4	**	4.0	7.6	**	(11.4)	5.2	5.1	(4.4)	*	5.5	3,096
% who experienced at least one ADL difficulty	11.8	17.8	**	9.9	17.8	38.6	**	11.9	19.8	**	31.1	14.7	14.6	10.0	**	15.3	3,105

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

where independent living may not be the normatively accepted living arrangement for older Filipinos. Thus, the older person may not routinely perform these tasks even if he or she is fully functional, because others in the household will perform these tasks for him or her. Moreover, there may be gender roles that assign household tasks to females more than males, such as preparing meals or light housecleaning chores. Aware of the cultural setting, we exerted extra care in the data collection by instructing the interviewers to emphasize that the reference is to the older persons' difficulty in performing the task due to their health or physical state. We also added a response category, "do not perform activity due to another reason," to capture the possible cultural bias.

Since IADLs are more complicated tasks and thus harder to perform than ADLs, it is not surprising that there is a slightly higher percentage (19%) of older people who have difficulty performing at least one IADL. Similar to the pattern observed with ADLs, significantly higher proportions of females, the older cohort, those not currently married, and those with no education reported difficulty with at least one IADL (Table 5.11). The age gradient is particularly steep; while 12 percent of the 60–69-year-olds reported difficulty performing at least one IADL, the corresponding proportion for the 80+ is 49 percent. By far, the IADL that the highest proportion have difficulty performing is taking public transportation (jeep/bus) to leave the house. Considering that only 8 percent own a car/jeep and only 17 percent own a motorcycle, leaving the house using motorized transport presents a major limitation to one's mobility outside the home.

For the measures of physical ability, respondents were asked if they had difficulty performing the following activities alone without the assistance of a person or a physical prop: walk 200–300 meters, climb 10 steps without resting, stand (go without sitting) for two hours, continue to sit for two hours, stoop or bend your knees, raise hands above your head, extend arms out in front as if to shake hands, grasp with fingers or move fingers easily, lift an object weighing approximately 10 kilograms, and lift an object weighing approximately 5 kilograms.

Results in Table 5.12 show that at least half (55%) of all older people experience difficulty in any of the 10 physical activities, more among women (61%) than men (48%) and more among the not currently married (62%) than the currently married (50%). The proportion with any difficulty performing the physical activities increases monotonically with age (45% among those aged 60–69 vs. 86% among those aged 80+) but decreases monotonically with increasing level of education (72% among those with no education vs. 49% among the college educated). The activities that the highest proportion of the sample have difficulty performing are standing for two hours (35%), lifting a 10-kg object (32%), walking 200–300 meters, climbing 10 steps without stopping, and stooping/bending knees (all at 26%). The same pattern of relationship between the control variables and any experience of difficulty with the 10 activities is replicated for each activity.

Table 5.11. Percent who experience difficulty with instrumental activities of daily living (IADL)  
by sex, age, marital status, and education

Percent who experience difficulty with the ff. activities:	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
Prepare own meals	3.6	5.6	*	2.6	6.1	13.3	**	3.9	5.9	**	(1.5)	5.2	4.5	(5.0)	**	4.8	3,104
Leave home to purchase necessary items/medication	5.5	8.1	*	3.4	9.3	21.1	**	5.5	9.2	**	(9.8)	7.1	6.1	(7.2)	**	7.1	3,105
Take care of financial activities such as paying utilities	4.5	3.6	**	2.5	4.2	11.3	**	3.7	4.4	**	(1.5)	3.7	5.5	(4.4)	**	4.0	3,103
Use the telephone	(1.9)	(1.5)		(0.6)	(2.7)	(4.9)	**	(1.2)	2.3	**	(2.0)	1.7	(1.6)	(1.9)	**	1.7	3,082
Dust, clean up, other light housework	3.3	5.0	**	1.9	5.6	13.9	**	3.1	5.9	**	(2.4)	4.0	5.5	(4.4)	**	4.3	3,105
Take bus/jeep/public transport to leave home	12.0	17.4	**	9.2	18.4	39.4	**	12.4	18.9	**	19.6	15.4	13.4	14.2	**	15.2	3,099
Take medication as prescribed	3.7	4.4		2.1	4.0	15.6	**	3.0	5.6	**	(6.3)	4.5	(3.5)	(1.9)	**	4.1	3,100
% who experienced at least one IADL difficulty	16.0	20.9	**	11.5	22.8	49.1	**	15.9	22.9	**	26.7	18.6	18.3	16.8	*	18.9	3,105

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

Table 5.12. Percent who experience difficulty with activities requiring physical ability and agility (Nagi indicators) by sex, age, marital status, and education

Percent who experience difficulty with the ff. activities:	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
Walk 200 to 300 meters	20.6	30.4	***	17.9	31.9	58.9	***	22.3	31.7	***	40.5	26.2	25.1	20.6	***	26.3	3,096
Climb 10 steps without resting	19.0	31.1	***	18.7	30.8	55.2	***	22.8	30.5	***	39.9	26.5	24.6	18.4	***	26.1	3,066
Stand for 2 hours	31.6	38.1	***	26.4	43.9	63.3	***	31.3	40.9	***	48.5	36.0	31.0	32.8	***	35.4	3,053
Continue to sit for 2 hours	19.3	17.5		15.6	21.4	25.0	***	17.4	19.5		20.5	19.0	18.5	12.5	*	18.3	3,096
Stoop or bend knees	23.5	27.5	*	19.1	32.5	45.8	***	23.8	28.6	**	37.6	26.3	24.6	18.4	***	25.8	3,101
Raise hands above head	4.9	7.5	**	4.0	8.6	14.0	***	5.2	8.1	***	11.7	5.9	7.4	(4.0)	**	6.4	3,102
Extend arms out in front as if to shake hands	2.8	4.6	*	2.3	4.6	9.9	***	2.9	5.0	**	(5.8)	3.6	4.3	(2.8)		3.8	3,104
Grasp with fingers/ move fingers easily	4.7	5.9		4.8	5.5	8.7	*	4.7	6.4	*	(5.9)	5.7	5.3	(3.4)		5.4	3,102
Lift an object weighing approximately 10 kg	21.3	39.6	***	22.5	38.8	66.5	***	26.3	39.5	***	44.6	31.3	30.8	30.8	***	32.0	3,088
Lift an object weighing approximately 5 kg	10.6	21.2	***	9.9	19.6	47.5	***	11.8	23.6	***	23.0	15.2	17.7	19.9	**	16.8	3,078
% who experienced difficulty in performing any of the 10 activities	47.6	61.0	***	45.2	65.8	85.5	***	50.5	62.0	***	71.8	56.9	49.4	49.2	***	55.4	3,105

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

### ACTIVE LIFE EXPECTANCY<sup>7</sup>

This section discusses the health expectancy (HE) of older Filipinos based on their functional ability discussed in the previous section and the life table estimates for 2010. HE typically refers to the average number of years an individual can expect to live in a given health state (Mathers, Robine, & Wilkins, 1994) such as a state without disability or with disability, handicap, or any other form of impairment. HE broadens the conceptualization of health from a metric of length of life as a measure of health status to a quality-of-life perspective. The concept was first introduced in the 1960s by Sanders (1964) and Sullivan (1966) to help clarify questions on the true effect of the extensions in life. Developments in the demographic and epidemiologic transition, which have added more years to life, have brought about uncertainties about its effect on the level of health of the population. As infectious diseases, which were the main causes of death among the population, became less threatening and the proportion of people with chronic and degenerative diseases increased, life expectancy was not as tightly tied to health (Saito, Robine, & Crimmins, 2014). Some have argued that increasing life expectancy may ironically be producing “longer life and worsening health” (Verbrugge, 1984). Indeed, some studies have indicated that longer life expectancy does not mean healthier life (Crimmins, Hayward, & Saito, 1994; Robine, Romieu, & Michel, 2003).

Unlike life expectancy, which is purely based on mortality, HE combines the fundamental dimensions of health (mortality, morbidity, and disability) into a summary indicator to provide information on the length of life (adding years to life) and the healthfulness of life (adding life to years). Commonly used terms for healthy years are disability-free life expectancy, active life expectancy (ALE), healthy life years, and healthy life expectancy (Saito et al., 2014). ALE measures active or independent life and makes use of ADLs and IADLs as measures of health status (Katz et al., 1963; Lawton & Brody, 1969; Verbrugge & Jette, 1994).

One of the issues confronting the study of HE/ALE is the absence of a harmonized measure of health. Studies have used varied operational definitions of health, which makes comparison across areas and time problematic. The most commonly used measures of health in the study of HE include self-assessed health, diseases, conditions and impairments, limitation of activities, ADLs, IADLs, and the Washington Group (WG) short set of questions on disability (Madans, Loeb, & Altman, 2011; Madans et al., 2004) and the Global Activity Limitation Index (GALI; Robine & Jagger, 2003; Van Oyen et al., 2014). The WG short set of questions covers six functional domains or basic actions plus self-care: seeing, hearing, walking, cognition, self-care, and communication (Madans et al., 2011). GALI is also a measure of limitation developed by members of Euro-REVES (Saito et al., 2014). GALI measures “healthy life years” derived from the question “For the past six months at least, to what extent have you been limited because of a health problem in activities that people usually do?”

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<sup>7</sup> Some portions of the discussion on the literature and methods of active life expectancy were lifted from Cruz (2005).



The Sullivan method is the most common method of calculating ALE using single cross-sectional data. HE calculated by the Sullivan method is the number of remaining years, at a particular age, which an individual can expect to live in a healthy state (however health may be defined; Jagger, Van Oyen, & Robine, 2014). People of various ages are surveyed on their health status at a single date to obtain the prevalence of health status (active/inactive). Observed age-specific prevalence of health states in a population at that given point in time (“cross-sectional” prevalence) is then used to calculate the years of life lived in the various health states at each age by applying the prevalence rate to a period life table cohort (Robine & Mathers, 1993). The problem with the Sullivan measure is that it uses data that is dependent on past conditions of the population (Robine & Mathers, 1993) and does not produce a pure period indicator (Nusselder & Looman, 2004). Despite its limitations, the Sullivan method is more popular largely due to the greater availability of the type of data inputs it requires and the robust HE measures it produces under a relatively stable condition.

Another method for computing ALE is the multistate life table method (MSLT) developed in the 1970s (Rogers, 1975; Schoen, 1975; Schoen & Woodrow, 1980). The MSLT method uses longitudinal data and has the advantage of providing status-based transitions that take reversibility of disability into account. This means that in this method, people can move in and out of disability or unhealthy status, which is a more realistic approximation of what happens in real life. Thus, researchers can gain some sense of the health transitions experienced by people in the population. The MSLT is an incidence rate-based method and provides estimates of the years, on average, that an individual of a particular age can expect to spend in good and in poor health. The main methodological issue of the MSLT is its dependence on longitudinal data, which are scarce because they are difficult and expensive to collect.

In the Philippines, four explorations of HE have been done prior to the current study; these have mostly employed the Sullivan method. These studies include the inter-country comparison of HE using ADL indicators provided in the 1984 WHO data (Lamb, 1999), the self-assessed health measure using the 1996 PES (Ofstedal, Zimmer, Cruz, Chan, & Lin, 2002), and ALE using ADL and IADL from the 1996 PES and the 2000 Philippine Follow-Up Survey on the Elderly (Cruz, 2005). More recently, an ALE study was done using the disability measure collected in the 2010 Philippine census data (Abalos, 2014). All four studies made use of the prevalence-based Sullivan method to measure ALE. One study (Cruz, 2005) employed the MSLT using the panel data provided by the 2000 Philippine Follow-Up Survey on the Elderly.

To compute for the ALE using the survey findings, we used all six ADLs employed in the study (i.e., shower/bath, dress, eat, standing up from bed or chair, walk around the house, and toileting). We considered a respondent as having functional disability if he/she cannot perform any of the six self-care activities. Using this definition, at least 15 percent of older people have functional difficulty, with the level significantly higher among the females relative to the males (Table 5.10). The analysis also employed the 2010 life table estimates by sex.

Table 5.13 shows data on the number of years and the proportion of remaining life in an inactive state by age and sex using the Sullivan method. Results indicate that a considerable proportion of the older people's remaining life is actually lived in an inactive state, with a significant gender disparity. Females have an advantage in terms of the number of remaining years lived, but they experience greater years in an inactive state compared with the males. Results show that for all age groups, the older women exhibit more years in functional disability relative to the males. The proportion lived in disability is also consistently higher among the females relative to the males across all age groups. Sixty-year-old males, for example, can expect to live for 17 more years on the average compared to 20 years for females. However, the 60-year-old females can expect to live four years or a fifth of their remaining years in disability compared to 2.4 years or 14 percent for their male counterparts. The gender disparity in the relative proportion of life lived in disability becomes even more significant with advancing age, as shown by the widening gap with advancing age. The oldest males (85+) can expect to live a third of their remaining five years in an inactive state as compared to about 54 percent for the females who survive to the same age. Entering their eighth decade of life appears to be a threshold point for women, beyond which surviving women can expect a significantly higher level of health burden, as a great part of their remaining years will be lived in an unhealthy state. Data show that women who live to age 85 can expect to live more than

**Table 5.13. Healthy life expectancy  
by age and sex**

Age	Life expectancy	Remaining years lived in inactive state	% of remaining life lived in inactive state
<b>MALE</b>			
60	16.7	2.4	14.1
65	13.6	2.3	17.0
70	10.9	2.2	20.2
75	8.5	2.3	27.3
80	6.5	1.9	29.5
85	4.9	1.7	34.2
<b>FEMALE</b>			
60	20.4	4.1	20.1
65	16.6	3.9	23.5
70	13.1	3.7	27.9
75	10.0	3.2	31.5
80	7.3	3.2	43.0
85	5.2	2.8	53.5

Note: Based on 2010 life table estimates.

half of their average five remaining years in disability. The males are a bit better off, as those who survive to the same age will experience a relatively lower proportion of their years in functional disability.

The foregoing findings are consistent with what has long been established by gerontologists in advanced aging societies, namely that there are clear gender differentials, with the females experiencing fairly longer life expectancy than males but with males experiencing a proportionately higher disability-free life expectancy.

## HEALTH RISK BEHAVIORS

### Smoking

The adverse health outcomes associated with smoking are well documented in the literature. In this section, we present results on the smoking behaviors of the Filipino older persons, both in the past and at present. Table 5.14 shows that a little over half (53%) of older Filipinos have ever smoked. The proportion is disproportionately high among men (82%) compared with women (33%). More among the younger older persons (55%) than the oldest (47%) have ever smoked. The proportion that has ever smoked decreases with increasing education. Of those who have ever smoked, the mean age at which they started is much lower for men (19 years) than for women (27 years). There is an increasing mean age at start of smoking by age and by education. The currently married started smoking at a younger age (21 years) than the not currently married (23 years). Overall, Filipino older persons who have ever smoked started at a mean age of 22 years. The proportion who were current smokers at the time of the survey is much lower (26%) than the proportion who have ever smoked (53%). Evidently, as people age, many give up the habit. There remains a clear distinction by sex, with 38 percent of men compared with 18 percent of women currently smoking. The proportion currently smoking decreases with age and education. The mean number of sticks smoked per day is nine. It is higher for men (11 sticks) than women (5 sticks). The mean progressively decreases with age and increases with education. It is lowest among those with no education (6 sticks) and highest among the college educated (11), perhaps because they can better afford the habit.

### Drinking

Unlike smoking, the literature on alcohol does not paint a uniformly deleterious effect. Moderate alcohol intake is in fact associated with lower risk of heart disease (Stampfer, Colditz, Willett, Speizer, & Hennekens, 1988). In the PSOA, we asked respondents about their past and current drinking behavior, the age at which they started drinking, and the type and amount of alcohol that they usually consumed. Table 5.15 shows that 55 percent of older Filipinos said they had ever drunk, but only 28 percent are currently drinking. As with smoking, a much higher proportion of men (49%) than women (13%) currently drink.

Table 5.14. Percent of older persons who smoke cigarettes/cigars by sex, age, marital status, and education

Indicators of Smoking	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
% who ever smoked	81.5	33.1	***	54.6	52.6	46.8	*	59.1	45.3	***	62.1	56.2	48.8	39.6	***	53.2	3,103
Mean age started smoking (among current smokers)	18.7	27.0		21.4	23.3	22.9		21.2	23.1		19.7	21.5	22.9	25.4		22.0	791
% who are currently smoking	38.0	18.1	***	29.7	23.7	14.2	***	27.7	24.4	*	34.1	27.7	23.7	18.7	***	26.3	3,105
Mean no. of cigarettes/cigars smoked per day (among those who smoke)	11.6	5.3	***	10.4	6.7	3.5	***	10.6	6.7	***	5.9	9.1	9.9	10.7	*	9.1	809

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Table 5.15. Percent of older persons who drink alcohol by sex, age, marital status, and education

Indicators of Drinking of Alcoholic Beverages	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
% who have ever drunk alcohol	88.2	32.1	***	59.1	51.5	44.8	***	66.1	41.1	***	47.1	56.9	57.7	46.7	***	55.4	3,102
Mean age started drinking	20.1	38.3		24.5	27.1	23.4		23.3	29.4		23.1	24.3	25.7	28.5		25.0	842
% who are currently drinking alcohol	48.5	13.2	***	33.2	22.6	11.6	***	34.4	19.1	***	21.7	27.2	32.0	26.2	*	27.8	3,102
Frequency of drinking alcohol (among those who drink)			***												***		854
(Almost) everyday	19.7	(9.8)		16.4	19.6	(15.4)		18.0	14.9		(2.4)	18.7	19.4	(7.2)		17.0	
Every 2–3 days/once a week	32.6	22.6		31.2	25.8	(28.2)		31.1	26.9		(33.3)	32.7	23.4	(28.9)		29.8	
Once/twice a month or less	14.2	(8.9)		13.0	(12.4)	(10.3)		13.1	12.0		(31.0)	13.2	(9.0)	(10.8)		12.8	
Occasional	33.4	58.7		39.3	42.3	(46.2)		37.9	46.2		(33.3)	35.4	48.2	53.0		40.3	
Kind of alcohol most often drunk			***				*			***							863
Beer	40.8	40.6		43.7	34.7	24.4		42.6	36.2		(28.9)	35.8	45.0	65.5		40.7	
Wine	(1.3)	13.8		4.8	(4.6)	(4.9)		(3.1)	8.7		(0.0)	(3.7)	(7.7)	(6.0)		4.8	
Basi/tuba/lambanog	22.6	31.4		22.2	30.6	(39.0)		23.0	29.9		(31.1)	29.8	17.7	(11.9)		25.0	
Hard liquor	35.3	14.2		29.3	30.1	(31.7)		31.3	25.2		(40.0)	30.7	29.5	(16.7)		29.5	

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.  
Figures in parentheses are based on less than 30 cases.

Men started drinking at a mean age of 20; the corresponding age for women is 38. A third of the 60–69-year-olds currently drink, but this proportion decreases with age; at age 80+, only 12 percent currently drink. There is no clear pattern of difference by education. Among the currently married, 34 percent drink compared with only 19 percent among the not currently married. Many of those who currently drink are not regular drinkers; almost six out of ten women and one out of three men say they drink only occasionally. However, a considerable proportion also drink regularly. Among those who currently drink, 17 percent do so everyday and 30 percent do so at least once a week. Regular and frequent drinking is much more prevalent among men than among women. Like smoking, current drinkers have had a long exposure to alcohol. The mean age at which they started drinking is 25, with a distinct gender differential (mean age for men = 20; mean age for women = 38). Beer is the most common type of alcohol drunk by older Filipinos (41%), followed by hard liquor (30%) and native drinks such as *basi/tuba/lambanog* (25%). More men than women drink hard liquor (35% vs. 14%), while more women than men take native drinks (31% vs. 23%) and wine (14% vs. 1%). Beer is the most commonly consumed drink by the young older persons (44%), the currently married (43%), and the college educated (66%).

### LIFE SATISFACTION

Respondents were asked whether they are satisfied with their present life. Table 5.16 shows that older Filipinos tend to have an average self-assessment of their life satisfaction, with women showing slightly higher levels of satisfaction than men. The more highly educated also showed higher levels of satisfaction than the less educated. Slightly more than half (54%) of older Filipinos said they are somewhat satisfied with their lives, while about a third (34%) said they are very satisfied. About 12 percent said they are not satisfied, with the level higher among men than women (14% vs. 10%) and higher among the uneducated than the college educated (20% vs. 6%). There are no significant differences in life satisfaction by age group or marital status.

Most of the study respondents feel that they have strong psychological support from family, friends, other family members, and other social networks. About a third (38%) reported that their family, relatives, and friends listen to them a great deal whenever they need to talk to someone about their worries and problems (Table 5.16). Another third (35%) felt that others listen to them quite a bit, and another 13 percent said that others listen to them only sometimes or very little. Those who are currently married as well as those with college education feel they have better psychological support from their family and friends compared with their respective counterparts. No significant difference is noted across age and sex. A substantial proportion (12%) of older people said they just keep things to themselves, while another 1.7 percent did not feel that their family and friends are willing to listen to them whenever they feel the need to vent their problems.

Table 5.16. Life satisfaction of older persons  
by sex, age, marital status, and education

Life Satisfaction	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
Satisfaction with present life			**														2,967
Very satisfied	32.2	35.8		34.3	33.1	38.0		33.4	35.6		24.2	32.7	37.1	43.1		34.3	
Somewhat satisfied	53.7	54.1		54.0	54.8	50.4		55.0	52.3		56.2	56.6	47.5	51.1		53.9	
Not satisfied	14.1	10.2		11.6	12.1	11.6		11.6	12.1		19.7	10.7	15.5	(5.8)		11.8	
% who feel that their family, relatives, or friends are willing to listen when they need to talk about they worries or problems										**							2,911
A great deal	37.0	38.2		37.7	37.7	38.0		40.3	34.1		23.8	35.9	40.5	49.7		37.7	
Quite a bit	35.7	34.8		35.8	35.5	30.5		34.7	35.9		41.1	35.8	33.0	33.3		35.2	
Some/very little	12.6	13.9		13.3	13.0	14.7		12.1	15.1		(15.5)	14.2	12.2	9.8		13.4	
Not at all	(1.9)	(1.6)		(1.5)	(1.8)	(3.0)		(1.3)	(2.3)		(3.0)	1.9	(1.8)	(0.0)		1.7	
Keep to myself	12.8	11.5		11.7	12.1	13.0		11.6	12.6		(16.7)	12.2	12.5	(7.2)		12.0	

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

### ANTHROPOMETRIC MEASUREMENTS

A new approach in aging surveys is the inclusion of biological markers as part of the survey content. This represents a new trend in survey research where self-reports gathered from the interview are supplemented with more objective measurements of other relevant indicators. The 2007 PSOA is the first survey on a nationally representative sample to gather at the same time on the same study population anthropometric data that will further enhance our understanding of health in this population. Objective measures of height and weight, for instance, allow for the computation of the body mass index (BMI). Studies show that persons who are either underweight or overweight have substantially higher mortality risks than those in the normal weight range (Yuan, Ross, Gao, & Yu, 1998). In the same vein, short stature may indicate past nutritional deficiency that may well have long-term consequences extending to the older persons years. Waist circumference is an indicator of central obesity or central fat, which is strongly linked to diabetes, metabolic syndrome, and myocardial infarction or heart attack (Javier, 2007). Knee length is a good proxy indicator for height when it is difficult or not possible to measure height directly (Food and Nutrition Research Institute [FNRI], 1998), such as when an older person is non-ambulatory or may have posture problems that make it difficult to obtain accurate height data.

The following anthropometric data were gathered:

- standing height
- sitting height
- weight
- waist circumference
- knee length
- grip strength
- number of teeth
- blood pressure

We show results of the anthropometric measures separately for men and women.

#### Men

Older men have an average height of 159 centimeters, with a pattern of decreasing height with increasing age (Table 5.17). This pattern may be due to changing posture, shrinking of the discs of the spinal column, and diminution in the height of the vertebrae, all of which are associated with aging (FNRI, 1998). The decrease in height with increasing age is not as steep for knee length. The slight difference in knee length between the young older persons (60–69) and the oldest (80+) may be due to long-term trends of increasing height across the generations. There is a clear education gradient for standing and sitting height. In general, the better educated are significantly



Table 5.17a. Anthropometric measurements of older males  
by sex, age, marital status, and education

Anthropometric measurements	AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
Mean weight (kg)	58.0	54.9	51.5	***	57.3	54.6	***	53.6	55.0	60.2	61.7	***	56.7	1,179
Mean height (standing) (cm)	159.9	158.0	154.1	***	159.3	157.9	*	158.2	158.4	159.8	161.5	***	159.0	1,179
Mean height (sitting) (cm)	83.1	81.4	79.5	***	82.6	81.6	*	82.1	81.8	83.2	84.8	***	82.4	1,190
Mean waist circumference (cm)	82.0	81.0	80.5		81.9	80.7		79.1	80.0	84.5	86.6	***	81.6	1,193
Knee length from the ground/base (cm)	47.8	47.3	47.0	*	47.6	47.6		47.0	47.4	48.3	47.9	**	47.6	1,197
<b>BMI</b>												***		
Underweight	15.4	18.6	(16.7)		15.6	18.6		(22.2)	17.0	12.8	(16.5)		16.3	1,173
Normal	56.9	58.8	69.0		57.5	60.7		60.3	62.5	51.1	45.9		58.2	
Overweight	21.8	17.3	(9.5)		21.0	15.4		(15.9)	16.6	25.5	29.4		19.8	
Obese	6.0	5.3	(4.8)		5.8	(5.3)		(1.6)	(3.8)	(10.6)	(8.3)		5.7	
Mean BMI	22.7	22.0	21.7	**	22.6	21.9	*	21.4	21.9	23.5	23.7	***	22.4	1,179

Notes: \*\*\*p < .001.\*\*p < .01.\*p < .05.

Outliers in height (<115 and >183 cm) and weight (<30 and >96 kg) were not included in the computation of BMI.

Figures in parentheses are based on less than 30 cases.

Table 5.17b. Anthropometric measurements of older females  
by sex, age, marital status, and education

Anthropometric measurements	AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
Mean weight (kg)	51.8	47.4	44.4	***	51.0	48.6	***	46.0	49.0	50.9	53.6	***	49.7	1,611
Mean height (standing) (cm)	148.9	147.2	143.8	***	148.6	147.2	***	146.0	147.3	148.8	150.2	***	147.8	1,611
Mean height (sitting) (cm)	77.2	75.4	73.8	***	77.0	75.6	***	74.7	76.1	76.8	76.7	***	76.2	1,677
Mean waist circumference (cm)	83.6	81.9	81.2	*	83.2	82.4		80.0	82.2	83.4	86.5	***	82.7	1,680
Knee length from the ground/base (cm)	44.6	44.2	44.1	*	44.7	44.3	*	44.3	44.3	44.8	44.6		44.4	1,694
BMI				***								***		1,607
Underweight	14.8	23.0	24.3		16.2	19.8		28.8	19.6	13.3	(13.5)		18.2	
Normal	54.8	57.6	59.1		55.5	56.6		54.1	55.5	60.1	53.2		56.1	
Overweight	20.6	15.4	(14.9)		19.8	17.4		(11.7)	17.6	21.8	19.9		18.4	
Obese	9.8	(4.0)	(1.7)		8.5	6.3		(5.4)	7.3	(4.8)	(13.5)		7.2	
Mean BMI	23.4	21.8	21.5	***	23.0	22.4	**	21.5	22.6	22.9	23.7	***	22.7	1,611

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Outliers in height (<115 and >183 cm) and weight (<30 and >96 kg) were not included in the computation of BMI.

Figures in parentheses are based on less than 30 cases.

taller than those with the lowest education. However, no such education gradient is observed for knee length.

The average weight is 56.7 kilograms, while the mean waist circumference is 81.6 centimeters (32 inches). As with height, there is also a pattern of decreasing weight as age increases, but no such pattern is observed for waist circumference. As with height, there is a clear education gradient for both weight and waist circumference, which increase monotonically as education increases.

Combining weight and height into the BMI, results in Table 5.17 show that the majority of older men (58%) are within the normal BMI range, while 16 percent are underweight. Meanwhile, one in four older men have a BMI above the normal range; about 20 percent are overweight, and a small minority (5.7%) is obese.

The proportion with normal BMI is highest among the oldest group and lowest among the young older persons, who also have the highest proportion that are overweight. The education pattern shows a decreasing proportion with normal BMI as education increases and a corresponding rise in the proportion overweight. This suggests that increasing affluence as proxied by educational attainment may be associated with less healthy outcomes, possibly due to a more unhealthy diet among the better educated.

### **Women**

The average height of older women is 147.8 centimeters (or less than 5 feet). In general, the same pattern of differences across the control variables of age, education, and marital status observed in men are true of women as well. Average sitting and standing height decrease steeply as age increases, but knee length differences are not so marked. The mean weight is 49.7 kilograms, while the mean waist circumference is 82.7 centimeters; both measures decline as age increases but increase with rising education level (Table 5.17b).

While the general distribution of women across the range of BMI categories mirrors that of the men, there are some differences in the proportion within each category. For example, while the majority of both men and women have a BMI within the normal range, the proportion with normal BMI is somewhat higher for men (58%) than for women (56%). More women than men are underweight (18% vs. 16%) and more men than women are overweight (20% vs. 18%). However, more women than men are obese (7% vs. 6%).

## HEALTH CARE AND HEALTH UTILIZATION

### Informal care

As health problems begin to increase in prevalence in the older persons years, one of the salient issues that need to be addressed is the access to health care. There are two possible sources of health care. When people feel ill, they do not necessarily seek formal care right away; even when they are under formal care, they may still seek help from others when they are sick. In the survey, we first asked about informal health care by asking the respondent the question “Whenever you get sick, who usually takes care of you?” The question was left open ended. Respondents were free to name anyone but were asked to state that person’s sex and their relationship to that person. Results are shown in Table 5.18.

The older person’s children were the most commonly identified caregivers in times of illness (48%), followed by the spouse (35%). Only 14 percent said that other relatives take care of them, while less than 2 percent said no one takes care of them when they are sick. An even lower proportion (1%) said non-relatives care for them.

For men, 64 percent said it is their spouse who takes care of them; the corresponding proportion for women is only 15 percent, partly because there is a higher proportion of widows than widowers. While the spouse is the usual carer for men, a child is the usual carer for women. More women also mentioned other relatives as carers. There is a decreasing proportion relying on a spouse for care with increasing age, which is partly attributed to rising widowhood with age for both men and women. There are no specific patterns of difference by education.

In all, the main caregivers of older persons in times of illness are children, the spouse, and other relatives, in decreasing order. This indicates that older Filipinos mainly rely on family for their informal care.

### Formal care

For formal care, we asked about two types of health care utilization: (1) inpatient care or care in a hospital or health facility for at least one overnight stay and (2) outpatient care or care that does not require an overnight stay.

*Inpatient care utilization.* In all, 16 percent of the older persons reported having stayed at least overnight in a health facility because of an illness or accident in the year preceding the survey. About half of those who sought inpatient care (52%) went to a public health facility, most commonly a provincial/city hospital (27%) or less frequently a district hospital (18%) or a national/regional hospital (8%). A little over four in ten of the hospitalized went to a private facility (Table 5.19).

There are no significant differences in the proportion hospitalized by sex, marital status, and education, but there is a distinct age gradient. The prevalence of

Table 5.18. Person who usually takes care of older person when he/she is sick by sex, age, marital status, and education

Person who usually takes care of older person	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases	
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+			Sig
Spouse	64.0	14.8	***	42.3	29.2	14.0	***	59.8	(1.9)	***	29.1	35.1	37.4	36.9	***	35.4	2,914
Children	27.9	62.5		45.3	49.4	58.8		34.0	67.1		52.0	49.7	43.4	44.6		48.0	
Other relatives	6.7	19.2		10.3	18.9	21.5		5.3	25.8		16.8	13.1	16.6	11.4		14.0	
Non-relatives	(0.4)	(1.5)		(0.5)	(1.0)	(3.9)		(0.1)	(2.3)		(0.0)	(0.7)	(0.6)	(4.7)		(1.0)	
None	(1.0)	2.1		(1.6)	(1.5)	(1.8)		(0.7)	2.9		(2.0)	(1.4)	(2.0)	(2.3)		1.6	

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

Table 5.19. Inpatient utilization of older persons  
by sex, age, marital status, and education

Inpatient utilization	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
% who stayed overnight in a hospital/other medical facility in the past year because of an illness/accident	15.7	16.8		15.4	16.6	20.9	*	16.7	15.9		(14.1)	16.4	16.3	18.1		16.4	3,100
Mean number of times stayed at least overnight in a hospital	1.40	1.40		1.45	1.49	1.41		1.43	1.35		1.70	1.45	1.26	1.26	*	1.40	497
Type of facility used the last time hospitalized										***					***		506
Private hospital	44.1	38.7		43.6	38.5	(34.7)		45.8	34.1		(31.0)	37.8	43.4	55.9		40.9	
Provincial/city hospital	23.3	29.2		23.4	31.5	(33.3)		19.3	37.4		(17.2)	27.0	28.3	(27.1)		26.9	
Municipal/district hospital	18.3	17.0		17.9	(15.4)	(20.8)		19.3	15.2		(17.2)	23.1	(8.0)	(8.5)		17.6	
Public/national/regional hospital	(5.4)	9.8		(7.2)	(9.8)	(6.9)		(7.5)	(8.5)		(27.6)	(6.8)	(8.8)	(3.4)		8.0	
Others (private clinic, public specialty hospital)	(8.9)	(5.2)		(7.9)	(4.9)	(4.2)		(8.1)	(4.7)		(6.9)	(5.2)	(11.5)	(5.1)		6.6	
Who paid the most for the hospitalization			***				***			***					***		
Respondent	32.3	19.7		31.6	(14.4)	(17.8)		27.3	21.0		(10.7)	23.1	(23.2)	(43.1)		24.7	508
Spouse	(8.0)	(4.6)		(6.9)	(2.7)	(11.0)		(9.8)	(1.0)		(0.0)	(4.5)	(8.9)	(10.3)		6.1	508
Children	55.2	65.5		53.3	76.0	61.6		57.2	66.7		(82.1)	63.0	64.3	(37.9)		61.2	508
Others (relatives, friends, pension, etc.)	(4.5)	10.2		(8.2)	(6.8)	(9.6)		(5.7)	(11.4)		(7.1)	(9.4)	(3.6)	(8.6)		8.0	508
% who availed of PhilHealth benefits	49.0	44.3		46.4	45.5	45.8	***	44.8	47.9		(24.1)	42.2	48.2	72.9	***	46.2	508
As a member	23.3	18.7		25.0	(16.6)	(11.3)		20.1	21.3		(3.4)	12.3	29.5	55.9		20.6	
As a dependent	25.7	25.6		21.2	29.0	(35.2)		24.8	26.5		(24.1)	29.9	(18.8)	(16.9)		25.6	
% who availed of other medical/health insurance aside from PhilHealth	(3.5)	(4.3)		(3.5)	(4.9)	(4.4)		(3.1)	(5.8)		(0.0)	(2.6)	(2.7)	(15.5)	***	4.0	499
% who availed of discounts for the elderly for medical expenses	45.6	41.4		36.1	56.8	(43.1)	***	43.7	41.6		(46.4)	41.3	36.9	60.7	*	43.0	488

Notes: \*\*\*p &lt; .001. \*\*p &lt; .01. \*p &lt; .05.

Figures in parentheses are based on less than 30 cases.

hospitalization is highest among those aged 80+ at 21 percent. The mean length of hospital stay is 1.4 days.

For six out of ten hospitalized older Filipinos, the person/s who paid the most for the hospital confinement was the child/children; for one in four hospitalized, it was the older person himself/herself who shouldered the hospital bills. More males (32%) than females (20%) paid most of the hospital cost themselves, more so among the younger older persons (32%).

Among the hospitalized, less than half availed of PhilHealth benefits (46%); of these, one in five availed of PhilHealth benefits as a member while one in four availed of PhilHealth benefits as a dependent. The proportion who availed of PhilHealth benefits as a member increases significantly with increasing education (3% among those with no schooling vs. 56% of those with college education), while the proportion who availed as a dependent decreases with increasing education. Accessing PhilHealth benefits as a member is more common among the young older persons. With advancing age, more avail of benefits as a PhilHealth dependent. Only 43 percent of the hospitalized said they availed of discounts for the older persons for their medical expenses during their confinement.

*Outpatient care utilization.* A higher proportion of older Filipinos received outpatient care (43%) than inpatient care (16%) in the year preceding the survey (Table 5.20). By far, the most commonly consulted health practitioner was a physician (94%). Still, it cannot be presumed that those who said they sought outpatient care represent all those who needed health care. There are deterrents to health seeking that can prevent older people who are truly sick from seeking medical care. This is referred to as an unmet need for health care (Ofstedal & Natividad, 2002), a concept that is borrowed from the family planning literature (United Nations, 2014). Older persons are defined as having an unmet need for health care if they say they have felt ill and thought about going to the doctor but did not. They are then asked to give the main reason for not having sought health care. These reasons are classified into financial constraints and mobility constraints.

Of all the reasons given for having an unmet need for health care, what stands out is financial constraint. Clearly, the issue of out-of-pocket cost for medical care is the main reason why older people do not seek treatment even if they feel sick enough to want to see a doctor. Curiously, unmet need due to financial constraints is highest among those with mid-level education (elementary and high school) but lower among both the least and the most educated. On the other hand, unmet need due to financial constraints increases monotonically with age (Table 5.21).

### **Health insurance**

In all, only 15 percent of older Filipinos have health insurance, mostly PhilHealth (88%). A small 7 percent of the insured have private health insurance, while about 5 percent have health insurance from other providers such as SSS, GSIS, and employee compensation. More men than women (19% vs. 12%) have health insurance, although the level remains low (Table 5.22). The proportion with health insurance decreases with

Table 5.20. Outpatient utilization of older persons  
by sex, age, marital status, and education

Outpatient utilization	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
% who received medical care for an illness/accident from any medical facility/practitioner without staying overnight	42.1	44.2		42.2	46.2	42.5		46.6	39.0	***	35.0	41.5	47.4	50.5	***	43.3	3,104
% who saw a doctor most often for their health problems in the past year	94.6	94.1		93.7	95.3	95.2		95.2	93.2		91.7	92.4	97.9	98.8	*	94.4	1,335

Notes: \*\*\*p &lt; .001. \*\*p &lt; .01. \*p &lt; .05.



Table 5.21. Unmet need for health care among older persons by sex, age, marital status, and education

Unmet need for health care	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases	
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+			Sig
% who felt ill and thought about seeing a doctor but did not in the past year	32.5	34.8		35.8	32.3	26.6	**	33.9	33.7		24.5	35.2	36.0	26.9	***	33.8	3,097
% who felt ill and thought about seeing a doctor but did not in the past year due to financial reason	22.8	24.0		24.9	22.8	17.9	*	23.3	23.8		17.5	25.7	23.4	14.6	***	23.5	3,105

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Table 5.22. Health insurance coverage of older persons by sex, age, marital status, and education

Health insurance coverage	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases	
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+			Sig
% who have health insurance	19.4	12.4	***	16.9	14.2	9.6	**	17.0	13.1	**	(3.9)	9.6	18.5	49.5	***	15.3	3,102
Type of health insurance																	
PhilHealth	87.9	88.4		89.2	86.3	(81.3)		87.6	89.1		(100.0)	87.2	88.9	88.1		88.0	2,632
Private health insurance	(6.0)	(8.9)		(7.6)	(7.3)	(9.4)		(7.7)	(6.9)		(0.0)	(8.9)	(7.1)	(6.3)		7.4	2,632
Others (e.g., GSIS, SSS, employees' compensation)	(6.0)	(2.7)		(3.2)	(6.5)	(9.4)		(4.7)	(4.0)		(0.0)	(3.9)	(4.0)	(5.7)		4.6	2,632

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

age. The very low coverage in the oldest age group is partly because health insurance through Medicare was only introduced in 1969, so this cohort may not have been covered by that scheme when they were still active in the labor force. The picture is likely to change with succeeding cohorts of older persons when current PhilHealth reforms start to take effect in the older ages.

Not surprisingly, a relatively high proportion (50%) of the college educated have health insurance coverage compared with only 4 percent among the least educated.

Health insurance in the older persons years is a very important concern for this segment of the population and their families, as this is the time of life when health care costs begin to rise. The low insurance coverage implies that older persons will then have to rely on out-of-pocket spending. Findings cited elsewhere in this report point to children as disproportionately bearing the cost of health care for aging parents.

#### Box 2: Snapshots of the Filipino Older Persons

### GROWING OLD TOGETHER: The Balaoro Twins of Abra

IN THIS COUNTRY, where life expectancy at birth for females born in 2005–2010 is 72 years, it is a great feat to surpass that threshold especially if you were born a century ago—what more if two of you share such an achievement, as in the case of twin sisters Rachel and Rebecca.

While they came from the same womb on the same day 101 years ago, they treaded different life paths. Right after birth, the twins were separated from each other, with Rebecca being given up for adoption to an uncle. This decision was based on a local belief that twins will have a better chance of surviving if they do not grow up together. They grew up believing they were cousins, and it was only when they were adults that they came to know of their real relationship.

Rachel described their initial differences as follows: “I grew up with our parents. They did not have any more children after we were born, so I was exposed to all kinds of household chores, while Rebecca was spoiled by my uncle and aunt.”



The twin sisters

Rebecca was only able to finish high school, and she got married soon after. Rachel was wed a few years later, but she was able to continue her tertiary studies, first at the University of Cebu in the province where her husband was assigned, and later at the Far Eastern University, where she finished her course in elementary education at the age of about 25. She already had three children by the time she finished college. She even managed to teach for more than a year in a rural elementary school in Abra after graduating, but her husband cut her professional career short and called her to live with him in Quezon City, where he was stationed at that time. Her husband also wanted to take advantage of a government housing program in Project 2, Quezon City. Unfortunately, he got sick and died in 1961 at the age of 48 before they could complete the payment of the house.

Rebecca, on the other hand, moved to Cebu with her husband. According to Rachel, her twin sister could not get pregnant and soon split up with her husband. She later came to Manila and stayed at the house of her uncle working in the United States, the one who raised her as his own child. Unfortunately, the uncle died, and his wife took another husband. But Rebecca maintained a good relationship with her aunt's children from that second family. "She is closer to them than to us," said Rachel. But fate would allow the two sisters to cross each other's paths again. Rebecca's relatives from her aunt's side also live in Project 2, close to Rachel's family.

When Rachel's husband died, they had to sell their house and move to a smaller place. The children would eventually have their own families; her eldest, now 81, got married at 18 and now lives with her husband in another part of Quezon City. She has four children, two of whom are living in the United States. The second one died last year at the age of 78. He left behind two children, one working for the U.S. Navy and the other living next door to Rachel. The latter is the one taking care of her. The youngest, also a son, lives in Zamboanga. He has seven children.

Rebecca used to stay with a niece and her family but eventually moved in with Rachel. At 101, Rebecca is currently bedridden due to stomach ulcer. She is also becoming senile ("*nag-uulyanin na*"), according to Rachel, so they lock her room to prevent curious neighbors from entering and asking many questions, which would tire her.

The sisters live in a house that is no more than a shanty, with two small rooms and an attic with steep steps. They have their own spaces, with Rebecca staying in the room fronting the street, which also doubled as her sari-sari store when she was still healthy and able, and Rachel staying in the room at the back. There, Rachel has her two sewing machines, one of which her husband bought before the war. She claims that she still sews and cooks food, which she sells to her neighbors. This is how she keeps herself busy and earns a little money for her food.

Rebecca has been receiving the government's social pension for the elderly, a meager PhP500.00 per month or US\$11.2 given quarterly. Meanwhile, Rachel lives on her husband's pension as war veteran. Her children and grandchildren also provide for her. Her granddaughter-in-law is a doctor and regularly checks on them and their medical needs. But while the twins can easily receive support from their grandchildren, they do not wish to be spoiled or demand too much.

Rachel is still strong for her age, even if she has undergone a number of operations. In 1963, two years after her husband died, doctors removed one of her breasts due to a cancerous growth, as well as her goiter. Thirteen years after, her gallbladder was also removed. She claims she can still see clearly, but her hearing has already failed her. Curious, I asked Rachel about her secret to a long and healthy life. She paused for a while and then replied that it is constant prayer before sleeping at night and after waking in the morning that has kept her healthy for so long. "I always thank God for my good health," she emphasized. I asked her whether she had any vices, and she said that she drank softdrinks regularly decades back until doctors removed her gallbladder. She has never touched tobacco or alcohol. Her longevity could be genetic, as there seems to be a clustering of longevity in her family. Their grandfather reached the age of 110, while their father was around 91 when he died. Their mother also died late in life.

Further probing on the current health of the twins showed a contrast in their lifestyle and diet. First, as Rachel narrated, she was very outgoing in her youth and often roamed around with her friends, of which she had many. On the contrary, Rebecca was more of an indoor person, preferring to head straight home after school. According to Rachel, her sister had no best friends. Second, food may have also played a role in the current health status of the two. Rachel was and still is the epitome of the Ilokano who chomps on green leafy vegetables and on generally healthy food that is cheap and readily accessible. Rebecca had more selective gastric preferences and favored processed food, meats, and shrimps. Even their choices of fruits diverged, as Rebecca was inclined toward imported ones like grapes and apples, while Rachel feasted on local fruits like soursop and mango. Currently, Rachel cooks her own food because she does not like the food prepared by her daughter-in-law or her grandchildren next door. Rachel also prepares food for Rebecca. Rachel explained that Rebecca's stay in their uncle's house somehow contributed to the latter's being choosy about food. While their uncle was still alive, he kept on sending remittances, and the house was a picture of abundance. Unfortunately, the uncle died, which cut off their source of income.



## CHAPTER 6

# *Living Arrangement*

THE TRADITIONAL SYSTEM OF SOCIAL SUPPORT for older persons in most developing countries in Asia is anchored on living arrangements for the older persons that are based on coresidence with adult children (Knodel & Ofstedal, 2002). Therefore, studies on aging in Asia often focus on the analysis of living arrangements, as this also gives insight into the social, economic, and emotional support that older persons traditionally rely on at this life stage. Data from past surveys on aging in the Philippines show that the most common living arrangement is coresidence with children. Unlike in developed countries where older persons couples are in an empty nest stage with all adult children living outside the parents' home, the prevalent form of living arrangement in the Philippines has consistently been coresidence with a child. In the 1984 WHO multi-country study on aging, 79 percent of the older persons were in a coresident living arrangement (Martin, 1989). In the 1996 PES, 69 percent were living with a child (Natividad & Cruz, 1997). Because the 1984 survey was not a nationally representative sample, one cannot infer a trend when comparing the results with that of the 1996 PES. In the 1984 WHO survey, only 2 percent were found to be living alone; in the 1996 PES, the proportion living alone was 5.5 percent. The living arrangement of older Filipinos as reported in the 2007 PSOA is presented in Table 6.1.

The PSOA findings are generally consistent with past surveys in that they show coresidence with children as the predominant living arrangement of older Filipinos. In all, 71 percent reported that they are coresiding with a child (regardless of whether the spouse or other relatives are also in the household).

Breaking down coresidence with a child into the marital status of the coresident children, Table 6.1 shows that more men, the younger older persons, the currently married, and those with higher education live with unmarried children (regardless of whether the spouse or others are present), while more women, the older elderly, the not currently married, and those with lower education live with married children (again, regardless of whether the spouse or others are present).

Table 6.1. Living arrangement of older persons  
by sex, age, marital status, and education

Living arrangement	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases	
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+			Sig
Living alone	3.3	5.3	***	3.1	6.8	5.7	***	0.3	10.0	***	2.9	5.7	2.2	2.8	***	4.5	139
Living with spouse only	9.9	6.8		8.4	8.4	5.7		14.1	0.2		6.3	8.0	9.7	6.5		8.1	252
Living with others only excluding spouse or children	4.8	13.7		7.2	14.2	15.0		0.7	22.6		14.1	8.4	13.4	9.4		10.0	311
Living with single but no ever married children (regardless of whether spouse or others are present)	33.2	23.6		30.9	21.9	23.7		34.8	18.0		23.8	27.6	27.0	31.3		27.6	856
Living with one or more ever married children only (regardless of whether spouse or others are present)	21.5	30.6		23.7	30.1	36.1		20.6	35.2		39.8	26.9	24.6	23.4		26.8	834
Living with never and ever married children (regardless of whether spouse or others are present)	18.8	15.1		20.4	10.9	10.4		18.7	13.8		8.7	17.3	15.9	19.4		16.6	516
Living with spouse and others	8.5	4.8		6.3	7.7	3.2		10.8	0.3		4.4	6.1	7.2	7.2		6.3	197
N of cases	1,288	1,816		1,886	872	348		1,775	1,330		205	1,886	692	321		100.0	3,105

Notes: \*\*\*p &lt; .001. \*\*p &lt; .01. \*p &lt; .05.

<sup>a</sup>Includes the following: living with children with unknown marital status and living with spouse and other persons.

In all, only 4.5 percent live alone, while 10 percent live with others only (no spouse or children). More women than men live alone, while more men live with their spouse only in a two-person household—a differential that is partly accounted for by the lower life expectancy of men resulting in more widows than widowers. Among the not currently married, one in ten live alone. Not all those who live alone are completely isolated from their children, as findings show that around 66 percent among those who live alone have at least one child living next door or in the same barangay (data not shown).

The 10 percent who live with others (no spouse or children) are predominantly women and not currently married. More of them are in the older age groups (70–79 and 80+). Older persons who are not coresiding with any child are not necessarily deprived of the potential support from absent children in the household. In Table 6.2, we present the place of residence of the nearest noncoresident child.

It is evident in Table 6.2 that the older person's noncoresident children are mostly within easy reach even if they live apart from their parents. For over half of the older persons (58%), the nearest noncoresident child lives either next door or within the same barangay. Having a child live next door is almost equivalent to coresidence. This degree of proximity is most common among those with the lowest education and least common among the college educated, with a consistent education gradient. Noncoresident children of the college educated tend to live farther away from their parents. For about 9 percent of the college educated, the nearest coresident child lives abroad.

### PERCEIVED BEST LIVING ARRANGEMENT

Generally, high levels of coresidence with an adult child characterize the current living arrangement of older persons Filipinos. But is this the best living arrangement for older people from their own point of view? To explore this point, we asked respondents what they thought would be the best living arrangement for four categories of older persons based on sex and/or marital status, namely, an older couple, a widow, a widower, and the never married. Quite unexpectedly, the pattern of responses does not coincide with the prevalent patterns of actual living arrangements. For older couples, the best living arrangement in the opinion of the older persons is either to live by themselves or to live by themselves but near one or more children (Table 6.3). Living with a child is only third in frequency. Living alone was most commonly chosen by the least educated; those with the highest education most commonly chose living alone but near a child. More among the younger older persons chose living alone or alone but near a child, whereas more among the 80+ chose living with a child.

For widows and widowers, the most commonly chosen best living arrangement is to live with a child, but this is by no means the unanimous choice. In fact, less than half chose this as the best option for widows and widowers. About one in four said that the best

Table 6.2. Place of residence of nearest noncoresident child  
by sex, age, marital status, and education

Place of residence of nearest noncoresident child	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases	
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/ preschool	Elem	HS	College+			Sig
No noncoresident children	11.6	11.2		12.4	10.4	8.7	***	8.1	15.8	***	8.3	9.0	11.7	26.9	***	11.4	352
Next door	32.9	36.4		31.8	40.7	37.0		36.3	33.1		51.7	39.2	26.1	18.1		35.0	1,080
Same barangay	22.5	23.9		20.5	26.2	31.5		23.7	22.7		23.4	26.3	20.9	10.9		23.3	721
Same city/province	18.6	16.1		20.0	12.4	13.6		18.5	15.3		9.3	15.2	21.1	25.3		17.2	530
Outside province	11.7	10.0		12.3	8.4	7.8		10.8	10.6		7.3	9.2	16.0	10.0		10.7	330
Abroad	2.7	2.4		3.0	1.8	1.4		2.5	2.5		0.0	1.1	4.2	8.8		2.5	77
N of cases	1283	1807		1875	869	346		1765	1325		205	1872	693	320		100.0	3,090

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.



living arrangement is to live alone but near a child. A not negligible proportion think that widows and widowers would best live alone. More women think the best living arrangement for a widow is to live alone or alone but near a child. As to education, there is a decreasing proportion with increasing education who think widows would best live alone, but an increasing proportion with increasing education who think widows would best live alone but near a child. The same response pattern is duplicated for widowers.

In some Asian cultures, notably those with Confucian roots, there is a distinct preference as to the sex of the child with whom the older persons parent should coreside; specifically, there is a preference for the oldest son (Chow, 2002). In this section, we present the results of our exploration as to whether there is likewise a sex preference for the coresident child in the Philippine setting. For those respondents who said that the best living arrangement for an older person—whether as part of a couple, as a widow, or as a widower—is to live with a child, we asked if the older person is then better off living with a son or a daughter. Results in Table 6.4 show that there is a bias toward living with a daughter. About seven in ten (72%) said an older couple would be better off living with a daughter; the corresponding figures for a widow and widower are 83 percent and 73 percent, respectively. More women think older people are better off living with a daughter, but the corresponding proportion for men is also high (higher than 60%).

In general, rotating residence among the children is the least preferred arrangement, particularly for older couples; only 6.3 percent indicated such a preference. The corresponding proportion is slightly higher (10%) for the widows and widowers. This is expected given the difficulty of moving around, particularly when the older person's children are living in different areas across the country or overseas (Table 6.3).

#### **ATTITUDES TOWARD INSTITUTIONAL LIVING ARRANGEMENTS**

While the results so far indicate high levels of coresidence with children and a high prevalence of very close proximity of the nearest noncoresident kin, which together indicate that today's older Filipinos typically rely on the informal support network dominated by their own children, it is also undeniable that this arrangement will be put to the test when the Philippines proceeds along the path of population aging. As fewer kin become available to provide informal support, a formal system relying on institutional living arrangements may have to take the place of the informal network. The most commonly recognized symbol of institutional living arrangements is the home for the institutionalized older persons, as exemplified by the Haven for the Elderly (formerly the Golden Acres). Managed by the DSWD, the Haven for the Elderly serves as a temporary home and provides rehabilitation services for abandoned, neglected, and unattached older Filipino men and women aged 60 and above.

Table 6.3. Preferred living arrangement for older couples, widows and widowers by sex, age, marital status, and education

Preferred living arrangement	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
Older couples							***			***					***		2,960
Live alone by themselves	33.7	32.7		34.3	32.0	28.5		35.4	30.0		36.0	35.0	29.9	28.0		33.1	
Live alone but near one or more children	31.8	31.0		34.0	28.4	21.9		33.1	28.7		33.1	28.7	35.4	36.3		31.3	
Rotate residence among children	6.1	6.4		5.7	7.7	(6.2)		5.2	7.8		(6.7)	7.0	5.8	(3.5)		6.3	
Live with a child	26.6	28.8		24.9	30.1	41.2		24.6	32.3		21.3	28.1	28.1	29.9		27.9	
Depends	(1.8)	(1.2)		(1.1)	(1.8)	(2.2)		1.6	(1.1)		(2.8)	(1.3)	(0.7)	(2.2)		1.4	
Widows			***				*										2,949
Live by herself	13.9	17.1		15.9	15.7	14.6		15.3	16.4		18.8	16.1	16.8	10.6		15.8	
Live alone but near one or more children	23.6	27.1		26.4	27.0	16.1		26.1	25.0		18.2	25.3	27.2	28.2		25.6	
Rotate residence among children	11.9	9.0		10.2	9.6	12.4		10.8	9.4		(10.8)	11.0	9.3	(7.1)		10.2	
Live with a child	46.8	44.2		44.4	44.6	54.0		44.6	46.2		49.4	44.6	43.7	50.3		45.3	
Depends	3.8	2.6		3.1	(3.1)	(2.9)		3.1	3.0		(2.8)	3.0	(3.0)	(3.8)		3.1	
Widowers							*			**							2,944
Live by himself	16.3	16.2		16.7	15.6	15.0		16.2	16.4		18.8	16.2	17.8	12.2		16.3	
Live alone but near one or more children	23.8	25.7		25.9	25.5	16.4		26.1	23.3		(15.3)	24.8	27.4	25.7		24.9	
Rotate residence among children	11.5	9.9		10.6	10.3	11.3		11.6	9.1		(11.4)	11.3	10.2	(6.8)		10.6	
Live with a child	45.5	45.5		44.0	46.2	54.0		43.1	48.9		53.4	45.3	41.8	50.5		45.6	
Depends	2.9	2.6		2.8	(2.4)	(3.3)		3.0	(2.2)		(1.1)	2.4	(2.8)	(4.8)		2.7	

Notes: \*\*\*p &lt; .001. \*\*p &lt; .01. \*p &lt; .05.

Figures in parentheses are based on less than 30 cases.

Table 6.4. Percent of older persons who think they are better off living with a son or daughter by sex, age, marital status, and education

Preferred living arrangement	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/ preschool	Elem	HS	College+		
% who think that older couples are better off living with																824
	Son	32.2	16.9	***	22.9	24.7	19.3		27.7	18.0	*	(21.1)	24.5	22.8	(16.0)	
Daughter	61.7	79.5	***	72.3	70.5	76.3		67.1	78.1	*	78.9	70.1	75.1	77.7	72.4	
% who think that widows are better off living with																1,333
	Son	16.7	9.6	***	12.9	13.4	9.5		13.0	12.2	*	(14.0)	13.9	11.4	(7.6)	
Daughter	77.8	87.8	***	83.1	83.1	85.1		81.3	86.2	*	83.7	81.9	86.6	86.0	83.4	
% who think that widowers are better off living with																1,334
	Son	28.3	19.6	***	23.4	25.3	16.9		24.9	21.3	**	(22.6)	23.6	25.4	17.8	
Daughter	65.9	78.0	***	72.9	71.1	77.7		69.5	77.2	**	68.8	73.0	72.4	75.8	72.9	

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

In the survey, we explored the perceptions and opinions of older persons about such a facility. The question posed to the respondents was “Do you think it is a good idea to have ‘homes for the aged or older persons’ in the Philippines? A home for the aged is a place where older people can live together with other older people away from their families.”

Results in Table 6.5 show that eight in ten older Filipinos support the idea of having homes for the aged or older persons in the Philippines. The support is lowest among the oldest older persons (80+) and those with lower education but not too far off in comparison with the average response. However, when asked if they thought they themselves would ever want to live in such a home, only two in ten were open to the idea, significantly more among men than women. By age, the oldest elderly (80+) had the lowest proportion who said they would ever want to live in a home for the aged. There is no clear pattern by education. Lower still is the proportion who say they would want to live in a home now, at only 8 percent.

Among the 82 percent who think it is a good idea to have homes for the older persons in the Philippines, the most common reason given (by 78%) for why they think so is that it will benefit those who have no one to care for them (Table 6.6). This view is consistent with the popular notion about the most well-known home for the older persons in the Philippines (formerly Golden Acres), which caters only to the abandoned older persons. The second most common reason, though a poor second at only 23 percent, is that their health will be better taken care of in a home. On the other hand, 16 percent said having a home for the older persons would spare the family from the burden of caring for an older persons relative.

Meanwhile, among the 18 percent who do not think it is a good idea to have homes for the aged, the most common reason cited was that the family should take care of the older persons (78%). The second most common reason was that it would be “shameful for the family” (16%). About 15 percent said that the older persons would miss their family if they were to live in a home for the aged. At least 9 percent among those who do not agree with the idea of staying in a home for the aged said that they do not want to live with strangers.

Table 6.5. Attitudes toward homes for the aged  
by sex, age, marital status, and education

Attitudes toward homes for the aged	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases	
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+			Sig
% who think it's a good idea to have homes for the aged							**			*					***		3,070
Yes	82.5	80.8		83.5	78.2	79.3		82.5	80.3		71.3	79.8	87.7	85.0		81.5	
No	16.8	18.2		15.7	20.8	20.4		17.0	18.5		28.7	19.9	11.9	9.7		17.6	
Depends	(0.6)	(1.0)		(0.8)	(1.0)	(0.3)		(0.5)	(1.2)		(0.0)	(0.3)	(0.4)	(5.3)		0.8	
% who would ever want to live in a home for the aged							***			***					***		3,033
Yes	25.5	19.8		22.2	23.7	17.8		22.0	22.5		19.4	23.2	22.8	17.0		22.2	
No	61.1	69.6		64.9	64.4	76.9		64.4	68.2		75.0	65.9	62.5	68.8		66.0	
Depends	13.4	10.6		12.8	11.9	(5.3)		13.6	9.3		(5.6)	10.9	14.7	14.2		11.8	
% who want to live in a home for the aged now							***								**		3,056
Yes	9.4	7.3		7.0	11.1	(7.4)		7.8	8.7		(12.6)	7.5	10.4	(4.7)		8.2	
No	87.4	91.3		90.5	87.6	89.8		89.7	89.5		86.9	90.3	86.9	93.1		89.6	
Depends	3.2	(1.4)		2.5	(1.3)	(2.8)		2.5	(1.8)		(0.5)	2.2	(2.6)	(2.2)		2.2	

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

Table 6.6. Reasons for opinion on having homes for the aged

Reasons	Frequency	%	N of cases
<b>Reasons R thinks it is a good idea to have homes for the aged</b>			
Spare the family from burden of caring for the elderly	407	16.4	2,488
Health will be better taken care of	564	22.7	2,488
Better chance to socialize with people of same age	135	5.4	2,488
Beneficial for those who have no one to care for them	1931	77.6	2,488
Other	155	6.2	2,488
<b>Reasons R thinks it is <b>not</b> a good idea to have homes for the aged</b>			
The family should take care of the elderly	415	77.6	534
Elderly will miss family	79	14.9	534
Elderly will not want to live with strangers	48	9.0	534
Expensive	18	3.3	534
Shameful for the family	87	16.3	534
Other	17	3.1	534

## Box 3: Snapshots of the Filipino Older Persons

**ALONE IN A SHACK:  
Mang Elpidio's Woes**

ELPIDIO FRANCISCO, 80 years old, of Matandang Balara, Quezon City, has an emaciated body, shrunken face, dull eyes, and a sad voice. For a year now, Elpidio's daily routine has been to scavenge at the Quezon City Circle for plastics and metal, materials that are bought cheaply in the recycling industry. Every day at 5 a.m., he wakes up in his hovel, has a breakfast of rice and soup, and is on his way by 6 a.m. to the Quezon Memorial Circle, a good 5.1-kilometer walk. Reaching the circle, he must be wary of gangs of drug addicts who usually monopolize the area, warning solo scavengers like him to steer clear of the territory.



Elpidio outside his shack

From 7 a.m. until around 4 p.m., Elpidio roams around the circle with his sack, driven by the thought of having, at most, dinner and breakfast of rice and soup. For lunch, he buys a few pieces of *pan de sal* (salted bread), and when lucky enough, a cup of coffee from one of the dispensers in the circle. By 5 p.m. to 6 p.m., he returns to Barangay Matandang Balara, buys PhP15.00 worth of cooked rice (around 1 ½ cups) from sidewalk food vendors, and begs for soup to serve as his viand. He consumes half of the rice and soup, leaving the other half for breakfast.

Life has been tough for Elpidio since his youth. Born on September 2, 1934, he was the youngest in a brood of six. He claimed that he was left to fend for himself by his parents (“*napabayaang mga magulang*”). His first job was loading gravel and sand on trucks in San Mateo, Bulacan, and Montalban. He worked for the aggregates industry for about five years. After that, he became a vagrant, begging for food on the streets and often eating only once a day. At the age of around 60, he found himself applying for adoption at a government-owned “home for the aged” facility. He was accepted, and for roughly three years, lived in the institution doing menial jobs like sweeping the building and washing dishes for three square meals a day. However, he appeared to have fallen from the graces of the managers, as he was either forced out or left the facility after some trouble. According to Elpidio, there was another resident who was not doing his assigned task, which meant that his own workload became heavier. Leaving the facility, he went back to being an itinerant, begging on the streets to survive.

While all his siblings have died, he has many living nephews and nieces, some in the United States. However, due to reasons he could not explain, they have not been that helpful in alleviating his daily suffering. The only help he has received from them is that he has been allowed to stay in a dilapidated shack on a lot owned by one of them. When it rains, the shack leaks. His toilet needs are unmet, and his waste is usually haphazardly thrown on the yard. Elpidio desperately wants to return to the home for the aged; he begged the interviewer to take him there or help him get there. However, the Department of Social Welfare and Development (DSWD) says that those who intend to enter the facility must follow the procedure and get listed first. Elpidio said he has contacted the DSWD at the Quezon City Hall; they interviewed him and found out he has living relatives, which may be why he has not been admitted to the facility. But help from his nephews and nieces has been non-existent or meager at best.



## CHAPTER 7

# *Family Support and Intergenerational Exchanges*

RESEARCH HAS DEMONSTRATED THAT OLDER PEOPLE attach high priority to contact with family and friends and that social contact, and the social support drawn from it, is positively associated with quality of life in older age groups (Grundy & Read, 2012). To explore this dimension of the Filipino older person's context, we examined the level and extent of intergenerational reciprocity prevailing within the Filipino elder's household. In the PSOA, the intergenerational flow of social support between the older persons and their coresident and noncoresident children was established by asking how often they exchanged visits, communication, and financial and non-financial support.

The findings resonate with earlier research results showing that older Filipinos are not just conduits of transfers but active providers as well (Abrigo, Racelis, & Salas, 2012; Agree, Biddlecom, & Valente, 2005; Lee & Mason, 2011). Generally, older Filipinos are more likely to receive than to give support to their children. Despite their advanced age, significant proportions of older Filipinos continue to provide support to their children, albeit the level is proportionately less than the reverse flow (i.e., the proportion who receive from children). There is also a difference in the type of support exchanged, with older people likely to receive monetary support and more likely to give non-monetary support to children.



Data presented in Table 7.1 indicate that at least 92 percent exchanged visits and 74 percent of older people exchanged calls, text messages, or letters with noncoresident children in the year prior to the survey. Those with no education exhibited the highest proportion of face-to-face interactions with noncoresident children (93%), while the college educated registered the lowest (88%). However, what the latter missed out on in terms of personal contact was compensated with other forms of social exchange, as shown by their relatively higher rate of communication through calls or messages (89% vs. 64%, respectively). Older males and the currently married show a slightly higher level of social contact with their noncoresident children. Those in their 80s had less non-face-to-face contact than their younger counterparts.

Besides social contact, we also asked respondents if they received other types of support from any of their noncoresident children and if they in turn “gave back” to their children. Support is categorized into financial and non-financial, with the latter including help in kind such as provision of food/meals, material goods (clothes, medicine, and other non-food items), personal care, companionship, consultation/giving of advice, and taking care of grandchildren.

Older Filipinos received a high level (85%) of support from noncoresident children, more so on financial rather than non-financial support. Those who are currently married received a higher level of financial support relative to those not currently married. Across education categories, those in the extremes of the education continuum (i.e., no education and college) registered a lower proportion that received monetary support from their noncoresident children. The females and those in the oldest age group (80+) are more likely to receive a higher level of non-financial support from their noncoresident children.

Food or meals and other material goods are the most common types of non-monetary support that older people receive from their noncoresident children (Table 7.2). About 60 percent of older people received food and meals from their noncoresident children, with the females, the oldest age group, and the least educated among the more likely recipients. About a third of them (34%), particularly those with college education and those in extreme old age, received help with material goods.

Less than 10 percent were recipients of help in terms of consultation or advice, and 9 percent received help with companionship from noncoresident children. More older women received help with consultation and advice, while significantly more among those in the oldest age groups received support in terms of companionship.

Compared to the flow coming from noncoresident children, there is a higher level of support emanating from coresident children. This is particularly in terms of companionship (32% vs. 9%, respectively; Tables 7.2 and 7.4). The level of companionship received is particularly higher among the older females, those in the oldest age group (80+), and the not currently married. Help in terms of material goods and consultation from coresident children is also higher relative to that emanating from noncoresident children.

Table 7.1. Exchanges of support between older persons and noncoresident children by sex, age, marital status, and education

Exchanges of support within the past year	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
% who exchanged visits with at least one noncoresident child	92.3	91.0		91.4	91.3	92.7		91.7	91.2		93.1	92.8	88.6	87.7	***	91.5	2,753
% who exchanged calls/text messages/letters with at least one noncoresident child	76.6	72.4	*	76.3	72.7	66.6	***	77.6	69.1	***	64.0	70.9	80.6	89.4	***	74.1	2,753
% who received support from noncoresident child	84.9	84.9		83.1	87.7	87.7	**	85.8	83.6		85.1	85.1	85.6	81.3		84.9	2,328
% who received financial support from noncoresident child	88.4	86.6		86.9	89.2	84.9		89.8	83.7	***	80.6	88.2	89.8	79.6	***	87.3	2,328
% who received non-financial support from noncoresident child	71.5	75.2	*	71.0	76.1	80.9	**	73.1	74.5		79.4	74.0	70.1	75.4		73.7	2,329
% who gave support to noncoresident child	71.9	69.3		75.9	66.2	51.9	***	75.6	62.7	***	61.5	69.9	70.2	81.3	***	70.4	1,933
% who gave financial support to noncoresident child	56.2	51.7	*	55.0	52.5	46.0		54.6	51.9		50.0	54.0	51.5	57.6		53.6	1,933
% who gave non-financial support to noncoresident child	86.2	83.3		86.1	82.0	79.9	*	87.6	79.2	***	85.2	84.6	85.8	80.6		84.5	1,934

Notes: \*\*\*p &lt; .001. \*\*p &lt; .01. \*p &lt; .05.

Table 7.2. Receipt of non-financial support of older people from noncoresident children by type of non-financial support by sex, age, marital status, and education

Receipt of non-financial support within the past year	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
% who received help with food or meals	58.0	62.2	*	56.0	65.2	70.9	***	60.5	60.5		70.0	63.3	53.6	50.0	***	60.5	2,329
% who received help with material goods	31.4	35.3		31.2	36.2	39.6	**	33.9	33.3		30.0	32.1	36.4	41.6	*	33.7	2,329
% who received help with self-care	(0.4)	(1.5)	**	(0.4)	(1.5)	(2.9)	***	(0.6)	(1.7)	*	(1.3)	(1.2)	(1.0)	(0.5)		(1.1)	2,329
% who received help with transportation or getting around	(0.9)	(1.1)		(0.7)	(1.5)	(1.1)		(1.2)	(0.6)		(0.0)	(1.2)	(1.0)	(0.5)		(1.0)	2,329
% who received help with companionship	9.5	8.4		7.5	9.4	14.0	**	8.2	9.7		(12.5)	8.7	7.5	(11.0)		8.8	2,329
% who received help with shopping or errands	(2.1)	2.4		3.2	(1.0)	(1.1)	**	2.6	(1.9)		(0.0)	(1.8)	(4.6)	(1.6)	***	2.3	2,329
% who received help with consultation or advice	6.7	10.8	**	11.2	6.3	(5.8)	***	7.9	10.9	*	(2.5)	8.0	10.9	18.4	***	9.1	2,329
% who received help with other support	(0.3)	(0.5)		(0.4)	(0.3)	(0.7)		(0.5)	(0.2)		(1.3)	(0.4)	(0.4)	(0.0)		(0.4)	2,329

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

Notable is the relatively low level of help for personal care, support in terms of errands, and support for transportation that older people receive from their children in general. For example, only 4 percent of older people received help with self-care from their coresident children, with even lower support coming from noncoresident children.

While older people generally receive support from their noncoresident children, they also give back to their children, although less in financial support and more in non-financial types of support. In fact, they give more than what they receive in non-financial terms to noncoresident children (Table 7.1). The propensity to provide non-financial support to noncoresident children is more characteristic of the currently married and those in their 60s. Older males tend to give more financial support to their children than the older females do (56% vs. 52%). Non-financial support given to noncoresident children is mostly in the form of food or meals (48%), help in consultation and advice (39%), and help in caring of grandchildren (22%). Female older persons, those in their 60s, and those with high school education have a greater propensity to provide childcare relative to their counterparts (Table 7.3).

Findings also show that older people give a higher level of support to their coresident children than to their noncoresident children (Tables 7.3 and 7.5). For example, about 22 percent of older people gave material goods to coresident children as compared to 12 percent for their noncoresident children. The corresponding proportions in terms of companionship support provided to their children are 24 percent and 6 percent, respectively. Older people give equal support in the care of grandchildren regardless of whether they are coresiding with their children.

Does distance induce material exchanges between older people and adult children living abroad who may be in a good position to earn more? Migration is viewed as an adaptive household strategy utilized for the economic benefit of all household members including the older members (Laguna, 2013).

Table 7.6 shows that one out of five older Filipinos receive money from children living overseas. The proportion of beneficiaries of remittances from children abroad is higher among the currently married compared with the not currently married (23% vs. 17%) and increases with the level of education (from 10% of those with no schooling to 26% of those with college education). However, not all those with children abroad receive financial transfers. Among those with children who were out of the country at the time of study, seven in ten receive financial help from them. More women than men (76% vs. 67%) and those in the older age groups of 70 and over relative to those in their 60s (78% vs. 69%) receive money from children overseas.

Unless some drastic intervention measures will be implemented to ease the elders' dependence on their children for care and financial support, we can expect their dependency to prevail in the future. This is based on the views with respect to parent-child relationships among those at the tail end of the life course. When the respondents

Table 7.3. Provision of non-financial support of older people to noncoresident children by type of non-financial support by sex, age, marital status, and education

Provision of non-financial support within the past year	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
% who gave help with food or meals	53.3	44.8	***	49.7	46.7	43.6		54.6	37.6	***	57.8	52.9	40.8	31.4	***	48.4	1,934
% who gave help with material goods	11.9	11.7		12.1	10.8	(12.2)		12.8	10.0		(8.7)	12.4	9.6	(15.2)		11.8	1,934
% who gave help with self-care	(0.2)	(0.4)		(0.2)	(0.4)	(0.6)		(0.1)	(0.7)	*	0.0	(0.2)	(0.9)	0.0		(0.3)	1,934
% who gave help with transportation or getting around	(0.9)	(0.9)		(0.7)	(1.2)	(1.2)		(1.2)	(0.1)	*	0.0	(0.8)	(1.2)	(1.1)		(0.9)	1,934
% who gave help with companionship	4.9	6.9		5.1	7.6	(8.5)		5.0	7.7	*	(7.8)	6.1	(5.6)	(5.2)		6.0	1,934
% who gave help with shopping or errands	(0.1)	(1.3)	*	(0.6)	(1.0)	(2.4)		(0.7)	(1.0)		(5.2)	(0.8)	0.0	(0.5)	***	(0.9)	1,934
% who gave help with consultation or advice	40.8	38.0		40.5	35.9	39.6		38.2	41.0		27.0	34.7	47.8	55.0	***	39.2	1,934
% who gave help with taking care of grandchildren	17.7	25.9	***	24.5	20.3	(12.9)	**	23.1	21.4		(14.7)	22.8	25.9	17.3	*	22.5	1,934
% who gave help with other support	(0.7)	(0.4)		(0.2)	(1.4)	(1.2)	*	(0.4)	(0.7)		(3.4)	(0.5)	(0.2)	0.0	***	(0.6)	1,934

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

Table 7.4. Receipt of support of older persons from coresident children  
by sex, age, marital status, and education

Exchanges of support within the past year	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/ preschool	Elem	HS	College+	Sig		
% who received help with food or meals	67.2	69.7		62.1	76.7	85.5	***	65.0	73.5	***	78.9	71.3	64.2	53.3	***	68.7	1,861
% who received help with material goods	39.0	41.9		37.5	45.2	47.7	**	35.7	47.3	***	44.4	39.3	39.0	50.5	*	40.7	1,861
% who received help with self-care	(2.0)	5.1	***	(1.6)	(3.5)	16.4	***	(2.3)	6.0	***	(7.5)	4.0	(2.1)	(3.8)	*	3.9	1,861
% who received help with transportation or getting around	(3.1)	3.3		2.8	(3.8)	(4.5)		(2.6)	4.0		(0.7)	2.6	(6.1)	(3.8)	**	3.3	1,861
% who received help with companionship	27.7	34.7	**	29.9	30.5	44.7	***	28.7	35.9	*	33.6	32.4	29.0	33.0		31.9	1,861
% who received help with shopping or errands	7.2	6.3		7.1	(5.2)	(7.7)		8.2	4.8	*	(5.3)	7.8	(3.5)	(7.1)	*	6.7	1,861
% who received help with consultation or advice	7.5	11.1	**	9.8	9.6	(8.6)		7.9	11.9	*	(6.8)	8.5	12.3	(13.7)	*	9.7	1,861
% who received help with other support	(0.4)	(0.1)		(0.2)	(0.6)	0.0		(0.4)	0.0		0.0	(0.3)	0.0	0.0		(0.4)	1,861

Notes: \*\*\*p &lt; .001. \*\*p &lt; .01. \*p &lt; .05.

Figures in parentheses are based on less than 30 cases.

Table 7.5. Provision of non-financial support of older persons to coresident children by sex, age, marital status, and education

Provision of non-financial support Within the past year	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/ preschool	Elem	HS	College+	Sig		
% who gave help with food or meals	56.6	42.7	***	52.8	41.4	34.4	***	55.6	37.7	***	37.7	48.0	53.7	49.3	*	48.8	1,720
% who gave help with material goods	27.4	17.5	***	26.3	12.6	(8.4)	***	26.1	14.6	***	(6.6)	20.1	26.1	30.2	***	21.8	1,720
% who gave help with self-care	(1.1)	(1.9)		(1.6)	(0.5)	(3.8)	*	(0.9)	(2.3)	*	0.0	(1.4)	(1.1)	(3.9)	*	(1.5)	1,720
% who gave help with transportation or getting around	(2.0)	(1.9)		(2.3)	(1.0)	(2.3)		(2.0)	(2.0)		0.0	(1.8)	(2.9)	(1.5)		2.0	1,720
% who gave help with companionship	22.4	24.3		23.0	24.7	23.5		22.5	25.0		(24.5)	23.2	22.9	25.4		23.5	1,720
% who gave help with shopping or errands	(0.9)	(1.7)		(1.0)	(2.3)	(2.3)		(0.9)	(2.0)		(0.9)	(1.3)	(0.8)	(2.9)		(1.4)	1,720
% who gave help with consultation or advice	41.5	41.8		41.9	41.6	40.5		40.5	43.6		37.7	39.7	43.2	50.5	*	41.7	1,720
% who gave help with taking care of grandchildren	15.7	25.0	***	21.5	20.1	(18.3)		19.0	24.2	**	(19.8)	21.4	21.3	18.6		21.0	1,720
% who gave help with other support	0.0	(0.8)	*	(0.3)	(0.8)	(0.8)		(0.3)	(0.8)		(0.9)	(0.7)	0.0	(0.5)		(0.5)	1,720

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

Table 7.6. Remittances of OFW children  
by sex, age, marital status, and education

Remittances of OFW children	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/ preschool	Elem	HS	College+	Sig		
% who received money from children outside the country	19.1	21.5		20.0	21.7	20.6		22.8	17.4	***	(10.2)	18.8	25.7	26.2	***	20.5	3,096
Among those who have any child living abroad, % who received money from children outside the country	67.0	75.8	**	68.7	77.6	77.6	*	70.5	75.2		(84.0)	74.4	70.4	65.9		72.2	802

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.



were asked their opinion on a number of statements regarding family support, four out of ten said they plan to rely on their children for financial support (Table 7.7). This view is more common among the older women (41% vs. 39% among men), the unmarried (45% vs. 37% among the married), and among the oldest groups and those with no formal schooling, who registered the highest expectation levels (59% and 52%, respectively; Table 7.7). Nine in ten expect children to support and take care of their aged parents, with the proportion increasing with age but generally decreasing with advancing education level. Almost half (48%) think it is acceptable for children who looked after their parents to inherit larger portions of their estate when the parents pass away, with the perception more popular among men than women (51% vs. 47%), those aged 80 and over (56%), and those with no schooling (54%). The fact that the majority do not deem it appropriate to reciprocate the care provided by their children with financial rewards suggests that older people likewise embrace the concept of “*utang na loob*.”

### GRANDPARENTING

Much of the literature on aging plays up the dependent status of older persons, especially in developing countries where the formal pillar of old age support through adequate pension and health insurance is still in its infancy and where the prospect of longer life after 60 could put a heavy burden on the informal pillar of support (i.e., the kinship network, notably the children). But there is likewise growing literature in the biodemography of aging that is examining the evolutionary significance of longevity, specifically life after the reproductive years, not just among humans but also among other species (Carey & Gruenfelder, 1997). Among the major findings in these studies is that long-lived individuals play an important role in the lives of their communities by being the repository of knowledge that is useful to the survival of the group (Riley & Riley, 1986). Grandparenting is also a significant role played by long-lived individuals, especially females. Their care for their children’s offspring improves the grandchildren’s chances of survival, thus improving the chances of transmission of the grandparents’ genes to future generations.

Apparently, grandparenting is an important evolutionary tool in the grand scheme of things. At the level of everyday life, we examined the grandparenting by older Filipinos via the roles and functions they perform. Table 7.8 shows that being a grandparent is almost a universal phenomenon, with 97 percent reporting they have at least one grandchild from their own children or from their close relatives like nephews and nieces.

Of those with at least one grandchild, a little over half (56%) reported that they are involved in the care of any of their grandchildren. Slightly more women and the currently married help take care of a grandchild. The proportion decreases significantly with increasing age. The most common type of involvement is babysitting (78%). There are many other ways in which older persons participate in the care of grandchildren, such as helping in

Table 7.7. Attitudes toward family support of older persons  
by sex, age, marital status, and education

Attitudes toward family support	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases	
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+			Sig
% who plan to rely on their children for financial support	39.1	41.4	**	36.0	42.6	59.2	***	37.4	45.0	***	52.1	43.5	36.3	23.1	***	40.4	2,901
% who expect a child to support and take care of his/her aged parents	89.2	90.7		88.5	92.8	92.4	***	89.0	91.5	*	89.9	93.6	86.6	77.3	***	90.1	2,962
% who think it is acceptable for children who looked after their parents to inherit larger portions of their estate when they pass away	50.7	47.0	*	45.7	52.4	55.8	***	47.7	49.6		54.5	51.7	46.1	32.2	***	48.5	2,954

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

feeding (49%) and playing with the grandchild (45%). Less common ways are bringing the child to and from school (19%), taking care of the child when sick (16%), and helping with homework (13%).

While slightly more women reported being involved in the care of grandchildren, it should be noted that the levels for men are not so far behind, indicating that grandfathers are also highly involved in grandchild care. Also, while the proportion who participate in the care of grandchildren decreases somewhat as age increases, this decrease is not steep, which shows that many of those aged 80+ are actively involved in grandchild care, especially babysitting. There is no clear pattern by education except in the task of helping with homework, which more of the college educated reported doing. There is a hint of older Filipinos being embedded in a dense social network of children and grandchildren, as the mean number of grandchildren they reported helping take care of is rather high at 2.67 children.

While the majority of older people help in the care of grandchildren, a specific subset also act as parents, being exclusively responsible for the rearing of a grandchild. Among the 56 percent who help in caring for a grandchild, 35 percent are solely responsible for the care of that child. In most cases, more than one child is involved, as the mean number of grandchildren raised by grandparents is 1.7. The common reasons for this arrangement are as follows: the child prefers to live with the grandparents (27%), the child's mother works in another city/province (26%), the child's parents are separated (17%), and the child's parent/s works abroad or is an OFW (14%). There are slightly more women (38%) than men (31%) among these surrogate parents; most are in the age group 60–69. There is no significant pattern by education in surrogate parenting.

Table 7.8. Involvement of older persons in the care of grandchildren  
by sex, age, marital status, and education

Involvement in the care of grandchildren	SEX			AGE GROUP				MARITAL STATUS			EDUCATION				TOTAL	N of cases	
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+			Sig
% who have grandchildren	95.8	97.3	*	95.9	97.7	98.3	*	96.6	96.8		98.1	97.6	96.7	90.7	***	96.7	3,101
Among those with grandchildren, % who take care of any grandchild	54.3	58.0	*	62.4	53.4	32.6	***	59.1	53.1	***	53.0	56.6	60.4	49.1	**	56.5	2,998
Type of involvement in the care of grandchildren																	
Babysitting	77.3	78.3		79.8	74.7	72.1	*	78.2	77.4		78.5	79.2	73.3	80.3		77.9	1,689
Fetching/bringing child to school	20.5	17.6		20.4	15.6	(14.4)	*	20.8	15.8	*	(7.5)	18.4	20.3	24.6	**	18.7	1,689
Helping in schoolwork	15.4	11.8	*	13.0	13.6	(12.6)		14.9	10.6	*	(5.6)	13.2	11.2	23.9	***	13.2	1,689
Playing with the child	47.6	42.9		47.0	40.5	40.5	*	48.7	39.0	***	40.2	46.6	42.7	41.5		44.8	1,689
Bringing child to doctor/ taking care of child when sick	13.2	17.3	*	17.4	13.6	(7.2)	**	16.7	14.2		(7.5)	14.1	19.6	22.0	***	15.7	1,689
Helping in feeding	49.2	49.5		50.4	49.1	38.7	**	52.1	45.2	**	43.9	53.6	39.2	50.7	***	49.3	1,689
Others	5.7	7.5		5.5	9.0	(11.7)	**	6.6	7.3		(6.5)	6.6	8.2	(5.0)		6.8	1,689
Mean no. of grandchildren R takes care of	2.79	2.59		2.65	2.94	1.81	**	2.78	2.51		3.07	2.69	2.41	2.95		2.67	1,683
Among those who take care of grandchildren, % who are solely in charge of care	30.9	37.6	**	36.1	3.8	(23.9)	*	35.5	34.2		(22.4)	35.4	37.8	32.9	*	35.0	1,685
Mean no. of grandchildren R is mainly in charge of	1.82	1.69		1.73	1.77	1.55		1.76	1.68		1.38	1.68	1.83	1.98		1.73	562
Reason why R is mainly in charge of grandchild's care																	
Child's parent is OFW	12.7	15.3		14.5	(14.6)	(11.1)		15.8	(12.6)		(4.2)	10.4	23.7	(20.5)	***	14.4	584
Child is orphaned	(5.9)	8.7		(7.2)	(8.3)	(11.5)		(6.2)	(10.0)		(8.3)	8.5	(6.6)	(4.4)		7.7	584
Child prefers to live with R than with own parents	20.1	31.1	**	27.2	26.1	(34.6)		24.6	31.2		(39.1)	27.9	20.4	(37.8)	*	27.2	584
Child's mother works outside the town/city but within the Philippines	31.4	23.4	*	29.7	19.1	(18.5)	*	29.9	20.8	*	(25.0)	26.1	26.3	(27.3)		26.3	584
Child's parents are separated	22.0	14.2	*	16.0	19.7	(14.8)		20.1	(12.1)	*	(0.0)	20.0	(13.2)	(11.4)	*	16.9	584

Notes: \*\*\*p &lt; .001. \*\*p &lt; .01. \*p &lt; .05.

Figures in parentheses are based on less than 30 cases.



## CHAPTER 8

# *Leisure, Religious Activities, and Social Involvement*

### LEISURE ACTIVITIES

THE TYPICAL WAKING HOURS can be distinguished into time spent on activities that are (1) obligatory, or “those demanded for basic personal sustenance and conditioned by the social structure in which one lives (e.g., work, childcare, housekeeping)” and (2) discretionary, or “those that involve more selectivity and include the typical leisure activities as well as socializing, resting and doing nothing” (Lawton, 1978, p. 72). The older persons years are often painted in popular literature as being the time when one is freed from the constraints of having to earn a living and raise a family (obligatory activities) and free to pursue non-gainful activities purely to pass the time and to derive pleasure from (discretionary activities). The years after retirement are also often called “the golden years,” implying that this is the period to pursue activities that one has been unable to do because of obligatory activities, the major portion of which is work.

In a review of related literature on the relationship between leisure activities and quality of life, especially in the older years, Iwasaki (2007) reported that many studies point to a positive relationship between the two. Yet the concept of what activities constitute leisure is shaped by social and cultural factors; hence, leisurely pursuits in one culture may not necessarily be regarded as such in another culture. Furthermore, within the same culture, access to leisurely pursuits may be constrained by socioeconomic inequalities and power imbalance (Iwasaki, 2007).

In the PSOA, we asked respondents to indicate whether they pursue a list of activities done for leisure. In presenting the results, we classify these activities into sedentary, non-sedentary, and social. While social activities may involve either sedentary or non-sedentary behaviors, they are classified separately because their prime intent is for socializing with others. Because we used a standard survey questionnaire comparable to the Japanese and Singapore surveys conducted at about the same time, the list of activities is predetermined. Any leisure activities that the Filipino older persons pursued that were not on our list are thus unreported.

The sedentary activities are listening to the radio, reading, and watching TV. Of these activities, 69 percent of older Filipinos watch TV daily, 39 percent listen to the radio daily, and only 9 percent read daily (Table 8.1). Among those who watch TV, the average time spent watching TV each day is 2.4 hours. More men than women and more among the currently married listen to the radio. Those in the oldest age group have the lowest proportion that listen to the radio daily. There is an education gradient, with the proportion who listen to the radio rising as education increases. Reading is clearly linked to the education level. While three in ten among the college educated read daily, the corresponding proportion is just a little over one in ten for those with high school education and much less in the lower education levels. Watching TV is the most common sedentary leisure activity. The proportion that watches TV daily declines with increasing age but increases as education rises. There are no notable differences by sex and marital status in this activity.

There are two non-sedentary activities in the list: physical exercise (e.g., dancing, aerobics) and gardening daily. Table 8.1 shows that physical exercise is fairly common among older Filipinos; 59 percent exercise daily while 14 percent exercise weekly or several times a week. In all, seven in ten older Filipinos are physically active. About a fourth (26%) reported that they never exercise. More men than women are physically active. Physical exercise decreases with age but increases with education. The groups with the highest proportion who never exercise are the oldest (37%) and those with the least education (36%).

Around one fourth (26%) of older Filipinos reported gardening daily. Gardening is more common among the younger older persons, but there are no notable differences by sex, marital status, and education.

The proportion engaged in the social activities of attending social gatherings monthly and hanging out with friends daily is well below that of the sedentary and non-sedentary activities. Only 18 percent attend social gatherings monthly and 26 percent hang out with friends daily. Attendance in social activities is more common among the younger older persons and the better educated. More men and the young older persons hang out with their friends daily. Hanging out with friends is least commonly done by the college educated.

Gambling for leisure includes activities such as card games (e.g., *tong-its*, *sakla*, bingo, mahjong, and other local games). Only 10 percent of older Filipinos reported doing this activity weekly. There are no notable differences by sex, marital status, and education, but more among the younger older persons do this activity compared with their older counterparts.

Table 8.1. Leisure activities of older persons by sex, age, marital status, and education

Leisure activities	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/ pre-school	Elem	HS	College+	Sig		
Listens to radio (daily)	45.8	34.8	**	40.0	40.5	33.7	*	43.4	34.1	**	30.6	36.6	45.5	48.4	**	39.4	3,103
Reads newspapers, magazines, or books (daily)	9.5	8.9	*	9.8	8.3	(7.2)	**	9.4	8.7	*	(1.5)	4.9	12.4	31.2	**	9.1	3,101
Watches TV (daily)	66.1	70.9	**	73.3	66.2	52.2	**	70.6	66.7	*	52.2	64.2	79.6	84.4	**	68.9	3,104
Attends social activities (monthly)	17.6	18.8		22.2	14.8	(6.1)	**	18.8	17.6		(8.3)	14.1	23.6	37.7	**	18.3	3,100
Gardens (daily)	27.2	25.3	**	28.6	25.8	13.1	**	28.9	22.3	**	16.7	27.1	26.6	24.6	**	26.1	3,093
Gambles for leisure (weekly)	10.2	10.0	*	11.9	8.0	(5.2)	**	9.7	10.6	*	(6.3)	9.9	11.6	10.0		10.1	3,097
Hangs out with friends/ neighbours (daily)	30.6	22.6	**	28.2	24.9	15.9	**	27.8	23.4	*	22.4	27.3	27.4	16.8	**	25.9	3,098
Physical exercise			**				**			**					**		3,097
Every day	64.4	55.2		60.3	60.2	49.0		61.5	55.7		46.8	58.9	60.8	63.8		59.0	
Weekly/several times a week	14.0	13.5		13.6	14.4	12.4		13.8	13.5		17.1	14.0	12.7	11.6		13.7	
Once a month/ occasionally	(1.2)	1.9		1.8	(1.3)	(1.7)		(1.4)	(1.9)		(0.5)	(1.4)	(1.6)	(3.4)		1.6	
Never	20.5	29.4		24.3	24.2	36.9		23.3	29.0		35.6	25.8	24.9	21.3		25.7	

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

### RELIGIOUS ACTIVITIES

Religion is an important institution in Philippine society. Almost all Filipinos self-identify as belonging to a religious faith. Older Filipinos, like the rest of the population, overwhelmingly profess the Christian faith, specifically Roman Catholicism (85%). Studies on the role of religion have linked religion with life satisfaction, well-being, and quality of life at all ages, but more so in old age. There is evidence that prayer and devotional activity are higher among the older persons (Guy, 1982; Mindel & Vaughan, 1978) and that older people turn to religion as a way to cope with stresses associated with aging that are beyond their immediate control. Religion among older Filipinos is considered an important source of comfort at a time when health, social, and financial resources start to diminish (Lavares, 2011).

In assessing religious activity among the older population, we asked respondents to state whether and how often they performed each religious activity. We also asked whether they were members of any religious organization. Results are presented in Table 8.2.

As shown in Table 8.2, daily private prayer is the most commonly performed religious activity (89%), with significantly higher levels among women. Unlike what is seen in Western literature, the proportion that prays daily decreases as age increases. There is a distinct education gradient; the proportion that prays daily consistently increases as education increases. There is no difference across marital status. The second most commonly performed religious activity is weekly attendance in religious services (51%). The same pattern of relationship by sex, age, marital status, and education is observed for this activity as for daily private prayer, although the differences are much more pronounced. For example, 59 percent of women said they attend religious services weekly; the corresponding percentage for men is 40 percent. Also, among those with no education, 35 percent attend religious services weekly; the corresponding percentage for the college educated is 74 percent.

Among the modern innovations in the performance of religious activities is the ubiquitous Sunday religious service broadcast over radio or TV. This practice has allowed many older persons who are unable or unwilling to leave the house to attend mass or other religious services to still participate in the activity, albeit vicariously. Results show that 44 percent attend religious services via radio or TV. There is no sex difference, but age and education differentials remain. There is also a significant difference by marital status, with more of the currently not married attending services via radio or TV. Performing religious activities (e.g., praying the rosary and bible study) at home with other family members is less common. Only about three in ten reported doing this activity. Reading the bible or religious materials at least weekly is the least commonly performed religious activity (23%). We observed the same patterns of differentials by sex, age, and education as with the other activities, which leads us to conclude that the performance of various religious activities is more common among women, the younger older persons, and the better educated Filipino older persons.



Table 8.2. Religious activities of older persons by sex, age, marital status, and education

Religious activities	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/preschool	Elem	HS	College+	Sig		
Attends religious activities/ services outside the home (weekly)	39.5	58.8	***	52.9	52.6	34.4	***	49.8	52.1		35.4	45.6	58.4	74.5	***	50.8	3,102
Prays by oneself (daily)	84.5	92.8	***	90.2	88.7	87.0	***	89.5	89.3		80.6	89.4	89.7	94.4	***	89.4	3,099
Attends religious activities at home with other family members (weekly)	20.3	38.3	***	29.9	33.0	30.4		28.5	33.9	***	21.4	27.9	36.5	42.0	***	30.8	3,101
Attends religious activities through TV or radio (weekly)	42.3	45.6		45.8	44.8	34.5	***	46.7	40.9	***	32.2	40.1	55.3	52.2	***	44.2	3,095
Reads the bible or other religious materials (weekly)	19.8	25.6	***	26.1	20.3	14.8	***	24.0	22.1		(0.5)	18.0	31.6	49.7	***	23.2	3,093

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

### **MEMBERSHIP IN ORGANIZATIONS AND VOLUNTEERISM**

One of the potential indicators of the degree of social connectedness of older Filipinos is the extent to which they participate in the community through formal membership in any organization. Results in Table 8.3 indicate that membership in formal organizations that are non-religious in nature is not particularly common, as only 23 percent of older Filipinos are members of any organization. Membership in non-religious organizations increases as educational attainment increases, rising from 16 percent among those with no education to 35 percent among the college educated. There are no significant differentials by gender, age, and marital status.

The relatively high level of engagement in religious activity is not carried over into participation in religious organizations. In all, only 19 percent of older Filipinos reported being a member of a religious group or organization. As with the religious activities, more of the women, the younger older persons, and the better educated are members of such organizations.

Volunteerism is also not very common, as only about one in five reported being engaged in volunteer work in the community or the church. Slightly more men than women and more among the currently married engage in volunteer work. The prevalence of volunteering decreases with age but increases with education.

The overall picture of involvement in organizations and volunteerism portrayed in the data indicates that both activities are more common among the younger older persons and the better educated.

### **KNOWLEDGE AND USE OF NEW COMMUNICATION TECHNOLOGY: CELL PHONES AND E-MAIL**

Given the current advancement in communication technology and its significant role in promoting social connectedness, the PSOA gathered information on the older persons's awareness and use of the new technologies for communication, particularly cell phones and e-mail. Only about 12 percent of older persons said they know how to use a cell phone to text, and just 11 percent actually use a cell phone to text (Table 8.4). Slightly more males, the younger older persons, the currently married, and the college educated know how to and actually use a cell phone to text. Among the majority who do not know how to use a cell phone to text, four in ten want to learn. Again, more males, the younger older persons, the currently married, and the better educated want to learn to use a cell phone to text. Knowledge about how to use a cell phone to call is better in that two in ten know how to use a cell phone to call and actually use it to call. The same differentials by sex, age, marital status, and education are replicated with regard to the use of a cell phone to call. E-mail was still an unfamiliar technology to older Filipinos at the time of the survey. Only one percent said they know how to use e-mail.

Table 8.3. Membership of older persons in organizations by sex, age, marital status, and education

Membership in organizations	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/ pre-school	Elem	HS	College+	Sig		
Member of religious group/organization	14.0	22.4	***	20.6	18.0	11.9	***	19.2	18.5		(7.3)	16.8	20.8	34.6	***	18.9	3,098
Member of any non-religious organization (e.g., professional, political, recreational, elderly)	21.9	23.7		22.4	24.4	21.7		23.2	22.6		15.6	21.1	24.6	34.9	***	22.9	3,105
Engaged in volunteer work in church/community	23.0	19.9	*	25.2	16.9	10.8	***	23.2	18.5	**	(9.0)	19.4	25.3	30.8	***	21.2	3,074

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

Table 8.4. Access to information technology  
by sex, age, marital status, and education

Access to information technology	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60–69	70–79	80+	Sig	Curr married	Not curr married	Sig	None/ pre-school	Elem	HS	College+	Sig		
% who know how to use a cell phone to text	13.9	11.2	*	17.1	6.4	(0.9)	**	14.9	8.8	**	(1.5)	6.1	19.4	40.2	**	12.3	3,105
% who use a cell phone to text	12.1	10.1		15.4	5.4	(0.6)	**	13.1	8.1	**	(0.5)	5.3	18.2	35.3	**	11.0	3,101
Among those who do not know how to use a cell phone to text, % who want to learn how to use a cell phone to text	41.5	38.4		43.2	39.3	23.9	**	41.2	37.8		17.6	38.7	48.7	45.6	**	39.7	2,746
% who know how to use a cell phone to call	21.4	19.4		26.7	13.4	(2.3)	**	23.2	16.3	**	(7.3)	12.4	29.6	54.5	**	20.2	3,104
% who use a cell phone to call	19.9	19.1	**	25.6	12.8	(2.0)	**	22.4	15.4	**	(6.8)	11.9	28.6	51.7	**	19.4	3,099
Among those who do not know how to use a cell phone to call, % who want to learn how to use a cell phone to call	43.4	40.9		46.3	42.1	23.6	**	44.0	39.4	*	19.9	40.7	54.4	42.8	**	41.9	2,490
% who know how to use e-mail	(1.6)	(0.9)		(1.4)	(0.7)	(1.4)		(1.5)	(0.9)		(0.0)	(0.1)	(1.4)	(8.4)	**	1.2	3,104

Notes: \*\*\*p &lt; .001. \*\*p &lt; .01. \*p &lt; .05.

Figures in parentheses are based on less than 30 cases.



## CHAPTER 9

# *Beliefs and Knowledge of Services for Older People*

IN THIS SECTION, WE PRESENT THE FINDINGS of the survey on prevalent beliefs of older Filipinos. To gauge their beliefs, we read each item to the respondent and asked whether they agreed or disagreed. The first set of results shows beliefs about support from children. The second set of questions is about gender roles and age-appropriate behavior, specifically falling in love/marrying at an advanced age.

### **BELIEFS ABOUT CHILD SUPPORT, REMARRIAGE, AND GENDER ROLES**

Given the extent of connectedness of older Filipinos to their children in terms of exchanges of social support, the 2007 PSOA investigated whether beliefs regarding family support are congruent with the findings on the pervasiveness of children as a source of social and economic support for older persons.

Results in Table 9.1 confirm the strong correspondence between the real conditions and the prevalent beliefs regarding children as a source of support. Nine out of ten older persons agree that a child is expected to support and take care of his/her parents out of a sense of gratitude for having been raised by them. This is a manifestation of the value often referred to as *utang na loob* (Lopez, 1991).

The older generation is expected to manifest values and beliefs that were prevalent during their own formative years. We explored a number of particular beliefs and values that conceivably set the older Filipinos apart from the current generation. These are beliefs about the acceptability of people in their age range (60s and 70s) falling in love and marrying (or remarrying, as the case may be) and the appropriateness of traditional gender roles of men working to support the family and women staying home to take care of the household.

Results in Table 9.1 corroborate the hypothesis that the older generation tends to hold on to and espouse beliefs that are more reflective of the thinking of their own youth rather than the thinking of today. Older people are not particularly keen on having people of their own age falling in love and (re)marrying. Only one in five agree that it is acceptable for people in their 60s and 70s to fall in love and marry. More men (29%) than women (14%) agree with this statement. The proportion agreeing increases as education increases, but even among those with the highest education, agreement with this statement is low at only 28 percent. Evidently, most older persons find it inappropriate for people their age to fall in love and marry.

Expectedly, a high proportion agrees that traditional gender roles are acceptable (i.e., that men should work to support the family while the women should stay home and take care of the household). For most older Filipinos, this is the setup that they most likely lived and grew up with. More men than women agree with this traditional division of labor between the sexes; the proportion that agrees increases as age increases. More currently not married older Filipinos support traditional roles as well. But there is an interesting pattern by education. The proportion that supports traditional gender roles is high among those with no education, elementary education, and high school education. However, there is a sharp decrease among the college educated, most likely because in this subgroup of older people, women with college education were more likely to have been employed when they were younger.

### **KNOWLEDGE OF SERVICES FOR THE OLDER PEOPLE**

Since the passage of the landmark Senior Citizens Act in 1994, there has been increasing awareness of the entitlements of senior citizens (i.e., those age 60 and over) under the law. In the 1996 PES, the proportion of older people who had heard of the government program to grant benefits to older citizens, such as the 20 percent discount on the purchase of medicines, on fares, and on restaurants and recreation centers, was only 56 percent.

In the 2007 PSOA, we asked the same questions about services for the older persons as in the 1996 PES. There is a significant rise in the proportion who are aware of senior citizen privileges between the 1996 and 2007 surveys, from 56 percent to 89 percent. Awareness

Table 9.1. Beliefs of the older persons  
by sex, age, marital status, and education

% who agree with the following statements	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/ pre-school	Elem	HS	College+	Sig		
A child is expected to support and take care of his or her aged parents, as the child should feel a sense of gratitude to the parents for raising him/her.	89.2	90.7		88.5	92.8	92.4	***	89.0	91.5	*	89.9	93.6	86.6	77.3	***	90.1	2,962
It is acceptable for someone in their 60s or 70s to fall in love and (re)marry if they find a suitable partner.	29.0	14.2	***	20.9	19.6	18.8		20.8	19.7		17.4	18.5	22.2	28.1	*	20.3	2,963
It is acceptable for children who looked after their parents to inherit larger portions of their estate when they pass away.	50.6	47.0		45.7	52.4	55.4	***	47.7	49.5	*	54.5	51.6	46.1	32.2	***	48.5	2,958
It is better for the elderly parent to live with a daughter than with a son	61.4	79.9	***	69.8	75.8	77.8	**	66.5	80.2	***	79.8	72.9	72.6	63.4	*	72.3	2,947
Men should work to support the family, and women should stay home and take care of the HH.	86.5	82.6	**	81.9	87.0	91.3	***	82.7	86.3	*	89.3	89.4	80.1	60.5	***	84.2	2,963

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.

has an education gradient; while 98 percent of the college educated are aware of government programs for the older persons, the corresponding figure for those with no education is only 77 percent (Table 9.2). There is also an age gradient whereby awareness is least common among the oldest age group.

Despite the generally high awareness of senior citizen privileges, only six in ten have registered as a senior citizen and thus have a senior citizen ID card. Slightly more women than men have a senior citizen card, more among the 70–79-year-olds and the not currently married. Again, there is a distinct education gradient, as the proportion with a senior citizen card consistently increases with the education level. Only 54 percent of those with no education have a senior citizen card; the corresponding proportion among the college educated is 84 percent (Table 9.2).

There is also a disparity in availing of the various privileges granted to senior citizens, especially by sex and educational attainment. Among those who have a senior citizen card, more women than men have availed of the senior citizen privileges, especially the discounts on the purchase of medicine; the discounts on the use/purchase of transportation tickets; the discounts on services in hotels, restaurants, and other establishments; and the discounts on admission fees in movie houses, theaters, and other places for cultural, leisure, and entertainment purposes. There is some variation by age on the discount-based privileges in the direction of less use among those aged 80+. The most prominent difference, however, is by educational attainment.

Consistently, for the discount-based privileges, those with low education (none or elementary level) have the lowest proportion availing of the discounts. The proportions are consistently much higher among the better educated, most especially those with college education. This implies that the discount-based privileges provided by law are disproportionately beneficial to those who are better off in the first place. Those who have limited purchasing power, such as those with lower education, are unable to access discount privileges because they cannot purchase the goods to begin with. This same disproportionate use of the discount privileges has likewise been reported in the 1996 PES (Natividad, 2005).



Table 9.2. Awareness and use of services for the elderly  
by sex, age, marital status, and education

% who agree with the following statements	SEX			AGE GROUP				MARITAL STATUS			EDUCATION					TOTAL	N of cases
	Male	Female	Sig	60-69	70-79	80+	Sig	Curr married	Not curr married	Sig	None/ preschool	Elem	HS	College+	Sig		
% who have heard about the government's program that provides privileges to senior citizens 60 years and over	90.9	88.3	*	90.6	89.7	82.5	***	90.4	88.0	*	77.1	88.4	91.9	97.8	***	89.4	3,101
% with a senior citizen ID card	60.6	63.9	***	57.3	73.5	63.4	***	60.4	65.3	***	53.7	58.0	67.2	84.4	***	62.5	3,102
Among those with a senior citizen ID card, % who have availed of 20% discount on purchase of medicine	52.7	59.7	**	53.4	61.4	61.0	**	58.1	55.4		50.9	53.9	57.4	70.5	***	56.9	1,938
20% discount from all establishments for transportation services, hotels, restaurants and recreation centers	64.5	69.6	*	68.0	68.2	63.8		68.3	66.6		41.4	66.0	68.4	82.7	***	67.5	1,937
20% discount in admission fees charged by theaters, cinema houses, and other places of culture, leisure and amusement	9.0	13.1	**	12.4	11.7	6.0	*	10.2	13.2	*	0.9	7.5	17.6	21.5	***	11.5	1,937
Exemption from the payment of individual income taxes	10.5	13.2		14.6	9.2	8.7	***	12.9	11.2		(3.6)	9.7	15.5	19.7	***	12.1	1,933
Exemption from training fees for socioeconomic programs undertaken by the Office for Senior Citizens Affairs	5.1	8.5	**	7.5	6.7	(6.4)		6.3	8.2		(2.7)	6.0	7.5	12.6	***	7.1	1,936
Free medical and dental services in government health facilities	29.4	24.7	*	25.0	28.2	30.3		28.2	24.7		(26.1)	26.5	26.5	27.8		26.6	1,936

Notes: \*\*\*p < .001. \*\*p < .01. \*p < .05.

Figures in parentheses are based on less than 30 cases.



## CHAPTER 10

# *Conclusion, Discussion, and Recommendations*

THE 2007 PSOA, THE SECOND NATIONALLY representative survey of older Filipinos, provides a comprehensive evidence-based account of the sociodemographic, health, economic, psychosocial, and related characteristics of the older population. The study has been a source of a wide array of findings that have made meaningful contributions in shaping policies and programs to address the concerns of this population sector. Currently, the older people constitute a relatively minor share of the population; nevertheless, they registered the fastest rate of growth. Improvements in longevity and the decline in fertility are expected to usher in further age-structural changes that will result in a sustained increase in the number and proportion of the country's older population. Compared to the experience of most developed countries that have a protracted aging process, the pace of aging will be relatively faster in the Philippines, similar to other developing countries, as a result of historical demographic trajectories. By 2020, it is projected that there will be almost 10 million older Filipinos, a demographic eventuality that will present opportunities and challenges to our society.

Ensuring human development among the older people means enlarging their choices and expanding the opportunities available to them. Following the human development index framework, this includes three essential components: a long and healthy life, acquisition of knowledge, and access to resources needed for a decent standard of living (United Nations Development Programme, 1990, p. 10).

To what extent are older Filipinos enjoying the essential components of human life? Our study demonstrates their vulnerabilities that permeate various dimensions of their lives.

Foremost is their limited education. About two in three older Filipinos have at most an elementary education, although this education profile is expected to improve in the future based on findings of intergenerational advances in educational attainment. Future improvements in education will result in improved health, longevity, and overall well-being; at the same time, it will have a dampening impact on their fertility. Lower fertility along with greater participation of women in the labor force will have consequences on the care provision for older people. For one, it may lead to a scarcity of available family caregivers for the older family members.

Along with the older Filipinos' low education status is their health and economic disadvantage. While they enjoy a mix of income sources, these are mostly unstable and irregular. Older women in particular are most dependent on their children as their main economic lifeline, while men mainly draw their income from earnings from work, family business and farm, and pension. Almost half of the older males continue to work for a living, consistent with the cultural expectation of males as the providers of their family. Work is mostly confined to the agriculture sector for the men and menial blue-collar work for the women, which are among the unsecured, low-productivity, and low-paying sectors of the Philippine economy. They also have limited assets. Accordingly, they register low income levels, with a median monthly income of PhP2,000 (US\$43). In their own assessment, the significant majority say they have just enough or even less income for their expenditures. What is disturbing is the remarkable income difference across the education gradient, with the low-educated sector reporting the lowest median income equivalent to the poverty threshold at the time of the study. This is indicative of the preponderance of older Filipinos who are living below the poverty threshold, particularly among those with low education.

In terms of the health dimension, multiple health indicators reveal substantial health gaps. While macro indicators such as health and life expectancies are generally improving, and the majority express satisfaction with their life and health in general, a considerable proportion report functional disability and ill health, such as arthritis/neuralgia/rheumatism, high blood pressure, chronic back pain, and cataracts. Some experienced vision and hearing impairment as well as oral health problems. Mental health problems are also notable, with over a quarter, particularly among women, indicating depressive symptoms. About four in five are underweight, overweight, or obese. Their poor health service utilization is also reflected in the considerable proportion with unmet need for health services and in the low health insurance coverage.

These health and health-related problems, which are expected to increase with advancing age, point to the nature and magnitude of health service requirements of this emerging older population sector. Health interventions will require new health infrastructures as well as an increase in the number of available trained health care professionals, particularly geriatricians and gerontologists. Barriers to health care access,

especially among the poorer and disadvantaged sectors, should be addressed by increasing health insurance coverage. In this regard, it is important to mention the recent implementation of the country's Universal Health Coverage Law that has improved elder health utilization in recent years. Other programs that promote greater physical and cognitive functioning as well as sustained engagement in productive and social activities should also be encouraged to ensure successful aging.

It is important to recognize the central role played by the family in helping alleviate the vulnerability of the elderly. The good news is that the Filipino value that expects children to care for their older parents remains preponderant, with most of them in a traditional intergenerational and coresidential arrangement. Only a small percentage live alone, but many of them have children living close by, ensuring that the older people are functionally not living alone. One of the comforts of living with children was expressed by the almost half of the older people who reported that it was their children who usually take care of them when they get sick. Evidence also suggests the steady flow of economic and non-material support from both coresident and noncoresident children to their elderly parents. However, the children's capacity to provide support to their aging parents can be constrained by their own socioeconomic circumstances. In the case of the Philippines, where a quarter of the population live below the poverty line, families—especially those living in extreme poverty—are hard put to extend help to the older household members. This was confirmed in a recent study on the poorest sector of the older population in selected areas of the country (Knox-Vydmanov, Horn, & Sevilla, 2016). The study findings indicated that poor older people are likely to have equally poor children, many of whom end up supporting their adult children and grandchildren from their meager income.

Indeed, older people, while mainly at the receiving end of the intergenerational flow of support, have the ability to contribute, be socially engaged, and maintain relationships. They are particularly active participants in the familial exchange flow, more so in the provision of food, the giving of advice and comfort to their children, and the care of grandchildren. The latter assumes significance especially in situations where children work outside the home, leaving the older people to be the primary caregivers of their grandchildren. In the context of international labor migration that is dominated by women, it is not surprising to note that many grandparents assume the role of surrogate parents to their grandchildren, securing their important role as transmitters of culture to the younger generation.

Beyond the family are the state and other elder support networks including the church, community, other relatives, and friends. While the level of support from these sectors admittedly remains low and pales in comparison with that emanating from the family, it is important to stress the government's recent policy initiatives to promote the well-being of the older people, the most recent of which is the Social Pension Program. Introduced in 2011, the program provides indigent senior citizens with a monthly social pension

amounting to PhP500 to augment their daily subsistence and other medical needs. Although the program coverage is very limited, with much to be desired in terms of program implementation, particularly in the targeting of recipients, it has been established to provide meaningful support to older people and their families, specifically in boosting their food security while augmenting their ability to afford critical medical expenses (Knox-Vydmanov et al., 2016).

From a research perspective, the capacity to assess the full implications of the demographic phenomenon of aging in the Philippines and the formulation of the appropriate response will have to rely on the availability of evidence-based research such as the PSOA. This research has underscored critical health and economic dimensions that should be given priority attention in the formulation of future action programs. For example, there is a need to pursue further studies on how to expand and improve existing programs to promote income security and achieve a reasonable standard of living for the Filipino elderly. Related issues such as the expressed openness to the concept of living in homes for the aged indicate the need to further explore alternative and ideal set-ups for the living arrangements of older people in the future. Also important is more scientific research on the socioeconomic implications of age-structural changes, especially in the context of increasing transnational family arrangements brought about by migration. How far the aging research will be pursued in the country, however, will largely depend on the support from the government and various stakeholders.

# References

- Abalos, J. (2014, December). *Gender differences in health expectancy among older persons in the Philippines*. Paper presented at the Australian Population Association Biennial Conference, Hobart, Tasmania, Australia.
- Abejo, S. D. (2004). *The living arrangements of the elderly in the Philippines*. Retrieved from [http://www.nscb.gov.ph/ncs/9thncs/papers/population\\_LivingArrangements.pdf](http://www.nscb.gov.ph/ncs/9thncs/papers/population_LivingArrangements.pdf)
- Abrigo, M. R. M., Racelis, R. H., & Salas, J. M. (2012). *Philippines 2007 NTA: Consumption, income, and intergenerational reallocation of resources-revised estimates*. Retrieved from <http://dirp3.pids.gov.ph/ris/dps/pidsdps1235.pdf>
- Agree, E., Biddlecom, A. E., Chang, M. C., & Perez, A. E. (2002). Transfers from older parents to their adult children in Taiwan and the Philippines. *Journal of Cross-Cultural Gerontology, 17*(4), 269–294.
- Agree, E. M., Biddlecom, A. E., & Valente, T. W. (2005). Intergenerational transfers of resources between older persons and extended kin in Taiwan and the Philippines. *Population Studies, 59*(2), 181–195.
- Anchoring Vignettes Website. (n.d.). Retrieved from <http://gking.harvard.edu/vign>
- Andrews, G. R., Esterman, A. J., Braunack-Mayer, A. J., & Rungie, C. M. (1986). *Aging in the Western Pacific: A four-country study*. Manila: WHO Regional Office for the Western Pacific.
- Cabigon, J. V. (2009). *2000 Life tables for the Philippines, its regions and provinces by sex*. Mandaluyong: Commission on Population.
- Carey, J. R., & Gruenfelder, C. (1997). Population biology of the elderly. In K. W. Wachter & C. E. Finch (Eds.), *Between Zeus and the salmon: The biodemography of longevity* (pp. 127–160). Washington, DC: National Academies Press.
- Chen, M., Barmes, D. E., Andersen, R. M., & Leclercq, M. H. (1997). *Comparing oral health care systems: A second international collaborative study*. Geneva, Switzerland: World Health Organization.
- Chow, N. (2004). Asian value and aged care. *Geriatrics & Gerontology International, 4*(s1), S21–S25.
- Constitution of the Republic of the Philippines (1987). Article XV, Section 4. Retrieved from <http://www.gov.ph/constitutions/1987-constitution/>

- Crimmins, E. M. (1996). Mixed trends in population health among older adults. *Journal of Gerontology: Social Sciences*, 51B, S223–S225.
- Crimmins, E. M., Hayward, M. D., & Saito, Y. (1994). Changing mortality and morbidity rates and the health status and life expectancy of the older population. *Demography*, 31(1), 159–175.
- Crimmins, E. M., Hayward, M. D., & Seeman, T. E. (2004). Race/ethnicity, socioeconomic status, and health. In N. B. Anderson, R. A. Bulatao, & B. Cohen (Eds.), *Critical perspectives on racial and ethnic differences in health in late life* (pp. 310–352). Washington, DC: National Academies Press.
- Cruz, G. T. (2005). *Health transitions among Filipino older people* (Unpublished doctoral dissertation). University of the Philippines, Diliman, Quezon City.
- Cruz, G. T., & Camhol, A. N. (2014). Family and state roles in promoting the well-being of Filipinos. In A. T. Torres & L. L. Samson (Eds.), *Aging in Asia-Pacific: Balancing the state and the family*. Quezon City: Philippine Social Science Center.
- Cruz, G. T., & Laguna, E. P. (2010). Overseas labour migration and well-being of older Filipinos. In E. N. Arifin & A. Ananta (Eds.), *Older persons in Southeast Asia: An emerging asset* (pp. 315–334). Singapore: Institute of Southeast Asian Studies.
- De la Vega, S. F. (2005). *Cultural validation of the WHOQOL-BREF for ambulatory community-dwelling Filipino older persons*. Manila: World Health Organization.
- De la Vega, S. F. (2009). Policies on healthcare of older persons: Implications to internal medicine training and practice. *Philippine Journal of Internal Medicine*, 47(4), 13–17.
- Department of Health (2000). *Baseline surveys for the national objectives of health* (Vols. 1–2). Manila: National Institutes of Health & Department of Health.
- Domingo, L. J., & Feranil, I. Z. (1990). *Socio-economic consequences of the aging population: Insight from the Philippine experience*. Quezon City: Demographic Research and Development Foundation.
- Domingo, L. J., Medina, B. T., & Domingo, M. F. A. (1994). *State of the nation reports: The Filipino elderly*. Quezon City: University of the Philippines Press and Center for Integrated Development Studies.
- Flieger, W., & Cabigon, J. V. (1994). *Life table estimates for the Philippines, its regions and provinces, by sex: 1970, 1980 & 1990*. Manila: Department of Health.
- Food and Nutrition Research Institute. (1998). *Arm span and knee height as proxy indicators for height, 5th National Nutritional Survey*. Manila: Department of Science and Technology.
- Food and Nutrition Research Institute. (2008). *7th National Nutrition Survey* [Data set].
- Garcia, P. A., Luther, T., Serrano, F. J., & Tan, A. G. (1982). Nutrition and health of the rural elderly in five selected barangays in the Philippines. *Nutrition Research*, 2(5), 545–560.

- Gatchalian, E. T., & Ramos, M. A. (1993). Geriatric medicine in the Philippines, its problems, challenges and future directions. *Philippine Journal of Internal Medicine*, 31(4), 223–231.
- Griffiths, S. (1988). *Emigrants, entrepreneurs, and evil spirits: Life in a Philippine village*. Honolulu, Hawaii: University of Hawaii Press.
- Grundy, E., & Read, S. (2012). Social contacts and receipt of help among older people in England: Are there benefits of having more children? *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 67(6), 742–754.
- Guy, R. F. (1982). Religion, physical disabilities, and life satisfaction in older age cohorts. *The International Journal of Aging & Human Development*, 15, 225–232.
- Helme, R., & Gibson, S. (1999). Pain in older people. In I. Crombie (Ed.), *Epidemiology of pain* (pp. 103–12). Seattle, WA: IASP Press.
- Hermalin, A. I. (2002). *The well-being of the elderly in Asia: A four-country comparative study*. Ann Arbor, MI: University of Michigan Press.
- Hillier, S., & Barrow, G. (2011). *Aging, the individual, and society* (9th ed.). Belmont, CA: Wadsworth.
- Implementing Rules and Regulations of Republic Act No. 9994. Retrieved from <http://www1.umn.edu/humanrts/research/Philippines/IRR%20of%20the%20Expanded%20%20Senior%20Citizens%20Act.pdf>
- Iwasaki, Y. (2007). Leisure and quality of life in an international and multicultural context: What are major pathways linking leisure to quality of life? *Social Indicators Research*, 82(2), 233–264.
- Jagger, C., Van Oyen, H., & Robine, J. M. (2014). *Health expectancy calculation by the Sullivan method: A practical guide* (4th ed.). London: Newcastle University Institute for Ageing.
- Javier, C. A. (2007). *Waist and hip measures can predict risk to diabetes, heart disease*. Retrieved from [http://www1.fnri.dost.gov.ph/index.php?option=com\\_content&task=view&id=1262&Itemid=246](http://www1.fnri.dost.gov.ph/index.php?option=com_content&task=view&id=1262&Itemid=246)
- Katz, S., Ford, A. B., Moskowitz, R. W., Jackson, B. A., & Jaffe, M. W. (1963). Studies of illness in the aged: The index of ADL: A standardized measure of biological and psychosocial function. *Journal of the American Medical Association*, 185(12), 914–919.
- Knodel, J., & Ofstedal, M. B. (2002). Patterns and determinants of living arrangements. In A. I. Hermalin (Ed.), *The well-being of the elderly in Asia: A four-country comparative Study* (pp. 143–184). Ann Arbor, MI: University of Michigan Press.
- Knox-Vydmanov, C., Horn, D., & Sevilla, A. (2016). *The Philippine social pension at four years: Insights and recommendations*. Quezon City: Coalition of Services of the Elderly & HelpAge International.
- Laguna, E. P. (2013). *Intergenerational exchange of support and international migration in the Philippines* (Unpublished doctoral dissertation). University of Bremen, Germany.
- Lamb, V. L. (1999). *Active life expectancy of the elderly in selected Asian countries* (NUPRI Research Paper Series No. 69). Tokyo: Nihon University Population Research Institute.



- Lavares, A. M. C. (2011). *Religiosity and life satisfaction of the Filipino elderly: A sociological investigation* (Unpublished master's thesis). University of the Philippines, Diliman, Quezon City.
- Lawton, M. P. (1978). Leisure activities for the aged. *The ANNALS of the American Academy of Political and Social Science*, 438(1), 71–80.
- Lawton, M. P., & Brody, E. M. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. *Gerontologist*, 9(3), 179–186.
- Lee, S. H., & Mason, A. (2011). *The economic life cycle and support systems in Asia* (Asian Development Bank Economics Working Paper Series 283). Retrieved from [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1960365](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1960365)
- Locher, J. L., Burgio, K. L., Goode, P. S., Roth, D. L., & Rodriguez, E. (2002). Effects of age and causal attribution to aging on health-related behaviors associated with urinary incontinence in older women. *The Gerontologist*, 42(4), 515–521.
- Lopez, M. E. (1991). *The Filipino family as home for the aged* (Comparative Study of the Elderly in Asia Report No. 91-97). Ann Arbor, MI: Population Studies Center, University of Michigan.
- Madans, J. H., Altman, B. M., Rasch, E. K., Mbogoni, M., Synneborn, M., Banda, J., & DePalma, E. (2004). *Washington Group position paper: Proposed purpose of an internationally comparable general disability measure*. Retrieved from [http://www.cdc.gov/nchs/data/washington\\_group/WG\\_purpose\\_paper.pdf](http://www.cdc.gov/nchs/data/washington_group/WG_purpose_paper.pdf)
- Madans, J. H., Loeb, M. E., & Altman, B. A. (2011). Measuring disability and monitoring the UN Convention on the Rights of Persons with Disabilities: The work of the Washington Group on Disability Statistics. *BMC Public Health*, 11, S4. doi:10.1186/1471-2458-11-S4-S4
- Martin, L. G. (1989). Living arrangements of the elderly in Fiji, Korea, Malaysia, and the Philippines. *Demography*, 26(4), 627–643.
- Mathers, C. D., Robine, J. M., & Wilkins, R. (1994, February). Health expectancy indicators: Recommendations for terminology. In C. Mathers, J. McCallum, & J.-M. Robine (Eds.), *Advances in health expectancies: Proceedings of the 7th meeting of the International Network on Health Expectancy (REVES)* (pp. 34–41). Canberra: Australian Institute of Health and Welfare.
- Medina, B. T. G. (2015). *The Filipino family* (3rd ed.). Quezon City: University of the Philippines Press.
- MedlinePlus. (2014, October 27). *Sleep disorders in the elderly*. Retrieved from <https://www.nlm.nih.gov/medlineplus/ency/article/000064.htm>
- Mindel, C. H., & Vaughan, C. E. (1978). A multidimensional approach to religiosity and disengagement. *Journal of Gerontology*, 33(1), 103–108.
- Mirkin, B., & Weinberger, M. B. (2001). The demography of population ageing. *Population Bulletin of the United Nations*, 42(43), 37–53.
- Nagi, S. (1965). Some conceptual issues in disability and rehabilitation. In M. Sussman (Ed.), *Sociology and rehabilitation* (pp. 100–113). Washington, DC: American Sociological Association.

- National Institute of Health. (1990). *The treatment of sleep disorders of older people*. Retrieved from <https://consensus.nih.gov/1990/1990SleepDisordersOlderPeople078html.htm>
- National Research Council. (2001). *Preparing for an aging world: The case for cross-national research*. Washington, DC: National Academy Press.
- National Statistical Coordination Board. (2007). *FAQs on Official Poverty Statistics of the Philippines*. Retrieved from [http://www.nscb.gov.ph/poverty/2007/NSCB\\_FAQsOnPovertyStatistics.pdf](http://www.nscb.gov.ph/poverty/2007/NSCB_FAQsOnPovertyStatistics.pdf)
- National Statistics Office & ICF Macro. (2009). *National Demographic and Health Survey 2008*. Calverton, MD: National Statistics Office and ICF Macro.
- Natividad, J. N. (2000). Ageing in the Philippines: An overview. In D. R. Phillips (Ed.), *Ageing in the Asia-Pacific region: Issues, policies and future trends* (pp. 267–283). London, England: Routledge.
- Natividad, J. N. (2005). *Caring for the older person*. Manila: University of the Philippines Open University.
- Natividad, J. N., & Cruz, G. T. (1997). Patterns in living arrangements and familial support for the elderly in the Philippines. *Asia-Pacific Population Journal*, 12(4), 17–34.
- Natividad, J. N., & Cruz, G. T. (2001). *A pilot study on the use of the panel design for elderly studies: Metro Manila & Visayas*. Quezon City: University of the Philippines Center for Integrative and Development Studies.
- Nelson, R., Norton, N., Cautley, E., & Furner, S. (1995). Community-based prevalence of anal incontinence. *Journal of the American Medical Association*, 274(7), 559–561.
- Nusselder, W. J., & Looman, C. W. (2004). Decomposition of differences in health expectancy by cause. *Demography*, 41(2), 315–334.
- Ofstedal, M. B., & Natividad, J. N. (2002). Patterns of health service utilization. In A. I. Hermalin (Ed.), *The well-being of the elderly in Asia: A four-country comparative study* (pp. 417–460). Ann Arbor, MI: University of Michigan Press.
- Ofstedal, M. B., Reidy, E., & Knodel, J. (2004). Gender differences in economic support and well-being of older Asians. *Journal of Cross-Cultural Gerontology*, 19(3), 165–201.
- Ofstedal, M. B., Zimmer, Z., Cruz, G., Chan, A., & Lin, Y. H. (2002). *Self-assessed health expectancy among older Asians: A comparison of Sullivan and multistate life table methods*. Ann Arbor, MI: Population Studies Center, University of Michigan.
- Ogena, N. B. (2015, July). *Internal migration and development in the Philippines, 2005–2010*. Paper presented at the 2015 International Conference on Population Geographies, University of Queensland, Brisbane, Australia.
- Petersen, P. H., Bourgeois, D., Ogawa H., Estupian-Day, S., & Ndiaye, C. (2005). The global burden of oral diseases and risks to oral health. *Bulletin of World Health Organization*, 83(9), 661–669.
- Petersen, P. E., & Yamamoto, T. (2005). Improving the oral health of older people: The approach of the WHO Global Oral Health Programme. *Community Dentistry and Oral Epidemiology*, 33(2), 81–92.

- Philippine Statistics Authority. (2010). *Life table of the Philippines prepared by the Interagency Working Group*. Unpublished document.
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*(3), 385–401.
- Republic Act No. 7876. (1995). An act establishing a senior citizens center in all cities and municipalities of the Philippines, and appropriating funds therefor. Retrieved from <http://www.gov.ph/1995/02/14/republic-act-no-7876/>
- Republic Act No. 9502. (2008). An act providing for cheaper and quality medicines, amending for the purpose Republic Act No. 8293 or the Intellectual Property Code, Republic Act No. 6675 or the Generics Act of 1988, and Republic Act No. 5921 or the Pharmacy Law, and for other purposes. Retrieved from <http://www.gov.ph/2008/06/06/republicact-no-9502/>
- Riley, M. W., & Riley, J. W. (1986). Longevity and social structure: The potential of the added years. In P. A. Bronte (Ed.), *Our aging society: Paradox and promise* (pp. 53–77). New York, NY: WW Norton.
- Robine, J. M., & Jagger, C. (2003). Creating a coherent set of indicators to monitor health across Europe. *The European Journal of Public Health, 13*(suppl 1), 6–14.
- Robine, J. M., & Mathers, C. D. (1993). Measuring the compression or expansion of morbidity through changes in health expectancy. In J. M. Robine, C. D. Mathers, M. R. Bone, & I. Romieu (Eds.), *Calculation of health expectancies: Harmonization, consensus achieved and future perspectives* (pp. 269–286). Paris: INSERM/John Libbey Eurotext.
- Robine, J. M., Romieu, I., & Michel, J. P. (2003). Trends in health expectancies. In J. M. Robine, C. Jagger, C. D. Mathers, E. M. Crimmins, & R. M. Suzman (Eds.), *Determining health expectancies* (pp. 75–101). Chichester, England: John Wiley & Sons.
- Rogers, A. (1975). *Introduction to multiregional mathematical demography*. New York, NY: Wiley.
- Rutstein, S. O., & Kiersten, J. (2004). *The DHS wealth index* (DHS Comparative Reports No. 6). Calverton, MD: ORC Macro.
- Saito, Y., Robine, J. M., & Crimmins, E. M. (2014). The methods and materials of health expectancy. *Statistical Journal of the IAOS, 30*(3), 209–223.
- Sanders, B. S. (1964). Measuring community health levels. *American Journal of Public Health and the Nations Health, 54*(7), 1063–1070.
- Schoen, R. (1975). Constructing increment-decrement life tables. *Demography, 12*(2), 313–324.
- Schoen, R., & Woodrow, K. (1980). Labor force status life tables for the United States, 1972. *Demography, 17*(3), 297–322.
- Siegel, J. S., & Swanson, D. (2004). *The methods and materials of demography*. London, England: Elsevier Academic Press.
- Stampfer, M. J., Colditz, G. A., Willett, W. C., Speizer, F. E., & Hennekens, C. H. (1988). A prospective study of moderate alcohol consumption and the risk of coronary disease and stroke in women. *New England Journal of Medicine, 319*(5), 267–273.

- Sullivan, D. F. (1966). *Conceptual problems in developing an index of health* (USPHS Publication No. 1000, Series 2, No. 17). Washington, DC: U.S. National Center for Health Statistics.
- United Nations. (1988). *Economic and social implications of population aging*. New York, NY: United Nations Department of International Economic and Social Affairs.
- United Nations. (1993). *Third review and appraisal of the implementation of the International Plan of Action on Ageing*. New York, NY: United Nations.
- United Nations, Department of Economic and Social Affairs, Population Division. (2014). *World contraceptive use 2014* (POP/DB/CP/Rev2014). Retrieved from [http://www.un.org/en/development/desa/population/publications/dataset/contraception/wcu2014/Metadata/WCU2014\\_UNMET\\_NEED\\_metadata.pdf](http://www.un.org/en/development/desa/population/publications/dataset/contraception/wcu2014/Metadata/WCU2014_UNMET_NEED_metadata.pdf)
- United Nations Development Programme. (1990). *Human development report 1990*. Retrieved from [http://hdr.undp.org/sites/default/files/reports/219/hdr\\_1990\\_en\\_complete\\_nostats.pdf](http://hdr.undp.org/sites/default/files/reports/219/hdr_1990_en_complete_nostats.pdf)
- Van Oyen, H., Berger, N., Nusselder, W., Charafeddine, R., Jagger, C., Cambois, E., ... Demarest, S. (2014). The effect of smoking on the duration of life with and without disability, Belgium 1997–2011. *BMC Public Health*, 14(1), 1.
- Verbrugge, L. M. (1984). A health profile of older women with comparisons to older men. *Research on Aging*, 6(3), 291–322.
- Verbrugge, L. M., & Jette, A. M. (1994). The disablement process. *Social Science & Medicine*, 38(1), 1–14.
- Villar, F. R. (2013). *Health human resource for an aging Philippines: The way forward thru the Philippine Plan of Action for Senior Citizens (PPASC) 2012–2016*. Retrieved from [http://ncmb.dswd.gov.ph/index.php?option=com\\_content&view=article&id=96:healthhuman-resource-for-an-aging-philippines&catid=1:latest-news](http://ncmb.dswd.gov.ph/index.php?option=com_content&view=article&id=96:healthhuman-resource-for-an-aging-philippines&catid=1:latest-news)
- Watkins, J. F., & Ulack, R. (1991). Migration and regional population aging in the Philippines. *Journal of Cross-Cultural Gerontology*, 6(4), 383–411.
- World Health Organization. (1948). *Constitution of the World Health Organization*. Retrieved from [http://www.who.int/governance/eb/who\\_constitution\\_en.pdf](http://www.who.int/governance/eb/who_constitution_en.pdf)
- World Health Organization. (2015, October). *Depression fact sheet*. Retrieved from <http://www.who.int/mediacentre/factsheets/fs369/en/>
- Wu, Z., & Browning, S. (2015). A review of research on aging families: Emerging issues. *Population Change and Lifecourse Strategic Knowledge Cluster Discussion Paper Series/ Un Réseau stratégique de connaissances Changements de population et parcours de vie Document de travail*, 3(1), 2. Retrieved from <http://ir.lib.uwo.ca/pclc/vol3/iss1/2>
- Yuan, J. M., Ross, R. K., Gao, Y. T., & Yu, M. (1998). Body weight and mortality: A prospective evaluation in a cohort of middle-aged men in Shanghai, China. *International Journal of Epidemiology*, 27(5), 824–832.
- Zimmer, Z., Natividad, J. N., Lin, H. S., & Chayovan, N. (2000). A cross-national examination of the determinants of self-assessed health. *Journal of Health and Social Behavior*, 41(4), 465–481.

# Annex 1

## Consent Forms

### INTERVIEW CONSENT FORM

I agree to participate in the 2007 Philippine Longitudinal Study of Aging funded by the Nihon University Population Research Institute and conducted by the University of the Philippines Population Institute. The study will help provide information on lives and health status of people 60 years of age and older living in the Philippines.

I understand that if I agree to participate it means the following:

- a) I will be asked a number of questions regarding myself and my personal circumstances.
- b) My participation in this survey is completely voluntary. I am NOT required to do this, and I can stop my participation at any time.
- c) I do not have to respond to any question that I am not comfortable to answer.
- d) The results of the interview will be kept strictly confidential. I will not be identified in any reports on this study and my responses to the questions will not be shown to anyone not connected with the survey.
- e) There are no known risks associated with doing this interview or with participation in this study. In the unlikely event of any injury resulting from the research, no reimbursement, compensation, or free medical treatment is offered by any of the co-sponsors of this research project.
- f) I may ask questions about this survey at any time and can expect truthful answers. I can ask the interviewer or contact the Director at the University of the Philippines Population Institute (02-920-5402).

Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Interviewer's signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **PHYSICAL MEASUREMENTS AND PHOTO SESSION CONSENT FORM**

I have already agreed to participate in the 2007 Philippine Longitudinal Study of Aging funded by the Nihon University Population Research Institute and conducted by the University of the Philippines Population Institute. The study will help provide information on lives and health status of people 60 years of age and older living in the Philippines.

In addition to completing the questionnaire, I am now being asked to complete some physical measurements. The physical measures conducted will allow researchers to better understand the connections between health status and other indicators of interest such as economic and employment status.

I am also being asked to have three pictures of me taken by digital camera. My pictures and that of other research participants will be used for a study of the relationship between health status and predicted age based on the pictures and other future studies. In the studies, the pictures will be analyzed by computers to identify characteristics of faces which may relate to health status.

I understand that if I agree to participate it means the following:

For the physical measurements:

1. I will be asked to complete up to 7 different physical measurements which involve gripping an object with my hands and having my blood pressure, height, sitting height, weight, waist, and ear length measurements taken.
2. I will complete these measurements only if I agree to do so. My participation in this research is completely voluntary. I am NOT required to do this, and I can stop my participation at any time.

For the photo session:

3. Three photos of me will be taken by digital camera: frontal view- smiling, frontal view- not smiling, and side view.
4. I will complete the photo session only if I agree to do so. My participation in this component of the research is completely voluntary. I am NOT required to do this, and I can stop my participation at any time.

5. There is no additional incentive for completing these measures or for having my photo taken, nor is there a penalty if I choose not to complete this component.
6. The results of the physical measurements and the photo session will be kept strictly confidential in the same way as the rest of the interview data. I will not be identified in any reports on this study. However, researchers directly involved in conducting the survey and their collaborators may use the measures and the pictures while conducting the future studies. In addition, the participants of the future studies will see my pictures for predicting my age at the time pictures are taken. Researchers who process the pictures for analyses using computer will also see my pictures. All of those who use or see my pictures must observe confidentiality.
7. There are no known risks associated with participation in this study. In the unlikely event of any injury resulting from the research, no reimbursement, compensation, or free medical treatment is offered by any of the co-sponsors of this research project.
8. I may ask questions about this procedure at any time and can expect truthful answers. I can ask the interviewer or contact the Director at the University of the Philippines Population Institute (02-920-5402).

Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Interviewer's signature: \_\_\_\_\_ Date: \_\_\_\_\_

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