

## ACCESS AND UTILIZATION OF MEDICINE AMONG THE ELDERLY IN GENERAL SANTOS CITY

Ester Z. Plaga  
Ava Clare Marie O. Robles

### ABSTRACT

Currently, data on the accessibility of medicines among seniors are needed to improve the health services in the Philippines. However, there are few studies conducted relative to this concern. Hence, this study aimed to determine the accessibility and utilization of medicine among the elderly in General Santos City. It identified the type of health problems, symptoms experienced, and the medication they underwent to cure their illnesses. Likewise, the paper determined the length of time it took them to reach the healthcare facilities, the reasons for non-utilization of medicines recommended by the doctor and their concepts on the affordability and quality of drugs they used. Using stratified sampling, 384 respondents were chosen whose ages are 60 years old and above. Results showed that the chronic illnesses they commonly experienced were: hypertension, diabetes, asthma, and heart ailment. However, cough, runny nose, sore throat and ear ache were the acute illnesses identified. Regarding accessibility, most of them can access medicines from private and public pharmacies for only fifteen (15) minutes utilizing synthetic drugs from the health facilities. Results further revealed that the reasons for non-utilization of medicine were: nobody in the household can take time to buy the medicines, and that some medicines are not available at the nearest health facility. The researchers recommend that multidisciplinary health care teams be provided through the Department of Health (DOH) especially on appropriate pain management education for the elderly, health professionals and the vulnerable groups.

Keywords: Elderly, access and utilization of medicine, health, illness

### INTRODUCTION

In the process of identifying health priorities, accessibility of medicines has often been missing when it comes to assessing the health needs of elderly. Given this, the study aimed to determine the accessibility and utilization of medicine among the elderly in General Santos City. Specifically, it determined the: type of health problems experienced by the elderly; length of time it will take for an elderly to reach the health care facilities; and medicines utilized by the elderly. Likewise, it identified the reasons for non-utilization of medicines as recommended by the doctor; ideas of the elderly on the affordability and quality of medicines they utilized. It is hoped that the data gathered from this endeavor will be useful to health implementers in General Santos City, as it provides needed information on the conditions of the elderly regarding access and utilization of medicine. To further, the results of the study may serve as a guide for policymakers to appropriate reasonable funds for the elderly sector, as well as baseline data in enhancing the implementation of RA 9711 otherwise known as the Food and Drug Administration (FDA) Act of 2009. This paper was made possible through the support of the Department of Science and Technology, Philippine Center for Health, Research and Development, and the Mindanao State University General Santos City, Philippines.

### RESPONDENTS' PROFILE

Table 1: Profile of the respondents

Variable	Parameters		Frequency	Percentage
Age group (years)	60-65		145	37.76
	66-71		109	28.38
	72-77		80	20.83
	78-83		24	6.25
	84-89		22	5.73
	90-95		3	0.78
	96 and above		1	0.26
	<b>Total</b>		<b>384</b>	<b>100</b>
Gender per Barangay	Male	Female	Total	Percentage

Lagao	18	23	41	10.68
Fatima	11	29	40	10.42
Labangal	17	20	37	9.64
Calumpang	11	25	36	9.38
Apopong	8	23	31	8.07
San Isidro	13	16	29	7.55
Bula	7	16	23	5.99
City Heights	4	15	19	4.95
Mabuhay	6	11	17	4.43
Dad. West	6	6	12	3.13
Katangawan	3	7	10	2.61
Conel	5	4	9	2.35
Sinawal	2	6	8	2.08
Buayan	3	5	8	2.08
Dad. North	3	5	8	2.08
Tambler	2	6	8	2.08
Siguel	2	5	7	1.82
Baluan	2	4	6	1.56
San Jose	2	4	6	1.56
Olympog	3	3	6	1.56
Tinagacan	0	5	5	1.30
Dad. South	1	4	5	1.30
Dad. East	2	2	4	1.04
Upper Labay	4	0	4	1.04
Ligaya	1	2	3	0.78
Batomelong	1	1	2	0.52
<b>Total</b>	<b>137</b>	<b>247</b>	<b>384</b>	<b>100</b>

Data revealed that higher percentage is from ages 60-65 comprising 37.76%. Followed by those whose ages are 66-71 with 28.38%. The third highest are those from 72-77 age bracket comprising 20.83%. Three (3) respondents reached the 90-95 age group having .78%, and one (1) respondent reached the age of 103. In this study, the female respondents (n=247 or 64.32%) outnumbered the male respondents (n=137 or 35.68%).

Table 2 presents the acute and chronic illnesses the respondents have reported. For acute illness, data reveal that pain/aches (or 33.33%) got the highest frequency. This result is followed by those who experienced a cough, runny nose, sore throat and ear ache comprising 11.72% of the respondents. Among the illnesses, convulsion got the lowest frequency.

**Table 2: Type of health problems experienced by the elderly**

Variable	Parameters	Frequency	Percentage
<b>Acute Illness</b>	a. A cough, runny nose, sore throat, ear-ache	45	11.72
	b. Difficulty breathing, fast breathing	18	4.69
	c. Fever, headache, hot body	38	9.90
	d. Convulsion fits	5	1.30
	e. Could not sleep	18	4.69
	f. Diarrhea, vomiting, nausea, could not eat	17	4.43
	g. Pain/aches	128	33.33
	h. Bleeding, burn, accident	27	7.03

	i. Do not know	6	1.56
	j.No illness	82	21.35
	Total	384	100.00
<b>Chronic Illness</b>			
	a. Hypertension, high blood pressure	41	10.68
	b. Heart disease, heart attack consequence	5	1.30
	c. Diabetes, high blood sugar	31	8.07
	d. Asthma, wheezing, chronic difficulty breathing 21		05.47
	e. HIV infection, AIDS	0	0.00
	f. Arthritis/chronic body pain	111	28.91
	g. Epilepsy, seizures, fits	0	0.00
	h. Ulcer, chronic stomach pain	81	21.09
	i. Stroke consequences	11	2.86
	j. High cholesterol	8	2.08
	k. Cancer	0	0.00
	l. Tuberculosis	2	0.52
	m. Liver disease	0	0.00
	n. Depression	0	0.00
	o. No Illness	73	19.01
	Total	384	100.00

Also, there were 82 (or 21.35%) of the respondents who have not experienced these types of illnesses. For chronic illness, data show that arthritis/chronic body pain (or 28.91%) is the highest, followed by the ulcer and chronic stomach pain with 89 (or 21.09) frequency. There were 73 or 19.01% of the elderly who did not have any chronic illness. These findings contradict the findings of the World Health Organization (2011) because accordingly, Type 2 diabetes and tuberculosis are the well-known “comorbid risk factors” that have serious health consequences to the elderly people.

Moreover, Table 3 shows the length of time the respondents could reach the nearest healthcare facilities. Of the total respondents, 248 can reach the healthcare facilities in less than fifteen minutes. Whereas, only 104 can reach within fifteen minutes up to one hour. Those who stay in far-flung barangays can access medicines for more than an hour considering the distance and the availability of transportation in those places. More respondents (264) go to private pharmacies, and 67 go to public pharmacies.

**Table 3: Length of time to reach the nearest healthcare facilities**

Health-Care Facilities/Providers	Less than 15 minutes (f)	15 min. to 1 hr. (f)	more than 1 hr. (f)
Public Hospital	11	10	0
Persons who sell drugs	29	1	2
Private Pharmacy	160	76	28
Public Pharmacy	48	17	2
<b>Total</b>	<b>248</b>	<b>104</b>	<b>32</b>

Twenty-one (21) go to public hospitals and 32 buy medicines from private individuals who sell drugs. The above results imply that majority of the elderly can readily access the medicines in less than 15 minutes.

**Table 4: Medicines utilized by the elderly**

Variable	Parameters	Frequency	Percentage
<b>Heart Ailment</b>			
	Amlodipine	3	60.00
	Neobloc	2	40.00
	<b>Total</b>	<b>5</b>	<b>100.00</b>
<b>Hypertension</b>			

Herbal and food supplement	15	21.74
Amlodipine	14	20.29
Norvastatin	13	18.84
Losartan	11	15.94
Metoprolol	6	8.70
Ambicel	4	5.80
Vaseride	1	1.45
Captopril	1	1.45
Simvastatin	1	1.45
Alprazozan	1	1.45
Arbloc	1	1.45
Aspirin	1	1.45
<b>Total</b>	<b>69</b>	<b>100.00</b>
<b>Diabetes</b>		
Metformin	9	45.00
Insulin	4	20.00
Glucophage	3	15.00
Herbal	4	20.00
<b>Total</b>	<b>20</b>	<b>100.00</b>
<b>Asthma</b>		
Herbal	17	60.71
Solmux	4	14.29
Salbutamol	3	10.71
Tuseran	1	3.57
Neozep	1	3.57
Robitussin	1	3.57
Ventolin	1	3.57
<b>Total</b>	<b>28</b>	<b>100.00</b>

As shown in table 4, the elderly suffer from various forms of chronic illness. These are heart ailment, hypertension, diabetes, and asthma. These types of illnesses were based on their self-report and not diagnosed by a doctor. Only five (5) reported they suffer heart ailment and their medicines are Amlodipine (60%) and Neobloc (40%). These medicines are used for hypertension, but they are also taking it for their heart ailment. Those who said they experience hypertension comprised 69 respondents. They use herbal and food supplement (21.74%), Amlodipine (20.29%), Norvastatin (18.84%), Losartan (15.94%), Metoprolol (8.70%), Ambicel (5.80%). Other medicines used are Vaseride, Captopril, Simvastatin, Alprazozan, Arbloc, and Aspirin having 1.45 % respectively. Twenty (20) respondents have diabetes. The medicines being used are Metformin (45%), Insulin (20%) and Glucophage (15%). Four (4) are using alternative herbal medicines to cure their illness. For Asthma, 60.71% take herbal medicines. Those who take Solmux comprise 14.29%, and 10.71% utilize Salbutamol. Other medicines used are Tuseran, Neozep, Robitussin, and Ventolin having 3.57% respectively. The above results show that medicines that treat hypertension were highly utilized by the elderly compared to other medicines. This outcome indicates that even though most of them declared they have arthritis or chronic body pain, the medicines they are willing to purchase are those that treat hypertension. The result conforms to the findings of World Health Organization. (2015) that higher percentage of the older average age people in various countries suffer from these conditions.

**Table 5: Reasons for non-utilization of medicines**

Reasons	Frequency	%
1. Symptoms have gotten better	72	18.75
2. Someone in the household decided medicines were not needed	37	9.64
3. Someone advised not to take medicines	29	7.55
4. Sick persons had adverse reactions to medicines in the past.	38	9.90
5. Someone in the household chose a different treatment	47	12.24

6. The place where drug can be obtained is too far away	26	6.77
7. Medicines are not available at the public health facility	41	10.68
8. Medicines are not available at private pharmacy or drug seller	38	9.90
9. No one in the household can take time to obtain medicines	41	10.68
10. We cannot afford the medicine	15	3.91
<b>Total</b>	<b>384</b>	<b>100.00</b>

The elderly were asked whether they are utilizing the medicines to treat their illnesses. On the other hand, the researchers identified the reasons for non-utilization of medicines are reflected in Table 5. Data showed that the top reason for non-utilization of medicines is that the symptoms of their illness have gotten better (18.75%). The second reason for non-utilization of medicines is that someone in the household chose a different treatment (12.24%). Likewise, they could not comfortably secure medicines because no one in the household can take time to obtain medicines (10.68%) and medicines are not available at the public health facility (10.68%). Data also revealed that family members play a significant role in accessing medicines. They could suggest that medicines are no longer needed (9.64%). Also, the unavailability of medicines in the health facilities hinders access to utilization of medicines (9.90%), and furthermore, the health facilities are too far away (6.77%). The above findings imply that majority of the seniors in General Santos City are hesitant to take the necessary medicines needed to treat their illnesses even though they can readily access the medicines in less than 15minutes. This result may be considered as a problem since seniors are vulnerable and susceptible to health complications. This result conforms to the findings of Fischer (2011) that non-medical use of prescription drugs is a significant problem to vulnerable group like the elderly.

**Table 6: Ideas of the elderly on the affordability and quality of medicines they utilize**

Parameters	Agree	%	Disagree	%
a. In public facilities, the doctors consider the financial capacity of the family when prescribing medicines	7	2.11		0.00
b. In private facilities, the doctors consider the financial capacity of the household when prescribing medicines	2	0.60	5	10.20
c. I will always ask the doctor if the medicines being prescribed is costly or not	3	0.90	21	42.86
d. It is easy for me to know the price of the medicines	12	3.61		0.00
e. Two identical medicines may have different price		0.00		0.00
f. I know where to find cheap medicines	25	7.53		0.00
g. When I buy medicines, I will always ask which one is cheaper	7	2.11		0.00
h. When a would recommend a medicine, I know I can afford to buy it	8	2.41		0.00
i. When a pharmacist recommends a medicine, I know it is cheap for me to buy	33	9.94		0.00
j. Medicines that are branded are costlier	5	1.51		0.00
k. There are places in our community wherein I do not buy medicines because they are costly	8	2.41		0.00
l. Our government sees to it that the medicines purchased from sources are of good quality	0	0.00	23	46.94
m. Different names are given to the same kind of medicine	2	0.60		0.00
n. I have heard about generic medicines	60	18.07		0.00
o. A generic medicine is usually dangerous than branded medicines	41	12.35		0.00
p. A generic medicine is typically lower in price compared with the non -generic one	37	11.14		0.00
q. I am taking Chinese or herbal medicines	51	15.36		0.00
r. I go to the traditional folk healer.	28	8.43		0.00
s. I take medicines even without doctor's prescription	3	0.90		0.00
t. Do not know	3	0.90		
<b>Total</b>	<b>335</b>	<b>100.00</b>	<b>49</b>	<b>100.00</b>

Table 6 presents the respondents' ideas on the affordability and quality of medicines they utilized. A high percentage of the elderly consider medicines to be affordable as they heard information about generic medicines (18.07%). However, they agree that a generic medicine is usually dangerous than branded medicine (12.35%), but these medicines are typically lower in price compared with non-generic ones (11.14%) They take Chinese or herbal medicines (15.36%). They trust the pharmacist to recommend cheap medicines (9.94%). Of the total respondents, 49 disagreed about two items. They disagree on the point that they would always ask the doctor if the prescribed medicines are costly or not (42.86%). This means that they trust the doctor's prescription. They disagree with the idea that the government makes sure that the medicines they purchased are of good quality (46.94%). This indicates they are not sure whether the medicines they utilize are of good quality. They have no way of knowing about quality medicine since they rely only on what their family members would say (see table 5) and they buy medicines that are affordable without considering the quality of these medicines.

## CONCLUSIONS

1. Majority of the elderly in General Santos City suffer chronic illnesses such as arthritis/chronic body pain. This result is followed by the ulcer and chronic stomach pain.
2. Most of the elderly can readily access the medicines in less than 15 minutes. This outcome indicates that medicines are very accessible in this place.
3. The medicines that treat hypertension were mostly utilized by the elderly compared with other medicines.
4. Most of the seniors in General Santos City are cautious or hesitant to take any medicines even though they are accessible in less than 15 minutes.
5. For those elderly who utilize medicines, they consider them affordable as they heard information about generic medicines. However, they agreed that a generic medicine is usually unsafe compared to branded medicines.

## RECOMMENDATIONS

1. Seminars and training should be conducted among family members on the role of medical health practitioners, the proper utilization of medicines and how these can be accessed.
2. Continued information and educational campaign on the use of generic medicines is being encouraged.
4. Health programs should include provisions for multidisciplinary healthcare teams to treat pain; appropriate pain management; dedicated pain-related research funding; and pain management education for the elderly, health professionals and the vulnerable group.

## REFERENCES

- Allin, S., Masseria, C. and Mossialos, E. (2006). *Inequality in health care among older people in the United Kingdom: an analysis of panel data*. LSE Health working papers, 1/2006. LSE Health, London School of Economics and Political Science, London, UK. ISBN 0753020408
- Blazer, D. G., Landerman, L. R., Fillenbaum, G. and Horner, R. (1995). *Health Services Access and Use among Older Adults in North Carolina: Urban vs. Rural Residents*. From American Journal of Public Health. Vol. 85, No. 10.
- Guiam, R. et al. (2017). *The Dynamics and Processes of Internal Migration in General Santos City*. An LGU funded research conducted by the Sociology Department, Mindanao State University, General Santos City.
- Escarce, J. J., Epstein, K. R., Colby, D. C. and Schwartz, J. S. (1993). *Racial Differences in the Elderly's Use of Medical Procedures and Diagnostic Tests*. From American Journal of Public Health. Vol. 83, No.7.
- Fischer, G., Viglione, A. M., Calabrese A., Dobbin, M., Bertolotti, J. M., et al. (2011). Re: The non-medical use of prescription drugs Policy direction issues [Discussion paper]. Retrieved from [https://www.unodc.org/docs/youthnet/Final\\_Prescription\\_Drugs\\_Paper.pdf](https://www.unodc.org/docs/youthnet/Final_Prescription_Drugs_Paper.pdf)
- Fitzpatrick, A. L., Rowe, N.R., Cooper, L.S., Ives, D.G. and Robbins, J.A. (2004). "Barriers to Health Care Access Among the Elderly and Who Perceives Them." Research and Practice. American Journal of Public Health., Vol 94, No. 10. USA: American Public Health Association.
- Iezzoni, L. et al. (2002). "Satisfaction with Quality and Access to Health Care among People with Disabling Conditions." International Society for Quality in Health Care and Oxford University Press.2002; Volume 14, Number 5:369-381. Journal. Retrieved on March 6, 2014.
- Machlin, Steven et. al (2011). "Health Care and Expenditures among Non-Elderly Adults with Multiple Chronic Conditions: variations by insurance Coverage Status, 2007-08 (Average annual)". Medical Expenditure Panel Survey. Statistical Brief #320. April 2011. Retrieved February 27, 2014.
- Matson, Jeremy (2010). "Transportation, Distance, and Health Care Utilization for Older Adults in Rural and Small Urban Areas." Small Urban and Rural Transit Center, Upper Great Plains Transportation Institute, North Dakota State University, Fargo. Journal. December 2010. Retrieved on March 20, 2014.
- Miraflor, Jovannie U. (2014). The Practice of Folk Healing of "Babaylan" in a B'laan Community. An Undergraduate Study in the Sociology Department, College of Social Sciences and Humanities, Mindanao State University, General Santos City.

- Tsuji, Y., Hirao, T., Fujikawa, A., Yoshioka, A., Yoda, T. and Suzue, T. (2012). "Disease-wide accessibility of the elderly in primary care setting: The relationship between geographic accessibility and utilization of outpatient services in Tokushima prefecture, Japan." *SciRes*.Vol.4, No.6, 320-326, 2012. Retrieved from <http://dx.doi.org/104236/health.2012.46053> on April 20, 2016.
- Wong, M., Chau, P.H., Goggins, W. and Woo, J. (2009). "A Geographical Study of Health Services Utilization Among the Elderly in Hong Kong: From Spatial Variations to Health Care Implications." *Health Services Insights*. Retrieved from <http://www.la-press.com> on April 19, 2016.
- World Health Organization. (2015). World report on ageing and health. World Health Organization. Retrieved on September 4, 2016 from <http://apps.who.int/iris/bitstream>.
- World Health Organization. (2011). Global Health and Aging. Retrieved January 2016 from [http://www.who.int/ageing/publications/global\\_health.pdf](http://www.who.int/ageing/publications/global_health.pdf).
- World Health Organization. (2011). World Report on Disability. Retrieved December 2015 from <https://www.unicef.org>.
- World Health Organization. Ageing, & Life Course Unit. (2008). WHO global report on falls prevention in older age. World Health Organization.
- Zutshi, B. and Gupta, N. (2013). "Medication Expenditure among Elderly Population: A Case Study of Vasant Kunj in Delhi, India." *Sick now Publications Ltd. Journal from Health Care HC 2013*, 1(1):19-27, DOI: m10.12966/hc.5.5.2013.

Ester Z. Plaga  
Sociology Department  
College of Social Sciences and Humanities  
Mindanao State University, General Santos City 9500, Philippines  
Email: [estherplaga@yahoo.com](mailto:estherplaga@yahoo.com)

Ava Clare Marie O. Robles  
College of Education  
Email: [avarobles2014@gmail.com](mailto:avarobles2014@gmail.com)  
Mindanao State University, General Santos City 9500, Philippines