# ACCESS TO ESSENTIAL MEDICINES OF HOUSEHOLDS IN SELECTED ECO-TOURISM BARANGAYS IN PUERTO PRINCESA CITY, PALAWAN, PHILIPPINES

Jane Fatima G. Vicente-Tan, Mary Joy A. Habaradas

Palawan State University, Puerto Princesa City, Palawan, Philippines

jfgvicente@gmail.com, maryjoyhabaradas@gmail.com

#### **ABSTRACT**

Puerto Princesa welcomed around half a million tourists in 2011 making Tourism Industry the leading source of the City Government's income; thus, there is a need to protect the eco-tourism communities. By making sure community residents have access to their basic rights and needs, including the right to health, tourists' basic rights and needs are likewise quaranteed. To describe the access to essential medicines of Barangays Iwahig, Sta. Lourdes, Bacungan, Tagabinet and Cabayugan, descriptive quantitative research was utilized. The most accessible health facility or providers are the public health dispensary, traditional healer, and drug seller. Most of the households get selected medicines for free at the public health facility. They believe medicines are more expensive at private pharmacies than at public health facilities and that they can usually afford the medicines they need, considering how long they need to take the medicine and how much it costs. Moreover, they will not obtain prescribed medicines even if their insurance reimbursed part of the cost, primarily because the majority's health insurance doesn't cover out-patient medications. Majority of the household members who were acutely ill sought a doctor or nurse as the source of information about medicine, and got their medicines from private pharmacies. Medicines available at home are mostly over-the-counter medicines for acute illness. Researchers conclude that essential medicines are not accessible for the households of the selected eco-tourism barangays. This poses great hazard not only for permanent residents of the selected communities, but also to tourists. Should tourists need essential medicines, over-the-counter medicines can be given by the households, but if it's a chronic one, tourists have to travel by foot or vehicle for more than one hour to reach the nearest health facility where both the prescriber and source of medicine are available.

**Keywords**: Essential medicines, accessibility, eco-tourism, medications, medicines

### 1 BACKGROUND OF THE STUDY

Medicines are integral of any healthcare system, and limited access to medicines undermines health systems' objectives of equity, efficiency and health development. However, there is no single solution to medicine access problem given its multiple dimensions: availability, acceptability, affordability and accessibility (Tetteh, 2009).

As a component of the right to health, the right to essential medicines depends not only on the production, distribution, and pricing of medicines, but also on the incentives for research and development of drugs needed to treat diseases in developing countries, functioning health systems so that drugs are part of a rational system of quality treatment and care, as well as on infrastructure, so that they can be delivered to all areas where they are needed (Marks, 2003).

'Essential medicines', according to the World Health Organization (WHO), are those

that "satisfy the priority health care needs of the population" and "are intended to be available within the context of functioning health systems at all times in adequate amounts, in the appropriate dosage forms, with assured quality, and at a price the individual and the community can afford." The United Nations Development Group defines 'access' in this context as "having medicines continuously available and affordable at public or private health facilities or medicine outlets that are within one hour's walk from the homes of the population" (United Nations, 2001).

In 1975, half of the world's population was without access to life-saving and other essential medicines (UN Millennium Project, 2005). While the proportion has decreased to about one-third of the world's population, the absolute number has remained constant at approximately two billion people. According to the WHO, expanding access to existing interventions, including medicines, for infectious diseases, maternal and child health, and noncommunicable diseases would save more than 10.5 million lives a year by 2015 (WHO, 2004).

In the Philippines, expenditures for drugs and medicines constitute 46.4 percent of household expenditures for medical care (FIES, 2000). At the national level, the Department of Health spends roughly around 1.5 to 2 billion pesos annually on drugs and medicines out of its 9.5 billion peso annual budget while local governments allot a significant, albeit variable, amount for these commodities (National Objectives for Health Philippines 2005-2010). What is more alarming in the Philippine situation is the fact that local drug prices are in the range of two times to as much as 30 times higher than in Canada or other neighbouring Asian countries (Lim, 1997).

This study is in response to the call for researches focused on the University's research agenda of Eco-tourism and Sustainable Development. Eco-tourism is the leading source of the City Government's income, thus, there is the need to protect the Eco-tourism communities. In relation to this, quality of life of the permanent residents must be improved to ensure the sustainable community development which may directly or indirectly affect the services and products given for the tourist population. By making sure that the community residents have access to their basic rights and needs, including the right to health, the tourist population's basic rights and needs are likewise guaranteed.

The researchers asked the following questions: (1) How long does it take to reach the closest health care facilities or providers from the communities? (2) What is the household's perceived affordability of essential medicines? (3) What is the source of the essential medicines of the households? (4) Who is the preferred prescriber of the essential medicines of the households? And (5) what are the leading medicines available at home during the time of data.

### 2 METHODOLOGY

# 2.1 Design

To describe the scenario of the different communities' access to essential medicines, descriptive quantitative research was utilized.

# 2.1.1 Study Site and Samples

The locales of the study were purposively chosen that includes five rural barangays, including Barangays Iwahig, Bacungan, Sta. Lourdes, Cabayugan, Tagabinet, in Puerto Princesa City, identified as the key areas for tourism industry.

Barangay Iwahig is a rural community with a population of 2,526 (May, 2010), located 20 kilometers south of the city proper. The main sources of income are agriculture, and tourist-support, government employed. Available health facilities include a Barangay Health Center, and a 20-bed capacity government hospital which serves only the prisoners.

Barangay Bacungan is a rural community with a population of 3,733 (May, 2010), located 24 kilometers north of the city proper. The main sources of income are agriculture, fishing and tourist-support. Available health facilities include Barangay Health Center, and a Botika ng Barangay.

Barangay Sta. Lourdes is a rural community with a population of 5,077 (May, 2010), located 15 kilometers north of the city proper. The main sources of income of the population are agriculture, fishing and tourist-support. Available Health facilities include Barangay Health Center and a Botika ng Barangay.

Barangay Cabayugan is a rural community with a population of 2,526 (May, 2010), located 70 kilometers north of the city proper. The main sources of income are agriculture, fishing and tourist-support. Available health facilities include Barangay Health Center, Botika ng Barangay, and Satellite Clinic.

Barangay Tagabinet is a rural community with a population of 1,442 (May, 2010), located 57 kilometers north of the city proper. The main sources of income are agriculture, and tourist-support. Available health facilities include Barangay Health Center and Botika ng Barangay.

A sample of 50 households were picked using stratified random sampling in every Barangay, more than enough of what is written in the Guidelines for Data Collectors of the WHO-HAI Accessibility to Essential Medicines Questionnaire of 15 households per health facility. The respondents were head/s of the family, of legal age, and involved in the decision-making in relation to health matters of the family. A total of 250 households were involved in this research.

#### 2.1.2 Instrumentation

To answer the questions evoked by the researchers, a four-part adapted version of WHO-HAI Accessibility to Essential Medicines Questionnaire was used. The first part of questionnaire includes the household's demographic data including the distance and the length of time needed for them to reach various health facilities. The second part includes questions pertaining to the perceived affordability of essential medicines. The third part includes the details of the household actual needs for medication for the past year, including the illness, the medicine used, the source of the medicine and the preferred prescriber. And the fourth part of the questionnaire includes the leading medicines available at home during the time of data collection. During the process of data collection, aside from asking the predetermined questions included in the Questionnaire, close and open-ended questions were asked which facilitated improved understanding of the issue at hand.

### 2.1.3 Data Collection

After the proposal was approved, and the Notice to Proceed was given by the Palawan State University Research Office, the researchers' prepared letters of request to the City Government of Puerto Princesa, and to the Offices of the five Barangay Chairpersons. With the permission of the Barangay Chairpersons, data collection commenced with the respondent's willingness to participate in the research. They were briefed about the study, and guaranteed of the confidentiality of their personal information and identification. The researchers, together with other data collectors, gathered data through interview with Guide Questionnaire.

## 3 RESULTS

## 3.1 Time Needed to Reach the Selected Health Facilities or Providers

Majority of the household members from Barangay Bacungan need to walk for less than one hour to reach a public health dispensary, a traditional healer, a private pharmacy, and a drug seller. However, majority of the household members from this barangay need to walk for

more than one hour to reach a public hospital, an NGO or mission hospital, and a private hospital, clinic or physician (Table 1).

**Table 1:** Distribution of the households according to time needed to reach selected health facilities or providers, n=250

HEALTH CARE FACILITY OR PROVIDER													
		Bacungan		Cabayugan		Iwahig		Sta. Lourdes		Tagabinet		Total	
OK PROVIL	ZEK	f	%	f	%	f	%	f	%	f	%	f	%
a. Public	< 1hr	18	7	0	0	50	20	47	19	0	0	115	46
hospital	> 1hr	32	13	50	20	0	0	3	1	50	20	135	54
b.NGO or	< 1hr	18	7	0	0	0	0	46	18	0	0	64	26
Mission hospital	> 1hr	32	13	50	20	50	20	4	2	50	20	186	74
c. Public health	< 1hr	48	19	50	20	50	20	49	20	46	18	243	97
center or dispensary	> 1hr	2	1	0	0	0	0	1	0	4	2	7	3
d. Private	< 1hr	18	7	1	0	0	0	46	18	0	0	65	26
hospital, clinic or physician	> 1hr	32	13	49	20	50	20	4	2	50	20	185	74
e. Traditional	< 1hr	42	17	48	19	0	0	48	19	50	20	188	75
healer	> 1hr	8	3	2	1	50	20	2	1	0	0	62	25
f. Private	< 1hr	38	15	1	0	0	0	48	19	6	2	93	37
pharmacy	> 1hr	12	5	49	20	50	20	2	1	44	18	157	63
a Drug collor	< 1hr	48	19	48	19	0	0	48	19	44	18	188	75
g. Drug seller	> 1hr	2	1	2	1	50	20	2	1	6	2	62	25

A greater number of the household members from Barangay Cabayugan need to walk for less than one hour to reach a public health dispensary, a traditional healer, and a drug seller. Moreover, majority of the household members from this barangay need to walk for more than one hour to reach a public hospital, an NGO or mission hospital, a private hospital, clinic or physician, and a private pharmacy.

Most of the household members from Barangay Iwahig need to walk for less than one hour to reach a public hospital, and a public health dispensary. On the other hand, majority of the household members from this barangay need to walk for more than one hour to reach most of the health facilities or providers including an NGO or mission hospital, a private hospital, clinic or physician, a traditional healer, a private pharmacy, and a drug seller.

Many of the household members from Barangay Sta. Lourdes need to walk for less than one hour to reach a public hospital, a public health dispensary, an NGO or mission hospital, a private hospital, clinic or physician, a traditional healer, a private pharmacy, and a drug seller.

Majority of the household members from Barangay Tagabinet need to walk for less than one hour to reach a public health dispensary, a traditional healer, a private pharmacy, and a drug seller. Furthermore, majority of the household members from this barangay need to walk for more than one hour to reach a public hospital, an NGO or mission hospital, and a private hospital, clinic or physician.

### 3.1.1 Household's Perceived Affordability of Essential Medicines

Households from the five barangays believed that they can get free medicines at public health care facility. Although, available medicines at public health facilities are few and can only be used in selected illnesses. They agreed that medicines are more expensive at private

pharmacies than at public health facilities (Table 2). But because of limited availability of medicines in public health facilities, most of the households still need to walk for more than one hour to reach a private pharmacy to buy needed medicines.

**Table 2:** Distribution of households according to perceived affordability of essential

medicines, n=250

		BARANGAY											
	PERCEIVED AFFORDABILITY		Bacungan		Cabayugan		Iwahig		Sta. Lourdes		Tagabinet		al
		f	%	f	%	f	%	f	%	f	%	f	%
My household	Yes	24	10	44	18	33	13	26	10	28	11	155	62
can get free medicines at the	No	23	39	6	32	14	36	24	40	21	38	155 62 88 35 7 3 197 79 21 8 32 13 51 20 194 78 5 2 150 60 100 40 0 77 3 165 60	35
public health care facility	Do Not Know	3	1	0	0	3	1	0	0	1	0		3
Medicines are	Yes	47	19	39	16	32	13	32	13	47	19	197	79
more expensive at private	No	2	31	11	34	3	31	3	31	2	31	21	8
pharmacies than at public health facilities	Do Not Know	1	0	0	0	15	6	15	6	1	0	32	13
My household	Yes	16	6	20	8	2	1	1	0	12	5	51	20
can usually get credit from the	No	33	43	30	42	48	49	49	50	34	44	194	78
private pharmacy if we need to	Do Not Know	1	0	0	0	0	0	0	0	4	2	5	2
My household	Yes	36	14	36	14	31	12	25	10	22	9	150	60
can usually afford to buy the	No	14	36	14	36	19	38	25	40	28	41	100	40
medicines we need	Do Not Know	0		0		0		0		0		0	
My household would obtain	Yes	28	11	12	5	1	0	11	4	25	10	77	31
prescribed medicines if	No	18	37	37	45	49	50	39	46	22	39	165	66
insurance reimbursed part of their cost	Do Not Know	4	2	1	0	0	0	0	0	3	1	8	3

Majority of the households from the five barangays also agrees they cannot usually get credit from the private pharmacy if they need to. They would rather not buy the medicine, than seek credit from the private pharmacy owners and operators. Some even said that it is a "lost cause" to seek credit for they know that owners and operators of private pharmacies will not allow them to buy medicines on credit basis.

Many of the households from Barangays Bacungan, Cabayugan and Iwahig said that they can usually afford to buy the medicines they need if the illness is acute or short-term and if the amount of the medicines they need is within their daily savings. While most of the households from Barangays Sta. Lourdes and Tagabinet simply said that they cannot usually afford to buy medicines they need, no matter what the cost is, and what the medicine is for.

Most of the households from Barangays Bacungan, and Tagabinet said that their household would obtain prescribed medicines if insurance reimburse part of their cost. While most of the households from Barangays Cabayugan, Iwahig and Sta. Lourdes claimed that they would not obtain prescribed medicines even if insurance reimburse part of their cost.

They all believe that the reimbursement process of out-patient medicines, should it be included in the coverage of the insurance plans, will surely be lengthy and costly on the part of the household.

# 3.1.2 Source of Information about the Medicine (Prescriber)

Household heads were asked of the acute illnesses the members experienced in the past 6 months. From there, they were asked about the medicines used, the source of information, and the source of the medicine.

Majority of the household members from the five eco-tourism barangays who were acutely ill sought the doctor or the nurse as the source of information about medicine. On the other hand, few of the household members who were acutely ill sought information from self, from Rural Health Midwife, from household members, from drug sellers, from traditional healers and from friends or neighbors (Table 3).

**Table 3:** Distribution of medications according to source of information (prescriber) n=460

_		BARANGAY										
Source of Information (prescriber)	Bacungan		Cabayugan		Iwahig		Sta. Lourdes		Tagabinet		Total	
(ргезепвег)	f	%	f	%	f	%	f	%	f	%	f	%
Doctor/nurse	27	6	139	30	39	8	31	7	39	8	275	60
Self	20	4	17	4	4	1	21	5	4	1	66	14
RHM	4	1	0	0	18	4	11	2	29	6	62	13
Household member	0	0	24	5	4	1	17	4	5	1	50	11
Drug seller	0	0	0	0	0	0	0	0	4	1	4	1
Traditional healer	0	0	0	0	0	0	2	0	0	0	2	0
Friend/neighbor	1	0	0	0	0	0	0	0	0	0	1	0
TOTAL	52	11	180	39	65	14	82	18	81	18	460	100

#### 3.1.3 Source of Essential Medicine

Majority of the household members who were acutely ill from Barangays Bacungan, Iwahig and Sta. Lourdes got their medicines from private pharmacies. It is to be noted again, that only Barangay Sta. Lourdes from the three barangays is nearest to the city proper. While Barangays Cabayugan and Tagabinet source their medicines from public health facility (Table 4).

On the other hand, the other sources of the minority of those who were acutely ill includes drug sellers, medical mission activities, private health care provider, public hospital, NGO/mission hospital, traditional healer, friends or neighbors, and available at home during illness.

**Table 4:** Distribution of medications according to source, n=460

		_	_									
Source of Medication	Bacungan		Cabayugan		Iwahig		Sta. Lourdes		Tagabinet		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Private Pharmacy	24	5	25	5	35	8	39	8	12	3	135	29
Public Health Sector	7	2	62	13	18	4	16	3	22	5	125	27
Drug Seller	7	2	40	9	1	0	12	3	6	1	66	14
Medical Mission	1	0	22	5	0	0	0	0	22	5	45	10
Private Health Care Provider	0	0	26	6	5	1	2	0	3	1	36	8
Available At Home	6	1	3	1	2	0	5	1	6	1	22	5
Public Hospital	6	1	0	0	4	1	2	0	5	1	17	4
Traditional Healer	0	0	2	0	0	0	2	0	4	1	8	2
Friend Or Neighbor Outside Household	1	0	0	0	0	0	2	0	1	0	4	1
NGO/Mission Hospital	0	0	0	0	0	0	2	0	0	0	2	0
TOTAL	52	11	180	39	65	14	82	18	81	18	460	100

# 3.1.4 Available Medicines at Home during Data Collection

The top ten available medicines at home during the data collection includes a generic and branded Paracetamol, Amoxicillin, Mefenamic Acid, Carbocisteine, Loperamide, Colds Medication, Multivitamins, Analgesics and Cotrimozaxole (Table 5). Eight out of ten medicines available at home are over-the-counter medicines, while 2 out of 10 requires prescription from a health care provider (prescription medicine). Most of the medicines (74%) at home are available in anticipation of future use. While some (16%) of the medicines is available for current treatment, and few (10%) were left from past treatment.

**Table 5:** Distribution of available medicines at home during the time of data collection

MEDICINE	Bacungan		Cabayugan		Iwahig		Sta. Lourdes		Tagabinet		Total		
	f	%	f	%	f	%	f	%	f	%	f	%	
Paracetamol	4	1.33	22	7.33	18	6.00	18	6.00	16	5.33	78	26.00	
Amoxicillin	3	1.00	16	5.33	9	3.00	13	4.33	7	2.33	48	16.00	
Mefenamic acid	4	1.33	18	6.00	7	2.33	8	2.67	4	1.33	41	13.67	
Carbocisteine	1	0.33	12	4.00	3	1.00	6	2.00	4	1.33	26	8.67	
Loperamide	1	0.33	8	2.67	5	1.67	7	2.33	1	0.33	22	7.33	
Biogesic	3	1.00	6	2.00	8	2.67	2	0.67	0	0	19	6.33	
Neozep	2	0.67	3	1.00	5	1.67	6	2.00	2	0.67	18	6.00	
Vitamins	0	0	6	2.00	3	1.00	4	1.33	4	1.33	17	5.67	
Alaxan	2	0.67	2	0.67	6	2.00	5	1.67	1	0.33	16	5.33	
Cotrimoxazole	1	0.33	5	1.67	3	1.00	4	1.33	2	0.67	15	5.00	
Total	21		98		67		73		41		300	100.00	

### 4 **CONCLUSION**

This research concludes that a gap exists between the goals set for health and the actual health scenario. It also concludes that essential medicines are generally not accessible to household members of the five selected eco-tourism barangays in Puerto Princesa, thus putting the valuable tourist population into the same risk.

The most physically accessible health facility or provider common in five barangays, are public health dispensary, traditional healer, and drug seller. Of the five eco-tourism barangays, Sta. Lourdes is nearest to the city proper, where most of the health facilities and providers can be found and can be reached within an hour walk, while most of the health facilities and providers are far from Barangay Tagabinet, and households need to walk for more than one hour to reach them.

Most of the households in the five barangays said that they can get free medicines at the public health facility. Also, they believe that medicines are more expensive at private pharmacies than at public health facilities. They believe that they can usually afford to buy the medicines they need considering how long they need to take the medicine and how much it costs. They said that they cannot get credit from private pharmacy if they need to. Moreover, they will not obtain prescribed medicines even if insurance reimbursed part of the cost.

Majority of the household members from the five eco-tourism barangays who were acutely ill sought the doctor or the nurse as the source of information about medicine. Majority of the household members who were acutely ill from Barangays Bacungan, Iwahig and Sta. Lourdes got their medicines from private pharmacies.

Majority of the medicines (8 out of 10) available at home are over-the-counter medicines, while 2 out of 10 requires prescription from a health care provider (prescription medicine).

With the results at hand, the researchers also conclude that essential medicines are generally not accessible for the households of the selected eco-tourism barangays in Puerto Princesa. This poses great hazard not only for the permanent residents of the selected communities, but also to the increasing transient population of local and foreign tourists. If the households do not have access to essential medicines at the right time, the same would apply to the tourist populations in the area. Should the tourists be needing essential medicines, over-the-counter medicines can be given by the households, but if the illness that needs medication is a chronic one, the tourists have to travel by foot or by vehicle for more than one hour to reach the nearest health facility where both the prescriber and the source of medicine are available.

### **5 RECOMMENDATIONS**

To ensure physical access to the essential medicines, the researchers recommend: (1) A well-coordinated medicine supply system must be established to ensure that funds for medicines purchases are used effectively and efficiently; (2) the existing Botika ng Barangay system must be properly evaluated; (3) the process of procuring, assuring the quality, the credential of the dispenser, and the prescription and dispensing procedures must be looked into not only in public health facilities but also the private retailers including sari-sari stores; (4) provision about where essential medicines can be bought/given, who can prescribe and who can dispense must be reviewed; (5) improve the public transportation means to assure timely arrival at the nearest public health facility; and (6) ensure that only quality medicines are available in the market.

To improve the affordability and availability of every essential medicine, the following are suggested: (1) remove taxes, tariffs and other government charges on medicines not only for Senior Citizens but also to the general public; (2) regulate mark-ups and margins in the public and private sector supply chains must be put into effect; and (3) promote generic

competition, mandating generic substitution, creating incentives for pharmacists to dispense low priced generics, and educating health professionals and consumers on the use of generics.

Finally, the researchers also reiterate the recommendations of World Health Organization Western Pacific Regional Office on essential medicines.

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