

Willingness to pay and ability to pay for health care services at Zainoel Abidin public hospital Banda Aceh, Indonesia

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Abstract. Increasing accessibility to health care services is a prime goal in many developing countries, purposively to create an equality health care services to the populations. However, there are peoples who still do not well-utilized the provided health care provision especially due to the financial reason. Willingness-to-pay (WTP) and Ability-to-pay (ATP) are two powerful tools to measure the health care services utilization in this study, as it would present the reflection of Acehnese purchasing power for health care provision in Aceh. The purpose of this study is to determine the risk factor for health care utilization amongst outpatient at public hospital dr.Zainoel abidin Banda Aceh. Methods: cross-sectional study involved a total of 180 outpatient captured at polyclinic public hospital dr.Zainoel abidin Banda Aceh. Survey was carried out by using a tailor-made questionnaire comprised of four separated sections; patient's sociodemography, perception, healthcare financing and insurance coverage. Data was statistically analysed by using SPSS software and had gone through univariate analysis and multiple logistic regression. Majority respondents (83.9%) use public health care services. Their WTP as outpatient at public health care services majority in the range less than Rp.9000 while as inpatient they were willing to pay within the range of less than Rp.30.000. However, majority (71.1%) patients expressed their ability to pay for health care services were between Rp.15.000 to Rp.219.999. Most of the respondent do not have health insurance (64.4%). However, respondent that only able to pay less than Rp.15000 and between Rp. Rp.15000 to Rp. 219.999 for health care services have a preference of going to public health care provision rather than private to seek for health care services that is vice versa to those patients that have health insurance coverage both, patient's ATP and possession of health insurance coverage presented a significant different ($p < 0.05$) with the public health care utilization in this study. The public health care utilization among Acehnese is closely influenced by two factors; their ability to pay for health care services and their possession of health care insurance.

Key words : willingness-to-pay, Ability-to-pay, health care utilization.

Introduction

One of subsystem of health care services is hospital. The hospital is an integral part of social and medical organization, the function of the which is to Provide for the population complete health care both curative and whose outpatient services reach out to the family and as the home environment, the hospital is Also a center for the training of health workers and for bio-social research (WHO,1957 in Asta, 2008)

Increasing utilization of health care services is the prime goal for many developing countries because it can be improving the community health status. Increased access to health care can create an equality health care services to the populations. But, there are peoples who still do not well-utilized the provided health care provision especially due to the financial reason.

In Indonesia, more than 50% of people have had a quick and easy access (distance < 1km or travel time <15 minutes) to reach the hospital, community health centers and private physician. Even 80% more people also have easy and fast access to Posyandu. However, only 20-30% who want to utilize health care facilities especially Posyandu, while 50-60% is precisely they feel no need (Bappenas, 2008). One of the efforts to promote demand for health care services is through understanding the factors which play an important role in health care utilization such as individual perception of illness, advice and influence of family, preference of particular health services and benefit of the services. Decision to use health services also be affected by the purchasing power of consumer and the price of health services. Households consider of all these factors when seeking health care services (Jack W,1999). Among these several factors, the price of the health care appeared as a major deterrent to many people who would like to use health care services (Asenso et al,1998; Pokhrel S et al,2004,2005; Sauerborn R et al,1994; Sommerfeld J et al, 2002). The consumer responses to prices will influence services utilization level and pattern, and revenues collected (Russel et al,1995) as well as improving acces community to healthcare (Gertler and Van der Gaag,1990; Lavy and Germain, 1995 in George S, 1997). Thus, it is crucial to look into consumer responses to price through people's willingness and ability to pay.

Hospital dr.Zainoel Abidin (RSUZA) is a public hospital known as a referral center and teaching hospital located in the capital city of province of Aceh with a capacity 350 beds. RSUZA new building standing on a land area of 42.946 square meters (m²). With a total building area reaches 19.056 square meters (m²). Nowadays the hospital has 1.212 staff to provide health service to 305 of treatment room. There are 104 specialist, 94 general physicians, 518 nurse and 400 administrator and analyst (Azhari, 2010). The social scheme known as jaminan kesehatan Aceh (JKA) was introduced in June 1,2010 by the Governor of Aceh mainly to provide free treatment to all Aceh people. Eversince, RSUZA reported received incremental amount of outpatients, inpatients, patients surgical care and referral patients from regency/municipality. Statistic from hospital patient record showed that the total number of outpatients registered was increased from average 100-200 to 500-900 outpatient/day. While from average 400 to 536-685 inpatient/month (Serambi, 2010).

The above conditions describes enthusiasm of Acehnese on JKA program with greater hope this program will be sustained. However, in the long run this program needs to be improved for not only serve as a political project but also to reach people satisfaction and regard the quality of services provided. Eventhough the JKA programme meant for all Acehnese regardless their socioeconomic status, only poor people among those highly utilize the health care provision for seeking health care. Rich people in Aceh seems reluctant to use this program due to bureaucratic reasons. Surprisingly, seeking health care abroad become a preference among wealthy people and it is currently become a trend in Aceh (Azhari, 2010). According to Gifari, 1984 there are five factors affecting the demand for health services are: 1. Pain perception 2. Actual demand (expectations, beliefs, experiences earlier, customs, religion) 3. Ability to pay 4. The motivation to obtain health services 5. Environment (availability of health care facilities). However, Health care utilization was reported significantly influenced by patient's socioeconomic status such as education, income, and demographic characteristics such as sex, age and ethnicity (Anderson, 1973; Hulka & Wheat,1985)

Based on the above explanation, we are interested to explore willingness and ability to pay for health care services as well as the risk factors that affected the health care services among Aceh people.

Willingness-to-pay and Ability-to-pay

The willingness-to-pay approach is an evaluation method used to determine the maximum amount of money an individual is willing to pay to gain a particular benefit (e.g. receive a healthcare service) (WHO, 1998)

Ability to pay is a subjective judgment predicated on some assumption as to what people ought to pay. Thus, the low-income clients are said to have a lower ability to pay than middle-income earners, irrespective of whether or not they buy the good/service (Varley 1995)

How much people are willing and able to pay for a good or services can be assessed in two ways : (a) by observing and modelling past health care utilization, expenditure and responsiveness to price or (b) by asking people directly how much they would be willing and able to pay for specified health care service or product (Russel S, 1995)

The outcome from this research could greatly contribute to the health care policy maker for further improvement of the health care financing in Aceh.

Materials and Methods

The purpose of this study is to determine the risk factor for health care utilization amongst outpatient at public hospital dr.Zainoel abidin Banda Aceh. A cross-sectional study involved a total of 180 outpatient with the inclusion sample was patient as a household head and patient that resource of payment from their own pocket while the exclusion was patient that resources of payment from elsewhere.

Survey was carried out by using a tailor-made questionnaire comprised of four separated sections; patient's socio demography, perception, healthcare financing and insurance coverage. The data collection was conducted in February-March 2011.

Data was statistically analysed by using SPSS software version 17 and had gone through univariate analysis to determine the description of respondents socio demographic, health care services utilization, the willingness-to-pay and ability-to-pay as well as

identifying respondents with health insurance coverage. Multiple logistic regression analysis was used to examine factors associated to health care services utilization.

In this study the dependent variable was healthcare utilization while the independent variable were socio demographic, WTP, ATP and possession of health insurance coverage. Health care services in this study is defined as the usage of health care services frequently visited by respondents. Whilst the socio demographic was taken into consideration the respondent's gender, age, education level, occupation and income. The willingness to pay is defined as the maximum amount of money a person would pay out-of-pocket for a health care services. While ability to pay is a patient's affordability to pay for health care services based on their monthly budget for health care provided the household.

Results and Discussion

Majority of respondents (75.6%) were male, with a mean age of 45 years. Approximately 45.5% of the respondents was with education level at high school and most of them (38.9%) was self employed. The average monthly income was Rp. 2.630.277. Detailed socio-demographic characteristic of respondents are provided in Table 1 below :

Tabel 1. Socio-demographic characteristics of respondents in RSUZA Banda Aceh on 2011 (n=180)

| Socio-demographic characteristics | n | % |
|-----------------------------------|-----|-------|
| Sex | | |
| Male | 136 | 75.6% |
| Female | 44 | 24.4% |
| Age group | | |
| ≤25 | 3 | 1.7 |
| 26-35 | 33 | 18.3 |
| 36-45 | 57 | 31.7 |
| 46-55 | 61 | 33.9 |
| ≥56 | 26 | 14.4 |
| Education level | | |
| No school | 5 | 2.8 |
| Primary | 31 | 17.2 |
| High school | 82 | 45.5 |
| Diploma | 21 | 11.7 |
| University | 41 | 22.8 |
| Occupation | | |
| Civil servant | 57 | 31.7 |
| Housewife | 12 | 6.7 |
| Merchant | 4 | 2.2 |
| Self employed | 70 | 38.9 |
| Fisherman | 4 | 2.2 |
| Farmer | 33 | 18.3 |
| Income (Rupiah) | | |
| ≤900.000 | 11 | 6.1 |
| 1000.000-5000.000 | 159 | 88.3 |
| 6000.000-10.000.000 | 9 | 5.0 |
| ≥11.000.000 | 1 | 0.6 |

Approximately 83.9% of the respondents reported receiving health care services from the public health care provider as outpatient and inpatient care, with their WTP was less than Rp.9000 and Rp.30. 000 per episode of care, respectively. However, majority (71.1%) of respondents expressed their ability to pay for health care services were between Rp.15.000 to Rp.219.999 and most of them (67.2%) do not have health insurance coverage as shown in the Table 2. The Multiple Logistic Regression analysis in Table 3 are focusing on the factors associated to public health care services utilization.

The Table 3 above showed that the independent variables significantly associated to public health care utilization were the ability-to-pay for health care and possession of health insurance coverage. The Exp (B) values indicates the respondents with ATP for health care was Rp.15.000-Rp.219.999 has 18 the odds/chance to use public health care provision (Exp (B) : 18.472; P : 0.019; 95%C.I : 1.61,210.9) compared to the reference group(<Rp.15000). Whilst respondents with ATP for health care was Rp.220.000-599.999 has 9 the odds/chance to use public health care provision (Exp (B): 9.152; p : 0.003; 95%C.I : 2.12,39.3) compared to the reference group(<Rp.15000). However, the respondents with ATP for health care was ≥Rp.600.000 was not significant predictor. The

respondents with health insurance coverage has 2 the odds/chance to use public health care provision (Exp (B) : 2.400; p: 0.050; 95%C.I : 0.99,5.76). Based on the Wald value, it showed that the independent variable that have the strongest association with dependent variable was ATP for health care in the range Rp Rp.220.000-Rp.599.999 (Wald : 8.856; p :0.003).

The multivariat analysis described that the utilization of public health care provision was affected by ability-to-pay for health care and possession of health insurance coverage. It was caused the ability-to-pay for health care among Acehnese still low and the cost of public health care provision relatively inexpensive. Whilst the majority of possession of health insurance coverage was government health insurance. This conditions was similarity to Gilson (1997) that reported the lack of ability to pay affects on health seeking and treatment. According to Sachiko and Damian (2011) reported the three most common reason for going to a public provider were having health insurance, location close to home and low cost.

Table 2. frequency of health care utilization, WTP, ATP and health insurance coverage of respondents in RSUZA Banda Aceh on 2011 (n=180)

| variables | n | % |
|---|-----|-------|
| Health care utilization | | |
| Public health care provision | 151 | 83.9% |
| Private health care provision | 29 | 16.1% |
| Willingness-to-pay as outpatient | | |
| <Rp.9000 | | |
| Rp.9.000 – Rp.32.999 | 101 | 56.1 |
| Rp.33.000- Rp.56.999 | 44 | 24.5 |
| ≥Rp.57.000 | 22 | 12.2 |
| as inpatient | 13 | 7.2 |
| <Rp.30.000 | | |
| Rp.30.000–Rp.179.999 | 103 | 57.2 |
| Rp.180.000–Rp.299.999 | 50 | 27.8 |
| ≥Rp.300.000 | 13 | 7.2 |
| | 14 | 7.8 |
| Ability-to-pay (monthly budget for health care) | | |
| <Rp.15.000 | | 11.7 |
| Rp.15.000 – Rp.219.999 | 21 | 71.1 |
| Rp.220.000 – Rp.599.999 | 128 | 12.2 |
| ≥Rp.600.000 | 22 | 5.0 |
| | 9 | |
| Health Insurance | | |
| Have | | 35.6 |
| No | 64 | 64.4 |
| | 116 | |

Table 3. Estimasi multiple logistic regression

| Variables | B | SE | Wald | p-value | Exp(B) | 95%C.I |
|--------------------------------------|-------|-------|-------|---------|--------|------------|
| Ability-to-pay (ATP) for health care | 2.916 | 1.243 | 5.509 | 0.019 | 18.472 | 1.61,210.9 |
| Rp.15.000– Rp.219.999 | 2.214 | 0.744 | 8.856 | 0.003 | 9.152 | 2.12,39.3 |
| Rp.220.000-Rp.599.999 | 0.610 | 0.818 | 0.556 | 0.456 | 1.840 | 0.37,9.14 |
| ≥Rp.600.000 | 0.876 | 0.447 | 3.833 | 0.050 | 2.400 | 0.99,5.76 |
| Health insurance coverage | | | | | | |

Conclusions

Respondent's ability to pay for health care services and their possession of health insurance coverage are the risk factors for Acehnese to utilize public health care provision for health care services.

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