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Determinants of Primary Health Care Utilization in Ethiopia*

Kim, Dohyeong
Yonsei Global Health Center, Korea

Kidist Birmeta
Environment and Coffee Forest Forum, Ethiopia

Kim, Chulsoo
Myungsung Medical College, Ethiopia

Bimala Sharma
Yonsei Global Health Center, Korea

Sarita Dhakal
Yonsei Global Health Center, Korea

Lee, Hocheol
Yonse University, Korea

Nam, Eun Woo
Yonsei University, Korea

In Ethiopia, primary health care services utilization remains low and irregular. This study attempted to assess utilization and associated factors in Holeta Town, Oromia region, Ethiopia.

A cross sectional survey was conducted among randomly selected 1,422 households. Multivariate logistic regression analysis was applied to calculate crude and adjusted odds ratios(aOR) at 5% level of significance using Andersen model. The primary health care services utilization was 60.0%. Logistic regression analysis revealed predisposing factors: Gurage ethnicity (aOR=0.48), being married (aOR=1.53), and having favorable attitudes towards health services

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(aOR=1.74); enabling factors: monthly income of 501–1,000 birr (aOR=1.51), and not having health insurance (aOR=1.89); and need factor: absence of experience of illness (aOR=0.48) that determined primary health care utilization.

Primary health care utilization was influenced by predisposing, enabling, and need factors, concerned authorities should focus on the needs of low-income households, improving their socio-economic status, and strengthening primary healthcare services to promote utilization.

[Keywords: Primary Health Care, Utilization, Andersen Model, Ethiopia, KOICA]

Ⅰ. BACKGROUND

Ethiopia is a large landlocked country consisting of nine regional states and two city administrations with geographical diversity ranging from mountainous highland to tropical forest (Central Statistical Agency, 2013). According to the World Health Organization's (WHO) country profile, Ethiopia has 94.1 million people-making it the second most populous country in Sub-Saharan Africa-only 19% of which live in urban areas. Ethiopia remains among the poorest in the world, but compared to the rest of Sub-Saharan Africa, Ethiopia is performing relatively well in economic growth (Kim et al., 2011). Gross national income per capita in 2013 was 1,350 USD and total expenditure on health was 3.8% of the gross domestic product.

There are four levels in the health system of Ethiopia: a primary health care unit (PHCU), the district hospital, zonal hospital and specialized hospital. A PHCU has been planned to serve 25,000 people, comprising one health center and five satellite health posts, provides comprehensive primary health care which includes promotive, preventive, curative and rehabilitative services (EFMOH, 2005). Utilization of the health services is most important vehicle to improve health status of the people. Along with the availability of services, people must first utilize the services in order achieve impact of the health program. Some previous studies

show that health services utilization, especially maternal and child health, was found poor in Ethiopia (Tessema et al., 2002; Mekonnen, 2003 and Tefera et al., 2014). The median patient delay was 60 days and mean 78.2 days for pulmonary tuberculosis patients in Ethiopia, which also show the poor service utilization among people (Demissie et al., 2002). Different socio-economic, geographical and services related factors influence the services utilization in Ethiopia (Tefera, 2014).

The WHO formalized its commitment to primary healthcare (PHC) in 1978, when PHC was identified as central to achieving the "Health for All" goal and as key to improving global health (WHO, 1978). PHC refers to essential, affordable healthcare services based on practical, scientifically sound, and socially acceptable interventions and technology made accessible to individuals and families in the community through their full participation at every stage of their development, in the spirit of self-reliance and self-determination. It forms an integral part of both the country's health system and of the community's overall social and economic development. It is the first level of contact with the national health system for individuals, the family, and the community, with facilities accessible from residences and workplaces. It constitutes the first element of continued healthcare (WHO, 2008) and involves close-to-client healthcare (WHO, 2010).

Countries characterized by a strong primary-care orientation have better and more equitable health outcomes than systems oriented toward specialty care (Macinko et al., 2003). Knowledge and understanding of health-service use are necessary for health-resource allocation and planning (Pill et al., 1984). Good health-system management and planning relies on informed decision-making (Tanser et al., 2001). Previous studies showed that the non-existence of heath policies (Muhanned, 2013), client-perceived quality of services and social- cultural and economic factors, rather than geographical access (Duong, 2004) and geographical distance to the health center (Nteta, 2010 and Baker, 2006) affect the utilization of the primary health care. Unfortunately, health-service planning and policy-making are undertaken without a clear understanding of the nature of current utilization, particularly in rural areas in developing countries where research

is limited. The lack of understanding of current and past utilization hinders future PHC delivery improvement in such remote areas.

Ethiopia's decentralized healthcare system provides prevention, health promotion, and curative healthcare through public and private health sectors (WHO, 2013). There is a provision of free health services for those who cannot afford healthcare. Through the Health Extension Programme, the government has attempted to provide care in inaccessible rural communities by recruiting and training women as paid frontline health workers (EFMOH, 2007). There has been an 18-fold increase in the number of health posts: from 833 in 2000 to 15,095 in 2011. PHC potential coverage stands at 90%, covering most rural areas (EFMOH, 2010); however, we expect that actual utilization of health services would differ according to factors besides physical access. An understanding of factors that influence PHC utilization in Ethiopia, including Holeta Town, is limited.

Therefore, this study attempted to explore predisposing, enabling, and need factors that determine PHC utilization in Holeta Town. Our findings can help policy makers, governmental and non-governmental organizations, and the Korea International Cooperation Agency (KOICA) to plan and implement programs intended to promote PHC utilization in rural Ethiopia.

Ⅱ. METHODOLOGY

1. Study Area

Holeta Town is located in the West Showa zone of Oromia state, 29 kilometers west of Addis Ababa, the capital of Ethiopia. Administratively, the town is sub-divided into eight kebeles-the smallest administrative unit in Ethiopia-where the majority's livelihood comes from agriculture, petty trade, and jobs at governmental and nongovernmental organizations. A government-owned health center, health posts and private clinics provide health services in Holeta Town.

2. Sampling and Data Collection

A cross-sectional descriptive survey-designed to measure their PHC utilization-was conducted from September 23 to October 31, 2013. The reference population for the survey was all households in eight kebeles, Goro Kerensa, Burka Wolmera, Mada Gudina, Burka Harbu, Birbilsa Siba, Galgal Kuyu, Sadamo, and Tullu Harbu, from which the sample was drawn using stratified random sampling. The allocated sample size for each kebele was obtained using probability proportional to the size of households in each kebele. A total of 1,422 households were selected: Goro Kerensa (n = 384), Burka Wolmera (n = 80), Mada Gudina (n = 41), Burka Harbu (n = 390), Birbilsa Siba (n = 374), Galgal Kuyu (n = 81), Sadamo (n = 34), and Tullu Harbu (n = 38). For all kebeles, every second household was selected based on a random starting point. Household surveys were conducted by face-to-face interview with a pretested structured questionnaire to obtain information on demographic and socio-economic characteristics, healthcare utilization, and women's views and attitude toward healthcare services. Four groups of data enumerators, each comprising a man and woman fluent in the local language and familiar with the kebeles were selected for data collection. Eight supervisors who were familiar with the population, setting, and social administration of the selected kebeles were hired. Enumerators and supervisors were trained to ensure familiarity with data collection tools and approaches.

3. Study Model and Variables

For this study, we used Andersen model of health services utilization, according to which, individual's access to and use of health services is a function of three characteristics: predisposing, enabling, and need factors (Andersen, 1995). Need factors include illness severity and frequency; that is, the higher the severity or number of episodes the greater the extent of utilization (Pathak et al., 1981 and Sauerborn et al., 1989). Moreover, the way people report their health status is

directly related to their use of medical services. Regarding predisposing factors, healthcare needs vary depending on age, gender, and marital status, resulting in differing utilization of health services. Other predisposing factors like education and family income also affect utilization of health services. Regarding enabling factors, researches have shown that increased distance between residence and healthcare facilities is related to decreased utilization (Lindelow, 2004). User perceptions of healthcare service quality offers a useful perspective to professionals' or public health authorities' evaluations. Thus, predisposing factors refer to those that shape attitudes toward service use (individuals' preexisting sociocultural characteristics), enabling factors refer to resources or characteristics that promote or inhibit service use, and need factors refer to the individual's illness or impairment that necessitates health care utilization (Sauerborn et al., 1989). In this study, predisposing factors are sex, age, ethnicity, religion, marital status, education status, employment status, and individual attitudes towards health services. Enabling factors include travel time to health center, health insurance, and economic status (household income, self-perceived wealth status). Need factors are self-perceived health and experience of illness. Moreover, the outcome variable is PHC use in the 12 months prior to the survey.

4. Statistical Analyses

Data were analyzed using SPSS version 21. Data cleaning was conducted using frequencies and cross tabulations to check accuracy, outliers, consistencies, and missing values. Descriptive analysis was used to describe the study population in relation to demographic, socioeconomic, and other relevant variables, as well as service utilization. Multivariate logistic regression analysis was carried out to explore the net effect of all independent variables on the dependent variable by controlling potential intervening variables. The outcome variable was coded as 1 if the respondent utilized PHC services and 0 if the respondent did not utilize PHC services. Experience of illness was measured by experience of illness and severity in

the 12 months prior to the survey.

Correlations between independent variables and the model's goodness of fit were examined before applying binary logistic regression models. A multicollinearity effect in the model was checked using tolerance or variance inflation factor; no effect was observed. Since the Hosmer-Lemeshow test value was not significant, the model was deemed to fit the data well. Thus, Anderson's conceptual model of healthcare utilization was used to compile indices of predisposing, enabling, and need characteristics as outlined in Table 1.

5. Ethical Considerations

The survey was conducted after obtaining written consent from Holeta Health Bureau and District Council. The survey protocols were also reviewed by the Institutional Review Board, Yonsei University, Wonju, South Korea (1041849-201401-BM-001-02). Informed verbal consent was obtained from each study subject. Each respondent was informed about the study objective and assured of data confidentiality.

Ⅲ. RESULTS

1. Characteristics of the study population

Of the 1,422 study participants, 815 (57.3%) were female. Further, 60% of male participants and 60.1% of female participants utilized health centers. The majority were 30-59 years old, of which 61.9% utilized health centers. The majority of study participants belonged to the Oromo ethnic group and 61.2% had utilized PHC centers. Moreover, the majority of respondents were married with a PHC utilization rate of 68.8%, and the majority had attained at least secondary-school education, of which 59.7% visited health centers. Employment status revealed that the majority were employed and 61.6% utilized PHC services (Table 2).

2. Predisposing factors

Of the variables included in the binary logistic regression model, sex, age, religion, education, and employment status were not significant. Ethnic group, marital status, and individual's attitudes towards health service significantly predicted health service utilization ($P < 0.05$). The multivariate analysis revealed that the Gurage ethnic group was less likely to use PHC services compared to the Oromo ethnic group (aOR = 0.48, CI [confidence interval]: 0.31-0.72), married participants utilized services more than those who were single (aOR = 1.53, CI: 1.11-2.10), and those with favorable attitudes towards health services were 1.74 time more likely to use PHC services compared to those with unfavorable attitudes (aOR = 1.74, CI: 1.33-2.28; Table 3).

3. Enabling factors

Among variables that explain enabling factors, monthly income and presence of health insurance were significantly linked to PHC service utilization ($P < 0.05$), while travel time to health center and self-perceived wealth status were not ($P > 0.05$). Regarding PHC use and average monthly income, the multivariate analysis showed that the likelihood of utilizing PHC services increased with higher family income. As observed in Table 4, respondents who had an average monthly family income over 1000 birr (aOR = 1.44, CI: 1.10-1.87) and those with an average monthly family income of 501-1000 birr (aOR = 1.51; CI: 1.14-2.00) were more likely to use PHC services compared to those whose family income was at most 500 birr. The likelihood of utilizing PHC services was almost twice for those without health insurance compared to those who reported to have insurance (aOR = 1.89, CI: 1.11-3.23; Table 4).

4. Need factors

Regarding variables that explain need factors, while experience of illness was significantly associated with PHC utilization (aOR = 0.48, CI: 0.37-0.65), self-perceived health status did not influence service utilization (P > 0.05). Respondents who were not sick were less likely to use PHC services compared to those who were sick or whose symptoms worsened (aOR = 0.48, CI: 0.37-0.65; Table 5).

Ⅳ. DISCUSSION

The present results show that 60% of respondents visited a health center at least once in the previous one year in Holeta Town. Regarding maternal healthcare, a study found that 87% of the women had at least one antenatal visit during their last pregnancy and about 61.6% of the women had given birth at the health institutions in Holeta Town (Birmeta et al., 2013). In contrast, the health services utilization rate in Jimma zone, southwest Ethiopia in 2007 was 45.6% (Girma et al., 2011). The health extension program introduced by Ethiopian government to improve access to and equity in essential healthcare through community outreach services available at residences may have contributed to this improved service utilization (Afework et al., 2014).

Among predisposing variables, ethnic group, marital status, and the individual's attitude towards health service were significantly related to PHC utilization in the present study. A study based on the Ethiopian Demographic and Health Survey also showed ethnicity as a predictor of maternal health service utilization (Tarekegn et al., 2014). Moreover, health service utilization varies significantly across ethnic groups (Dhingra et al., 2010; Sharma et al., 2014 and Shah et al., 2015). Consistent with previous studies, married individuals were more likely to use health services than were other groups (Girma et al., 2011; Dhingra et al., 2010; Ani et al., 2008

and Mekonnen et al., 2002). People with a favorable attitude towards PHC were more likely to use these services. Similarly, a study conducted in Nepal found that the perception that skilled health workers are available at the health facility was associated with higher utilization rates of institutional delivery services (Shah et al., 2015).

Among predisposing factors, monthly income and health insurance were significantly associated with PHC service utilization. In this study, respondents with an average monthly family income above 501 birr were more likely to use PHC services. This is consistent with other studies that show that household income is a strong predictor of healthcare service utilization (Ranman, 2009; Nigussie et al., 2004; Ethiopia Central Statistical Agency et al. 2012 and Celik et al., 2000). Maternal service utilization was also significantly associated with monthly average income in Holeta (Birmeta et al., 2013) as well as northern and south-central Ethiopia (Hagos et al., 2014). Micro- and small-business enterprises and integrated housing development are the Ethiopian government's most important urban poverty alleviation strategies, which may have contributed to increased PHC utilization (Wolde, 2011). In Holeta Town, only 4% of the participants had health insurance and PHC service use was almost twice as much for those who did not have health insurance compared to those who did. In fact, this may be attributable to economic status: those with low incomes may not have health insurance that provides access to private care facilities, and may explain why they prefer to use PHC services. However, most studies indicate that having access to health insurance increases the probability of service use. In a Turkish study, health insurance coverage and household wealth influenced maternal healthcare services use (Celik et al., 2000). Similar findings were observed in Mali where community health insurance that covered delivery costs was associated with increased use of delivery facilities (Smith et al., 2008). Access to medication contributed significantly to improving health service utilization in Thailand (Green, 2011). These findings suggest that financial security that provides access to services is an important predictor of PHC utilization.

Regarding enabling factors, experience of illness was found to predict service utilization. Several studies have reported significant associations between physical and mental health status and the utilization of health services (Surood et al., 2010; Nabalamba et al., 2007 and Blackwell et al., 2009). However, a significant effect of either physical or mental health status on routine health examination among African American men was not observed (Hammond et al., 2010).

Due to the cross-sectional nature of the present study, it is difficult to establish causal relationships between PHC service utilization and its determinants. Moreover, since the study was conducted only among residents of Holeta Town, the findings may not be generalizable to the population of Ethiopia. Further study is needed to investigate why people with low incomes (below 501 birr) have low PHC utilization; that is, to determine whether they cannot afford services provided by health centers, whether they are unaware of service availability, or whether there are other underlying causes.

V. CONCLUSION

About 60% of residents in Holeta town used PHC services. Further, utilization was influenced by a number of predisposing, enabling, and need factors. As the Gurage ethnic group is particularly vulnerable, this community should be provided greater access and awareness about PHC services. Moreover, since favorable attitudes towards the quality of service significantly increased service utilization, health authorities in Holeta need to focus on providing equitable, qualitative PHC services. Poverty was associated with lower PHC utilization in Holeta Town; thus, poverty alleviation interventions may positively contribute to service utilization. The concerned authorities and international donor organizations such as KOICA should focus on income generation activities and good quality PHC to overcome these barriers to service utilization.

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Appendix

Table 1. Study variables grouped according to Anderson's model of predisposing, enabling, and need factors of health service utilization

Variables	Values
Dependent variable	
PHC utilization	0 = No
	1 = Yes
Independent variables	
Predisposing factors	
Sex	0 = Female
	1 = Male
Age	0 = 15–29
	1 = 30–59
	2 = 60 and above
Ethnic group	0 = Oromo
	1 = Amhara
	2 = Tigray
	3 = Gurage
	4 = Others
Religion	0 = Orthodox
	1 = Protestant
	2 = Muslim
	3 = Others
Marital status	0 = Single
	1 = Married
	2 = Living with partner
	3 = Widow
	4 = Divorced
Educational status	0 = No schooling
	1 = Primary
	2 = Secondary and above
Employment status	0 = Unemployed
	1 = Employed
Attitudes towards health services	0 = Unfavorable
	1 = Favorable

Variables	Values
Enabling factors	
Income	0 = Below 501 birr 1 = 501–1,000 birr 2 = Above 1,001 birr
Travel time to health center	0 = 0–30 min 1 = 31–60 min
Self-perceived wealth status	0 = Very poor 1 = Poor 2 = Middle class 3 = Rich 4 = Very rich
Health insurance	0 = Yes 1 = No 2 = Don't know
Need factors	
Self-perceived health	0 = Excellent 1 = Good 2 = Average 3 = Poor 4 = Very poor
Experience of illness	1 = No 2 = Yes

Note : Currency rate 500 birr=23.7USD(November 5, 2015).

Table 2. Percentage distribution of PHC service utilization by participants' demographic and socio-economic characteristics

Characteristics	PHC service utilization		
	Yes (%)	No (%)	Total(%)
Sex (n = 1,422)			
Male	364(60.0)	243(40.0)	607(100.0)
Female	490(60.1)	325(39.9)	815(100.0)
Age (n = 1,422)			
15–29	274(57.0)	207(43.0)	481(100.0)
30–59	472(61.9)	290(38.1)	762(100.0)
60 and above	108(60.3)	71(39.7)	179(100.0)
Ethnicity (n = 1,422)			
Oromo	621(61.2)	587(38.8)	1,208(100.0)
Amhara	179(61.5)	112(38.5)	291(100.0)
Tigray	12(66.7)	6(33.3)	18(100.0)
Gurage	46(44.7)	57(55.3)	103(100.0)
Others	6(50.0)	6(50.0)	12(100.0)
Religion (n = 1,422)			
Orthodox	644(61.1)	410(38.9)	1,054(100.0)
Protestant	183(58.1)	132(41.9)	315(100.0)
Muslim	17(39.5)	26(60.5)	43(100.0)
Others	10(100.0)	0	10(100.0)
Marital status (n = 1,422)			
Married	654(68.8)	357(36.2)	1,011(100.0)
Living with partner	44(47.3)	49(52.7)	93(100.0)
Widowed	43(51.8)	40(48.2)	83(100.0)
Divorced	21(52.5)	19(47.5)	40(100.0)
Single	101(51.8)	94(48.2)	195(100.0)
Education (n = 1,064)			
No schooling	110(64.7)	60(35.3)	170(100.0)
Primary	196(59.8)	132(40.2)	328(100.0)
Secondary and above	338(59.7)	228(40.3)	566(100.0)
Employment status (n = 1,064)			
Employed	524(61.6)	328(38.4)	852(100.0)
Unemployed	125(59.2)	87(40.8)	212(100.0)
Monthly income (n = 1,422)			
500 and below	317(44.8)	391(55.2)	708(100.0)
501–1000	116(35.0)	216(65.0)	332(100.0)
1000 and above	135(35.3)	247(64.7)	382(100.0)

Source : author's field survey, 2013

Table 3. Multivariate logistic regression analysis of predisposing factors (N = 1,422)

Variable	PHC service utilization Yes (%)	No (%)	cOR(95% CI)	aOR(95% CI)
Sex				
Male	364(60.0)	243(40.0)	0.99(0.80–1.23)	
Female(RC)	490(60.1)	325(39.9)	1	
Age				
15-29(RC)	274(57.0)	207(43.0)	1	
30-59	472(61.9)	290(38.1)	1.23(0.91–1.55)	
60 and above	108(60.3)	71(39.7)	1.15(0.81–1.63)	
Ethnic group				
Oromo(RC)	621(61.2)	587(38.8)	1	1
Amharaa	179(61.5)	112(38.5)	1.01(0.77–1.32)	1.00(0.76–1.32)
Tigray	12(66.7)	6(33.3)	1.27(0.47–3.4)	1.22(0.45–3.32)
Gurage	46(44.7)	57(55.3)	0.51(0.34–0.77) *	0.48(0.31–0.72)*
Others	6(50.0)	6(50.0)	0.63(0.20–1.98)	0.68(0.21–2.25)
Religion				
Orthodox(RC)	644(61.1)	410(38.9)	1	
Protestant	183 (58.1)	132(41.9)	0.88(0.68–1.14)	
Muslim	17(39.5)	26(60.5)	0.42(0.22–0.78)	
Others	10(100)	0		
Marital status				
Married	654(68.8)	357 (36.2)	1.64(1.2–2.23) *	1.53(1.11–2.10)*
Living with partner	44(47.3)	49(52.7)	0.84(0.51–1.37)	0.70(0.42–1.17)
Widow	43(51.8)	40(48.2)	1(0.60–1.67)	1.01(0.60–1.70)
Divorced	21(52.5)	19(47.5)	1.03(0.52–2.03)	0.89(0.44–1.79)
Single(RC)	101(51.8)	94(48.2)	1	1
Education				
No schooling(RC)	110(64.7)	60(35.3)	1	
Primary	196(59.8)	132(40.2)	0.81(0.55–1.19)	
Secondary and above	338(59.7)	228(40.3)	0.81(0.57–1.15)	
Employment				
Employed	524 (61.6)	328 (38.4)	1.11(0.87–1.42)	
Unemployed(RC)	125 (59.2)	87 (40.8)	1	
Attitude towards health service(n = 769)				
Unfavorable(RC)	180 (86.1)	29 (13.9)	1	1
Favorable	560 (100.0)	0	1.63 (1.22–2.04)	1.74(1.33–2.28)*

Note : *P < 0.05

Source : author's field survey, 2013.

cOR: crude odds ratio, aOR: adjusted odds ratio, CI: confidence interval.

Table 4. Multivariate logistic regression analysis of enabling factors (N = 1,422)

Variable	PHC service utilization		cOR (95% CI)	aOR (95% CI)
	Yes (%)	No (%)		
Monthlyincome				
Below 500 birr(RC)	317(44.8)	391(55.2)	1	1
501-1,000 birr	116(35.0)	216(65.0)	1.51(1.15–1.97) *	1.51(1.14–2.00)*
Above 1,001 birr	135(35.3)	247(64.7)	1.48(1.15–1.92) *	1.44(1.10–1.87)*
Travel time to PHC(n = 769)				
0–30min	509(87.9)	70(12.1)	0.57(0.32–1.05)	
31–60min(RC)	176(92.6)	14(7.4)	1	
Self-perceived wealth status				
Very poor(RC)	273(60.4)	179(39.6)	0.67(0.39–1.14)	
Poor	269(60.3)	177(39.7)	0.67(0.39–1.13)	
Middle class	188(59.7)	127(40.3)	0.65(0.38–1.12)	
Rich	72(53.7)	62(46.3)	0.51(0.28–0.53)	
Very rich	52(69.3)	23(30.7)	1	
Health insurance (n = 1,363)				
Yes(RC)	27(47.4)	30(52.6)	1	1
No	796(63.2)	463(36.8)	1.91(1.12–3.25) *	1.89(1.11–3.23) *
Don't know	26(55.3)	21(44.7)	0.89(0.41–1.95)	0.93(0.42–2.02)

Note : *P<0.05

Source : author's field survey, 2013.

cOR: crude odds ratio, aOR: adjusted odds ratio, CI: confidence interval.

Table 5. Multivariate logistic regression analysis of need factors (N = 1,422)

Variable	PHC service utilization		cOR(95% CI)	aOR(95% CI)
	Yes (%)	No (%)		
Self-perceived health				
Excellent(RC)	425(57.5)	314(42.5)	1	
Good	268(63.2)	156(36.8)	1.27(0.99–1.62)	
Average	133(63.3)	77(36.7)	1.28(0.93–1.75)	
Poor	22(53.7)	19(46.3)	0.85(0.45–1.61)	
Very poor	6(75.0)	2(25.0)	2.21(0.44–11.05)	
Experience of illness				
No	445(65.3)	236(34.7)	0.49(0.38–0.65)*	0.48(0.37–0.65)*
Yes(RC)	354(79.2)	93(20.8)	1	1

Note : * P < 0.05

Source : author's field survey, 2013.

cOR: crude odds ratio, aOR: adjusted odds ratio, CI: confidence interval.

국문초록

에티오피아 일차보건의료 이용 결정요인

김도형
Yonsei Global Health Center

Kidist Birmeta
에티오피아 아디스아바바 환경 및 커피 연구소

김철수
에티오피아 명성의과대학교

Bimala Sharma
Yonsei Global Health Center

Sarita Dhakal
Yonsei Global Health Center

이호철
연세대학교

남은우
연세대학교

에티오피아는 일차보건의료 이용률이 낮고 지역별로 차이가 크다. 이에 본 연구에서는 에티오피아 홀레타 지역의 일차보건의료 이용에 대해 평가하고, 서비스 이용에 영향을 미치는 요인을 파악하고자 하였다.

본 연구는 홀레타 지역에서 층화 무작위 추출법에 의해 선정된 1,422명의 주민을 대상으로 횡단적 단면 설문조사를 실시하였다. 연구를 위해 앤더슨 모형을 사용하였고, 다변량 로지스틱 회귀분석을 통해 교차비 값을 제시하였다.

분석 결과, 홀레타 지역의 일차보건의료서비스 이용률은 60.0%였다. 회귀분석 결과 소인성 요인 가운데 Gurage 인종(aOR=0.48), 결혼을 했을 경우(aOR=1.53), 보건의료서비스에 대한 긍정적인 태도(aOR=1.74)가 일차보건의료서비스 이용에 영향을 미치는 것으로 나타났다. 가능 요인으로는 월 소득 수준이 높을 경우(aOR=1.51), 건강보험에 가입되지 않은 응답자(aOR=1.89)가 일차보건의료서비스를 더 많이 이용하였고, 필요 요인으로는 질병에 걸리지 않았을 경우(aOR=0.48) 일차보건의료서비스를 덜 이용하는 것으로 조사되었다. 연구 결과를 볼 때에 일차보건의료서비스 이용은 소인성 요인, 가능 요인 및 필요 요인에 영향을 받는 것으로 나타났으므로, 일차보건의료 서비스 이용을 장려하기 위해서는 저소득 가구를 지원하고 일차보건의료 시스템을 강화하는 것이 필요할 것으로 사료

된다.

[주요어 : 일차보건의료, 서비스 이용, 앤더슨 모형, 에티오피아, 한국국제협력단]

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First Author(제1저자): **Dohyeong Kim** is a Ph.D. candidate in Department of Health Administration, Yonsei University, Wonju Campus. She had two years of working experience in Ethiopia as a Project Manager of KOICA-Yonsei Health Project supported by KOICA. Her research interests are health promotion and global health. Her recently published works are "Evaluation on community health worker empowerment education program: Maternal and Child Health Project in DR Congo"(Korean J Health Education 1(1):44-56, 2015); "Cost Effective Analysis on KOICA and Yonsei University Cooperative Project of MCH Programs in Ethiopia"(International Development and Cooperation Review 6(2):119-152, 2014). (e-mail: kdh0202@yonsei.ac.kr)

Co-Author(공동저자): **Kidist Birmeta** is a project research fellow of Environment and Coffee Forest Forum, Addis Ababa, Ethiopia. She graduated with M.S.c degree in population studies(Demography) from Addis Ababa University in 2012. She has six years work experience in research institutes and related organizations. Her recent published article is "Determinants of maternal health care utilization in Holeta town, Central Ethiopia" (BMC Health Services Research 2013, 13:256).(e-mail: kidistbirmeta@gmail.com)

Co-Author(공동저자): **Chulsoo Kim** is a Dean of Myungsung Medical College in Addis Ababa, Ethiopia. He is also work in Myungsung Christian Medical Center as a Director. He is a specialist in Obstetrics and Gynecology. His interested fields are hospital management, maternal and child health, development cooperation and global health. (e-mail: kimobgyn@gmail.com)

Co-Author(공동저자): **Bimala Sharma** is a Ph.D. student in Department of Health Administration Department, Yonsei University, Wonju Campus. Her research interest includes child and adolescent health, health promotion and non-communicable diseases. Her recently published articles are "Obesity and Hypertension among School-going Adolescents in Peru"(J Lifestyle Med. 2015 Sep; 5(2):6-67); "Factors associated with suicidal ideation and suicide attempt among school-going urban adolescents in Peru"(Int. J. Environ. Res. Public Health 2015, 12, 14842-14856). (e-mail: bimalasharma@gmail.com)

Co-Author(공동저자): **Sarita Dhakal** is a Ph.D. candidate in Department of Health

Administration, Yonsei University, Wonju Campus. Her research interest includes Health promotion and improvement of the maternal and child health. Her recently publishing works are "Strengthening Health Systems to Accelerate Achievement of Millennium Development Goals 4 and 5: A Case Study of Ketu South and Keta Municipalities in Ghana"(Afr J Reprod Health, 2015 Jun; 19(2):101-7); "Improving maternal health in the Volta Region of Ghana: Development action plan from a baseline assessment using 5 As framework"(Primary Health Care 2015, 5:202). (e-mail: saritadhakal1234@gmail.com)

Co-Author(공동저자): **Hocheol Lee** is a undergraduate student in Department of Information and Statistics, Yonsei University, Wonju campus. He had two years working experience in KOICA-Yonsei Ethiopia Health Project supported by KOICA. His research interest field are health statistics and global health. (e-mail: yoon35pc@naver.com)

Corresponding Author(교신저자): **Eun Woo Nam** is a professor in Department of Health Administration, Yonsei University, Wonju Campus. Also, he is working for Yonsei Global Health Center as a Director since 2014. He was Principal Investigator of KOICA-Yonsei Ethiopia Health Project for two years and now he leads KOICA-Yonsei MCH project in DR Congo and KOICA-Yonsei Health Promotion project in Peru as a Project Leader with KOICA. His major research interest field are public health, health promotion as well as global health. He recently published the papers, "Role of gender, family, lifestyle and psychological factors in self-rated health among urban adolescents in Peru: a school-based cross-sectional survey"(BMJ Open 2016;6:e010149); "Improving Maternal Health in the Volta Region of Ghana: Development Action Plan from a Baseline Assessment using 5As Framework(Primary Health Care 2015, 5:202)." (e-mail: ewnam@yonsei.ac.kr)