INFANT REALIZED ACCESS MODEL BASED ON INFANT AND FAMILY FACTORS IN THE SOUTH CENTRAL TIMOR REGENCY

by Serlie K. A. Littik

Submission date: 13-Aug-2021 02:01PM (UTC+0800)
Submission ID: 1630898404
File name: 5_INFANT_REALIZED_ACCESS_MODEL_BASED_ON_INFANT.pdf (211.38K)
Word count: 2728
Character count: 14658

Available online at www.scientiaresearchlibrary.com

Scientia Research Library

ISSN 2348-0416
USA CODEN: JASRHB

Journal of Applied Science And Research, 2017, 5 (3):36-42

(*http://www.scientiaresearchlibrary.com/arhcive.php*)

INFANT REALIZED ACCESS MODEL BASED ON INFANT AND FAMILY FACTORS IN THE SOUTH CENTRAL TIMOR REGENCY

Serlie K. A. Littik[1*], Stefanus Supriyanto[2], Sri Widati[2]

[1]Doctoral Degree Program, [2]Lecturer Faculty of Public Health, Airlangga University, Surabaya, Indonesia

ABSTRACT

Health services for infants became a serious problem in South Central Timor Regency, because of its low utilization despite high infant morbidity and mortality. This study aimed to create a realized access model based on infants and family factors in South Central Timor Regency. This study applied a cross-sectional study design, with a sample of 280 respondents. Data were collected through interviews with questionnaire as guidance. Data were analyzed with SmartPLS Version 3.2.6. The results showed that family factors (income, health insurance ownership, mother's knowledge of infant health care services, health workers as a source of information) and infant factors (place of birth, birthweight, and age at birth) improved realized access of infants. Therefore increasing family income through the empowerment of women is needed, in addition of strengthening multisectoral cooperation in providing information and motivation to utilize health facilities for childbirth and infant care.

Keywords: realized access, family factors, infant factors, multisectoral.

INTRODUCTION

The infant mortality rate (IMR) is an indicator of child health, as well as population health. Socioeconomic factors affecting the health of the population have an impact on the IMR (Kurinczuk et al., 2009; Adams et al., 2009). Access to primary health care is one of the factors that influence infant morbidity and mortality (Adams et al., 2009). Improved access to medical care has been a major goal of much health legislation and planning (Andersen et al., 1983; Andersen, 1995), including in Indonesia.

Access can best be evaluated through utilization rates (Andersen et al., 1983). The low utilization rates indicate poor access to health services. Realized access is the actual use of service (Andersen, 1995), not only the presence of health facilities.

South Central Timor Regency has low infant realized access. In 5 years (2009-2013), there is a decrease in the infant utilization rate of 33.3%. Although in 2014, an infant utilization rate increase to 75.6 % (Health Department of TTS Regency , 2015), but the figure is far below the level of Indonesia infant visits, 92.9 % (Ministry of Health Republic of Indonesia, 2015).

Infant realized access influenced by a lot of factors. Existing studies have shown that factors influenced realized access are as follows: place of birth (Khanal et al.,2014; Workineh and Hailu, 2014), age at birth, and birthweight (Mac Bird et al.,2010; Rai et al., 2010); health insurance ownership (Ataguba and Goudge, 2012; Kondo and Sigeoka et al., 2013), income (Bekeera et al., 2009; Seeberg et al., 2014), mother's knowledge of infant health care services (Bhaisare and Khakase, 2014; Tesfahun et al., 2014; Kinuthia, 2014), and source of information (Rai et al., 2014; Jung and Viswanath, 2015). This study wants to explore infant and family factors that influence infant realized access. Those factors were intended to produce infant realized access model in the South Central Timor Regency.

MATERIAL AND METHODS

This study was conducted in the South Central Timor Regency from April to November 2016. In the year 2014, South Central Timor Regency has the highest infant mortality rate in East Nusa Tenggara Province. A multistage random sampling was used to select 2 public health centers (Puskesmas), representing a low and high rate of infant utilization care service. A total of 17 villages (Nulle: 8 villages, and Ayotupas: 8 villages) with 280 respondents were included in this study.

Informed consent was obtained from each participant. The interview was used to collect data from respondents. We calculated frequencies, median, mean, and standard deviations with *statistical software* and used Smart PLS version 3.2.6 (Singh et al., 2012) for the model. Ethical clearance for this study was obtained from Health Faculty Research Ethics Committee at the Airlangga University.

RESULTS AND DISCUSSION

The total number of participating households was 280 (with 7,928 live births in 2014). Table 1 shows the sociodemographics and infant health-related information of the respondents.

Table 1 Sociodemographics and Infant Health-Related Information of the Respondents in South Central Timor Regency

Variables	Number	%
Age of mothers	(Mean) 28.14 ±4.89	
<20	years	1.8
20-35	5	88.9
>35	249	9.3
	26	
Mother's occupation		
Housewife	259	92.5
Age of infant	(Mean) 6.53 ±	
1-4 months	2.81months	18.6
>4-9 months	52	65.7
>9-11 months	184	15.7
	44	
Gender of infant		
Boy	129	46.1
Girl	151	53.9
Infant had symptoms of the disease in the last	232	82.9
month	125	44.6
Infant need medical service		

Variables	Number	%
Age at birth		
Late preterm	3	1.1
Premature	56	20.0
Normal	221	78.9
Birthweight		
Macrosomia	1	0.4
Low birthweight	68	24.3
Normal	211	75.4
Place of birth		
Home	92	32.9
Public health center (Puskesmas)	147	52.5
Practice doctors / midwives	8	2.9
Hospital	33	11.8
Average monthly income of family	(Median) IDR 500,000 ± IDR 756,562.915	
< IDR,500,000	248	88.6
IDR 500,000 – IDR 2,500,000	24	8.6
> IDR 2,500,000	8	2.9
Have health insurance	144	51.4
Knowing about infant health service		
Not understood	67	23.9
Less understood	135	48.2
Understood	78	27.9
Source of information		
Family	32	11.4
Cadre	61	21.8
Mass media	3	1.1
Health worker	184	65.7

Majority of mother were housewives and in the productive age. They take care of their infant by themselves. More than 75% infant was born in the normal age with normal birth weight. Even there was a regulation that forced pregnant women to deliver in health facility, however, there are 32.9% mother who delivered at home. Of the total infant, 82.9% had symptoms of disease within the last month. Almost a half (44.6%) of the infant who had symptoms needs medical services. The majority (88.6 %) family has earned below the regional minimum wage, but 51.4 % of them have health insurance. Table 1 also shows the lack of knowledge about infant health service.

Table 2 Loading factors

Latent Variables	Indicator	*Outer Loading*	T-Statistic (O/STDEV)
Infant factors	Age at birth	0.703	3.521
	Place of birth	0.836	4.958
	Birthweight	0.691	3.355
Family factors	Income	0.723	12.456
	Insurance	0.405	3.279

Latent Variables	Indicator	*Outer Loading*	T-Statistic (O/STDEV)
	Knowledge	0.666	8.715
	Sources of information	0.671	9.135

Table 2 shows that all indicators that used can measure latent variables. Place of birth and family income are the main indicator that gives the biggest contribution to each latent represented.

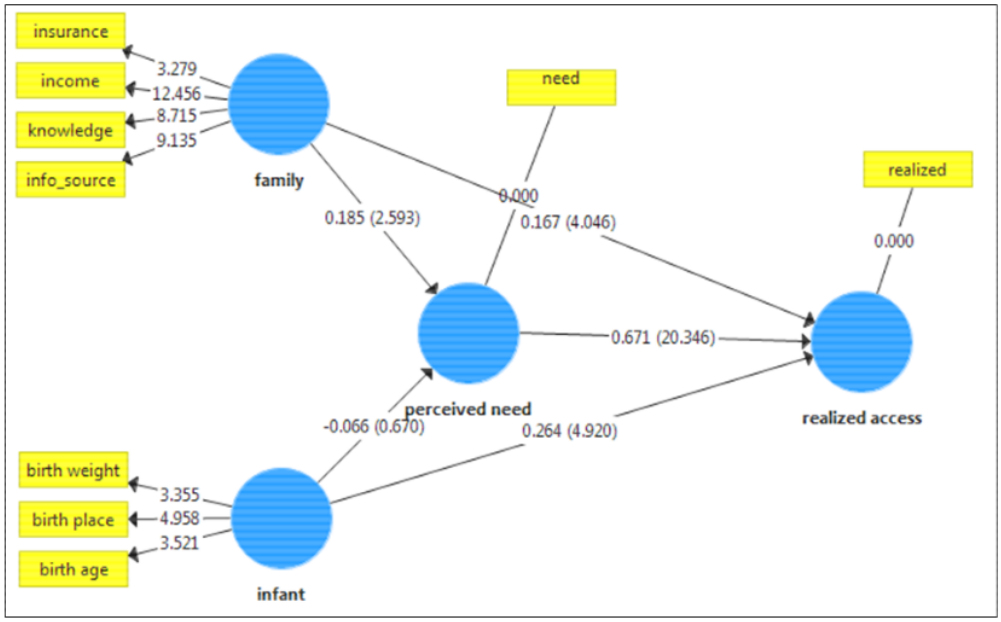

Figure 1 Relationship Model Analysis of the Exogenous Variables of Endogenous Variables

Figure 1 shows two things. First, infant factors directly influence realized access, but not influence realized access through perceived need. Second, family factors influence realized access either directly or indirectly. Family factors → perceived need → realized access is the path that gives the biggest effect of infant realized access in the South Central Timor Regency.

DISCUSSION

Infants factors (place of birth, birthweight, and age at birth) affecting infant realized access in South Central Timor Regency. Babies who were born in health facilities tend utilize health facilities during sickness, because the mother had provided with information concerning various services available and had been motivated to take advantage of the health care (Khanal et al., 2014; Workineh and Hailu., 2014). Similarly in premature and low birthweight infants. These findings were in accordance to findings of Rai, Escobar and Lorch and McBird, et al., who found that babies born prematurely need more assistance from the health professionals and other health equipment support compared to normally-born infants (Mac Bird et al., 2010; Rai et al., 2010). This

requirement is associated with high risks faced by babies (Lambert-Evans et al., 2009). Although there was a tendency that premature and low birthweight babies infant to suffer illness, but the result showed that birthweight and birth at age did not affect the perceived need of medical care. Mother confidence related the cause of illness and danger signs in infants is very decisive on this point. In addition, because the majority of infants that became subject of study were born with normal weight and at a normal age, the statistics failed to have a significant influence on the perceived need.

Family factors (family income, health insurance ownership, mother's knowledge, and resources) was also found to affect realized access. Income contributed the largest to construct family factors. Therefore, intervention can be focused on increasing family income, primarily through the empowerment of mothers who were housewives in majority. This study found that the higher the family income, the higher the infant realized access. Similarly, in families with health insurance. When the baby suffering illness, families with medium and high income categories or families who have health insurance were able to provide the infants to health facility because it had a guarantee/ value to pay for the services and drug costs (Sharkey et al., 2011; Seeberg et al., 2014).

Mother's knowledge and resources were found to affect realized access in South Central Timor Regency. The better understanding of the mother, the higher the realized access. These findings were in accordance with Tesfahun et al (2014) and Kinuthia (2014). Although the mass media (radio and TV) is highly effective in disseminating information (Jung and Viswanath, 2015), but the majority of women in South Central Timor Regency received health information from health professionals. Mothers were depended on health professionals to obtain the right health information (Kahneman , 2003; Johnson, 2014) because of limited media for health information. Shortage of health personnel in the area of study could be circumvented by involving cadres, religious leaders and traditional leaders, as well as other authorities in disseminating information on infant health services. The information is not only aimed to the mother, but also including the husbands, mother-in-law, and other family members (Johnson, 2014). In order to get a more effective message, the content could promote more about economic losses if health facilities for childbirth are not being utilized and/ or delaying utilization of health facilities during sickness.

The implication of these results is the importance of increasing family income and information about economic losses if not use health facilities for delivery and infant health care. Promoting and strengthening on the multisectoral cooperation is a core priority for improved infant realized access.

CONCLUSION

Family factors (income, health insurance ownership, mother's knowledge of infant health care services, health workers as a source of information) and infant factors (place of birth, birthweight, and age at birth) improved realized access of infants. Therefore increasing family income through the empowerment of women is needed, in addition of strengthening on the multi sectors cooperation in providing information and motivation to utilize health facilities for childbirth and infant care. Counseling could be provided with a focus on the economic losses suffered in doing the otherwise.

REFERENCES

[1] Kurinczuk, JJ, J. Holowell., P. Brocklehurst, and R. Gray. *Infant Mortality: Overview and Context*. Inequalities in Infant Mortality Project Briefing Paper 1. Juni 2009. National Perinatal Epidemiology Unit, University of Oxford. pp. **2009**;1-20.

[2] Adams, M.M., G.R. Alexander, R.S. Kirby and M.S. Wingate. *Perinatal Epidemiology for Public Health*. Springer Science. New York. **2009**; pp. 204-205.

[3] Andersen, R.M., A. McCutcheon, L.A. Aday, G.Y. Chiu, and R. Bell. Exploring Dimensions of Access to Medical Care. *Health Services Research.* **1983**;18(1): pp. 49-74.

[4] Andersen, R.M. Revisiting the Behavioral Model and Access To Medical Care: Does It Metter? *Journal of Health and Social Behavior*, **1995**;36(1):pp. 1-10.

[5] Health Department of TTS Regency. Health Profile of *TTS Regency 2014*. Health Department of TTS Regency, Soe , **2015**.

[6] Ministry of Health Republic of Indonesia. Indonesia Health Profile 2014. Data Center and Information, Ministry of Health Republic of Indonesia, Jakarta, **2015**.

[7] Khanal, V., M. Adhikari, R. Karkee and T. Gavidia. Factors Associated With The Utilization of Postnatal Care Services Among the Mothers of Nepal: Analysis of Nepal Demographic and Health Survey 2011. *BMC Women's Health*. **2014**;14(19): pp. 1-13.

[8] Workineh, Y.G., and D.A. Hailu .Factors Affecting Utilization of Postnatal Care Service in Jabitena District, Amhara Region, Ethiopia. *Science Journal of Public Health.* 2014;2(3):pp. 169-176.

[9] Mac Bird, T., J.M., Bronstein, R.W. Hall, C.L. Lowery, R. Nugent, and G.P. Mays. Late Preterm Infants: Birth Outcomes and Health Care Utilization in the First Year. *Pediatrics*. **2010**; 126(2): pp. 311-317.

[10] Rai, K,N., G.J. Escobar, and S.A. Lorch. Premature Infants Born to Adolescent Mothers: Health Care Utilization after Initial Discharge. *Academic Pediatric*. **2010**;10: pp. 302-308.

[11] Kondo, A. and H. Sigeoka. Effects of Universal Health Insurance on Health Care Utilization, and Supply-side Responses: Evidence from Japan. *Journal of Public Economics*. **2013**;99: pp. 1-23.

[12] Ataguba, J.E and J. Goudge. the Impact of Health Insurance on Health Care Utilization and Out of Pocket Payment in South Africa. *The Geneva Papers on Risk and Insurance – Issues and Practice. The International Association for the Study of Insurance Economics*. **2012**;pp. 633-654.

[13] Seeberg, J., S. Pannarunothai, R.S. Padmawati, L. Trisnantoro, N. Barua and C.S. Pandav. Treatment Seeking and Health Financing in Selected Poor Urban Neighbourhoods in India, Indonesia and Thailand. *Social Science and Medicine*. **2014**;102: pp. 49-57.

[14] Bekeera, S.K., S.P. Wamala, S. Galea, A. State, S. Peterson, and G.W. Pariyo Community Perceptions and Factors Influencing Utilization of Health Services in Uganda. *International Journal for Equity in Health* **2009**;8(25):pp. 1-12.

[15] Bhaisare, K.P and G.M. Khakase Study of Utilization of Postnatal Care Services in Tribal Area, Maharashtra. *International Journal of Medical Science and Public Health.* **2014**;3: pp. 1487-1491.

[16] Tesfahun, F, W. Worku, F. Mazengiya, and M. Kifle. Knowledge, Perception and Utilization of Postnatal Care of Mothers in Gondar Zuria District, Ethiopia: a Cross-Sectional Study. *Maternal Child Health Journal.* **2014**;18: pp. 2341-2351.

[17] Kinuthia, P.M. Factors Affecting Utilization of Postnatal Care Services in Kenya. *South American Journal of Public Health*. **2014**;2(3): pp.499-527.

[18] Jung, M., L. Lin, and K. Viswanath. Effect of Media Use on Mother's Vaccination of Their Children in sub-Saharan Africa. *Vaccine*. **2015**;33: pp.2551-2557.

[19] Rai, R.K., P.K Singh, L. Singh, and C. Kumar. Individual Characteristics and Use of Maternal and Child Health Services by Adolescent Mothers in Niger. *Maternal Child Health Journal.* **2014**;18: pp. 592-603.

[20] Singh, L., R. Kumar Rai, and P.K. Singh. Assessing the Utilization of Maternal and Child Health Care among Married Adolescent Women: Evidence from India. *Journal Biosocial Science*. **2012**;44: pp. 1-26.

[21] Lambert-Evans, S., F. Ponsar, T. Reid, C. Bachy, M.Van Herp and M. Philps. Financial Access to Health Care in Karuzi, Burundi: a Household-survey Based Performance Evaluation. *Journal of Equity in Health.* **2009**;8(36): pp. 1-10.

[22] Sharkey, A., M. Chopra, D. Jackson, P.J. Winch, and C.S. Minkovitz. Influences on Healthcare-seeking During Final Illness of Infants in Under-resourced South African Settings. *Journal Health Population Nutrition.* **2011**;29(4): pp. 379-387

[23] Atiyeh, G.N. and El-Mohandes, A. Preventive Healthcare of Infants in a Region of Lebanon: Parental beliefs, attitudes and behaviors. *Maternal Child Health Journal.* **2005**;10: pp.57-67.

[24] Johnson, J. D. Health-Related Information Seeking: Is It Worth It? *Information Processing and Management.* **2014**;50: pp. 708-717.

[25] Kahneman, D. A Perspective on Judgment and Choice. Mapping Bounded Rationality. *American Psychologist.* **2003**;58(9): pp. 697-720.

INFANT REALIZED ACCESS MODEL BASED ON INFANT AND FAMILY FACTORS IN THE SOUTH CENTRAL TIMOR REGENCY

ORIGINALITY REPORT

15%	11%	10%	4%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	repository.unair.ac.id Internet Source	4%
2	www.pubmedcentral.nih.gov Internet Source	2%
3	ppjpi.unair.ac.id Internet Source	2%
4	Kayako Sakisaka. "Changing poor mothers' care-seeking behaviors in response to childhood illness: findings from a cross-sectional study in Granada, Nicaragua", BMC International Health and Human Rights, 2010 Publication	1%
5	Dennis Shoesmith, Nathan Franklin, Rachmat Hidayat. "Decentralised Governance in Indonesia's Disadvantaged Regions: A Critique of the Underperforming Model of Local Governance in Eastern Indonesia", Journal of Current Southeast Asian Affairs, 2020 Publication	1%

6	equityhealthj.biomedcentral.com Internet Source	1 %
7	link.springer.com Internet Source	1 %
8	files.eric.ed.gov Internet Source	1 %
9	www.mahadewiflorist.com Internet Source	1 %
10	asrjetsjournal.org Internet Source	1 %
11	hdl.handle.net Internet Source	<1 %
12	Jimoh Amzat, Oliver Razum. "Chapter 1 Key Concepts in Healthcare Delivery", Springer Science and Business Media LLC, 2018 Publication	<1 %
13	Titaley, Christiana R, Cynthia L Hunter, Peter Heywood, and Michael J Dibley. "Why don't some women attend antenatal and postnatal care services?: a qualitative study of community members' perspectives in Garut, Sukabumi and Ciamis districts of West Java Province, Indonesia", BMC Pregnancy and Childbirth, 2010. Publication	<1 %

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	On		

INFANT REALIZED ACCESS MODEL BASED ON INFANT AND FAMILY FACTORS IN THE SOUTH CENTRAL TIMOR REGENCY

GRADEMARK REPORT

FINAL GRADE

/0

GENERAL COMMENTS

Instructor

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7