Problems of Health Services in the Border Areas and the Efforts to Overcome

Ratna Dwi Wulandari
Faculty of Public Health, Universitas Airlanga, Mulyorejo, Surabaya, Indonesia

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Abstract: Frontier areas have specific characteristics due to the impact of different environmental conditions, e.g. the distance away from the centre of government and geographical conditions that tend to be difficult. The easy movement of people from one region to another has an impact on the rapid transmission of disease. Therefore the health care system in border areas requires specific handling because it involves two or more districts. This research study was conducted to identify health service problems in the border areas in East Java, so then a recommendation can be made to improve the appropriate health service system. This research is a descriptive research study with a cross-sectional design. The location of the study was in four of the outermost regencies in the East Java Province. The results of the research indicate that some of the problems identified are the high utilisation of cross-border health services that has an impact on the incomplete health services provided to the community, and that there is no inter-region case reporting mechanism. Some efforts that can be undertaken to improve the health care systems in border areas include developing cooperation for better coordination in the case of inter-regional population mobility, standardised service procedures and reporting recording systems, and floating surveillance networks.

1 INTRODUCTION

Indonesia is one of the largest countries in Southeast Asia, with an area of 5,180,053 km^2. It consists of a total land area of 1,922,570 km^2, and an area of 3,257,483 km^2 of sea, which is divided into 34 provinces. Since 1999 with the enactment of Law number 22/1999 on Regional Government, and also Law number 25/1999 on Fiscal Balance between Central and Regional Governments, the Indonesian government embraces the decentralisation system by granting state authority to the district/city governments.

The government of Indonesia has stipulated that the implementation of health services in border areas and isolated, vulnerable and municipal islands is the duty and responsibility of the district health authorities. Each district must prepare adequate health resources in order to be able to properly carry out the health services in those areas.

People living in rural and remote areas, including those living in border areas, face challenges in accessing appropriate health services (Bourke, et al., 2011). Border areas have their own problems and peculiarities (Gogoi, et al., 2009). The public health situation in the border area is actually similar to other regions, but they have different characteristics as a result of different environmental conditions. The environmental conditions that make the public health situation in the border area different from elsewhere is related to accessibility. The border area is a long distance from downtown. The long distance has several consequences, such as the number of human resources, the health worker and health facilities being limited, access to health care facilities especially secondary and tertiary health care facilities becoming more difficult, and the referral time becoming longer. Klobuchar (2014) state that patients in rural areas with serious conditions such as heart disease and cancer must travel longer distances than patients in urban areas to see specialists. Almost all border areas are in rural, so this kind of difficulty is also faced by people in the border areas.

In some areas, the distance or travel time to another city centre is faster than to the centre of the city of origin. This causes people to prefer to seek treatment at health facilities in other districts /cities that are nearby. Similarly, in the referral process, the First Level Health Facility (FKTP) prefers to refer patients to other district / city hospitals.

Community mobility between regions also affects the public health situation in the border areas. The easy movement of people from one region to another has an impact on the rapid transmission of disease.

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Thus, the public health status in a region is not only determined by the performance of health services in the area, but also is strongly influenced by the situation in other areas, especially the immediately adjacent areas. Therefore, health problems in adjacent areas or regions need joint, integrated and coordinated management by involving the relevant sectors so that the existing problems can be resolved optimally.

Health services in border areas require specific treatment because they involve two or more districts. Several important issues related to health services in the border areas are services to the poor, the continuity of care between different treating professionals and organisations (Commission Of The European Communities, 2008), referral health services, infectious diseases, the adequacy of health personnel and the handling of outbreaks and disasters. The spread of infectious diseases does not recognise geographic region. Many diseases are transmitted through both animals and humans. Along with the easier access between, the spread of diseases between regions is also increasing, for both old and new diseases. The era of globalisation and technological progress has also accelerated the transmission of disease without recognising geographical and administrative boundaries. Several diseases which often become a problem because of the speed their transmission includes TB, Malaria, AIDS, and other related immunisation diseases (Kamel, 1997[a]). Kamel (1997[a]) also state that borders are crucial entry point for communicable disease which, if it not properly managed, would affect the community health status.

The previous research by Bourke, et al., (2011) has develop six key concept as a framework of rural and remote: (i) geographic isolation, (ii) the rural locale, (iii) health responses in rural locales, (iv) broader health systems, (v) broader social structures, and (vi) power relations at all levels. These six matters are interrelated in raising public health issues in the border region. That is why public health problems in the border area seem more complex than health problems in other regions. On this basis, it is important to identify what health problems are happening in the border areas, as well as what efforts can be made to strengthen the health care systems in border areas.

2 METHOD

This research is descriptive because it was done to obtain the best description of health problems in the border area, with a cross-sectional design. The data collection was conducted in 2015 in 4 of the outermost regencies in the East Java Province; Ngawi, Bojonegoro, Sumenep and Banyuwangi districts. The respondents consisted of two groups; community and health personnel. Communities as respondents are the people who live in the outer regions bordering other areas. For each district, 100 community respondents were drawn, so there was a total of 400 respondents in the 4 cities. Data from the community was collected by using a structured questionnaire to describe the utilisation of cross-border health care facilities. The officers consisted of a midwife from Polindes in the border area, a Puskesmas officer in the border area, and staff from the District Health Office. For the health officer respondents, data collection was done through a Focus Group Discussion (FGD). FGDs were conducted once in each area, so there were 4 repeats of the FGD. FGDs were conducted to discuss the findings from the results of the community surveys, so that further health problems and solutions could be identified.

3 RESULT AND DISCUSSION

A border area is a meeting area of two or more regions with different administrative authorities, i.e. between district and inter-provincial boundaries. Each region has the authority to regulate its own territory in accordance with their respective policies on the basis of the real needs of the community. The identification of various health problems in the border areas is important in order to improve the health care system for people living in there so that their health status will be better. In addition, good handling of the health care systems in border areas can also prevent the expansion of health problems.

The special characteristic often encountered in the border area is the great distance from the city centre. The city centre is usually identical to the central government. Therefore one of the limitations faced by people living in border areas is that it is more difficult to access government services located in the city centre, such as local public hospitals. For people living in border areas, sometimes access to health facilities in their area is more difficult due to the longer distances involved than to other area health facilities. The impact of this condition is the occurrence of cross-border health utilisation. This means that residents of district A go to district B, or vice versa. Table 1 represent the results of the

survey of 400 residents living in the border area on the utilisation of cross-border health facilities.

Table 1. Utilisation of cross border health facilities by communities in border areas in the Banyuwangi, Bojonegoro, Ngawi and Sumenep districts, 2015

Utilisation of cross border health facilities		Frequency	District			
			Banyuwangi	Bojonegoro	Ngawi	Sumenep
Prefer to seek treatment at health facilities in other districts	No	n	89	81	6	33
		%	89,0	81,0	6,0	33,0
	Yes	n	11	19	94	67
		%	11,0	19,0	94,0	67,0
People from other areas who seek treatment at health facilities in this area	No	n	72	82	55	99
		%	72,0	82,0	55,0	99,0
	Yes	n	28	18	45	1
		%	28,0	18,0	45,0	1,0

Based on Table 1, it can be seen that there are residents who prefer to seek treatment at health facilities in other districts, mostly in Ngawi. The next order is in the Sumenep, Bojonegoro and Banyuwangi districts. This is because the distance is closer. For the case of residents from other areas who seek treatment in other health facilities, this is the most widely available in the district of Ngawi. Next is in Banyuwangi, Trenggalek, Bojonegoro and Sumenep districts. In Ngawi district, people living in Kendal district are closer to Magetan district with only about 20 minutes' travel time. Meanwhile, people living in the Mantingan sub-district are closer to the Sragen district. For reasons of close proximity and easier access, this is also the reason why many Ngawi people are treated in other districts.

The same condition also occurred in Sumenep. For people living in Pragaan sub-district, they prefer to go to Pamekasan because it is closer and there is easier access. In addition, there is a growing image in Sumenep society that the health service in Pamekasan is better, mainly because of its more complete health personnel. This results in the community going to Puskesmas Pragaan. If referred to the hospital, they prefer to go to Pamekasan rather than to Sumenep. As for the Sumenep people who are in the archipelago, they tend to seek out the nearest health services. For example, the examination of Hajj health is closer to the Bali island than to Sumenep. In Bojonegoro District, Puskesmas, which borders with the Cepu district, sometimes prefers to refer patients to hospitals in Cepu rather than to hospitals in Bojonegoro because of the proximity to the house. Before Padangan Hospital was established, 40% of Padangan residents preferred to go to Cepu. But now the condition is turning, as the Cepu people prefer treatment at Padangan Hospital.

The utilisation of cross-border health services, if not managed properly, will be able to trigger the emergence of several other problems. One of the problems that can arise from the movement of these patients is related to the problem of recording and reporting health data. Biases on recording data occur as a result of patents crossing border for hospital or health care. Biased statistics misrepresent what is needed and can affect the adequacy of health care planning and delivery (Kamel, 1997[b]). Important things for strengthening health services in border areas are to create and manage mechanisms for identifying and managing cross-border issues (NHS Commissioning Board, 2013).

One of the important problems is related to immunisation. Based on the results of Focus Group Discussion (FGD) with health personnel in the Ngawi District, it was found that there were differences in the determination of immunisation status between the Ngawi and Sragen regency. For example, in the Ngawi disctrict, Tetanus Toxoids' (TT) immunisation status is calculated based on birth history, whereas in the Sragen regency, every pregnant mother is given TT immunisation because all pregnant women need TT.

Another problem identified from the FGD with health personnel in Ngawi District is the occurrence of loss control towards high risk pregnant women. The antenatal care procedure (ANC) of Ngawi Regency compared to Sragen is different. According to resource individuals from Ngawi District, the community considers the ANC service in Ngawi to be more stringent, in the sense that more checks have to be done, thus causing certain communities to prefer ANC in more relaxed areas. In East Java,

there is a policy of determining high-risk status by using the Pudji Rochyati Score Card (*In Indonesia: Kartu Skor Puji Rochyati or KSPR*), whereas in Central Java Province, this does not exist. This is felt by the people who live directly adjacent to the Sragen regency who feels that in Sragen, the criteria are looser. This has resulted in some pregnant women who initially conducted a medical examination in Ngawi District to have finally moved to the Sragen regency. If the mother continues to get health services in other districts, this makes the recording continuity of antenatal care services in Ngawi District disturbed. If this condition occurs in high-risk pregnant women, it is feared that it could endanger the health condition of the mother and foetus, because the new health facility does not have the history of pregnancy.

The phenomenon above illustrates that one of the reasons for the change of health service from one district to another is the patients desire to get a simpler service procedure. Another reason is related to the quality of service. The public tends to choose a place of service which, according to him, is more qualified, even if the location of the health care facility is in another district. The results of this study are in line with previous research that found those cross-border health users are usually linked to service quality issues (Rich and Merrick, 2006; Dejun Su, et al, 2011).

Several other studies have found that the use of cross-border health services is linked to the cost and health insurance issues, such as Dejun Su, et al (2011) and Miller and Thayer (2010). Dejun Su, et al (2011) in his research at United Stated found that the most significant predictors of health care utilization across border were lack of health insurance coverage and dissatisfaction with the quality of health care. The results of Miller's study in Mexico also found the same thing, the utilization of cross-border health services was triggered by the lack of quality of service, access difficulties, and low coverage of health insurance in the region of origin (Miller and Thayer, 2010).

The third problem is related to the recording and reporting of health data. The health data recording and reporting system is hierarchical. Recording and reporting is done in stages, from the smallest service unit to the centre. The Puskesmas (Public Health Center) network consists of Polindes, Ponkesdes, Puskesmas Pembantu, and other health care facilities in the Puskesmas working area, reporting the results of their activities to the Puskesmas. Furthermore, the Puskesmas reports its data to the District Health Office/City. District Health Offices conduct recapitulation and forward the information to the Provincial Health Office, and then from the Provincial Health Office to the Ministry of Health. So its nature is vertical. There is no routine reporting mechanism that is horizontal (except for certain cases), such as for Pulmonary TB and Dengue Fever. As stated by the resource persons from Sumenep District, TB already has a reporting format across multiple regions.

To overcome this issue, the government should ensure that arrangements are in place so that public health bodies engage populations across the border in discussions on quality and the changes to the services provided. This is to ensure that there are well-defined and clear protocols for managing changes in where a patient is treated (NHS Commissioning Board, 2013). Miller and Thayer (2010) suggest that those problems can be solve through innovations in cooperation projects on health, the facilitation of health care access for at-risk populations, and increased economic opportunities in health care on both sides of the border.

4 CONCLUSIONS

Environmental characteristics in the border areas make these areas face several health problems. Some of the public health problems occurs in the border areas are the high population mobility, resulting in statistical biased related to the recording of patient health data. The consequences of this situation is incomplete of monitoring health status that cause in the emergence of other health problems, such as misidentification of immunization status and inaccuracy detection of risk factors for pregnancy,

One important step should be taken to reduce or prevent the emergence of these problems is to build cooperation between districts, so there is agreement between two interdependent areas on the mechanism of handling cross-border society problems.

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REFERENCES

Anne, Yazbeck, M., 2016, *Study On Cross-Border Health Services: Potential Obstacles for Healthcare Providers*, European Commission - Erasmus University, Rotterdam

Bourke, L., Humphreys, J., Wakerman, J., Taylor, J., 2012, Understanding rural and remote health: A framework for analysis in Australia, Health & Place, Elsevier Journal, vol. 18 (496–503)

Commission of The European Communities, 2008, A Community Framework On The Application Of Patients' Rights In Cross-Border Healthcare, *Communication From The Commission*, Brussels

Dejun Su, Richardson, C., Ming Wen, and Pagan J. A., 2011, Cross-Border Utilization of Health Care: Evidence from a Population-Based - Study in South Texas, Health Research and Educational Trust, 46:3 DOI: 10.1111/j.1475-6773.2010.01220.x

Gogoi, J. K., Goswami, H., Borah, K. C., 2009, Problems of Border Areas in North East India: Implications for The Thirteenth Finance Commission, *Project Report,* Department of Economics, Dibrugarh University, Assam

Kamel, W. W., 1997[a], Health in Borders Area, *Global Perspectives in Health* – Vol 2, Tempe, Arizona

Kamel, W. W., 1997[b], Health Dilemmas at the border – a global challenge, *World Health Forum*, vol. 18 (9-16)

Klobuchair, A., 2014, *Keeping Rural Communities Healthy*, Joint Economic Committee, United States

Miller, J., Thayer, 2010, Health Migration: Crossing Borders for Affordable Health Care, *Field Actions Science Reports* [Online], Special Issue 2 | 2010, Online since 01 October 2010, connection on 30 September 2016. URL : http://factsreports.revues.org/503

NHS Commissioning Board, 2013, Protocol for Cross-Border Healthcare Services, *Government regulation*, Department for Health and Social Services of the Welsh Government

Rich, F. R., Merrick, K., R., 2007, *Cross Border Health Care in the European Union: Challenges and Opportunities*, 23 J. Contemp. Health L. & Pol'y 64 (2007), Available at: http://scholarship.law.edu/jchlp/vol23/iss1/4