



#### **Conference Paper**

# Motivation of Strategic Health Workers to Work in Remote, Border, and Outer Island Areas (RBOIA) of Indonesia

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#### **Abstract**

Health worker maldistribution has become a global issue due to health workers' preference to work in urban areas and stay away from the Remote, Border, and Outer Island Areas (RBOIA). This study aimed to analyze the motivation of health workers to stay and work in remote areas. A systematic review was conducted on scientific articles published in several scientific journals that describe findings from Jambi, Sumbawa, and Papua, which fulfill the inclusion criteria. These studies were then enriched qualitatively through in-depth interviews. Triangulation was also performed for Jambi and Sumbawa. In Jambi, the main factors influencing motivation to work in specific areas are comfortable working atmospheres and environments and opportunities to improve careers and competencies. In Sumbawa, devotion as the native people of the region considerably affects the retention of health workers, with a significance that is similar to the material incentives. In Papua, the opportunity to be recruited as civil servants is the strongest factor influencing the decision regarding preferred work areas. Hence, it can be concluded that material incentives are not the primary factors that affect retention of health workers in RBOIA, as it is more dominantly motivated by non-material aspects. Local governments need to consider specific situations when developing comprehensive local policies that include personal, organizational, and socioeconomic factors to improve retention of health workers.

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**Keywords:** intrinsic motivation, health worker, RBOIA

#### 1. INTRODUCTION

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The maldistribution of health workers is a global issue faced by both developing and developed countries, with even first world countries such as the U.S. and Canada

still facing a similar problem. A strong interest in working in urban areas has left the Remote, Border, and Outer Island Areas (RBOIA) struggling with a shortage of qualified health workers. In the U.S, despite the fact that 20% of the total population resides lived in RBOIA, only 9% of physicians work there (Committee on the Future of Rural Health Care Washington DC, 2005 cited WHO, 2010). In Canada, only 9.3% of doctors serve the RBOIA population, which constitutes 24% of the total population (Dumont et al, 2008 cited [11]). This disparity raises a deep concern, because half the world population lives in RBOIA and is currently experiencing difficulties in accessing health care due to the shortage of health workers. Only 38% of nurses and less than 25% of doctors are willing to serve in RBOIA [11].

Indonesia also still experiences a shortage of health workers. To date, 25,333 general practitioners, 8,403 specialists, and 8,731 orthodontists, among others, are available in Indonesia. This underlines the shortage of health workers to provide proportionate health services nationwide, with 1 general practitioner serving 9,000 patients. A similar situation is also seen in specialist care.

Mustikowati et al. conducted a study in 2016 on factors influencing the distribution of specialists under the letter of work agreement in Indonesia. The study found that most of the specialists lacked the commitment and motivation to serve in remote areas because of poor infrastructures, unclear trajectory in career development, and insufficient rewards. Even the specialists who are assigned under the letter of work agreement choosed to return their education tuition in full as a protest to their deployment in remote areas. Previous data on the distribution of specialists conducted by the Directorate of Public Health and Nutrition of the National Development and Planning Agency (NDPA) in 2005, suggested that 65% or 2/3 of the specialists choose to work in Java and the Bali Islands (NDPA, 2005). It may happen due to Java and Bali as urban areas with highly population.

In 2010, a project entitled Health Professional Education Quality (HPEQ) under the Directorate General of Higher Education at the Ministry of Education and Culture (Dirjen-DIKTI) conducted a study on the availability of doctors in Indonesia. This study found that DKI Jakarta, as the special capital city region, has the highest ratio of 40.86% for every 100,000 people, in contrast to the ratio in West Sulawesi of 0.69% for every 100,000. Therefore, it can be stated that the major problem for specialist care in Indonesia is the uneven distribution and difficult access to health facilities, especially for people who live in remote areas.

This study aims to analyze the motivation of doctors and other healthcare professionals to stay and work in remote areas. It is also important to re-examine the factors



that may affect this motivation to design an improved mechanism that supports the availability of health workers.

#### 2. METHODS

A systematic review was conducted in this study. The data were obtained through literary research on numerous scholarly articles available on websites. Initial exploration was performed through Google Scholar and other journal sites to find suitable articles using keywords, followed by a refined search with more specific keywords. "Intrinsic motivation of strategic health workers" and "motivation of health workers positioned in remote areas" were used as the keywords for searching articles with the desired information. About 27,300 results were found under the keyword of "intrinsic motivation of health workers in rural and remote areas." This was then refined using the keywords of "intrinsic and extrinsic motivation of health workers in rural and remote areas in Indonesia," resulting in about 17,600 articles that were then categorized based on the explored variables, including representation of several areas in Indonesia. The period between 2011 and 2016 was applied to be able to study the situation after the implementation of decentralization. Finally, three articles matched the criteria and were chosen for the review.

The above studies in Jambi, Sumbawa, and Papua were qualitative case studies with primary data collected through in-depth interviews and with supporting documents as secondary data. Data were obtained from doctors, strategic health workers, heads of hospitals, and health policy makers from the Ministry of Health and Provincial/District authorities.

After reviewing data from the three journals, more thorough validation and triangulation were conducted by further interviews with stakeholders in Jambi and Sumbawa to get a better understanding of health worker retention in both areas, since both regions are located in remote areas of Indonesia with maternal and infant mortality rates that are above the national standards, which may be connected to the role of health workers in the regions. Further interviews were conducted to the stakeholders in both areas. Although Papua is also an RBOIA, the condition of Papua is very specific to the area, so it may not represent other areas in Indonesia. Therefore, the selection of Jambi and Sumbawa was made based on an important consideration that the results may reflect the situation in other areas and may contribute to local governments' efforts related to this issue.

Systematic review through Google Scholar, UI-ana, Elsevier, and other journal sites

Keyword "intrinsic motivation of health workers in rural and remote areas"  $\rightarrow$  27,300 results

Keyword "intrinsic motivation of health workers in rural and remote areas in Indonesia" → 17,600 results

Categorization based on the explored variables: representation of several areas in Indonesia, term between 2011-2016.

Three articles matched

**Chart** 1: Systematic Review Process.

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TABLE 1: Study Characteristics

			TABLE 1. Study Characteristics						
Article	e Title	First Author and Year of Publication	Setting	Study Design	Subject and Study Sample	Variable			
1	Motivation of Specialists Stationed in Remote Areas in NTB	Dumilah Ayuningtyas, 2012	Nusa Tenggara Barat	Case study	Hospital director, head and deputy of provincial and district public health office (PHO), staff PHO (planning, finance, administration), Head of Public Health Clinic (PHC), Academics, Professional organizations, staff of Health Training Center, staff of Education Center of Health Manpower, Head of Health Worker Employment Office, Staff of Provincial Working Group.	Housing Non-Financial Incentives: Career development Civil servant appointment Reward Further study Other: Bond with the region (devotion)			
2	Effect of Incentives on Health Workers' Retention in Remote, Border, and Outer Island Areas (RBOIA) Papua Province in 2011.	Irma, 2012	Three district cities in Papua: Keerom, Sammy, and Jayapura municipality.	Case study	Health worker on special appointment RBOIA, head of PCH, as well as related officials in health ministry, provincial, regency, and municipality PHO in Papua.	government/ provincial/ regency PHO Provincial/ regency PHO Salary and incentives from PHC Vehicle Housing			

Article	Title	First Author and Year of Publication	Setting	Study Design	Subject and Study Sample	Variable
3	The Needs Fulfillment of Specialists in Type C General Hospitals in Remote Areas	Indriya Purnamasari, 2016	Haji Abdoel Batoe Regional Public Hospital (RPH), Jambi Province, and Malingping RPH, Banten Province	Case study	Regional secretariat of Jambi province and Batanghari regency, Provincial head of PHO, Jambi, head PHO in Batanghari regency, Director of Haji Abdoel Batoe Public Hospital (RPH), head of health services of HAMBA (RPH), specialists, patients, public figure/community chief	incentives Working Environment

# 3. Results

The study in Jambi [9] suggested that the local government provided both financial and non-financial remunerations to support the retention of general practitioners and specialist doctors.

In-depth interviews obtained data that Local Government provides not only financial incentives but also non-financial incentives. In terms of nonfinancial incentives, local governments provide official housing and official vehicles, although the numbers are insufficient and not in accordance with the number of specialist doctors available. In addition, the local government also provides opportunities and scholarships for general practitioners who are interested to pursue a specialist medical education, besides to the opening of opportunities to be appointed civil servants. The various rewards provided are effective enough to increase the retention of health workers. The study showed that the retention of health workers is primarily influenced by the work environment, opportunities to develop careers and competencies as well as opportunities to become civil servants.

In Sumbawa, there was a shortage of health workers, especially specialists, both in terms of number and specialist branch. In one of the hospitals in Sumbawa, there were

only two obstetrician gynecologists, two pediatricians, and one surgeon. No internist was available. Housing and vehicles for the health workers were limited; however, the efforts to provide them were evident. The local government tried to improve retention as stated in the local regulation by providing incentives: 30 millions rupiah for specialists and 10 millions rupiah for residents. Most specialists felt content with their work situation because the incentives were deemed adequate. Aside from financial incentives, emotional attachment, such as love for the region, also strengthened the motivation of doctors to stay and serve in the region. Both financial and emotional incentives had similar influences.

In Papua, the interviews were conducted with several related respondents and officials. It was apparent that only a few local governments provided incentives, despite the emphasis by the Minister of Health Regulation number 1231 in year 2017 about Special Assignment of Health Workers regarding the recommendation on the need to provide additional incentives for health workers on special assignment by the local government. Furthermore, punctuality of incentives from the national government was not certain. The availability of local incentives depended on the financial capability of the region or PHO budget in the previous years. Incentives from health facilities were limited to operational tasks. Also, non-financial incentives in the form of housing and operational vehicles were rarely found and, if any, were only limited to civil servants. Opportunities for health workers on special assignment to become civil servants varied. Some received a recommendation from the local government to be prioritized as civil servant candidates, while others were not as fortunate. There are annually workshop provided by the Ministry of Health. No training was provided by Local Health Offices. In Jayapura, there were no health workers under contract; thus, this region relied on workers under special assignment. Several special assignment workers took the test to become a civil servant but failed. Since 2010, almost 90% of special assignment workers extended their contract, indicating high retention in Jayapura. The opportunity to be recruited as civil servants was the strongest factor influencing the decision to remain in the area.

### 4. Discussions

In an effort to achieve the Millennium Development Goals, WHO has issued a Global Policy Recommendation for Increasing Access to Health Workers in Remote and Rural Areas through Retention, which contains counsel for governments all around the world in producing policies to attract health workers to work in RBOIA and to maintain their continued residence and service in RBOIA. In human resource management, retention

is a crucial aspect. This includes efforts to preserve or improve the physical and mental state and attitude of the employee so that they remain productive and loyal for the sake of the institution [3]. There are four aspects to consider when improving the availability of health workers in RBOIA: education, policy, incentives, and personal and professional development [11].

An incentive is a reward outside of an employee's monthly salary for their efforts to improve service to customers and varies in accordance with their performance [8]. Wages related to work performance (incentives) suggest greater motivations in improving work productivity and the ability to eliminate insufficient geographical conditions and infrastructures. Thus, incentives could increase the appeal and motivation for health workers to work in less desirable areas or remote areas. Incentives can be in financial or non-financial forms. The availability of incentives is based on local government capability. Some prefer incentives that can be one or a combination of the following:

- 1. Preferred financial incentives: salary, monthly benefits, health insurance, leave benefits, housing, vehicle, telephone, internet, television.
- 2. Preferred non-financial incentives: further study funded by the government, workshops, special promotion (for civil servants), appointment as civil servants or full-time employees, career advancement.
- 3. Combination: both financial and non-financial incentives are granted. [8]

Although the incentives indeed improve the attractiveness for health workers to serve and live in Jambi, the shortage of health workers is still evident. For example, based on the Type C Hospitals Standard on medical workers, hospitals in Jambi still experience a shortage of specialist doctors, especially pediatricians, radiologists, and clinical pathologists. From the findings in the study, the major factors affecting the retention of health workers in Jambi are comfortable working environments, opportunities for career development, and opportunities for continuing education to improve competencies [9]. This is in line with the WHO HRH Action Framework (2010), which stated that in addition to finance, other factors that affect increased motivation of health workers are education, partnership, policy, and leadership. A study conducted by Ramani et al. (2013) suggests that in India, the "hook" of post-graduate education incentives can be considered the most powerful mechanism to bring allopathic physicians to rural areas.

Similar results can be found in Sumbawa, where a shortage in the availability of health workers (especially specialists) is observed, both in terms of number and specialist branch. The role of the local government is pivotal in managing the shortage of health workers, and the government should shift its focus from repairing poor infrastructures as a means for political gain. Finding a delicate balance between retiring civil servants and new recruits is another problem, especially in the light of fulfilling demands for new health facilities. Thus, the shortage is always present and the strategy used is to substitute permanent employees with contract-based employees. In the end, the political commitment stated in the Medium-Term Development Plan is pivotal in managing the inadequate health workers in the region [1]. Aside from financial incentives, there is also emotional attachment, such as love for the region that motivates doctors to stay and serve in Sumbawa. Both financial and emotional incentives provide similar motivation. This result may reflect the Motivation Theory from Maslow on Social Ownership. The need to feel needed, the need to be accepted in the group, and the need to love and be loved may play a role in this issue. There is a study that explain about the dimension of psychological ownership in the perspective of hierarchy of needs theory from Zhixiong (2014). That behavior can also be connected to patriotic behavior. Mangunhardjana (1985) mentioned several characteristics of true patriotism such as the capability of loving the nation and the state itself, to create it into a form of solidarity in order to achieve the welfare of each, with all the citizens of the nation.

In Jayapura, although the number of health workers is still inadequate, the health workers indicate good retention in the area. This high retention owes to the fact that 95% of special assignment workers are native people and a non-financial incentive like becoming a civil servant is more appealing for them. This might be due to the fact that being civil servants refers to a stable condition and partially to self-actualization. Additionally, civil servants have adequate salaries and benefits, including adequate pensions when they retire. Other influencing factors for serving in RBOIA are government policies, personal factors, and health workers' backgrounds.

## 5. Conclusion

Various factors relate to the motivation of health workers to stay and work in Jambi, Sumbawa, and Papua, which may be the reason for the inadequate number of specialists in those three areas. Financial incentives are not crucial to retain health workers. In Jambi, the major factors affecting retention are comfortable working environments, opportunities for career development, and opportunities for continuing education to

improve competencies. In Sumbawa, an emotional bond as native people and a desire to devote time and care is a considerable factor that affects the retention of health workers, almost as significant as the financial incentives. While in Papua, the opportunity to be appointed as civil servants is the most substantial influence on the decision of health workers to stay and work in RBOIA.

It can be concluded that non-financial incentives are more dominant compared to financial incentives in retaining health workers. Local governments need to consider the specific situation to develop a comprehensive policy that includes personal, organizational, and socioeconomic factors to improve the retention of health workers in RBOIA.

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