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# Discrepancy Evaluation Model For Human Resources Health Placement Evaluation At The Puskesmas

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## Abstract

This study aims to evaluate the implementation of the Regulation of Minister of Health (RMH) of Indonesia Number 75 the year 2014, as the basis to recruit health care worker of Puskesmas (Community Health Center). The method of study used the Discrepancy Evaluation Model by Malcolm Provus. The informants are the official of the Office of Health at Banjarbaru City, the official of Puskesmas, and the community. The research focused on planning, recruitment, selection, placement, and empowerment. The conclusions of the research is 1) planning**,** there was no gap or discrepancy between the S (Standard) of the ministerial health policy and the P (Performance); 2) recruitment**,** there was a gap or positive discrepancy; 3) selection, there was a gap or positive discrepancy; 4) placement, there was a gap or positive discrepancy; 5) empowerment, there was no gap or discrepancy, which means adequacy occurred between standard and performance.

**Keywords:** Discrepancy Evaluation Model, Human Resources Health, Placement Evaluation, Puskesmas.

## 1 Introduction

The Indonesia Act No. 36 of the year 2009 about Health, article number 3 mentions the goal of health development is the increased health awareness, willingness, and ability to live in a healthy life for everyone in order to increase the degree of community health can be achieved. Sustainable Development Goals (SDGs) initiated by the States members of the United Nations (UN) in September 2015, in the field of health which determined common goal i.e. "ensure healthy lives and promote wellbeing for all at all ages "in the year 2030 (29).

Following up the SDGs consensus for every United Nation (UN) the Member States are to determine the target's healthy development of each country as well as the drafting process of the achievement of the target which specified in the time up to the year 2030. From the aspect of preparation of human resources for health in order to achieve the target of the SDGs, many general human resources issues and questions arise, include the size, composition and distribution of the health care workforce, workforce training issues, the migration of health workers, the level of economic development in a particular country and socio-demographic, geographical and cultural factors (18). After the assessment process was conducted, composed also of planning aspects of financing, recruitment, training, development, benefits and remuneration scheme for health workers in countries - including Indonesia- SDGs program implementers (17).

The entire implementation of the program activities should be carried out by health workers who have relevant skills and competencies. When the organization's strategic plan drawn up, the human resources development plan should be compiled together from the initial stages of strategic planning development of the organization. The need to complete human resource planning in conjunction with the strategic planning of the organization, including the plan of the SDG's implementation (17).

The Ministry of Health of the Republic of Indonesia, in collaboration with the Global Health Worker Alliance and Deutsche fur Internationale Zusammenarbeit Gesselschaft GmbH, developed health worker plan Year 2011–2025 (19), studies show that the health worker is a major key in the successful achievement of the goal of health development. Health workers contribute up to 80% of the success of health development. In the year 2006 the WHO report, Indonesia is one of the 57 countries who are facing a crisis of human resources for health in both perspectives the number of health worker and its distribution. Health workers in the health center mandated to focus not only to implement the individual health efforts which focused on the curative function. But also the efforts to promote the community health function or preventive approach in a balanced way. educational and community-based programs are most likely

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to succeed in improving health and wellness when they address influences at all levels and in a variety of environments or settings (27)

The curative approach is providing good treatment of physical, psychological, mental, and social events to patients in need (33). While the preventive approach tends to do disease prevention efforts and improve health (promotion of) before the onset of the disease through community organizing efforts devoted to environmental sanitation. Human resources for health (HRH) are the cornerstone of health systems, enabling the improvement of health service coverage (28).

The year 2017, Indonesia was struck with an outbreak of Diphtheria in 142 districts or cities in 28 provinces (36). This outbreak claimed as the largest in the world. Recorded from January to November 2017 there were 593 cases of Diphtheria mortality with 32 cases. The need to look out for is the tendency of the number of cases of the disease increased since 2007 (183 cases) and its peak in 2012 (1.192 cases). After that decreased but the number still hundreds of cases. When Diphtheria immunization has been running for the past 5 decades and must be given to infants under 1 year. Then there is also an advanced vaccine or booster given at 18 months of age, the age of the child grade 1, grade 2, and grade 5 elementary school (25).

This working paper contributes to the improvement of knowledge in the human resources domain in health by the synthesis of certain general information of interest in the health system (10). The question will be laid down to the effectiveness of government policy, the skill of health worker and the knowledge and know-how of community in responding to the annual outbreak of that communicable disease. The first step (component of HR Planning or Design) is the determination of the standard (S) for comparison with the second step up to fifth (Recruitment, selection, placement, and empowerment), namely through the collection of information and data from related parties in Puskesmas, as well as from the health workers themselves. The research focused on planning, recruitment, selection, placement, and empowerment.

## 2 Literature Review

The term policy is often used widely, for example, Indonesian Economic Policy, National Education Policy, Health Policy and so on. Etymologically, the term policy comes from Greek, Sanskrit, and Latin. The roots of words in Greek and Sanskrit *policies* (city-states) and *pur* (cities) were developed in Latin into *politia* (state), and finally in medieval English became *policie*, which meant dealing with public problems or government administration (12). According to Parson (11), the policy can be interpreted as written rule and the formal decision of an organization which regulates all aspects of human life, whether in the private or the public sphere.

Public policy forms, according to Baron and Amstrong can be distinguished as follows: 1) rules or conditions governing the life of the Community (Regulation); 2) Distribution or allocation of resources.; 3) Redistribution or reallocation; and 4) Supply or empowerment. Intended as a modal or supplementing the community with the means that need to be independent. The purpose of this policy is also to equalization, but in this case more on equitable distribution of capabilities (2).

Dunn stated that policy analysis is a term that refers to value judgments about what ought to be, in contrast to descriptive statements about *what is* (13). Policy analysis is an approach to social problem solving starting at a historical milestone when knowledge is consciously explored to enable explicit and reflective testing of the possibility of linking knowledge and action (32). Evaluation plays a number of key functions in policy analysis (34,35). Policy analysis and evaluation are two continuous supplementary functions. Policy analysis is described as the dissection, isolation and systematic examining and explaining policy phenomena or components to determine the effectiveness and efficiency of each part or action (9). Evaluation is an appraisal of something of value, according to a specific yardstick which also serves as a standard (22). The word evaluation is used loosely to encompass many different activities and purposes (23).

In evaluating policies there are 22 approaches (32). The Discrepancy Evaluation Model (DEM) offers a pragmatic, systematic approach to a wide variety of evaluation needs (31). The DEM uses an approach oriented to decisions made on programs or policies. The model described here deals with explicit methods for using evaluation as a program improvement tool as well as a means of program assessment (26). Therefore, the picture below explains the application of DEM based on research into the framework of the development of the model Quality Health Outcomes developed (30). There is a discrepancy between the health HR candidates to the requirements (number and qualifications), especially with the preventive function in Puskesmas. The application of DEM in the framework of research can be seen in Figure 1.

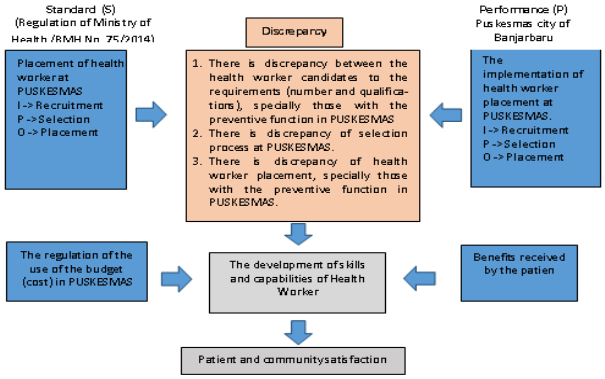


Figure 1: Application of DEM in the framework of the research

The government has provided first-rate health care facilities or health services that are directly faced with the public primarily through public health centers (Puskesmas). The term "public health" is used in a variety of ways – for example, as a condition, an activity, a discipline, a profession, an infrastructure, a philosophy, or even as a movement (3). According to Minister of Health Regulation Number 75 of 2014, Puskesmas is a health service facility that organizes public health efforts and first-rate individual health efforts, prioritizing promotive and preventive efforts, to achieve the highest degree of public health in the region it works. To provide quality services, resources or health workers are needed that can move them, even though the adequacy of resources is insufficient to ensure that an activity

or program can run properly, it is necessary to properly place individuals in carrying out certain tasks according to their abilities and of course qualifications education (20). The World Health Organization (WHO) defining health workers or health workers as "... all people engaged in actions whose primary intent is to enhance health" (15,16). Based on this definition, the International Standard Classification of Occupation (ISCO) classify all workers engaged in the field of health as health workers, the classification of ISCO can be seen in Figure 2.

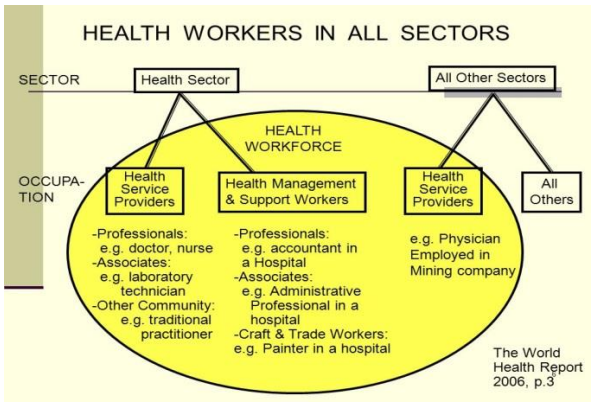


Figure 2: Classification of health worker based on ISCO-88. *Resources: Working Together for Health: The World Health Report 2006 (7)*

So as not to cause confusion towards the definition of health care worker mentioned in ISCO, the Legislation of the Republic of Indonesia Number 36 the year 2014 on health workers confirmed the definition of professionals in the health field as a health worker in article 1 mentions; "Health workers are any persons who are devoted in the health field as well as having the knowledge and/or skills through education in the field of health to a certain kind requires the authority to make the health effort." Based on the RMH number 75 the year 2014 about Puskesmas which become the main government policy target to be evaluated.

Quantitatively, strategic health personnel (doctors, dentists, nurses, and midwives) have been distributed, except for dentist health workers who are still very lacking, giving rise to inequity in health service use (4). The lack of a number of health workers compared to the existing Puskesmas makes the health workload of the health center staff higher and not in accordance with the task, function, and educational background. So that in the end, it has an impact on decreasing the quality of services in the Puskesmas (21). The planned promotive and preventive activities are not scheduled on a regular basis, even some programs have not been carried out at all due to lack of costs, lack of health workers, lack of cooperation between health workers, cadres and the community and there is no good management system in carrying out these activities (37). The low quality of Puskemas, caused because so far the activities or activities of health human resources in the Puskesmas have never been evaluated, (24).

## 3 Research Method

In general, this research aims to clarify the implementation of the placement policy of the health workforce in Puskesmas Banjarbaru city. As evaluative research, it would like to know the benefits (worth) and quality (merit) from the placement of health workforce policies in the Puskesmas Banjarbaru city (35). The method of study used the Discrepancy Evaluation Model by Malcolm Provus. The informants are the official of the Office of Health at Banjarbaru City, the official of Puskesmas, and the community. The research focused on planning, recruitment, selection, placement, and empowerment.

In this study, the researcher prefers to use the Discrepancy Evaluation Model – DEM used to be a model for the policy evaluation of the implementation of the health workers placement in Puskesmas in the city of Banjarbaru, South Kalimantan. The model chosen due to Malcolm Provus, who created the model and introduced the concept of evaluation can indicate whether a policy has been implemented in accordance with the standards that have been set or not (26). In the DEM model, the evaluation conducted by comparing the P (performance) on the field and S (standard). Provus mentions five stages of evaluation in comparing P and S. The Discrepancy Evaluation Model (DEM) (13), developed in 1966 by Malcolm Provus, provides information for program assessment and program improvement. Under the DEM, evaluation defined as the comparison of actual performance to the desired standard. The DEM embodies five stages of evaluation based upon a program's natural development: program design, installation, process, product, and cost-benefit analysis (6,8). The evaluation model stage (Difference Evaluation Model - DEM), based on Input-Process-Output components and subcomponents used during the study can be seen in Table 1. The study used qualitative research and ADDIE model for instructional design involved 34 subjects including 13 officials from the Office of Health of Banjarbaru city, the 6 head of Puskesmas, 12 officials from the administration sub-division of Puskesmas who in charge to prepare a proposal of health worker need which regularly prepared and submitted to the Head Office of Banjarbaru city. From the community level, 13 informants are selected from the outpatient who got health services from Puskesmas.

## 4 Result and Discussion

### *4.1 Planning of Health Worker*

The results of the interview with the Head of the Department of HR Planning and HR Planning Section-Head of Health Office Banjarbaru City, Head of Puskesmas, Head of Administrative Section of Puskesmas, as well as Surveillance Officer of Puskesmas, from the 6 Puskesmas's chosen, about the health worker planning. From the perspective of evaluation by using the DEM method, the policy or standard subject to be evaluated is the RMH number 75 the year 2014. For the Health HR Plan, in the article 33 paragraph 4 of the RMH 75/2014 mentioned that the Head of Puskesmas requested to develop HR plan and to submit the plan to the Health Office of Banjarbaru City. The conclusion obtained is; 1) The needs of Health HR according to the planning process is in compliance between S (standard) and/with P (performance). In the implementation, all the Puskesmas's Heads drafting HR planning based on workload analysis, then presented to the City Health Office and Office of Regional Staffing Agency Banjarbaru.

Table 1: Design Criteria DEM Standard

| Stages | Component | Input | Process | Output |
|---|---|---|---|---|
| **Design** | Planning HRD | Basic Policy Manpower Planning Health issue at the health center | (1) Goal, (2)Target, (3)Strategy | The need for permanent and temporary staff determined. |
| **Installation** | Recruitment | The need for staff<br>1. Permanent staff<br>a. Government<br>b. Contract<br>2. Temporary staff<br>a. Central hired<br>b. The district hired<br>c. Local hired<br>d. Others:<br>- Mobile team<br>- Individual | Criteria: (number, type, qualification) | 9 types of health staff recruited<br>1. The number of each type of health staff, especially those carrying out the preventive function.<br>2. Permanent staff<br>a. Type of health function position<br>b. Qualifications/ level of health function position |
| **Process** | Selections | 9 types of health staff | Selection process:<br>1. Administrative reviews.<br>2. Academic test<br>3. Competency /skill & knowledge test<br>4. Personality test<br>5. Medical test<br>6. Interview<br>7. Practical test | Candidate of 9 types of health staff as many as needed selected. |
| **Product** | Placement | Placement of 9 types of health staff as needed and required by the health center. | Conformity with the requirements of the recruitment (1)Number, (2)Type, (3)Qualification | Appropriate (*adequate*), or Not appropriate (*discrepant*) to the policy |
| **Cost-Benefit** | Empowerment | Appropriate or Not appropriate | The development of skills and capabilities | 1. Patient satisfaction. 2. Incompatible with the use of the budget |

In the aspect of the planning process, there is adequacy or suitability between the S and the P. 2) The type and quantity of the positions planned, in most Puskesmas, the type, and the positions planned still dominated by the types and positions which support the curative functions.Some other Puskesmas already planning additional health workers by the number and types of positions which support the preventive function.

### *4.2 Recruitment Stage*

Recruitment of health worker candidates at the Puskesmas does not always through the usual stages of the recruitment process. The recruitment process through the usual stage, for example by broadcasting information to the public about position, duties and minimum qualification required by the prospective employees to fill the vacant position, yet can be done in the Puskesmas.

From the perspective of evaluation by the DEM method, the conclusion of the health worker recruitment process is as follows: a)The recruitment process of health worker, depending on the position and the status of worker recruited. For workers with the status as a government employee and paid by the National Government then the entire process of recruitment would be done at the central level and at the City Government. The status of the promotive position will entirely as the national government. So the process of recruitment will be carried out by the Central Government. b) The whole recruitment process of local hired has already been done in the Puskesmas. Health workers who locally recruited by Puskesmas were included: medical doctor, midwives, and nurses.

In the recruitment process is there any gap between S (Standard-RMH number 75 the year 2014 with P (Performance) during the implementation of recruitment by Puskesmas? S does not mention explicitly Puskesmas has the authority to recruit health worker. The role of the Puskesmas according to the S, mainly discussed how the Puskesmas mandated by the Government to provide health services to the community, as the front line government health facility through the function of a curative and promotive function. The role of Puskesmas Head on the health worker recruitment according to the policy is to draft the worker need and to submit it to the City Health Office for follow up.

Thus gap or discrepancy occurs between the S and P, at the stage of recruitment. Because the S does not provide authority to the Puskesmas to do recruitment. In P, Puskesmas can do recruitment at any time when the status of the Puskesmas has become autonomous. However, despite Puskesmas has not become autonomous yet, several Puskesmas recruited new apprentices staff who newly

graduated from health and non-health education to work voluntarily in the Puskesmas.

### *4.3 Selection Stage*

The selection process as a continuation of the recruitment process is not an authority of Puskesmas management. The selection process which currently partly performed by Banjarbaru Office of Health is a selection process conducted nationally.

Is there a gap in the selection process between S (standard-RMH number 75 the year 2014) and P (performance) during the implementation of the HR selection process by Puskesmas? In S it does not mention the authority to process the selection for the health worker by the Puskesmas. The focus of RMH number 75 the year 2014, mainly to provide mandates to Puskesmas as the first and front line government facilities to provide health services to the community, through the function of curative and preventive. The gap or discrepancy occurs between the S and P, at the stage of selection. Because the S does not mention the authority of Puskesmas to do worker selection process. However, in P, there is an opportunity to Puskesmas to do worker selection process for a local contract at the time when the status of the Puskesmas has become autonomous Puskesmas.

### *4.4 Placement Stage*

a health worker who recently passed the selection process is crucial. The condition of each Puskesmas from the perspective of the number of health workers, almost the same. Each Puskesmas has a problem of lack number of both health workers and non-health worker. The head of sub-division or Admin Head of Puskesmas Guntung Payung illustrates the magnitude of the needs for a health care worker to achieve good performance. Because the activities of providing health services by Puskesmas is indoor (in the Puskesmas care unit) and outdoor (at the community). If measuring the number of the worker against workload, following the standard of RMH 75/2014 with workload analysis, then the current number of health workers in each Puskesmas as the locus of study is sufficient. But when looking at the activities of the Puskesmas both indoor and outdoor, the existing number of health worker is insufficient. objectively evaluated four different placement algorithms, including a novel algorithm for placement based on identifying existing clusters (1).

Whether in the process of placing the health workers there is a gap between S (standard-RMH number 75 the year 2014) and P (performance) in implementing worker placement by Puskesmas? In S it does not mention explicitly the authority of the placement process of the health worker in the Puskesmas. Thus gap or discrepancy occurs between the S and P, in the placement of health worker. However, in P, health office and Puskesmas can do the placement of local hired or apprentice worker at the time the Puskesmas's status is not yet autonomous, nor has become the autonomous Puskesmas.

### *4.5 The Empowerment Stage*

In the RMH number 75 the year 2014, article 6 paragraph f, the stage to empower Puskesmas's health staffs is implementing human resource competence improvement program. HR competency improvement activities implemented in the Puskesmas in collaboration with the Health Office Banjarbaru, colleges, as well as an institution which has the credibility to issue a certificate of expertise necessary for a health care worker to perform in more professional duties. Strengthening the competence of the existing health worker in Puskesmas implemented in two aspects. The first aspect is the process of empowering health workers conducted internally in a Puskesmas and given by Puskesmas's officials. The second aspect is the empowerment process done outside the Puskesmas. The empowerment process by external carried out by parties outside the Puskesmas. The other important effort to build the good teamwork for the Puskesmas's employees is to keep giving motivation to them by the Head of Puskesmas, or providing continuous mentoring by the senior in the field of certain professions to the employees of the Puskesmas. The benefit of this motivation is to promote solid teamwork and to increase their spirit to work well, at the time when the Puskesmas employees confronted by the limitations of the number of health workers. These were particularly necessary for rural areas. Educational preparation was found to be insufficient for the activities that graduates were engaged in (14)

Whether in the process of empowering health workers there is a gap between S (standard) and P (performance) the implementation of empowerment by Puskesmas? At the S, there is explicitly mentioned regarding the authority of Puskesmas to facilitate the empowerment process or capacity building of Puskesmas's health worker. In the stage of empowerment Puskesmas's health worker, there is adequacy or suitability between the S and P. There is no discrepancy or gap between S and P.

### *4.6 The Public Perception Towards Quality of Puskesmas Service*

In the DEM method, health worker empowerment perspective is at stage five, the cost and benefit analysis. According to Buttram (5), the DEM embodies the five stages of evaluation, based upon a program's natural development: program design, installation, process, product, and cost-benefit analysis. The meaning of the cost and benefit implications (benefit) is the social and political economy of what is expected to be achieved from the implementation of the health worker empowerment efforts in Puskesmas Banjarbaru. The benefits of empowering health workers can be seen from the perception of citizens as the end-user against the quality of medical services by the Puskesmas.

The community perception obtained in the research gives an indication of the level of community satisfaction over Puskesmas services. Given this level of satisfaction while providing an assessment of preventive and curative function conducted by Puskesmas. The preventive function which presented from the perspective of positive perception is a) the officers of the Puskesmas often come to the village for the integrated services post or *Posyandu* & extension, b) there are Puskesmas's officers to the school to do ORI program. From the perspective of negative perception, have never seen Puskesmas's officers come to the village.

## 5 Conclusion

The Stage of Planning. There is conformity or adequacy between S and P. While the stages of recruitment, selection, and placement, the discrepancy are still happening. But the value of discrepancy that happened will give opportunities to improve the program. Because when in S, recruitment, selection, and placement does not mention, but in P recruitment, selection and placement have been done. So the process of placing health care worker can be implemented.

The Stages of Recruitment. In the process of recruitment, there is a gap between S with P. In S there is not mentioning explicitly the health worker recruitment processes in the Puskesmas. Thus gap or discrepancy occurs between S and P, at the stage of recruitment. Because the S does not mention the Puskesmas's authority to do recruitment. However, in P, Puskesmas can do recruitment at a time when the status of the Puskesmas has become autonomous Puskesmas.

The Stage of Placement. In the placement process of health workers will be known whether there is a gap between S (standard) and P (Performance). In S it does not mention explicitly the authority of placement process of health worker by the Puskesmas. Discrepancy or gap between the S and P occurs at the stage of placing the health worker. However, in P, the Office of Government Worker, Health Office, and Puskesmas can do the placement of apprentice worker at the time the Puskesmas's status was not an autonomous Puskesmas yet. In what positions the new hired local worker been placed in Puskesmas? Whether more health workers who support the preventive functions or more the curative worker been placed? Currently, the more curative worker still dominated the placement process. The process of empowering health workers is there any gap between S and P? In S mentioned explicitly the existence of the empowerment process of health worker in the Puskesmas. In the stage of empowerment health workers, there is adequacy or suitability between the S and P.

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