# Analysis of Chronic Disease Management Program (PROLANIS) for Referral Control on Public Health Center in Bengkulu

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## ABSTRACT

Public health is service facility in order to build healthy society by accentuating the promotion and prevention. Most public health center in Indonesia have not yet been effective in curing noncontagious disease. There must be specific treatment in preventing and maintaining it from intervening the national healthcare government program. Puskesmas in Bengkulu have implemented the capital number policy and commitment fulfillment-based capital payment on First Level of healthy Facility. One of indicators is routine prolanis ratio visiting it. The purpose of this study was to understand the effect of Chronic Disease Management Program (prolanis) on referral controlling and chronical disease service efficiency.

Exploratory design on case study was conducted using quantitative method for understanding the implementation of chronical disease management policy. The sample population was taken from participant of prolanis which was held in Public health center in Bengkulu. Sample was obtained by accidental sampling. Data was analyzed by correlation and regression between Prolanis and referral frequency.

This statistical analysis found there was negative correlation between prolanis and referral with r=0.228 and p value= 0.04 on weak correlation. Conversely, there was significant correlation between prolanis implementation and referral on r=-0.135 with weak correlation and p value of 0.167.

Reduction of referral frequency to first healthcare center level (FKTL) can improve the efficiency on cost of healthcare in FKLT. Prolanis also improves people awareness, willing and capability to behave healthier including controlling hypertension and DM.

Keywords: Prolanis, Referral maintaining, FKTL

## Introduction

Public health center (Puskesmas) is the first service facility which provides the healthcare service to the society. There must be specific treatment in preventing and maintaining noncontagious disease from intervening the national healthcare government program<sup>1</sup>.

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Politeknik Kesehatan Kementerian Kesehatan, Bengkulu Email: darwis\_poltekkesbkl@yahoo.co.id Social health Insurance administration organization has tried to improve the efficiency and effectivity in healthcare system by developing quality control system through capital payment pattern and regulation of capital decree also commitment-based fulfillment on First Level of healthy Facility (FKTP). The indicator of it is contact number (AK), referral ration of special treatment nonspecific (RRNS) and routine-visiting prolanis member ratio.

According to the result of capital policy implementation and commitment-based fulfillment in Bengkulu. The number of visitation of a monthly number of sickness in 2017 was ranging from 7.76%-11.86% and 9.56% annually from the number of

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application. Healthy visiting in puskesmas monthly was from 10.27% to 14.29% with annual percent of 11.63. Besides, the referral number was slightly higher (13.76%-18.05% monthly and 16.22 annually) based on visiting of sickness. From this value, it indicates that Puskesmas is suggested to develop the management for implementing society endeavor regarding healthy lifestyle in preventing, maintaining, controlling the disease.

Puskesmas is also strived to be able to integrate social healthcare with basic medical service and regulating referral number with people contribution through prolanis. From all things considered, we investigated the analysis of prolanis role for referral controlling. This study was aimed to determine the correlation of prolanis in controlling referral in Bengkulu.

### **Material and Method**

An exploratory design on case study was conducted using quantitative method for understanding the implementation of chronical disease management policy. The sample population was taken from participant of prolanis which was held in Public health center in Bengkulu. Sample was obtained by accidental sampling. Data were analyzed by correlation and regression between Prolanis and referral frequency.

#### Result

Prolanis Realization: Prolanis is held in every puskesmas in Bengkulu which participated by patient who suffers chronically (Type 2 Diabetes Mellitus and hypertension). Prolanis activity is including medical education, sport, and healthy status observation. According to the patient statement:

There are several activities involved in prolanis including blood tension check, consultation/and hypertension control explanation (Hypertension patient)...

From the patient of type 2 DM, activities are held in prolanis including blood tension check, index glycemic measurement, hypertension control explanation...

Prolanis participants found it useful to take part in prolanist activities organized by the Puskesmas, based on interviews with all participants statement:

Most patients felt the positive effect of prolanis namely feeling healthier, weight body controlling, improve the understanding of disease treatment, and etc

Based on the interview we found that counseling and explanation which has been applying in life from most participants including nutrition intake, healthy diet, physical exercise in 30 minutes at least every day, prescribe consumption right on the proper time, yet most often emotion out of control. More importantly, by joining prolanis can reduce the number of hospitals visiting sickness. The correlation and regression analysis of the positive effect of prolanis is listed in Table 1.

**Table 1: Correlation of Prolanis Realization on Referral from Puskesmas in Bengkulu** 

Variabel	<b>Referral Score Frequency</b>
Score of prolanis policy implementation	r = -0.228 p = 0.04 n = 60

Table 1, the statistical analysis with r=0.228 shown negative correlation between prolanis realization and referral frequency with weak correlation on p-value =0.04. interestingly, there was significant correlation between prolanis with the referral.

Attending analysis of prolanis activity with referral to FKTL from Puskesmas in Bengkulu is presented in Table 2.

## **Tabel 2: Correlation Analysis of Prolanis Attending** with Referral in Puskesmas Bengkulu

Variabel	<b>Referral score</b>
Score of prolanis policy implementation	r = -0.135 p = 0.167 n = 60

In Table 2, based on statistical analysis with r=-0.135 it was observed that the significant correlation between prolanis and referral with weak correlation, p-value=0.167.

## Discussion

Prolanis Implementation: Prolanis has been held it every puskesmas which joined by patient who suffers chronical disease (DM and hypertension). Most

participants felt the positive effects of this activity also applying it to their lifestyle. Based on previous study, the innovation of people contribution showed that when patients take a big apart and able to control their self<sup>2</sup>. According to WHO (2015), integrated healthcare service is health facility which guarantees continual service including health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation on different level of health system following the requirement<sup>3</sup>.

Prolanis activities are ranging from education of health, medical checkup. Health Belief Model (HBM) suggested that healthy style is based on two cognitions namely disease threatening perception and prevent action evaluation. The most probable person to follow certain healthy treatment once they believe the purpose is bigger than the cost to defeat the health threatening<sup>4</sup>. The active participant who joined the program will able to get knowledge to prevent, maintain and understand the effect of noncontagious disease which in turn will motivate people to behave healthier and avoid DM and hypertension<sup>5</sup>. HBM is a kind of best preventive strategy also cancer and primary hypertension detection relevant to intervention to reduce the risk factor of cardiovascular disease.

Prolanis activity covers many aspects of health including education about hypertension and DM or special concealing for participating who is interested. Additionally, monthly activity was blood tension measurement and education. The purpose of doing these was preventing and controlling hypertension or DM to reduce referral frequency to FKTL. The activeness in following this program was related to insight of nutrition and obedience level of diet on DM patient. The more active the patient is the more obey in doing proper diet<sup>6</sup>. Integrated Health Education Center for Non-communicable Disease (Posbindu PTM) members who suffer from hypertension and actively come every month can control blood pressure down to 74.1% of patients in the fifth month. The role of Posbindu PTM by measuring blood pressure, height, body weight, conducting counseling/education, counseling for members with indicated hypertension can increase knowledge and healthy behavior to control active hypertensive patients7. This will be related to lowering the frequency of hospital visiting.

The chronical disease approach predicted from group, the susceptible person around 3-5% patient with chronical condition is requiring special management, 15-27% need treatment management and 70-80% could be controlled with sporting individual curing Jones 2006

in Australian Government 2009<sup>8</sup>. The result has shown the society-based intervention of lifestyle explained by medical apparat might be the potential solution to defeat hypertension and DM in every element of society<sup>9</sup>.

Service Cost Efficiency: The goal of prolanis is to control referral by keeping life quality through positive activity including improving knowledge and healthy lifestyle in order to maintain disease. There is the number of promising intervention which capable of improving effectivity and efficiency of out-patient care, including easy contact, especially for doctor. There must be special strategy to improve the skill primary doctor through either education or consult with patient<sup>10</sup>. Public health service through health promotion may support long-term infestation in healthcare service system which focusing on efficient prevention and controlling<sup>11</sup>. Indonesian nowadays facing the challenge particularly in effective realization from Universal Health Coverage (UHC) in broader scope. These ranging from noncontagious disease and chronic requiring efficient treatment<sup>1</sup>. Promoting health to support in a healthy lifestyle and reduce the number of referral in hospital influencing in service efficiency.

**Prolanis Policy:** Prolanis is one of the indicators from capital payment policy based on Social. Security Agency for Health No 2 the year of 2015 about capital number stipulation and payment of service commitment on FKTP, Ministry of Health and Social Insurance Administration Organization the year of 2017. The prolanis activities including 1) medical consultation, 2) education to prevent disease, 3) reminder through SMS Gateway 4) Home visit.

Service commitment-based capital payment on FKTP is part of the developmental system of quality control to increase the efficiency and effectivity of healthcare service<sup>12</sup>. This can be valued according to indicator achievement, one of the routine participants who get monthly health service everywhere without considering the visiting frequency per month. Perolanis is one of facility which can be able to support healthy lifestyle for people (Germas). This is the systematic and well-organized action by every element in the society based on the awareness, willing and capability to start healthy life. This action should be primarily started from family by doing series of activity namely physical activity improvement, healthy lifestyle, healthy food supply, and nutrition awareness, disease prevention and cure, environmental quality improvement, healthy life education which are also implemented in prolanis.

Puskesmas as the public healthcare service acts like gatekeeper in formal health service and referral control. This can be facility in curing noncontagious disease thereby optimize the prolanis. Primary service of health is important component of health service with costless. Healthcare system which necessary to plan an effective way to strengthen it since most countries are still uneducated about the role and position of primary in-system healthcare service<sup>13</sup>.

## Conclusion

Prolanis participant was actively taking part to improve chronical patient to achieve good quality of life and reduce the referral frequency to FKTL. This circumstance could be able to improve the efficiency of health service on FKLT. Prolanis activity can increase the success of Germas on lifting awareness, willingness, and capability of people to start a healthy life.

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# REFERENCES

- World Bank. 2014. Supple Side Readiness for Universal Health Coverage : Assessing the Depth of Coverage for Non-Communicable Diseases in Indonesia. www.worldbank.org.
- 2. NICE. Community engagement to improve health. London: National Institute for Health and Clinical Excellence 2008.
- (WHO) World Health Organization. Non communicable Diseases Progess Monitoring 2015.WHO institutional repository 2015..
- Hayden J. Instroduction to Health Belief Model. Chapter 4. Health Belief Model Jones and Bartlett Publisher. 2014. http://samples.jbpub. com/9781449689742/FrontMatter.pdf.
- 5. Mutulei ACN. Factors Influencing the Uptake of Intermittent Preventive Treatment for Malaria in Pregnancy: Evidence from Bungoma East District,

Kenya. American Journal of Public Health Research. 2013. Vol. 1. No.110-123 Available online at http://pubs.sciepub.com/ajphr/1/5/2.

- Puspita F.A., Luluk Ria Rakhma L.R. Hubungan Lama Kepesertaan Prolanis dengan Tingkat Pengetahuan Gizi dan Kepatuhan Diet Pasien Diabetes Mellitus di Puskesmas Gilingan Surakarta. Jurnal Dunia Gizi. 2018. Vol. 1, No. 2, 101-111.
- Policy and Role Analysis Integrated Health Education Centers for Non-Communicable Diseases Toward The Prevention and Controlling of Hypertension. Indian Journal of Public Health Research & Development. 2018. Vol. 9. No. 12. DOI Number: 10.5958/0976-5506.2018.01920.4)
- Australian Government. Primary Health Care Reform in Australia. Report to Support Australia Fist National Primary Health Care Strategy. 2009. Australia Government Departement of Health and Ageing: 50-143.
- Lim J, Chan MHM, Alsagoff FZ, Duc HD. Innovations in non-communicable diseases management in ASEAN: a case series. Citation: Glob Health Action. 2014.7: 25110
- Winpenny E.M., Miani C., Pitchforth E., Sarah King S., Roland M. Improving the effectiveness and efficiency of outpatient services: a scoping review of interventions at the primary–secondary care interface. Journal of Health Services Research & Policy. 2017. Vol. 22(1) 53–64.
- Demaio A R, Nielsen KK, Britt Pinkowski Tersbol BP, Kallestrup P, Meyrowitsch W. Primary Health Care: a strategic framework for the prevention and control of chronic non-communicable disease. Glob Health Action. 2014. 7:24504-http://dx.doi. org/10.3402/gha.v7.24504.
- Peraturan Bersama Sekretaris Jenderal Kementerian Kesehatan RI dan Direktur Utama Badan Penyelenggara Jaminan Sosial Kesehatan Nomor: HK.1.08/II/980/2017 Tahun 2017,dan Nomor 2 Tahun 2017.
- van Weel C, Kassai R, Qidwai W, Kumar R, Bala K, Gupta PP, Haniffa R, Hewageegana NR, Ranasinghe T, Kidd M, Howe A. Primary healthcare policy implementation in South Asia. BMJ Glob Health. 2016;1:e000057. doi:10.1136/ bmjgh-2016-000057