

The Empowerment of Integrated Development Post of Non-communicable Diseases in Efforts to Prevent Non-communicable Diseases

Yandrizarl¹, Rizanda Machmud², Melinda Noer³, Hardisman⁴, Afrizal⁵, Nur Indrawati Lipoeto⁶, Ekowati Rahajeng⁷, P. A. Kodrat Pramudho⁸

^{1,2,4}Department of Public Health Sciences Faculty of Medicine, University of Andalas Padang, Indonesia

³Post Graduate University of Andalas Padang, Indonesia

⁵Department of Anthropology, Faculty of Social and Political Sciences University of Andalas Padang

⁶School of Public Health, University of Andalas Padang, Indonesia

⁷Centre For Public Health Research and Development National Institute of Health Research and Development (NHRD) Ministry of Health (MoH), Indonesia

⁸The Center for Environmental Health Technique and Disease Control, Jakarta, Indonesia

Article Info

Article history:

Received Jun 10, 2016

Revised Aug 19, 2016

Accepted Aug 26, 2016

Keyword:

Community empowerment

Early detection

Non-communicable diseases

Prevention

ABSTRACT

Non-communicable disease has already been the main cause of death in many countries, as many as 57 million death in the world in 2008, 36 million (63%) is because of un-infectious disease, specifically heart illness, diabetes, cancer, and chronic respiratory diseases. Prevention and controlling efforts of un-infectious diseases developing in Indonesia is non-communicable disease integrated development post (Posbindu PTM). This research used combination method approach with exploratory design. Exploratory design with sequential procedure used combination consecutively, the first is qualitative and the second is quantitative method. Public Health Center formed Posbindu PTM has not disseminate yet to all stakeholders. Posbindu PTM members felt benefit by following this activity. Some of them did not know follow the activity because of unknown about it. There was connection between coming behavior to Posbindu PTM to preventing behavior of non-communicable disease. Percentage for high blood pressure risk indicated 20-25% from all visitors. Formulation of its policy implementation started with stakeholder analysis; head of sub district, head of urban village, head of health department in regency/city, head of public health service, head of neighborhood Association, and the head of family welfare development. Analysis of perception, power and authority found that every stakeholder had authority to manage the member directly or indirectly. It was not implemented because of the lack knowledge of stakeholders about the Posbindu PTM function. They would play a role after knowing the aim and advantage of the post by motivate the people to do early detection, prevention and control the non-communicable disease. The members were given wide knowledge about early detection, preventing and control the un-infectious disease, measuring and checking up their healthy continuously so that keep feeling the advantage of coming to the post.

Copyright © 2016 Institute of Advanced Engineering and Science.
All rights reserved.

Corresponding Author:

Yandrizarl,

Student at Doctoral Program in Public Health Sciences,

University of Andalas Padang,

Health officer of Bengkulu Province.

Email : yandrizarl67@yahoo.co.uk, yandrizarl16@gmail.com

1. INTRODUCTION

1.1. The impact of un-infectious disease

Non-communicable diseases are already the leading cause of death in many countries, as many as 57 million deaths worldwide in 2008, 36 million (63%) was due to non-communicable diseases, especially heart disease, diabetes, cancer and chronic respiratory diseases [1]. deaths in Indonesia in 2012 as many as 1.551 million people, is expected to reach 71% of deaths caused by un-infectious diseases [2] and the probability of premature deaths from non-communicable diseases 23% [3]. The prevalence of non-communicable diseases in the Bengkulu Province is likely to increase from 2007 to 2013 based on the results Riskesdas 2013, among others, Diabetes Mellitus (DM), stroke, cancer prevalence of 2.0 per mil/fourth largest province. Healthy behavior and clean still low in Bengkulu province, it was seen from people who smoked in 2013 as much as 37% of the population [4].

1.2. Cause of non-communicable disease

Non-communicable diseases can be prevented through effective interventions shared risk factors, namely tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol. Change in behavior are well received in dealing with non-communicable diseases related to lifestyle. It Needs strong evidence supports explanation lifestyle behaviors negative role in the incidence of chronic pain, and positive lifestyle behaviors role in the incident and effective management. Prevention and control of non-communicable diseases can be done with a healthy behavior. Healthy lifestyle recommended by WHO eating lots of fruits and vegetables, reduce fat, sugar and salt intake and exercising. Based on height and weight, people can examine their body mass index (BMI) to see if they are overweight [2].

Change of lifestyle requires a comprehensive and multidimensional approach, therefore PTM control program needs to be focused on a comprehensive integrated risk factors (promotive, preventive, rehabilitative curative) cover policy dimension, the environment, people's behavior and the dimensions of health care, by empowering the community with the support cross-program and cross-cutting. Prevention and control of un-infectious diseases that are developing in Indonesia is an integrated coaching Pos non-communicable diseases (Posbindu PTM). Posbindu PTM is an integrated activity to prevent and control the risk factors of non-communicable diseases appropriate community-based resources and customs of the people [5]. Interest Posbindu PTM is to increase community participation in prevention and early detection of risk factors for NCDs. Main activities are the target group of healthy people, risk and people with non-communicable diseases aged 15 and older [6]. Posbindu PTM currently implemented by the cadres along with health centers, stakeholders have not been optimized to achieve the goal of increasing community participation in efforts early detection, prevent and control non-communicable disease risk factors. District Head, Head and social organizations/civil society has not been optimal role in empowering Posbindu PTM,

1.3. Posbindu PTM empowerment

Community empowerment model is based on three elements: building confidence, capacity and systems. The concept of empowerment model of health and welfare, was completed with the knowledge, confidence and skills to make a difference in their communities. Empowerment Model of health and well-being better than the empowerment model [7]. Chronic disease self-management program shows that the participation of health behavior, increased health status and decrease the number of days spent in the hospital participants [8]. Actors supporting and hindering efforts to increase public participation in the city of Manado and Palangkaraya, are as follows: a) local government leaders such as Head and *Lurah*/Head of the Village; b) religious and community leaders; c) Health Office or health center; d) community; e) potential as PKK organization, NGO, Youth, Religious Institutions and Custom Agency [9].

2. RESEARCH METHOD

2.1. Research approach

This research method approach, combined with exploratory design. Exploratory design with sequential procedures using a combination of in sequence, the first two methods of qualitative and quantitative methods [10]. Design exploratory sequential procedure: qualitative followed by quantitative correlate data between the two phases [11]. Design exploratory qualitative phase starts with the main one, the findings are validated or informed by quantitative results. Analysis of a case study focusing on a small number of cases that are expected to provide insights into the causal relationship in a larger population of cases [12]. Qualitative methods for exploratory purposes and follow up with quantitative methods on a large sample so that researchers can generalize the results to the population [10]. Analysis unit in this research is the development of an integrated post non-communicable diseases (Posbindu PTM). The study was

conducted in Bengkulu province consisting of ten (10) districts/cities that was conducted in May 2015 to March 2016. The stages of research can be structured scheme as follows:

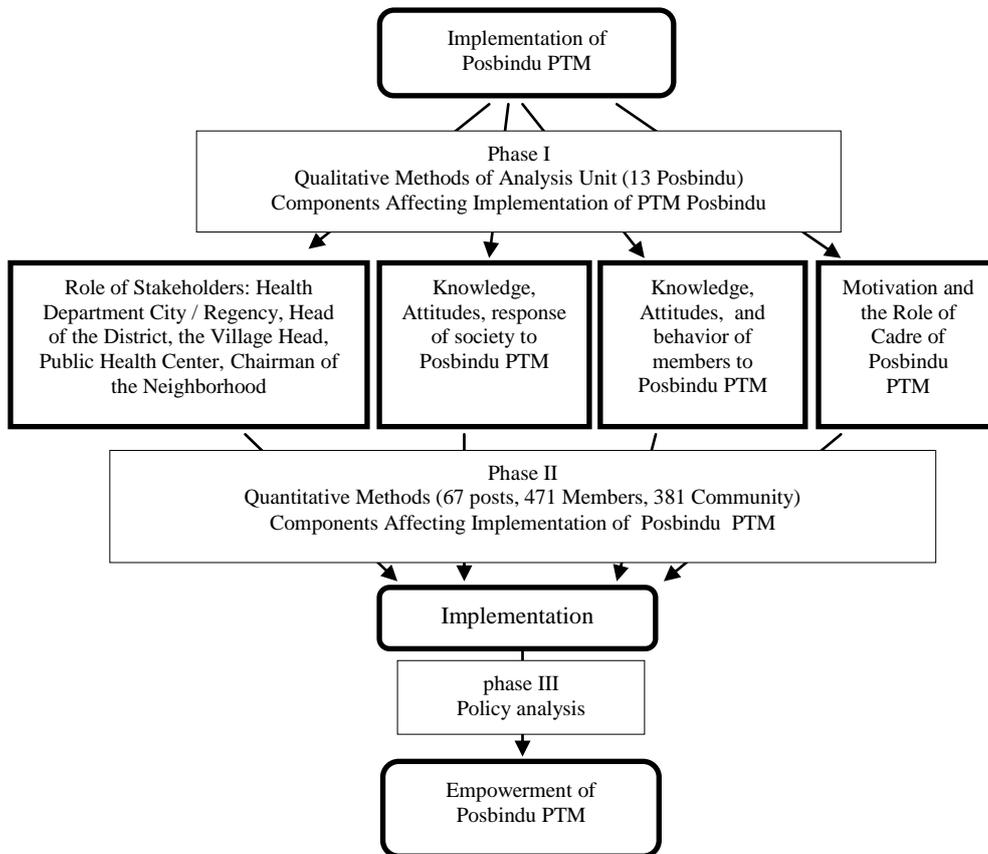


Figure 1. Scheme stage of qualitative methods, quantitative, policy analysis and implementation of posbindu PTM

2.2. Phase I of research

The first phase of the case study approach (case study) using the method, the research design evaluation study exploratory. Qualitative method approach where investigators explored through detailed deep data collection, involving a variety of information sources. The study was conducted in the city of Bengkulu, consisting of 8 (eight) society Posbindu PTM and 3 (three) posts of Special Group, one Posbindu PTM of Central Bengkulu District, one Posbindu PTM of Seluma.

2.2.1. Data collection

Primary and secondary data collection through in-depth interviews, direct observation. Secondary data was collected through observation documents. Primary data and secondary data collected including input, formation, execution, monitoring and evaluation process. The number of informants: 3 people from Health Department of Regency/City, Head of Sub-District 6 people, the Head of Village 7 people, the Village Head 1 Person, Head of Public Health centre 9 people, Cadre 10 people, Chairman of the Neighborhood 5 people, members of Posbindu PTM 125 people and society around the post, 58 people.

2.2.2. Qualitative data analysis

Qualitative data analysis consists of three steps interactive models: 1) data reduction; 2) the presentation of the data so that it is possible to be deduced; 3) conclusion/verification. Data analysis in qualitative research conducted since before entering the field, during the field, and after field [13]. Analysis of data during field Spradley models divide the data analysis based on the stage role in the qualitative research that domain analysis, taxonomy, and componential, thematic analysis [14]. Results obtained data interpretation: How can an inhibiting factor and support of stakeholders, cadres with the implementation

Posbindu PTM. How about the knowledge, attitudes and behavior of members, people with the implementation of Posbindu PTM.

2.3. Phase II research

Quantitative methods to determine: factors relating to the implementation of POSBINDU PTM in the early detection, prevention and control of non-communicable diseases.

2.3.1. Design of quantitative methods

The study used quantitative methods to the design of the evaluation program. The number of samples in this study are determined based on the number of POSBINDU PTM in regencies/cities. Specifies the county/city by cluster sampling (sampling area) was 3 (three) regencies/cities: 1) the city of Bengkulu, 2) Central Bengkulu District, 3) Seluma. With the number of post 67 of 79 Posbindu PTM. Total estimated 1580 members from 79 Posbindu PTM (the average member per Posbindu PTM 20). Number of samples of a membership of 472 people, who came at the time of Posbindu PTM. The number of samples as many as 381 people residing around Posbindu PTM who came went to the health center.

2.3.2. Variable

The independent variables: role of stakeholders, the City/regency Health Office, health centers, Head of the District, the Village Head, Chair of the Neighborhood; Knowledge, attitudes and behavior of members, knowledge, attitudes and behavior of society towards Posbindu PTM who went to the health center. The dependent variable was the scope of members on the implementation of Posbindu PTM. The instrument used for primary data collection were: the questionnaire: to know the role of stakeholders, cadres, and knowledge, attitudes and behavior of society as well as members of the implementation of Posbindu PTM. Univariate, bivariate and multivariate analyzes to determine the role of stakeholders, knowledge, attitudes and behavior of society/member of Posbindu PTM to coverage Posbindu PTM implementation by using chi-square test.

2.4. Phase III of research

The results of phase I and II used as material formulation of empowerment policy of Posbidu PTM. Improvement of policies starting from: a. Stakeholder analysis, b. Developing strategy policy changes; c. Position, Power, and Perceptions, data analysis: the implementation of triangle policy.

3. RESULTS AND ANALYSIS

3.1. Results and Analysis Evaluation Study of Posbindu PTM: Qualitative Approach

Qualitative analysis used Spradley model the results in Table 1, Table 2, Figure 2.

Table 1. Domain Analysis Implementation of Posbindu PTM

No	Domain details	Domain Analysis
1.	Public health center	Person in charge of family and community empowerment in health
2.	City health department	Responsible for development of health
3.	Head of village	Person in charge of the empowerment of communities in the villages
4.	Head sub district	Person in charge of the empowerment of communities in the villages
5.	Head of neighborhood	Person in charge of community development in the area of the neighborhood
6.	Health cadre	Doing Posbindu PTM

Source of various regulations

Based on the analysis componential analysis theme: Public Health Center formed Posbindu PTM that did not do socialization to all stakeholders. The society did not continuously involve stakeholder in monitoring and evaluating. Stakeholders: Head of sub district, Head of district had not involved yet in monitoring and evaluating. Because of that, they did not know the progress of Posbindu PTM implementation. The members felt the advantage of following it.

Table 2. The Taxonomic Analysis of Posbindu PTM Implementation

No		Taxonomic Analysis
1.	Public Health Center	<ol style="list-style-type: none"> 1. Formation Doing socialize Posbindu PTM attended by cadres, village, Head of neighborhood and society. Meeting result of the management establishment . 2. Implementation Reminding the cadres to prepare the public health center's role, measuring blood pressure, blood sugar checked momentarily, uric acid, cholesterol, medical examination and drug delivery. Cadre helped measuring weight, height, waist circumference, and recording the results. 3. Monitoring and evaluation The officers of Public Health Center make report from the activity result consisting number of members, checking up result and illness.
2.	City Health Department	<ol style="list-style-type: none"> 1. Formation Doing socialization to public health center and sub district head. helping equipment to several Posts. 2. Implementation Not involved in the implementation 3. Monitoring and evaluation Receive activity reports from the public health center
3.	Head of Village	<ol style="list-style-type: none"> 1. Formation Attend meetings and provide support to mobilize the community through the head of neighborhood 2. Implementation Getting report from cadre and giving support to them. 3. Monitoring and evaluation There has been no evaluation of the implementation
4.	Head Sub District	<ol style="list-style-type: none"> 1. Formation Some of people did not know about Posbindu PTM. It had already formed and gifted support to the sub district office to activate the society. 2. Implementation There were no direct involvement 3. Monitoring and Evaluation There has been no evaluation of the implementation involved Posbindu PTM.
5.	Head of Neighborhood	<ol style="list-style-type: none"> 1. Formation Some of people did not know about Posbindi PTM. Some who already known, come and invite others to attend the socialization of Posbindu PTM. 2. Implementation Some members invited people to join Posbindu PTM. 3. Monitoring and Evaluation There has been no evaluation of the implementation involved Posbindu PTM
6.	Health Cadre	<ol style="list-style-type: none"> 1. Formation Attend and invite the people to follow socialization. Being caretaker of Posbindu PTM. 2. Implementation Motivating people to do Posbindu PTM. 3. Monitoring and Evaluation Reporting the implementation result to public health center, evaluating and reminding people of Posbindu PTM.
7.	POSBINDU Member	<ol style="list-style-type: none"> 1. Formation The members are the people who active in other activities and invited in socialization agenda. 2. Implementation The members felt health advantages, improved knowledge of health, got health treatment, and follow the post's activity monthly. 3. Monitoring Members were asked to invite their neighbor to follow Posbindu PTM.
8.	Society	The society did not know about Posbindu PTM because of no socialization. After given explanation, the society said that it was really good to know health condition and healthy behavior. As the result, they come to Posbindu PTM with

Source: Primary data is processed

Componential analysis on Posbindu PTM Tengah Padang as follows: the role of stakeholders in the implementation in Figure 2.

Description: Disconnect Line, not implemented yet/not involved

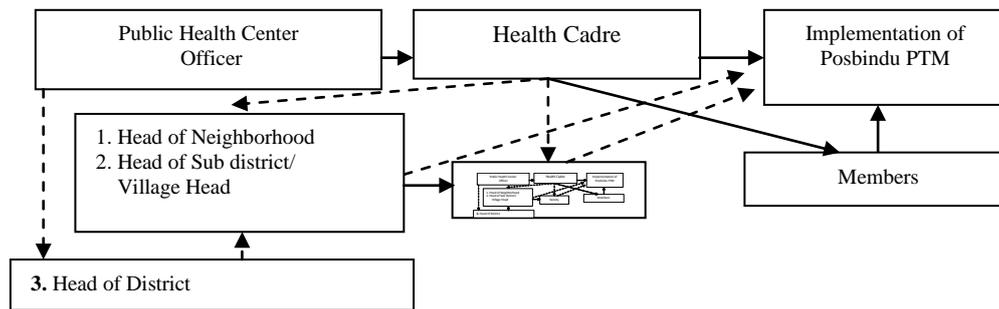


Figure 2. Forming flow of posbindu PTM (Source: Primary data is processed)

Based on observations, the implementation of Posbindu PTM described in Figure 3:

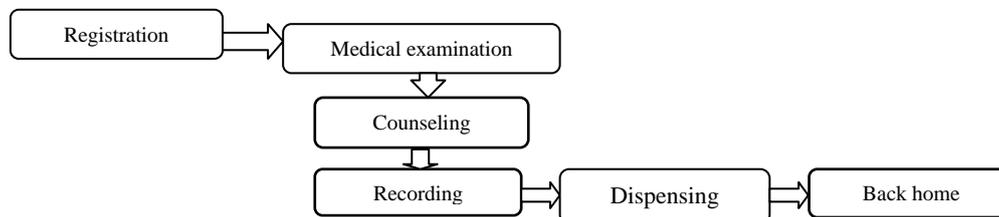


Figure 3. Forming Flow of Posbindu PTM (Source: Primary data is processed)

Based on the analysis componential analysis theme: Public Health Center formed Posbindu PTM that did not do socialization to all stakeholders. The society did not continuously involve stakeholder in monitoring and evaluating. *Stakeholders*: Head of sub district, Head of district had not involved yet in monitoring and evaluating. Because of that, they did not know the progress of Posbindu PTM implementation. The members felt the advantage of following it.

3.2. Results and analysis intervention of Posbindu PTM

The treatment by giving the invitation, brochures and explanation about Posbindu PTM to 140 families from three (3) posts known by the Head of Village. Participants came to be invited as many as 98 people (70.0%). The results of the interview to the people who first came after an invitation said that the activity was very beneficial because it added the knowledge of health, knowing health condition. As result, they wanted to come every month.

Based on the results of Phase I and interventions to the community to come to post, prepared the conceptual framework by using quantitative methods to determine the relationship between the dependent variable is the role of stakeholder, public perception and the perception of members with coverage Posbindu PTM.

3.3. Results and analysis evaluation study of posbindu PTM: quantitative approach

The results of test analysis statistic of bivariate and multivariate by using Chi Square Test results obtained in Table 3 and Table 4. as follows:

Multivariate results of formation, implementation and monitoring and evaluation process were not related to the scope implementation, prevalence results monitoring role of stakeholders in the evaluation was instrumental to increasing coverage of 6.7 of the of the process of formation and implementation.

Table 3. Role of Stakeholder, Formation Process, Implementation and Monitoring of Posbindu PTM

Research Variable	Scope implementation			p value
	Bad	Less	Good	
Formation				
Less	9.8%	63.4%	26.8%	0.252
Good	0.0%	73.1%	26.9%	
Implementation				
Less	6.9%	69.0%	24.1%	0.363
Good	0.0%	55.6%	44.4%	
Monitoring and Evaluating				
Less	6.6%	70.5%	23.0%	0.067
Good	0.0%	33.3%	66.7%	
Formation, Implementation, Montiroing				0.038

Source: Primary data is processed

Tabel 4. Knowledge, Attitude, and Behavior of Posbindu PTM Members

Research Variable	Category		p value
Support Posbindu PTM			
Know Posbindu PTM	Less	Good	0.000
Less	28.3%	71.7%	
Good	12.5%	87.5%	
Attitude to Come			
Know Posbindu PTM	Less	Good	0.000
Less	43.4%	56.6%	
Good	19.4%	89.6%	
Attitude to prevent NCD			
Behavior go to Posbindu PTM	Less	Good	0.000
Less	40.8%	59.2%	
Good	18.8%	81.2%	
Attitude to prevent NCD			
Knowledge NCD	Less	Good	0.000
Less	72.6%	27.4%	
Good	30.4%	69.6%	
Knowledge NCD			
Behavior go to Posbindu PTM	Less	Good	0.002
Less	40.5%	59.5%	
Good	24.2%	75.8%	

Source: Primary data is processed

Table 5. Knowledge, attitude, and behavior of Posbindu PTM community

Research Variable	Category		p value
Knowledge of Posbindu PTM			
Know Posbindu PTM	Less	Good	0.738
Less	23.0%	77.0%	
Good	22.9%	76.1%	
Attitude to Come			
Know Posbindu PTM	Less	Good	0.408
Less	4.4%	95.6%	
Good	0.0%	100.0%	
Attitude to prevent NCD			
Knowledge of Posbindu PTM	Less	Good	0.000
Less	69.3%	30.7%	
Good	46.1%	53.9%	
Attitude to prevent NCD			
Knowledge of Posbindu PTM	Less	Good	0.003
Less	53.0%	47.0%	
Good	13.3%	86.7%	

Source: Primary data is processed

3.3.1. Role of stakeholder

Based on Table 3, there was no correlation of stakeholder's role to the formation, implementation, monitoring, and evaluation process with implementation scope of Posbindu PTM. The effectiveness of prevention and control of un-infectious diseases desperately needs leadership, coordination, multi-stakeholder involvement and multi action for health ranging from all levels of government in all sectors, including partnerships with civil society and private sector [15].

Potentially to be stakeholders are: 1) government officials, policy makers, service and contract manager; 2) funders and donors; 3) board members, managers and personnel of the implementation of the program; 4) the service users, clients or beneficiaries; 5) the public interest groups or associations. Consider whether the note on stakeholders: 1) mapping analysis conducted stakeholder; 2) groups of key stakeholders clearly identified; 3) specify how key stakeholders will be involved in the process; 4) there is a process for reviewing stakeholder groups and involvement over time [16]. Stakeholders are comprised of the following three categories: 1) decision-makers, 2) the general public (civil society) or individuals or communities affected by a particular decision, and 3) the individual or organization that aims to raise awareness about the issue. They may be involved with or affected by the decision, or possibly spreading information about the targeted decision [17]. More specifically, stakeholders are individuals, organizations or people who have a direct interest in the process and outcome of health technology assessment [18].

Public health with regard to disease prevention and control at the population level, through an organized effort that includes organizations, public, private and individual. Contribution to public health comes from systems outside the formal health care system, and the potential for cross-sektoral contribution to public health is increasingly recognized worldwide. The government's role is very important in influencing the health of the population that is not limited in the health sector but also by the various sectors outside the health system [19]. The government should be a key stakeholder in the development of a national policy framework to promote health and reduce risk factors. Stakeholder analysis also provides a framework in which the area of conflict of interest can be identified, and assist in a better understanding of interdependence and linkages between the various groups of stakeholders, new partnerships can be detected [20].

The reason for doing stakeholder analysis have been summarized by WHO as follows: Identify people, groups and institutions that will affect the project (positive or negative); 1) anticipate the kind of influence, positively or negatively, the groups will have a project; 2) develop strategies to get the most effective support possible for the project and reduce any obstacles to successful implementation [20]. Public Health Center as mentoring implementation standby village has given supplies good facilitation techniques that can lead active standby village. Facilitation is done in the development of rural health centers idle yet to realize community development, but more towards the social mobilization [21].

The empowerment of non-communicable disease integrated development post (Posbindu PTM) will conduct a review of public participation and stakeholders involved or not to create a model. Prevention is a prominent feature of health care reform that lasted late 1960s, starting early 1970 in the United States, a strategy has been like a vaccination across the nation, the promotion of lifestyle changes, and safety regulations are introduced and become widely accepted as a means to improve public health while reducing health care expenditures [22].

The role of stakeholders in the implementation of the Posbindu PTM necessary to be enhanced. The understanding of stakeholders to contribute and to empower Posbindu PTM that used by the community. Stakeholder role in the implementation can be structured as follows: the task of the District Head, Village, Neighborhood empower communities through mobilization of giving understanding to the public about the beneficial activity or effect to empower communities. Posbindu PTM is one of the activities that benefit the community so as to empower community stakeholders responsible for the event. Change or innovation policy with adequate socialization needs to be followed up. Socialization should be done to enable the similarity and alignment in wearing a new policy such as rural/ village/RW standby. To be more easily understood by the local government, a policy that is associated with the empowerment of the community, especially the strengthening of the capacity of villages and sub-level governments need to be integrated in the framework of ministries at the central level within the framework of the development and strengthening of regional autonomy [23]. Actors supporting and community participation in the city of Manado and Palangkaraya. supporting factors are: a) local government leaders such as Head and Lurah/Head of the Village; b) religious and community leaders; c) Public Health (PHC); d) potential as PKK organization, NGO, Youth, Religious Institutions and Custom Agency [9].

Determinants of health can not be dealt with without the collaborative work of all parties. People knew what they needed, necessary work to identify the needs and then ask stakeholders to help provide the tools and resources they need to develop targeted health plan [24].

3.3.2. Role of cadre

The role of the practitioner at the moment is people around the issues that bring small groups together they deem important to their lives, including: 1) self-help groups around organized for a specific problem such as support groups mourning; 2) The public health groups that usually come together to campaign on specific issues such as pollution; 3) development of community health projects such as neighborhood-based project set up to tackle local problems such as poor housing, and with government

support, and a community health worker who is paid [25]. Based on the Pranata et.al research results, specifically to integrated service post cadres, it is necessary to improve the skills of advocacy and negotiation periodically thus more confident in carrying out development activities [9].

3.3.3. Knowledge, attitude and behavior of posbindu PTM member

Knowledge of Posbindu PTM with Attitude Supports Posbindu PTM, analysis statistical test result p value $0.000 < p < 0.05$, with a confidence level of 5%. Knowledge member of Posbindu PTM impact on support for the implementation of Posbindu PTM. Knowledge with behavior coming the post, analysis statistical test result p value $0.000 < p < 0.05$, means there is a relationship between behavior to prevent the un-infectious illness and to come to the post. Analysis statistical test result p value $0.000 < p < 0.05$. Means there is a relationship of knowledge to prevent the illness and behavior to come to the post. Analysis of statistical test result p value $0.000 < p < 0.05$. Means there is a relationship behaviors of coming to the post and preventing the diseases. Behavior to come to the post and Awareness of the illness, Analysis statistical test result p value $0.002 < p < 0.05$ showed no relationship between behavior of coming to the Post with knowledge of un-infectious diseases.

3.3.4. Knowledge, attitude and behavior of society

Knowing there was the Posbindu PTM with knowledge, analysis statistical test p value $0,738 > p > 0,05$. Means there is no relation between knowledge of coming to the post with an attitude of curiosity of it. Knowledge and Desire Coming Into the post, analysis statistical test p value $0,408 > 0,05$. Means there is no relation between knowledge of coming to the post with the desire to come. People might not know about Posbindu PTM caused no desire to come. Knowledge and Prevent Behavior of the diseases, analysis statistical test result p value $0,000 < p < 0,05$. Means there is a relationship of knowledge about Posbindu PTM and prevent the illness. A statistical test analysis results obtained p value $0,003 < p < 0,05$. Means there is a relationship between the knowledge of non-communicable diseases integrated development post and preventing the illness.

The post members already know the activities and benefits of Posbindu PTM, so willing to come every month for early detection and prevention of non-communicable diseases. Members' knowledge of risk factors, the suffering and the threat that would be felt if the disease is not contagious, impact on attitudes and behavior prevention. The suffering and the threat of non-communicable diseases is obtained from a variety of resources including education and counseling at the time of follow the activities. Compliance member to come to the post have been affected by the availability of treatment around. the members feel less useful if untreated Posbindu PTM circumference.

Stakeholders need to develop strategies to provide insight and understanding to the public about the activities and benefits of the integrated development post. People understand it may cause attitudes and behaviors to follow the activities of the post. Based on the results of interventions involving the village head, the head of the Neighborhood by providing information about Posbindu PTM to the people who accompanied the information activities carried out, got a response so that people come to follow the activities. The results of the intervention is done in three (3) posts by giving information to the 140 heads of families, who came 98 people (70.0%) and people find it useful from Posbindu PTM activities to know their health conditions, get the knowledge about the disease is not transmitted and received medication that indicated the risk of non-communicable diseases.

Community knowledge is still lack about Posbindu PTM, so eager to learn about it. People might not know about the impact of Posbindu PTM. Society knowledge to prevent the non-communicable diseases was good but the behavior was still lack. Community knowledge of non-communicable diseases was good but the attitude of preventing was still lack. People who know about the PTM but attitudes and behaviors to prevent non-communicable disease was still lack. The results of the knowledge, attitudes and behaviors different from the people who have not followed Posbindu PTM. Posbindu PTM members know about Posbindu PTM and actively come to it. Knowledge of non-communicable diseases was good, attitude and preventing behaviors were good it was the impact of actively participated in the Posbindu PTM. Health Belief Model/The Health Belief Mode [26], was developed to help understand why people do not or do not use preventive services are offered, and has been developed to address the problem new in the prevention and detection (eg, screening) as well as lifestyle behaviors such as healthy behavior and injury prevention. Health Belief Model can be developed on a empowerment the post, to find out why people do not take advantage and utilize Posbindu PTM actively each month.

People who had never read Posbindu PTM does not wish to come as yet know the benefits. After learning about the Posbindu PTM, the people willing to follow the activities. They who first came feel very rewarding to follow the activities. Health Belief Model theorized that people's beliefs about whether or not they are at risk for a disease or health problems, and their perceptions of the benefits of taking action to avoid

it, affect their readiness to take action. Core construction of the Model Health belief: 1) perception and perceived susceptibility/severity; 2) the perceived benefits and perceived barriers; 3) cues to action; 4) self-efficacy [26]. Health Belief Model is most often applied to health problems related to the prevention and without symptoms, such as cancer and hypertension early detection, and relevant interventions to reduce risk factors for cardiovascular disease [27]. Health Belief Model is a psychological model that attempts to explain and predict health behavior. This is done by focusing on the attitudes and beliefs of individuals.

Community empowerment as a process is about the different partners and communities, service workers, managers and policy makers to work together to empower communities and service users and as well as new ways and better organization of the public domain. Community empowerment has implications for those involved takes time, money, investment and confidence building. Community-based approach to framing citizen empowerment as a creator and owner of the service and the public domain. User community or service is active and there is a trend towards public sector innovative work culture [28]. Health Center staff as advisors Posbindu PTM, should make efforts to involve the community. The main point of the study [28]: 1) a method responsive to engage and cooperate with the public services require users to provide sufficient time volunteers; 2) where the tendency to use methods responsive, service users are more likely to cooperate and demonstrate a commitment to community activities; 3) there is confusion over what meaningful participation and often misinterpretation of levels and steps toward empowerment; 4) community-led, 'bottom-up' planning and development capacity to foster cooperation and joint work between service providers and the public; 5) establish reciprocal relationships and trust takes a long time. Where the purpose of the organization including the involvement of indigenous communities, it is important to demonstrate this understanding to the staff and service users.

Health Belief Model/The Health Belief Model (HBM) was developed to help understand why people do not use offered preventive services, and has evolved to address new problems in the prevention and detection (eg, screening) as well as lifestyle behaviors such as healthy behavior and injury prevention. Health Belief Model can be developed on an empowerment of Posbindu PTM, to find out why people do not take advantage of Posbindu PTM actively each month.

3.4. Visit of posbindu PTM member

Posbindu PTM implemented every month by Kader and health center staff, Number of Members who visit the post in January to December 2015 for one year as many as 9773 people from 94 posts, the average per month 815 members. The percentage who indicated the risk of high blood pressure between 20-25% of all members who visit. Members who do blood tests are who have been suffering the risk of hypertension, Gout, Diabetes mellitus (DM) that perform continuous blood checks. Members who suffer non-communicable diseases can control risk factors such as blood sugar, uric acid and blood pressure. The results of the examination of blood sugar levels ≥ 200 mm/g or hypertension $\geq 140/90$, not all members are above standard risk of non-communicable diseases, results can be seen in Figure 4.

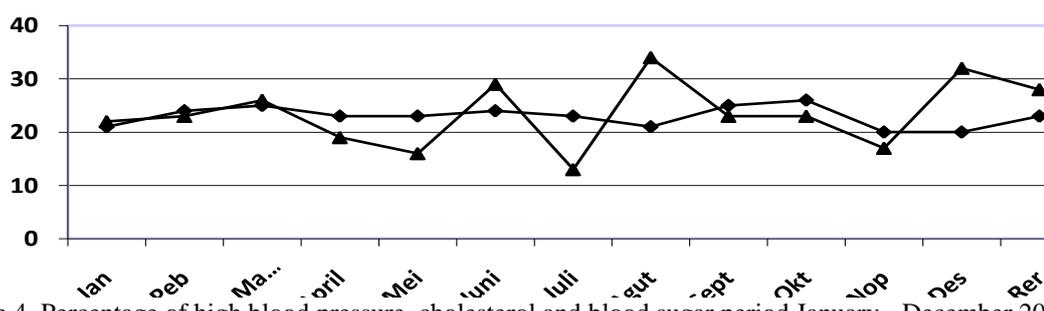


Figure 4. Percentage of high blood pressure, cholesterol and blood sugar period January - December 2015 in Bengkulu Province

Posbindu PTM members and community who do not know about Posbindu PTM during 2015 ever went to the health center or other primary care and hospitalized due to non-communicable diseases such as high blood pressure, diabetes mellitus, and accident. It can be seen in Figure 5.

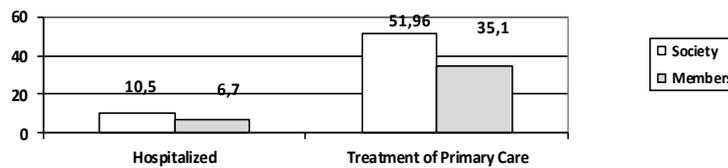


Figure 5. Percentage of Posbindu PTM Members and Society that Ever Hospitalized and doing treatment in Primary Care 2015 (Source: Primary data is processed)

Based on Figure 5 the percentage of people who had been treated, and treatment at higher Primer Services who regularly check the health and undertake prevention efforts. Posbindu PTM can encourage members to take steps to prevent and control non-communicable diseases and periodic medical examination.

Implementation of Posbindu PTM is integrated with other activities such as integrated service post of toddler, Elderly treatment, *Taklim Assembly*, and *Arisan*, integrated with the implementation of service post of toddler and the elderly Treatment 82.1%, and 1.5% of its own implementation. Means implementation of Posbindu PTM can be integrated with existing activities in the health center.

3.5. Analysis of policy

Formulation of empowering policies of Posbindu PTM, starting from stakeholder analysis, Chief of Sub-district, village head, Chief of Medical Officer/City, head of the health center, the Chairman of the Neighborhood, Chairman of Family Welfare Guidance (PKK). Analysis of perception, power, authority, result: each has the power to be able to mobilize the people directly and indirectly. Motivating community has not been implemented because the stakeholders do not know and understand the purpose and benefits of Posbindu PTM. Policy formulation in the form of empowerment model Posbindu PTM in an effort to increase the number of people who do early detection, prevention and control of non-communicable diseases can be arranged as in Figure 6:

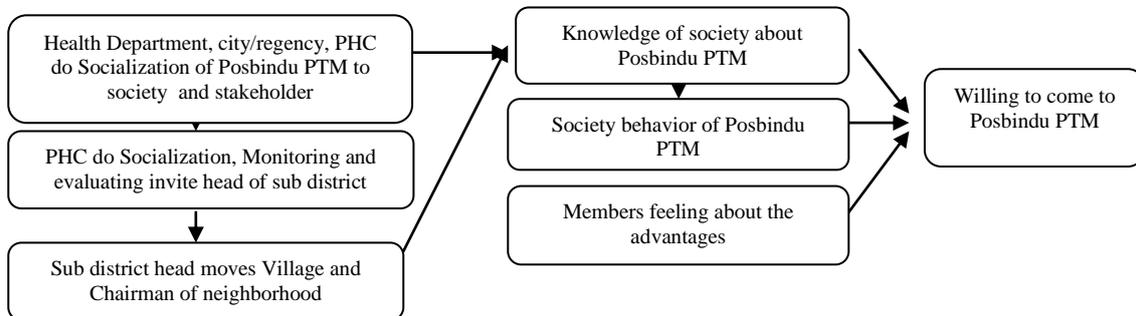


Figure 6. Role of stakeholders, knowledge, benefit feeling and willing to come to posbindu PTM

4. CONCLUSION

Stakeholders will be able to play a role after knowing and understanding the purpose and benefits Posbindu PTM to mobilize people to do early detection, prevention and control of non-communicable diseases. The District/city together doing advocacy to stakeholders, objectives and results of the implementation of the *Posbindu* PTM. Members are given a broad knowledge of early detection, prevention and control of non-communicable diseases, measure, examine the health continuously, so keep it worthwhile to come to Posbindu PTM. Find it helpful to follow the activities of Posbindu PTM. Posbindu PTM socializing with stakeholders to mobilize all the time and opportunity, so that people understand the benefits of Posbindu PTM. Reminds policy formulation of Posbindu PTM empowerment by enhancing the role of Head, Head of Village, businessmen and other institutions, in developing promotion and prevention services for the early detection, prevention and control of non-infectious disease in the community.

REFERENCES

- [1] World Health Organization, "Global Status Report on Non communicable Diseases 2010," WHO, 2011.
- [2] World Health Organization, "Non communicable Diseases (NCD) Country Profiles 2014," WHO, 2014.
- [3] World Health Organization, "Non communicable Diseases Progress Monitoring 2015," WHO institutional repository, 2015.
- [4] Balitbangkes, "Basic Health Research (*Riset Kesehatan Dasar :Risikesdas*) 2013," Agency for Health Research and Development, Jakarta, Balitbangkes, 2013.
- [5] Kementerian Kesehatan RI, "General Guidelines of Post Non-Communicable Diseases Integrated Counseling," Jakarta, Indonesian Ministry of Health, 2014.
- [6] Kementerian Kesehatan RI, "Technical Guidelines for the Implementation Post Non-Communicable Diseases Integrated Counseling," Jakarta, Indonesian Ministry of Health, 2014.
- [7] Woodall J., Raine G., South J., Booth L. W., "Empowerment and Health & Well-Being. Center for Health Promotion Research," Leeds Metropolitan University, 2010.
- [8] NICE, "Community engagement to improve health," London, National Institute for Health and Clinical Excellence, 2008.
- [9] Pranata S., Pratiwi N. L., Rahanto S., "Community Empowerment in Health Sector, Description of role of Posyandu cadre in effort to decrease maternal and infant mortality rate in Manado and Palangkaraya City," *Bulletin of Health System Research (Buletin Penelitian Sistem Kesehatan)*, vol/issue: 14(2), pp. 174–182, 2011.
- [10] Creswell J. W., "Research design: Qualitative, quantitative, and mixed methods approaches. 4th edition," Thousand Oaks, CA, Sage Publications, 2014.
- [11] Cameron R., "A sequential mixed model research design: design, analytical and display issues," *International Journal of Multiple Research Approaches*, vol/issue: 3(2), 2009.
- [12] Gerring J., "Case Study Research," Principles and Practices, USA, Cambridge, 2007.
- [13] Milies M. B., Huberman A. M., "Qualitative Data Analysis: an expanded Sourcebook. 2nd ed," London Sage Publications, pp. 10-14, 1994.
- [14] Lee J. S., Joshi V. N., Dennis B., "Progressing through the Haze in Science and Mathematics Education Research: Contemporary Use of Spradley's Qualitative Inquiry in Two Case Studies," *International Journal of Qualitative Methods*, 2011.
- [15] The Sixty-sixth World Health Assembly, "Follow-up to the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases," *WHA*, vol/issue: 66(10), 2013.
- [16] Markiewicz A., "Core Concepts in Developing Monitoring and Evaluation Frameworks," 2014. Website: www.anneconsulting.com.au.
- [17] Agency for Health care Research and Quality, "Innovative Methods in Stakeholder Engagement: An Environmental Scan," American Institutes for Research in consultation with the Agency for Health care Research and Quality, 2012.
- [18] Health Information and Quality Authority, "Guidelines for Stakeholder Engagement in Health Technology Assessment in Ireland, 2014.
- [19] Lakshminarayanan S., "Role of government in public health: Current scenario in India and future scope," *Journal of Family and Community Medicine*, vol/issue: 18(1), pp. 26-30, 2011.
- [20] Tell Me Project. Stakeholder Directory and Map, "Transparent communication in Epidemics: Learning Lessons from experience, delivering effective Messages, providing Evidence," Project co-funded by the European Commission within the 7th Framework Programmer – Health theme, 2012.
- [21] Sri L. R., Hasanbasri M., Yoki G. S., "Role of Community Health Center in Disaster Ready Village Development In Bantul District (*Peran Puskesmas dalam Pengembangan Desa Siaga Di Kabupaten Bantul*)," Indonesian Journal of Health Policy (*Jurnal Kebijakan Kesehatan Indonesia*), vol/issue: 1(03), pp. 154-160, 2012.
- [22] C. Janice, "Preventive Medicine: a Ready Solution for a Health Care System in Crisis," *Population Health Management*, vol. 12, 2010.
- [23] Darmawan E. S., "Measuring the Community Empowerment Level in the Health Sector (*Mengukur Tingkat Pemberdayaan Masyarakat dalam Sektor Kesehatan*)," Indonesia Journal of Public Health (*Kesmas Jurnal Kesehatan Masyarakat*), vol/issue: 7(2), pp. 91, 2012.
- [24] Fredericton Canada, "Wellness we each have a role to play Individuals, Communities, Stakeholders and Government," Final Report of the select Committee Wellness to the Second Session of the 56th Legislative Assembly of New Brunswick, 2008.
- [25] Laverack G., "Promoting Health and Development: Closing the Implementation Gap," This paper was prepared as a working document for discussion at the 7th Global Conference on Health Promotion, Nairobi, Kenya, 26-30 October, 2009.
- [26] Mutulei A. C. N., "Factors Influencing the Uptake of Intermittent Preventive Treatment for Malaria in Pregnancy: Evidence from Bungoma East District, Kenya Angela Chepkemoi Ng'etich Mutulei," *American Journal of Public Health Research*, vol/issue: 1(5), pp. 110-123, 2013.
- [27] Glanz K., Rimer B. K., Viswanath K., "Health behavior and health education: theory, research, and practice," editors. 4th ed, John Wiley & Sons, Inc. www.josseybass.com.
- [28] Simpson J., Penn A., Farenden C., J. Rennie, "Every Voice Counts Community Empowerment Research," Project Research and Mapping Report Commissioned by CDSE, 2008 (Community Development South East) jimsimpsonconsultancy@ntlworld.com