

## The Implementation of Integrated Syndrome Development Post (Posbindu Ncd) in Harapan Public Health Centre Jayapura

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### ABSTRACT

The Posbindu NCD has been started in Jayapura Regency since 2017 with the target of 144 villages and early detection of NCD risk factors for 15-59 years old, and the implementation is formerly a month at the elderly Posyandu. The implementation of Posbindu until the end of 2019 has only been conducted in 88 villages. In 2019, there were 76 cases of diabetes mellitus, 102 cases of hypertension, 30 cases of obesity, and 12 cases of NCD risk faktor screening at the Harapan Health Center. Based on this, the research focuses on the implementation of Posbindu NCD in Netar, Nolakla and Ayapo villages; the Posbindu program; and efforts made to realize the Posbindu NCD program with a qualitative approach, 28 informants were taken through the Focus Group Discussion (FGD) technique and in-depth interviews. The results obtained that the implementation of all programs in the three villages have been brought but not yet maximized, illustrated from the programs that have been implemented including facilities, funding, information media, socialization, capacity building for cadre, and monitoring and evaluation. This has an impact on program follow-up. Efforts that can be made to achieve the Posbindu program include socialization related to NCD, cadre care, financial support, and stakeholder care.

**Keywords:** *Implementation, Non-Communicable Syndrome, Integrated Development Post, Non- Contagious Diseases.*

### 1.BACKGROUND

Non-Contagious Diseases (NCD) one of the plans to improve health development is to empower and enhance the role of the community, including the business world. Empowered and resilient communities are enormous social capital compared to other resources that come from outside the community. So far, NCD sufferers come to health care facilities already in an advanced stage condition while Puskesmas as a basic service unit can carry out promotive and preventive efforts in the form of early detection of risk factors and NCD (Grace Cicilia et al, 2018). The reduction in morbidity and mortality caused by NCD can be done by preventing various NCD risk factors early. The health effort advocated by the Ministry of Health in 2015-2019 is NCD Integrated Development Post (Posbindu). Posbindu NCD is a Community-Based Health Effort (UKBM) so community participation is needed (Suhbah et al, 2019). Posbindu NCD development is an integral part of the health service system, organized based on NCD problems in the community, including various promotive and preventive efforts and referral patterns (Dirjen NCD, 2019). The purpose of implementing PT Posbindu is to increase community participation in preventing and discovering NCD risk factors early. The target is a healthy, risky community group and people

with NCD aged 15 years and over. PTB Pososindu is held once a month (Director General of NCD, 2019).

Indonesia currently faces a double burden of diseases, namely infectious and non-communicable diseases. Changes in disease patterns are greatly influenced, among others, by changes in the environment, people's behavior, demographic transition, technology, economy and social culture. Increased burden due to NCD is in line with increased risk factors which include increased blood pressure, blood sugar, body mass index or obesity, unhealthy eating patterns, lack of physical activity, and smoking and alcohol (Director General of NCD, 2019). In this case the government has shown its commitment to the existence of the Permenkes policy No. 43 of 2016 concerning Minimum Service Standards is a reference from district / city governments in health services that are entitled to every Indonesian citizen (Suhbah et al, 2019). The results of the Basic Health Research (Risksedas) in 2018 showed that there was an increase in the key indicators of NCD listed in the 2015-2019 RPJMN as follows: The prevalence of high blood pressure in the population aged 18 years and over increased from 25% to 34%, the prevalence of obesity population aged 18 years and over increased from 14.8% to 21.8%, smoking prevalence of population aged <18 years increased from 7.2% to 9.1%, prevalence of diabetes mellitus in population aged > 15 years increased from 6.9 % to 10.9%, the prevalence

of less physical activity in the population aged > 10 years increased from 26.1% to 33.5%, the prevalence of consumption of fruit / vegetables less in the population > 15 years increased from 93.5 to 95.5% (Director General of NCD, 2019). Seeing the shift in the pattern of illness and death by NCD to a younger age with a large number, the Indonesian government through RI Law Number 36 Year 2019 on health article 158 paragraph 1 confirms that efforts to prevent, control and handle NCD must be carried out by the central government, the government regions and communities (Director General of NCD, 2019).

Jayapura Regency is one of the districts that has launched the Posbindu NCD program since 2017 with the target of 144 villages and early detection of NCD risk factors aged 15-59 years which is carried out once a month in conjunction with the posyandu time. The implementation of Posbindu until the end of 2019 has only been implemented in 88 out of 144 villages (61%). The working area of the Puskesmas Harapan consists of 7 villages and has implemented the Posbindu NCD program with an average visitor per activity ranging from 5-15 people with a coverage of > 30%. NCD Outcomes Achievement (Profile of Jayapura District Health Office, 2019). Jayapura Regency noted that in 2019, there were 76 cases of diabetes mellitus, 102 cases of hypertension, 30 cases of obesity, and 12 cases of NCD risk factor screening at the Harapan Health Center. Based on the monitoring of health workers, NCD cases increased from year to year. researchers to further study the implementation of the Posbindu NCD program in the Harapan Community Health Center area.

#### Problem Formulation

Based on a background review, it was found that the cases that had accumulated increased from year to year so that it was considered important to implement a government program to see how much stakeholder understanding was in the working area of Public Health Centre Harapan

#### Research Objectives

Reviewing the implementation of the Integrated Development Post (Posbindu) Non-communicable Disease (NCD) program in the working area of the Puskesmas Harapan.

- a. Knowing the implementation of the Integrated Disease Development Post Program (Posbindu NCD) in the working area of the Harapan Health Center.
- b. Understand the obstacles encountered in the Posbindu NCD program in the working area of the Harapan Health Center.

- c. Study the efforts made to achieve the Posbindu NCD program in the working area of the Puskesmas Harapan.

It is hoped that this research can provide input to the Puskesmas and Posbindu cadres regarding the implementation of the NCD integrated coaching program so that it can increase its role in promotive and preventive efforts. These results are expected to be knowledgeable for researchers and can be a reference for researchers in increasing researchers' understanding of the implementation of the NCD Posbindu program in the area of Harapan Health Center.

## 2. LITERATURE REVIEW

The Integrated Development Post (Posbindu) is one of the community's activities in detecting and evaluating NCD risk factors and continuing follow-up efforts (Faudah & Rahayu, 2018). Communities are involved as agents of change as well as resources that drive Posbindu as a Community-Based Health Effort (UKBM), which is organized according to the abilities and needs of the community (Dirjen P2P, 2014).

Integrated Development Post (Posbindu) is the role of the community in carrying out early detection and monitoring activities of NCD risk factors and their follow-up which is carried out in an integrated, routine and periodic manner (Fuadah & Rahayu, 2018)

### 2. The Purpose of Integrated Development Posts (Posbindu).

- a. Reach out to people who are still healthy (ages 15-59 years and 60 years and above) to conduct health screening according to standards at least once a year and access promotive, preventive efforts at PTB posts so that they can maintain and improve their health.
- b. Reach out to people who "feel healthy" to be able to detect early NCD risk factors and make intervention efforts to modify behavior both individually, in groups and to move the community.

- c. Encourage people who are potentially ill with PTM to immediately be referred to FKTP to get treatment according to standards. Motivate the community to become JKN participants.

### 3. Posbindu Activity Target

- a. The Posbindu NCD target is focused on healthy, risky people with NCD from the age of 15 years (Yulia et al, 2019). The targets in implementing Posbindu NCD are divided into three groups, namely the main target, the interagency target, and the supporting target. The approach to the three targets is not carried out one by one in a sequence but must be carried out in an

integrated or joint manner during the implementation process (Dirjen P2P, 2014).

#### b. Main Target

The main target is the target of direct beneficiaries of the services provided, namely healthy people, at-risk communities and communities with NCD aged 15 years and over.

#### c. Goal Between

Intermediate goals are individual / community target groups that can act as modifying agents for NCD risk factors, and environments that are more conducive to the application of a healthy lifestyle. The intermediate targets are public and private health workers, community role models, members of community organizations who care about NCD (Dirjen P2P, 2014).

#### c. Supporting Targets

Supporting targets are individual, group / organization / community and professional targets, educational institutions and government institutions whose role is to provide support in terms of policy, technology and scientific, material and financial support, for the implementation of Posbindu NCD and its sustainability. They include, among others, regional / regional leaders, companies, educational institutions, professional organizations and funders (Dirjen P2P, 2014).

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#### 1. Containers of Activities

The implementation of Posbindu NCD activities can be carried out in a place of residence in a village / urban village or other public facilities such as schools and colleges, workplaces, places of worship, markets, terminals and so on (Dirjen P2P, 2014).

This activity can take place together or be integrated with community activities that are already active and routinely gather or in groups such as majelis taklim, youth groups, worship groups and others. This activity can also be developed in special community groups such as pilgrims, school children, workers / employees, drivers in transport companies / in terminals, indigenous groups, religious community groups, farmers / fishermen, fostered communities and others. The

integration in question is a combination of the implementation of Posbindu with activities that have been carried out in the form of time and location similarity as well as the available advice. Posbindu NCD in its implementation in the field can be jointly with other programs or services provided in order to attract interest and increase community compliance such as Posyandu toddlers, Posyandu Elderly, Mobile Puskesmas and others (Dirjen P2P, 2014).

#### 1. Activity Actor

The PTB post-service implementation is carried out by the PTB post-service personnel who come from existing health cadres or several people from each group / organization / institution / workplace who are willing to hold the PTM post-year post, specifically trained, fostered or facilitated to monitor factors NCD risks in each group or organization (Director General of P2P, 2014).

The implementation of Posbindu NCD was fostered by the regional health center in charge of the area and the local District / City Health Office. PTB posbindu implementing officers have the criteria, among others, willing and able to carry out PTB posbindu activities at least biased to read and write, preferably with a minimum high school education or equivalent (Dirjen P2P, 2014).

#### 2. Posbindu Classification

1. Based on the types of early detection, monitoring and early follow-up activities that can be carried out by Posbindu NCD, it can be grouped into two Posbindu NCD groups, namely (Dirjen P2P, 2014):

a. Basic Posbindu NCD includes an examination of early detection of risk factors conducted by directional interviews through the use of instruments or forms to identify a family history of non-communicable diseases that have been previously suffered, measurements of body weight, height, abdominal circumference, BMI, blood pressure checks, and counseling.

b. The main Posbindu NCD includes basic Posbindu NCD activities coupled with blood sugar, total cholesterol, triglyceride, APE measurements, IVA and CBE counseling and examination, blood alcohol levels and urine amphetamine test for the driver, which is performed by trained health personnel (doctors, midwives, health nurses / medical laboratory technology experts and others).

The main Posbindu is implemented if it has the resources in the form of adequate equipment, health workers and inspection sites. If the group / organization / institution in the community does not yet have sufficient resources,

the development will be carried out at an early stage with the basic NCD posbindu. Along with the development of available resources, the basic NCD Posbindu can be upgraded to become the primary Posbindu.

#### 7. Partnership

In implementing PTB postbindu in the village / kelurahan arrangement, a partnership with the village / kelurahan forum is needed to obtain support from the regional government. In addition, partnerships with rural / urban health posts, industry and private clinics need to be carried out to support the implementation and development of activities. Partnerships with private parties should use patterns of equality, openness and mutual benefit through puskesmas facilities (Dirjen P2P, 2014).

Support can be in the form of environmental facilities / infrastructure that are conducive to carrying out a healthy lifestyle such as sports facilities or safe and healthy pedestrian facilities. Through the standby village clinic (if one exists) or the village health post (poskesdes) a referral system can be developed and medical technical assistance can be obtained for health services. On the other hand, for the standby village forum the NCD postbindu organizers are acceleration of the active standby village / kelurahan achievement. Partnerships with industries such as the pharmaceutical industry are beneficial in funding and facilitating tools, such as glucometer devices, tensimeters for the implementation of PTM postbindu (Dirjen P2P, 2014).

Partnerships with private clinics are useful for obtaining personnel assistance in medical services or other medical devices. For private clinics, its contribution to the implementation of NCD postbindu can improve its social image and function (Dirjen P2P, 2014).

#### A. Organizing Posbindu

##### 1. Planning the postbindu activity

Preparations in organizing NCD postbindu are preceded by identification of potential groups in the community, socialization and advocacy, training of PTB postbindu implementing officers or technical facilitation, logistical facilitation, work mechanism arrangements between PTB postbindu implementing officers and their assistants, and funding sources (Dirjen P2P, 2014).

Substantially, the postbindu NCD refers to activities, not to places. This is what distinguishes Posbindu NCD from other UKBMs. The activities are in the form of early detection, monitoring of PTM risk factors and early follow-up of NCD risk factors. This activity can take place in an integrated manner with active community activities such as majelis taklim, youth organization,

Indonesian Diabetisi Association, Indonesian Cancer Foundation (YKI), Indonesian Stroke Foundation (Yastroki), Indonesian Heart Foundation (YJI), Healthy Heart Club, Motor Association Indonesia (IMI) and others and can be developed in special groups such as pilgrims, worship groups, school children, workers / employees, drivers in transport companies in the terminal, indigenous groups, religious community groups, farmers / fishermen, fostered communities Countries in correctional institutions (Director General of P2P, 2014).

The costs of conducting Posbindu activities can come from various sources. At the beginning of the implementation received stimulation or subsidies from the government. Gradually, it is expected that the community will be able to finance the implementation of activities independently. The private sector participates in fostering integrated NCD coaching activities in the form and mechanism of existing partnerships namely, "CSR (Corporate Social Responsibility)" as a corporate social responsibility (Dirjen P2P, 2014). Puskesmas can also utilize potential funding sources to support and facilitate the implementation of NCD integrated coaching activities as a health coach in the Health Operational Assistance (BOK) at the puskesmas to facilitate the transportation of puskesmas staff in conducting assessments and monitoring of the achievement of PTB postbindu activities in the community (Director General of P2P, 2014).

The local government also has an obligation to maintain the sustainability of PTM postbindu activities in the village / kelurahan, to continue to grow and develop with the support of policies including various other facilities (Dirjen P2P, 2014).

#### 1. Implementation of NCD

##### a. Time of implementation

Posbindu can be held once a month if needed it can be more than once a month for other NCD risk factor control activities, such as joint sports, workshops and others. The days and times chosen are in accordance with the agreement and can be adjusted to the local situation and conditions (Rahajeng, 2016).

##### b. Place of implementation

The venue should be in a location that is easy to reach and comfortable for participants. Posbindu NCD can be implemented in one of the houses of the community, a village / kelurahan hall, one of the stalls in the market, one of the office rooms or a company clinic, a special room in the school, one of the rooms in a place of worship, or a certain place provided by the community independently (Ministry of Health, 2016).

### c. Implementation of activities

NCD integrated service post is carried out with five stages of service called the five table system, but in certain circumstances conditions can be adjusted to the needs and mutual agreement. These activities are in the form of early detection services and simple follow-up and monitoring of risk factors for non-communicable diseases, including referral to puskesmas. In its implementation, each step can be simply described as follows (Ministry of Health, 2016)

1) Table I includes registration, NIK writing, filling in biodata and recording of service results. a). Ask Posbindu participants if you have ever been to Posbindu before. b). Record all this information on the Posbindu Register and the NCD Monitoring Book. c). If this is the first visit, fill in: Personal Data (fill in the date of the first visit, NIK, full name, date of birth, gender, religion, last education, home address, occupation, office address, marital status, mobile / office / office number, Email, Blood Type); Information Sheet. filled in if Posbindu participants had been diagnosed with a disease by

13) Table V NCD Risk Factor Identification, Education and Early Follow-up. The identification of NCD risk factors, education and early follow-up are the final service stages after the identified risk factors are identified. Control of NCD risk factors, does not always have to be done with drugs. In the early stages, the

#### Activity Financing

In supporting the implementation of Posbindu, adequate funding is needed either independent funds from companies, community groups / institutions or other parties concerned about non-communicable diseases in their respective regions. Puskesmas can also utilize potential sources of financing. This financing is to support and facilitate NCD's postbindu, one of which is through the utilization of Health Operational Assistance. Financing sources of funds from the public can be through a healthy fund or other funding mechanism. Funds can also be obtained from donor agencies which are generally obtained from submitting proposals / proposed activities (Rahajeng, 2016).

The private sector can organize NCD postbindu in its own work environment or can participate in PTB postbindu in its working area in the form of partnerships through CSR (Corporate Social Responsibility). The local government is obliged to provide guidance so that PT. Posbindu NCD continues to grow and develop through support and policies, including sustainable

medical personnel. d). If this is the second visit and there is no change in personal data, Posbindu participants are directed directly to the next stage of the activity.

Table II NCD Risk Factor Interviews a). ask family and yourself about non-communicable diseases. b). ask NCD risk factors include asking whether smoking or not, or ever smoked, asking if there are family members in the same house smoking (if yes, whether smoking inside or outside the home), asking about fruit consumption patterns, asking what is the pattern of physical activity, asking whether consume alcohol, ask stress levels using the SRQ-20 questionnaire.

11) Table III Measurement of PTM Risk Factors includes weight measurements, and height measurements.

12) Table IV Examination of Risk Factors of NCD includes checking blood pressure and blood sugar. Blood pressure checks are carried out every month. Blood sugar checks for healthy individuals are carried out at least once a year and for participants with obesity, checks are performed at least 1-2 times a year.

condition of NCD risk factors can be prevented by controlling risk factors and behaving in a healthy life such as quitting smoking, balanced diet, diligent physical activity, stress management and others. Education was carried out by Posbindu cadres to increase community

financing. Funds collected from various sources can be used to support PTB postbindu (Rahajeng, 2016).

- b. Posbindu NCD operational costs
- c.. Substitute cadre travel expenses
- d. Costs for providing consumables
- e. Cost of purchasing supplementary feeding (PMT)
- f. Fees for holding a meeting
- g. Referral fee assistance for those in need
- h. Grief support costs if a member experiences an
- i. Recording and Reporting

Puskesmas staff collect data from the postbindu activities that are used for coaching and reporting to relevant agencies in stages. For recording used (Pudiasuti, 2011)

The KMS FR-NCD format includes identity numbers, demographic data, visit times, types of PTM risk factors and follow-up. To the KMS FR-PTM added information on blood type and status of persons who are useful as medical information if the cardholder experiences an emergency condition on the trip. The results of each type of measurement / examination of risk factors at each posbindu participant visit are recorded on KMS FR-PTM

by each cadre of risk factors. This is the follow up done by cadres.

A registration book is needed to record identity and other information including numbers, ID cards or other identification cards, names, ages and gender. This book is a participant's personal data file / document which is useful for further confirmation if needed at any time. Through this book you can find out the characteristics of participants in general. The FR-NCD recording book is needed to record all the NCD risk factor conditions of each member / participant. This book is a self-help tool for the coordinator and all posbindu officers in evaluating the condition of NCD risk factors for all participants.

The results of measurement / examination of risk factors that fall into the bad category are marked prominently. Through this book the health conditions of all participants can be directly monitored, so that the coordinator and officers can know and remember them and provide further motivation. In addition, the book is a participant data file that is very useful for special reports, for example when health data is needed for the elderly or data on the number of NCD sufferers, and also is a source of surveillance data / research research specifically if one day it is needed (Pudiasuti, 2011)

Follow Up Posbindu NCD Results

The purpose of implementing PTB postbindu, namely that NCD risk factors can be prevented and controlled earlier. NCD risk factors that have been monitored routinely can always be maintained in normal conditions or not included in the bad category, but if they are already in a bad condition, these risk factors must be returned to normal conditions. Not all methods of controlling NCD risk factors, must be done with drugs (Rahajeng, 2016). In the early stages, NCD risk factors can be prevented and controlled through a healthy diet, adequate physical activity, and a healthy lifestyle such as stopping smoking, stress management and others. Through counseling and / education with a cadre of counselors / educators, community knowledge and skills to prevent and control NCD risk factors can be improved. With the learning process above gradually, each individual who has a risk factor will adopt a healthier lifestyle independently (Rahajeng, 2016). If at the next visit (after 3 months) the risk factor condition does not change (remains in a bad condition), or according to the referral criteria, then to get better treatment must be referred to the puskesmas or private clinic according to the needs and desires of the concerned. Despite receiving the necessary treatment, cases that have been referred are still recommended to monitor risk factors for non-communicable diseases in Posbindu (Kemenkes, 2014).

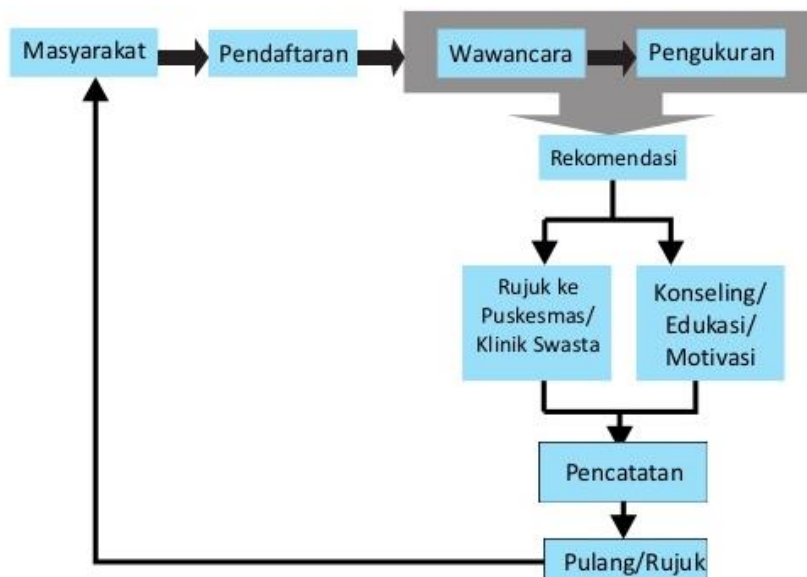


Figure 2.1 Posbindu Referral Flow Written in Bahasa (Source: Ministry of Health, 2014).

The implementation of Posbindu begins with the registration service followed by interviews and measurement of NCD risk factors. Posbindu cadres will conduct counseling and education on health problems encountered by posbindu participants including implementing a puskesmas referral system if needed according to criteria. The results of the implementation

of the postbindu program are recorded in an orderly manner and given to the health center staff or other advisory elements who need information as material (Kemenkes, 2014).

Non-Communicable Diseases (NCD)

1. Definition

Non-Communicable Disease (NCD) is a disease that cannot be transmitted from person to person, whose development progresses slowly over a long period of time (chronic) (Kemenkes RI, 2016).

## 2. Types of non-communicable diseases

According to the Indonesian Ministry of Health (2016), the types of NCD are as follows:

### Cardiovascular Disease (PJPD)

Heart Disease and Blood Vessels (Cardiovascular), which is a disease involving the heart itself and blood vessels. Both are difficult to separate in management and discussion, so the terms cardio (heart) and vascular (blood vessels) are difficult to separate. The disease is a problem of the world today (Mediyanti et al, 2018), besides that the disease is also a disease that cannot be transmitted from person to person, whose development goes slowly over a long period of time and is able to attack anyone (Doloye et al, 2015)

#### a. Hypertension

Hypertension is a deadly NCD (Tarigan, 2018). Hypertension or high blood pressure is a condition where systolic blood pressure > 140 mmHg and / or diastolic blood pressure > 90 mmHg (Rahajeng et al, 2016). Risk factors for hypertension can be divided into two.

#### b. Diabetes mellitus

##### A. Coronary heart disease

Coronary Heart Disease (CHD) is a heart disease that occurs due to narrowing or blockage of the coronary arteries, so there is no balance between myocardial oxygen (O<sub>2</sub>) requirements and the ability of the coronary arteries to provide sufficient O<sub>2</sub> for myocardial contractions.

Coronary heart disease is largely caused by the process of atherosclerosis which is influenced by risk factors that can be modified or cannot be modified. (Directorate of P2P, 2016).

##### B. Stroke

Stroke is a disease of the blood vessels of the brain. The definition according to WHO, stroke is a condition where found clinical signs that develop rapidly in the form of focal and global neurological deficits that can be heavy and last for 24 hours or more and or can cause death, without any other obvious cause other than vascular. Stroke occurs when the blood vessels of the brain become blocked or broken. As a result, some of the brain does not get the blood supply that carries the oxygen it needs so it experiences cell / tissue death.

##### A. Chronic Obstructive Pulmonary Disease (COPD)

Diabetes mellitus (DM) is a group of metabolic diseases characterized by hyperglycemia that occurs due to abnormal insulin secretion or both. The establishment of a definitive diagnosis for DM is done through checking blood sugar levels. Blood sugar levels exceed normal if venous plasma GDS > 200 mg / dl and venous plasma GDP > 126 mg / dl (Dirjen P2P, 2015).

#### c. Dyslipidemia (abnormal fat metabolism)

To reduce the risk of PJPD, the total plasma cholesterol value should be < 200 mg / dl, Low Density Lipoprotein (LDL) cholesterol < 100 mg / dl, HDL > 40 mg / dl in men and > 45 mg / dl in women, and fasting triglyceride levels < 150 mg / dl (Director General of P2P, 2015).

#### d. Obesity / overweight

Obesity is excessive fat accumulation due to imbalance of energy intake with energy expenditure for a long time (Directorate of P2P, 2016). Determination of obesity is based on history taking (interviews), with anthropometric examinations, and early detection of comorbidities as evidenced by other investigations. Anthropometric examination by measuring Body Mass Index (BMI). Measurement of body weight and height is done to get the BMI value which will be used in determining the degree of obesity. IMT assessment uses the formula:

COPD is Chronic Obstructive Pulmonary Disease which is generally preventable and

treatable, characterized by the presence of limited and persistent air flow in the airways that is associated with increased chronic inflammatory response to the airways and lung parenchyma due to exposure to harmful gas particles. The main hazardous particles or gases are cigarette smoke. Other harmful gases are dust, chemicals at work, kitchen smoke. COPD arises in middle age (> 40 years) due to long-term smoking habits (Dirjen P2P, 2016).

#### b. Cancer

1. Breast Cancer is a malignancy that comes from glandular cells, glandular channels and supporting tissues of the breast, not including the skin of the breast. Breast cancer is not known the exact cause. The main risk factors are related to hormonal conditions (dominant estrogen) and genetics.

2. Cervical Cancer is a malignancy that occurs in the cervix which is the lowest part of the uterus that protrudes to the top of the intercourse.

#### Risk Factors

1). Risk factors that cannot be changed:

a) Family History

A close family history of suffering from hypertension (heredity) also increases the risk of hypertension, especially primary (essential) hypertension. Of course other environmental factors come into play. Genetic factors are also related to the metabolism of salt regulation and cell membrane renin. According to Davidson, if both parents suffer from hypertension, then about 45% will go down to their children, and if one of the parents who suffer from hypertension then about 30% will go to their children.

b) Age affects the occurrence of hypertension. With increasing age, the risk of developing hypertension becomes greater. In general, adolescents affected by the disease will experience cardiovascular disease until stroke (Angesti, 2018)

#### c) Gender

Sex affects the occurrence of hypertension. Men have a risk of about 2.3 more experiencing systolic blood pressure compared to women, because men are suspected of having a lifestyle that tends to increase blood pressure. But after entering menopause the prevalence in women increases. Even after the age of 65 years, due to hormonal factors, the incidence of hypertension is higher in women.

#### 2). Risk factors that can be changed:

##### a) Smoking

Risk of coronary heart disease in smokers 2-4 times higher than in non-smokers. The content of toxic substances in cigarettes such as tar, nicotine and carbon monoxide will cause a decrease in oxygen levels to the heart, an increase in blood pressure and pulse, a decrease in HDL cholesterol levels (good cholesterol), an increase in blood clots and damage to coronary arteries endothelial (Ministry of Health Republic of Indonesia, 2017)

##### a) Less Physical Activity

Some studies show a relationship between physical activity and PJP. Physical activity will improve the work system of the heart and blood vessels by increasing the working efficiency of the heart and blood vessels by increasing the efficiency of the work of the heart, reducing complaints of chest pain / angina pectoris, dilating blood vessels, decreasing the ability of the body including sexual ability and physical fitness (Directorate of P2P, 2016).

##### b) Diet

Nowadays dietary changes lead to serving, ready to eat that is not healthy and unbalanced, because it contains calories, fat, protein and high in salt, but low in dietary fiber. This type of food has consequences for changes in

nutritional status towards over nutrition (overweight or BMI > 23 kg / m<sup>2</sup>) which triggers the development of degenerative diseases, such as PJP, especially coronary heart disease (Sulistyowati & Mustikawati, 2016).

##### c) Excessive alcohol consumption

The effect of alcohol on rising blood pressure has been proven, but the mechanism is still unclear. Suspected increase in cortisol levels, increased red blood cell volume and increased blood viscosity play a role in raising blood pressure. Some studies show a direct relationship between blood pressure and alcohol intake. It is said that, the effect on blood pressure only appears when consuming alcohol around 2-3 glasses of standard size every day (Andinisari et al, 2015).

##### d) Stress

Stress or mental tension (feeling depressed, depressed, angry, vengeful, fearful, guilty) can stimulate the kidneys' glands to release adrenaline and stimulate the heart to beat faster and stronger, so that blood pressure increases. If stress lasts a long time, the body will try to make adjustments resulting in organic abnormalities or pathological changes. Symptoms that appear can be in the form of hypertension or heartburn (Dirjen P2P, 2015). According to the Framingham study, women ages 45-64 have a number of psychosocial factors such as tension, household problems, economic stress, daily stress, work mobility, and pent up anger. All of this is related to increased blood pressure and clinical manifestations of any cardiovascular disease (Dirjen P2P, 2015).

#### Promotive and Preventive Efforts

##### a. Promotive Efforts

Efforts for health promotion are carried out through socialization, information dissemination and IEC using promotional media, seminars / workshops and involving community leaders, families and businesses. Health promotion is also aimed at creating a conducive environment such as the existence of a no-smoking area (KTR), public facilities for physical activities, sports, and others. Control of NCD risk factors is done through healthy lifestyles such as not smoking, adequate physical activity, healthy diet (balanced nutrition, low sugar salt and fat), not consuming alcohol and can control stress (Director General of P2P, 2016).

Health promotion is carried out by the community by behaving "CERDIK" which is towards healthy youth and old age favors without NCD which literally is (Director General of P2P, 2016):

##### 1) Periodic health check



Regular health checks are beneficial to improve our health (Ministry of Health, 2016). Some NCD risks can be reduced if known early. The more precise information we get about our health, the wiser the decisions we can make. Health checks can be done routinely at least once a year.

#### Get rid of cigarette smoke

Cigarette smoke is one of the fumes that contain toxins harmful to the body (Agung et al, 2013). An area free of cigarette smoke is the only effective and inexpensive way to protect the public from the dangers of other people's smoke (Azkha, 2013). The places that are usually used as smoke free areas are workplaces, places of learning / teaching, health services, places of worship, terminals / stations / airports, households and public transportation.

#### Be diligent in physical activity

Physical activity can help the body reduce glucose levels in the blood, maintain body weight, increase body strength and most importantly in its efforts to increase insulin sensitivity, so that blood glucose is more controlled (Panjaitan, 2013). The benefits obtained are avoiding non-communicable diseases such as heart disease, stroke, osteoporosis, cancer, hypertension and diabetes, controlled weight, more flexible muscles and stronger bones, better body shape, more confident and more fit.

The types of physical activities that can be done are daily activities such as walking, washing the car, mopping the floor, going up and down stairs and carrying groceries. It also can exercise push ups, light jogging, gymnastics, tennis, yoga and weight lifting. Proper physical activity is carried out gradually reaching 30 minutes, recognizing boundaries and not being forced, carried out before eating or 2 hours after eating, beginning with heating and stretching, and if you want to walk / run, using shoes that are comfortable and comfortable to wear. Regular physical activity

carried out will feel the benefits within 3 months (Andriana, 2017)

#### 1) A balanced healthy diet

One of the things emphasized in a balanced diet is to limit consumption of sugar, salt, and fat. The recommended consumption of sugar per person per day is equivalent to 50 grams or 4 tablespoons and if excess can cause obesity (obesity and diabetes mellitus). While the consumption of salt per person per day is 5 grams of sodium or the equivalent of 1 teaspoon

(1 small spoon) and if excess will increase the risk of heart attack and stroke. As for the consumption of fat per person per day is 5 tablespoons and if excess will increase the amount of LDL cholesterol which makes blood vessels narrow, causing heart disease and stroke.

There are 10 balanced nutrition messages on the Republic of Indonesia's official health website on the health promotion section:

- a) Be thankful and enjoy a variety of foods
- b) Eat lots of vegetables and enough fruits
- c) Make it a habit to consume side dishes that contain high protein
- d) Make it a habit to consume a variety of staple foods
- e) Limit consumption of sweet, salty and fatty snacks
- f) Get used to breakfast
- g) Get used to drinking enough and safe water
- h) Get used to reading labels on food packaging
- i) Wash your hands with soap with clean running water
- j) Do enough physical activity and maintain a normal body weight.

#### 1) Get enough rest

There are differences in sleep requirements based on age according to information on the official website of the Ministry of Health Republic of Indonesia health promotion section, which are as follows:

Table 2. 2 Differences in sleep requirements by age

ages	Level growth	Sleep hours
0 - 1 month	Infant	14-18 h/day
1 - 8 month	baby	12-14 h/day
18 month - 3 years	Kids	11- 12 h/day
3 - 6 years	Preschooling	11 h/day

6 - 12 years	Primary School	10 h/day
12 - 18 years	Teens	8,5 h/day
18 - 40 years	Mature	7-8 h/day
40 - 60 years	Middle age	7 h/day
>60 years	Older	6 h/day

### 1) Manage Stress

Danger of stress caused by physical, emotional and mental fatigue caused by physical, emotional and mental involvement caused by long-term involvement with emotionally demanding situations (Gaffar, 2012). Stress will result in the rise of a stroke if it occurs continuously for a long time and is not immediately addressed properly (Adientya & Handayani, 2012). The causes of stress vary, can be from problems in the household, school and office. Therefore, efforts are needed to overcome stress and achieve a healthy soul. Here's how to deal with stress based on information from the Ministry of Health Republic of Indonesia health promotion section:

#### 1) Primary Prevention:

All activities that can stop or reduce risk factors for disease occurrence, before the disease occurs. Primary prevention can be implemented in puskesmas, through various efforts including the promotion of PTM to raise awareness, educate public knowledge in controlling PTM (Director General of P2P, 2016).

#### 2) Secondary Prevention:

More aimed at early detection activities to find disease. If a case is found, early treatment can be done so that the disease does not become severe. Secondary prevention can be implemented through screening and early detection (Dirjen P2P, 2016).

#### 3) Tertiary Prevention

An activity that is focused on maintaining and improving the quality of life of patients who have experienced quite severe disease, namely by means of

rehabilitative and palliative as soon as possible in order to avoid further complications (Dirjen P2P, 2016).

#### A. Puskesmas

##### 1. Understanding

PMK 75 of 2014 that public health centers, hereinafter referred to as puskesmas, are health service facilities that carry out public health efforts and first-level individual health efforts, prioritizing promotive and preventive efforts, to achieve the highest degree of public health in the working area. Puskesmas have the task of implementing health policies to achieve the goals of health development in their working area in order to support the realization of healthy sub-districts.

##### 2. Function

The function of the puskesmas is as a first-level implementation of UKM (Community Health Efforts) and UKP (Individual Health Efforts) in the working area.

Puskesmas are authorized to provide comprehensive, sustainable and quality basic health services, to provide health services that prioritize promotive and preventive efforts and to provide health services oriented to individuals, families, groups and the community. Puskesmas also in health services prioritize the safety and safety of patients, staff and visitors, carry out medical records, carry out recording, reporting and evaluation of the quality and access to health services, carry out the improvement of the competency of health workers. Coordinate and carry out the development of first-rate service facilities in the working area and carry out referrals (PMK 75, 2014).

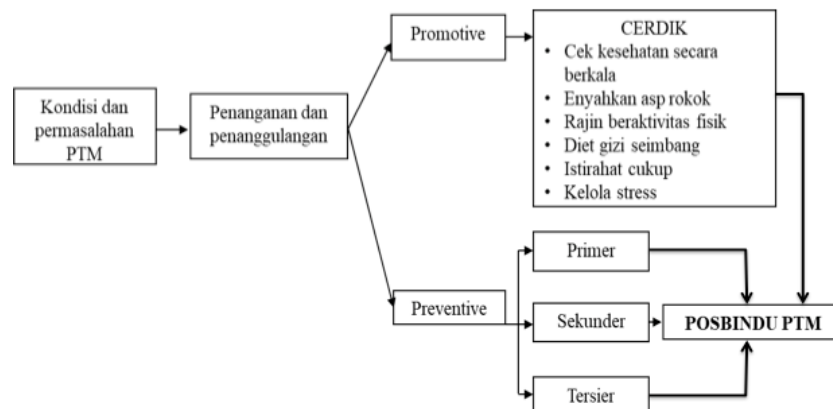


Figure 2. 1 Theoretical Framework (Dirjen P2P, 2016).

### 3. RESEARCH METHODS

#### A. Research Type

This type of research is qualitative in nature which studies the scientific view, translation and portrayal of phenomena logically or understood by humans using a phenomenological approach (Azmi & Nasution, 2018). Phenomenology is a view of thinking that emphasizes the focus on human subjective experiences and world interpretations (Moleong, 2007). In addition, the method seeks to summarize various types of cases or problems in the community which then reveal the meaning contained (Hellaludi, 2018).

Edmund Husserl states that the main concept in phenomenology is meaning. Meaning is an important thing that arises from the experience of human consciousness. Therefore, phenomenological research tries to explain the meaning of the concept or phenomenon of experience based on awareness in some individuals. This type of research aims to know clearly and more deeply about the implementation of the postbindu PTM program in the working area of the Harapan Health Center.

#### B. Research Location and Time

##### 1. Research Location

This research was conducted in 3 Posbindu in the working area of the Puskesmas Harapan. Each posbindu whose number of visits was low was posbindu Nolakla, the Puskesmas whose visit was moderate was posbindu Ayapo and the number of visits was posbindu Nontrol.

##### 1. Research time

The time of this research is planned from February to March 2020.

#### A. Population and Sample

##### 1. Population

The population in this study is the number of population aged 15-59 years in the three villages as many as 3,170 people, the number of puskesmas officers involved in the PTM program as many as 5 people, and the village head.

##### 2. Informant

The informants in this study were taken using a purposive technique, which is a technique used to select informants who are willing and able to provide information related to the research topic, namely the implementation of the postbindu PTM program with a qualitative approach in the working area of the Puskesmas Harapan. Determination of the number of participants uses the Casper & Cohen (2000) method, which if the respondent is very active in the PTM program then it takes 10 respondents, whereas if not then more than 30 respondents are needed. In general, the characteristics of the informants needed were 28 informants consisting of 1 head of the health department (key informants) while supporting informants consisted of puskesmas, 1 puskesmas general practitioner informant, 1 informant in charge of the puskesmas PTM program, 9 informants from PTB postbindu cadres, 3 informants village / village head, 6 participants of PTM posbindu at risk, 6 participants of PTM sufferers.

Inclusion criteria are a standard by which research headings can overlap in research samples that meet the criteria as a sample (Notoatmojo, 2002). The inclusion criteria in this study were the Head of Jayapura District Health Office, the Head of Puskesmas Harapan, the person in charge of the PTM program, the head of the villages in three research sites, posbindu cadres who were domiciled in three

study sites, risk communities and PTM sufferers who were domiciled in three research locations, willing to be an informant. Exclusion Criteria are a standard in which the research headline cannot substitute the sample because it does not meet the criteria as a research sample (Notoatmodjo, 2002). Exclusion criteria in this study include informants with poor health conditions or informants unable to attend the discussion.

#### A. Research instruments

The research instrument was the researcher herself with supporting tools in data collection such as stationery, books, recording devices and documentation using mobile phones.

#### E. Data Collection Techniques

Data collection techniques are a method used by researchers to obtain data in a study. In this study, researchers chose the type of qualitative research with in-depth interviews with informants, namely the Head of the Health Office, the Head of the Puskesmas Harapan, the Person in Charge of the PTM Program, the Head of the Village by referring to the interview guides that have been prepared and by the FGD technique (Focus Group) Discussion) which is one of the data collection techniques on a particular problem through group discussions with resource persons in a place with the help of a moderator, namely cadres, sufferers and people at risk. Then the data obtained must be deep, clear and specific.

Observation of the research location and implementation of PTM. Observations were made with observations during the process of implementing PTB postbindu to present a realistic picture, behavior and events, and answer questions in helping to understand human behavior and evaluate feedback on these measurements (Suryono & Mekar, 2011).

Interviews were carried out during the implementation of the PTM postbindu and visited the Head of the Health Service, Head of the Community Health Center, Program Manager in charge of PTM, village heads.

Data is the main component in producing a valid research. Likewise, with this research the data becomes the main requirement in examining the problem under study. The types of data used are as follows (Moleong, 2005):

##### a. Primary data

Primary data is all information about the research concept (or related to it) obtained directly by the unit of analysis which is used as the object of research. In this study primary data were sourced from the results

of in-depth interviews with informants in the form of community knowledge, sources of funds, patterns of life of the people of Kampung Harapan as well as information on Posbindu program coordination or partnership, facilities and infrastructure from the Puskesmas head. In addition, information regarding Posbindu coordination between the person in charge of the Puskesmas program and Posbindu cadres.

##### b. Secondary Data

Secondary data is used as a support and complement of primary data that is relevant to the needs of research. Secondary data were obtained from various sources including Puskesmas profiles, book references, results of previous studies, internet, journals related to research.

#### Data analysis technique

Data analysis in qualitative research is carried out simultaneously with the process of collecting data until a conclusion is reached, so that the data analysis can achieve the desired objectives (Saryono & Anggraeni, 2010). The data analysis techniques (Saryono & Anggraeni, 2010) are:

##### 1. Data collection

Data collection will be carried out as long as the data needed is not enough, if it is sufficient in making conclusions then data collection can be stopped. The steps in data collection are interviews, observation, and document analysis.

##### 2. Data reduction

The process of selecting, simplifying, directing and removing unnecessary "rough" data arising from field notes. The reduction process continues until the final research report is prepared. Reduction is a part of analysis that emphasizes, shortens, makes focus, discards things that are not important so that researchers can draw conclusions easily.

##### 3. Presentation of data

Presentation of data conducted in this study is to organize information systematically, combining and arranging the interrelationships between data, describing the processes and phenomena that exist from the object of research.

#### Drawing conclusions

Conclusions can be in the form of activities in the form of developing accuracy in data units. Drawing conclusions in this study is related to relevant parties.

Stages Data analysis is performed after the initial data collection activities to obtain data completed, then the data reduction is immediately carried out and continued

the presentation of data, with the presentation of data can be drawn while concluding considering the data collection process is still ongoing. If you get new data, errors can be corrected immediately from further data, data collection will run and analysis of research reports (Pongtiku & Kayame, 2019).

#### A. Research Validity

Triangulation is a data validity checking technique that uses something else, outside of the data for checking or comparison purposes. Here are four types of triangulation according to Pongtiku & Kayame (2019), namely:

a. Triangulation of sources is to compare observational data with interview data, compare what people are saying in public and in private, compare the results of the main informant's

with diabetes mellitus, services for people with severe mental disorders. (ES, HH).

If there are patients with different body performance, screening is immediately carried out. The dominant age diagnosed with diabetes mellitus and hypertension is > 40 years, age <20 years rarely follow PTM postbindu. The determination of the Posbindu point is based on the area and the number of households. There are 10 points in 7 villages. If the village is not large in area and the number of households is small, then there is only 1 point (HH). Posbindu service should have 5 tables, but because the room is small then the table is only made 2 tables (IW)

#### a. Container / Time

The implementation of Posbindu PTM in the three villages is done once a month while the location of the implementation is different, for Netar Village held in the Kampung Hall while in Ayapo and Nolakla Villages is done at the cadre's house. Data presented in Table 4.4

Table 4.4 Time and place of Posbindu PTM implementation

Villages	Time	Places
Netar	Once a month	Balai kampung
Ayapo	Once a month	Rumah kader
Nolakla	Once a month	Rumah kader

Posbindu is carried out once a month in accordance with a predetermined schedule, three days before conducting posbindu, we first contact the cadres to prepare everything in the village. If there is a change in the schedule, the clerk usually informs him via handphone (SW). Posbindu in Kampung Netar is routinely carried out every month, its activities are checking blood pressure, measuring height, measuring weight, checking uric acid, cholesterol, blood sugar (YW). Posbindu in Nolakla village is held once a month, but the number of people who come to visit is very small, usually only 5 to 10 people (YS).

## 4. CONCLUSION

Based on the research that has been done, some conclusions can be made as follows.

1. The implementation of the Posbindu NCD program in the three villages is sufficient. This can be seen from the 10 implementation indicators, based on the program that has been determined there are still shortcomings because not all of them refer to the established standards, including: facilities and infrastructure, funding, information media, socialization, cadre training and monitoring and evaluation.

2. Obstacles encountered in the implementation of the Posbindu program, namely the low capacity of cadres and no assistance, there has been no decree on the formation of Posbindu cadres in the village, there has not been budgeted honorarium for cadres from the APBK, the

POKJA has not been formed, the Monitoring and Evaluation is not routinely carried out, Puskesmas, the low level of support and participation of stakeholders, are still combined with Posbindu and elderly services, limited facilities and infrastructure.

3. Efforts that can be made to achieve the Posbindu program are socialization related to non-communicable diseases, cadre support; and financial support and stakeholder support.

Based on the results of research and discussion can be given advice as follows:

#### 1. Jayapura District Health Office

a. Government support through the Jayapura District Health Office, so that the process of management, documentation, and administration can run better.

b. Encourage agencies to carry out regular activities related to Posbindu training to cadres.

c. Encourage agencies to provide Posbindu kits for each village.

2. Head of the Puskesmas and Program Manager in the Puskesmas Harapan Health Center

a. There is a need for assistance and outreach to village officials about Posbindu PTM and the village.

b. There is a need for a refreshment meeting for Posbindu cadres

c. Availability of monitoring and evaluation data, in accordance with 3 Posbindu NCD indicators

d. Encourage Puskesmas to establish Posbindu PTM pilot villages.

e. Encourage the launching and budgeting of Posbindu NCD, through puskesmas and village funds.

f. Encourage Puskesmas to establish Posbindu NCD pilot villages.

Village Head and Posbindu Cadre

a. There needs to be a policy in the village in order to accommodate the Posbindu road for the people's health needs.

b. The need for the formation of Posbindu Working Groups in each village requires a representative and conducive workplace, in response to the service needs needed by the people in the East Sentani District.

c. Stipulation of village regulations regarding Posbindu PTM.

d. Establishment of environmentally friendly village planning and budgeting.

e. The stipulation of village regulations regarding Posbindu in Jayapura Regency, which cooperates with DPOs, includes: Empowerment of villages, health centers, NGOs, districts and related villages.

f. The formation of Posbindu cadres in the Sentani Timur District of Jayapura Regency.

g. Encourage cadres to conduct socialization to the community related to the programs and activities carried out by Posbindu in the village.

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