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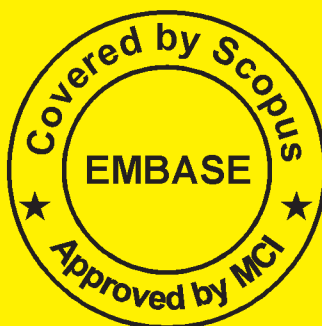
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### Editor

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# Stakeholder Collaboration Model to Empower Integrated Health Education Centers for Non-communicable Diseases : A Study in Bengkulu

Yandrizal<sup>1</sup>, Rizanda Machmud<sup>2</sup>, Melinda Noer<sup>3</sup>, Hardisman<sup>4</sup>, Afrizal<sup>5</sup>,  
Nur Indrawati Lipoeto<sup>4</sup>, Ekowati Rahajeng<sup>6</sup>

<sup>1</sup>Student of Doctoral Program of Public Health Sciences, Faculty of Medicine, University of Andalas, Padang Indonesia, <sup>2</sup>Faculty of Nursing, University of Andalas, Padang Indonesia, <sup>3</sup> Faculty of Agriculture, University of Andalas, Padang, <sup>4</sup>Faculty of Medicine, University of Andalas, Padang. <sup>5</sup>Faculty of Social and Political Sciences, University of Andalas, Padang, <sup>6</sup>Centre For Public Health Research and Development, National Institute for Health Research and Development (NHRD) MoH Indonesia.

## ABSTRACT

Integrated Health Education Center for Non-communicable Disease (IHEC for NCDs) is a means for a community to participate in doing early detection, prevention, and control of non-communicable diseases. Stakeholders and society play very important role in empowering IHEC for NCDs. This study aims to develop a model of empowering IHEC for NCDs by increasing the role of stakeholders.

The study uses a combination approach dan exploratory design and sequential procedures. Qualitative method is used to explore the roles of stakeholders in 10 IHEC for NCDs while quantitative one conducted in 67 IHEC for NCDs is aimed to prove the role of stakeholders in empowering IHEC for NCDs.

Stakeholders play a role in the process of formation, preparation for implementation, monitoring and evaluation of the empowerment of IHEC for NCDs using collaboration model. Collaboration model is implemented at all government levels with the aim of empowering people in accordance with the performance indicators of each stakeholder.

Stakeholder Collaboration Model for the IHEC for NCDs empowerment has increased early detection, prevention, and control of non-communicable diseases in the community.

**Keywords :** *IHEC for NCD, Stakeholder, Community Empowerment, Collaboration Model.*

## INTRODUCTION

Non-communicable diseases can be prevented through effective intervention against the risk factors such as tobacco use, unhealthy diet, physical inactivity and use of harmful alcohol<sup>1</sup>. Integrated Health Education Center for Non-communicable diseases (IHEC for NCDs) and community participation in early detection, prevention, and control of non-communicable diseases (NCDs), are now widely developed in Indonesia. Community needs to identify their needs and assets while stakeholder needs to help provide tools and resources required to develop a health plan<sup>2</sup>.

However, the role of stakeholder and the function of cadre are not yet optimal due to lack of knowledge and skills in related aspects of empowerment. This makes the use of IHEC for NCDs is not yet optimal. Collaboration is an arrangement in which one or more of the stakeholders are directly involved in the formal decision making process which is aimed to find agreement, make and implement public policy<sup>3</sup>.

Public Health Centre (PUSKESMAS) as the responsible part, needs to search a model of stakeholders collaboration in empowering the IHEC for NCDs. Empowerment by moving the social capital is an opportunity to intervene community empowerment<sup>4</sup>.

The effectiveness of prevention and control of NCDs needs leadership, coordination of multi-stakeholder and multi-sectoral action at the level of government and with various actors, including partnerships with civil society and the private sector which is in accordance with the health policy<sup>5</sup>.

The research objective is to create a model of collaboration of stakeholders in empowering IHEC for NCDs in order to increase the willingness of society to do early detection, prevention and control of NCDs.

**MATERIAL AND METHOD**

This study employed both qualitative and quantitative methods and exploratory design with sequential procedure, which is first qualitative and then quantitative<sup>6</sup>.

Phase I: conducting an evaluation study, with the exploratory design using qualitative method in 10 IHEC for NCDs to determine the roles of stakeholders in the utilization of IHEC for NCDs. Data validation was done in four ways, namely: credibility, transferability, dependability, and confirmability in each process.

Phase II: Developing hypotheses to determine the relationship of independent variables, namely: the role of stakeholders in the process of formation, preparation for the implementation and monitoring, and evaluation. The dependent variable is IHEC for NCDs

and the population is all IHEC for NCDs in 10 districts in Bengkulu Province, which in total is 191 units. Stratified random sampling and cluster sampling is used to determine the residences/cities. Thus, 3 cities and 79 IHEC for NCDs are used as sample for this study. Then, determination of a number of samples using Slovin formula, is done with a confidence level of 5%, results in 67 IHEC for NCDs.

Phase III: Developing policy formulation for model of stakeholder collaboration in the empowerment of IHEC for NCDs using the concept of health care policy triangle: a) a stakeholder analysis; b) strategies for policy change; c) positions, power and perception; d) the process of policy analysis; e) data analysis: implementation of policy triangle<sup>7</sup>.

**RESULT**

**The Role of Stakeholder in Empowering IHEC For NCDs**

The evaluation study to the 10 IHEC for NCDs shows the collaboration of stakeholder in empowering IHEC for NCDs during the process of formation, preparation and monitoring and evaluation, involving 1) Head of the District; 2) Head of the village; 3) Chairman of the Neighborhood/Village Chief; 4) The District Health Office/City; 5) Head of Puskesmas; 6) Cader; 7) Activator Trustees of Family Welfare concluded Table 1.

**Table 1. Stakeholder Collaboration in the Empowerment of IHEC for NCDs**

IHEC for NCDS	Establishment Process						Preparation for Implementation						Evaluation and Monitoring								
	Stakeholder						Stakeholder						Stakeholder								
	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
A	V	V	V	V	V	V	-	V	V	V	-	V	V	-	V	V	V	V	V	V	-
B	V	V	V	V	V	V	-	V	V	V	-	V	V	-	V	V	V	V	V	V	-
C	V	V	V	V	V	V	-	V	V	V	-	V	V	-	V	V	V	V	V	V	-
D	-	V	V	V	V	V	-	-	-	V	-	V	V	-	-	-	-	V	V	V	-
E	-	V	V	V	V	V	-	-	-	V	-	V	V	-	-	-	-	V	V	V	-
F	-	-	-	V	V	V	-	-	-	-	-	V	V	-	-	-	-	V	V	V	-
G	-	-	-	V	V	V	-	-	-	-	-	V	V	-	-	-	-	V	V	V	-
H	-	V	-	V	V	V	-	-	V	V	-	V	V	-	-	-	-	V	V	V	-
I	V	V	V	V	V	V	-	-	V	V	-	V	V	-	-	V	-	V	V	V	-
J	-	V	V	V	V	V	-	-	V	V	-	V	V	-	-	V	-	V	V	V	-

Source Data: primary data processed

Table 1 shows that majority of stakeholders have worked together during the process of the establishment, preparation of the implementation, monitoring, and evaluation of IHEC for NCDs.

Analysis role of stakeholders in the process of establishment, preparation, monitoring and evaluation of the empowerment of IHEC for NCDs is presented in Table 2.

**Table 2. The Role of Stakeholder in the Establishment, Preparation of the Implementation, and Monitoring and Evaluation of IHEC for NCDs**

Research Variabel	Utilization of IHEC for NCDs				p value
	Less		Good		
	F	%	F	%	
Establishment					
Less	30	73,2	11	26,8	0.993
Good	19	73.1	7	26.9	
Implementation					
Less	44	75.9	14	24.1	0.201
Good	5	55.6	4	44.4	
Monitoring Evaluation					
Less	47	44.6	14	23.0	0.021
Good	2	33.3	4	66.7	

Source Data: primary data processed

Table 2. reveals that stakeholder have less role in the formation and preparation for implementation but a better role in the implementation and the monitoring and evaluation, which give a good impact on the empowerment IHEC for NCDs. Multivariate analysis results in 6.7 for a better role of monitoring and evaluation in order to increase the empowerment IHEC for NCDs.

#### Stakeholder Collaboration Model for Policy Analysis

Analysis of stakeholders' role is based on place of work, duties, functions, resources, partners, knowledge and skills, as well as performance indicators. The results of the analysis of the empowerment policy triangle IHEC for NCDs can be seen in Table 3.

**Table 3 : Triangle Analysis of Empowerment Policy of IHEC for NCDs**

Stakeholder	Context, Content, Process
Health Institution (Dinas Kesehatan)	Participate in Health Institutions as organizers of IHEC for NCDs. The process begins with socialization and advocacy to relevant stakeholders concerning the development, monitoring, and evaluation of IHEC for NCDs
Public Health Center (Puskesmas)	Play a role as an organizer of IHEC for NCDs in the environment of the public health and for public in the working area. The process begins with socialization and advocacy to relevant stakeholders concerning the implementation, supervision, monitoring and evaluation of IHEC for NCDs. IHEC for NCDs is an effort to increase visits by the people of health insurance.
The Head of sub-district (Kecamatan)	Plays a role in the government, private sectors and community in the work area for community mobilization and socialization monitoring of IHEC for NCDs
The Head of Kelurahan	Play a role in the neighborhood (RT and RW), private sectors and community in the work area to mobilize community and monitoring of IHEC for NCDs
The Head of RW	Plays a role in the neighborhood (RT and RW) to mobilize a community to take advantage of IHEC for NCDs
PKK	Play a role in the area of PKK empowerment, private and public sectors in the work area to mobilize community and monitoring of IHEC for NCDs

Source: primary data processed

Intervention by Collaboration of Stakeholders

Stakeholder and the staff and cadre of the health center work together in socializing the goals, activities, and benefits of IHEC for NCDs to 366 patients who visited the health center. This results in increasing visit to the IHEC for NCDs where 350 people (95.8%) know and understand the benefits of the activities and willing to come to IHEC for NCDs. Stakeholders and cadres, head of the village, head of the subdistrict, PKK and the community health centers also do an intervention by inviting people and doing dissemination to public in 6 (six) IHEC for NCDs. The results of the intervention is an increased utilization of IHEC for NCDs from the month I to the month IV, as shown in Figure 1.

Source: primary data processed

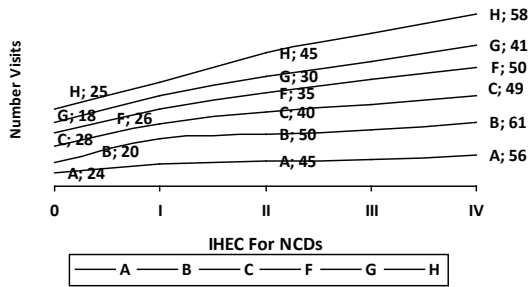


Figure 1. The Increase of Visitation to IHEC for NCDs after Intervention of Stakeholder Collaboration

DISCUSSION

Stakeholder Collaboration Model For the Empowerment of IHEC for NCDs

Stakeholders collaboration can coordinate its resources together to mobilize people to use IHEC for NCDs. Community empowerment strategies through mobilizing social capital owned by the community is an opportunity to intervene community empowerment. Community interventions are organized in five phases:

- a) building trust, b) increasing the awareness, c) developing programs, d) organizing communities, and e) the initiation of maintenance program<sup>4</sup>.

Prevention and control of NCDs to society requires the collaboration of all stakeholders who have a concern in the issue. Cardiovascular prevention and rehabilitation, which is one of the NCDs, requires concerted action by all stakeholders to achieve improved health behavior at the global scope. Model connectivity can enhance communication, collaboration, and creativity to

encourage people to behave in healthy life<sup>8</sup>.

Stakeholders must perform community empowerment approach in order to improve the utilization of IHEC for NCDs. Multi-sectoral collaboration can create an environment that supports a healthy lifestyle for community<sup>4</sup>. Community empowerment requires the role of local government that has the task of empowering communities by increasing knowledge and understanding of risk factors and prevention of NCDs to society which will increase the impact to IHEC for NCDs. Local government can mobilize support and social networks, as well as play an active part in the community life<sup>9</sup>.

Stakeholder collaboration is done routinely every month empowering the IHEC for NCDs. Evaluation of the role of appropriate tasks and functions of each part is optimized, so it may result in improvement every month. The success of stakeholder collaboration to empower the IHEC for NCDs is performing the integration tasks and functions of each stakeholder. Based on a research by Ansell et.al, successful collaboration is obtained by conditioning the institutional design and leadership variables. Collaboration is begun by setting the level of trust, conflict and social capital which is the source, or obligation, during the activities are in progress. Institutional design establishes ground rules of collaboration in progress and provides mediation and facilitation of leadership. It is important to the collaborative process to be repeated<sup>3</sup>. According to Arena et.al (2015), the key role of stakeholders as a whole in developing a healthy behavior is to perform the role of the community in accordance with the duties and functions of their respective organizations<sup>10</sup>.

Government plays an important role at all levels in collaborating with all stakeholders to empower IHEC for NCDs, and in improving the early detection, prevention and control of NCDs in the community. The role of stakeholders is continuously developed based on available resources to optimize collaboration for empowering IHEC for NCDs.

Analysis of Stakeholder Collaboration Model Policy

The health office city and Public Health Center have collaborated and worked together with other stakeholders who have duty, function, resources, partners, performance indicators to empower IHEC for

NCDs. All stakeholders are involved in the process of formation, preparation for implementation, monitoring and evaluation of IHEC for NCDs. Public Health Centers, in collaboration with other stakeholders, mobilize communities to use IHEC for NCDs.

The role of stakeholders, including all groups and elements from the Provincial Health Office, the PKK Province and PPK Village, the District or City Health Office, the Community Health Centers, the District/City Health Forum, the Heads of Sub-District, the Chiefs of Sub-districts, the Chairmen of the Neighborhood can be designed as a model of collaboration of stakeholder in empowering IHEC for NCDs. Public participation should be designed and informed by the relevant local institutions or those who are sensitive to the key principles and governance arrangements. Key principles should be considered in the implementation of existing stakeholder participation in the process of public engagement<sup>11</sup>. Lasker suggests that collaboration will happen if there is limited resources, a common vision, and allows problems to be solved together<sup>12</sup>. Goldman (2016) says, society requires institutions to collaboratively improve the health status, address shortcomings in infrastructure and preparedness efforts community<sup>13</sup>. Society needs to gain an understanding of IHEC for NCDs and non-communicable diseases, and knowledge of the benefits or advantages of IHEC for NCDs.

### CONCLUSION

Stakeholder Collaboration Model of IHEC for NCDs can improve utilization of IHEC for NCDs by the community in the early detection, prevention, and control of NCDs. Stakeholder Collaboration Model of IHEC for NCDs can be developed in parts of Indonesia and other countries that have the role of stakeholders to empower people at all levels of government.

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