Research Article

EVALUATION of SMOKE-FREE AREA DECLARATION PROGRAM to ESTABLISH A HEALTHY CITY

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ABSTRACT

Background: Indonesia is experiencing a major health challenge, that is triple burden diseases (communicable diseases, non-communicable diseases, and re-emerging diseases). One of the programs established by the government to face the threat is Healthy Lifestyle Community Movement (Gerakan Masyarakat Hidup Sehat or GERMAS). The declaration of the smoke-free area is one of the efforts of the Government on this movement aimed to have smoke-free homes to create a healthy city. However, the monitoring and evaluation of the program do not run well. The goal of this research is to provide a description and analysis of the implementation of the smoke-free area declaration program.
Methods: This was a qualitative research. The subjects or main informants of this study were the people in charge of smoke-free area declaration program and the head of the clinic at Puskesmas Gondokusuman 2. The supporting informants in this study were the community declaring the program as well as the elite figures of the community involved in the declaration. The method of primary data collection was through in-depth interviews, observation, and review documentation. The implemented analysis technique was content analysis.
Results: The inputs of the smoke-free area declaration program were measured from the human resources, fund, facilities, organization, information, and guidelines. Further, the process of the smoke-free area declaration was viewed from the community roles, community responses, and reports. However, there was a shortcoming of the process variable, i.e. the in-existence of written reports done by the head of the program. Furthermore, the output variables were observed from the commitments, impacts on society, and the comprehensiveness of the reports.
Conclusions: Based on the analysis, the inputs of the program were considered as well. The outputs of the program were considered to be positive.

Keywords: evaluation, SMOKE-FREE AREA, healthy city

INTRODUCTION

Indonesia is in the middle of a major health challenge known as triple burden of disease (infectious diseases, non-communicable diseases, and controlled diseases making a comeback). In 1990, contagious diseases, such as *Infeksi Saluran Pernapasan Akut* (ISPA), tuberculosis, and diarrhea, were the most common ones found in health facilities. However, the change of lifestyle caused the changing pattern of disease (epidemiological transition). In 2015, non-communicable diseases, such as stroke, coronary heart diseases (CHD), cancer, and diabetes, ranked highest(1).

There have been efforts to control and prevent the diseases to reduce the number of cases and mortality rate. The goal is to create an optimum healthy community. One of the programs established by the government is Healthy Lifestyle Community Movement (*Gerakan Masyarakat Hidup Sehat (GERMAS))*(2).

GERMAS is a planned and systematic effort involving all members of community with awareness, willingness, and ability to live healthily and improve their quality of life. It starts at families since family is the smallest part of a community which helps to form one's personality. The program involves having regular physical exercises, consuming fruit and vegetables, not smoking, not consuming alcohol, having regular health check-ups, participating in environment cleaning activities, and using toilets(1).

The city government of *Yogyakarta* supports GERMAS by establishing Mayor Regulation No 373 Year 2017 on the empowerment system of alert *kelurahan* in relation to healthy lifestyle community movement. One of the ways to support the movement is through the declaration of smoke-free area. The aim is to have free-smoke houses so that a healthy city is created (3).

At first, the smoke-free area declaration program was conducted by the District Health Office of Yogyakarta and Gadjah Mada University (UGM). However, later UGM decided not to be involved in the program, therefore, afterwards, the Yogyakarta District Health Office handled the program alone. The written declaration was done at the level of neighbourhood groups (RT). However, up to the present moment, the monitoring and evaluation of the program did not run well.

Based on an interview with the person in charge of smoke-free area declaration program at *Puskesmas Gondokusuman 2,* it was found that there were not any appropriate instruments to monitor and evaluate the program. Through the course of time, the program ran, and the report was done through direct report from each cadre to the health clinic staff.

Based on those descriptions, the researchers were interested to conduct a research on the evaluation of smoke-free area declaration program at *Puskesmas Gondokusuman 2.*

METHODS

Study design
This research used qualitative methods.

Setting
The study was conducted in Puskesmas Gondokusuman 2.

Data source and data collection
The method of primary data collection was through in-depth interviews, observation, and review documentation.

Sample population
The key informant of this study was the person in charge of the smoke-free area declaration program at *Puskesmas Gondokusuman* 2. Meanwhile, the triangulation informants were the elite figures of the community involved in the declaration, as well as community representatives directly involved in the programs of *Puskesmas Gondokusuman* 2.

Analysis
The researcher evaluates the implementation of smoke-free programs using an evaluation system, discusses management programs through analysis of inputs, processes, and outputs. The input component discusses the main and core resources such as labor, funds, facilities, organizations, information and guidance. The process component is seen from the management program carefully monitored from how the community in Gondokusuman 2 Health Center formulates the performance seen from the planning process, implement and support programs by selecting indicators and targets, collecting data, analysing the data and giving feedback. The output component illustrates the performance of the quality achievement program in accordance with the achievement of the program targets against the indicator.

FINDINGS AND DISCUSSIONS

The city of *Yogyakar*has declared smoke-free area. *Puskemas Gondokusuman 2* is one among many community health clinics in Yogyakarta committed to conducting smoke-free area program. The smoke-free area program was formed based on city of Yogyakarta Regulation number 2 Year 2017. The commitment was set forth in the declaration of smoke-free areas. Contents of the Declaration of Smoke-Free Areas in Gondokusuman II Health Center are 1) no smoking in the house, 2) do not provide ashtrays in the house 3) no smoking in community meetings, 4) do not throw cigarette butts in any place, 5) do not smoke in front of babies, toddlers and pregnant women, 6) may not order small children to buy cigarettes.

The researchers in this study conducted an evaluation of the program by using system approach. The approach consisted of three parts, namely input, process, and output. The components of the input were the availability of main and fundamental resources, i.e. human resources, fund, facilities, organization, information, and guidelines.

1. Input
    a. Human Resources

    Based on interviews to informants, the information on human resources involved in smoke-free area was obtained, i.e. the District Health Office of Yogyakarta (Health Promotion Programmer), Head of PKK (Family Welfare Establishment Program), Heads of Sub-districts, Heads of Villages, Community Groups (RW), Neighbourhood Groups (RT) and community members. The program was regulated by the Mayor Regulation No 2 Year 2017. It regulateed the parties required to be involved in the program in relation to the field of health, regional work units, and community participation(4).

    The regional work unit conducting health matters was the District Health Office of Yogyakarta and community health clinics. In addition, the involved regional work units were Head of PKK, Heads of Sub-districts, Heads of Villages, Community Groups (RW), and Neighbourhood Groups (RT). All parties worked together in the program. Meanwhile, community participation means the direct involvement of the community members in the program. The participation was observed through the implementation of smoke-free area declaration in *Kelurahan* (Village) *Terban* and *Kotabaru*.

    All parties have their own responsibilities and duties. Regional work units focusing on health matters have the responsibility to determine the smoke-free area(5) The health units are the District Health Office of Yogyakarta and *Puskesmas Gondomanan 2*. Both act as the founder and organizer of smoke-free area arrangement. It is in line with the Mayor Regulation No 2 Year 2017.

    Regional work units were responsible to do a follow-up on the determination of smoke-free area. The work units were the Head of PKK, Heads of Sub-districts, Heads of Villages, Community Groups (RW), and Neighborhood Groups (RT). Head of the PKK, Heads of Sub-districts, and Heads of Villages supported the program through their participation in the signing of an agreement on smoke-free area. Community Groups (RW) and Neighborhood Groups (RT) had the roles in program implementation. The head of community groups was assigned as the leader of the program in the area and therefore holds responsibilities for the program. It is in line with the Mayor Regulation No 2 Year 2017. However, the evaluation of each community group has not been done yet.

    Regional work units conducted follow-ups on the arrangement of smoke-free area by collecting data and information on the smoke-free area, providing education on the dangers of cigarette to the community, conducting awareness programs on the laws and regulations related to smoke-free area,

observing and evaluating the smoke-free area program implementation, and conducting assistance and observation in the smoke-free area(4).

b. Funding

The declaration of smoke-free area relies on three main sources of funding, i.e. the fund of the District Health Office of Yogyakarta, *Puskesmas Gondokusuman,* and community donation. The fund from the health district office was Rp. 960,000 (Rp. 8,000 x 120). It was aimed to pay for the refreshments during the declaration. The fund from the health clinic was taken from the Operational Aid for Health Program (Bantuan Operasional Kesehatan (BOK)). It was given once to community groups. The total amount was Rp. 1,800,000 (Rp. 18,000 x 100 persons). It was expected that after the two funds were given, the community was willing to donate if the given fund was insufficient. Such donation was commonly taken from the treasury of the community.

The first step that the district health office as the initiator of Smoke-Free Area program has to do was developing the conceptual framework and technical materials of Smoke-Free Area. Afterwards, the office advocated the decision makers, either the internal parties of health sector or legislative parties, to obtain support on policies, fund, and facilities(6). The results of this study are in accordance with the non-smoking regional guidelines of the ministry of health. Non-smoking areas at the RW level are not only provided with funds, but the community also demands self-financing. The findings of this study are also in line with the guidelines of smoke-free area of the ministry of health. The smoke-free area at community groups is supported with some fund as well as some donation from the community. It encourages the community to independently fund this smoke-free area program.

The results of Nizwardi's study (2013) suggested that the funds available for the implementation of non-smoking areas in the city of Padang Panjang and Payakumbuh were sufficient and was not a problem in the implementation of non-smoking areas. The source of the funds came from the Regional Budget and Cigarette Excise. Even though it is not comparable to a puskesmas, in three regencies/cities, the funds provided were quite large, namely in the city of Padang, amounting to Rp.85,000,000.00 from cigarette excise for socialization activities, dialogues on smoking-free areas on television and increasing banners and leaflets. In city of Padang Panjang, the availability of funds for the implementation of smoking-free areas were as much as Rp. 75,000,000.00 from cigarette excise and Rp. 24,000,000 which were used for monitoring and evaluation, supervision of government institutions such as hospitals, the District Health Office, puskesmas, government education institutions, and offices as well as socialization. While in Payakumbuh the funds available for the implementation of the non-smoking area amounted to Rp341,278,129.00 (7).

c. Facilities

Based on the Indonesian Ministry of Health guidebook related to smoke-free area facilities which are indicators, among others, there are media promotions about smoking bans / smoke-free areas(6). The District Health Office of Yogyakarta and *Puskesmas Gondokusuman 2* provide facilities to support the declaration of smoke-free area program. Some of the facilities are the media to publicize and urge the community on the program. A petition on the declaration of smoke-free area is also provided for all the involved community members to sign. Based on the guidelines provided by the Indonesian Ministry of Health on Smoke-Free Area, the required facilities are the promotion media on smoking restrictions/smoke-free area(6). It is provided and facilitated by *Puskesmas Gondokusuman 2* and the District Health Office of Yogyakarta.

The role of The District Health Office of Yogyakarta as the provider of facilities for this promotion is to spend substantial funds, as stated by Nizwardi (2013) that the use of television promotion media for socialization, increasing banners and printed leaflets. Thus, the production of promotional facilities is not the responsibility of the puskesmas. The role of the puskesmas is only as a mediator in the distribution to the community(7).

Other than promotion media on health, smoking rooms should also be provided(6). It was found that *Puskesmas Gondokusuman 2* has not provided such rooms yet. Based on interviews with some community members, it was revealed that they commonly smoke in certain designated-areas, such as river banks or cemetery area. It indicates that although smoking rooms are not provided yet, the community members are aware to smoke only in the designated-areas. The research is slightly different from Wati's (2014) research on the Application of Non-Smoking Areas in Metro City, at the Metro City Health Office and the City Planning and Environment Agency, specifically for smokers to encourage the operation of smoke-free areas quite well(8).

d. Organization
The declaration of smoke-free area was conducted at each community group (RW). Each would have its own committee involving the Head of the Community Group, the Secretary, the Treasurer, and any other parties (adapted to the need of each RW and community). The committee is responsible to conduct the smoke-free area program and educate community members.

The guideline book of ministry of health on smoke-free area does not specify and require the community to form an organization in smoke-free areas(6). Nevertheless, the community had the initiative to form the committee. In addition, community members are expected to actively participate in succeeding the program of smoke-free area. Furthermore, the committee helped to coordinate all activities related to smoke-free area program.

e. Information
Some awareness raising programs were conducted by the District Health Office of Yogyakarta and *Puskesmas Gondokusuman 2.* Furthermore, the information media was in the written form. The distribution of information on

Smoke-Free Area was done by using many different methods and media in many different opportunities. The aim was to make all members of the community aware of this program and willing to actively participate, either as the observer or supervisor of smokers and non-smokers by giving necessary punishment as required(6).

f. Guidelines
The guideline of the smoke-free area is Mayor Regulation No 2 Year 2017. It was issued by the mayor of Yogyakarta. It regulates smoke-free area. According to Juanita (2012), the attraction of interest in setting cigarette policies at the central level needs to be addressed by the government by making local policies. The ban on smoking in public space at the local level can affect people's perceptions of the norm of smoking in the community. The guidelines issued by the Mayor of Yogyakarta answered the results of research conducted by Juanita(9).

2. Process
The indicator of smoke-free area is seen from the existence of staff obliged to observe smoke-free area in all vicinities. The vicinities are such as public health facilities, schools, playgrounds, places of worship, public transportations, offices, and public places(6). In this study, it was found that the program was conducted in each community group (RW). However, only some vicinity was involved in the smoke-free area of *Puskesmas Gondokusuman 2.*

In relation to this regulation, community members' participation is needed. Such participation can be done by:
a. Sharing suggestions, opinions, and considerations related to the observation and implementation of smoke-free area policy.
b. Providing guidance and assistance as well as sharing information on smoke-free area.
c. Declaring smoke-free area at home and the living environment.
d. Reminding everyone not to break the restrictions of smoking, producing, selling, advertising, or promoting cigarettes at smoke-free areas.
e. Reporting every incident of infringements on smoking, producing, selling, advertising, and promoting cigarette restriction at smoke-free areas to the administrator, head, the person in charge of the smoke-free area program, as well as related regional work units.

According to the Ministry of Health RI, Smoke-Free Area Process is as follows:
a. Meeting of Initiator Team
Initiator team regularly conducts meeting to discuss many different things related to smoke-free area arrangement, such as the plans and regulations.
b. Establishment of Smoke-Free Area
It is done by the high-ranking officials and attended by all involved parties on the determination of smoke-free area. The team prepares implementation and technical guidelines as well as the publication materials so that the program can be started.
c. Post-Establishment Publication

Distribution of information on smoke-free area is done using many different methods and media in many different opportunities. Thus, all parties are able to implement the program; either as the observer or supervisor of smokers and non-smokers by giving necessary punishment as required. The socialization was carried out by the District Health Office and Puskesmas Gondokusuman 2. Media information includes printed media. And residents are used as education for other residents. Dissemination of information and dissemination of Non-Smoking Areas are carried out by using various methods and media on various opportunities that exist so that the implementation of Non-Smoking Areas can be known and implemented by all parties, both observer andsupervisors of smokers and non-smokers by applying sanctions according to the law applied.

3. Evaluation
   Assessment of the implementation of smoke-free area includes observing and erecting regulations on smoke-free area. The evaluation is done using determined indicators. When compared with Mayor regulation No 2 Year 2017, some things have not been implemented, among others, have not yet been evaluated in each community group (RW). Ideally, the assessment is not only the responsibility of the community group (RW), but is the responsibility of all regional offices, such as the involved regional work units which was Head of PKK, the village head and the sub-district head.

4. Output and outcome
   The output of the non-smoking area program is in the form of commitment documents signed by community members and all parties involved. Commitment to the Declaration of Smoke-Free Areas was held at the community group (RW) level. The Puskesmas had reported the number of community groups (RW) that had carried out the declaration to The District Health Office in Yogyakarta, accompanied by proof of declaration. There were 10 community groups (RW) that had carried out the declaration of smoke-free areas in Terban Village and 2 community groups (RW) in Kota Baru Village. There were 4 community groups (RW) in Terban and Kota Baru that had not implemented the declaration of smoke-free areas. In addition, the community benefits from the declaration of smoke-free areas. The benefits felt by the community include: people became aware of the dangers of smoking, people became more ethical when smoking, and some people also stopped smoking.

   Opposing this research which focuses more on smoke-free offerings at the household level, the findings of Hamdan, et al. (2015) recommended that children in schools need to be vigilant even though the area is free cigarette smoke has been running, because it turns out that children are quite easily affected when exposed to cigarette advertisements by the media, especially television. According to Hamdan, the regulation of non-smoking areas is still weak, and there is no clear sanction regulation regarding the restrictions on the age of cigarette buyers. The community needs to pay attention to cigarette seller stalls that make it easier for people to get cigarettes, especially for children and adolescents(10). In addition, affordable prices with strong media exposure to children are things that need to be observed by the government. In terms of a social environment, adolescents tend to be more easily affected than other age

groups. The community group (RW) residents in the Gondokusuman Health Center area must focus on fostering a youth playing environment that supports teenagers to stay away from smoking behavior. Sutha's (2016) study in Pangarengan Subdistrict, Sampang Regency suggests that an area which consists of family environment, school environment, and the playing environment has a very important role to play in the formation of smoking behavior in adolescents today(11).

CONCLUSIONS

The implementation of smoke-free area declaration ran well. It was found that the input was in line with the guidelines provided by the Indonesian Ministry of Health as well as the Mayor Regulation of Yogyakarta with the availability of committed energy resources, organization, the existence of guidelines, and funding from both the government and community self-help. However, some aspects did not run well. Among them was the availability of the smoking room. In terms of facilities, a special smoking corner had already available, even though they still used makeshift places such as patrol posts, youth posts, and tombs. Residents had no longer smoke inside the house. On the other hand, the process of the program was also considered to run well. Furthermore, there have been some outputs. There were only four community groups (RW) which did not conduct the declaration of smoke-free area.

AUTHORS' CONTRIBUTION

DN designed the study, collected, analysed, interpreted the data, and wrote the manuscript. RR designed the study and conducted a literature review. HA wrote the manuscript and conducted a literature review. SS wrote the manuscript.

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Conflict of interest

There are no conflicts of interest.

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