



Continuous Technical Guidance for Public Health Center Officer Based on Training Evaluation

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Abstract

Health promotion services at public health center is essential to support healthy behavior but still many officers did not have the competence and quality to conduct standard health promotion. West Java implemented health promotion training to 238 officers from 10 districts. The research objective was determining changes in participants' knowledge and its implementation after training as a basis for sustainable technical guidance. Mixed methods design explanatory sequential as results from training analysis and in-depth interviews of officers. The results showed significant change in participants' knowledge after training by district, no significant difference between districts and education level, and no significant increase in service coverage. Continuous technical direct guidance for officers by district officials and professional organizations is needed to strengthen service management, coordination, partnerships, integration and recording-reporting. Guidance through social media can be considered for use. Further training is needed to strengthen advocacy, partnership, evaluation. Participants were grouped into four as multivariate cluster analysis result of knowledge level after training and education level.

Introduction

Public Health Center is the first level health care facility that provide public health and individual health efforts, prioritizing promotive and preventive efforts, to achieve the highest level of public health in its working area. Health promotion is one of the essential health services that must be carried out by Public Health Center. Health promotion is a strategic effort in supporting the achievement of health development goals at Public Health Centers that focused on community behavior. Every Public Health Centers officers must be able to carry out health promotion. There are many Public Health Center officers in Indonesia who did not have sufficient competence in conducting standardized health promotion efforts and understanding the implementation of health

promotion efforts that are still not appropriate. This resulted in merely dissemination of information for health promotion services at the Public Health Center while neglecting behavioral change interventions. This was stated in the Curriculum and Health Promotion Trainer Training Module for Public Health Center Officers (Kementrian Kesehatan RI, 2015).

The low quality of Public Health Center officers is in line with the results of the Determinant Factors of Maternal and Child Health Services (Zahtamal & Chandra, 2011) which found unequal enabling factors related to Maternal and Child Health services as unequal distribution of health workers, lack of qualified service providers, and inadequate service support facilities. Other research

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showed that low health promotion ability was caused by the lack of optimal human resources in Public Health Center in the implementation of breastfeeding counseling (Murtiyarini et al., 2014), whereas the importance of implementing health promotion was to produce changes in knowledge and target attitude is shown in the study of peer group education differences about the maturity of marriage age in urban and rural areas (Follona et al., 2014).

In carrying out these policies and problems, the Indonesian Ministry of Health has made efforts to improve the capacity of health center officers in managing health promotion, one of which is by providing training in technical basic health promotion competencies. Through this training, it is expected that Public Health Center officers have adequate competence in the field of health promotion, especially in the management of health promotion efforts at the Public Health Center. The implementation of the training refers to the Curriculum and Training Module developed by the Ministry of Health as well as the first training for the training team. The curriculum and health promotion training module for Public Health Center Officers (Kementrian Kesehatan RI, 2015). suggested that the training was a technical basic competency training in improving community independence for healthy living. Health promotion training for Public Health Center officers is needed to improve basic skills and competencies, application of science and health promotion arts for health promotion officers at primary health centers. It is expected that officers could carry out advocacy, Information Education and Communication (IEC), community empowerment, increase the capacity of health promotion resources and build partnerships in order to create the independence of the community live a healthy life.

Training must be done in a systematized manner (Depkes RI, 2003) covering the training needs assessment process, formulating training objectives, designing training programs, implementing training programs, and training evaluation. Evaluation of training implementation includes an assessment of participants, trainers, organizers, and the achievement of training objectives. There

are three stages of training evaluation: pre-training assessment includes four components, namely participants, curriculum, trainers and organizing institutions. Assessment during training includes input, process and output as well as post-training assessments carried out on the results of training and the impact of training. Kirkpatrick's model (Bailey, 2005) the evaluation model that emerged from the work of Dr. Donald Kirkpatrick and Dr. Jack Phillips has become the most credible and most widely used training and HRD evaluation methodology in the world. In particular, the Phillips ROI Methodology TM offers a practical way to forecast the potential payoff—return on investment (ROI states that there are four stages of outcome evaluation, namely Level (1) Evaluation-Reaction, Level (2) Evaluation-Learning, Level (3) Evaluation-Behavior, Level (4) Evaluation-Results. Phillips Model (Bailey, 2005) the evaluation model that emerged from the work of Dr. Donald Kirkpatrick and Dr. Jack Phillips has become the most credible and most widely used training and HRD evaluation methodology in the world. In particular, the Phillips ROI Methodology TM offers a practical way to forecast the potential payoff—return on investment (ROI measures the outcome of training into five stages including stage (1) reaction, satisfaction and action plan, stage (2) learning namely achievement of knowledge and skills, stage (3) application in work and implementation, stage (4) business impact, stage (5) return on investment by comparing business results with training costs.

Training was carried out in 2015 in West Java Province with the training module mentioned above for 238 participants from 10 selected districts, namely the high infant mortality rate. The training was conducted for 70 hours of learning x 45 minutes, gradually divided into eight classes, carried out by Health Promoton and Community Empowerment section of the West Java Provincial Health Office in collaboration with a team of trainers from West Java Health Training Center who had been previously trained by the Indonesian Ministry of Health. The results of the training evaluation study (Surtimanah, 2016) showed participants' assessment of facilitators and training facilities isn't different between

classes. There was a significant increase in the participants' knowledge after training, with a significant difference in the increase of participants' knowledge between classes. Using a value of 75 as a cut-off point in the category of high and low knowledge, the effectiveness of training in increasing participants' knowledge to good category is 44.49% or less effective. The researchers suggests the need for further evaluation through reviewing participants' knowledge according to the district of origin and level of education, evaluating the implementation of the task after training as basis for continuous guidance so that the performance of officers could be improved.

The problem of this research is the low effectiveness of training in increasing participants' knowledge, hence it requires follow-up after training. Further study is needed for the basis of continuous guidance for officers. The study aimed to find out the (1) differences in participants' knowledge before and after training based on district origin and level of education, (2) to investigate how participants implemented their knowledge after training, (3) to know the differences in the achievements of health promotion services before and after training, and (4) the types of continuous technical guidance needed.

Method

The study used a mix between explanatory sequential design preceded by quantitative research on pre-experimental design one group pre-post test. Secondary data sources were documentation of training evaluation in November 2015 at the West Java Health Office and documentation of health promotion service coverage in selected Public Health Center. Primary data source (qualitative) as officers at selected Public Health Center. The population is 238 trainees in eight classes, all participants training who meet the inclusion criteria are taken (total sample). The inclusion criteria were attendance in pre-test and post-training and full attendance in the training. Exclusion criteria were participants with incomplete data that was needed in the study. We obtained 233 participants who met the inclusion criteria for quantitative data collection.

According to mixed methods research designs, two types of data collection were

carried out. Quantitative data on knowledge was collected through a review of training evaluation documents with an instrument called data review guide in the form of a table to be filled in with participants' knowledge data. Qualitative data on the implementation of health promotion tasks (selected Public Health Center) were collected through in-depth interview from trained officers with instruments in the form of in-depth interview guidelines that were developed in accordance to the tasks and abilities that Public Health Center officers must possess to carry out health promotion. Quantitative data on health promotion service coverage was collected through document review techniques with instrument called data review guide in the form of tables to be filled according to the indicators of health promotion service output in selected Public Health Centers.

The selection of qualitative data informants was carried out based on discussions with stakeholders in the West Java Health Office. It was decided that Mjl and Ind districts were to be selected for data collection on the implementation of health promotion services after training and coverage of health promotion services before and after training. The consideration is that the Mjl district represents the district where there was a significant difference in knowledge before and after training, while Ind district represents districts that did not show significant difference in knowledge before and after training. Furthermore, based on the consideration of the officers who were still on duty at the same Public Health Center locations before and after the training, Puskesmas KH and T were selected in the Ind district while Puskesmas P and M in Mjl district were selected as study locations.

Quantitative data management and analysis included data processing namely data editing, data entry and data cleaning. Knowledge data was analyzed by univariate analysis, including the frequency distribution of participants' knowledge detailed by district and education level. Bivariate analysis was used to test hypotheses according to research objectives. The normality distribution test for all data groups was carried out. If the data is normally distributed, parametric statistical tests

is performed and if the data is not normally distributed, non-parametric statistical tests is conducted (Dahlan, 2014), Paired T Test or Wilcoxon Test was used to examine the differences in knowledge of all participants before and after training according to district categories and education level categories. One Way Anova Test or Kruskal Wallis Test to examine differences in participants' knowledge increase before and after inter-district training. Furthermore, making conclusions in the form of findings constructed according to the research objectives.

Data on health promotion service coverage was analyzed by univariate in the form of frequency distribution of service coverage. Firstly, data normalization was performed. If the data is normally distributed, parametric statistical tests performed are and if the data is not normally distributed, non-parametric statistical tests are conducted (Dahlan, 2014). Conclusion was made in the form of findings constructed according to research objectives.

Qualitative data management includes describing, classification, connecting, concluding (Sugiyono, 2014) with steps to make interview field notes accompanied by recordings and photos, complete interview transcripts by replaying audio recordings, classifying data by reducing data - creating code - themes, present data into a pattern and draw

conclusions in the form of findings constructed according to research theme. The final stage is formulation of continuous technical guidance based on quantitative and qualitative data obtained, combined with the creativity of mind to build thought construction.

Results and Discussion

The number of participants who met the inclusion criteria were 233 people from 10 districts. Participants with bachelor degree (48.50%) were less than non-bachelor degree (51.50%). Using a limit value of 75 (the criteria of complete learning), the knowledge level of participants and average value of knowledge based on education level is listed in table 1.

Before training, only 2.60% participants were classified into high knowledge category, the number increased to 45.90% after training. It was concluded that training could increase the number of participants in the high knowledge category, although in a sufficient level (43.3%). The low participants' knowledge before training, which was 47.76 (median), far below the 75 value limit, made it difficult for participants to improve to high knowledge category, even though there was a significant increase in average from 25 to 72.76 after training.

After the training, 126 participants were still classified into low knowledge category. They were spread almost evenly in all districts

Table 1. Knowledge Value Before and After Training

No	Districts	High Knowledge Categories by Districts (Amount / %)		Average Value by Education Level			
		Pre	Post	Bachelor		Non Bachelor	
				Pre	Post	Pre	Post
1	Grt	4 (17.40)	11(47.80)	56.00	74.59	46.00	72.67
2	Bdg	1 (4.20)	17(70.90)	52.44	80.00	49.33	77.87
3	Bgr	0 (0.00)	13(59.10)	51.69	76.00	44.89	76.00
4	Cjr	1 (4.50)	10(45.50)	53.00	70.25	52.00	75.71
5	Mjl	0 (0.00)	11(50.00)	41.67	74.33	52.40	68.00
6	Krw	0 (0.00)	7 (29.20)	38.55	68.00	52.31	72.00
7	Skbm	0 (0.00)	9 (37.50)	48.33	72.17	45.67	68.00
9	Tsk	0 (0.00)	13(50.00)	48.00	76.36	45.87	72.00
9	Crb	0 (0.00)	8 (36.40)	51.33	76.77	43.50	68.00
10	Ind	0 (0.00)	8 (33.30)	40.86	72.14	42.80	70.20
	Total	6 (2.60)	107(45.90)	47.93	73.43	47.60	72.14

and should receive further attention such as direct or indirect advanced training with new methods or assistance at work. Previous research mentions the need for retraining for officers who have only been trained once because they have not been able to implement it properly in their assignment, in this case, the clean healthy living behavior program. Besides, there were various obstacles such as limited funding (Marzuki, 2016). Other research also suggests that training should be followed by an explanation that view the performance measurement positively because it could help development of professionalism. The performance measurement is part of continuing education and could ensure the quality of practice (Lubis & Nasution, 2017). Another aspect that must be considered is the training implementation itself, which may affect the effectiveness of training. Although the curriculum and modules used in the training have been prepared by the health ministry, there is still room for improvement. This requires further study. The results of previous studies (Mohamad et al., 2017) found that organizations need to formulate effective training for their employees to improve task performance.

The level of knowledge before training varies between participants with undergraduate and non-bachelor education. The increase in the value of knowledge after training among non-bachelor education was 25.54 compared to

undergraduate education group, 24.50. Current provisions in Health Promotion Guidelines in Public Health Center, the minimum education level of health promotion officers at public health centers is Diploma 3. Explanation of the difference in values between the two types of education is described in the next discussion about differences in knowledge based on education as listed in table 2.

There was no significant difference between the mean value of different knowledge before and after training inter-district ($p > 0.05$). There were significant difference in ($p < 0.05$) participants' knowledge score before and after training in each district. The lowest knowledge change is 29.20% (Krw) and the highest is 66.70% (Bdg). The highest average difference between highest knowledge score before and after the training of non-bachelor participants was from Krw (32.73) and the lowest was from Cjr district (17.25). The average difference of the highest knowledge score before and after training of the non-bachelor participants is from Bdg as 28,53 and the lowest is from Mjl as 15,20.

There were significant differences ($p < 0.05$ - dependent t test or Wilcoxon test) in knowledge before and after training of participants in each district. Training significantly increased participants' knowledge in each district. In the training implementation, participants were grouped into several classes, where participants from the same district were

Table 2. The Test Different of Knowledge Changes by Districts and Education Level

Districts	Different Test by Districts		Different Test by Education Level	
	p value	Type of test	p value	Type of test
Grt	0.000	Wilcoxon test	0.217	t independen test
Bdg	0.000	Wilcoxon test	0.907	U man whitney test
Bgr	0.001	Wilcoxon test	0.512	U man whitney test
Cjr	0.000	t dependen test	0.274	t independen test
Mjl	0.000	Wilcoxon test	0.006	t independen test
Krw	0.000	Wilcoxon test	0.031	t independen test
Skbm	0.000	Wilcoxon test	0.362	t independen test
Tsk	0.000	t dependen test	0.587	t independen test
Crb	0.000	Wilcoxon test	0.963	t independen test
Ind	0.000	Wilcoxon test	0.406	t independen test
-	0.656	Kruskal Wallis test (Bettween Districts)	0.443	U man whitney test (All participants)

grouped into the same class. This was intended to start cooperation with future colleagues in a similar working environment. However, in this class, there were participants from other districts too. There was no significant differences ($p > 0,05$ - Kruskal Wallis test) in knowledge before and after training from participants between districts. This test explains that an increase in the value of knowledge occurred evenly among participants from all districts.

There was significant difference ($p < 0,05$) in mean of knowledge score before and after training between bachelor and non-bachelor participants from Mjl and Krw. Conversely, there was no significant difference ($p > 0,05$) in mean knowledge score before and after training between bachelor and non-bachelor participants from eight other districts. Overall there is no difference in knowledge change before and after training between bachelor and non-bachelor participants ($p > 0,443$). The existence of this difference is a guide for researchers to choose the selected health center to collect data on the implementation tasks after training and coverage of health promotion services with the condition that staffs who have been trained was not assigned to another location. Based on discussions with the Provincial and District Health Office health promotion units, two Puskesmas were chosen in Mjl District and two Puskesmas in Ind. District as explained in the method section.

Implementation of Health Promotion Services at Public Health Center post training was inoptimal. The situation analysis was constrained by incomplete documentation, both in writing and drawing (proposed by health promotion officer - P4). There was a suggestion that health promotion service planning in Public Health Center follows the plans of Public Health Center (P1), financing from Operational Cost of Health Center and National Health Insurance (P2), but must be in accordance with the set menu of districts with very few types of activities, such as only Village Community Meetings activities (KP4) this year.

P3 mentions: "... RUK sih kita lihat dari data, tapi RPK nyatanya tetep disesuaikan dengan dana, kemudian ya dengan prioritas tadi gitu mas ...".

Annual planning is made early in the year by asking what program to do (P4), but there was mention of November for the upcoming year (P2). KP2 mentioned existing planning but not yet as it should be, still far away.

KP4 mentions : "...saya melihat di awal tahun petugas promosi kesehatan membuat perencanaan, kemudian disesuaikan dengan dana dari BOK...".

Implementation of extended field activities to participate in other program activities in the field without special fees, as there is only cost for self survey and village community meetings (P1). As extension officers coordinate extension activities whose implementation is shared with the PHC (P2) network. Sometimes, officers from other programs gave the IEC, not only health promotion officers (P1), gave IEC in the PHC building (KP2), very active IEC to the villages health promotion officers (KP4). There was a difficulty in Inter Personal Communication / Counseling at PHC building because of patient's flow from the clinic to the consultation room was not conducive.

P4: "... ada ruang khusus untuk VCT-KIE nya tersendiri, untuk PKRR remaja juga ada tersendiri ... tapi untuk saya pribadi paling ikut ke poli umum ruangan sih mungkin saja diciptakan, tapi nggak tahu agak susah itu apa pasien diarahkan ... tapi sepertinya tidak membutuhkan ke hal-hal yang itu".

Evaluation of health promotion services carried out yearly using the Performance Appraisal Form of PHC mentions by:

KP1: "... evaluasi tahunan puskesmas termasuk promosi kesehatan dalemnya .. kinerja kita menggunakan format PKP indikatornya ...". Monitoring of activities and administration has not been optimized, health promotion officers concurrently with other program (KP2), there was also linking evaluation with other services (KP3).

Inter-programme and inter-sectoral coordination has been established through monthly and quarterly PHC mini workshop forums, sub districts meetings and village community meetings. Monthly PHC mini workshops (KP2)

“... biasanya hari kamis minggu ke 4 ... membahas hasil kegiatan bulan sebelumnya.” followed by all employees including health promotion officers. The workshop duration was also adapted to the condition (KP1).

Information Communication and Education (IEC) implemented in the building and outside of the PHC building (P4, P3, P2, P1, KP2, KP1), through home visit (P4, P3) at Integrated Services Post - Posyandu (P1) in the treatment room (P4), at clinic (P1, P4). IEC was also conducted in the implementation of Village Community Meetings (P1). Material as needed or case (P4), downloaded from internet (P2). Counseling at PHC building is scheduled twice a week through TV or direct counseling (P2), the officers take turn. The Information Communication Education schedule was not routinely conducted (P1).

KP2 mentions : “ ... di dalam gedung, disamping TV ... langsung gitu digilir biasanya petugasnya ... “.

Home visits were carried out by community healthcare workers, health promotion officers did not participate (P3), but others said they visited houses with surveillance officers (P4). Expected a good, focused and sound system at Public Health Center (KP1). Information Communication and Education outside of Public Health Center is focused on community health efforts UKBM such as Integrated Health Post - Posyandu (P2). Media health promotion of most print media and outdoor media, in the form of posters, flipcharts, banners, baligo (KP1, KP2), was designed by central or provincial and district. Did not do their own media development (P4), still have to learn. Experience of developing media broadcast on radio (P1).

In community empowerment partnering implementing with inter-program and

inter-sector, if there are problems such as immunization rejection, community leaders and community were approached (KP1). One of the results of empowerment is to institutionalize Posyandu, although there are cadres who are still not proficient in implementing 5 steps of Posyandu (KP2). Village budget funding did not include the wage for posyandu and cadres (KP2). Several posyandu were developed with Integrated Services for elderly called Posbindu or Integrated Services for non-communicable diseases called Posbindu PTM (KP2, P3, P4). Self Survey and Village Community Meetings were held every 3 months (KP3), resulting in better village coordination.

Advocacy support is largely undisclosed. Advocacy targets are head of subdistricts - Camat, village head, education office at sub districts, religious affair office (KP1, KP2, KP3, P4). Advocacy materials include facilities and infrastructure of community efforts as posyandu, village maternity hut - polindes and supplementary food supplementation (KP1).

Furthermore, it was found that “ ... advokasi biasanya petugas promkes yang berhubungan ...” (KP3).

Advocacy outcomes include agreements with traditional birth attendants (KP1, P2), publication decision making letters (P2), but no Village Regulation and some the others have not been written (P3, P4). Types of support obtained include standby cars and blood donors (P4), expected support for increasing posyandu strata and healthy fund development (P3) which is still difficult to achieve.

Partnership with business / private sector has not been done. Partnership was done with the private sector:

KP4 states: ... jika kita swasta baru bersama alfamart saja..ada juga dalam bentuk yang mendukung Posyandu... juga dengan klinik rawat inap... “.

However, there is no partnership with private sectors because there is no big company (P1, P2). Partnership with Traditional Birth Attendant (TBA) called paraji and cadre was not yet written (P3, P4). In addition, the

Tabel 3. Difference Test of Health Promotion Coverage Before and After Training

PHC	Down	Up	Fixed	p value of Wilcoxon Test
P	1	4	3	0.225
M	0	1	7	0.317
KH	2	3	3	0.500
T	1	5	2	0.173

partnership was conducted with health cadres, religious leaders, family welfare development organization (PKK) and village family planning officers (KP1), also with Office of Religious Affairs (KUA), Indonesian Ulama Council (MUI), sector police (police) and Military Command (Koramil).

Documentation of activities is very minimal, there is no formal register for health promotion services at Public Health Center. Monitoring activities carried out by record (KP2), do not have the format for recording activities (P1, P2). Difficulty to report data of clean and healthy life behavior because of no prior data collection, has to be taken from the health environment data (P1). There is a reporting recording model from the district office, but it was difficult to implement because the data was not available (P3). Filling out the report to record activities carried out from inter programs (P4).

P1 mentioned : "... belum ada register yang baku, jadi saya lihat dari Puskesmas lain.. saya tiap bulan ngerekap .."

Integration of health promotion services with other programs held in the form of target mobilization, technical service by the program itself (KP1). Health promotion officers went to the field for IEC; if they could not go personally, the officers will bring media or/and extension materials (KP2). Integration of health promotion service with Maternal Child Health and Nutrition services has been established (KP3, P2, P3, P4). Integration of IEC on MCH and Nutrition in Posyandu, pregnancy counseling, cadre training, partnership of TBA (P3, P2, P3). Planning, implementation and evaluation of health promotion activities of Maternal Child Health - Nutrition is not well managed and planned systematically. Integration in

the implementation of the Healthy Indonesia Concept with the new family approach in data collection phase in some villages (KP3, KP4, P3, P4), required that all officers should conduct it (KP3, P4). There has been no clear coordination of its implementation in Public Health Center Operational; cost of health called BOK should be able to accommodate procurement of formats and transport to the field (P4). Integration in non-communicable disease prevention and control program was implemented with the development of Integrated Development Post for Non-Communicable Diseases (Posbindu PTM) but it was not developed in all villages yet (KP4, P4). There is a Public Health Center that has set the indicators of successful health promotion as the absence of maternal and infant deaths in the village (KP1).

Supervision / Technical Guidance activities after training has never been conducted. Health promotion officers and head of Integrated Development Post for Non-Communicable Diseases mentioned no available technical guidance or supervision after training to the Integrated Development Post for Non-Communicable Diseases (KP1, KP2, KP3, P1, P2, P3, P4). Once there from the district, twice a year (P3). Should be available from the district (P4) or from related parties. During this time there was a meeting in the district (KP3, KP4, P1, P2) which allows monitoring via internet, as most integrated development post for non-communicable diseases was accessed through the internet (KP4, P1).

Health promotion outcomes before and after training was not significantly different. Coverage achievements of health promotion services before training (year 2015) and after training (year 2016) are listed in table 3.

Health promotion service coverage was seen 8 (some) indicators in four Public Health Center. There was no significant in difference

coverage of health promotion services between four Public Health Center (p 0, 455 – Kruskal Wallis Test). Health promotion service management was not optimal yet, mostly because of multiple duties that reduced the time for health promotion. In addition, the limited financing of activities resulted in unmet health promotion service coverage. Evaluation of services has not been well planned and its process has not been evaluated.

The results is in line with the results from previous research (Marzuki, 2016) which suggested that health promotion planning processes, especially Clean and Healthy Behavior program, has not been implemented in an integrated way. The organizing and implementation of health promotion has not been implemented optimally and the monitoring was only based on the results of the Clean and Healthy Behavior Survey despite monitoring and evaluation should be carried out while covering all service components such as inputs, processes and outcomes.

The financing of health promotion service at Public Health Center was still limited and complained there is Operational Cost of Activity (BOK) of PHC only one menu of budget in determined by district health office making it necessary to discuss in every district. Expected budget menu there is an option to fit the Public Health Center needs. There are other opportunities for financing health promotion at Public Health Center, namely from National Health Insurance capitation. Previous researchers stated that the National Health Insurance era affected HP implementation at Public Health Center where funds has increased. The funds can be used for innovation, purchasing equipment and improving performance (Nurmansyah, & Kilic, 2017). This study was conducted using qualitative method during February and March 2016. The impact of NHI is seen on policy, budget, equipment, human resource and implementation of health promotion program. With purposive sampling method, six policy makers, eight service providers and eight service users were selected for in-depth interview. As many as 17 documents were analyzed. Observation conducted at four selected PHC. Data analysis used thematic content analysis.

There was no difference of PHC's functions before and after NHI period. Budget expended for health promotion programs had increased after NHI implemented which it could be opportunity for PHC to make innovations, procure materials and implement better health promotion programs. Capitation budget which could be used for executing health promotion program and some recently implemented health promotion programs in NHI era becomes an evidence that NHI policy has a positive impact in the implementation of health promotion program at PHC. The availability of operational costs for activities in Public Health Centers must be accompanied by sufficient human resources, high staff knowledge, utilization according to the rules and implementing routine gradual supervision in the budget utilization in order to increase service coverage (Pay et al., 2017). BOK utilization rate continued to increase while the NTT provincial nutrition service coverage did not increase, until 2013. This research aimed to analyze the relationship between the availability of operational funds, the availability of human resources, officer's knowledge, infrastructure support, heads support and the appropriateness of fund utilization using BOK in nutritional services. This was a quantitative research which supported by a qualitative, cross-sectional design in 2015. The total sample of 250 health workers in 26 health centers of North Central Timor regency was included in this study. Data analysis was done using descriptive, bivariate and multivariate analyses. The results of the bivariate analysis using chi square test showed an association ($p < 0.05$). This is in line with previous research (Saputra et al., 2013) that the implementation of National Health Insurance shows that there have been changes in the process but there has been no change in quantity, distribution and quality. Need to improve planning competencies including the preparation of financing items and the making of financial accountability, so that there will be no problems related to the use of costs.

Partnership with businesses/private sector was not easy because there was no big companies willing, whereas small entrepreneurs were also beneficial. Many integrated health posts (posyandu) partnered with local businessmen such as chicken farmers, shop

owners, etc. in the provision of supplementary feeding. Partnerships can also be done at individual level, especially for community leaders such as religious leaders, community leaders, Traditional Birth Attendance (TBA) etc, who are expected to support health efforts in the community. The partnership between midwives and TBA was in line with previous study which found that TBA was still widely used by the community for maternal and child health problems. Developing partnerships with TBA to share with the midwife the role of competence and authority in the maintenance of maternal and child health. TBA, who are at times regarded as obstacles to the attainment of delivery by health personnel, can actually produce a positive outcome through partnerships. TBA can be encouraged to be a motivator for the maintenance of maternal and child health and family (Surtimanah & Herawati, 2017). Regarding posyandu implementation, it is very important to be improved because it relates to the achievement of health behaviors in the household and the achievement of active and alert villages. TBAs can strengthen the existence of Poyandu cadres whose cadre presence, especially cadre ratio per posyandu, determines the Posyandu strata (Surtimanah, 2013).

Partnership and advocacy are two of the three health promotion strategies that should be optimally developed by Public Health Center officers. Hopefully, the results can support the achievement of major behavior change target. Together with the implementation of empowerment strategies aimed at the main target of behavior change, it is hoped that the achievement of HP services at Public Health Center can be achieved optimally.

Not all the ways of Information Education Communication have been done, one of which is inter-personal communication/counseling. The result of the research showed that Information Education Communication through inter-personal communication/counseling in special clinic, not all Public Health Center has been done because of the limited space and service flow which has not been socialized to the clients. Counseling proved to be effective in supporting clients, explained by previous research that structured

counseling can improve knowledge, strengthen attitude and participation of infertile couples in using modern contraception. Researchers also suggested that counseling can be carried out by officers at Public Health Center. It is expected that counseling at Public Health Center for clients with various problems / conditions can help the expected behavior change (Simanjuntak et al., 2016).

The use of media in Information Education Communication should be worth noting. Currently, Public Health Center only use media that have been compiled and duplicated by district, provincial or central district promotion units in a limited number of types and numbers. The use of media is believed to make message delivery more effective and interesting. Previous research suggested the importance of health promotion media in the form of books for pregnant women with attractive designs featuring pictures, colors and full explanations. The book was chosen because of the trends and needs of pregnant women, the characteristics of the region and the availability of infrastructure (Gamelia et al., 2016). Based on these results, Public Health Center officers are expected to improve their ability to use the media and, if possible, gradually develop a media suitable with their clients' characteristics.

Community empowerment varies according to the objectives formulated, the target and the chosen method. Enhancement of knowledge and insight from Public Health Center officers is essential for successful empowerment. Operational innovations in the field are emerging but sometimes, the information is unknown to the Public Health Center officers. Some were revealed through research such as the development of health promotion models for rural-based pregnant women in Banyumas (Gamelia et al., 2016). In addition, there is the effect of multilevel intervention in the promotion of occupational health against metabolic syndrome components among workers (Zahtamal & Chandra, 2011). Another study of empowerment for school cadres (small doctors) can improve handwashing behavior, through six stages of integrated School Health Efforts that are a combination of fit for school and school health efforts selected models (Solehati et al., 2017).

The addition of insights through knowledge sharing of research results or innovation activities must be done periodically, in this case, the health promotion units at various levels can work together with health education institutions and professional organizations as the Indonesian Society of Public Health Promoters and Education (Perkumpulan Promotor dan Pendidik Kesehatan Masyarakat Indonesia abbreviated PPPKMI). Various relevant measurements or research results need to be discussed and submitted so that improvement in knowledge and quality of practice could be realized in a sustainable manner, as stated in the research on barriers performance (Lubis & Nasution, 2017).

Recording and reporting is one of the core materials in health promotion training. However, it is often incomplete in reality. This condition requires in field implementation analysis and it needs that guidance & counseling in post training field.

Integration of HP service with other services at Public Health Center, especially maternal child health (MCH) and new nutrition occurs in the implementation of IEC and community empowerment in village standby programme (called Desa Siaga). Information Education Communication was conducted by MCH and nutrition officer, while the implementation of advocacy and partnership was conducted by health promotion officer. Integration activities are already underway, but planning, implementation and evaluation have not been done systematically. Problems and activities that are prevalent require priority. Interventions that are effective and appropriate to resources' condition must be recognized by the officer.

Partnerships in the provision of services also need attention. Several studies show a close relationship between the role of officers and families in the achievement of a community activity. Previous research suggests a relationship between the role of health workers, families, level of knowledge and the incidence of teenage pregnancy. Knowledge is a dominant factor associated with teenage pregnancy. The application of these findings is that Information Education Communication to the youth segment is an urgent matter for

various parties including Public Health Center (Ramadani et al., 2015).

Integration of health promotion service with other programs such is non-communicable diseases and implementation of healthy indonesia concept with family approach was not optimal yet. It is necessary to develop integrated post for non-communicable diseases (Posbindu PTM) in each integrated services post (Posyandu) or in the initial stage there is at least one integrated post for non-communicable diseases (Posbindu PTM) in each village. The chronic disease management program (called prolanis) was initiated with National Health Insurance financing and is also one of the options for integration of health promotion services with non-communicable diseases program.

The implementation of the duties Public Health Center officers' after the training has been described, in general it was not optimal. The application in work was influenced by other factors such as compensation, work discipline (Baharuddin et al., 2015) and education level. There was a simulating effect of education and training on employee performance (Trawardhani & Prasetyo, 2015). Training program stimulate workers to improve their capabilities and consequently increase organizational productivity. Training should be designed based on specific needs and objectives (Elnaga and Imran, 2014). There is a significant positive relationship between training and employee performance (Alshuwairekh, 2016), however other factors that also contribute to task implementation according to expectations should be sought out. Needs for effective employee training, quality of employee training and development system also helps to improve employee performance and thus improve basic services (Mpofu & Hlatywayo, 2015).

Training has influence on job performance, and hence influence job satisfaction through job performance; training also directly influence job satisfaction (Basir & Wahjono, 2014). It can be concluded that training affects job performance with the support of other factors. There needs to be an integrated effort and the implementation of other efforts including continuous guidance for employees, that is also expected to bring

employees who are highly committed to their organization (Elnaga & Imran, 2013). At present, the Public Health Center officers are expected to implement healthy indonesia programme through a family-based approach which must be preceded by a deep understanding in all officers about a concept as Public Health Center work approach, the formation of a comprehensive and integrative solid team in the implementation of data collection and family intervention as a follow-up. Developing partnerships with various parties including health education institutions will support the implementation of Healthy Indonesia Concept at Public Health Center as work approach in improving accessibility and affordability of primary health care.

Technical guidance after training is required. Direct guidance remains an option with the excuse to be directly asked about program management including recording and reporting. Continuous technical guidance through social media may be developed by involving stakeholders. Consulting services are the most important factor in supporting the success of the program (Semuel, 2017) in addition to the availability of facilities and incentives. The development of health workers needs to use the concept of empowerment. There is a need to identify organizations

that could not manage and take steps to improve them. Not only do you provide skills enhancement training, but there needs to be an opportunity and be given the opportunity to do something meaningful and have an impact. It is given the opportunity to express the feelings and shortcomings experienced and develop potential in the process and relational settings that hinder. It is hoped that their potential will emerge as a change agent and outside will act as a health promoter (Kane et al., 2016).

Modules or guidelines should be developed for direct technical guidance by referring to the curriculum, training module and health promotion implementation policy. This guideline is accompanied by a table or a checklist of technical guidance steps with items that must be checked in accordance to the guidance material of Visit 1 and Visit 2 of each year and the solutions provided by referring to training modules or program policy documents. Indirect technical guidance can be developed with cooperation as professional organization and provincial / district health office and health training unit. Web or email preparation that is connected with the team of discussion / answer questions. This model is developed from the simplest method through WA or email until the possible use the WEB model.

While waiting for responses from

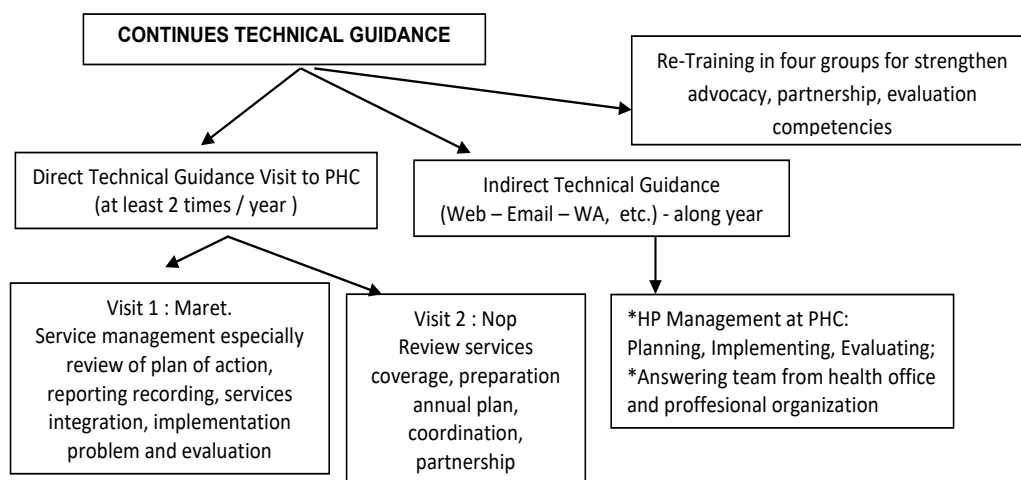


Figure 1. Model of Continues Technical Health Promotion Guidance for Public Health Center Officers

Table 4. Cluster Analysis by Knowledge Category and Education Level

Districts	Amount in Cluster 1	Amount in Cluster 2	Amount in Cluster 3	Amount in Cluster 4	Total
Grt	9	3	3	8	23
Bdg	2	5	10	7	24
Bgr	5	4	5	8	22
Cjr	6	6	8	2	22
Mjl	4	7	3	8	22
Krw	8	9	4	3	24
Skbm	7	8	4	5	24
Tsk	4	9	6	7	26
Crb	2	12	4	4	22
Ind	9	7	3	5	24
Total	56	70	50	57	233

relevant stakeholders, development of modules or continuing technical guidance as recommended, things that can be done immediately by utilizing existing materials are socialization and discussion and make implementation agreements at PHC that can be initiated district health promotion unit / city about : 1) Regulation of the Minister of Health Number 75 Year 2014 on Public Health Centers; 2) Guidelines for the Implementation of Health Promotion at PHC in accordance with Decision of the Minister of Health Number 585 Year 2007; 3) Regulation of the Minister of Health Number 74 Year 2015 on Efforts to Improve Health and Disease Prevention; 4) Module of basic health promotion technical training for PHC officers (Kementrian Kesehatan RI, 2015); 5) Other materials on health promotion include research journals, activity guides, activity innovations. In addition, health promotion networking between health promotion officers or health promoters can be developed using social media Whats App which is easily accessed.

Multivariate analysis with cluster analysis (K-Means Clusters) covering knowledge category (low and high) and education level (non bachelor and bachelor) resulted in four clusters of trainees. Sequentially; cluster 1) : low knowledge – bachelor is 56 persons, cluster 2) : low knowledge – non bachelor is 70 persons, cluster 3) : high knowledge – non bachelor is 50 and cluster 4) : high knowledge – bachelor is 57 persons. Grouping into this cluster is useful for

retraining. The details are listed in table 4.

This grouping is uneven but in general there are two classes in each cluster. The names of participants from each district can be identified by the cluster analysis conducted. Of course, it would be even better if retraining was carried out by reviewing the needs of each cluster, although in general it included material to strengthen advocacy, partnership, and evaluation competencies.

Conclusion

There were significant differences ($p < 0.05$) in knowledge before and after training in each district, but no significant difference ($p = 0.656$) in knowledge before and after training between district. There were significant differences ($p < 0.05$) of knowledge between bachelor and non-bachelor participants before and after training in two districts, but no significant difference ($p \geq 0,05$) in eight districts. Health promotion services management is not optimal yet. There is no significant difference in health promotion coverage before and after training. Continuous direct technical guidance for officers by district officials and professional organizations is needed to strengthen service management, coordination, partnerships, services integration, and recording-reporting. Guidance through social media can be considered for usage. Further training is needed to strengthen the advocacy, partnership, evaluation competencies in four groups of participants as a result of multivariate cluster

analysis which is a combination of levels of knowledge after training and level of education.

Suggestions for health policy makers, health promotion stakeholders includes health training unit, carrying out post training evaluation consistently in all training to make fundings more efficient. This prevents the waste in implementing cost-effective training, increasing competence of officers and the quality of health promotion service at Public Health Centers. Indonesian Society Health Promotor and Educator as professional organization with health promotion unit developed a model to guide officers / members of professional organizations by utilizing information technology that can be accessed by Public Health Centers officers. Establishing a team of consultants or an answering consultation team committed to answering incoming questions through developed social technology media. Health promotion program officers increased motivation to work better, to meet on-the-job performance standards and to improve personal competence. Health promotion officers develop a professional network to exchange experiences and knowledge in disseminating scientific and research results for health promotion.

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