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# Interprofessional Collaborative Practice and Health Workers Retention at Remote Primary Health Care: Case Study from Nusantara Sehat Team-based Program

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**Abstract**

The Nusantara Sehat Team (NST), established in 2015 and consist of multi-professional health workers, implemented to provide comprehensive services at remote primary health cares (PHCs) for two years. This study aimed to explore how the NST leverages the Interprofessional Collaboration (IPC) and its impact on the future career prospects of health workers. Using a qualitative approach, the information was gathered from 48 informants drawn from the current 30 NST recruits and 18 alumni through semi-structured interviews. Of these 48, 20 were clinical practitioners, while the rest were non-clinical health workers. The findings revealed several challenges in promoting collaborative practice, including the community's high demand for curative services, the unclear division of tasks among the NST and local PHC staff, and inadequate health facility support. The curriculum of IPC was yet to be included in the pre-service education and in-service training before NST, allowing the staff to enter the workplace and collaborate, especially in the backward areas. The institutional support through macro and meso policies has yet to enable collaborative-practice ready workers adequately. Other factors such as personal values, family expectations, gender roles, and career sustainability also affected the retention of personnel in the NST.

**Keywords**: interprofessional collaboration, primary health care, remote area

## Introduction

Comprehensive primary health care (PHC) has become the pivotal element in improving community health status and welfare.[1-4] Over time, various approaches have been defined by the health system scholars to crystalize what comprises the PHC. Initially, the International Conference of Primary Health Care 1978 released the Declaration of Alma Ata, outlining that PHC is the first level of contact of individuals, families, and communities with the national health system that provides promotive, preventive, curative care, and rehabilitative services.[5] Furthermore, much of the prevailing discussion agree on a term that includes, but goes beyond, primary care as a level of health care in a multi-scalar referral system.[6] Primary health care is also identified as the integration of structural intervention and focusing attention on local, social and environmental risks.[7] Thus, it requires combined and concerted effort provided by many health disciplines to respond to local needs within their specific context.

This concept has been adopted by the Indonesian health system as it is reflected in its regulations. Adjustment to the local context is necessary given the diversity in the country due to its geographic landscape that consists of the mainland, coastal areas, and smaller islands. Areas with no geographic difficulty require that each PHC must consist of at least nine categories of health professionals; medical doctors, a dentist, nurses, midwives, public health workers, environmental health workers, medical laboratory technicians, a nutritionist, and pharmacists who, through interprofessional collaboration, deliver health services to the people.[8] The minimum number of health professionals in each category will differ depending on whether the PHC is located in urban, rural, remote, or very remote areas. However, maldistribution occurs when the availability of health professionals is high or low in some PHCs, particularly when it comes to backward or peripheral areas, which then become the Nusantara Sehat (NS) deployed sites.[9] Inadequacy and low retention of health workers remain a challenge, hindered by the geographical conditions, fiscal capacity, and adequate policy to recruit the health workers when needed.[10] Thus, the quality of the health services delivered has been sub-standard, as interprofes-

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sional collaboration could not be optimally achieved under these circumstances. In addition, enabling a workplace ready for teamwork requires soft skills, which become another challenge.

To fulfill the requirement of health workers at PHCs in backward areas, in 2015, the Ministry of Health (MoH) of the Republic of Indonesia established a program, namely Nusantara Sehat (NS), as one of its affirmative policies. The Nusantara Sehat Team (NST) based program is conducting a special deployment of five to seven health professionals as a team to be assigned at selected PHCs with two-year contract-based employment. Health workers recruited have to undergo a rigorous recruitment process so that those selected have strong motivation to enhance the health of the community in backward and peripheral areas. In order to attract health workers, the NST Program offers a higher salary compared to the regular remuneration given to health workers. Before deployment begins, they undergo seven weeks of training and team building that would provide them with the ability to make an initial assessment of the prevailing health problems at the deployed site. Through this training, they must propose several innovative interventions to be implemented at their assigned PHC. At the end of the assignment, the MoH also provides scholarship opportunities to NS alumni to motivate them to pursue further education afterward. Between 2015 and 2019, 11 batches of NST have been deployed to 131 municipalities/regencies in 22 provinces, composed of 467 teams comprising 2,661 personnel.[11]

This study aimed to explore aspects influencing the challenges and what enables interprofessional collaboration of NST in delivering PHC services in remote areas and sustaining the retention of health workers after their deployment. The NST program has faced many technical issues in providing quality health services to the community and maintaining collaboration among health workers. Using a qualitative approach, this study captured the obstacles and best practices that could be useful for the future implementation of the NST program and the interprofessional collaboration implementation in general.

## Method

This study applied an exploratory qualitative method by conducting a series of semi-structured interviews and focus group discussions (FGD) with the current NST recruits and alumni across five sites in Bengkulu, South Sulawesi, and East Nusa Tenggara Province. The data collection process was conducted from January to March 2019. In total, 48 informants were interviewed, of whom 20 were clinical professionals; general practitioners, dentists, nurses, and midwives. The remaining 28 were from preventive and promotive health fields, including nutritionists, pharmacists, public health workers and environmentalists, health workers, and lab technicians. In addition, 30 of those interviewed were currently deployed at PHCs located in remote areas, referred to as NST Active, while the rest were the NST alumni. The details of those interviewed are listed on (Table 1).

This study used the gear framework of interprofessional collaboration (Figure 1) to elaborate on the factors affecting the collaboration process at multiple levels. The first dimension, input, referred to the policy as a major and meso element that enabled the initial movement, as well as the micro team structure that was involved in the collaboration process. The next dimension focused on elaborating the micro team issues on social, formal, and attitudes. It also enlightened the individual elements, including personal beliefs, knowledge, aspiration, and professional identity. The last was the output dimension, capturing the deliverables on collaboration. As this study aimed to answer the challenge and enable adapting interprofessional collaboration in the national affirmation program, it was appropriate to explore and assess the experience of the micro team and individual level as the representation of the process dimension.

The interview questions were developed according to this study framework, and all informants received the same questions. In addition, triangulation of the study finding was conducted by confirming the information collected from the local Heads of PHCs at the deployed sites. The answers were audio-recorded with consent from all those interviewed, then transcribed and analyzed using Microsoft Excel 2010 and open source QDA Miner lite application according to two themes consisting of narrative patterns of interprofessional collaborative practice and career perspectives.

## Results

### Nusantara Sehat Program's Influence on Interprofessional Collaboration

*Community's Demand for Curative Services*

Across NST deployed sites, it was found that most of the community at the study sites demanded curative services; it was common for those visiting the healthcare workers to seek treatment or medication for their illness. In the remote areas, the NST recruits acknowledged that seeking promotive and preventive health care and knowledge was not the community's priority. Hence, the deployed NST, with a strong public health mindset, was trying to encourage promotive and preventive health care in the community.

As the initial demand of the community mainly was for curing illnesses, the NST put in extra service over and above their working hours fulfilled by them during their adaptation period. Though sometimes this demand created pressure leading to a conflict between them, they were able to utilize this condition to gain the communi-

ty's trust. After achieving such trust, NST-Active and the PHC staff delivered promotive/preventive health services that were usually in much lower demand.

The need for interprofessional collaboration seemed to be affected by the recruitment and pre-assignment training process as well as the common mission in the field. For example, one of the clinical cases required the expertise of all health professionals available in a PHC. The involvement of the public health promotion and environmental health officers in the community was just as important, if not more so, as the medical doctors, midwives, nurses, pharmacists, nutritionists, and medical laboratory technicians/analysts. However, the community's lack of understanding and acknowledgment reflected an acute awareness of the importance of interprofessional collaboration.

*Collaboration Challenge with the Local PHC Staff*

The Nusantara Sehat Team (NST) attempted to practice their interprofessional collaboration not only with fellow NST-Active but also with the rest of the local PHC staff. For instance, an environmental health worker preferred facility-wide collaborative activities rather than planning for a single-profession activity.

**Table 1. List of Informants**

| Status of NS Employment | Location of Data Collection | Profession | Sex |
|---|---|---|---|
| Active | Bengkulu Province | Pharmacist (1) | Female |
| | | Nurse (1a) | Male |
| | | Midwife (1a) | Female |
| | | Public health worker (1a) | Female |
| | | Nutritionist (1a) | Female |
| | | Medical laboratory technician (1a) | Male |
| | | Public health worker (1b) | Female |
| | | Medical laboratory technician (1b) | Male |
| | | Midwife (1b) | Female |
| | | Public health worker (1b) | Female |
| | | Nutritionist (1b) | Female |
| | | Environmental health worker (1a) | Female |
| | | Nurse (1b) | Male |
| | East Nusa Tenggara Province | Public health worker (2a) | Female |
| | | Midwife (2a) | Female |
| | | Nurse (2a) | Female |
| | | Medical doctor (2a) | Female |
| | | Pharmacist (2a) | Male |
| | | Environmental health worker (2a) | Male |
| | | Midwife (2b) | Female |
| | | Medical doctor (2b) | Male |
| | | Nurse (2b) | Female |
| | | Environmental health worker (2b) | Female |
| | | Medical laboratory technician (2) | Female |
| | | Public health worker (2b) | Female |
| | South Sulawesi Province | Nurse (3) | Female |
| | | Medical laboratory technician (3) | Male |
| | | Environmental health worker (3) | Female |
| | | Pharmacist (3) | Female |
| | | Midwife (3) | Female |
| Alumni | Jakarta–phone interview | Medical laboratory technician (4a) | Female |
| | | Public health worker (4a) | Female |
| | | Nutritionist (4) | Female |
| | | Public health worker (4b) | Female |
| | | Environmental health worker (4) | Male |
| | | Pharmacist (4a) | Female |
| | | Nurse (4a) | Female |
| | | Medical laboratory technician (4b) | Female |
| | | Midwife (4a) | Female |
| | | Pharmacist (4b) | Female |
| | | Midwife (4b) | Female |
| | | Nurse (4b) | Male |
| | | Medical doctor (4) | Male |
| | Jakarta–FGD | Nurse (5a) | Female |
| | | Nurse (5b) | Female |
| | | Midwife (5) | Female |
| | | Environmental health worker (5) | Female |
| | | Public health worker (5) | Female |

**Notes:** NS = Nusantara Sehat, FGD = Focus Group Discussion

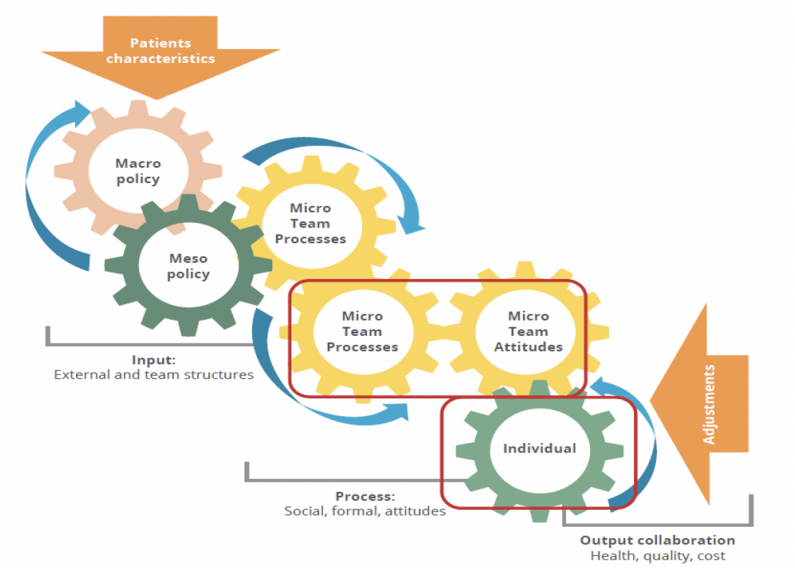


**Figure 1. Gears Model of Factors Affecting Interprofessional Collaboration Within Interprofessional Care Teams,[12]**

> "*It's good; I like it more when I collaborate when working, instead of just focusing on one profession. I like it like that. There are those of us [NST], and there are ones from the PHC… and then at the end, there will be reports, what activities [we do], what innovations have been done by NS for the community members in PHC. Later on, we also have NST innovations, and there are also ones from PHC.*" (Environmental Health Worker Active -3)

In many cases, the collaboration with local PHC staff was a challenge. Based on the observation, the impediments between NST and local staff were partly due to the PHC being disproportionately staffed. In addition, the concept of interprofessional collaboration might still be confusing and not being internalized yet by both the NST and local PHC staff. However, there were still positive examples of how the leadership initiative by local personnel might mitigate this. One of the informants explained that they had been reminded by the head of the PHC to work together, building a sense of unity between the NST and local PHC staff through the exchange of ideas and frequent discussions. This move was also useful as it helped the NST members understand the roles of other personnel in the PHC, enabling them to improve collaboration. The improved understanding prevented competition between NST and the local staff.

*The Nusantara Sehat Team Recruits had not been Acknowledged as an Added Value to the Local PHC Staff*

There was a mismatch between the perception of NST recruits on their purpose of being deployed at the PHC and that of the local PHC staff. This condition resulted in the initial rejection or skepticism of newly arrived NST recruits by the local PHC staff, and it took them a while to warm up to each other. Several informants interpreted the skepticism as fear of local staff who thought the NST recruits were the watchful eyes of the MoH.

In addition, as the NST came bringing their proposed innovative plan and supporting budget, this was considered disruptive of the local staff's existing approach. Those who arrived in June and September were more affected by the timing of their arrival at their host PHC, as the work plan and budget of the PHC had been implemented. The situation was not conducive to start undertaking innovations in the community, which contrasted with the high spirits built during the training period, causing dissatisfaction among the NST.

## NS Active's Career Perceptions

*Motivation and Idealism of NST-Active for Social Equity*

All of the NST-Active came from different backgrounds and geographical regions, ranging from those who grew up in rural areas or remote islands to those who had never left the national capital of Indonesia before this assignment. Nevertheless, all recruits seemed to have a cultivated curiosity about the diverse life that their fellow Indonesians have and connected personally with them. To quote one of them:

> "*[The motivation] is because I want to* "mengabdi" *(serve). Firstly, I have been curious ever since I was*

*small. Well, it's not bad; I mean [living] in Jabodetabek (a term describing the Jakarta Greater Area), which is quite urban; I'm curious about the lives of communities in the remote areas. Also, I like to speak in public (community)"* (Nutritionist Active-1a)

In addition, NST-Active personnel had an acute perception of the disparity between Java and islands outside of Java. A person from Java acknowledged that living in Java was an advantage due to the easy access to health care and its workers. Therefore, they had a strong desire to contribute, as mentioned below:

*"I had the thought, if I was here, in [a city in East Java], there were already so many…, you know, health professionals. Whereas in backward areas, I thought I usually saw them on TV; it seemed like health workers were so limited. So, I became interested, like, what does it feel like to be a health worker there? And then, to see people there who have not received health care, it's like, how to say it, I want to help them there."* (Midwife Alumnus-5a)

*Lack of Support for Remote Health Facilities*

Working at remote PHCs came along with its consequence of limited information technology. Considering how idealist most NS recruits were, access to information technology that would enable them to get the latest scientific updates and professional guidelines became pivotal to them. It was associated with the ability to have continuous personal and professional development to perform their task optimally aligned with updated health sciences. In addition, the supplies of equipment and materials for health care services were also sub-optimal, and support from the officials was often delayed. As one informant put it:

*"I am willing [to work in remote areas again], but, if possible, not too remote. Because we really feel left behind. Like, information, we get them always late, [sometimes] we even know nothing."* (Environmental Health Worker Active-3)

*The Nusantara Sehat Teams' Experiences Influenced the Career Aspirations*

During undergraduate professional training, many NST recruits admitted to having limited exposure to community-based healthcare services, especially promotive or preventive care. The experience of working at the community level via NST assignment inspired several NST recruits to shift their outlook for a future career to one that is more oriented toward PHC.

*"In [my university], they have started applying interprofessional [education], but not maximally. I only got it for the last semester, so I only learned about ethical codes [of conduct]. But the students nowadays have started the interprofessional education from the beginning. Maybe, if there was not enough practice for a bachelor's degree, field-wise (read: in the community). It was still formal, with facilitators from the campus. There was not enough practice during my time."* (Pharmacy Alumnus-4a)

Nevertheless, the current job market and postgraduate education system have not properly acknowledged this NST experience as an asset relevant to professional development. For instance, this nurse, who had the ambition to pursue higher academics at the postgraduate level, would have been as an NST alumnus, eligible to apply for the postgraduate scholarship awarded by the MoH. However, the university she was keen to apply to only recognized two-year hospital-based employment as a work experience requirement instead of equally valuing PHC/community-based work.

*"Now, after I graduated NS, I'm confused. When I applied for the postgraduate studies program at [the university of my choice], a two-year work experience in the hospital was mandatory. I don't have that. I consulted with the Agency for Development and Empowerment of Health Professionals/*Badan Pengembangan dan Pemberdayaan Sumber Daya Manusia Kesehatan *(BPPSDMK) in Hang Jebat [Board of Human Resource for Health], and their answer was, you have to negotiate it with the university. Well, that should not be just my burden! There should be [communication] from institution to institution!"* (Nurse Alumnus-5)

The structure of current employment opportunities for health workers in general still places less value on NS work experience. As part of its effort to attract talent into the NST Program, the MoH has declared that those with NS assignment work experience will be assessed favorably for civil service employment. However, this will still be done through the common application route. However, this opportunity is only available when NST alumni want to apply to be civil servants at the MoH and not any other governmental agency. On the other hand, there was the aspiration to become an entrepreneur. It was found that some of the NS alumni valued NST assignment as the time to accrue adequate financial capital to start their own business.

*Gender Role and Family Opinion as Career Determinants*

Despite facing some challenges during the NST experience, NST recruits felt that the assignment brought value to their personal and professional development. Most were willing to return to the remote areas as NS individual-based program recruits. Unfortunately, family factors and gender role perceptions affected the future career decisions of almost all NS health workers interviewed. For many, work location has always been one strong consideration of their family's approval, especially

for female health workers. Their families did not support the idea that they pursue careers in another remote area, as their priorities should be marriage and family instead.

> *"Oh dear, my parents said, "Don't prioritize that (NS Individual employment) first; what should be a priority is to get married. Even until now, you don't have anyone to get married to because you always go away, right?" So, actually, it's so good to work as Nusantara Sehat, but, well, we cannot do it forever because of age. I want to join NS again. but because I'm a female, (it becomes a challenge)"* (Medical Lab Technician Active-2).

## Discussion

Delivering comprehensive health services, particularly in remote areas, is the main purpose of the NST deployment to improve its people's health. The NST recruits are trying to encourage promotive and preventive services in addition to strengthening curative services through the interprofessional collaboration among them. However, while creating those demands in the community, the NST lacked the acceptance and support from the local PHC staff due to the uneven task allocation and disruption of regular activities. Nevertheless, the strong desire of NST to serve the country is the motivation for NST to keep contributing toward improving the community's health. In order to continue serving in the remote areas for a long time, the NST needs the proper support of health infrastructure, fixed work status, and the blessing from their families. As a basis enabler for the teamwork and interprofessional collaborative practice deployed in the PHC, at least four features were included (1) interaction and communication between team members; (2) common objectives around which collective work is organized; (3) responsibility for performing work to a high standard; and (4) promoting innovation in work practices.[13]

First, interaction and communication among team members and local PHC staff need to be improved, as identified in the result above. Indonesia implemented the Health Professional Education Quality (HPEQ) project from 2009 to 2014, aiming to improve the interprofessional collaborative practice among health workers by preparing them to work as a team in any workplace. This project was done by adding relevant subjects to the curricula at the undergraduate education level.[14] Indonesia needs to evaluate lessons learned from this project to be incorporated into its education process to implement the interprofessional collaboration values effectively. The second important element is common objectives. The mismatch in expectations between local PHC staff and NST-Active; whether the role of the NST should be to replace the current workload or work to complement the community outreach, has become the cause of disharmony in collaboration. The third is the shared responsibility to deliver quality services. NST-Active is committed to developing quality service; however, field realities ranging from geographical challenges in reaching communities to lack of medical equipment to limitation of health promotion materials could lead to them compromising the situation. The last is the promotion and innovation in the workplace. Those informants had carried out various innovative activities at the site based on community demands and characteristics in social relations. One of which is gathering the support of community members to build a latrine in every household by holding some events at the village level. This movement is arguably positive and beneficial for the PHC to gain more attention and trust from community members.

Macro and meso policies also take part in the government's commitment to delivering comprehensive health services favoring interprofessional collaborative practices. The objective of the NST Program is to achieve comprehensive PHC services in remote areas through the decision to structure multi-professional teams is worth applauding. This situation allows various health workers to contribute and deliver promotive and preventive health programs. Offering salaries above the current average adds to the attractiveness of this program and encourages highly motivated and skilled workers to apply.[15] Through this mechanism, the NST Program might be able to assure the delivery of enhanced quality health services compared to other schemes. A study in Niger revealed that low salaries and poor financial compensation among health workers were factors inhibiting retention in rural areas.[16] Thus, the rural area needs are different. It is imperative to consider that the service delivery should operate as close to the ground as possible with adequate policy and financial support.

The lack of PHC's authority in providing adequate support to the NST recruits impedes optimal NST task performance. Firstly, the constraint on funding regulation and allocation sometimes hinders the newly NST recruits from executing their activities. For instance, there was no allocation to procure a new vehicle for the NST recruits to handle the geographical challenges when visiting the community. A similar study also showed that the significant problem in delivering comprehensive health services in remote areas was mainly because health workers were not equipped with adequate vehicle availability while performing their tasks.[17] Secondly, the equipment support, including health promotion material, medical tools, and drugs, also appeared sub-standard, and the NST had no authority to upgrade the equipment. Lastly, the disharmony between the NST recruits and the local PHC staff was a source of tension due to the disparity in their salaries. Informant admitted local staff was envious of the NST getting a higher remuneration. Even though the salary of health workers is regulated to meet

the minimum wage standard at the local level, a national survey on health human resources estimated that 34.5% of PHC staff were underpaid.[9] At the macro level, the current size of salary and underpayment issues should be evaluated closely since health professionals are an essential feature for human and national development.

According to the findings of this study, the motivation for the Indonesian young health professionals to join the NS Program is based on several factors: (i) nationalism doctrine; (ii) professional idealism and altruism; (iii) employment sustainability; and (iv) family expectation and gender role. Firstly, the NS program promotes values related to nationalism and social justice. Hence, the NST program provides young health professionals the opportunity to serve the nation, particularly in the backward areas. Secondly, young health professionals still have idealism and want to apply their knowledge and practice skills acquired during their education. Research that examined the motivation of rural community nurses showed that the philosophy and approach to the role was the most common motivating factor.[18] It was noted that nurses who chose to work in the community went beyond their roles of just caring for the ill and unwell. It was also about the partnership with clients and positively contributing to peoples' lives.[18] Thirdly, in terms of employment sustainability, the NS Program is considered suitable and appealing for young health professionals as it provides higher remuneration than the standard wages. The experience of participating in the NST program is a significant value addition for them when applying for jobs later or for further studies. The assurance that they could continue their education after a certain service period was one of the most powerful recruitment motivations. Moreover, it was also found that job security, salary, and manageable workload were identified as critical factors that provided satisfaction when working in rural and remote areas.[19] Lastly, this study showed that the career decisions of health workers were majorly influenced by their family's expectations, especially for female health workers if their families were against the idea of working full time in remote areas.

On the other hand, the NST assignment also provides inspiration and fulfills aspirations for the future career path of NST recruits. Some NST recruits preferred to continue working in rural and remote areas due to the motivation discussed above. However, many NST recruits expect that their commitment to being deployed should have been better acknowledged by the government, professional associations, and academia. At this time, the experience of joining NST is still not linked with the issue of getting more professional credit.

This study elaborated on the challenges and the enabler aspects of the health workers in implementing collaborative practices to deliver comprehensive health services in remote areas. While discussing the opportunity to apply collaborative practices, this study recommends improving macro and meso policies to strengthen the deliverables. In addition, various perspectives were also gathered from clinical and non-clinical health workers, providing a viewpoint from both sides. However, this study did not collect the information from Ministry of Health officials, district health officials, and the local staff of PHCs. Hence, that viewpoint could not be included. Further research might be considered by involving policymakers and current workers at the deployed sites as the key sources of information to complete this study.

## Conclusion

In order to implement the interprofessional collaborative practices, sufficient interaction and soft communication skills, a common mission, strong motivation, and a clear division of tasks among health workers are essential to be considered as main enablers. The adaptation process among the new and the existing health staff will influence the success of this practice. This study recommends that the improvement of the undergraduate education and training on the interprofessional soft skills curricula should be considered before the program. In addition, conducting convergence sessions among NST recruits and local PHC staff is also recommended to develop positive work relationships, prevent conflict, and align work objectives and early planning before the deployment begins. Health workers need to be facilitated with adequate support, considering the various challenges of delivering health services in remote areas. Through incentive regulation, the government's role in closing the gap of the current health workers' incentive disparity and providing adequate equipment would be positive stimulants. As the NS Program is only deployed for two years, this recommendation could be implemented for another scheme of long-term deployment mechanism for health workers in remote areas.

The NS program has successfully increased the motivation of health workers to work in remote areas due to the idealism and the motive to contribute to the community in the disadvantaged and most needy areas. In addition, it provides an opportunity to serve the community through professional expertise. The experience of being NST recruits also inspires the health workers to look at their future careers beyond the medical perspectives into community-based service through PHCs. However, one cannot forget that the family and society have a say in determining their future and career selection. Promoting positive career perceptions at community-based primary health services would be advantageous for them if their experience working in remote areas is recognized. For instance, it could come as a professional credit unit by the professional organization that will have some value in

their next career choice and provides an opportunity to pursue education in keeping with their aspirations for the future.

**Abbreviations**

NST: Nusantara Sehat Team; PHC: Primary Health Care; IPC: Interprofessional Collaboration; NS: Nusantara Sehat; MoH: Ministry of Health; FGD: focus group discussions; HPEQ: Health Professional Education Quality.

**Ethics Approval and Consent to Participate**

The ethical approval for this study was given by the Research Ethics Committee of the Faculty of Public Health, Universitas Indonesia, in December 2018, with the Ethical Approval number 818/UN2.F10/PPM.00.02/2018.

**Competing Interest**

The author declares that there is no significant competing financial, professional, or personal interest that might have affected the performance or presentation of the work described in this manuscript.

**Availability of Data and Materials**

Data are available upon request under TNP2K.

**Authors' Contribution**

PS provided the conception and construction of the research and manuscript writing. PS, RP, AWP, and NMR input the result, discussion, and conclusion. RP coordinated communication with study informants during the data collection process and with the donor. PS, RP, and NMR provided the final editing of the draft manuscript.

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## References

1. Bitton A, Ratcliffe HL, Veillard JH, Kress DH, Barkley S, Kimball M, et al. Primary health care as a foundation for strengthening health systems in low- and middle-income countries. Journal of General Internal Medicine. 2017; 32 (5): 566-71.
2. Atun R, De Andrade LOM, Almeida G, Cotlear D, Dmytraczenko T, Frenz P, et al. Health-system reform and universal health coverage in Latin America. The Lancet. 2015; 385 (9974): 1230-47.
3. Plochg T, van den Broeke JR, Kringos DS, Stronks K. Integrating primary care and public health. American Journal of Public Health. 2012; 102 (10).
4. Veillard J, Cowling K, Bitton A, Ratcliffe H, Kimball M, Barkley S, et al. Better measurement for performance improvement in low– and middle–income countries. The Primary Health Care Performance Initiative (PHCPI) experience of conceptual framework development and indicator selection. The Milbank Quarterly. 2017; 95 (4): 836-83
5. World Health Organization. The declaration of Alma Ata; 1978.
6. Muldoon LK, Hogg WE, Levitt M. Primary care (PC) and primary health care (PHC): what is the difference? Canadian Journal of Public Health. 2006; 97 (5): 409-11.
7. Labonté R, Sanders D, Packer C, Schaay N. Is the Alma Ata vision of comprehensive primary health care viable? findings from an international project. Global Health Action. 2014; 7 (1): 1-16.
8. Ministry of Health, Republic of Indonesia. Peraturan Menteri Kesehatan nomor 43 tahun 2019 tentang pusat kesehatan masyarakat (MoH regulation about primary health care). Jakarta; 2019.
9. Ministry of Health, Republic of Indonesia. Riset ketenagaan kesehatan nasional (National health workers survey). Jakarta; 2017.
10. Nurcahyo H, Bachtiar A. Analysis of the problems of general practitioners distribution in community health centers (Puskesmas) in Indonesia. Advances in Health Sciences Research; 2020.
11. Badan Penelitian dan Pengembangan Kesehatan. Laporan riset ketenagaan di bidang kesehatan (Risnakes) 2017: puskesmas; 2018.
12. Mulvale G, Embrett M, Razavi SD. Gearing up to improve interprofessional collaboration in primary care: a systematic review and conceptual framework. BMC Family Practice. 2016; 17 (1): 1-13.
13. Agreli HF, Peduzzi M, Bailey C. Contributions of team climate in the study of interprofessional collaboration: a conceptual analysis. Journal of Interprofessional Care. 2017; 31 (6): 679-84.
14. World Bank. Implementation completion and result report on a loan in the amount of us$ 77.82 million to the Republic of Indonesia for a health professional education quality project (HPEQ). Jakarta: Health, Nutrition and Population Global Practice Indonesia Country Management Unit East Asia and Pacific Region; 2015.
15. Ministry of Health, Republic of Indonesia. Keputusan Menteri Kesehatan Republik Indonesia nomor 484 tahun 2017 tentang besaran penghasilan penugasan khusus tenaga kesehatan dalam mendukung program nusantara sehat (MoH decree about NST wage standard). Jakarta; 2017.
16. Belaid L, Dagenais C, Moha M, Ridde V. Understanding the factors affecting the attraction and retention of health professionals in rural and remote areas: a mixed-method study in Niger. Human Resources for Health. 2017; 15 (1): 1-11.
17. Abdulraheem BI, Olapipo AR, Amodu MO. Primary health care services in Nigeria: critical issues and strategies for enhancing the use by the rural communities. Journal of Public Health and Epidemiology. 2012; 4 (1): 5-13.
18. Barrett A, Terry DR, Le Q, Hoang H. Rural community nurses: insights into health workforce and health service needs. International Journal of Health, Wellness and Society. 2015; 5 (3): 109-20.
19. Ojakaa D, Olango S, Jarvis J. 2014. Factors affecting motivation and retention of primary health care workers in three disparate regions in Kenya. Human resources for Health. 2014; 12 (1): 1-13.