CAN YOUTH DRIVE THE FULFILMENT OF SDGS IN HEALTH AND WELL-BEING BY 2030? A CASE STUDY OF PENCERAH NUSANTARA PROGRAMME

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ABSTRACT

Indonesia anticipates to experience a demographic bonus that creates favourable situations in dependency ratios until 2035. This creates an opportunity for Indonesia's commitment to attain the Sustainable Development Goals (SDGs) by 2030.
We aim to examine if youth can foster the achievement of SDGs through a nation-wide programme Pencerah Nusantara that focuses on improving maternal and child health through youth empowerment and interprofessional collaboration.

We employed a qualitative analysis of primary data from thirteen peripheral locations of Pencerah Nusantara, complemented by secondary literature and existing conceptual frameworks.
We argue that youth engaged in health issues possess strong leverage in catalysing wider local-level change for Indonesia's development. However, while the findings point us in a certain direction, the results are not yet conclusive as Pencerah Nusantara is being implemented during this paper writing. This paper is therefore considered a prospective study of how youth can drive the achievement of health-related SDGs.

Keywords: youth, interprofessional collaboration, Pencerah Nusantara

1. INTRODUCTION

The four richest men in Indonesia collectively possess $25 billions, more than the total wealth of the poorest 100 million people as the bottom 40 percent of the population (OXFAM and INFID, 2017, p.2). This staggering fact validates Indonesia's current rank as the sixth worst in inequality of wealth in the world. Empirical studies show how inequality hurts both economic and social development of any given country for it leads to a lower contribution from economic growth to poverty reduction and it deviates from fairness in terms of livelihood opportunities (UNDP, 2013, p.48-50).

The global recognition of the significance of inequality has soared over the past decade. It is reflected through Sustainable Development Goals (SDGs) that places inequality as a goal on its own among other goals with the commitment to "leaving no one behind" by 2030. Since Indonesia was heavily involved as the co-chair of the High Level Panel of eminent persons on the Post-2015 Development Agenda in the formulation of SDGs, the country's commitment to attain such goals has never been stronger.

As an entry point to combat inequality in society, UN DESA (2013, p.76) underlines the focus on social groups that are vulnerable or disadvantaged: youth; older persons; persons with disabilities; indigenous people; and migrants, because group inequalities constitute the bulk of overall inequalities within countries. In this paper, we specifically focus on youth (16-30 years old) that currently makes up to 24.53 percent of 252 millions of Indonesian population (BPS, 2014).

"Pencerah Nusantara" – closely translated to "Light to the Archipelago" – is selected as our case study because it represents a particular fit between youth and health-related SDGs. The programme aims to improve maternal and child health, as well as nutrition outcomes through interprofessional collaboration (IpC) within teams composed of youth – general practitioners (GPs), nurses, midwives, public health specialists, and health advocates – that are annually assigned to a marginalised area. With the belief that health has strong leverage in promoting wider development, each member of Pencerah

Nusantara is trained to dedicate their expertise to strengthen primary health-care centres (Puskesmas) and empower communities to catalyse local-level change.

Studies (Reeves et al., 2010; Samuelson et al., 2012; Shamian, 2014; Supper et al., 2014; WHO, 2010a) show how IpC within primary care team can be a panacea for major challenges in the distribution of health professionals, complex care problems, and integration of services. Practices of IpC have been largely documented in the UK, the USA, Canada and Australia for they have a long track record of teamwork initiatives. Meanwhile, few studies appear to show evidence of IpC in low and middle-income countries. Through this paper we intend to bridge that gap by capturing the process of IpC in Indonesia with added value reflected in the participation of youth as the actor of IpC within primary care teams.

We aim to examine if youth can foster the achievement of SDGs in Indonesia within the health and well-being sector through Pencerah Nusantara programme during the period 2012 – 2016. Hence, we attempt to answer the question: *Can youth drive the fulfilment of SDGs in health and well-being by 2030?* To answer the research question, we build on existing well-evidenced conceptual frameworks and qualitative analysis of primary and secondary data from all sixteen locations of Pencerah Nusantara. This paper is also backed up by interviews with local-level stakeholders throughout recent field visits to six sub-districts to comprehend the real-time conditions and progress of Pencerah Nusantara. We argue that youth engaged in Pencerah Nusantara has significant prospects of fostering the achievement of SDGs in health and well-being by 2030 with strong leverage in catalysing wider change at the local level within Indonesia's decentralised development. However, the findings inevitably remain inconclusive as Pencerah Nusantara is still being implemented during this paper writing.

2. RESEARCH METHODS

We undertook a qualitative analysis based on primary and secondary data from all sixteen locations of Pencerah Nusantara programme, complemented by a review of well-evidenced literature and stakeholder interviews in nine programme locations. The key methods are as follows:

a) Review of the literature on interprofessional collaboration (IpC) and youth empowerment, as well as a look at the Pencerah Nusantara programme's theory of change, on all three of which conceptual frameworks are based.
b) Review of grey literature (unpublished reports and papers) describing progress of Pencerah Nusantara from seven locations of the first cohort (2012-2015) and nine locations of the ongoing cohort (2016- 2019).
c) Assessment of Minimum Standards of Services or *Standard Pelayananan Minimum* (SPM) of Puskesmas in seven sub-districts of Pencerah Nusantara programme.
d) Interview with key local stakeholders to gain their perspectives of Pencerah Nusantara teams and programmes in their respective areas. A simple thematic analysis was then conducted to finalise the qualitative analysis of stakeholders' perspectives.

2.1 Interprofessional Collaboration (IpC)

Despite progress in maternal and child health since the inception of Millennium Development Goals (MDGs) in 1990, we are still behind the 2015 goals. The global shortage of 4.3 million health workforce has universally been acknowledged as a salient barrier to achieving health-related MDGs (WHO, 2010, p.12). For many low and middle income countries, a persistent issue lies in how to use the limited available human resources in the most effective way (Reeves et al., 2010, p.27). Policy makers are continuously looking for "innovative, system-transforming solutions that will ensure the appropriate supply, mix and distribution of the health workforce," (WHO, 2010, p.12).

One of the most promising solutions is interprofessional collaboration (IpC). Many studies, including the 2014 Lancet Midwifery series, argue that IpC is crucial to meet many challenges faced by health systems worldwide by providing quality health care with a strong, flexible and collaborative health workforce. In this paper, we particularly emphasise IpC in primary health care (PHC) setting because PHC is the central pillar in the health system (Samuelson et al., 2012, p.303) and PHC has remained the benchmark for discourse on health in most countries for it provides rational, evidence-based and anticipatory responses to health needs and social expectations (WHO, 2008). IpC in primary

care refers to "an integrative cooperation of different health professionals, blending complementary competencies and skills, making possible the best use of resources," (Supper et al., 2014, p.716). As Virani (2012, p.10) identifies several IpC models in PHC: interprofessional team model; nurse-led model; care management model; patient navigation model; and shared care model, the IpC discussed in this paper refers to the interprofessional team model and should not be confused with the other models.

We employed the WHO Framework for Action on Interprofessional Education and Collaborative Practice framework (Figure 1) to navigate our research of whether interprofessional team-based youth engaged in Pencerah Nusantara can drive the fulfilment of health-related SDGs in Indonesia. The framework presents the mechanisms for policy makers and practitioners to make IpC embedded into existing programmes or established in new programmes in their local health system, to attain optimal health-services and better health outcomes. For IpC to occur, there must be *interprofessional education* that presents opportunities for two or more health workers from different professional backgrounds to learn about, from and with each other to enable effective collaboration and improve health outcomes. *Interprofessional education* is vital to prepare health workers from different professional backgrounds to do *collaborative practice*, where they provide comprehensive services by working with patients, their families, carers and communities to deliver high quality of care (WHO, 2010, p.13).

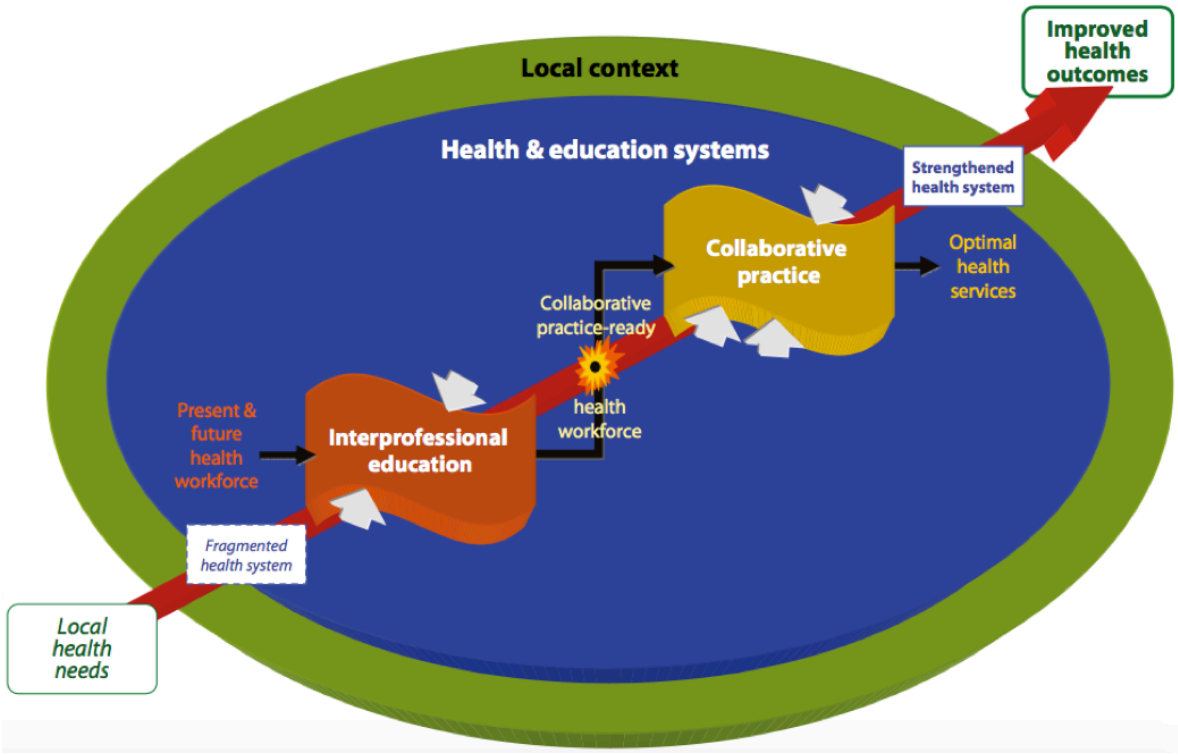


Figure 1: The WHO Framework for Action on Interprofessional Education and Collaborative Practice
Source: WHO (2010, p.18)

Having ascertained the formation of IpC, we sought to identify determinants that make IpC work. We adopted a framework developed by D'Amour et al. (2008) for it had long been evolved and tested with data from various case studies to understand IpC in a primary health-care setting since 1997 (D'Amour et al., 2005, p.123). It conceptualises four dimensions (governance, formalisation, shared goals and visions, and internalisation) and ten associated indicators in order to gauge the level of collaboration within IpC, to link it with clinical outcomes, and to orient interventions to improve IpC (D'Amour et al., 2008, p.2-13). *Governance* denotes the leadership functions that reinforces collaboration such as support and direction to professionals as they implement IpC. *Formalisation* organises business process and clarifies expectations and responsibilities to reach desired outputs. *Shared goals and vision* denotes existence of common objectives and their appropriation by the team.

Internalisation is an awareness by professionals of their interdependencies reflected in the ownership of each other's values, discipline and mutual trust. Detailed explanations for each indicator can be found in Appendix 1.

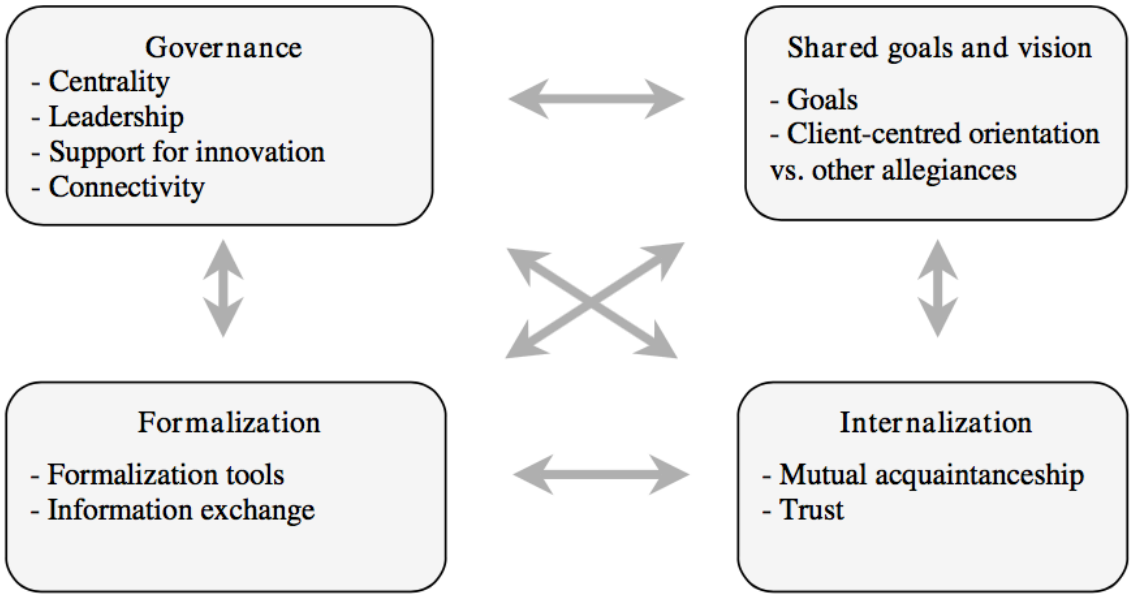


Figure 2: IpC dimensions and indicators. *Source:* D'Amour et al. (2008, p.3)

2.2 Youth Empowerment

The terms "youth" and "young people" used in this paper mean those aged 16-30 years, in alignment with the national definition of the Government of Indonesia (GoI) through the Law Number 40 Year 2009 although it differs from the UN definition of youth between 15-24.

While most approaches of the MDG era left youth out of the process, youth played a key role in shaping the 2030 Agenda for Sustainable Development. The heart of sustainable development is development that can meet the present needs without sacrificing the ability to meet the needs of the future generations. The achievement of the SDGs in 2030 will depend not only on the current policy makers and development implementers, but also on the future policy makers and those who will still be at the productive age in 2030 – who are young people today – as well. Based on the General Assembly Resolution on 25 September 2015, youth is globally recognised as "critical agents of change and will find in the new Goals a platform to channel their infinite capacities for activism into the creation of a better world," (UN, 2015, paragraph 51). It is worth exploring why young people play a critical role, particularly in relations to SDGs. Ullmann (2015) identifies five distinctive features of young people that can make their activism effective to the success of SDGs:

- *Critical thinkers*. Youths have the capacity to see what needs to be changed by identifying and challenging existing power structures and barriers to change, and exposing contradictions and biases.
- *Change-makers.* Youths have greater desire to change things and the power to act and mobilise others.
- *Innovators*. Youths bring fresh perspective and have knowledge of and insights into issues that are not accessible to adults.
- *Communicators*. Since too few people outside the international development sector are aware of the global agreement to eradicate poverty by 2030, youths can be partners in communicating the SDGs agenda to their peers and communities at the local level, and across countries and regions.
- *Leaders.* With the knowledge of their rights and leadership skills, youths can trigger change in their communities and countries through youth-led organisations and networks.

Yet, youth cannot be effective agents of their own positive development unless they have adequate support (Zeldin et al., 2009, p.16). This is why the focus on youth empowerment is a crucial constituent of positive youth development (Jennings et al., 2006, p.32).

Young people need to be empowered to enable their participation in development. Youth participation is a process where young people involved in the institutions and decisions that influence their lives, and is aligned with the view of "youth as resources" that contradicts popular image of "youth as problems" (Checkoway and Gutierrez, 2006, p.1-2). We adopted a critical social theory of youth empowerment, formulated by Jennings et al (2006), as a way to understand youth participation. They identify six key dimensions of critical youth empowerment:

1. A welcoming and safe environment;
2. Meaningful participation and engagement;
3. Equitable power-sharing between youth and adults;
4. Engagement in critical reflection on interpersonal and socio-political processes;
5. Participation in socio-political processes to affect change; and
6. Integrated individual- and community-level empowerment

Indeed, youth empowerment can enable youth participation which leads to youth engagement. Although systemic research on the potential benefits of participation on youth have been scarce, (Checkoway and Gutierrez, 2006, p.2), some studies show that youth engagement has been found to impact public policies and practices in ways that foster the quality of life for youth, their schools, and communities (Zeldin et al., 2009, p.5).

2.3 Pencerah Nusantara's Theory of Change

Since this paper particularly scrutinises a programme (Pencerah Nusantara), it is essential to understand the programme's theory of change to guide our analysis. A theory of change is an articulation of how an intervention is supposed to deliver the desired results by describing a causal chain, outside conditions and influences, and key assumptions (Gertler et al., 2010, p.22-24). Theory of change is an aspect of programme theory approaches that urge a more explicit focus on the theoretical foundations of programmes, clearer description of how programme planners view the linkages between inputs and outcomes, and how programmes are intended to work and improve performance (Vogel, 2012, p.10). Various models of theory of change are theoretical models; logic models; logical frameworks models; and results chains. In this paper, we used the logical framework as the existing theoretical underpinnings of Pencerah Nusantara programme, shown in Figure 3 below.

Figure 3 depicts a simplified logical framework of Pencerah Nusantara with key elements of input, activities, outputs, outcomes and goal. Meanwhile, outside conditions, influences and risks are not included in this paper because in this section we intend to highlight theoretical underpinning of the programme which mainly consists of causal chain and key assumptions. Further elaboration of the logical framework would be presented in the Results section.

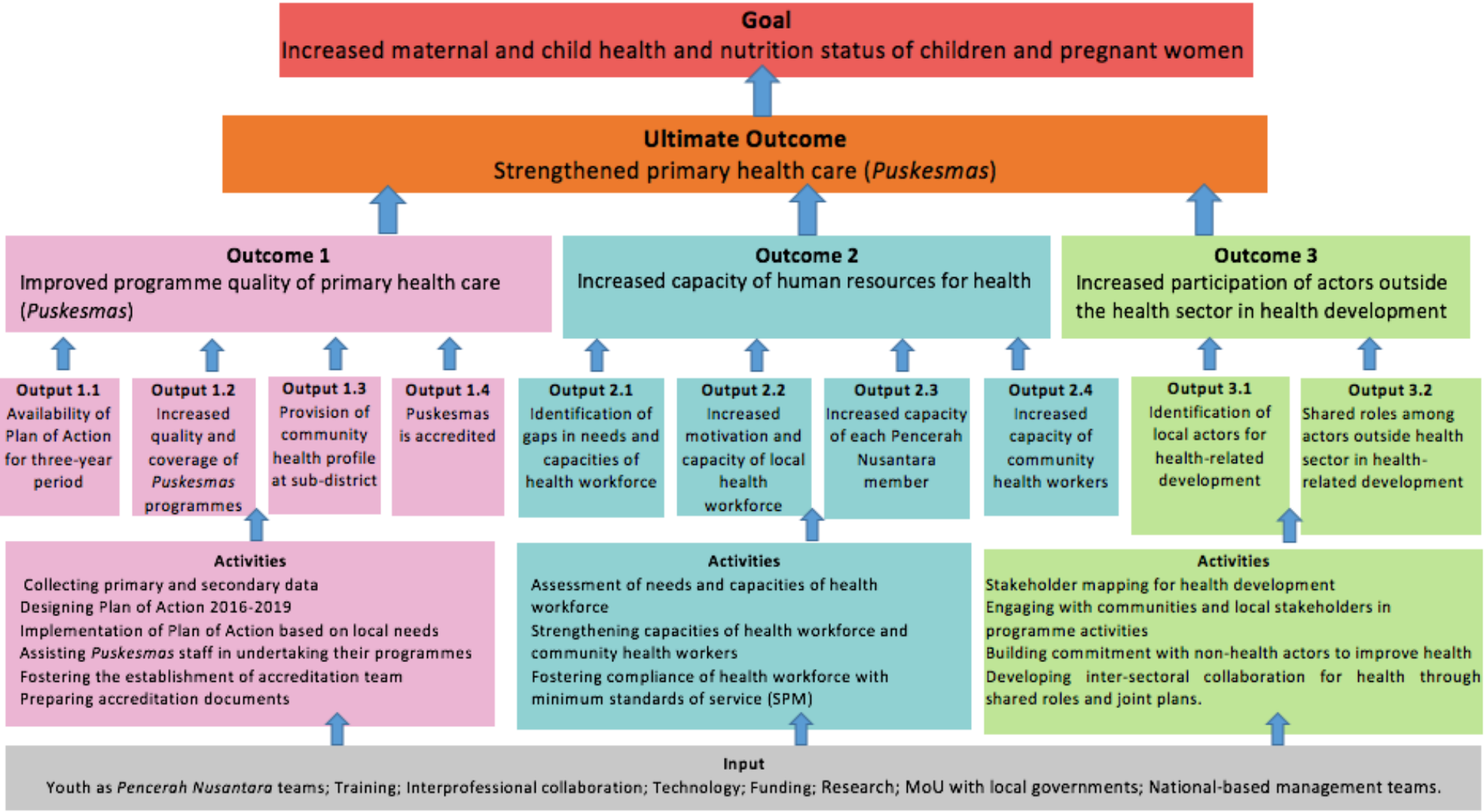


Figure 3: Logical framework of Pencerah Nusantara programme. *Source*: Authors, drawing from documents of Pencerah Nusantara programme

3. RESULTS

3.1 Pencerah Nusantara: Background and Profile

Pencerah Nusantara was initiated by the Office of the President's Special Envoy of the Republic of Indonesia on MDGs to accelerate Indonesia's achievement of the Millennium Development Goals (MDGs) by strengthening of primary health care (PHC) during 2011-2014. The programme has been implemented by the Center for Indonesia's Strategic Development Initiatives (CISDI) since 2014.

The shift from MDGs to SDGs has stressed that the latter global goals should not disregard the challenges and failings of its predecessor. With a majority of middle and low-income countries falling short to meet the health goal (goal 4,5,6), the health-related SDG includes unmet targets from the MDGs, most significantly the maternal and child health targets (target 3.1, 3.2, 3.7) (UN, 2015).

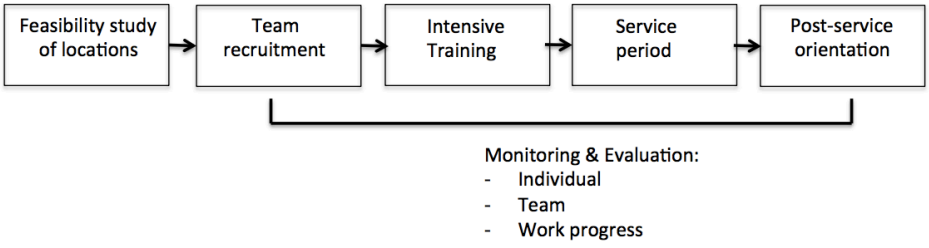
Recognising that health and social care is complex and needs multi-sectoral perspectives, Pencerah Nusantara is represented by a select group of young people, comprising of general practitioners, nurses, midwives, public health specialists, and health advocates from a spectrum of academic background. Annually they are assigned in teams to dedicate their expertise to strengthen PHC centre (Puskesmas) and the capacity of communities in designated peripheral areas in the archipelago, denoting them as the "Light to the Archipelago" – translation of Pencerah Nusantara. Within a three-year programme length, each Puskesmas receives up to three Pencerah Nusantara teams. Thus, one cohort of Pencerah Nusantara consists of three batches for a three-year intervention at a sub-district-level Puskesmas.

The second cohort of Pencerah Nusantara began as the SDGs were globally adopted in 2015. Translating the health-related SDGs into its logical framework, Pencerah Nusantara aims to improve maternal & child health and nutrition of the intervened community. As seen in Figure 3 above, there are 3 assumed prerequisites: (1) Improved quality of Puskesmas programmes (2) Increased capacity of health human resources (3) Increased participation of actors outside the health sector for health development.

To attain said prerequisites, Pencerah Nusantara aims to improve the overall management system of Puskesmas. This is done through optimising medical record system, improving the quality and quantity of Puskesmas staff through innovative and creative programmes, and organising capacity building activities for local healthcare force, among others.

Aside from improving the management system, Pencerah Nusantara also develops innovative programmes on maternal and child health and nutrition and encourages community participation at all level of the process. The programmes comprise of reproductive health education, revitalisation of Integrated Health Posts (*Posyandu),* youth community leadership programs, health advocacy efforts to local stakeholders, and sanitation and access to clean water programs. Table 1 shows how Pencerah Nusantara consists of 5 phases of implementation annually for up to three years.

Table 1: Process cycle of Pencerah Nusantara.



Feasibility study of location

There are more than 9,000 Puskesmas across the archipelago and are at the forefront of guarding the community's health, making it an indubitable potential. Pencerah Nusantara's commitment to leave no one behind in reaching out to the poorest is reflected through the selection of its location. Considering the areas that are categorised as health-problematic (*Daerah Bermasalah Kesehatan*) with low Community Health Development Index, Pencerah Nusantara teams are assigned to places

characterised by poor and vulnerable households with low level of education and challenging access to health services, based on data from the Central Bureau of Statistics (BPS).

Recruitment

Recruitment consists of several stages: resume screening; motivational essay application; panel interview; psychological assessment; and a focus group discussion. They are conducted with the support of official profession organisations, researchers, CSOs and private sector partners.

Leadership-related qualities of each team member were assessed during recruitment. It is then cultivated through the training, both through skills building, and practical application where each team member is given a chance to become leader for one week during the training. Those selected to the program are the ones that throughout the application process have shown a special ability to build relationships, gain commitment, initiate action, resilient, and demonstrate good communication skills. The applicant's state of well-being is especially observed and discerned.

Intensive Training

Prior to deployment, each Pencerah Nusantara team-member is equipped with knowledge and skills to develop team-based interprofessional collaborations and improve capacity related to health-care at Puskesmas. Each batch goes through a seven-week training on: leadership skills; team building & interpersonal skills; medical capacity; management; initiating action and community mobilisation; advocacy & stakeholder engagement.

Throughout the training process, the Pencerah Nusantara members are already grouped into teams, each with a general practitioner, nurse, midwife, and 1-2 health advocate. Each profession needs to understand the other profession better as they learn how to work at close quarters as fellow team members. Trainers are introduced from contributory disciplines, which generates inter-professional discourses that shape collaborative thinking and behaviour. Assisted by a team facilitator, they are given specific training materials to build their teamwork capability, adapt with one another's habits and attitudes, and generate good communication among one another to overall create a conducive, collaborative, working atmosphere.

Service Period

One cohort of Pencerah Nusantara consists of three batches for a three-year time intervention at Puskesmas, each batch serves for one year. For the first cohort, there were 7 teams of Pencerah Nusantara assigned in 7 rural and isolated areas in Indonesia. Attracting more than 15.000 young applicants entering its fifth year of implementation, the second cohort is ongoing with 9 Pencerah Nusantara teams in 9 areas. With different geographical challenges, both cohorts face typical obstacles regarding access to healthcare facilities, infrastructure, and health education. Table 2 maps the location (sub-district, district, and province) for each cohort. During their service period, each team is assigned a team-facilitator that monitors their team dynamics as well as personal development. By monitoring their emotional state, especially in high-stress conditions, facilitators can provide the psychological empowerment needed.

Table 2: Locations (sub-district, district, province) of Pencerah Nusantara.

Location of Cohort 1, 2012-2015	Location of Cohort 2, 2016-2019
Kelay, Berau District, East Kalimantan	East Kluet, South Aceh Regency, Aceh
Ende Island, Ende District, East Nusa Tenggara	Sungai Rotan, Muara Enim District, South Sumatara
Pakisjaya, Karawang District, West Java	Losari, Cirebon District, West Java
Lindu, Sigi District, Central Sulawesi	Kradenan, Grobogan District, Central Java
Sikakap, Mentawai District, West Sumatra	North Kahayan Hulu, Gunung Mas District, Central Kalimantan

Ogotua. Tolitoli District, Central Sulawesi	Onembute, Konawe District, Southeast Sulawesi.
Tosari, Pasuruan District, East Java	Bambalamotu, North Mamuju District, West Sulawesi.
	Poto Tano, West Sumbawa District, West Nusa Tenggara
	Seget, Sorong District, West Papua

Post-service orientation

Upon the completion of annual assignment, teams are given the space to reflect on their experiences and provide an evaluation of the program. They are also exposed to opportunities to contribute in Indonesia's development beyond their service period, and how they can still support Pencerah Nusantara's work in the future.

Monitoring & evaluation

Overarching throughout the process cycle is the monitoring & evaluation system. It is designed to ensure the relevance, impact, and effectiveness of each phase, and undertaken in several levels: individual, team, and work progress.

3.2 Changes or Impacts Attributed to Pencerah Nusantara 2012-2015

In this section, we present changes or impacts Pencerah Nusantara has contributed in 7 locations for the first cohort during 2012-2015. One of the tools we use to measure the outcomes is the Minimum Standard of Services (MSS) for Health, version 2008. MSS for Health is a benchmark of health service delivery, applied by local governments. With a decentralised health system, it is imperative to have a performance standard in delivering public health services. These minimum standards ensure the quality of basic health services; a right of every citizen is entitled to.

The MSS covers the entire compulsory components primary health care (PHC) centre or Puskesmas should have, including: Puskesmas management, health promotion activities, environmental health interventions, maternal and child health interventions, nutrition improvement efforts, infectious diseases prevention and eradication efforts, and basic medical treatment.

Pencerah Nusantara uses the MSS for Health as one of its monitoring tools, where it is scored each quarter together with the local health workers at the Puskesmas according to the MSS for Health Technical Guidance. The graphics shows each year's progress for each intervention area. After the third year of Pencerah Nusantara implementation 2012-2015, most significant changes are reflected in the MSS outcomes in improvement in health promotion activities (Table 3), nutrition improvement interventions (Table 4), basic medical treatments (Table 5), and Puskesmas management (Table 6).

Table 3: Changes in MSS outcomes for Health Promotion

Health Promotion							
	Mentawai	Karawang	Tosari	Berau	Ogotua	Lindu	Ende
Pre-Intervention	0.57	0.4	0.07	0.38	0.39	0.1	0.29
1st Year	0.807	1	0.5	0.57	0.34	0.5	0.63
2nd Year	0.807	1	0.33	0.92	0.69	0.69	0.88
3rd Year	0.92	1	0.71	1	0.92	0.73	0.96

Table 4: Changes in MSS outcomes for Nutrition Improvement Efforts

Nutrition Improvement Efforts							
	Mentawai	Karawang	Tosari	Berau	Ogotua	Lindu	Ende
Pre-Intervention	0.15	0.1	0.25	0.17	0.21	0.14	0.12
1st Year	0.27	0.47	0.36	0.42	0.35	0.23	0.14
2nd Year	0.71	0.6	0.54	0.64	0.57	0.67	0.71
3rd Year	0.75	0.61	0.71	0.75	0.5	0.64	0.86

Table 5: Changes in MSS outcomes for Basic Medical Treatments

Basic Treatment Services							
	Mentawai	Karawang	Tosari	Berau	Ogotua	Lindu	Ende
Pra-Intervention	0.21	0.34	0.5	0.1	0.35	0.12	0.22
1st Year	0.24	0.57	0.54	0.46	0.57	0.32	0.35
2nd Year	0.571	0.64	0.57	0.82	0.82	0.67	0.6
3rd Year	0.71	0.68	0.82	0.86	0.75	0.78	0.61

Table 6: Changes in MSS outcomes for Puskesmas Management

Management							
	Mentawai	Karawang	Tosari	Berau	Ogotua	Lindu	Ende
Pre-Intervention	0.35	0.32	0.5	0.34	0.2	0.13	0.14
1st Year	0.65	0.4	0.65	0.62	0.7	0.1	0.35
2nd Year	0.8	0.68	0.65	0.7	0.85	0.5	0.75
3rd Year	0.8	0.7	0.9	0.85	0.9	0.75	0.85

The changes presented in the tables above are associated with the role of youth engaged in Pencerah Nusantara as critical thinkers, change-makers, innovators, communicators, and leaders in their respective areas. Throughout all locations, the young health professionals strived to work in close partnership with the senior local Puskesmas-based health workers. This partnership generates improvement of capacity and teamwork of the local health workers, improved provision of information and public accountability, a leadership reform, and more effective flow of health services. These changes have led to strengthened health system and optimal health services, which according to the IpC concept, constitute as a condition for improved health outcomes. Further, the impacts identified in the first cohort to some extents substantiate the argument of Christens and Dolan (2011, p.543), that involving youth in community organising adds another dimension to the capability of organising initiatives to promote social change by demonstrating effective intergenerational collaborations, where in this context represented by Pencerah Nusantara youth and senior Puskesmas staff.

3.3 Changes or Impacts Attributed to Pencerah Nusantara 2016-present

Lessons drawn from the first cohort has informed the improvement of Pencerah Nusantara's overall programme management. First, each batch of Pencerah Nusantara teams in the second cohort is provided the opportunity to design a three-year intervention within the programme's logical framework, to maintain continuity of programme activities throughout three years to capture future impacts. Secondly, the collected sets of data are analysed continuously as part of reformed knowledge management system. Finally, interprofessional education and practice contents are highlighted in the training to better prepare young health professionals before their deployment.

In this section, we present changes or impacts Pencerah Nusantara has contributed in the second cohort from 2016 to present by outlining findings from our analysis of stakeholder perspectives in six out of nine locations of Pencerah Nusantara. It is derived from field visits to each location after eight months of deployment of Pencerah Nusantara. Each stakeholder, mapped in Table 7, was asked about the most significant changes before and after Pencerah Nusantara team came and lived in their

communities. Most significant changes outlined in the following paragraphs are classified based on the sector from which stakeholders represents.

Table 7: List of Stakeholders Interviewed December 2016-January 2017.

Location	Stakeholders	Sector	Quantity
South Aceh, Grobogan, West Sumbawa, Konawe, North Mamuju, Sorong.	Head of district health office	Health government at district level	6
South Aceh, Grobogan, West Sumbawa, Konawe, North Mamuju, Sorong.	Head of Puskesmas	Health government at sub-district level	6
South Aceh, North Mamuju, Sorong	Puskesmas nutrition officer		3
Grobogan, Konawe, North Mamuju, West Sumbawa	Puskesmas maternal child health officer		4
South Aceh, Grobogan, West Sumbawa, Konawe, North Mamuju, Sorong.	Head of sub-district administrators	Non-Health Regional government	6
South Aceh, Grobogan, West Sumbawa, Konawe, North Mamuju, Sorong.	Head of village administrators		9
South Aceh, Grobogan, West Sumbawa, Konawe, North Mamuju, Sorong.	Lay or community health worker	Community	12
South Aceh, Grobogan, West Sumbawa, Konawe, North Mamuju, Sorong.	Caregiver or pregnant woman		12
Total number of stakeholders			58

Health government at district level refers to District Health Office (DHO). In general, stakeholders appraise the team-based interprofessional approach that Pencerah Nusantara adopts as an innovative strategy to meet the local needs and tackle challenges at their respective areas. Although DHO believes that Pencerah Nusantara brings positive changes, such changes are not well-articulated by stakeholders as they acknowledge the fact that Pencerah Nusantara teams had only resided in each area for eight months where the first four months were focused on collecting data for surveys and writing baseline and design documents. Further, the coordination and communication process between district-level DHO and sub-district-level Puskesmas that hosts Pencerah Nusantara teams have not been well-established in most locations, making the former unable to monitor Pencerah Nusantara.

Health government at the sub-district level refers to Puskesmas as PHC centre. After eight months since Pencerah Nusantara teams were assigned, all stakeholders perceive positive changes as follows:

- Upgraded knowledge of local health workers due to transfer of knowledge that Pencerah Nusantara has shared.
- Improved scheme of reporting and documentation of patient and programme records.
- Enhanced utilisation of data as basis of programme planning, reflected in the uptake of Pencerah Nusantara-led survey results as self-assessment for Puskesmas workforce to review their programmes.
- Increased public awareness about health issues, reflected in increased community participation to health-related activities undertaken by Puskesmas.
- Improved health-care delivery at Puskesmas

In terms of motivation, discipline, and attendance of Puskesmas workforce, we find improvement in some locations triggered by the responsive and active work ethics demonstrated by Pencerah Nusantara teams. However, in some locations, level of motivation, discipline and attendance

of Puskesmas workforce is still low. Similar challenges were found to be a hindrance for the first batch of Pencerah Nusanatra teams in the first cohort 2012-2013. We argue that the process of building trust between Pencerah Nusantara teams and Puskesmas workforce had only been commenced and therefore should be nurtured in the next two years to generate improved capacity of human resources for health, as one of prerequisites in Pencerah Nusantara's theory of change (Outcome 2) to attain better health outcomes.

According to stakeholders outside the health sector, the most significant change attributed to Pencerah Nusantara is, intensified community participation to health issues, mostly reflected in the improvement of Intergated Health Post (Posyandu) activities in which community health workers and communities take part more actively. Furthermore, it is the improvement of multi-sectoral communication between Puskesmas, village administrators, sub-district administrators and DHO officials that stakeholders highlighted during the interviews. Pencerah Nusantara teams have been perceived as catalysts in reviving this inter-sectoral coordination between these actors that have long been in silo. This validates the previous discussion on the features of youth as critical thinkers and change makers for they challenge the existing narrative that health is commonly perceived as the matter of Puskesmas staff solely. As a result, there are at least five out of nine locations in which the head of village administrators have admitted to allocate Village Fund budget for health needs such as to provide incentives for Posyandu cadres and to fund regular community-based classes of pregnant women. Engagement with actors outside health sector is a vital component in the Pencerah Nusanatra's theory of change (reflected in Outcome 3) for it will ensure the sustainability of programmes to achieve improved outcomes in maternal and child health and nutrition.

At last, from the perspectives of community represented by caregivers, pregnant women and lay or community health workers, most significant changes are related to increased frequency of health-related activities such as Posyandu and mobile health treatment, upgraded health-care services at Puskesmas, and better provision of medicines at Puskesmas. Stakeholders see Pencerah Nusantara teams as friendly and reachable health personnel that serve their health needs and make them encouraged to participate in health-related activities. Better engagement with local community unequivocally reinforces collaborative practice that poses an essential component within the IpC framework. Through this collaborative practice, both young health professionals and senior Puskesmas staff can provide better services by working with communities to deliver high quality of care in order to produce better health outcomes.

4. DISCUSSION

In this segment, we discuss how Pencerah Nusantara fits to interprofessional collaboration (IpC) and youth empowerment that enables the efficacy of youth engaged in Pencerah Nusantara to foster SDGs in health and well-being.

As outlined in the WHO Framework (WHO, 2010, p.18), interprofessional education and collaborative practice are a prerequisite for IpC to take place. However, interprofessional education has not been embedded as a specific curriculum in any formal health and/or medical education in Indonesia. To date, Directorate of Higher Education, under the Ministry of National Education has been implementing Health Professional Education Quality (HPEQ) project (ILMAGI, 2014). The project strives for improvement in quality of health workforce through strengthening health education system and encouraging the development of interprofessional education to reinforce synergy among doctors, dentists, midwives, nurses, nutritionists, public health advocates and pharmacists. Based on the need that has not been met in formal education, Pencerah Nusantara programme fills this gap by investing in seven-week intensive and comprehensive training for youth of various health professional backgrounds who have passed its recruitment process. It can be argued that interprofessional education are – to some extents – accommodated in Pencerah Nusantara to prepare the youth to do collaborative practice in order to deliver high quality of care.

The series of training for Pencerah Nusantara can also be therefore considered means of youth empowerment for it prepares young health professionals to actively participate in development during their assignment. The training meets the first four out of six key elements of critical youth empowerment developed by Jennings et al (2006), as mentioned in research methods: 1) a welcoming and safe

environment; 2) meaningful participation and engagement; 3) equitable power-sharing between youth and adults; and 4) engagement in critical reflection on interpersonal and socio-political processes.

First, the training poses an environment that are safe, egalitarian, group-directed, fun, caring, and rather challenging, where all young health professionals are trained in a specific location away from their families and friends and with restricted access to mobile phones during weekdays of seven weeks to encourage focus. The positive training atmosphere enables them to learn with, from and about each other. This boosts optimism that interprofessional attitudes, values, knowledge, skill and behaviour will be more internalised and positively reinforce in the practice experience on the field.

The second element refers to opportunities provided by the training for youth to build capacities in meaningful forum with youth responsibility and decision-making. Specific training materials such as leadership, initiating action and community mobilisation provide the third element of incremental transfer of power from trainers and the training committee to youth as they gain capacity and confidence. The fourth element is reflected in daily and weekly critical reflection through varied youth-based approaches during the training.

It is worth nothing that the fifth element (youth participation in socio-political processes to affect change) and the sixth element (integrated individual-and community-level empowerment) cannot be accommodated by the training itself, but by the one-year-assignment in the deployed area. Based on the stakeholders' perspectives, we argue that young people engaged in Pencerah Nusantara have initiated programmes that emphasise societal analysis and encourage social change goals to enable their participation in making changes. They are given space and/or create one to empower community through provision of health care services, individual patient's counselling, and community-based activities, interweaving the process of individual-and community-level oriented empowerment.

Furthermore, having prepared the formation of IpC does not automatically guarantee its effectiveness. Therefore, we scrutinise the extent of IpC embedded in Pencerah Nusantara programme through the D'Amour et al. (2008) framework as shown in Figure 2 and Appendix 1.

Within the dimension of Shared Goals and Visions, consensual and comprehensive goals of Pencerah Nusantara have been ubiquitous to public as it utilises various media to promote the programme and adopts self-registered system. It attracts young applicants who share similar visions and goals reflected in their essay submissions and interview results. Further, we argue that the programme is client-centred orientation, as it emphasises the needs of community, assessed through various surveys in the first four months since Pencerah Nusantara teams are deployed, to shape and ensure that the three-year intervention design is on-target.

In terms of Internalisation dimension, with a year's period of youth sharing a living space, living among the community, and providing health care service at Puskesmas in designated areas, Pencerah Nusantara facilitates frequent opportunities for them to meet and have regular joint activities. Through the experiences, trust is undoubtedly taking shape. Many of young professionals admit that although it was uneasy to be open to other members in their respective team at the first two weeks of training, they find their team members to be more trustworthy after the seven-week training finished. Yet, they perceive trust-building is a continuous process that evolves during their assignment in designated areas.

With respect to Governance dimension, shared and consensual leadership is employed by Pencerah Nusantara teams as they self-select their leaders in respective team at the last week of training before their deployment. Each team leader is invited to share their mid-year progress with the national-based management teams which act the central body that fosters both consensus and introduction of collaboration and innovation. Spaces for discussion and participation are created within members of Pencerah Nusantara team in an area, among Pencerah Nusantara teams across areas, and between Pencerah Nusantara members and management teams, reinforcing connectivity and information exchange.

Finally, in the Formalisation dimension, formalised tools such as standards of operation procedures and information systems are in place to help clarify each member's responsibilities although they do not explicitly define how responsibilities are shared between members of each Pencerah Nusantara. Using the D'Amour et al. (2008) framework as an aid to determine the level of collaboration, we argue that IpC embedded in Pencerah Nusantara meets the criteria for active collaboration although trust, as one of the ten indicators, is still taking shape.

Furthermore, our findings in the first and second cohorts of Pencerah Nusantara show correlation between programme activities and organisation of Pencerah Nusantara and better health outcomes. Through the programme's theory of change, youth aspires to improve the quality of Puskesmas as PHC centre, increase capacity of health workforce both Puskesmas staff and community health workers, increase participation of actors outside the health sector in health development. These three conditions have posed as facilitators to strengthen the overall Puskesmas for the improvement of maternal and child health and nutrition outcomes, as part of the whole improved health outcomes within the WHO IpC framework.

Drawing from the lessons of the MDGs, strengthening of health service delivery is critical to all health-related SDGs, including interventions to reduce maternal and child mortality. Service delivery is an immediate output of inputs that feeds into the health system, such as an empowered health workforce, supplies, and financing (WHO, 2010b, p.2). Using the MSS as a monitoring tool, Pencerah Nusantara teams aim to ensure availability of health services that meets the minimum quality standard as a key function of a health system. The MSS indicators were also chosen with the consideration of their alignment to the MDGs and the current SDGs, especially on maternal and child health related indicators. The MSS measures health promotion, maternal and child interventions, and nutrition improvement efforts that directly correlates with the health-related SDGs, specifically following targets:

- Target 3.1: *By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births*.
- Target 3.2: *By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-five mortality to at least as low as 25 per 1,000 live births.*
- Target 3.7: *By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.*

Governments that acknowledge the value of collaborating with youths as partners and create clear pathways for their meaningful participation will be much better to achieve the 17 SDGs and related target (Ullmann (2015). Indeed, UNDP (2016) affirms that there are 20-youth specific targets over the six key SDGs: Goal 2 (hunger), Goal 4 (education), Goal 5 (gender equality), Goal 8 (decent work), Goal 10 (inequality) and Goal 13 (climate change) and there are 65 out of 169 SDG targets reference youth with a focus on empowerment, participation and/or well-being. To this extent, we argue that young health professionals engaged in Pencerah Nusantara contribute to Goal 3 (health) and are thus considered an added value to the significant role of youth in achieving the SDGs.

At last, we recognised research limitations in this paper. First, the first batch of Pencerah Nusantara teams in the second cohort has been being deployed in nine areas since May 2016 and would be completing their assignment in May 2017. As such, quantitative comparison in health outcome indicators for the second cohort was not feasible to be captured in a year's time. Secondly, direct linkages between the intervention of Pencerah Nusantara and the health outcomes may not be well explicit in this paper due to the various local contexts of each location and the absence of control areas. However, our analysis shows first signs of the intervention working well to improve health outcomes and adds relevant value to the literature of IpC that involves youth as the main actor, therefore it can be an evidence-based foundation for future analysis in this field, particularly in low and middle-income countries.

5. CONCLUSIONS

Pencerah Nusantara programme regards young health professionals as a development resource, not as an object, for they constitute the core component of input for the programme's success. Through investment in building interprofessional collaboration (IpC) among young health professionals that presents the space for youth empowerment, we find that young people possess the ability to be drivers of development efforts and to realise the advantage of demographic dividend when they are empowered

and given the opportunity to be actively involved in the efforts to achieve better health outcomes as part of wider SDGs.

As Indonesia adopts decentralisation, the core of development lies at the local level. Our results show that Pencerah Nusantara in the first cohort 2012-2015 was proven to achieve improvements of health outcomes at the local level in relation to MDGs. With resources per area remain similar and the activities are being carried out with similar fashion, coupled with improvement in programme management due to lessons drawn from the first cohort, it is reasonable to think that the intervention of Pencerah Nusantara programme will be most likely successful in the second cohort in relation to the SDGs. Thus, youth engaged in Pencerah Nusantara has significant prospects of driving the fulfilment of SDGs in health and well-being by 2030 with strong leverage in catalysing wider change at the local level within Indonesia's decentralised development.

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APPENDICES

Appendix 1

Indicators of interprofessional collaboration according to the typology of collaboration in health-care organisations

Indicators	Active Collaboration LEVEL 3	Developing Collaboration LEVEL 2	Potential or Latent Collaboration LEVEL 1
Goals	Consensual, comprehensive goals	Some shared ad hoc goals	Conflicting goals or absence of shared goals
Client-centred orientation vs. other allegiances	Client-centred orientation	Professional or organizational interests drive orientations	Tendency to let private interests drive orientations
Mutual acquaintanceship	Frequent opportunities to meet, regular joint activities	Few opportunities to meet, few joint activities	No opportunities to meet, no joint activities
Trust	Grounded trust	Trust is conditional, is taking shape.	Lack of trust
Centrality	Strong and active central body that fosters consensus	Central body with an ill-defined role, ambiguous political and strategic role.	Absence of a central body, quasi-absence of a political role.
Leadership	Shared, consensual leadership	Unfocused, fragmented leadership that has little impact	Non-consensual, monopolistic leadership
Support for innovation	Expertise that fosters introduction of collaboration and innovation	Sporadic, fragmented expertise	Little or no expertise available to support collaboration and innovation
Connectivity	Many venues for discussion and participation	Ad hoc discussion venues related to specific issues	Quasi-absence of discussion venues
Formalization tools	Consensual agreements, jointly defined rules	Non-consensual agreements, do not reflect practices or are in the process of being negotiated or constructed	No agreement or agreement not respected, a source of conflict
Information exchange	Common infrastructure for collecting and exchanging information	Incomplete information-exchange infrastructure, does not meet needs or is used inappropriately	Relative absence of any common infrastructure or mechanism for collecting or exchanging information

Source: (D'Amour et al., 2008, p.6)

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