5th International Conference on International Relations and Development (ICIRD 2017)

(23-24 June)

Thammasat Univeristy

ONLINE PROCEEDINGS

Paper submission for ICIRD 2017 by Leonardo Alfonsius Paulus Lalenoh, Christian Apolinaris Lombogia

Institutional affiliation: Universitas Gadjah Mada, Sekolah Tinggi Ilmu Kesehatan Halmahera Indonesia

E-mail address: leonardo.a.p@mail.ugm.ac.id

Session Presented in: Student Panel II (Development)

EQUALITY OF HEALTH CARE PROVISION ACROSS PROVINCES IN INDONESIA

Abstract

In achieving the universal health coverage, the government of Indonesia has established the national health insurance platform in early 2014. Despite of the controversies from the health professionals, it was a one step forward action for national health financing system strengthening. To support the system, it is mandatory to have holistic health system with adequate access to the whole health care services. Geographical condition is another challenge for health care service logistics in Indonesia. With more than 17,000 islands across nation, distribution of health facilities and health workers is still a major homework for the government. The objective of this study is to describe the challenges in terms of achieving qualified health needs to the entire population in Indonesia. This is a comparative study to describe the gap of health access for the residents in the rural and urban areas. As the enormous difference for health service could raise social problems within the community, it is essential to focus on the solutions of how to distribute equally the health facilities for all human being regardless of the social and cultural background; and foremost the landscape obstacles. Moreover, the private practitioner and public funded health facilities could play critical role in implementing the governmental programs for health notably on vaccination,

communicable and non-communicable diseases due to the inadequate health surveillance system in the remote area. In accordance with the national constitution as well as the human rights consensus, everybody has to be treated equally and ought to have the same and reachable access for saving their life and elevating the quality of life. It is therefore obligatory to exercise a whole revolution for the facilities and technical support for health care in Indonesia.

Key words health, care, Indonesia

- **Universal Health Coverage**

In the era of sustainable health care, it is mandatory to have a specific financial supporting scheme to ensure the continuity of health service within the country. Universal health coverage (UHC) is the concept to which address this issue. UHC is the process of facilitation all people to have the same and reachable access for promotive, preventive, curative, rehabilitative and palliative health care in accordance with their health condition (WHO, 2016). The UHC also is another strategy to minimize the risk of financial hardship in using the health services. However, in some countries the health services is still limited to certain area particularly in big city, ignoring the people residing in the rural area.

In general, the implementation of UHC will obtain three general objectives i.e.: equity in access to health services; good quality of health services; and protection against financial risk and financial harm in terms of accessing the health facilities (WHO, 2017). Historically, the UHC was constituted in Alma Ata Declaration in 1948 declaring health as a fundamental human right for everybody (WHO, 2015). Corresponding to the constitution of UHC, this conception should therefore be an ideal scheme to be implemented for health payment.

- **Universal Health Coverage in Indonesia**

As we have boldly understood the importance and emerging need for financial scheme for health services through UHC, some countries have been adapted the system for the national health service, including Indonesia. In Indonesia, the concept promoted as JKN

"*Jaminan Kesehatan Nasional*" supported by the government through ministry of health. JKN was launched on January 2014 in design to cover all population for health services by 2019, including those who are already engaged in various health insurances (WHO, 2014).

As supported by the national law and regulation, JKN has a promising future to develop. In addition, the system is supported with a special agency called BPJS (*Badan Penyelenggara Jaminan Sosial*) spreading across the country. The purpose of this system is to increase the quality of health services by promoting established standardized health care. However, the inadequate investment in social health security could in turn exacerbate the high burden of healthcare and incremental costs on health services.

- **Challenges in Universal Health Coverage**

1) Communicable and Non-Communicable Disease Communicable Disease

As it lies under the eclipse solar line, Southeast-Asia region is quite closed to the communicable (infectious) disease prevalence that will spread from one person to another rapidly. Indonesia in particular is struggling for several highly infectious diseases namely tuberculosis, malaria, HIV/AIDS and elephantiasis (filariasis). In addition the emerging and re-emerging infectious diseases (Ebola, Zika, MERS), Indonesia has double its homework to fight the communicable disease. Highly contagious and rapidly to spread are just some reasons to describe the danger of these diseases. Beside the high expense for medical treatment and examination, these diseases raise social and community stigma to the patient and care provider resulting in secondary mental problems. Up to now, robust community supports are always promoted to engage societal support and participation in infectious disease elimination. Good policy and advocacy for health are important as the part of the local government action and commitment to elevate the health status of the population. Another issue is most of the patients live in rural or slum area with inadequate health facility and support. Many patients are late to diagnosed and referred to hospital responsible for high morbidity and mortality of the disease. Health expense and additional cost are also rising given to the complicated conditions of patients and unexpected emergency situation. Law enforcement is required to ensure equal distribution of health facilities and professionals to every corner of the nation according to their level of

competencies. The AEC open the opportunity for the transmission of the disease rightly start the travel until the arrival to the destination. Through surveillance health system has to be put in priority for emergency preparedness in emergency situation.

2) Non-Communicable Disease

Indonesia is struggling for double burden diseases: the communicable and non-communicable diseases. As the communicable diseases are raising along with the high human transfer, the metabolic diseases such hypertension, dyslipidemia and diabetes mellitus are rising. Mental health problems are also rising in response to high level quotidian stress and pressure. Unbalance and unhealthy lifestyle and diet have taken important role in contributing for the communicable diseases burden. Many of the diseases should undergone for long-life therapy. Non-communicable diseases are mostly chronic disease with a long impact the quality of life of the patients and care provider. Unlike the western countries, in some developing countries the non-communicable diseases occurred in the low-income society and in rural area as well. The burden of the country will be doubled as the same patient suffering from non-communicable disease could potentially at the same time infected by another communicable disease. Clinical study had showed significant co-relation between communicable and non-communicable disease, e.g. Diabetes Mellitus and Tuberculosis. As the result of high glucose level in the blood, someone could infected by tuberculosis; and the diabetes mellitus will be comorbid factor for tuberculosis patients. In the AEC, non-communicable disease should be considered by the policy-maker in terms of build-up the health system and services through the clinics and hospital. Again, arranging this policy in the umbrella of AEC will be linked to the diverse health professional's qualifications and health insurance system for payment within countries in Southeast-Asia.

3) Health Worker Qualification

As the medical education curricula is differ from one country to another, it is therefore important for Indonesian medical school to apply high standard and qualifications for its students. In the AEC, medical professionals and health worker will be able to work to and fro another countries within Southeast-Asian. There will be a strict competition within

health care provider from one country to another. Everybody has to be able to compete based on their competency, skills and standard qualification. This also will imply to the health care quality as it reflects the medical professionals working in. It is therefore important for the developing countries to get prepared a World Health Organization (WHO) standardized for medical equipment and setting that apply internationally. Well standardized and accredited medical education system will help the health worker to work freely within the Southeast-Asia region.

4) Quality of Health Care

Supporting the health care service in the trans-cultural setting, we have identified seven most important pillars that will help the health care provider to provide excellent and universal health services. These are based on our experience in health services and reflecting on what are still missing from the current health service platforms in Indonesia. We identified the pillars corresponds to the four basics of bio-ethical principles.

Important Pillars for Better Health Care in AEC
Good Interpersonal Relation
Communication Skills
Understanding Culture, Beliefs & Preferences
Health-Seeking Behavior
Health Insurance System
Health Risk Management
Personalized Medicine

Table 1. Important pillars for health care

These seven pillars are the suggested points particularly for the related stakeholders to apply appropriate policy making. The ASEAN Economic Community has many promising values in the future. It could rise the sector of health services as well as health tourism in

Indonesia. But, without adequate surveillance and monitoring system, the ASEAN Economic Community is very potential in spreading the pandemic infectious disease in Indonesia. All we need to do is to be prepared and establish strategic mapping for Indonesian health service platform in the globalization era.

5) Travel Health

Everybody now can travel to almost all the part of the world, including the society within Southeast-Asia region. However, the world is nowadays struggling to combat the infectious disease transmission, which include the emerging and re-emerging infectious diseases. Since the early 1990a, several tuberculosis transmission cases had been reported through air travel. Data had described strong evidence of the pattern of air circulation in the cabin during the flight, as well as the ventilation system. This is a single evidence of one disease transmission that represents the enormous health threat from travel activities. Avian influenza, MERS, Zika, swine flu and Ebola are just some diseases that have been reported transmitted from the passengers travel from endemic areas. In 1-2 hours flight, someone could travel within countries in Southeast-Asia region that could at the same time transmitted the infectious disease to the other passengers onboard and transit time in the airport. In the AEC, double-triple folds human could transfer from one country to another within a day. It is a new global health threat to the society.

6) Health Security (Bioterrorism)

In relation to the increase of human transfer and migration, health security is also another prominent issues in accordance with the travel health alert. Even up to now there is still no adequate evidence of bioterrorism through the flight, everything has to be anticipated in advance. The raising political issues in the world could potentially impact the health security. Dangerous bacteria, virus and microbes could potentially spread in a moment. Despite of its direct or indirect impact, bioterrorism could harm not only one specific country but a whole region or territory as the proximity and aerial factors as well as the high human transfer. Mobile and internet reporting system could be an alternate to promote early warning system for public health workers and stake-holder.

- **Distribution of Health Services in Indonesia**

With more than 200 million population, Indonesia is nominated as one of the most populous country in the world. West Java, is one of the most populous province in Indonesia followed by East Java and Central Java (Picture 1). The density of population in Indonesia is another problem for health distribution equity in Indonesia. There is a high population density in Java Island, while the other provinces from different islands remain low.

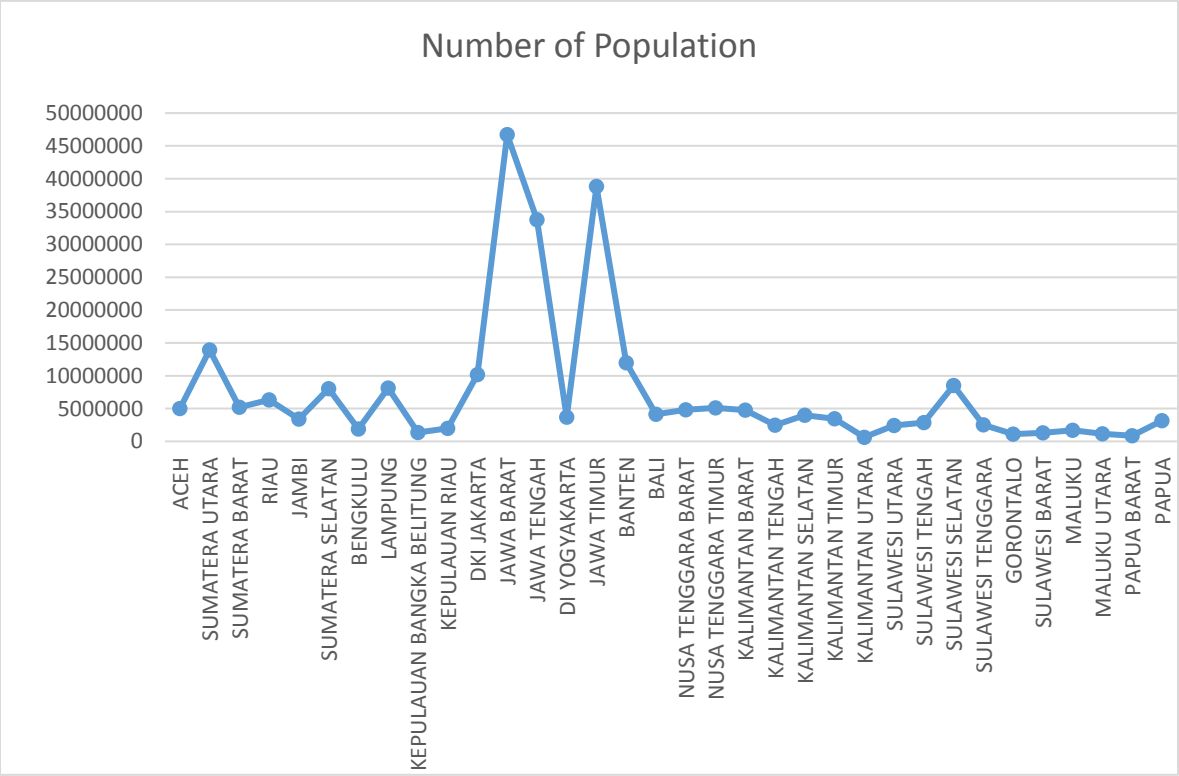

Figure 1. Number of population distribution by province[31]

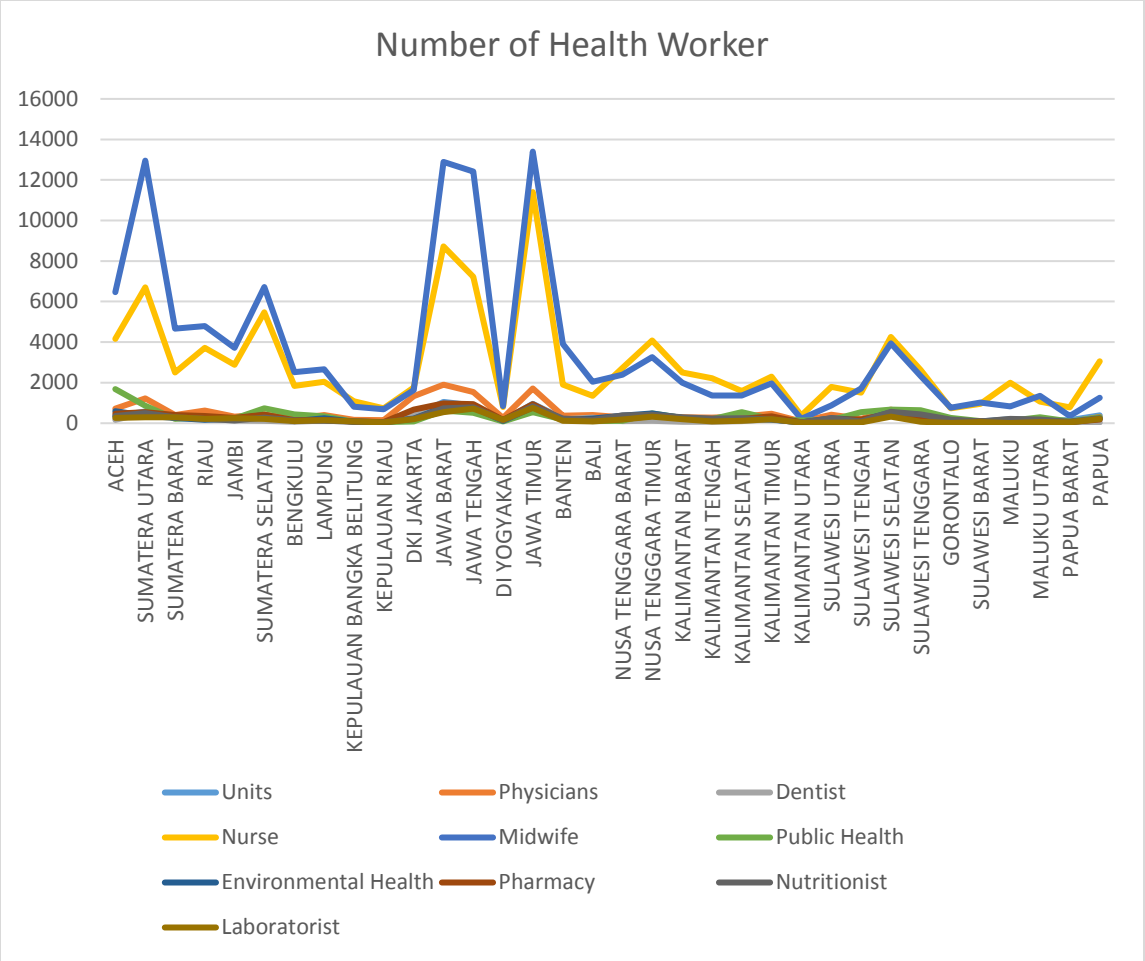

Figure 2. Number of health worker distribution in Indonesia[31]

From picture 2, we can see that midwife is the highest number across Indonesia among other health workers. It is then followed by the nurse and physician. In accordance with the number of population, the highest number of health workers are in East Java followed by West Java and Central Java. However, there is a phenomenon where the number of midwifes in North Sumatra is slightly higher than Central Java, considering the number of population.

This picture also describes that there is still a big gap between the numbers of physician, nurse and midwifes. There are several factors regarding this issues which will require another study for further assessment. However, from this picture we can see that the other health workers are still lacking, particularly for public health sector. The public health workers are very essential for surveillance and support the national health system, particularly on combatting the infectious diseases.

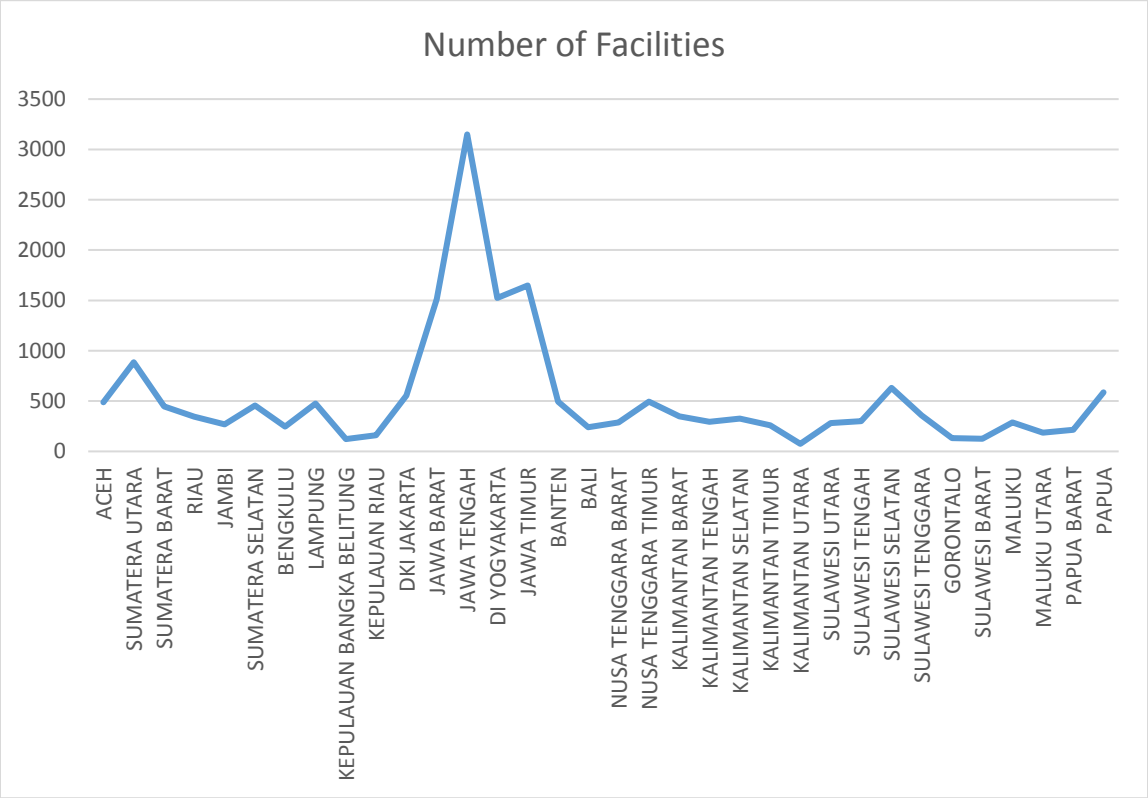

Figure 3. Number of health facilities across Indonesia[31]

From picture 3 & 4 we can see the fluctuation of number of health facilities and physician per province in Indonesia. The number of health facilities is in accordance by the number of population. This is regulated and supported by the ministry of health of Indonesia to ensure the equal distribution in health services across the region. Therefore, on the graph the largest number of health facilities is on Central Java followed by East and West Java.

On the contrary, from picture 4 we can see a different phenomenon. The highest ratio of physician per population is in Jakarta Special Region followed by North Sulawesi and Yogyakarta. It is very unique, considering the number of population in each districts. Jakarta, the capital city of Indonesia in some extent is considered as a city with high density in Indonesia. Jakarta is very modern and well facilitated comparing to another cities in Indonesia. It welcomes almost everyone to work and live in Jakarta. Hospitals and clinics are spread widely in Jakarta, requiring high number of physician to work.

In picture 4 we can see a disparity in ratio of physician in another provinces such as Lampung and West Java. This is phenomena describes a contrast health equivalent comparing the number of population. As one of the province with high density, West Java has the lowest ratio of physician across the country. This particular issue invite us to a big question on the contributing factors. West Java and Jakarta are not so far by distance. Still, there are some disparities on the number of health workers, particularly in the rural areas.

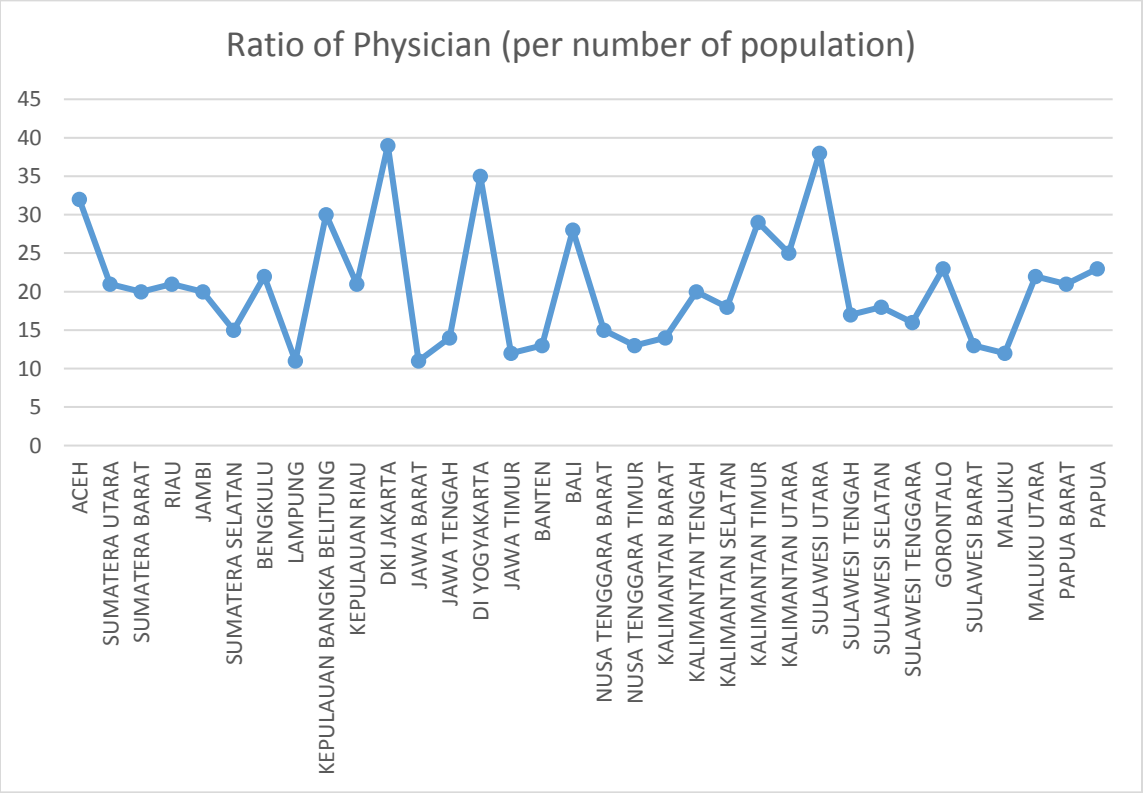

Figure 4. Ratio of physician (1 per number of population) [31]

- **Challenges in ASEAN Economic Community**

In welcoming the ASEAN Economic Community (AEC) meaning that we also welcome foreigners to come to Indonesia. AEC creates an atmosphere where people can meet together at the same time in the same place. At the same time, the world is struggling to combat the emerging infectious disease transmission across nations. Therefore, there will be a high risk of infectious

disease transmission as the result of frequent human interaction. The objective of this paper is to describe the actions of stakeholders and ministers in South-east Asia region to control the transmission of the infectious diseases.

Some of the key achievements of AEC 2015 including *more liberalized market,* which will eliminate the restrictions in services sector and provide the people with greater opportunities in trading and doing business within the region. Another key element is *enhanced mobility of skilled people*, a movement of people and professionals across nations. These key elements are the reflection of the impressive human transfer within the south-east Asia region. However, the risk of infectious disease transmission is also increasing along with the human movement.

The world is nowadays struggling to combat the infectious disease transmission, which include the emerging and re-emerging infectious diseases. Since the early 1990, several tuberculosis transmission cases had been reported through air travel (Moore, 1999). The surveillance was performed by contact tracing and aircraft investigation (Kenyon, 1996). It is been proved that a horizontal linear pattern of air circulation in the cabin played a significant role in the disease transmission.

- **Private Practitioner & Community Engagement**

Another essential element in supporting a sustainable health system is engagement and partnership with other elements. In the case of Indonesia, the possible elements to engage are the private practitioner and the community. Several study has described the effectiveness to engage private practitioner and community for health services.

In terms of ASEAN economic community, a liberalized market will open a broader opportunity in services sector, including the health services. The transfer of goods and people is another important factor to entertain the importance of partnership and engagement. Private practitioners have their own platform which is not in-line with the governmental program for health. In fact, most of the patients particularly in urban areas would prefer to have medical check-up in private health services. In regarding this condition, it is a promising strategy for the related health stakeholder to working together with the private health services in health surveillance.

A study conducted on tuberculosis has described the importance of engaging with pharmaceutical association to support the surveillance on tuberculosis (Konduri *et al.*, 2017). In this study, the engagement and collaboration with the pharmacy association could facilitate the monitoring and evaluation for drug distribution (Konduri *et al.*, 2017). Another study also described the engagement the physician and the contributing factor, i.e. financial issues (Johannessen *et al*., 2014). The result of these studies suggest the importance of further support from the government to ensure the quality of health services.

As mentioned before, the community engagement plays essential roles in ensuring the equality of health care services, particularly in Indonesia. As a country with a strong cultural bond, community is a substantial actor in decision making and constructing the social life. The community should be considered as an integrated part that could support the health system in Indonesia. Early case detection, case finding and referral system could be integrated with the established community services within the society. Furthermore, a collaboration with the community could build a mutual understanding on the emerging of health problems to the society. Engagement and collaboration should therefore be considered as alternative strategies to solve the problem of health equity services in Indonesia.

- **Conclusion**

Health service is very essential in supporting the human development. The number of population and density are some corresponding factors that responsible for the equity of health distribution. In Indonesia, there is still a disparity on the ratio of physician per population. Further study therefore is compulsory to assess the contributing factor, in support for the succession the ASEAN economic community in Indonesia.

References

1. Kittrakulrat, Jathurong et al. The ASEAN economic community and medical qualification. Global Health Action, [S.l.], v. 7, sep. 2014. ISSN 1654-9880. Available at: (http://www.globalhealthaction.net/index.php/gha/article/view/24535). doi:http://dx.doi.org/10.3402/gha.v7.24535.
2. Guadamuz TE, Cheung DH, Wei C et al. Young, online and in the dark: Scaling Up HIV Testing Among MSM in ASEAN. PLOS One. 2015, 10(5):1-12. doi: 10.1371/journal.pone.0126658.
3. World Health Organization (WHO). Infection prevention and control of epidemic- and pandemic-prone acute respiratory infections in health care. Geneva, WHO, 2014. (http://www.who.int/csr/bioriskreduction/infection_control/publication/en)
4. World Health Organization (WHO). WHO Guidelines on Hand Hygiene in Health Care: First Global Patient Safety Challenge Clean Care is Safer Care. Geneva, WHO, 2009. (http://www.who.int/gpsc/5may/tools/9789241597906/en)
5. World Health Organization (WHO). Infection prevention and control during health care for confirmed, probable, or suspected cases of pandemic (H1N1) 2009 virus infection and influenza-like illnesses. Genera, WHO, 2009. (http://www.who.int/influenza/patient_care/clinical/en)
6. Peltzer, Karl et al. Universal health coverage in emerging economies: findings on health care utilization by older adults in China, Ghana, India, Mexico, the Russian Federation, and South Africa. Global Health Action, [S.l.], v. 7, oct. 2014. ISSN 1654-9880. Available at: (http://www.globalhealthaction.net/index.php/gha/article/view/25314). doi:http://dx.doi.org/10.3402/gha.v7.25314.
7. Cobelens, Frank GJ et al. Association of Tuberculin Sensitivity in Dutch Adults with History of Travel to Areas of with a High Incidence of Tuberculosis. Clin Infect Dis. (2001) 33 (3): 300-304 doi:10.1086/321882.
8. Marisa Moore, Sarah E. Valway, Walter Ihle, and Ida M. Onorato. A Train Passenger with Pulmonary Tuberculosis: Evidence of Limited Transmission During Travel. Clin Infect Dis. (1999) 28 (1): 52-56 doi:10.1086/515089.
9. Jutamas Arunanondchai and Carsten Fink Trade in health services in the ASEAN region. Health Promot. Int. (2006) 21 (suppl 1): 59-66 doi:10.1093/heapro/dal052.

10. Lim J, Chan MMH, Alsagoff FZ, Ha D. Innovations in non-communicable diseases management in ASEAN: a case series. Global Health Action. 2014;7:10.3402/gha.v7.25110. doi:10.3402/gha.v7.25110.
11. Van Minh H, Pocock NS, Chaiyakunapruk N, et al. Progress toward universal health coverage in ASEAN. Global Health Action. 2014;7:10.3402/gha.v7.25856. doi:10.3402/gha.v7.25856.
12. Guinto RLLR, Curran UZ, Suphanchaimat R, Pocock NS. Universal health coverage in "One ASEAN": are migrants included? Global Health Action. 2015;8:10.3402/gha.v8.25749. doi:10.3402/gha.v8.25749.
13. Hotez PJ, Bottazzi ME, Strych U, et al. Neglected Tropical Diseases among the Association of Southeast Asian Nations (ASEAN): Overview and Update. Gray DJ, ed. PLoS Neglected Tropical Diseases. 2015;9(4):e0003575. doi:10.1371/journal.pntd.0003575.
14. Amaya AB, Rollet V, Kingah S. What's in a word? The framing of health at the regional level: ASEAN, EU, SADC and UNASUR. Global Social Policy. 2015;15(3):229-260. doi:10.1177/1468018115599816.
15. Amin, Z., Hoon Eng, K., Gwee, M., Dow Rhoon, K. and Chay Hoon, T. (2005), Medical education in Southeast Asia: emerging issues, challenges and opportunities. Medical Education, 39: 829–832. doi:10.1111/j.1365-2929.2005.02229.x.
16. Ishikawa N, Ishigaki K, Ghidinelli MN et al. Paediatric HIV and elimination of mother-to-child transmission of HIV In the ASEAN region: a call to action. AIDS Care. 2011;23(4):413-416. doi: 10.1080/09540121.2010.516338.
17. Rajiah K, San KP, Jiun TW et al. Prevalence and Current Approaches of Ebola Virus Disease in ASEAN Countries. Journal of Clinical and Diagnostic Research. 2015;9(9):1-6. doi: 10.7860/JCDR/2015/13364.6429.
18. Minh HV, Pocock NS, Chaiyakunapruk N et al. Progress toward universal health coverage in ASEAN. Global Health Action. 2014;7:1-12. doi: dx.doi.org/10.3402/gha.v7.25856.
19. Kittrakulrat J, Jongjatuporn W, Jurjai R et al. The ASEAN Economic Community and Medical Qualification. Global Health Action. 2014;7:24535. doi: dx.doi.org/10.3402/gha.v7.24535.

20. Dom NC, Ahmad AH, Latif ZA et al. Coupling of remote sensing data and environmental-related parameters for dengue transmission risk assessment in Subang Jaya, Malaysia. Geocarto International. 2014, 7(23):258-272. doi:10.1080/10106049.2012.696726.
21. Suwancharoen D, Chaisakdanugull Y, Thanapongtharm W et al. Serological survey of leptospirosis in livestock in Thailand. Epidemiol. Infect. 2013, 141:2269–2277. doi:10.1017/S0950268812002981.
22. De Man H, Bouwknegt M, van Heijnsbergen et al. Health risk assessment for splash parks that use rainwater as source water. Water Research. 2014, 54:254-261. doi: dx.doi.org/10.1016/j.watres.2014.02.010.
23. Lau CL, Clements ACA, Skelly C et al. Leptospirosis in American Samoa – Estimating and Mapping Risk Using Environmental Data. PLOS Neglected Tropical Disease. 2012, 6(5):1-11. doi: 10.1371/journal.pntd.0001669.
24. Barrett MA, Osofsky SA. One Health: Interdependence of People, Other Species and the Planet. In Katz LD, Elmore JG, Wild D, editors: *Jekel's Epidemiology, Biostatistics, Preventive Medicine and Public Health.* United States, 2013, Elsevier Health Sciences.
25. Khuntirat BP, Yoon IK, Blair PJ et al. Evidence for Subclinical Avian Influenza Virus Infections Among Rural Thai Villagers. Clinical Infectious Disease. 2011, 53(8):107-116. doi: 10.1093/cid/cir525.
26. Chaturongkasumrit Y, Techaruvichit P, Takahashi H et al. Microbiological evaluation of water during the 2011 flood crisis in Thailand. Science of the Total Environment. 2013, 463(464):959-967. doi: dx.doi.org/10.1016/j.scitotenv.2013.06.071.
27. Daszak P, Zambrana-Torrelio C, Bogich TL et al. Interdisciplinary approaches to understanding disease emergence: The past, present, and future drivers of Nipah virus emergence. PNAS. 2011, Early Edition:1-8. doi: 10.1073/pnas.1201243109.
28. Murray KA, Daszak P. Human ecology in pathogenic landscapes: two hypotheses on how land use change drives viral emergence. Environmental Virology. 2013, 3:79-83. doi: 10.1016/j.coviro.2013.01.006.
29. Eddy C, Stull PA, Balster E. Environmental Health—Champions of One Health. Journal of Environmental Health. 2013, 76(1):46-48.

30. Morens DM, Fauci AS. Emerging Infectious Diseases: Threats to Human Health and Global Stability. PLOS Pathogens. 2013, 9(7):1-3. doi: 10.1371/journal.ppat.1003467.t001.
31. Kementerian Kesehatan Republik Indonesia. Badan Pengembangan dan Pemberdayaan SDM Kesehatan. Jakarta, Kemenkes, 2014. (http://bppsdmk.kemkes.go.id/web)
32. World Health Organization. What is Universal Coverage. Geneva, WHO, 2016. (http://www.who.int/health_financing/universal_coverage_definition/en/)
33. World Health Orginzation Country Office for Indonesia. Universal Health Coverage and Health Care Financing in Indonesia. Jakarta, SEARO, 2017. (http://www.searo.who.int/indonesia/topics/hs-uhc/en)
34. World Health Orginzation Country Office for Indonesia. Universal Health Coverage and Health Care Financing in Indonesia. Jakarta, SEARO, 2014. (http://www.searo.who.int/indonesia/topics/hs-uhc-hcf/en)
35. Konduri N, Delmotte E, Rutta E.Engagement of the private pharmaceutical sector for TB control: rhetoric or reality? Journal of Pharmaceutical Policy and Practice. 2016, 10(6). doi: 10.1186/s40545-016-0093-3
36. Johannessen K, Hagen TP. Physician's engagement in dual practices and the effects on labor supply in public hospitals: results from a register based-study. BMC Health Services Research. 2014, 14(299). doi: 10.1186/1472-6963-14-299