1. Introduction

The Human Immunodeficiency Virus (HIV) epidemic is a serious social problem and public health challenge in the world. The continued increase of HIV cases means the achievement of the sixth Millennium Development Goals (MDGs) is not optimal to reduce the number of new patients with HIV/AIDS and to realize access to AIDS treatment. Accordingly, the MDGs were continued by setting the third purpose of Sustainable Development Goals (SDGs) with the target achievement up to the year 2030, to ensure healthy lives and promote well-being for all people at all ages.1,2

According to the UNAIDS Global AIDS Epidemic Report 2012, there are 34 million people living with HIV around the world. A total of 50% of them are females and as many as 2.1 million are children under 15 years old. The World Health Organization (WHO) reported that the number of patients with HIV/AIDS in Southeast Asia in 2011 were as much as 3.5 million people with about 1.3 million (37%) HIV-infected women.

The challenge of HIV transmission has existed in Indonesia since the first case was discovered in 1987 and the cases have continued to increase due to the impacts of economic change and social life change. In 2014-2016, the HIV cases in Indonesia were quite stable, but the recent development of a dramatic spike in the number of new HIV positive cases in 2015 and 2016 experienced an increase from 30,935 to 41,250 cases.3

Similarly, the number of new cases of HIV in the province of District Istimewa Yogyakarta (DIY) have been fluctuating, which involved a decrease from 2014 to 2015, but again rose in 2016 with 726 new cases. In the period from 1993 to August 2017 there...
were 3,854 HIV cases in DIY. The highest of proportions of patients with HIV were in Sleman Regency with 23.74% of the cases, followed by Yogyakarta city with 22.29% of the cases and Bantul Regency with 22.24% of cases. According to the overall case distribution, 31.50% are female and 2.31% of cases occur due to the maternal transmission and perinatal risk factors with the percentage of the age group 0-4 years at 2.18% and some of these children were exposed to the HIV virus at birth.4

The highest cumulative percentage of patients with HIV in Indonesia are people in the age group 25-49 years (73.4%), while the cases of AIDS are mostly detected in the age group 30-39 years (39.5%). Based on the data, it appears that the productive age has the most risk for the transmission of HIV and AIDS.3 Currently, housewives are one of the most vulnerable groups for HIV/AIDS transmission. It is estimated that approximately 2,000 children in the world are infected by HIV every day due to the transmission from mother to her baby while UNICEF reports globally that as many as 320 children die daily from the disease. Meanwhile, according to the Ministry of National Development Planning Republic of Indonesia (BAPPENAS), in Indonesia about 1,400 children have died from AIDS.1

However, this risk can be reduced to 1-2% with the interventions for HIV-positive pregnant women, namely voluntary counselling and testing (VCT), taking antiretroviral drugs, Sectio Caesarea (SC) delivery, and proper infant formula feeding. Therefore, to minimize the risk of transmission of HIV, the WHO developed several HIV/AIDS prevention programs. For example, there are the Geneva guidelines on HIV Infection and AIDS in Prisons and HIV Testing and Counselling in Prisons since 2007. Indonesia has also been developing HIV prevention efforts through VCT programs. All expectant mothers who undergo pregnancy screening are required to follow the VCT mandate as an effort to prevent HIV transmission from mother to their child.1,3,5,7

Although the government has made HIV prevention efforts, still the negative stigma about HIV AIDS in society is the biggest inhibitory factor. Accordingly, the role of community health volunteers (CHV) can provide a bridge to the Primary Health Care (PHC) for pregnant mothers and women of childbearing age through the implementation of HIV prevention programs, namely the Prevention of Mother to Child Transmission (PMTCT), especially in Sleman Regency. The CHV program for HIV socialization and community education is formed from the Integrated Service Post (Posyandu). This program has been implemented successfully and proven effective in West Jakarta, Temanggung, Tangerang, and Mataram.9,10,11

The purpose of these programs are to increase community participation in HIV/AIDS prevention efforts without instilling stigma and discrimination, by forming CHV programs concerning HIV; increasing CHV knowledge about HIV/AIDS; and conducting VCT training through CHV activities.

2. Method

These community service events were held between July-November 2018 in Bayen Kalasan, Sleman DIY in collaboration with the non-government organization (NGO) Victory Plus and Kalasan PHC. Participants of the 12 activities were consisting of Integrated Service Post (Posyandu) CHVs. Methods used in the implementation of the strengthening of CHVs included lectures and case studies in the provision of materials and simulations in addition to actual VCT test practice. Before the provision of material, there was a pre-test to assess the extent of CHV knowledge concerning HIV/AIDS. The ODHA simulations were delivered by Victory Plus NGO about HIV/AIDS myths and facts and the efforts that a community can make to reduce stigma. Afterward, the CHV understanding after receiving the material was retested through a post-test. At the end of this activity, the PHC team conducted VCT on the CHVs. Their knowledge data were measured with univariate analysis while analysis of the increasing of CHV understanding used paired T-tests.

3. Result

Overall, the activities of community empowerment were done on schedule. There were 12 CHVs who were present and willing to do the VCT. The following are the scores of the pre-test and post-test and analysis of increases in the CHV understanding of
HIV/AIDS as shown in Table 1.

Table 1 shows the results that overall the CHV knowledge increased after socialization. Table 2 shows the results of increased understanding of CHVs were significant with p value > 0.05.

The following figures show the society empowerment activities. They consisted of socialization and education about the facts, myths and the efforts to reduce the stigma of HIV/AIDS by Victory Plus NGO, shown in picture (Figure 1a), and VCT by Kalasan PHC in Figure 1b.

4. Discussion

The CHV programs about HIV can be one of the efforts that a community can make in reducing the negative stigma of society about HIV/AIDS which can serve as a bridge for the PMTCT program from Primary Health Care to the target population. In general, the CHV of HIV is an Integrated Service Post (Posyandu) CHV involving the close role of the community, especially the women of childbearing age and pregnant women. This program has been implemented successfully in West Jakarta, Temanggung, Tangerang, and Mataram and has been proven effective.8,9,10,11 Therefore, the activities were aimed at strengthening and developing the Integrated Service Post (Posyandu) CHVs into CHVs of HIV in DIY, especially Sleman Regency. First, the CHV program about HIV was formed at Bayen Purwomartani Kalasan Sleman.

The CHV educational material did not only include counselling, but also consisted of simulations and VCT because the providing of appropriate information was not limited to lecture methods alone. Generally, good knowledge affects a CHV person’s attitudes, and good attitudes will affect their behavior. The performance of CHV has been shown to strengthen the community by regular supervision and adequate training.12 CHVs are role models in the community,13,14 so these HIV programs provide health promotion in the community, not only in the form of theoretical concepts but also through direct participation in VCT.

After the introduction of the socialization and simulation of ODHA, there was increased CHV knowledge of the myths and facts about HIV/AIDS and its prevention efforts. Stigma arises due to ignorance, so that the provision of information from the right sources will increase a person's knowledge. Simulating or practicing directly is an appropriate and easy to understand method of providing information more than lecture methods alone.15

In this community service effort, VCT was provided to CHV, while further programs in the community were not done. CHVs have the role of health models in the community and should have good experience and understanding before conducting health promotion to the community. Therefore, in the strengthening of HIV understanding among CHVs, all of them are obliged to do VCT as an attempt to remove the negative stigma of HIV/AIDS in the community. This health promotion explains that VCT is screening for prevention of everyone not only in the group at risk. In the nonreactive or negative test results, trained health officers then provide counselling to conduct HIV prevention faithfully to the spouse, explaining the importance of not changing their spouse, using condoms in risky sex, avoiding drugs especially injectable drugs, as well as increasing knowledge of HIV/AIDS. Meanwhile in the results of reactive or positive tests, the health officers provide counselling for prevention of further disease development to the AIDS stage by taking antiretroviral drugs to increase the CD4 cell counts in the patient.

5. Conclusion

Based on the results of these activities, it can be concluded that the 12 CHV HIV have formed a new cadre in Bayen Hamlet; there is an increase in CHV knowledge about HIV/AIDS between before and after socialization and education by the team; and all VCT results of CHV were nonreactive or negative. VCT has been explained as an early detection of HIV not only for the CHVs but also the whole community. CHVs of HIV can effectively serve as a facilitator between society and Primary Health Care through the community.
empowerment efforts in the prevention of HIV/AIDS. Therefore, there is a need for the formation of CHV HIV cadres in other regions, which are not limited to adults only, but also involving adolescents. CHVs of these HIV programs should always coordinate with the PHC health personnel and NGOs while involving pregnant couples or women of childbearing age in carrying out their duties and functions in the community.

Acknowledgments

We thank to Universitas Respati Yogyakarta for funding, Kalasan PHC for the VCT coorporation, and Victory Plus NGO as a trainer.

Conflict of interests

There is no conflict of interest in the study.

References

1. The Ministry of National Development Planning, Republic of Indonesia (BAPPENAS). Agenda Pembangunan Global Pasca-2015: Dari MDGs Menuju SDGs. 2014.
2. Osborn D, Cutter A, Ullah F. Universal Sustainable Development Goals: Understanding the Transformational Challenge for Developed Countries. Report of a Study by Stakeholder Forum. 2015; UNDP: New York.
3. Ministry of Health. Profil Kesehatan Indonesia 2016.
4. Provincial Health Office of Yogyakarta Special Region. Profil Kesehatan Dinas Kesehatan Provinsi Daerah Istimewa Yogyakarta 2017
5. Ministry of Health. Pedoman Nasional Pencegahan Penularan HIV dari Ibu ke Anak; 2012.
6. Hardon A, Vernooij E, Bongololo-Mbera G, Cherutich P, Desclaux P, Kyaddondo D, et al. Women’s Views on Consent, Counseling and Confidentiality in PMTCT: A Mixed-Methods Study in Four African Countries. BMC Public Health. 2012;12:26.
7. State of Health of Sleman Regency. Profil Kesehatan Dinas Kesehatan Kabupaten Sleman 2017
8. Mudzofar A. 13 Kader Peduli AIDS Dikukuhkan; 2016 [updated 2016 Jun 13; cited 2018 25 P eb]. Available from: http://www.krjogja.com/web/news/read/18575/13_Kader_Peduli_AIDS_Dikukuhkan
9. Mulyawan IK. Pemberdayaan Masyarakat Melalui Kader Peduli AIDS (KPA) Dalam Layanan Komprehensif HIV Berkesinambungan (LKB) di Kota Mataram, Nusa Tenggara Barat; 2014 [updated 2014 Aug 8; cited 2018 25 P eb]. Available from: http://www.kebijakanaidsindonesia.net/id/artikel/artikel-kontribusi/913-pemberdayaan-masyarakat-melalui-kader-peduli-aids-kpa-dalam-layanan-komprehensif-hiv-berkesinambungan-lkb-di-kota-mataram-nusa-tenggara-barat
10. Sri L. Kelurahan Sukabakti Melibatkan Kader Posyandu dalam Penanggulangan HIV

Figure 1. (a) HIV AIDS Discussion and Simulation; (b) VCT on Community Health Volunteer
AIDS; 2016; [updated 2016 Jan 11; cited 2018 25 Peb]. Available from: http://www.kpakabtangerang.or.id/2016/03/16/kelurahan-sukabakti-melibatkan-kader-posyandu-dalam-penanggulangan-hiv-aids/

11. Tarta. Kader Posyandu Dilibatkan Penanggulangan HIV/AIDS; 2015 [updated 2015 Sep 1; cited 2018 25 Peb]. Available from: http://poskotanews.com/2015/11/23/kader-posyandu-dilibatkan-penanggulangan-hv-aids/

12. Woldie W, Feyissa GT, Admasu B, Hassem K, Mitchell K, Balabanova D, et al. Community health volunteers could help improve access to and use of essential health services by communities in LMICs: an umbrella review. Health policy plan. 2018; 33(10): 1128-1143.

13. Vareilles G, Pommier J, Marchal B, Kane S. Understanding the performance of community health volunteers involved in the delivery of health programmes in underserved areas: a realist synthesis. Implementation Sci. 2017;12(22).

14. Busza J, Bandason T, Simms V, Chikwari CD, McHugh G, Munyati S, et al. The role of community health workers in improving HIV treatment outcomes in children: Lessons learned from the ZENITH trial in Zimbabwe. Health policy plan. 2018; 33(3).

15. Linneman JA. Share, show, and tell: Group discussion or simulations versus lecture teaching strategies in a research methods course. Teaching sociology. 2019;47(1): 22-31.