Mitra Mahajana: Jurnal Pengabdian Masyarakat 7(1), 2026, 165-171
ISSN 2747-1861 (print), ISSN 2747-187X (online)
https://doi.org/10.37478/mahajana.v7i1.7810 mahajana@uniflor.ac.id
Available online at: https://e-journal.uniflor.ac.id/index.php/mahajana/7810

EMPOWERMENT OF STUDENTS TO MANAGE THE SCHOOL HEALTH UNIT IN THE PREVENTION OF INFECTIOUS DISEASES

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Received: 21/03/2026 *Revised: 25/03/2020* *Accepted: 04/04/2026*

Abstract. *Students who manage school health units often have limited knowledge of infectious diseases and health literacy. This program aims to enhance students' understanding of infectious diseases and health literacy skills at Payangan 1 State Senior High School, who oversee the school's health unit. To achieve this, the community service program at Payangan 1 State Senior High School uses an outreach approach and health literacy-focused demonstrations. The partners in this initiative include students managing the school's health unit, supportive teachers, and health professionals. The PKM consists of several stages, including material preparation. Counselling sessions on infectious diseases (such as HIV, dengue fever, and tuberculosis) for the school's health unit management students, utilizing presentations and focus group discussions. Improvement of the school's health unit facilities and distribution of personal protective equipment (PPE). Counselling on materials related to adolescent entrepreneurship. To evaluate the program's effectiveness, pretests and posttests were administered to measure changes in knowledge of infectious diseases and health literacy. The results showed a 65.1% increase in knowledge about infectious diseases and a 50% increase in health literacy. It is anticipated that this program will positively impact students' physical, mental, and social health, create a healthier school environment, and empower students to become agents of change within their communities.*

Keywords: *health literacy, community services, infectious disease, students, school health unit*

Abstrak. Siswa pengelola unit kesehatan sekolah memiliki pengetahuan yang kurang terhadap penyakit infeksi serta literasi kesehatan. Pengabdian ini bertujuan untuk meningkatkan pengetahuan siswa SMA Negeri 1 Payangan sebagai pengelola Usaha Kesehatan Sekolah (UKS) tentang penyakit infeksi dan kemampuan literasi kesehatan. Pelaksanaan PKM di SMA Negeri 1 Payangan menggunakan pendekatan penyuluhan, dan demonstrasi literasi kesehatan untuk meningkatkan literasi kesehatan. Mitra adalah siswa pengelola THE SCHOOL HEALTH UNIT, guru pembina, dan petugas kesehatan. Tahapan PKM meliputi persiapan, penyuluhan penyakit infeksi (HIV, DBD, IMS) kepada siswa pengelola UKS dengan pemaparan materi serta diskusi kelompok fokus, peningkatan fasilitas UKS dan distribusi alat APD, hingga penyuluhan materi kewirausahaan remaja. Evaluasi dilakukan melalui capaian nilai pretest-posttest untuk pengetahuan mengenai penyakit infeksi dan literasi kesehatan. Terjadi peningkatan pengetahuan tentang penyakit infeksi sebesar 65,1% dan 50% untuk literasi kesehatan. Diharapkan program ini memberikan dampak positif terhadap kesehatan fisik, mental, dan sosial siswa, lingkungan sekolah yang lebih sehat, serta peluang bagi siswa untuk menjadi agen perubahan di masyarakat.

Kata kunci: literasi kesehatan, pengabdian masyarakat, penyakit infeksi, siswa sekolah, usaha kesehatan sekolah

How to Cite: Dewi, S. L., Tirka, P. S. W., Dewi, I. G. A. A. I. S., Masyeni, S., Dharma, P. & Riandra, P. I. K. (2026). EMPOWERMENT OF STUDENTS TO MANAGE THE SCHOOL HEALTH UNIT IN THE PREVENTION OF INFECTIOUS DISEASES. *Mitra Mahajana: Jurnal Pengabdian Masyarakat, 7*(1) 165-171. doi: https://doi.org/10.37478/mahajana.v7i1.7810

INTRODUCTION

The community service partners are 50 students from Payangan 1 State Senior High School who manage the school's School Health Unit. This School Health Unit has basic facilities, including examination rooms, medicines, and first-aid kits. However, there are still shortcomings in terms of more complete and modern medical equipment. Health workers and teachers are involved in the management of the school health unit, but their training and capacity development remain limited, so the school health unit services are not optimal. Many students are less aware of the importance of health and do not make the most of the school health unit services, while academic stress and social issues can affect students' mental health. Funding pressures also hinder the development of comprehensive health facilities and

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programs. The school health unit members are a group of students from grades X to XII who are interested in health businesses, so the potential for youth service and entrepreneurship is highly relevant to develop through the school health unit programs.

Infectious diseases in Indonesia remain a global problem. Dengue infection (Masyeni et al., 2019, 2023), COVID-19 (Fahriani et al., 2021), Mpox infection (Nelwan et al., 2024), human immunodeficiency virus infection (HIV)(Khairunisa et al., 2018) It is still reported to continue to occur in various parts of the world. Prevention programs through community service have also been implemented to contain the spread of infectious diseases. Community service report on Tuberculosis disease (Widyaningsih et al., 2025), devotion to HIV infection prevention (Masyeni, 2025), prevention of dengue fever infection (Santosa et al., 2021) has been implemented to combat persistent infectious diseases. The school health unit has the potential to prevent infectious diseases at least in the school environment. Students can actively participate in extracurricular activities and healthy-living awareness campaigns. The program includes basic health services such as regular check-ups, first aid for school accidents or injuries, health education on healthy lifestyles, balanced nutrition, hygiene, and disease prevention, as well as counselling on mental and reproductive health. Health promotion through campaigns, sports activities, and hygiene is also important in encouraging a healthy lifestyle.

Regarding health literacy, several studies indicate that high school students' knowledge of infectious diseases remains low, underscoring the need for counselling and assistance from the health team. Interviews with the principal of SMA 1 Payangan also indicated that the school health unit rarely receives training in disease prevention programs, underscoring the need for further support. In addition, adolescence is a great time to instil entrepreneurial ideas. Although there has never been entrepreneurship counselling, this program needs to include entrepreneurship materials to expand its impact on college and the world of work. Priority issues for partners include training for the school health unit officers and students, improving the school health unit facilities with a more comprehensive range of tools and medicines, and entrepreneurship counselling for adolescents.

Through this community service, it is hoped that THE SCHOOL HEALTH UNIT SMA 1 Payangan can increase the capacity of the executive, student health literacy, and active participation in health programs, while building partnerships with health offices, non-governmental organizations, and the surrounding community to support sustainable health programs. With measures to improve facilities, training, and entrepreneurship counselling for adolescents, the program aims to create a healthier learning environment physically, mentally, and socially for students and provide opportunities for them to become agents of change in the future.

METHOD

The implementation of PKM includes counselling on infectious disease prevention, demonstrations of infectious disease prevention, and infectious disease literacy. Quantitative data will be used to measure changes in health literacy, access to the school health unit services, and knowledge of infectious diseases, while qualitative data will explore participants' experiences, implementation constraints, and school context. This approach is participatory by involving the school health unit, Payangan 1 State Senior High School students, the school health unit coaching teachers, and the school health workers.

The implementation is carried out in several stages, starting from the preparation and formation of the PKM team, the analysis of baseline needs through questionnaires and interviews, and the design of training materials and educational modules. Next, improve the school health unit facilities by identifying the need for tools, drugs, and SOPs for their use, followed by implementing health services such as basic examinations, first aid, healthy lifestyle education, and mental and reproductive health counselling. To promote youth health and entrepreneurship, the program will be implemented through campaigns, sports activities, and entrepreneurship counselling. Monitoring, evaluation, and reflection are carried out periodically, ending with documentation, reporting, and dissemination of results.

Data collection instruments include quantitative measures such as pre- and post-questionnaires, attendance records, and activity participation, and qualitative measures such as in-depth interviews, FGDs, observations, and activity documentation. Data analysis was conducted descriptively to assess improvements in health literacy scores and to conduct pre-post comparisons, while qualitative analysis was carried out thematically through triangulation to ensure the reliability of the findings. Success indicators include increasing health literacy scores, increasing participation and utilization of the school health unit, and availability of tools/drugs according to SOPs.

RESULTS AND DISCUSSION

PKM activities were carried out offline at Payangan 1 State Senior High School, Gianyar, Bali, on October 3, 2025. The activity went smoothly and was attended by representatives of students in grades X and XI, as well as the school health unit teachers and coaches. The activity began with an opening and a pre-test to assess participants' initial level of knowledge. Furthermore, material was delivered on infectious diseases, namely HIV, dengue, and sexually transmitted infections (STIs), and continued with entrepreneurial material for adolescents. The activity ended with discussions, questions, answers, and post-tests.

As a form of support for the sustainability of the activity, Payangan 1 State Senior High School received grants in the form of PPE equipment and several medical devices to support the role of the school health unit in the school environment, from representatives of the school health unit management. The assistance is a complete package that includes disposable medical gloves, three-layer surgical masks, antiseptic hand soap, disinfectant solution, thermometer, oximeter, digital sphygmomanometer, weight scale, height gauge, and P3K box set.

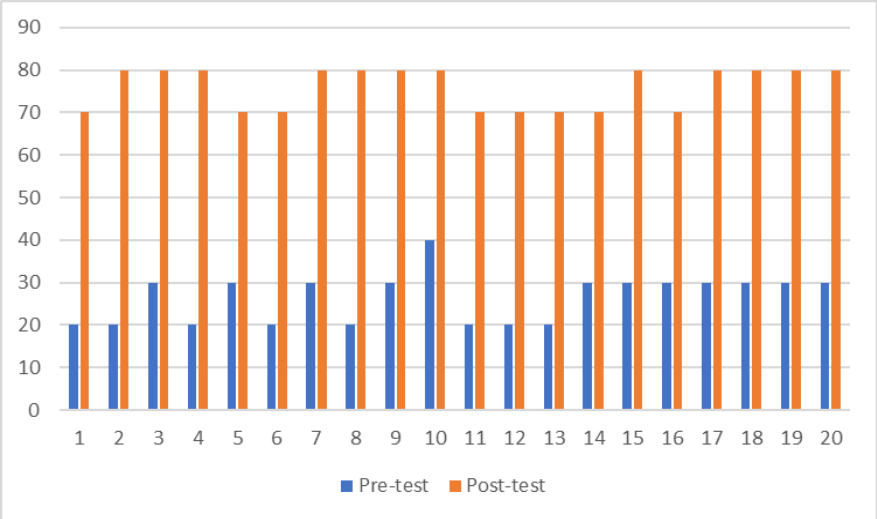


Figure 1. *Participants infection prevention improvement*

The pre-test knowledge score for 20 students was 26.5 (Figure 1), indicating that students initially had a relatively limited understanding of infectious disease prevention. After participating in counselling on infectious disease prevention, the average post-test score increased significantly to 76. This result shows a substantial improvement in students' knowledge, with an increase of 65.1% compared to the initial score. The findings indicate that educational counselling activities are effective in improving students' understanding and awareness of preventive health behaviours.

These results are consistent with previous community service findings showing that health education can significantly improve students' knowledge. A study conducted at SMK Bhakti Insani Depok reported that students' knowledge about recognising and preventing HIV/AIDS increased to 48.4% after receiving health education, compared to 22.6% before the education was provided (Pangestu et al., 2023). In addition, students' health literacy abilities

also improved, as the number of correct responses increased from 30 to 60 after the health literacy demonstration. This indicates a 50% increase in health literacy skills, suggesting that educational demonstrations and counselling can effectively strengthen students' understanding of health information and its application in daily life.



Figure 2. *Student given a question at the comunity service activity*

The service activity has successfully increased the knowledge of the school health unıt management students at Payangan 1 State Senior High School, Gianyar, Bali. Long-term monitoring is needed to sustain community service programs aimed at preventing infectious diseases. Similar socialization in the community to prevent COVID-19 infection in Mbomba I hamlet, Gheo Ghoma village, Ende Regency in 2022 is quite effective in countering the spread of COVID-19 infection (Artama et al., 2022). During the COVID-19 pandemic, community service to prevent the spread of COVID-19 became a competent effort in reducing the incidence of COVID-19 (Artama et al., 2022; Fauzia, 2021; Prawiyogi & Suparman, 2024; Sari et al., 2020; Wijaya et al., 2020). Similar forms of service have also been reported to prevent the transmission of worm infections in the community by distributing booklets on worm infections and their prevention (Riadi et al., 2026).



Figure 3. *Community services at Payangan 1 State Senior High School, Bali*

Community service programs involving students who are members of the school health unit have been reported to contribute to the prevention of anemia (Hidayah et al., 2020). Through these programs, students receive education and training that enable them to recognize early symptoms and risk factors of anemia among their peers (Abu-Baker et al., 2021). The school health unit, therefore, plays an important role in promoting health awareness and

supporting early detection efforts within the school environment (Bundy & Guyatt, 1996; Hung et al., 2014).

Other community service initiatives have also utilized students as agents of health promotion (Kowitt et al., 2015; Moore, 2023). For example, programs aimed at preventing urinary tract infections have shown significant improvements in students' knowledge about the causes, symptoms, and prevention of urinary tract infections (Albaar et al., 2024). Similarly, community service activities focusing on sexually transmitted infections have been implemented in schools, with results indicating increased knowledge among participants regarding the complications and prevention of these infections (Achdiat et al., 2019). However, ensuring the long-term sustainability of such programs remains an important challenge for community service managers. Continuous monitoring and regular evaluations over a defined period are necessary to assess the effectiveness of the programs and to ensure that the knowledge and behavioural changes gained by participants can be maintained over time (Straus et al., 2010; Mohr et al., 2013; Neumann et al., 2018).

CONCLUSION

The PKM implementation has strong potential to elevate the quality of the school health unit services, health literacy, and youth entrepreneurship literacy among adolescents, while simultaneously fostering a robust ecosystem of partnerships. By integrating structured service improvements, evidence-based health education, and youth-led entrepreneurial activities, the program is expected to yield tangible benefits for student well-being, a healthier school environment, and expanded pathways to higher education and broader careers. Realizing these benefits requires securing diverse funding, ensuring adequate resources, and implementing a rigorous, transparent evaluation and documentation framework to enable replication in other schools. Establish a PKM Steering Committee including school leadership, the school health unit coordinators, teachers, student representatives, local health partners, and potential funders. Develop a detailed implementation plan with milestones, responsibilities, and a budget aligned to the school calendar.

REFFERENCES

Abu-Baker, N. N., Eyadat, A. M., & Khamaiseh, A. M. (2021). The impact of nutrition education on knowledge, attitude, and practice regarding iron deficiency anemia among female adolescent students in Jordan. *Heliyon*, *7*(2). DOI: 10.1016/j.heliyon.2021.e06348

Achdiat, P. A., Rowawi, R., Fatmasari, D., & Johan, R. (2019). Tingkat Pengetahuan Penyakit Infeksi Menular Seksual Dan Komplikasinya Pada Siswa Sekolah Menengah Atas Negeri Jatinangor. *Dharmakarya*, *8*(1), 35. https://doi.org/10.24198/dharmakarya.v8i1.19534

Albaar, M. T., Masrika, N. U. E., & Wahyudi, R. B. (2024). Penyuluhan Kesehatan: Upaya Pencegahan Dampak Jangka Panjang Infeksi Saluran Kemih di SMA Negeri 8 Ternate. *Jurnal Kreativitas Pengabdian Kepada Masyarakat (PKM)*, *7*(1), 178-189. DOI: https://doi.org/10.33024/jkpm.v7i1.12553

Artama, S., Tokan, P. K., Rif'atunnisa, R., & Paschalia, Y. P. M. (2022). Sosialisasi dan Edukasi Pencegahan dan Penanganan Covid-19 pada Masyarakat di Dusun Mbomba I Desa Gheo Ghoma Kabupaten Ende. *Mitra Mahajana: Jurnal Pengabdian Masyarakat*, *3*(1), 24–33. https://doi.org/10.37478/mahajana.v3i1.1520

Bundy, D. A. P., & Guyatt, H. L. (1996). Schools for health: Focus on health, education and the school-age child. *Parasitology Today*, *12*(8), 1-14. https://doi.org/10.1016/0169-4758(96)30011-2

Fahriani, M., et al. (2021). Persistence of long COVID symptoms in COVID-19 survivors worldwide and its potential pathogenesis-a systematic review and meta-analysis. *Narra J*, *1*(2), e36. doi: 10.52225/narraj.v1i2.36

Fauzia, N. S. (2021). Faktor Risiko Terjadinya Coronavirus Disease 2019 pada Pasien dengan Komorbid Diabetes Melitus. *ARTERI : Jurnal Ilmu Kesehatan*, *2*(4), 105–112.

https://doi.org/10.37148/arteri.v2i4.177

Hidayah, S., Izah, N., Fitrianingsih, D., & Rizqi, I. (2020). Pkm Peningkatan Kualitas Usaha Kesehatan Sekolah (The school health unit) Dalam Deteksi Dini Anemia Di Sman 2 Slawi. *Jurnal Pengabdian Masyarakat Progresif Humanis Brainstorming*, *3*(1), 18–22. https://doi.org/10.30591/japhb.v3i1.1649

Hung, T. T. M., Chiang, V. C. L., Dawson, A., & Lee, R. L. T. (2014). Understanding of factors that enable health promoters in implementing health-promoting schools: a systematic review and narrative synthesis of qualitative evidence. *PloS one*, *9*(9), e108284. https://doi.org/10.1371/journal.pone.0108284

Khairunisa, S. Q., et al. (2018). Genotypic characterization of human immunodeficiency virus type 1 isolated in Bali, Indonesia in 2016. *HIV and AIDS Review*, *17*(2), 81-90.. DOI https://doi.org/10.5114/hivar.2018.76375

Kowitt, S. D., Emmerling, D., Fisher, E. B., & Tanasugarn, C. (2015). Community health workers as agents of health promotion: analyzing Thailand's village health volunteer program. *Journal of community health*, *40*(4), 780-788. https://doi.org/10.1007/s10900-015-9999-y

Masyeni, S. (2025). Pemberdayaan Petugas Cleaning Service Rumah Sakit Dalam Pencegahan Penyakit Human Immunodeficiency Virus. *BERDAYA: Jurnal Pengabdian Kepada Masyarakat*, *3*(1), 1–8. https://journalng.uwks.ac.id/berdaya/article/view/426

Masyeni, S., Fatawy, R. M., Paramasatiari, A. A. A. L., Maheraditya, A., Dewi, R. K., Winianti, N. W., Santosa, A., Setiabudy, M., Sumadewi, N. T., & Herawati, S. (2023). Dengue seroprevalence study in Bali. *PLOS ONE*, *18*(7), e0271939. https://doi.org/10.1371/journal.pone.0271939

Masyeni, S., Yohan, B., & Sasmono, R. T. (2019). Concurrent infections of dengue virus serotypes in Bali, Indonesia. *BMC Research Notes*, *12*(1), 1–6. https://doi.org/10.1186/s13104-019-4164-9

Mohr, D. C., Cheung, K., Schueller, S. M., Brown, C. H., & Duan, N. (2013). Continuous evaluation of evolving behavioral intervention technologies. *American journal of preventive medicine*, *45*(4), 517-523. https://doi.org/10.1016/j.amepre.2013.06.006

Moore, A. (2023). From education to empowerment: Redesigning the role of students in college health promotion. *Journal of American College Health*, *71*(4), 984-987. https://doi.org/10.1080/07448481.2021.1920603

Nelwan, E. J., Tanadi, C., Pajala, F. B., Stella, M. M., Tandarto, K., Supranoto, Y. T. N., Kalaij, A. G. I., Adiwinata, R., Nainggolan, L., Lie, K. C., Masyeni, S., & Sinto, R. (2024). Re-Emerging Trend of Mpox Infection: The Indonesia's Experience and Review. *Acta Medica Indonesiana*, *56*(3), 419. Retrieved from https://actamedindones.org/index.php/ijim/article/view/2854

Neumann, J., Robson, A., & Sloan, D. (2018). Monitoring and evaluation of strategic change programme implementation—Lessons from a case analysis. *Evaluation and program planning*, *66*, 120-132. https://doi.org/10.1016/j.evalprogplan.2017.09.012

Pangestu, S. Y. D., Ladesvita, F., Priwardhani, K., Maulida, M., Aletha, K. Z., & Anandita, L. (2023). Tingkat pengetahuan pelajar di SMK Kesehatan Bhakti Insani Depok tentang HIV / AIDS. *Jurnal Ilmu Keperawatan Dan Kebidanan*, *4*(4), 3872–3878. https://ejournal.sisfokomtek.org/index.php/jpkm/article/view/1689

Prawiyogi, A. G., & Suparman, T. (2024). Meningkatkan Kesadaran Anak dalam Menerapkan Pola Hidup Sehat untuk Mencegah Virus Covid-19. *Sivitas : Jurnal Pengabdian Dan Pemberdayaan Masyarakat*, *4*(2), 63–66. https://doi.org/10.52593/svs.04.2.03

Riadi, D., Hadiwiardjo, Y. H., Hasibuan, S. R., Pradnyani, P. E., Kristanti, M., Saputra, D. A. Y., & Aprilicia, G. (2026). HEALTH EDUCATION IN THE PREVENTION OF WORM INFESTATION USING BOOKLETS FOR TODDLERS. *Mitra Mahajana: Jurnal Pengabdian Masyarakat*, *7*(1), 18-25. DOI: https://doi.org/10.37478/mahajana.v7i1.7435

Santosa, A., Widari, D. N., Diari, P., Mahardika, W. G., & Masyeni, S. (2021). Pemberdayaan Masyarakat Sebagai Pembantu Jumantik di Desa Panjer. *Paradharma: Jurnal Aplikasi IPTEK*, *5*(2). DOI: 10.36002/jpd.v5i2.1575

Sari, L. M., Yaslina, Y., & Suryati, I. (2020). Edukasi Kesehatan Tentang Infeksi Virus Corona. *Jurnal Abdimas Kesehatan Perintis*, *2*(1), 58-63. https://jurnal.upertis.ac.id/index.php/JAKP/article/view/463

Straus, S. E., Tetroe, J., Graham, I. D., Zwarenstein, M., Bhattacharyya, O., & Shepperd, S. (2010). Monitoring use of knowledge and evaluating outcomes. *Cmaj*, *182*(2), E94-E98. DOI: https://doi.org/10.1503/cmaj.081335

Widyaningsih, P. D., Widari, N., & Dewi, S. L. (2025). Family Training as Medication Supervisors to Prevent Drug-Resistant Tuberculosis Achieves the Third SDG. *Jurnal Sutramas,* 5(01), 263-270. https://www.ejournal.warmadewa.ac.id/index.php/sutramas/article/view/14153

Wijaya, M. D., Indraningrat, A. A. G., & Masyeni, D. A. P. S. (2020). Pemberdayaan Karyawan Yayasan Rama Sesana Sebagai Kader Pencegahan Penularan Covid-19 di Pasar Badung, Bali. *Community Service Journal (CSJ)*, *2*(2), 46–50. https://www.ejournal.warmadewa.ac.id/index.php/csj/article/view/2694