



“Posbindu PTM”: The Key of Early Detection and Decreasing Prevalence of Non-Communicable Diseases in Indonesia

**Tri Siswati^{1,2}, Heru Subaris Kasjono³, Yustiana Olfah⁴*

1. Nutrition Department, Poltekkes Kemenkes Yogyakarta, Tata Bumi 3, Banyuraden, Gamping, Sleman Yogyakarta, Indonesia
2. Center of Excellence for Applied Technology Innovation in The Field of Public Health (PUI_Novakesmas), Poltekkes Kemenkes Yogyakarta, Tata Bumi No. 3 Banyuraden, Gamping, Sleman, Daerah Istimewa Yogyakarta, Sleman Yogyakarta, Indonesia
3. Environmental Department, Poltekkes Kemenkes Yogyakarta, Tata Bumi 3, Banyuraden, Gamping, Sleman Yogyakarta, Indonesia
4. Nursing Department, Poltekkes Kemenkes Yogyakarta, Tata Bumi 3, Banyuraden, Gamping, Sleman Yogyakarta, Indonesia

***Corresponding Author:** Email: tri.siswati@poltekkesjogja.ac.id

(Received 15 May 2020; accepted 27 May 2020)

Dear Editor-in-Chief

Non-communicable diseases (NCDs) have become a global problem and may lead to an economic burden. In the wide world, NCDs cause 41 million or 71% of death deaths every year, 85% of it was premature deaths in low and middle-income countries (1).

Globally, there was an increase in NCDs prevalence, from 47% in 1990 to 69% in 2020(2). Indonesia also experienced a surge in such cases from 39.81% in 1990 to 69.91% in 2017 (3). Many factors cause NCDs, such as smoking behavior both active or passive, sedentary lifestyle, less physical activity, more sitting, also lack of fruit and vegetable consumption (4). All the factors influencing global obesity as the main cause of metabolic syndrome include DM, stroke, hypertension, cancer, and many more (2,4).

However, NCDs can be prevented when people understand the sign and symptoms, awareness of risk factors, and fulfilling early detection (2,5). Unfortunately, the symptoms of NCDs are unspecific which is enhanced by the lack of people's knowledge and awareness, adding the weakness of NCDs prevention increase the severity of

NCDs (6). Only 50-60% of people were aware of the NCDs risk factors (7).

The Indonesian Ministry of Health organized the Posbindu PTM (abbreviation in Bahasa Indonesia is Pos Pembinaan Terpadu-Penyakit Tidak Menular) means an integrated guidance post for the early detection and prevention of NCDs. The main goal was to improve health status targeted people 15 years old and above(6). Posbindu PTM was community-based health prevention that provide 5 services, there were: 1) patient/people visiting enrollment, 2) interview of some NCDs risk factor, behavior-related health, 3) anthropometric measurement, d) basic medical check-up (glucose level, blood tension, cholesterol level) 5) counseling, reporting, and referrals to higher health care facilities(6).

The paper points out were the challenge of Posbindu PTM in the workplace, controlling risk factors NCDs of adult workers, and its prevalence in Yogyakarta, Indonesia. Using cross-sectional design we recruited a number of 498 participants in May–September 2019.

The results showed that there are several risk factors for NCDs including the number of partici-



pants who consume less vegetables (71.2%), less physical activity (56.3%), high passive smoking (51.2%), and sitting for more than 5 hours/day (56.5%). Of course, the high risk of NCDs was very much related to NCDs. In this study, it was reported that participants experienced high cholesterol (83%), central obesity (50%), type 2 diabetes mellitus, and high blood tension were 30% respectively. The evaluation of the Posyandu PTM implementation showed that almost all adult worker participants have benefits and save time to carry out early detection and visit health care facilities.

Some challenges of early NCDs detection in the Posbindu PTM program were sub-optimum resources, support and commitment to the program sustainability, lack of cadres' capacity, program socialization as well as people's awareness. However, Posbindu PTM is the best community empowerment program for the early detection of NCDs, but the support of leaders, cadres, and user are essential. Further Posbindu PTM can be implemented in multi-sectors, including government, community, schools, universities, workplaces, and industry.

Conflict of interest

The authors declare that there is no conflict of interest.

References

1. WHO (2018). Non-Communicable Diseases. 2019. Available at <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>, Downloaded at 21st January 2020
2. Siswati T, Astria B, Primiaji M (2022). Epidemiological Transition in Indonesia and Its Prevention: A Narrative Review. *J Complement Altern Med Research*, 18(1):50–60.
3. Global Burden of Diseases (2019). Available from: <https://www.healthdata.org/> downloaded at 1st June 2020
4. Peters R, Ee N, Peters J, et al (2019). Common risk factors for major non-communicable disease, a systematic overview of reviews and commentary: the implied potential for targeted risk reduction. *Theor Adv Chronic Dis*, 10:2040622319880392.
5. Budreviciute A, Damiani S, Sabir DK, et al (2020). Management and Prevention Strategies for Non-communicable Diseases (NCDs) and Their Risk Factors. *Front Public Health*, 8(574111).
6. Ministry of Health (2019). Posbindu PTM: Guidance for Cadres. Jakarta, Indonesia
7. Thippeswamy T, Chikkegowda P (2016). Basic Risk Factors Awareness in Non-Communicable Diseases (BRAND) Study among People Visiting Tertiary Care Centre in Mysuru, Karnataka. *J Clin Diagn Res*, 10(4): OC04–OC07.