Are We Ready for National Diabetes Prevention Program?

Imam Subekti

Department of Internal Medicine, Faculty of Medicine Universitas Indonesia - Cipto Mangunkusumo Hospital, Jakarta, Indonesia.

Corresponding Author:
Imam Subekti, MD., PhD. Division of Endocrinology and Metabolism, Department of Internal Medicine, Faculty of Medicine Universitas Indonesia - Cipto Mangunkusumo Hospital. Jl. Diponegoro 71, Jakarta 10430, Indonesia. email: isubekti@yahoo.com.

Indonesia, as part of Asian population, is one of the most growing diabetes population in the world.[1,2] Genetic, aging, urbanization, and sedentary lifetstyle are major determinants of diabetes in the developing world, include Southeast Asia countries.[2] They are the causes of escalation of diabetes population in Indonesia. Increase from time to time, prevalence of diabetes mellitus in Indonesia are reaching the number over 10% from total adult population.[3] The number of prediabetes subjects are also increase from several studies.[4]

Based on study from latest National Basic Health Survey (2013) held by Ministry of Health Republic of Indonesia, re-analysed by Idris H et al.,[3] the prevalence of diabetes mellitus in Indonesia is 13%. Idris H et al. used population aged above 15th year-old and cut off 126 mg/dL for fasting blood glucose or 200 mg/dL for 2 hours post-75 mg oral glucose tolerance test in their study. Although used different lower limit of age (15th year-old versus 18th year-old) and criteria for diabetes from previous study held by Pramono LA et al.,[5] who re-analysed 2007's National Basic Health Survey, the number are increased sharply from 5.6% to 13%. As comparison, International Diabetes Federation Atlas (IDF) also released data in 2012 which stated the prevalence of diabetes in Indonesia reached 7.55% with prediabetes prevalence reached 12.55%.[6]

Based on comprehensive review by Soewondo P et al.,[1] prevalence of diabetes mellitus is varies between surveys, study locations, and time of studies. Disparities of different studies are un-necessarily debated while several studies are using different methods and diagnosis criterias. One thing for sure, the prevalence is growing rapidly and will cause national problem since morbidity, mortality, and complications are increased and making economic burden for national health expenses.[7] Ministry of Health, The Indonesian Society of Endocrinology (called as PERKENI), and Indonesian Diabetes Association (called as PERSADIA) have tried many strategies to reduce the burden of late-diagnose and chronic complications of diabetes mellitus by screening program at primary health care facilities, publication of national diabetes guidelines for general practitioners and internists, continuing medical education for general practitioners, internists, endocrinologists, diabetes nurses, podiatrists, and diabetes educators.

Despite the hardworks all these years, we need systematic and evidence-based prevention strategy which can be applied nationally. The Diabetes Prevention Program (DPP) Research Group in United States, from 1996 to 1999, has done large clinical trial which titled The Diabetes Prevention Program Clinical Trial, a multicenter clinical trial which include 3,234 subjects from 27 centers who were at high risk for diabetes.[8] This national study formulated DPP lifetstyle intervention with 16-sessions core curriculum to increase the successful rate of diabetes prevention in prediabetes patients.[9] The goals of intervention are to achieve and maintain at

least a 7% weight loss and 700 calories/week of physical activity in all lifestyle participants. The main result of this clinical trial is decrease of type 2 diabetes incidence by 58% in lifestyle intervention group compared with 31% in the metformin-treated group.[8,9]

Study from Idris H et al.[3] in this issue is a large observational study of diabetes prevalence from the latest national survey which is very important for our database. But, it is more important to make programs as a continuation from the study to formulate effective and applicative prevention programs. We have already known about all risk factors studied and correlated significantly in our diabetes patients; aging, gender, body mass index, blood pressure, lipid profiles, physical inactivity, unhealthy diet, and smoking habit.[1,3,5] From these data, we can make further steps by discussing and formulating our own national diabetes prevention program clinical trial so we can give national recommendation based on the study. References from many epidemiology studies conducted across Indonesia must be combined and systematically appraised to formulate national diabetes prevention program clinical trial.

Finland can be a role model which has successfully undertaken large-scale of diabetes prevention intervention in their country, while Australia can be an example of country which focuses on scalling up the program in larger population.[10] We can learn and implement how other countries did and success the program. Take actions, sustained evaluation, monitoring, and scalling up are the key success for diabetes prevention program in a national scope.[10] Commitment from government, policy makers, clinical leaders, all physicians, and health care providers are very important and a key factor for the sustainability of diabetes prevention program in our society. Right now, the question left is: are we ready for Indonesian Diabetes Prevention Program?

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