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Formula for diabetic management - 20:20:60

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There is an increasing trend for the prevalence of diabetes in Malaysia. Alhtar, S. et al. (2022) in the study published in the National Library of Medicine concluded that based on the analysis of data from various sources from January 1995 to November 2021 there is a high prevalence of prediabetes and diabetes in

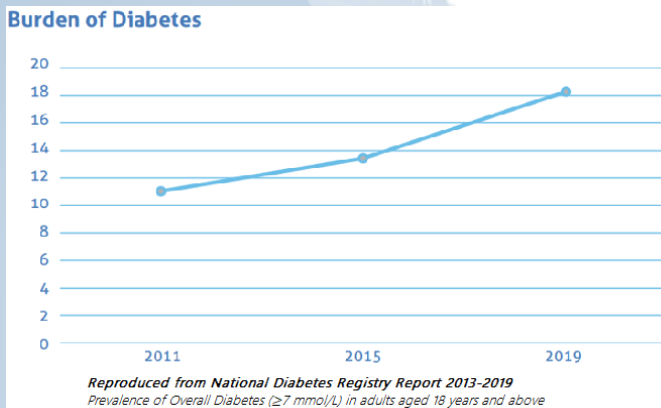


Figure 1: Trend of the prevalence diabetes in Malaysia.

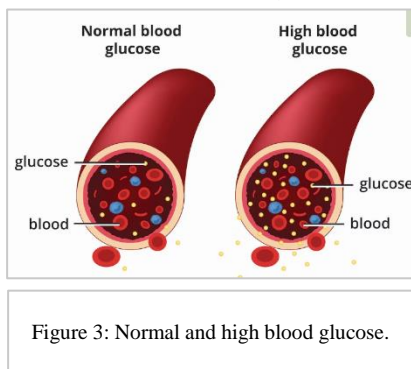
The National Diabetes Registry (NDR) was established in 2009 “to monitor clinical outcomes of diabetes patients managed at the Ministry of Health (MOH) primary health clinics” registered into the NDR. The monitoring has been done through a web-based data collection system since 2011. According to the registry dataset collected from 2013 to 2019, there were 1,614,363 patients registered in the NDR, of which 99.3% were diagnosed with Type 2 Diabetes Mellitus (T2DM). Most patients were female at 57.1% with Malay at 59.2%. (NDR 2013-2019). The data for 2020 indicated there were a total of 1,698,683 patients enrolled in the registry, a 5% increase from the number in 2019. The majority of T2DM patients were between 55-59 years old (16.59%) and the mean age at diagnosis was 53 years old. Most patients were female at 57.02% with Malay at 59.35%. (NDR 2020).

Malaysia associated with time period and increasing age. The National Diabetes Registry Report, 2013-2019 reported the prevalence of diabetes increased from 11.2% to 18.3% from the year 2011 to 2019. The national survey report indicated that 3.9 million adults had diabetes. Gimino, G. And Carvalho. M (The Star, 30 Nov 2023) quoted Dr. Zaliha, the Health Minister, in her report to the Dewan Rakyat stating that “almost 20% Malaysian adults have diabetes.”

Comparison of Data in NDR		
	Year	
	2013-2019	2020
Number of patients registered	1,614,363	1,698,683
Diagnose with T2DM	897,421	902,991
Mean age of diagnosis (years)	53	53
Female	57.10%	57.02%
Malay	59.02%	59.35%

Figure 2: Data of National Diabetes Registry (NDR)

From the NDR data, most of the diabetics are female of the Malay race. According to the Centres for Disease Control and Prevention, diabetes is “a chronic health condition which make the body unable to turn food into



energy.” The pancreas is not able to produce the optimum insulin to enable the conversion of sugar, from the food consumed, into energy. Thus, the sugar remains in the bloodstream which eventually has detrimental effects on the individual’s health causing health problems ranging from heart disease, vision loss, and kidney disease. The laymen know sugar as something sweet but the term sugar or soluble carbohydrates is also referred to as glucose, fructose, galactose, sucrose, maltose, and lactose.



Source : Kementerian Kesihatan Malaysia

Figure 4: Suggestion meal portion by Ministry of Health Malaysia

The intake of carbohydrates also needs to be monitored as it is converted into various forms of sugar. The website of My Health Ministry of Health Malaysia aims to educate diabetic patients to plan their meals.

Doctor Nor Amalina Zaharani (25 Mac 2024), a medical officer from Klinik Kesihatan Seremban 2 shared the formula in managing diabetes as shown in Figure 5 below. According to her, there is no cure yet for diabetes, but there is a way to manage and control it by taking medicines as prescribed diligently, eating healthy food as per the diabetic plan meal, and being active with proper physical activities.

In conclusion several measures have been taken by the government to reduce the number of diabetic patients and tackle diabetes prevalence such as the National Strategic Plan for non-communicable diseases, Health advocacy programmes, and Health screening via the National Health Screening Initiatives carried out through health clinics and the Madani Afiat programme. Ultimately the individual herself of himself must take responsibility for her or his well-being.

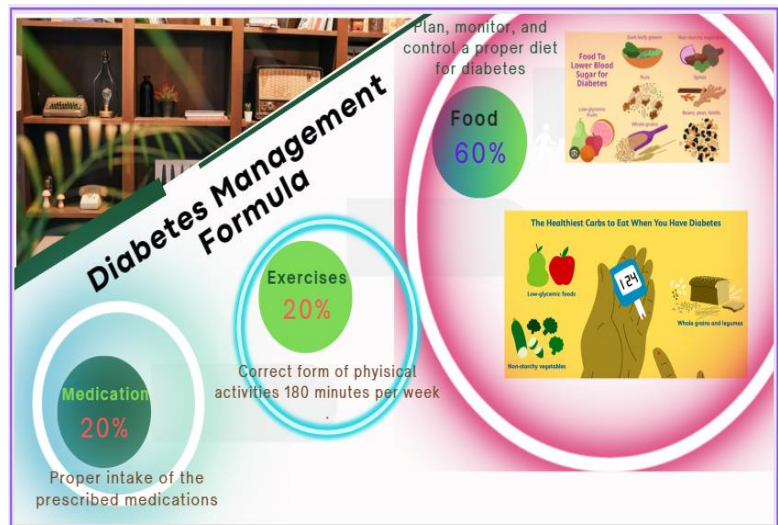


Figure 5: Formula in managing diabetes.

References

- Akhtar, S., Nasir, J. A., Ali, A., Asghar, M., Majeed, R., & Sarwar, A. (2022). Prevalence of type-2 diabetes and prediabetes in Malaysia: A systematic review and meta-analysis. *PloS one*, 17(1), e0263139. <https://doi.org/10.1371/journal.pone.0263139>
- Centers for Disease Control and Prevention. <https://www.cdc.gov/diabetes>
- Diabetic Mean Plan. <http://pendidikanpesakit.myhealth.gov.my/>
- Doctor Nor Amalina Zaharani, Medical Officer UD48, Klinik Kesihatan Seremban 2, 25 March 2024.
- Gimino, G. And Carvalho, M. “Almost 20% of Malaysian adults have diabetes, says Dr. Zaliha.” *The Star*, 30 November 2023.
- Ministry of Health Malaysia 2020. National Diabetes Registry Report 2013-2019 Authors: Dr Arunah Chandran, Public Health Physician, Disease Control Division; En Mohd Nazri Abdullah, Assistant Medical Officer, Disease Control Division; and Pn Fathilah Abdul, Public Health Matron, Disease Control Division.
- Ministry of Health Malaysia. 2021. National Diabetes Registry Report 2020 Authors: Dr Arunah Chandran, Public Health Physician, Disease Control Division; and Dr Nurhaliza Zakariah, Public Health Physician, Disease Control Division.
- National Institute of Diabetes and Digestive and Kidney Diseases. <https://www.niddk.nih.gov/health-information/diabetes>