

Conference Paper

Diabetes Mellitus Surveillance Data in South Konawe Regency,

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Diabetes Mellitus is a chronic condition that happens when the body cannot produce enough insulin or the insulin produced cannot be used. Diabetes Mellitus is diagnosed by observing elevated levels of glucose in blood. Prevalence of Diabetes Mellitus continues to increase in Indonesia. It can be said that Diabetes Mellitus is a global health problem or disease in society. This study used various data from Indonesian Government Agencies. Diabetes Mellitus cases data was obtained from the South Konawe Regency Health Office in the period from 2018 to 2020. The conclusion was that the majority of Diabetes Mellitus cases in South Konawe Regency tend to increase from year to year. Diabetes Mellitus cases in South Konawe Regency tend to increase every month and reach the peak in May and September. The majority of people with Diabetes Mellitus in South Konawe Regency are in the age range > 45 years old.

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1. INTRODUCTION

Diabetes mellitus is listed as the deadly disease in the world with a prevalence increase significantly every year. Diabetes mellitus is characterized by symptoms of frequent eating (polyphagia), frequent drinking (polydipsia), and frequent urination (polyuria) due to failure of sugar to enter the body into the cells to be processed as energy due to the inability of the pancreas to produce sufficient insulin or not at all [7]. The World Health Organization (WHO) estimates more than 346 million people worldwide have diabetes. The number is likely to increase more than double by 2030 without intervention [1]. According to the International Diabetes Federation (2019), it is predicted that there will be an increase in DM cases in Indonesia from 10.7 million in 2019 to 13.7 million in 2030 [10]. Based on the data from the Southeast Sulawesi Provincial Health Office of the year 2015 to 2017 diabetes mellitus was included in the top ten diseases. Diabetes mellitus was ranked 5th with a total of 2.436 cases [1].

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The public health of South Konawe Regency condition in 2020 can be seen by the disease pattern of patients who visit health centers in South Konawe Regency. Diabetes Mellitus is ranked fourth (8.2%) this is related to the instant-paced eating habit which can lead increasing blood sugar levels. As similar as cigarettes, smoking is one of the factors that lead uncontrolled blood sugar levels.

2. METHODOLOGY

Andoolo is the capital city of South Konawe Regency. It is one of the regencies in Southeast Sulawesi Province whose territory has boundaries including; to the north bordered by Konawe Regency and Kendari City to the east bordered by the Banda Sea and the Maluku Sea; to the south bordered by Bombana and Muna Regencies; and in the west bordered by Kolaka and East Kolaka regencies.

This study used various data from the Indonesian Government Agencies. Diabetes Mellitus case data was obtained from the South Konawe Health Office from 2018 to 2020. The data was obtained from the annual health fact sheet published by the South Konawe Regency Health Office. The result of study is presented on the images as follow.

3. RESULT OF STUDY

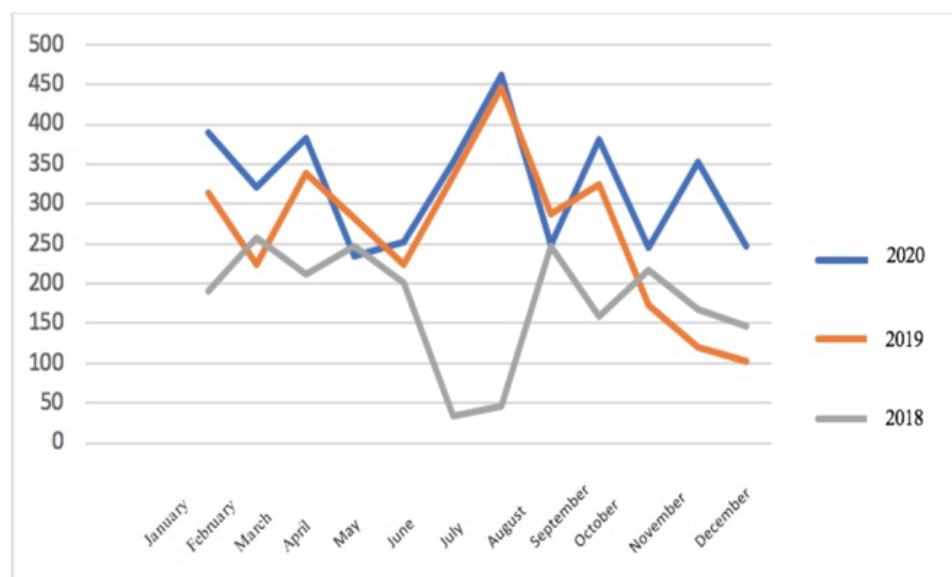


Figure 1: Number of Diabetes Mellitus cases by year in South Konawe Regency.

Based on the spreads of Diabetes Mellitus from year to year, the results showed the Diabetes Mellitus patient spreads fluctuated every month. On January it tends to

increase and the peak occurs in May then seems to be stable in July to August but increases in September (Figure 1).

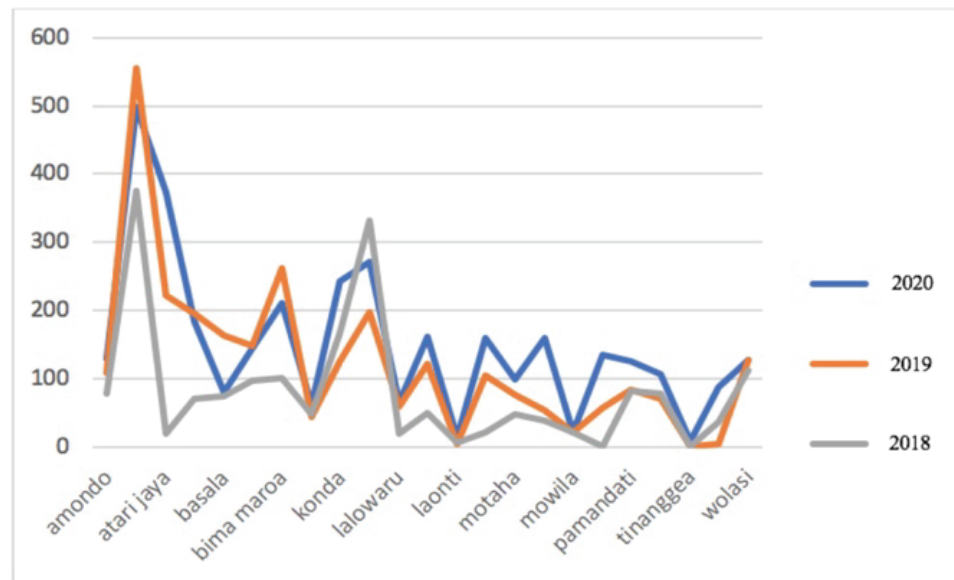


Figure 2: Number of Diabetes Mellitus cases by districts in South Konawe Regency.

Based on the sub-districts in South Konawe Regency, in the year 2018-2020 the incidence of Diabetes Mellitus was the highest in Andoolo Utama sub-district, then in Lainea and Bima Maroa sub-districts (Figure 2).

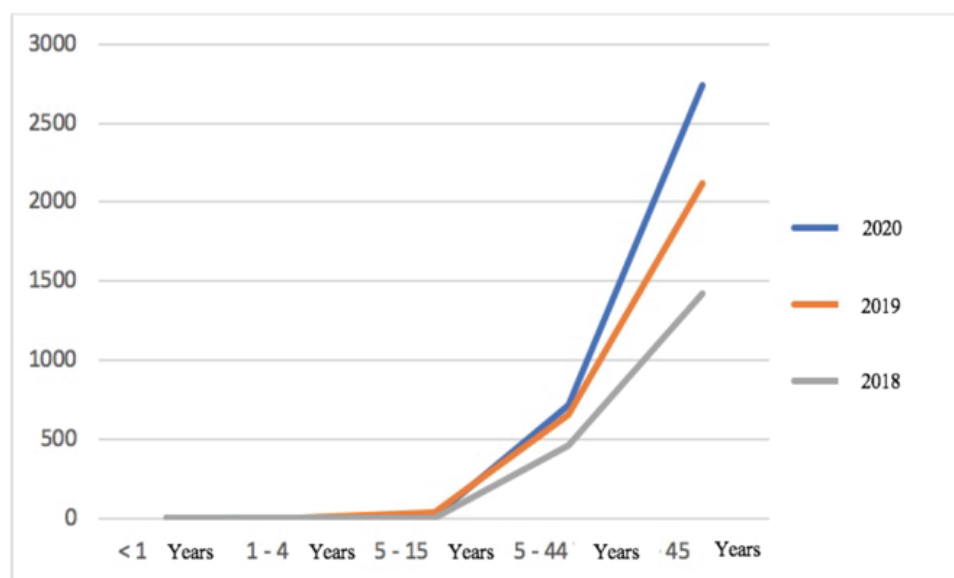


Figure 3: Number of Diabetes Mellitus cases by Age in South Konawe Regency.

Based on the age, the spreads of Diabetes Mellitus sufferers are fluctuating. In the year 2018-2020 the number of cases has increased from the age 1-4 years old, 5-15 years old, 15-44 years old, and the most in the age range > 45 years. (Figure 3).

4. DISCUSSION

Diabetes Mellitus is ranked as the fourth most common disease in South Konawe Regency in the year 2020 was (8.2%). The number of Diabetes Mellitus cases from 2018 to 2020 are continues to increase. It is related to the instant-paced eating habits that is very popular which can lead increase of blood sugar levels. Likewise cigarettes, smoking as one of the factors that cause uncontrolled blood sugar levels. Therefore, it is necessary to instill in the community to implement a healthy lifestyle to avoid various diseases, especially DM. In addition, it can be done by adjusting the diet, exercising according to the doctor's advice, taking medication regularly and diligently shedding the eye, visits to the doctor, stress management, limiting excessive physical activity and paying attention to sleep habits [1].

Diabetes Mellitus cases by sub-district in South Konawe Regency from 2018 to 2020 is continue to increase. The highest cases are in the Andoolo Utama sub-district. Andoolo Utama is the capital of South Konawe Regency which is the center of office and social activities. Andolo becomes main sources of this disease which is not realized by the public, especially those who have a busy level of activity. They are possibly risk of metabolic disorders and will eventually suffer from diabetes [7].

Diabetes Mellitus cases by age in South Konawe Regency have increased from 2018 to 2020. The most cases of sufferers are >45 years old. Human physiological change is drastic on the age of over 40 years. Diabetes mellitus often appears after a person enters the vulnerable age range namely after 45 years old. Age is one of the risk factors for DM. As one of the degenerative diseases, diabetes mellitus generally affects people aged > 40 years old and the elderly. Clinically, hyperglycemia is often found in the elderly namely at the age of >60 years [6]. Diabetes mellitus is a silent killer disease due to many patients who are not aware before the occurrence of complications [10].

5. CONCLUSION

Diabetes Mellitus is a deadly chronic condition that happens when the body cannot produce enough insulin or cannot use the insulin. Diabetes Mellitus is diagnosed by observing elevated levels of glucose in the blood. Risk factors for diabetes mellitus are

genetic factors, age, lack of physical activity and an unbalanced healthy food and diet. Diabetes

Mellitus is a disease which prevalence continues to increase year by year. It can be conclude that Diabetes Mellitus has become a global health problem or disease in the world.

References

- [1] Azis, W.A., Laode Y.M., dan Sri R.B. 2020. Hubungan antara Tingkat Pengetahuan dengan Gaya Hidup pada Penderita Diabetes Melitus. *Jurnal Penelitian Perawat Profesional*. 2(1) : 105-114.
- [2] Azrimaidaliza. 2011. Asupan Zat Gizi dan Penyakit Diabetes Mellitus. *Jurnal Kesehatan Masyarakat*. 6 (1) : 36-41.
- [3] Dinas Kesehatan. 2018. *Laporan 10 Besar Penyakit Tahun 2018 Kabupaten Konawe Selatan*. Konawe Selatan : Dinas Kesehatan.
- [4] Dinas Kesehatan. 2019. *Laporan 10 Besar Penyakit Tahun 2019 Kabupaten Konawe Selatan*. Konawe Selatan : Dinas Kesehatan.
- [5] Dinas Kesehatan. 2020. *Laporan 10 Besar Penyakit Tahun 2020 Kabupaten Konawe Selatan*. Konawe Selatan : Dinas Kesehatan.
- [6] Fanani, A. 2020. Hubungan Faktor Risiko dengan Kejadian Diabetes Mellitus. *Jurnal Keperawatan*. 12(3) : 371-378.
- [7] Irwansyah dan Ilcham S.K. 2021. Identifikasi Keterkaitan Lifestyle Dengan Risiko Diabetes Melitus. *JIKSH: Jurnal Ilmiah Kesehatan Sandi Husada*. 10(1) : 62-69.
- [8] Kementerian Kesehatan RI. 2020. *Tetap Produktif, Cegah, dan Atasi Diabetes Mellitus*. Jakarta Selatan : Kementerian Kesehatan RI.
- [9] Kusnanto, Putri M.S., Candra P.A., dan Hidayat A. 2019. Hubungan Tingkat Pengetahuan dan *Diabetes Self-Management* dengan Tingkat Stres Pasien Diabetes Melitus yang Menjalani Diet. *Jurnal Keperawatan Indonesia*. 22 (1) : 31–42.
- [10] Milita, F., Sarah H., Bambang S. 2021. Kejadian Diabetes Mellitus Tipe II pada Lanjut Usia di Indonesia (Analisis Riskesdas 2018). *Jurnal Kedokteran dan Kesehatan*. 17(1) : 9-20.
- [11] Narmawan, N., Syahrul, S., & Erika, K. A. 2018. The behavior of foot care in patients with type 2 diabetes mellitus: Applying the theory of planned behaviour. *Public Health of Indonesia*. 4(3) :129-137.

- [12] Sasmiyanto. 2019. Hubungan Perilaku Kesehatan dengan Kadar Gula Darah dan Kualitas Hidup Pasien Diabetes. *Jurnal Kesehatan Primer*. 4(2) :114-123.