UNIVERSITAS GADJAH MADA
HUBUNGAN RIWAYAT STATUS GIZI DENGAN KADAR HbA1c PADA POPULASI USIA Ã¢ï¿½Â¥40 TAHUN DI INDONESIA Analisis Data Indonesia Family Life Survey (IFLS) 1-5
ISMI SAFITRI NURAINI, Prof. dr. Madarina Julia, Sp.A(K)., MPH., Ph.D., dr. Arta Farmawati, Ph.D
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ASSOCIATION OF NUTRITIONAL STATUS HISTORY AND HbA1c LEVELS AMONG POPULATION AGES 40-60 YEARS IN INDONESIA
Indonesia Family Life Survey (IFLS) 1-5 Data Analysis

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ABSTRACT
Introduction : Nowadays, Indonesia is facing the problem of dual nutrition. The prevalence of obesity is increasing, but malnutrition problems such as underweight have not been resolved until now. Assessment of nutritional status can be done by several methods, one of which is the anthropometric method. One way to determine nutritional status in adulthood is according to Body Mass Index (BMI). Malnutrition is at risk of suffering from degenerative diseases in the future. HbA1c levels can be used as a tool to establish the diagnosis of diabetes mellitus. HbA1c levels depend on several things such as nutritional status, physical activity, intake, gender, and age. The Indonesia Family Life Survey (IFLS) is a longitudinal study from 1993 to 2014 involving more than 50,000 subjects in 13 provinces.
Method : This study was included in an observational study with a case control research design with secondary data from IFLS data. Analysis of the data used in this study is univariate and bivariate analysis with Chi-square and Fisher's exact tests.
Result : Subjects analyzed in IFLS 4 were 3,359 subjects and in IFLS 5 were 3,370 subjects. HbA1c levels have a higher average in women than men, after a different test, it is being understand that the average HbA1c levels in the two groups are significantly different with $p = 0.021$. For each period in each age group, subjects who had a history of obesity had a significant relationship with HbA1c levels ($p < 0.05$). The OR value between nutritional status and HbA1c levels increases with increasing nutritional status.
Conclusion : History of nutritional status has a relationship with HbA1c levels in the future, especially subjects who have nutritional status of obesity. The more increased the nutritional status, the greater the risk of having high HbA1c levels in the future.
Keywords : Nutritional status, obesity, HbA1c levels, diabetes mellitus, IFLS.

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HUBUNGAN RIWAYAT STATUS GIZI DENGAN KADAR HbA1c PADA POPULASI USIA ≥40 TAHUN DI INDONESIA
Analisis Data *Indonesia Family Life Survey* (IFLS) 1-5

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ABSTRAK:

Pendahuluan : Indonesia dihadapkan dengan masalah gizi ganda pada saat ini. Prevalensi obesitas meningkat, tetapi persoalan gizi kurang seperti *underweight* juga belum dapat diselesaikan hingga sekarang. Penentuan status gizi dapat dilakukan dengan beberapa metode salah satunya dengan metode antropometri. Salah satu cara penentuan status gizi pada usia dewasa adalah dengan melihat IMT. Malnutrisi berisiko menderita terkena penyakit degeneratif di masa mendatang. Kadar HbA1c dapat digunakan sebagai salah satu alat untuk menegakkan diagnosis diabetes mellitus. Kadar HbA1c dapat dipengaruhi oleh beberapa hal seperti status gizi, aktifitas fisik, asupan, jenis kelamin, dan usia. *Indonesia Family Life Survey* (IFLS) merupakan penelitian longitudinal dari tahun 1993 hingga 2014 yang melibatkan lebih dari 50.000 subjek di 13 provinsi.

Metode : Penelitian ini termasuk dalam penelitian observasional dengan rancangan penelitian *case control* dengan data sekunder data IFLS. Analisis data yang digunakan yaitu analisis univariat dan bivariat dengan uji *independent t test, Chi-square* dan *Fisher's exact*.

Hasil : Subjek yang dianalisis pada IFLS 4 sebanyak 3.359 subjek dan pada IFLS 5 sebanyak 3.370 subjek. Kadar HbA1c memiliki rata-rata lebih tinggi pada wanita daripada pria, setelah dilakukan uji beda diketahui rata-rata kadar HbA1c pada kedua kelompok signifikan berbeda dengan nilai p=0,021. Pada setiap gelombang di masing-masing kelompok usia, subjek yang memiliki riwayat obesitas mempunyai hubungan signifikan dengan kadar HbA1c (p<0,05). Nilai OR antara status gizi dan kadar HbA1c semakin meningkat seiring pertambahan status gizi.

Kesimpulan : Riwayat status gizi mempunyai hubungan dengan kadar HbA1c di masa mendatang, terutama subjek yang memiliki status gizi obesitas. Semakin meningkat status gizi risiko memiliki kadar HbA1c tinggi di masa mendatang semakin besar.

Kata kunci : Status gizi, obesitas, kadar HbA1c, diabetes mellitus, IFLS.