

# The Impact of Indonesia's National Health Insurance Implementation on the Prevalence of Cases of Diabetes Mellitus Among Children: A Literature Study

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**Abstract:** Indonesia is 4<sup>th</sup> in the world ranking of countries with the highest prevalence of Diabetes Mellitus. Diabetes Mellitus has become a serious problem because its pathophysiology can chronically and progressively develop into acute and chronic complications. Therefore there needs to be comprehensive and integrative treatment. Since January 1<sup>st</sup>, 2014 Indonesia has been implementing International Health Insurance or Jaminan Kesehatan Nasional (JKN). 33% of JKN's expenses are for Diabetes Mellitus and its complications. By using a literature study and secondary data from BPJS, the result is that the number of children which have Diabetes Mellitus has increased by 500 percent over five years. In 2014, the number of children with Diabetes Mellitus reached 1.100 since JKN was been implemented, and this keeps on increasing.

## 1 INTRODUCTION

Diabetes Mellitus is a non-communicable disease. Its pathophysiology can chronically and progressively develop into acute and chronic complications. According to the IDF's (International Diabetes Federation) estimations, in 2035 the number of people around the world with diabetes will rise beyond 592 million. Indonesia is 4<sup>th</sup> in the world ranking of countries with the highest prevalence of Diabetes Mellitus. Diabetes Mellitus itself is the third largest cause of death by non-communicable disease in Indonesia after cardiovascular diseases and cancer. In 2014, the deaths from Diabetes Mellitus were 6%, cancer 13%, and cardiovascular diseases 37% of the total. Diabetes Mellitus can occur in adults, adolescents and children.

IDF estimated that 46% of cases went undiagnosed in 2014. This can lead to a serious problem because people are not aware of their children's increased risk for developing diabetes-related complications. Factor which cause Diabetes Mellitus in undiagnosed cases in Indonesia are due to factors such as the records of Diabetes Mellitus data from many hospital in Indonesia not being well-organised and not all had been reported to a central

service. There is also high price of health care services for Diabetes Mellitus to consider. However, since January 1<sup>st</sup> 2014, Indonesia's government has been implementing National Health Insurance or Jaminan Kesehatan Nasional (JKN). 33% of JKN's expenses are for Diabetes Mellitus and its complications. JKN also provides a systematic method of recording since it has been applied nationally.

## 2 METHODS

The author has used a literature study method to analyse the impact of JKN implementation in prevalence cases of diabetes mellitus among children. The author has reviewed the evidence and summarised the available data which relates to JKN and prevalence cases of Diabetes Mellitus.

## 3 RESULT

Since 2007 until 2013, the number of Diabetes Mellitus cases decreased from 6,9% into 5,7%, but there was a contrast on the undiagnosed respondents.

According to the result of blood sugar level's examination and interview which has been done by *Riskesdas 2007* and *Riskesdas 2013*, there are 69,6% and 73,7% amount of respondents from Diabetes Mellitus patient which was a undiagnosed sufferer before. It shows that, the number of undiagnosed sufferer increased. The amount of undiagnosed children with Diabetes Mellitus increased can be caused by many factor. One of the main factor is financially incapable to access health services.

Since the first implementation of JKN, the prevalence of children with Diabetes Mellitus increased. it is related to the JKN's funds which its 33% of the funds allocated to Diabetes Mellitus and its complication, so that it decreasing Indonesia's citizen burden related to financial factor to get access to the health services.

Based on the data from a journal titled 'National Health Insurance Effects on Inpatient Utilisation in Indonesia,' the participation in JKN since its first implementation in 2014 until 2015 has reached 155,4 million people. This has kept rising to 171 million people in 2016. Meanwhile, JKN's total target participation is 254 million people to be achieved by 2019. It has been shown that Indonesian citizens prefer to use JKN as their health insurance to cover their health needs more than any another health insurance.

Based on a journal titled 'unsatisfied Patient in Healthy Industrial in Indonesia', the number of people included in Indonesia increases every year. The prevalence of 5.7% in 2007 and 6.9% means that this has reached as many as 12.2 million people in 2014. According to the official internal media of BPJS (Badan Penyelenggara Jaminan Sosial), the amount of children was suffering from Diabetes Mellitus increased by 500% over the course of five years. Every week, there will always be new children suffering from Diabetes Mellitus. In 2014, the number of children which suffer from Diabetes Mellitus reached 1.100 since JKN had been implemented and it keeps on increasing.

## 4 DISCUSSION

Based on the results of the literature study, the increase in the prevalence of cases of children suffering from Diabetes Mellitus can be detected with the implementation of the JKN reporting system. The increase of JKN and the increasing number of children with Diabetes Mellitus has shown that the JKN expenses for Diabetes Mellitus can attract Indonesian citizen's attention. By way of

the increasing number of JKN participants, it has also helped the government to make a centralised recording system. This will also help them to find new cases of undiagnosed Diabetes Mellitus.

## 5 CONCLUSIONS

Based on the results of several literature reviews in this literature study, the impact of Indonesia's national health insurance is that it can increase awareness of the prevalence of cases of children suffering from Diabetes Mellitus with the centralised reporting system.

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