Analysis descriptive stunting in Indonesia Health Research Basic

Feri Ahmadi*, Agus Triwinarto1


*Corresponding author: E-mail: Feriahmadi22@gmail.com. Mobile phone:+6281380100774

Abstract

Background:A nutritional deficiency in the period 1000 day of life causing disorder a growth that has resulted in stunting. Aims of study:Descriptive analysis the prevalence of stunting by province based Health Research Basic years 2007, 2010, 2013, and 2018

Methods: An analysis descriptive (minimum, maximum, the difference) was compared the percentage prevalence of per province based on from 2007, 2010,2013 , and 2018.

Results: Based on the results of the analysis there has been increasing the prevalence of stunting happened in Jambi province, East Java, South Sulawesi, North Maluku, and Papua. While a decline in the prevalence of stunting occurring in the province of South Sumatra, Bangka Belitung and Banten. To drop in the percentage prevalence of stunting who greatest Lampung province from year 2013-2018 of 15.3 %, East Nusa Tenggara from year 2010-2018 of 15.7 %, and West Papua province from year 2010-2018 of 21.4 %. Besides been an increase in the percentage prevalence of stunting who greatest East Nusa Tenggara 11.7 % from year 2007-2010, Papua Province 11.8 % from year 2010-2013 , and South Sulawesi Province 11.8 % from year 2007-2013.

Conclusion: Prevalence of stunting provincial differences between very large, and according the percentage increase and reducing the prevalence of stunting the percentage that varied.

Key words: prevalence of stunting by province, Indonesia


Background

One important factor in forming human resources is intake quality nutrients adequat started since the fetus in the womb reached the age of 24 months or of the so-called as 1000 the first day of life.Period window of opportunity. This means that if this period children have been affected nutrition still had a chance to remedy, if impairment of nutrition was not improved would have disorder growth and development permanent at age next. During the are sprouting a child can experience the growth (height) as follows: the son of normal remains abnormally, the normal become stunting, children stunting to be normal, children stunting fixed stunting1. Good nutrition allows children to grow, learn and contribute to their communities, while being resilient in the face of disease, disasters and other crises. Conversely, poor nutrition can compromise a child’s physical and cognitive development, often with lifelong consequences. Stunting, or chronic malnutrition, affected 155 million children. They may never grow to reach their full height potential, and their brains may never develop to their full potential. This can diminish children's learning achievements and, in turn, their productivity and earnings as adults. Around 52 million children (with some overlap with the 155 million stunted) suffered from wasting, of which 17 million were severely wasted. Children suffering from wasting are dangerously underweight for their height, and may also be affected by stunting, which puts them at increased risk of disease and death2. An estimated 41 million children (with some overlap with the 155 million stunted)...
faced the impacts of malnutrition by being overweight. The result of expending too little energy for the amount of calories consumed, overweight can increase the risk of chronic disease later in life. Globally, 162 million under-five year olds were stunted in 2012. The global trend in stunting prevalence and burden continues to decrease. Between 2000 and 2012 stunting prevalence declined from 33 percent to 25 percent and burden declined from 197 million to 162 million. In 2012, 56 percent of all stunted children lived in Asia and 36% in Africa.

METHODS

Design: Health Research Basic from Ministry of Health is the national scale with the design cross-sectional and nonintervention. Population is all households in Indonesia. Sample use to sampling frame National Survey Economicand Social (Susenas) from CentralBureauofStatistics which was held on march every month. The target sample visited 300,000 households in 30,000 blockcensus (one block census consists 10 households). The one conducted by the CentralBureauofStatistics with a method probability proportional to size used linear systematic sampling with two stage sampling. Data analyzed data Basic Health Research (Riskesdas 2007), based on the report 2010, 2013, 2018, and data analyzed data stunting the age 0-60 in fives Indonesia, made in data see each prevalence of stunting the difference by province start in 2007, 2010, 2013, and 2018. Data analyzed province to as many as 34 Indonesia.

RESULT AND DISCUSSIONS.

Based on the results of the analysis there has been increasing the prevalence of stunting happened in Jambi province, East Java, South Sulawesi, North Maluku, and Papua. While a decline in the prevalence of stunting occurring in the province of South Sumatra, Bangka Belitung and Banten. To drop in the percentage prevalence of stunting who greatest Lampung province from year 2013-2018 of 15.3 %, East Nusa Tenggara from year 2010-2018 of 15.7 %, and West Papua province from year 2010-2018 of 21.4 %. Besides been an increase in the percentage prevalence of stunting who greatest East Nusa Tenggara 11.7 % from year 2007- 2010, Papua Province 11,8 % from year 2010-2013, and South Sulawesi Province 11,8 % from year 2007-2013.

Graph 1: Rates the prevalence of stunting based on the data from Basic Health Research years 2007, 2010, 2013, 2018 per provinces in Indonesia.
Data analyzed by the above based upon the 2007, as the baseline namely by means of the year compared with data Basic Health Research 2007, 2010, Basic Health Research years so on up to years 2013, 2018 Basic Health Research data to know there are fluctuations in declines and increased prevalence of stunting each province.


The data on be analyzed by years 2010, as the baseline namely by the way data Basic Health Research years 2010 compared with the data Basic Health Research years 2013, and data Basic Health Research years 2018, as well as data Basic Health Research years 2013 as opposed to the data Basic Health Research years 2018 described going on fluctuations in the decline and the increased prevalence stunting by province. The cause of a decline in and the increased prevalence stunting based on data Basic Health Research ca not answer these problems, but based on sharing that theory the decline in prevalence of stunting caused by hal-hal as follows among others: intake of a nutrient substance being consumed by fives less/or not of the needs of a substance needed in the last time, long enough infection or resulting from a particular disease that has not cured. The fetal development characterized by rising heavy a fetus starting from the first sunday of gestation until 8 weeks with the opening major of the gestation period has not yet begun to look. On sunday when 8 up to 12 weeks of pregnancy, the increase in weight of a fetus relatively small. The increase in weight of a fetus which is very fast occur on sunday 20 to sunday 34 of the gestation period. Next, on two week prior to birth, the increase in weight slowed again\(^5\). Research in Germany shows that there is a very significant relationship between pregnant women who experienced malnutrition on sunday ke-20 until the end of pregnancy and pregnant women with height <145 cm against long\(^9\). Apart from that research conducted in Indramayu, West Java, for pregnant women who drink 200 ferrous sulfate 0.25 mg and mg folic acid during pregnancy had a baby with the body length born 1 centimeter longer than those who do not drink\(^6\).
Studies conducted in north Maluku in the year 2004 on young babies for themselves and for their 0-23 months shows that the occurrence of stunting deals with their position in the family that is poor and whose dad that does not work. If the baby suffer stunting over time not improved it would impact on the development of cognitive ability, so as to further activities is inflicted achievement in education for the children of the school. Reducing the prevalence of stunting of 34 percent in 1986 to 6 percent in 2006 in Brazil going through implementation of four comprehensive model, namely: (1) increase family income low income, (2) elevated levels of education for their with low levels of education, (3) improvement of water and the exhaust system waste / private toilet and (4) the use of healthcare facility for basic health services for pregnant women. In line with thing on top of Mexico was down prevalence of stunting of 27 percent down to 16 percent at a span of years 1988-2006. Strategy conducted by the government Mexico to reducing the prevalence of stunting, that is a program provide assistance cash for low income families, and improve affordability health facilities. Meanwhile, it is estimated that reducing the prevalence of stunting in 2015, is as much as 22.6 %. Over the past 25 years prevalence of stunting decreased by 24.4 %. So that within 1 year can be lowered prevalence of stunting, is as much as 1 percent. Indonesia is 5 country that has the world highest prevalence of stunting. The results of Basic Health Research tended to decrease the prevalence of stunting in toddlers as much as 6 % from 36.8 percent in years 2007 to 2010 is 35.6 percent. But there was an increase in 2013, which is as much as 37.2 percent. And in 2018 30.8 percent. This, show that indonesia has not succeeded in reducing prevalence of stunting in the last eleven years. Another study done by Dewey (2011), in Sub-Saharan Africa Southern and Southeastern Asia, American and Caribbean countries from year 2003-2009 shows that stunting very influential to the development of the cognitive and achievement at school. Acceleration decline stunting from Ministry of Health Indonesia to nutrition specific intervention: 1) the provision of supplementary food to overcome lacking in energy chronic for pregnant women, 2) the tablet added blood to anemia pregnant women, 3) iodine salt consumption, 4) breastfeeding exclusive, 5) the provision of breastfeeding until the age of 2 years accompanied by with food a companion breastfeeding adequate, 6) immunization, 7) zinc supplementation, 8) fortification iron into food, 9) vermifuge, 10) Vitamin A, 11) malnutrition governance, 12) malaria reduction, 13) the prevention and treatment, and 14) washing hands properly diarrhea. Nutrition sensitive intervention: 1) water and sanitation, 2) fortification food security, 3) access to health services and family planning, 4) national health insurance, childbirth insurance, social security, 5) education pattern foster parents, 6) early childhood development considered that holistic, stimulation detection growth of early intervention, 7) community education nutrition, 8) sexual and reproductive health education, and nutrition in adolescents, 9) intensive work programs cash.

**Conclusion**

Prevalence of stunting provincial differences between very large, and according the percentage increase and reducing the prevalence of stunting the percentage that varied.
CONFLICT OF INTEREST

There is no conflict of interest

ACKNOWLEDGEMENTS

1. Head, National Institute of Health Research and Development (NIHRD), MoH Jakarta
2. Head, Centre for Research and Development of Public Health Efforts, NIHRD, MoH Jakarta
3. Head, PPI and member team, Centre for Research and Development of Public Health Efforts, NIHRD, MoH Jakarta.

References

1. Coordinating Minister for People Welfare (2012) the program planning guidelines the national movement of the acceleration of improvement in order the first day of the life of a thousand. Jakarta

©Annals of Tropical Medicine & Public Health S357A


17. Indonesian Ministry of National Development Planning. The guidelines of the intervention stunting integrated at district/city Jakarta. 2018