Environmental Health Indicators Affect On The Achievement Of Community Health Development Index In Tanjung Jabung Timur District

Andy Amir¹, Dwi Noerjoedianto*², Andi Subandi³
¹²Program Studi Ilmu Kesehatan Masyarakat Fakultas Kedokteran dan Ilmu Kesehatan Universitas Jambi
³Program Studi Ilmu Keperawatan Fakultas Kedokteran dan Ilmu Kesehatan Universitas Jambi

*Corresponding Author
Email: dwi_noerjoedianto@unj.ac.id

Abstract
The Public Health Development Index (IPKM) is composite indicator that describes the progress of health development in a district. Environmental health is one of the indicator contained in the IPKM. There are 2 sub-indicator for environmental health, access to clean water and access to sanitation. This research was conducted in Tanjung Jabung Timur regency with the aim of knowing the description of IPKM achievements on environmental health indicator in 2016-2018. Methodology this was quantitative research. This study was conducted 5 months starting from May to October 2021. Data analyzed used public health development index formula that has been determined by calculating weights for each indicator and then used minimum and maximum standards values. This study found that the sub-index value of the group from 2016-2018 continued to increase. In 2016 amounted to 0.111411387, in 2017 amounted to 0.363059484, and in 2018 amounted to 0.696495001. The results of this study indicate that for 3 consecutive years the environmental health conditions have continued to improve towards a better direction, both in terms of access to clean water and access to sanitation. However, it still to improvements access to clean water and access to healthy sanitation so that it evenly distributed for all communities in Tanjung Jabung Timur Regency.

Keywords: Public Health Development Index, Environmental Health

INTRODUCTION

Public Health Development Index (IPKM) is a composite indicator that describes the progress of health development in a district or city. IPKM in 2013 is composed of several indicators, namely, toddler Health, Health Services, Health Behavior, non-communicable diseases, infectious diseases and environmental health. Composite indicators contained in the IPKM can rank the success of a district or city in health development. Directly or indirectly indicators on the IPKM can play a role to increase the life expectancy of a long and healthy life.

The determination of IPKM is formulated from community-based health data, namely Basic Health Research (Riskesdas), National Socio-Economic Survey (Susenas), and Village Potential Survey (Podes). Selected indicators on the IPKM show the impact of health development in the previous year, so that the IPKM can be used as a reference for local governments in making more appropriate intervention programs, as advocacy material to local governments to be encouraged in raising their health ratings, as the formulation of severe/special problem areas (DBKKBK), as the basis for determining the allocation of health assistance funds from the center to the regions and assist the Ministry of State Development of disadvantaged regions (KMPDT) in district/city development.

Jambi province ranks 9th of 33 provinces in the achievement of IPKM nationally in 2013, however, based on the profile of the Jambi provincial Health Office is still a lot of districts/cities in terms of indicators of IPKM has not met the national target. Life expectancy is one of the indicators in assessing the Human Development Index. Life expectancy in Jambi province fluctuated from 2011-2018. Life expectancy in Jambi province amounted to 70.71% (66-76 years) while the minimum standard value of IPKM assessment is 100%.
Sanitation is related to environmental health that affects the degree of Public Health. Poor sanitary conditions will have a negative impact on many aspects of life, ranging from the decline in the quality of the community's environment, contamination of drinking water sources for the community, increasing the number of diarrhea incidents and the emergence of several diseases (Kemenkes RI, 2019)

Based on Indonesian health profile data in 2019, the percentage of families with access to adequate sanitation facilities in Indonesia is 87.81%. Provinces with the highest percentage of families with access to adequate sanitation facilities are in Yogyakarta (100%), South Sulawesi (97.58%) and Bangka Belitung Islands (95.57%). While the provinces with the lowest percentage are Papua (53.74%), West Kalimantan (71.81%), and Central Kalimantan (73.27%).

The percentage of families with access to adequate sanitation facilities in Jambi province in 2019 was 88.53%, this percentage has increased from 2018 which was 83.5%. The percentage of access to proper sanitation in 2018, namely Jambi city and Sungai Penuh City which have the highest access to proper sanitation, namely 95.4% for Jambi city and 90.4% for Sungai Penuh City. While East Tanjung Jabung regency is at the lowest percentage of 69.6% (Jambi provincial Health Office, 2019)

The percentage of households that have access to decent drinking water sources in Jambi province in 2019 was 68.40% increased from 2018 and 2017, namely 57.53% in 2018 and 54.25% in 2017 (Central Bureau of Statistics, 2019).

**RESEARCH METHODS**

This type of research is a quantitative assessment that is described descriptively to determine the achievement of the Public Health Development Index in Tanjung Jabung Timur regency on environmental health indicators in 2019. The study was conducted for 5 months starting from May to October 2019. The data of this study is data obtained from the Health Office of East Tanjung Jabung regency. The subjects of this study are all sub-indicators of environmental health data in the IPKM. Instruments in this study are a list of reports/data in accordance with the indicators/data in accordance with the indicators in the IPKM sub-index for the period January 2016-December 2018 and a notebook and recording tool. The data that has been collected will then be carried out a series of analysis processes, namely data processing, editing, data entry and analysis in accordance with a predetermined formula.

**RESULTS AND DISCUSSION**

In this study, an analysis of the achievements of the Public Health Development Index on environmental health indicators can be seen in the following:

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Sub Index</th>
<th>Sub Index Indicator Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sanitary access</td>
<td>0.043</td>
<td>0.1114411387</td>
</tr>
<tr>
<td>Clean water access</td>
<td>0.06841139</td>
<td></td>
</tr>
</tbody>
</table>

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Table 2. Results of Environmental Health IPKM 2017

<table>
<thead>
<tr>
<th>Indicators</th>
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<tbody>
<tr>
<td>Sub Index</td>
</tr>
<tr>
<td>Sub Index Indicator Group</td>
</tr>
<tr>
<td>Environmental Health</td>
</tr>
<tr>
<td>Sanitary access</td>
</tr>
<tr>
<td>Clean water access</td>
</tr>
</tbody>
</table>

Table 3. Environmental health IPKM achievement results 2018

<table>
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<tbody>
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<td>Sub Index</td>
</tr>
<tr>
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<td>Sanitary access</td>
</tr>
<tr>
<td>Clean water access</td>
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</tbody>
</table>

From Table 1, 2, and 3 above, it can be seen that the sub-index value of the environmental health indicator group in 2016 amounted to 0.111411387, in 2017 amounted to 0.363059484 and in 2018 amounted to 0.696495001. From 3 consecutive years from 2016 to 2018 it can be seen that there is an increase in the value of the sub-index of the environmental health indicator group, this can explain that the health care conditions in Tanjung Jabung Timur regency from 2016 to 2018 have improved better. When viewed from the value of the sub index, there is also an increase from 2016 to 2018 both in the sanitation access sub index and the clean water access sub index.

**Discussion**

**Sanitary Access**

Good sanitation is an important element that supports human health. The definition of sanitation according to WHO refers to the provision of facilities and services for the disposal of human waste such as urine and faeces. The term sanitation also refers to the maintenance of hygienic conditions through waste management and liquid waste management (Kemenkes RI. 2018).

Proper sanitation as a facility owned by the household itself or in conjunction with other households, with the type of goose neck toilet or closed plengsengan, as well as the final disposal of feces (TPAT) septic tank or waste water disposal installation (WWTP) or often referred to as latrines(WHO, 2017). While adequate sanitation is proper sanitation that has met the requirements, such as; owned by a household (not jointly owned), the household has a handwashing facility with water and soap, and a safely managed fecal disposal system.

Latrines are effective fecal disposal facilities to break the chain of disease transmission. Latrines are basic things that every community should have. The main reason that people always reveal why they do not have a family toilet until now is that they do not or do not have money. Seeing these reality factors, actually the absence of latrines in every household is not an economic factor, but rather the public awareness to implement a clean and healthy lifestyle (PHBS).

Healthy latrine facilities can be classified into sharing latrines, communal, semi-permanent healthy latrines (JSSP), and permanent healthy latrines. Shared/communal latrines are latrines that are used together in the community (users of more than one family). Semi-permanent healthy latrines do not yet use goose neck construction but have a lid and are located inside the House. Permanent healthy latrines are latrines that already use goose neck construction and are located inside the House(Nurzanah, 2019).
The percentage of families in Indonesia who have used permanent seat latrines in 2019 amounted to 72.3%, the remaining 18.6% used semi-permanent healthy latrines and 9.1% used sharing/communal latrines (4). The percentage of the population with access to proper sanitation (healthy latrines) in Jambi province was 73.1% in 2018. This figure increased in 2019 by 88.53% (Kemenkes RI. 2019).

Based on data from the Jambi provincial health office in 2018, the percentage of families with access to proper sanitation (healthy latrines) in the highest districts/cities, namely Tebo regency by 100% and Jambi city by 90.69%. While the lowest Regency / city is Bungo regency with a percentage of 20.12%, West Tanjung Jabung regency with 62.40% and East Tanjung Jabung regency with 69.48% (Kemenkes RI. 2018).

Based on the findings of this study shows that the sub-index of sanitation access in Tanjung Jabung Timur regency has increased for 3 consecutive years from 2016 to 2018 but has not reached the national target. The availability of access to good environmental sanitation in Tanjung Jabung Timur regency is still inadequate. In 2016 the population with access to healthy latrines was 8.6%, in 2017 9.2% and in 2018 it increased rapidly by 69.5%. The development of data from 2016 to 2018 is indeed an increase every year as well as the IPKM value for sub-indicators of environmental health, but it is still very far from the national target of 100%.

**Clean Water Access**

Water is one of the components of the environment that is very important for the development and growth not only for humans, but also for other living beings (Alihar, 2018). The availability of water is a fundamental thing in the needs of human life, because water is the source of life. Humans will not be separated from their need for clean water, both for use in toilets and as daily consumption. Water that is not good quality will have a negative impact on health and vice versa, good quality water will have a positive impact on health. Low access to clean water will be in line with the increasing prevalence of various diseases such as skin diseases, diarrhea and so forth. This can certainly affect the degree of life of the surrounding community and will certainly reduce the value of IPKM.

The Indonesian government pays serious attention to access to clean water, which as reflected in the National Medium Term Development Plan (RPJMN) 2015-2019 which sets 2019 as the year of achieving 100% access to drinking water (WHO, 2017). The RPJMN Target on universal drinking water access is not without foundation because based on Susenan data shows that in 2015, access to decent drinking water nationally has reached 71%, even higher than the MDGs Development Goal target of around 69% (Central Bureau of Statistics 2015).

Based on the results of this study shows that the sub-index of clean water access for 3 consecutive years from 2016 to 2018 has increased. Tanjung Jabung Timur regency is one of the regencies in Jambi province which is geographically located in peatland area. The availability of clean water is a problem in this region because the river water is murky and groundwater quality for consumption is still low. Therefore, most people of tanjung jabung timur really expect rain water to be collected for daily use.

Access to clean water in East Tanjung Jabung regency from 2016 to 2018 continues to increase but still has not reached 100%. Several studies carried out by international bodies such as UNICEF have found that low quality drinking water can be the source of the development of a wide variety of diseases. Viruses and bacteria that thrive in unhealthy drinking water are associated with various diseases such as diarrhea, cholera and other digestive disorders. According to UNICEF in 2012 globally the poor quality of drinking water has led to an increase in the probability of under-five deaths (Unicef, 2012).

The results of alihar’s research (2018) show that poor people have to pay for clean water much more expensive when compared to rich people. In contrast middle to upper society tend not to have difficulty in obtaining clean water because they have the ability and adequate resources.
upper middle class can also easily subscribe to clean water distributed by the Regional Water Company (PDAM) if the groundwater obtained from drilling is not suitable for consumption. The upper middle class can also take advantage of clean water sold by gallon water sellers.

CONCLUSION

In this study it can be concluded that the environmental health indicator is one of the indicators in determining the value of IPKM for 3 consecutive years, namely from 2016 to 2018 has increased. This achievement indicates that the handling of environmental health problems, especially in the sub-index of access to sanitation and access to clean water has been getting better every year. This shows positive results in health development, especially in Environmental Health in East Tanjung Jabung regency. However, it still needs more attention and continue to improve the quality of Environmental Health in the community, especially on access to sanitation and access to clean water in the years to come to achieve a good health status and obtain a good IPKM.

REFERENCES


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