Impact of Tobacco Use on Poverty, Economic Development and Patterns of Tobacco Use by Poverty and Country Income Groups

Ika Septyaningsih
Faculty of Public Health, Universitas Airlangga, Mulyorejo, Surabaya, Indonesia
ika.septya17@gmail.com

Keywords: Economy, Tobacco, Cigarette, Poverty, Development.

Abstract: The impact of smoking is not only on the aspect of health, but will also affect socioeconomics; one of the effects is poverty. Therefore, there needs to be a control in accordance with UU No. 36 year 2009, that is, for negative impact of health to decrease. The purpose of writing this article is to determine the impact of tobacco use on poverty, economic development and the pattern of tobacco use by the poverty and country income groups. The method used is the study of literature. Data from several references indicate the following: the smoking proportion is higher among the poor, compared with the rich; household expenditure on cigarettes can reduce the burden of basic needs, so the nutritional status of the community will decline further; cigarettes exacerbate the degree of poverty; and cigarettes not only exacerbate household poverty, but also the country, because the income is slightly less than the impact of cigarettes.

1 INTRODUCTION

Indonesia is famous as an agricultural country, the country's majority livelihood is farming. The products of Indonesia agriculture are, rice, corn, wheat, and so on. According to Kosen, in TCSC IAKMI (2014:31) Indonesia was the world's fifth largest tobacco producer in the year 2012, with production of 135,678 tonnes, or approximately 1.9% of the total world tobacco production.

In addition, being the biggest tobacco producer, Indonesia has the highest number of tobacco consumers, particularly smoking tobacco products in ASEAN countries. Based on the results of the Riskesdas, in 2013, the average resident age ≥ 10 years in Indonesia smoked 12.3 cigarettes or the equivalent of a pack, as well as there being more male smokers than female smokers. Over the years, the proportion of people who smoke has rise; in 2007 it amounted to 34.2% in 2010 it was 34.7%, and, according to Riskesdas, in 2013 it amounted to 36.3%. It is also supported by the growing number of tobacco between the years 2010 and 2012.

The impact of smoking is not just in terms of n health in, but will also be promoted in terms of socioeconomics and environmental effects for smokers themselves or those around them. From the economic sphere alone, smoking can increase the burden of the family when there are family members who smoke. In addition, due to spending on smoking, other needs within the family can be reduced. As well as other impacts which can add to the burden of a family impacted by tobacco consumption.

Because of the many problems that are posed, including the tobacco, this is a complex problem to solve. The government is unable to act on its own, but it also requires the role of health workers, community leaders, as well as the whole society in order to achieve the government's objectives to increase the degree of public health by lowering the number of active smokers in Indonesia.

2 METHODS

This is literature study. The data were collected in the form of secondary data from the data of the Badan Pusat Statistik (BPS), Riset Kesehatan Dasar (Riskesdas) in the year 2013, the Journal of TCSC, as well as supported by government regulations and legislation in force. Data from the Central Bureau of Statistics provided information about the percentage of household expenditures per capita a month according to group of goods and the place of

Septyaningsih, I.
Impact of Tobacco Use on Poverty, Economic Development and Patterns of Tobacco Use by Poverty and Country Income Groups.
In *Proceedings of the 4th Annual Meeting of the Indonesian Health Economics Association (INAHEA 2017)*, pages 73-77
ISBN: 978-989-758-335-3

residence of the year 2016. Data Riskesdas 2013 provided information on diseases caused by tobacco consumption. Regulation is the Indonesian Ministry of Health Regulation Number 69 year 2013 about Standard of Health Care Tariff in Primary Health Care and Advanced Health Care in accordance of National Health Insurance program to provide information about the cost required for inpatient care due to illnesses caused by tobacco. These data are interpreted and linked in order to obtain the needed results.

3 RESULT

To obtain the needed information, i.e. to know the impact of tobacco control on facets of the economy, data related are needed, including, among others, regarding the percentage of smokers in Indonesia, spending on average in a month, the diseases caused due to tobacco consumption, as well as the cost needed for treatment when a person suffers from a disease caused due to the consumption of tobacco. From some of the data collected, the following can be said:

Table 1: Proportion of inhabitants aged ≥ 10 years according to the habit of smoking and the characteristics, Indonesia for year 2013

The characteristics	Current Smokers	
	Smokers daily	Smokers sometimes
Jobs		
Does not work	6.9	3.0
Employees	33.6	7.4
Self-employed	39.8	6.5
Farmers/fishers/workers	44.5	6.9
Others	32.4	5.8

Source: Riskesdas 2013

Based on Table 1, it can be seen that the population with jobs as farmers/fishers/labour has the highest percentage (44.5%) of active smokers when compared with other jobs.

Table 2: The percentage of average expenditure per capita a month according to group of goods and place of residence for year 2016

No	Group Of Goods	Percentage (%)		
		Urban	Rural	Urban+Rural
I	Food			
1.	Grains	4.98	10.04	6.82
2.	Tubers	0.38	0.80	0.53
3.	Fish/shrimp/calamari/scallops	3.06	4.40	3.55
4.	Meat	2.30	1.94	2.17
5.	Eggs and milk	3.06	2.79	2.96
6.	Vegetables	3.01	4.75	3.65
7.	Nuts	0.97	1.30	1.09
8.	Fruit	2.05	2.02	2.04
9.	Oil and coconut	1.06	184	1.34
10.	Material drinks	1.34	2.,30	1.69
11.	Spice	0.79	1.28	0.97
12.	Other consumption	0.89	1.19	1.00
13.	Food and drink	15.22	12.27	14.14
14.	Smoking	5.45	8.91	6.72
	The amount of food	44.57	55.83	48.68
II	Not Food			

No	Group Of Goods	Percentage (%)		
		Urban	Rural	Urban+Rural
1.	Housing and facilities	28.67	22.99	26.60
2.	A wide range of goods and services	14.45	10.23	12.91
3.	Clothing, footwear and headgear	3.01	3.12	3.05
4.	Durable goods	4.81	4.65	4.75
5.	Taxes, charges and insurance	2.67	1.60	2.28
6.	The purposes of the party and ceremony/kenduri	1.81	1.58	1.72
	The amount of non food	55.43	44.17	51.32
	The Amount of Food+ Non Food	100.00	100.00	100.00

Source: Badan Pusat Statistik 2016

From the table, two significant findings can be seen, that spending for smoking in one of the two biggest spending for most of society in the city and the third most populous, in ninth place, for the villages. The community believe that spend money for smoking is better than spend money for rice or foods, which only amounted to 4.98, and energy sources of protein such as eggs and milk, which only amounted to 3.01%. For the rural community, spending on smoking is greater when compared to the huge expenditure to meet the needs of protein, such as eggs and milk, which only amounted to 2.79% of the total expenditure in total.

Table 3: Proportion of tobacco consumption related diseases and ICD-10 codes in Indonesia for year 2013

Diseases	ICD 10 Code	Proportion of Disease due to Tobacco
Tumors of the Mouth and Throat	C 00-14	0.7
Tumor of the Oesophagus	C 15	0.3
Tumors of the stomach	C 16	0.25
Liver tumors	C 22	0.1
Tumors of the Lung, Trachea and Bronchus	C 33-34	0.9
Cervical Tumor	C 53	0.3
Ovarian Tumor	C 56	0.1
Bladder Tumor	C 67	0.1
Coronary heart disease	I 20-25	0.35
Stroke	I 60-69	0.4
Chronic obstructive pulmonary disease	J 44-47	0.7
Low birth weight Infant	P 05, P 07	0.3

Source: Beban Kesehatan dan Dampak Ekonomi Merokok di Indonesia tahun (2013)

Table 3, illustrates data produced based on the results of a study conducted in Indonesia and Indonesia. Consumption of tobacco can be assumed for 7% of tumors of the mouth and throat of, while the remaining 93% can be due to other factors.

Table 4: Cost of inpatient care per patient in accordance with Indonesian Ministry of Health Regulation Number 69, 2013

Disease	Treatment Cost in class III Hospital (Rupiah)
Low birth weight infant	6.185.362
Tumors of the Mouth and Throat	3.733.141
Tumors of the Oesophagus	3.733.141
Tumors of the stomach	3.733.141
Liver tumors	3.733.141
Tumors of the pancreas	3.733.141
Tumors of the Lung, Trachea and Bronchus	3.733.141
Cervical Tumor	3.733.141
Ovarian Tumor	3.733.141
Bladder Tumor	3.733.141
Coronary heart disease	6.017.579
Stroke	7.726.946
Chronic obstructive pulmonary disease	4.551.951

Source: Beban Kesehatan dan Dampak Ekonomi Merokok di Indonesia tahun (2013)

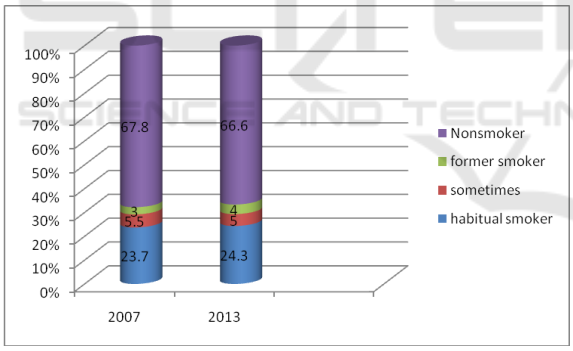
Table 4 gives the maintenance costs of hospitalization per patient for each illness due to smoking in accordance with Indonesian Ministry of Health Regulation Number 69, 2013.

Table 5: Total cost of tobacco-related disease sufferers' care for year 2013

Disease	Total case	Cost for a Episode	Total Costs in 2013
Low birth weight infant	216,050	6,185,362	1,336,347,460,100
Tumors of the Mouth and Throat	6,670	3,733,141	24,900,050,470
Tumor of the Esophagus	1,710	3,733,141	6,383,671,110
Tumors of the stomach	10,440	3,733,141	38,973,992,040
Liver tumors	13,400	3,733,141	50,024,089,400
Tumors of the pancreas	2,910	3,733,141	10,863,440
Tumors of the Lung, Trachea and Bronchus	54,300	3,733,141	202,709,556,300
Cervical Tumor	28,940	3,733,141	108,037,100,540
Ovarian Tumor	7,690	3,733,141	28,707,854,290
Bladder Tumor	10,160	3,733,141	37,928,712,560
Coronary heart disease	183,950	6,017,579	1,106,933,657,050
Stroke	144,780	7,726,946	1,118,707,241,880
Chronic obstructive pulmonary disease	284,310	4,551,951	1,294,165,188,810
Total			5,353,829,437,990

Source: Beban Kesehatan dan Dampak Ekonomi Merokok di Indonesia (2013)

From Table 5 it can be seen that the government had to pay about 5.35 billion rupiah alone for the cost of inpatient care diseases caused due to tobacco consumption during the year 2013.



Source : Infodatin hari tanpa tembakau sedunia (2015)

Figure 1: Smoker's behavior in Indonesia based on Riskesdas 2007 and 2013

Based on that picture, smoker's behavior in Indonesia is much the same in five years ago. If smoker can comsume 12 cigarette, so it can be calculate by:

$$0.234 \times 199,178,321 = 48,400,332 \text{ people.} \quad (1)$$

Average of cigarette's consume in a day = 12
If one pack of cigarette is Rp 12,500
So,

$$48,400,332 \times \text{Rp } 12,500 = \textbf{Rp 605,004,150.00} \quad (2)$$

4 DISCUSSIONS

In Indonesia, the population with age ≥ 10 years working as a farmer/fisherman/labourer is mostly smokers for the year 2013. In some countries, many have found that the proportion of active smokers is greater among the poor than the wealthy elements of society. For Indonesia, for which the benchmark of welfare family income per capita was obtained it is in the low income community mostly working as farmers, fishermen and labour. Although Indonesia is an agrarian and maritime country, the farmers and fishermen still less prosperity well. This reinforces the fact that the proportion of active smokers is greater among the poor, particularly those who work as farmers, fishermen or labourers, when compared to the rich community.

According to data from *Badan Pusat Statistik* (BPS) for 2016, a great percentage of average expenditure per capita per month is generally spent for consumption of tobacco among the community and is very large in comparison with expenses for food. Even in the city, spending for smoking is greater when compared to grains and protein. In other words, consumption of cigarettes can reduce spending on the basic family necessities. The decline in expenditure for basic necessities impacts on the declining nutritional status of the public.

In addition to the effect on the nutritional status of the public, the presence of family members who smoke, especially for poor families, will certainly increasingly aggravate the level of

degrees of poverty. In the fulfilment of the basic necessities only, secondary community down already issued more business, especially if coupled with purchase on buy cigarettes, resulting in the burden of household spending growing. Not to mention the fact that, if there are family members suffering from diseases caused by smoking, then the burden borne will be even greater.

Based on data taken from the journal "Beban Kesehatan dan Dampak Ekonomi Merokok di Indonesia tahun 2013", in conjunction with Indonesian Ministry of Health Regulation Number 69, 2013, it was found that in terms of national inpatient treatment for diseases arising from consumption of smoking in one year (2013), the Government spent around Rp 5,353,829,437,990 or approximately 5.35 billion rupiah. This is a huge amount and not proportional to the expenditure involved in removing funding from cigarette consumption compared to the revenues received by the state from the proceeds of the production of cigarettes. It has more than 5.35 billion difference from the impact and the cost from smoker what used up every day.

Due to there being a greater number of losses arising from tobacco than the benefits it brings, a controlled effort is needed. The government itself performs a variety of efforts to decrease tobacco consumption, ranging from advocacy efforts, by creating laws and regulations, as well as other efforts such as the establishment of the No Smoking areas (KTR) and unsettling images of what will be suffered if someone smokes.

Efforts have been made by the government to address the welfare of the people. However, all the efforts will be futile if there is no awareness among the communities themselves about the impact brought about by smoking, that it not only harms the smoker, but also others around them. This is because of the need for support from various parties to implement the programs that have been designed by the government. If consumption against smoking declines, the certain impacts on various fields of yesteryear also will fall. With a declining impact caused by smoking, one the Government can be sure in increasing the welfare of society. In a country with an already prosperous society, national development efforts initiated by government will also be easy to be realized.

5 CONCLUSIONS

The proportion of smokers in Indonesia is greater among the on poor population compared with the wealthy. When a resident has an active smoker in their family then it will give rise to the increasing burden of expenses. For the poor, the presence of family members who are active smokers may exacerbate the degree of poverty, not only because spending will increase, not just for basic necessities, but also to buy cigarettes. In addition, there are likely to be family members who suffer from a disease as a result of tobacco. As well as the harm to society, smoking also harms the country, because the income from the production of cigarettes alone is less than the cost to be borne by the government to treat diseases caused by smoking. Therefore, it needs the support of various parties to lower the levels of consumption in the community in order to realise national development.

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