

Chapter I

Introduction

1.1 Background

Diarrhea is a disease that cause an individual to suffer from three or more loose or watery stools in a day. Diarrhea is caused by bacteria, viruses, parasitic organism, and has three cynical types: acute watery diarrhea, acute bloody diarrhea, and persistent diarrhea. Oftentimes patient die from suffering from dehydration. High death potential disease such as cholera is usually associated with diarrhea too, (World Health Organization, 2017).

The disease is still the major cause for child morbidity and mortality. WHO explained that diarrhea on children was accountable to cause the death of 525,000 children below five years old all around the world (World Health Organization, 2017).

In Indonesia, diarrhea occupies the fourth rank as cause of premature death (Burden, Diseases and Study, 2010). Children below 5 years old are the most vulnerable age group to be infected with chronic diarrhea. The global burden associate to diarrhea is being placed as the second highest cause of mortality after pneumonia in 2011 with 760,000 deaths. That is 10% from others ddiseases like malaria, measles, and various other factors that endangered children's lives (Aboubaker, 2013). In the zero to five years old age range, children with age 12 to

23 months have the highest percentage to experience diarrhea episode. The second highest is children within 24 to 35 months and then followed by children with age 0 to 11 months. (Ministry of Health Republic of Indonesia, 2016).

Diarrhea has a huge potential to be an outbreak (*Kejadian Luar Biasa*) that could possibly lead to massive deaths in Indonesia. Indonesia Health Profile reported the percentage of death due to diarrhea in comparison to the number of persons that was diagnosed at the same period got bigger. Measured by the case fatality rate (CFR) that has been increasing from 2.47% in 2015 to 3.04% in 2016 which is far from the 1% target number. Table 1.1 shows the evidence of the number of diarrhea outbreaks and CFR from year 2008 to 2016. CFR continues to decline from 2008 and reached target on 2011 with 0.4%, but then rose quite sharply on 2012 with 34 outbreaks that lead to 25 deaths (Ministry of Health Republic of Indonesia, 2016).

Table 1.1 Summary of Diarrhea Outbreaks in Indonesia Year 2008-2016

Year	Number of Province	Number of Outbreaks	Case	Death	CFR
2008	15	47	8,133	239	2,94
2009	14	24	5,756	100	1,74
2010	11	33	4,204	73	1,74
2011	15	19	3,003	12	0,40
2012	17	34	1,625	25	1,53
2013	6	8	633	7	1,11
2014	5	6	2,549	29	1,14
2015	13	21	1,213	30	2,47
2016	3	3	198	6	3,04

Source: Indonesian Health Profile 2016

The number of deaths caused by diarrhea highlights the importance of treatment of the disease. Outbreak is not only a health burden in Indonesia, but also economic. Since diarrheal can lead to dehydration and malnutrition Dobbing (1990) found that physical health and work productivity will be reduced due to severe malnutrition. Niehaus et al.(2002) also found that early diarrhea in the first two years of life is associated with long-term cognitive deficits on the four to seven years ahead.

Data and Information of Indonesian Health Profile (Ministry of Health Republic of Indonesia, 2017) show information of surmountable diarrhea cases by province in Indonesia. Table 1.2 below consists of evidence that several provinces in Indonesia that still could not reach 40% of complete treatment for diarrhea from

the total estimation of diarrhea at the health facility. Four of eight provinces are located on the eastern side of Indonesia.

Table 1.2 Handled Diarrhea Cases by Province Year 2017

No	Province	Estimated Diarrhea on Health Facility	Diarrhea handled	Diarrhea handled in %
1	North Sumatera	385,078	99,426	25.8
2	Bengkulu	52,225	17,205	32.9
3	Nusa Tenggara Timur	142,757	46,097	32.3
4	North Sulawesi	66,448	15,399	23.2
5	Maluku	47,106	18,358	39.0
6	North Maluku	32,652	9,755	29.9
7	West Papua	87,855	25,054	28.5
8	Papua	24,094	1,380	5.7
Indonesia		7,077,299	4,274,790	60.4

Source: *Ditjen P2P*, Ministry of Health Republic of Indonesia, 2018.

Treatment itself comes not only from the health provider but also from the people who chose to get their diseases treated. Treating diarrhea will add more to the burden of economic cost to the infected, which could be considerably high when considering hospitalization fees, clinical or doctor control, and medication. Not only medicine and consultation fee, but also the cost that someone has to spend to reach the facility which add, up to the total cost (Shaikh & Hatcher, 2005). According to Widayana and Fandi in Subagyo and Santoso in IDAI (2009), 30% from total beds in hospitals may be occupied by infants and children who suffer

from diarrhea. Consider this cost will have an impact on household decision to seek treatment.

1.2 Research Question

According to the explanation above we know that it is important to treat diarrhea. However, the decision to treat diarrhea depend on a lot of factors. This study aims to explore the following research question:

1. What are the social and economic factors that affect the choice of undergoing diarrhea treatment for children in Indonesia?

1.3 Research Purpose

Based on the problem identification, the purpose of this research is to analyze social and economic factors that affect the choice of diarrhea treatment for children in Indonesia.

1.4 Benefit of Research

Benefits of this research is expected to give the benefit of understanding towards factors that drive someone's decision to alleviate the burden of their aggravated health condition.