



Original Research Article

Analysis of Disease Based Environment on Community Coastal Areas, Saponda Laut Village, Soropia District, Konawe Regency, Indonesia

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ABSTRACT

Coastal communities are highly vulnerable with a variety of diseases; it is due to their environmental health conditions that do not meet the health requirement reside. Various indicators of environmental health, such as housing and clean water show that it is not feasible. The research used an analytical method, with a total sample of 106 residents and 52 infants with diarrhea. This study aims to analyze the types of diseases that are environmentally based Saponda island coastal region, analyze the cause of the disease based on the environment, and analyze knowledge-based society of the disease environment. This study concluded that there is no relationship between the water physical qualities with the incidence of diarrhea in young children. However, there is a significant relationship between the habit of washing hands before eating, the habit of cutting nails, and immunization status with the incidence of diarrhea in infants in the Village of Saponda Laut, Soropia District of Konawe. Application diseases analysis using approaches Agent, Host, and the Environmental very relevant in the prevention of diseases; illness knowledge-based society to the environment, such as dengue fever has been well.

Keywords: diseases, knowledge, coastal communities.

INTRODUCTION

Soropia Subdistrict is one of the districts in the region Konawe located in coastal areas, with the population percentage of the fishermen livelihood of 23.59% Central Statistics Agency or (BPS Konawe, 2009). Sanitary conditions in the District Soropia based BPS in 2009 showed Konawe access ownership of public sanitation facilities 3012 1267 households are households that have latrines. While access to clean water coverage of 65.99%. One of the villages in the subdistrict of Soropia that

most residents living in coastal areas and are dependent on the fishing profession Saponda village, with fishing communities percentage of 87% of the total population. Based on demographic data, Saponda village is known that 73% of the number of families (KK) is the category of poor. Based on BPS data Konawe in 2009 showed that in the village of Saponda, of the 137 households there are 13 households (9.48%) who had household latrines and 124 (90.5%) do not have latrines. In addition, BPS data shows that the source of public drinking water

comes from the tap Saponda 1.57%, 3.81% pumps, protected wells 14, 95%, 19.15% protected spring, unprotected springs and 3.90% derived from river water 1.30%.

Soropia PHC data show that from January to August 2012 there were 20 cases of diarrhea (1.10%), 12 cases of bacillary dysentery (0.66%), 6 cases of pneumonia (0.33%), 28 cases of skin diseases due to fungal (1, 55%), and 44 cases of clinical malaria (2.43%) on residents Saponda. This shows that there is still vulnerable citizens will Saponda health problems associated with poor environmental sanitation conditions or less qualified health.

Based on the results of a preliminary survey shows that people of Saponda Island has a dense settlement, which according to BPS data Sultra Saponda population density reached an average of 156.8 per km². This density population if not supported by a good environmental sanitation and personal

hygiene may lead to public health problems. So with these data, it is suggested that rural communities Saponda marine coastal region is very susceptible to various diseases. The results of this study will be very helpful to both government and village community land Saponda in recognizing and take steps to prevent diseases that could arise. This study aims to investigate the type of disease and the environment-based approach in order to analyzing the Agent, Host, and Environmental contained Saponda island coastal region, then knowing knowledge-based society of the disease environment.

RESEARCH METHODS

Research Type

Type of research is analytical research, namely to analyze the condition of rural communities of Saponda Laut, Soropia, districts, Konawe.

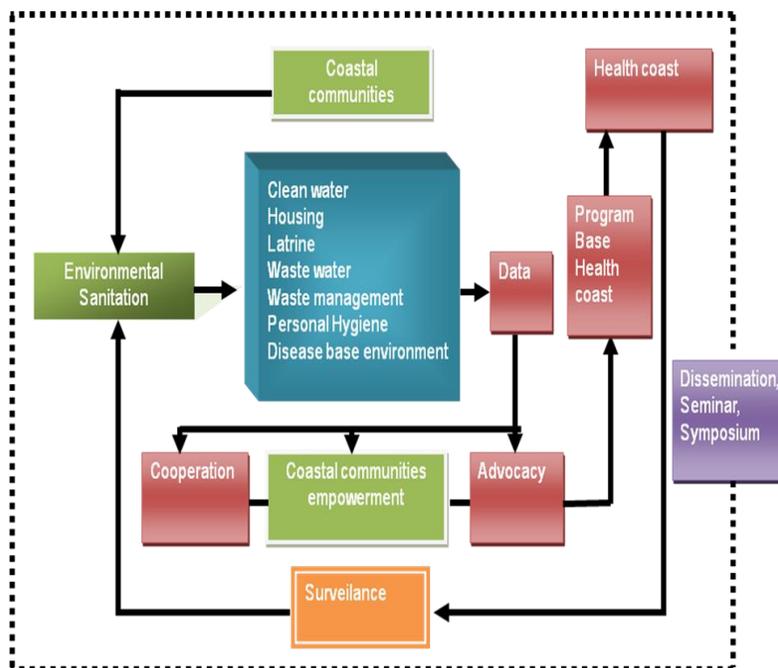


Figure 1. The conceptual framework of research

Research Design

The state of health of coastal communities is a very complex issue, so to

create a healthy society requires a long process and direction in each program will be able to be conducted. In the design of the study illustrated that the health problems of coastal communities are divided into categories, namely: clean water, housing, waste management, sewerage, personal hygiene, and disease-based environment. This study took a focus on environment-linked diseases. From this study, it was obtained the data base of existing disease at the study site. This is a basic step in developing public health in coastal areas.

Population and Sample

a. Population

The population in this study was 106 people and those infants suffering from diarrhea were 52 infants lived in the region and the coastal village of Saponda Laut.

b. Samples

The sample is representative of the majority or the population studied. The sample in this study is the overall population and a population

of 106 people to 52 people for diarrhea sufferers.

Instrument Research

The research instrument used in this study are :

- a. The questionnaire, which contained questions about the variables studied.
- b. Standard observation sheet which contains an assessment of the state of society at the sites.

RESULTS AND DISCUSSION

Results

I. Analyzing the types of diseases that are environmentally based coastal region of the island Saponda.

a. Analysis of the relationship of physical qualities of water with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe. Analysis of the relationship of physical qualities of water with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe, are presented in Table 1.

Table 1. Analysis of the relationship of physical water qualities with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe.

Water physical quality	Diarrhea Occurrence				Number		X ² _{hit}	pValue
	Suffer		No Suffer		n	%		
	n	%	n	%				
Poor	0	0	0	0	0	0	-	-
Good	35	67,3	17	32,7	52	100		
Total	35	67,3	17	32,7	52	100		

Source: Primary data, 2014

Table 1 shows that of the 52 infants were examined, there were 35 infants (67.3%) who had suffered from diarrhea and other 17 infants (32.7%) had never suffered from diarrhea. However, of the 52 samples examined there is not any one sample which has poor physical quality of water, all have good physical quality of water (100%). Seeing the condition of the physical quality of the water, it can be concluded directly that, there is no relationship between the physical qualities of water with the

incidence of diarrhea in young children in the village of Saponda Laut.

b. Analysis covering the Personal Hygiene relationships washing hands before eating with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe.

Analysis covering the personal hygiene relationships washing hands before eating and habit of cutting nails with the incidence of diarrhea in infants in the

Table 2. Analysis of the relationship habit of washing hands before eating with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe.

Hand washing habit before eating	Diarrhea Occurrence				Number		X^2_{hit}	ρ_{value}
	Suffer		Suffer		n	%		
	n	%	n	%				
Poor	29	87,9	4	12,1	33	100	17,369	0,000
Good	6	31,5	13	68,4	19	100		
Total	35	67,3	17	32,7	52	100		

Source: Primary data processed in July 2012

Table 2 shows that of the 52 respondents, there are 33 respondents that their babies have poor personal hygiene is not in the habit of washing hands before eating, including 29 infants (87.9%) had suffered from diarrhea and 4 other infants (12.1%) did not had suffered from diarrhea. For respondents that their babies have good personal hygiene toddler there are 19

respondents who have a habit of washing hands before eating, 6 of them (31.5%) had suffered from diarrhea and other 13 infants (68.4%) had never suffered from diarrhea.

c. Analysis of the habit of cutting nails relationship status with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe

Table 3. Analysis of the relationship habits to cut the nails with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe.

Habit of cutting nail	Diarrhea Occurrence				Number		X^2_{hit}	ρ_{value}
	Suffer		Suffer		n	%		
	n	%	n	%				
Poor	22	95,6	1	4,4	23	100	15,058	0,000
Good	13	44,8	16	55,2	29	100		
Total	35	67,3	17	32,7	52	100		

Source: Primary Data, 2012

Table 3 describes that, of 52 respondents, there were 23 respondents whose toddler has bad personal hygiene habits that do not have to cut the nails, including 22 infants (95.6%) had suffered from diarrhea and 1 other infants (4.4%) had never suffered from diarrhea. For respondents that their babies have good personal hygiene toddler, there were 29 respondents who have a habit of cutting nails, 13 of them (44.8%) had suffered from

diarrhea and other 16 infants (55.2%) had never suffered from diarrhea.

d. Analysis of Immunization Status relationship with the incidence of diarrhea in children under five in the Saponda Laut Village, Soropia District, Konawe.

Analysis of immunization status relationship with the incidence of diarrhea in children under five years in the Saponda Laut Village, Soropia District, Konawe is presented in Table 4.

Table 4. Analysis of Immunization Status relationship with the incidence of diarrhea in children under five in the Saponda Laut Village, Soropia District, Konawe.

Immunization Status	Diarrhea Occurrence				Number		X^2_{hit}	ρ_{value}
	Suffer		Suffer		n	%		
	n	%	n	%				
Incomplete	27	90	3	10	30	100	16,594	0,000
Complete	8	36,3	14	63,6	22	100		
Total	35	67,3	17	32,7	52	100		

Source: Primary Data

Table 4 shows that of the 52 infants who have incomplete immunization status were 30 infants, 27 toddlers of them (90%) had suffered from diarrhea and 3 other infants (10%) had never suffered from diarrhea. Toddler who have a complete immunization status were 22 infants, 8 of them (36.3%) had suffered from diarrhea and other 14 infants (63.6) never suffered from diarrhea.

Discussion

I. Analyzing the types of diseases that are environmentally based coastal region of the Island Saponda

The presence of disease based on the environment is one indicator that the community lived in poor circumstances. Various areas, especially the coastal areas have contributed to the attention the existence of this disease. The village is located on the Saponda Laut island has a variety of shortcomings in health care, which directly influences the presence of disease-based environment. Toddler has a body condition that very susceptible to disease, especially if the toddler does not have good nutritional adequacy. One of them will be susceptible to diarrheal disease, which is of course the disease is associated with disease-based environment. More detail will be analyzed in the following discussion.

a. Analysis of the relationship of physical water qualities with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe.

The results of this study showed that of the 52 respondents, both the toddler had suffered from diarrhea or who have never suffered from diarrhea, the water that they consume daily is colorless, tasteless, and odorless. Interpret the initial allegations that the physical quality of water in the village of Sea Saponda will affect the incidence of diarrhea in infants because it is usually the

main constraints commonly found in coastal areas is the issue of water. But according to the results of observation will be undertaken, the third source of water commonly used Saponda Laut Village community for drinking water, all have good physical qualities. Water quality point of view they are not good, they just use it for bathing and washing, do not use it for drinking water.

Water quality is a term that describes the conformity or the suitability of water for a specific use, such as drinking water, fishing, watering / irrigation, industry, recreation and so on. Care about the quality of water is to know the condition of the water, to ensure the safety and sustainability in its use. Physical quality of water is a physical property of water that can affect water conditions can be seen from the indicator odor, taste, turbidity, temperature, color and amount of dissolved solids (Anonymous, 2005).

Theoretically, the cause of diarrhea in humans closely related to the physical quality of the water they consume for their drinking water in everyday life. Using contaminated drinking water in this water was contaminated at the source or at the time stored in the home can cause diarrhea. Thus, the physical quality of water in view of the indicator odor, taste, turbidity, temperature, color and amount of dissolved solids, can directly trigger bacteriologies content and chemicals in the water. This event can be caused by contamination of chemicals with certain organisms, especially if the concentration of these materials in high doses, it can cause diarrhea (Slamet, 2001).

However, in this study, no significant relationship was obtained between the physical qualities of water with the incidence of diarrhea in infants in rural Saponda Laut. This is because most people buy a gallon for their drinking water, where

the gallon was result of refining the already packed into water suitable for drinking. The economically disadvantaged communities, who cannot buy a gallon every time, they can take water from the river village of bloom, because the water in the trust hereditary safe for consumption by the public. Generally, in the village of Saponda Laut, water from dug wells normally used for bathing and washing. However, there are still some of the villagers who frequently eat Saponda Laut water from the dug well, for that they took of the morning before the sun rises due to the situation in the dug well water is still clear and clean.

b. Analysis covering the Personal Hygiene relationships washing hands before eating in young children in the Saponda Laut Village, Soropia District, Konawe.

Based on the results of statistical tests with chi-square test for variables other personal hygiene i.e. washing hands before eating at the value obtained $X^2_{hit} = 17,369$ and $pValue = 0.000$, 95% confidence level ($\alpha = 0.05$). In accordance with the basic decision-making hypothesis assessment (Budiarto, 2002) that if $pValue (0,000) < 0.05$ or $X^2_{hit} = 17,369$ greater than $X^2_{tabel} = 3.841$, then H_0 H_1 rejected or accepted. Thus, it can be concluded that there is a significant relationship between the habit of washing hands before eating with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe.

c. Analysis of the habit of cutting nails relationship status with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe.

Based on the results of statistical tests with chi-square test for variables that personal hygiene habits nail cutting values obtained $X^2_{hit} = 15,058$ and $pValue = 0.000$, 95% confidence level ($\alpha = 0.05$). In

accordance with the basic decision-making hypothesis assessment (Budiarto, 2002) that if $pValue (0,000) < 0.05$ or $X^2_{hit} = 15,058$ greater than $X^2_{tabel} = 3.841$, then H_0 H_1 rejected or accepted. Thus, it can be concluded that there is a significant relationship between the habit of cut nails with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe.

The toddler years are a time where it's time to enjoy the game like playing outdoors or dirty mud-dirt. At the age of five most children play without wearing sandals / shoes, eating food without first washing hands, has dirty nails, lazy bath, and eat less food that is kept clean without the control of their parents. It may lead to intestinal worms in children under five and one symptom that is often caused by an infection with intestinal worms is vomiting and diarrhea (diarrhea) (Hidayat, 2009).

Infant health status depends on how parents nurture him. Mother's knowledge will assist the mother in particular in educating and caring for children. Mother's level of education will have quite an impact on maternal knowledge in caring for and raising children, as the higher the mother's education level, the better the level of their knowledge, including in terms of how to maintain their health status.

Diarrheal diseases than can be transmitted through dirty hands, also can be transmitted through a long and dirty nails. Long and dirty nails causing worm eggs tucked. The worms can be transmitted from hands contaminated with dirt from the ground. If the child does not cut her nails long eraser start times, then when he bet worm infection can get into the nail. It will facilitate the worms enter the body through the food that he holds. If the mother does not know to care for and teach the children how to apply personal hygiene in daily life such as washing hands before eating and cutting

nails, it will cause the child susceptible to infectious diseases such as diarrhea because of the hands and nails is one of the main conductor entry of germs into the human body. Wash hands before eating and cutting nails is an important step to prevent the spread of disease, because the hands and nails is one of the routes of transmission of infectious diseases such as bowel disease and gastrointestinal disorders (diarrhea, vomiting) and other diseases that can potentially lead to the death (Effendi, 1997).

Based on the results of research in the field shows that there are 33 respondents that their babies have poor personal hygiene is not in the habit of washing hands before eating, 29 infants (87.9%) of them had suffered from diarrhea and 4 other infants (12.1%) had never suffered diarrhea. Then the next result shows that there are 23 respondents who toddler has bad personal hygiene, which does not have a habit of cutting nails, 22 infants (95.6%) of whom had suffered from diarrhea, and 1 (4.4%) other toddlers never suffer from diarrhea . Poor personal hygiene is caused in addition to poor environmental conditions, is also supported by the lack of knowledge of mothers in caring for and raising children.

The results of this study also showed that of the 52 respondents in carefully, most of the respondents have a low level of education, because there are 25 respondents (48.1%) who only finished primary school education levels and there were 20 respondents (38.5%) were not primary school or never went to school. Seeing this, it can be depicted that most of the respondents or the mother of a toddler still has a low level of education, which means knowledge possessed is still lacking. This will affect the behavior of mothers on how to care for and maintain the health of infants. In accordance with the results of interviews and direct observation in the field, it is clear that most of the Sapon

Laut village residents or defecate defecation (BAB) on the beach, where the sand beach on the playground that the children in the village Saponda Laut, such as lying down and rolling in the sand. If it is not supported by the mother's knowledge, as well as how to care for the mother to apply to toddlers such as personal hygiene washing hands before eating and cutting long nails every time start, then bacteria, viruses, and parasites that cause diarrhea would be easy to attack toddlers.

This study is in line with the results of the study Sartika (2011), entitled the relationship of mother and toddler hygiene and sanitation of the house with the incidence of diarrhea (dysentery) in children under five in the region of the district health centers Bangkil Pasuruan. The result is, among others, states that there is a significant relationship between the toddler hygiene habits include washing hands before eating and nail hygiene, the incidence of diarrhea (dysentery) in infants with p Value value ($p < 0.005$).

d. Analysis of Immunization Status relationship with the incidence of diarrhea in children under five in the Saponda Laut Village, Soropia District, Konawe.

Based on the results of statistical tests with chi-square test values obtained $X^2_{hit} = 16,594$ and p Value = 0.000, 95% confidence level ($\alpha = 0.05$). In accordance with the basic decision-making hypothesis assessment (Budiarto, 2002) that if p Value (0,000) < 0.05 or $X^2_{hit} = 15,058$ greater than $X^2_{tabel} = 3.841$, then H_0 H_1 rejected or accepted. Thus, it can be concluded that there is a significant relationship between immunization status with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe.

Immunization is the process that triggers a person's immune system is made artificially through vaccination (active

immunization) or through the provision of antibody (passive immunization) (Peter, 2002). Child immunization should be given as early as possible and after the baby is born, in trying to complete the immunization before 1 year old baby. (IDAI Task Force, 2008). Immunization status can be measured through early immunization is given or not given the full 5 Basic immunization to children who have been programmed by the Government. Under the government program, in Indonesia there are five kinds of mandatory basic immunization given to children and according to WHO, five types of immunization shall be given first, because the impact of the disease can lead to death and disability, namely BCG immunization, hepatitis B, polio, DPT, and measles (IDAI Task Force, 2008).

Toddler is an age group that is prone to malnutrition and disease prone, especially infectious diseases. One of the infectious diseases in infants is diarrhea. Diarrheal disease is more predominant in toddlers, because the immune system is still weak so toddler toddlers are particularly vulnerable to the spread of the virus that causes diarrhea (Kresno, 2003). Then Kresno said, Immunization is a business that provides immunity to babies and children to enter the vaccine into the body to a substance the body makes antibodies to prevent certain diseases. In the case of a toddler who was suffering from measles and for two / three months after measles usually indicates the number of cases of diarrhea in young children is more severe than look same measles. Therefore, should a toddler shortly after 9 months old immunized against measles to prevent diarrhea.

Based on the results of research in the field shows that of the 30 infants who had incomplete immunization status, there were 27 infants (90%) were suffering from diarrhea while not suffering as much as 3 toddlers (10%). This is caused because in

addition to the limited knowledge of parents about the health of infants, also the limited available health personnel. Where, according to the results of research and direct interviews with respondents, in this case the mother of a toddler, stating that before one year old son is still rare health workers to go straight to the field to conduct neighborhood health center. Even if sometimes there are activities *posyandu* majority of parents do not bring their children to the neighborhood health center for immunization. Respondents said that after measles outbreaks have occurred and outbreaks of diarrhea in the Saponda village, then start there are health workers who frequently visit the Saponda village. Before the outbreak, very rarely any health worker who frequently visit the Saponda village. So do not be surprised if most of the toddlers in Saponda not have complete immunization status.

This study is in line with research Azahramaharani Goddess (2009), entitled Analysis of incidence of diarrhea in children under five years in the health center Cape Sari subdistrict of Medan Selayang. The result is one of them stated that there is a significant relationship between immunization status with the incidence of diarrhea in infants with p Value value ($p = 0.01$).

II. Analyze disease-based approach to the environment with Agent, Host, and the Environmental contained coastal region of the Saponda Island

Asthma is a disease that affects people in the village of Saponda Laut, with the amount of 0.9%, the quantity of the disease is relatively very small, but when viewed from the approach of the environmental epidemiology of this disease will easily spread if the risk factors of asthma are not removed. Asthma disease state of the airways is narrowed because

hyperactivity to certain stimuli, which cause inflammation, constriction is temporary. Agent, however clear the respiratory tract of asthmatics have a distinctive trait that is highly sensitive to various stimuli (bronchial hyperreactivity airway hyperreactivity =). Cigarette smoke, mental stress, allergens in normal people but does not cause asthma in people with asthma can lead to attack earlier stimuli.

Host, Host of human diseases, namely asthma, which is more susceptible to this disease. Factors causing asthma triggers such as tobacco smoke, breathing polluted air, inhaling other respiratory irritants such as perfumes or cleaning products, exposure to airway irritants in the workplace, inhalation allergy - causing substances (allergens) such as molds, dust, or animal dander, infections upper respiratory tract (such as flu, colds, sinusitis, or bronchitis), exposure to cold, dry weather, emotional stress, physical stress or exercise, gastric acid reflux known as gastroesophageal reflux disease, sulfide, for some food additives, and menstruation (but not all women with asthma symptoms closely related to the menstrual cycle). Environment, Environmental influence this disease which, if our environment in a lot of dust, automatically very sensitive to the occurrence or suffer from asthma. Thus giving a person's behavior is very important role for their own health.

Furthermore diarrhea also contributes negatively to disease in village Saponda Laut, diarrheal disease is one disease-based environment. The numbers of cases of diarrhea in the Saponda Laut village were 0.9%, although this disease a little but in terms of impact, the disease is considered extremely dangerous for people, especially if environmental conditions do not meet the health requirement. So the diarrhea that occurred in the Saponda Laut village can be studied by epidemiological approach to the

environment, namely: agent, host, and environment. (Tosepu.R, 2012)

Agent, Agent diarrhea is *E. coli* or *Escherichia coli*. These bacteria carry diarrheal diseases in the human body. *E. coli* bacteria in the human colon are silent. The form neutral colored bars. Clinically cause of diarrhea can be grouped into six major categories, but are often found in clinical or field is diarrhea caused by infection and poisoning. The cause of diarrheal illness are: 1) infection, 2) malabsorption (impaired absorption in the intestine), 3) Allergies, Poisoning, consist of: Materials Kimiaensi poisoning, the poison that was conceived and produced *Aeromonas*, 4) bacteria, parasites or viruses: Type vibrio, *E. coli*, *Salmonella*, *Shigella*, *Giardia*, *lamblia*, *Entamuba histolytica*, Protozoa, *Ascaris Strongyloides*, *Adenovirus*, *Rotavirus Norwalk* *Norwalk* + like agent, *Bacillus Cereus*, *Clostridium Periscens*, *Blastssistis huminis*, *Cryptosparidiu Balantidium coli*, stomach worm, *Trichuris*, *Camfylobacter*, *Staphilococcusaurfus*, *Clostridium perfricens*, Fish, 5) other causes: Algame, Fruits, Vegetables, jazad Renik.6) Germs cause of diarrhea is usually spread through fecal-oral (mouth), among others through food / beverages contaminated feces and or direct contact with the feces of patients.

Host, the host factors may increase the incidence / incidence and duration of diarrheal diseases, namely: 1) Do not give breast milk to 2 Years. Breast milk contains antibodies that can protect us against various germs that cause diarrhea such as *Shigella* and *Vibrio cholerae*, 2) Poor nutrition Disease severity, duration and increased risk of death due to diarrhea in children who suffer from nutritional disorders, especially in patients with poor nutrition, 3) Measles . Diarrhoea and dysentery are common and result in severe in children who are suffering from measles within the last 4 weeks. this as a result of a decrease in immune patients,

4) Immunodeficiency / Immunosuppression (state immune deficiencies) This situation may only be temporary, for example after viral infections (such as measles) or maybe that last as long as in patients with AIDS, immunosuppression in children severe, diarrhea can occur because germs are not pathogen and may also last long, proportionately, diarrhea is more common in Toddler group (55%).

Environment, two dominant factors, namely water supply and excreta disposal. Both of these factors will interact with human behavior. If the environmental factors are not healthy because of diarrhea and accumulate germs contaminated with human through behavior. These are unhealthy food and drinks that can cause diarrhea cases. (Tosepu.R, 2012)

III. Analyzing knowledge-based society of the disease environment.

Knowledge-based society against some diseases are very diverse environments, this can be seen from the results of research that has been done. Based on the data obtained can be seen in public knowledge about the disease Dengue Hemorrhagic Fever (DHF) has been quite good, it is marked with the number 100 households (94.4%) have known about dengue fever clearly, as many as 4 households or 3.8% sufficient know about dengue fever. But still there are 2 families (1.9%) are still less aware about dengue fever. For public knowledge about how to prevent dengue disease fit into either category yet. It is marked with the number 75 households (70.7%) people do not know about how to prevent Dengue disease. Only 27 households (25.5%) people who know clearly about how to prevent dengue fever, and 4 households (3.8%) people who know enough about how to prevent dengue fever. Based on data obtained knowledge on diarrheal disease has been quite good, it is

marked with the number 39 households (36.8%) knew that diarrheal disease is disease-defecation defecation and abdominal pain, and 15 households (14.2%) knew that the disease diarrhea is a disease with symptoms repeatedly shat-shat watery stools sometimes accompanied by vomiting and abdominal pain. Meanwhile, 52 households (49.1%) did not know about diarrheal diseases. Public knowledge about how to prevent diarrheal disease has not been good, it is marked with the number 80 families (75.5%) people do not know about how to prevent or how to avoid diarrhea. Only few people who know enough and was well on its way diarrheal disease prevention. About 13 households (12.3%) people who know well enough about how to prevent diarrheal disease.

Although the respondents' knowledge of diarrhea predominant category of good, but in terms of disease prevention, respondents still had low knowledge, with this condition often respondents did not do the prevention and suppression when one family member is suffering from diarrhea is caused because the average respondent is not know clearly about diarrheal disease and how to prevent and overcome. Often this is done it is too late that the average respondent who suffered diarrhea prevention when it is suffering from the disease. Community knowledge about malaria has also been quite good; it is marked with the number 93 households (87.7%) who already know quite well about malaria. But there are also people who do not know about malaria as many as 8 households or 7.5%. Community knowledge about malaria prevention in the category of no good, it is marked with the number 99 households (93.4%) who did not know about malaria prevention. But there are also as many as four families (3.8%) were aware of malaria prevention. According Notoadmodjo (2007) attitude that cannot be seen directly, but can

only be interpreted in advance of behavior covered. That attitude is still a closed reaction, not an open reaction or behavior which is open. Lubis (2002) in Riana (2002) states that when education is low, knowledge of how to live a healthy life is not well understood. The level of education is critical reasoning power better, making it possible to absorb the information also can think rationally in responding information or any problems encountered in forming a healthy environment.

CONCLUSION AND RECOMMENDATIONS

Conclusions

Analysis of disease contained Saponda island coastal region, namely:

1. There is no relationship between the physical qualities of water with the incidence of diarrhea in young children in the village of Saponda Laut
2. No significant relationship between the habit of washing hands before eating with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe.
3. There is a significant relationship between the habit of cut nails with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe.
4. There is a significant relationship between immunization status with the incidence of diarrhea in infants in the Saponda Laut Village, Soropia District, Konawe..
5. Application of Analysis diseases using approaches Agent, Host, and the Environmental very relevant in the prevention of disease.
6. Knowledge society to environment-linked diseases, such as dengue fever has been well.

Recommendation

Health workers in the Saponda Island should be more proactive in identifying disease - based environment Konawe health department should perform continuous health education.

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