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SOCIOCULTURAL ASPECT OF FOOD, NUTRITION, AND HEALTH:

Study of Indigenous People of Samin *(Sedulur Sikep)* in CentralJava

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SUMMARY

Samin (*Sedulur Sikep*) people are the indigenous people who live in north region of Java Island, more precisely in the Central Java province. Unlike any other indigenous people, Samin people do not live only in a centralized area, but they are spread in some areas all along the Kendeng mountain range in the north region of Java Island. Samin people have their own unique characteristic which is formed by their culture and it differentiates them from non indigenous people. The culture of Samin people has determined their mindset and creates their own life principles. Samin people actually do not oppose any changes in their life but they tend to set back to their root, their culture, and their way of life which were taught by their ancestors. This kind of characteristics, makes Samin people interesting to be investigated especially related to their food consumption, nutritional, and health. The objectives of the study were:

1. To analyze the socio-economic status of indigenous people of Samin
2. To analyze the culture related to food and health of indigenous people of Samin
3. To analyze the perception of indigenous people of Samin on health and nutrition services
4. To analyze food consumption pattern and food resources of indigenous people of Samin
5. To analyse the food security status of indigenous Samin households
6. To analyze nutrients intake and nutritional status (WAZ) of children under five of indigenous people of Samin
7. To analyze the health status of children under five and the mothers of indigenous people of Samin

This study used two approaches, that were a quantitative approach (survey) and qualitative one (anthropological approach), so this study was explorative and descriptive in the cases of food security, food consumption, nutritional, and health status. The population of this study is the households of the indigenous people of Samin. As many as 120 households data were analyzed for this study.

The data were collected by enumerators and anthropologist.The quantitative collected includes: children under five characteristics, household characteristics, food consumption pattern, food consumption of the children under five. Data on food security was collected using HDDS (Household Dietary Diversity Scores) and HFIAS (Household Food Insecurity Access Scale). For The nutritional status data, we only collected MUAC (Mid Upperarm Circumference) and weight for age (WAZ=Zscore of Weight for Age) since the length measurement could not be done to Samin people due to a cultural reason.

Statistical data analysis was carried out based on the aims of the research and data availability to answer the research objectives, including (1) estimation of elementary statistic for numeric data such as min-max score, mean, and standard deviation; (2) estimation of proportion for categorical data; (3) Inference statistics to analyze the difference between groups using t-test and mann-whitney also correlation between variables using spearman correlation test, and (4) content analysis for qualitative data. The research results are:

1. **a)** The mean age of father in Samin Community was 31.8 years old while the mother was 27.5 years old with the mean age of parents in Samin Community from Kudus-Pati tended to be younger than those from Blora; **b)** The parents of children under five from Samin community in Blora had better education compared to community in Kudus-Pati. 95.6% of both father and mother from Samin Community Kudus-Pati never attended school due to cultural reasons; **c)** The fathers in both Samin community were mostly working as farmer while the mother were mostly working only as a housewife. In Samin community Kudus-Pati, it was found more working mother compared to Samin Community in Blora; **d)** The household size in both community were similar with average of 4.3 people per household in Kudus-Pati Community and 4.4 people in Blora or both could be classified as medium household; **e)** The mean per capita of Samin people's income was IDR 381,000 according to the BPS they were classified as non-poor. According to the distribution, it was found that Samin people in Blora had significantly better economic status than those in Kudus-Pati. The mean per capita income of Samin people in Blora was IDR 449,000 while the mean per capita income of Samin people in Kudus-Pati were IDR 329,000. It was also found that the total expenditure of Samin Community in Blora were higher compared to Samin Community in Kudus-Pati; and **f)** The mean score of mothers' nutritional knowledge were 66.5 in both community. The mothers of Samin community in Blora had significant better nutritional knowledge. Most of the mother (46.2%) in Blora community had medium nutritional knowledge while 50.0% of the mother in Kudus-Pati community had low nutritional knowledge.

2. **a)** Samin people are the descendants of Samin Surosentiko followers who taught *Sedulur Sikep*. Samin Surosentiko taught a form of resistance against the invaders without resorting to violence. The followers of Samin doctrine have five doctrines, namely not going to school, not wearing peci (untasseled fez) but wearing iket (a kind of cloth tied around the head like a Javanese in the past); not a polygamist; not wearing trousers and only wearing knee-length pants; not trading; and rejecting capitalism. Regarding education, for Samin people education should be given by their parents and they think that school will not guarantee their children to be a good person. But nowadays some Samin people in Blora already realize the importance of education and they allow their children to go to school; **b)** Samin people still cannot trust the current Indonesia government because many governments are not honest with their people. Therefore, when they are married, they do not register themselves at the Religious Affairs Office or the Civil Registry Office. Besides that, some Samin community groups do not want to run the government programs, either from health or education aspects. The Samin community groups in some regions do not want to come to Posyandu, do not want to check their health at the health center/Puskesmas/hospital; **c)** The farming conducted by *Sedulur Sikep* was formerly traditional, but it has now changed. There are several traditions in the farming system of *Sedulur Sikep* such as sambatan and mrapat; **d)** One culture regarding health problem of *Sedulur Sikep* can be seen in their daily lives. They always greet people with seger waras which defined as hale and hearty, harmonious, and live well; **e)** The habit related to health ritual which is held by the people begins with a 7-month pregnancy ceremony called tingkep until the baby reach one year old. The stages of birth customs for the Samin community are as follows Krayan, Melekan, Sepasaran, Selapanan, and some events that will be held

when the baby is three months, seven months, and one year old; **f)** They also have simple perspective regarding food selection. According to them, all the food is delicious. the important thing is being healthy so that all food will taste delicious. The food is also a necessity; thereby, they just eat what's available; **g)** Food taboo was still found in *Sedulur Sikep* who live in Kudus and Blora but not in Pati. Foods that considered as taboo such as fruit that has a moon-like shape without cutting it in pieces; for example, apple, catfish, and also cold water. In Blora, pregnant women are also prohibited to carry eggs, build a house, kill animals, and cut their hair. They believe that doing these things will cause the birth process to be difficult. *Sedulur Sikep* also have customs for lactating mothers such as doing tarak, consuming coriander, drinking jamu (traditional herbal medicine), and applying cold powder throughout the body, as well as doing walik dadah; and **h)** Health issues in the Samin Pati, Kudus, and Blora communities received mixed responses. The response of Samin people in Pati to health issues was still negative. Some government programs such as Posyandu and immunizations were rejected by Samin people in Pati because they did not find it to beneficial. But These programs were well accepted in other area especially Blora.

3. **a)** All Samin people used motorcycle to go to public health center. Majority Samin people in Kudus-Pati usually go to doctor/clinic when they got sick but Majority of Samin people in Blora go to midwive when they got sick. It was because the midwive lives in their neighborhood. Only few of Samin people who go to public health center. The mean distance to nearest public health center in Kudus-Pati Community was about 8.21 km while it was only 3 km in Blora community. It was also found that majority of Samin people in both community did not have any heath insurance; **b)** Samin people in Blora Community had better perception regarding health and nutrition. 96.2% of them took their children to Posyandu and 98.1% of the children received vactination. 88.5 % of the children also had growth chart book. The mothers found that posyandu and vactination was important to the children health and growth and the growth chart book was helpful for them to monitor the growth of their children. In the contrary only few children of Samin Community in Kudus-Pati who were taken to Posyandu, gotten vaccination, and had growth chart book; and **c)** The majority of Both Samin community in Kudus-Pati and Blora had good hygine practices, but regarding environemental sanitation Samin Community in Blora was found to have poorer practices. 55.8% of them had less than 10 m distance between septic tank and water source, 30.8% of them still disposed their garbage into the river and 51.9 of them use well as their primary drinking water source while 75.0% of Samin people in Kudus-Pati already use commercial still water as their primary drinking water source.

4. The food consumption pattern in both community were relatively similar. Rice was the most consumed cereals in both community with average consumption of 21.1 times per week. Water spinach and spinach were the vegetables that were most consumed in both community. Banana was the most consumed fruit in both community with average consumption of 1.5 times per week in Kudus-Pati and 1.9 times per week in Blora as banana could be found through out the year. In both community plant based protein such as tofu and tempeh were consumed more frequently than the animal based protein. With egg as the most frequently consumed.

5. The food security of Samin people were analyzed using HDDS and HFIAS. HDDS analysis showed that Samin people in Blora had significantly food secure compared to Samin community in Kudus-Pati. 65.4% of Samin Community in Blora had high dietary diversity score while only 35.3% of Samin Community in Kudus-Pati who had high dietary diversity score. In the other hand, the HFIAS analysis showed there were no significant difference regarding food security in both community. Although Blora was slightly food secure compared to Kudus.

6. **a)** The children of Samin Community in Blora had significantly better nutrients intake compared to those in Kudus-Pati. The average energy and protein intake of children in Blora were 793 kkal and 23.6 g while the average intake in Kudus-Pati were 625 kkal and 17.7g respectively. The average intake of vitamin A, iron, and calcium in Blora were 550 RE, 5.9 mg, and 310 mg respectively, which was higher compared to Kudus-Pati in which the average intake of those nutrients were 360 RE, 4.2 mg, and 201 mg. The children from Blora community also had better nutrient adequacy level compared to those in Kudus-Pati; and **b)** The nutritional status of children in samin Community in Blora was also better compared to Kudus-Pati. Those in Blora had an average of 15.3 cm MUAC compared to 13.4 cm in Kudus-Pati. Regarding WAZ, Children from Samin community in Blora also showed better status. 76.9% of children in Blora had normal nutritional status and only 11.5% of them were severely underweight. In Kudus-Pati 51.5 of the children had normal nutritional status based WAZ but the severly underweight children reached 20.6%.

7. **a)** URTI, fever, and diarrhea were the infectious disease that mostly suffered by Samin children. The result showed that the children in samin community in Blora had worse health status due to the the poor sanitation practices; **b)** URTI was the infectious disease that mostly suffered by the mother. 28.8% of the mother in Samin Community Blora suffered from URTI while only 16.2% of the mother in Kudus-Pati who suffered from URTI. Helminthiasis was also found in 2 mothers from Kudus-Pati community; **c)** The prevalence of mother who suffered from non infectious disease was very low. Gout artithis was only found in 1 mother in Kudus-Pati and Hypertension was only found in 2 mothers in Blora; and **d)** The ante natal care practices in both community was already good. Majority of the mothers performed ante natal visit to midwives.

Based on the findings presented above, dietary diversity will lead to household food security. It is important to increase awareness regarding this matter since it will also lead to better health and nutritional status. Education can also be a media to improve mothers' knowledge on nutrition, because mothers play important role to generate children with better nutritional status. The mothers are usually the ones in charge of food choices, food preparation, and processing. With improved nutritional knowledge the they would aware to prepare more nutritious food. Emphasizing the importance of posyandu, growth monitoring, and vaccination is also importance so that the health status of the children would be improved. Socialization regarding hygiene and sanitation also important to be conducted. The awareness regarding the relation between infectious disease and the hygine as well as sanitation practices.

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CHAPTER 1
INTRODUCTION

1.1. Background

Indonesia is a multicultural country as the result of the multi ethnicity of its people. The census conducted by Indonesian Statistical Board in 2010 showed that there are total 1300 ethnics from 7 main ethnics found in entire region of Indonesia. Some of those ethnics apparently can also still be categorized as indigenous people. Cited from the The International Labour Organization's (ILO) Convention concerning Indigenous and Tribal Peoples in Independent Countries (No. 169), peoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonization or the establishment of present State boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions (UN 2013). As a result, each indigenous people usually has a unique characteristics which distinguish them from non indigenous people or any other indigenous people.

This unique characteristic of each indigenous people is usually related to its cultural aspects but according to Indigenous World in WHO (2007), indigenous people tends to have the same characteristics in economical, educational, and health aspects. Indigenous people usually have lower economical level, lower educational level, and lower health status compares to the rest of the population and as a result indigenous people usually prone to malnutrition. The research conducted in Brazil showed that 25.7% children of its indigenous people were stunted, 5.9% of them were underweight, and 1.3% of them were wasted. These prevalence were higher compares to malnutrition prevalence of Brazil's non indigenous people in similar time (Horta *et al.* 2013). The proneness of indigenous people to malnutrition also shown by the research conducted by Singh *et al.* (2015), 16.2% children of the indigenous people in North East India were wasted and according to WHO (2010), with this prevalence, the wasting problem can be classified as a critical public health problem.

Research conducted on indgineous people actually had also done before in Indonesia. Previously research on indigenous people was conducted on Baduy people and Kasepuhan Ciptagelar people. The research in Baduy conducted by Khomsan *et al.* (2009) showed that 26.4% children under five in Baduy were underweight, 60.6% were stunted, and 16.7% of them were wasted. This result not only showed how high and criticical the public health significance according to WHO (2010) but also showed higher prevalence of malnutrition compared to the national prevalence in the similar time. The most recent research conducted nationally in similar time were The National Health Research conducted in 2010. It showed that nationally the prevalence of underweight, stunting, and wasting of children under five were 17.9%, 35.6%, and 13.3%, respectively. Meanwhile the research conducted by Khomsan *et al.* (2014) in Kasepuhan Ciptagelar showed that 12.5% children under five in Kasepuhan Ciptagelar were underweight, 31.2% of them were stunted, and

12.5% of the children underfive were wasted. And according to WHO (2010), those prevalence can be classified as medium public health problem for underweight, high for stunting, and serious public health problem for wasting.

In Java Island, actually there are still many other indigenous people beside Baduy and Kasepuhan Ciptagelar people, such as Samin (*Sedulur Sikep*) people. Samin people are the indigenous people who live in north region of Java Island, more precisely in the Central Java province and some part of East Java province. Unlike any other indigenous people, Samin people do not live only in a centralized area, but they are spread in some areas all along the Kendeng mountain range in the north region of Java Island. Samin people have their own unique characteristic which is formed by their culture and it differentiates them from non indigenous people. Culture itself can be defined as beliefs, values, and attitudes practiced and accepted by members of a group or community. It is usually learned and not inherited (Kittler & Sucher 2008).

The culture Samin people has determined their mindset and creates their own life principles. They have their own religion, which called as "Adam". They also have their own life principles. Samin people must live from agricultural sectors and they are forbid to do trading in any other sectors except agricultural according to their life principles. Samin people are also forbid to take any formal education.

Samin people also have a unique culture related food. There are certain food that must be served during special ceremony. When an infant reach 35 days, Samin people hold a ceremony called *Selapanan*. This ceremony is held to show their gratitude for the birth of the child. In this ceremony a food called *ingkung* (roasted chicken) must be served. They also often consume corn rice rather than rice.

Culture is actually dynamic and it can change through times, but in Samin people it is quite unique. Samin people actually do not oppose any changes in their life but they tend to set back to their root, their culture, and their way of life which were taught by their ancestor. This kind of characteristics, makes some government program especially related to food, nutrition, and health are hard to penetrate. This kind of culture or behavior may bring negative effects to their nutritional status or health.

UNICEF framework shows that nutritional status is determined directly by their food consumption. And food consumption is usually determined by many factors, such as the socio economic factors (Sanjur 1982). The socio economics factor usually related to education, occupation, income, and also house hold size. The impact of socio economic factors on food consumption was also shown by the research conducted by Vlismas *et al.* (2009). As we all know that it is forbidden for Samin people to take any formal education, so as the result they have a very low education level. In the other hand, education level is very important in determining nutritional status. Education level is usually also closely related to nutritional knowledge. Nutritional knowledge is very important especially for the mothers, because they are usually responsible in providing food in a family. The research conducted by Abuya *et al.* (2012), showed that the children whose mother had a low education level, 29% more likely to be stunted.

Occupation is usually closely related to income. According to their life principles, Samin people must live from agricultural sectors so that all of them are working as farmers. In Indonesia, the prosperity of farmer remains problematic. Farmers usually have lower income. People with lower income usually consume less nutritional food (Darmon & Drewnowski 2008).

The firmness of Samin people in preserving their culture and way of life make government program such as family planning program hard to penetrate. As a result they have a larger household size. Household with larger size usually has a higher prevalence in child malnutrition. Household size usually influences their ability in obtaining various and nutritional food (Ricciuto *et al.* 2006).

Food consumption is not only determined by socio-economic factor only. Culture can also determine food consumption. Culture usually creates a certain food ideology of its people. Culture will also creates practices and also social values of food which also affect food consumption pattern. For example food taboo practices. Food taboo is a practice that forbids people to consume certain food for cultural or religious reasons (UNICEF 2012). It is mostly found many reasons why certain food considered as taboo. For example in Banjar, West Java, it is forbidden for pregnant women to consume shrimp because they believe that they will face difficulty during the delivery (Sukandar 2006). Meanwhile, in Jeneponto, South Sulawesi, pregnant women is forbid to consume octopus because it is believed that their children will look like an octopus (Sukandar 2007). Food taboos are usually different for each age group or each physiological stage. Sometime a certain food is considered taboo for children under five but it is not for adult, and sometime a certain food considered taboo for pregnant women but not for lacatating women (Meyer-Rochow 2009). Food taboo practices often become the determinant of malnutrition especially for some vulnerable group such as children under five, pregnant and also lactating women. It is because apparently, most food which classified as taboos are actually nutrient densed food which benefit the body, but they are not consumed because of the practice (Oni & Tukur 2012).

Next, it appears that nutritional status may also be affected by household food security status (den Hartog *et al.* 2006). And apparently to define food security there are many definitions that can be used. One of those is of Maxwell (2001) stating that food security means the access to adequate food for everyone at everytime in order to be able to live actively and healthily as used (Niehof 2010). The household food security status of Samin people, with farming as their main job, is extremely necessary to be investigated. Household with farming as their main job lie on the center of the relation between household and food chain which will affect on the food availability for the household itself, and latter on also influence the household food security. Niehof (2010) also stated that household food security should be fulfilled as it can influence under-five child nutrition status. This is supported by Saaka and Osman (2013) showing that children coming from food insecure households are susceptible to cronic malnutrition. A research on food security of indigenous people had also been conducted on the Inuit people of Canadian Arctic and the result of investigation showed that the prevalence of food insecurity was high, about 62.6% (Huet *et al*. 2012). Eventhough many researchs showed the negative impact of food

insecurity on children nutritional status, apparently malnutrition may also happened in food secure households. Children nutritional status is determined by many factors such as (1) unequal distribution of food; (2) inadequate care for the vulnerable members of the household (3) health conditions of individual members that obstruct the uptake of micro nutrients; (4) inadequate sanitation and hygiene leading to the same result as (3) (Balatibat 2004 in Niehof 2010).

The measurement of household food security is actually not easy and there are various instruments that can be used. One of them is Household Food Insecurity Access Scale (HFIAS) developed by USAID in Food and Nutrition Access Scale Assiastance (FANTA) III (Coates *et al.* 2007). HFIAS is used since the method is standardized and widely used.

The research regarding socio and culture on food and nutrition of Samin people is rarely conducted. Samin people who are indigenous with all their uniqueness are interesting to be studied especially regarding their nutritional aspects. So that in this research, researchers are going to analyze the socio cultural apsects, food consumption, food security, and also nutritional status of Samin people in Central Java.

1.2. Objectives

The objectives of this research are:

1. To analyze the socio-economic status of indigenous people of Samin
2. To analyze the culture related to food and health of indigenous people of Samin
3. To analyze the perception of indigenous people of Samin on health and nutrition services
4. To analyze food consumption pattern and food resources of indigenous people of Samin
5. To analyze the food security status of indigenous Samin households
6. To analyze nutrients intake and nutritional status (WAZ) of children under five of indigenous people of Samin
7. To analyze the health status of children under five and the mothers of indigenous people of Samin

CHAPTER 2
LITERATURE REVIEW

Indigenous People

In the forty-year history of indigenous issues at the United Nations, and its even longer history at the ILO, considerable thinking and debate have been devoted to the question of the definition or understanding of "indigenous peoples". But no such definition has ever been adopted by any United Nations-system body. One of the most cited descriptions of the concept of "indigenous" was outlined in the José R. Martínez Cobo's Study on the Problem of Discrimination against Indigenous Populations. After long consideration of the issues involved, Martínez Cobo offered a working definition of "indigenous communities, peoples and nations". In doing so, he expressed a number of basic ideas forming the intellectual framework for this effort, including the right of indigenous peoples themselves to define what and who indigenous peoples are (UN 2009).

The working definition reads as follows "indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal system" (UN 2009).

In Indonesia, there are some indigenous people such as Dayak Tribe in Kalimantan, Baduy people in Banten, people of Kasepuhan Ciptagelar and Kasepuhan Sinar Resmi in Sukabumi – West Java, Tengger Tribe in East Java, etc. According to Patriasih *et al*. (2016) the establishment of Kasepuhan Ciptagelar and Kasepuhan Sinar Resmi has the same history. Both Kasepuhan are the developments of their major Kasepuhan which is called Kasepuhan Cipta Rasa. Kasepuhan Cipta rasa is a Kasepuhan that holds tightly on the tradition of their ancestors and is a part of Kasepuhan Adat Banten Kidul. Measured from the conducts of *'Serentaun'* (a celebration party after harvest held once in a year) in 2014 that was the 646th, it can be predicted that the establishment of this Kasepuhan was in around 1368.

In Ciptagelar, Kasepuhan is led by cultural leader called as *'Abah'*. *Abah* is chosen based on lineage which is strengthened by the inspiration received by Abah. The person chosen is the first son of *Abah*. Even if, based on the custom, the leadership of Kasepuhan is inherited based on lineage to the first son, but there is another mechanism in determining the leader of Kasepuhan like the testamentary given by *Abah* to one of his children or relatives before his death. Another mechanism is 'wamen' that deals with caretaking after the death of *Abah* when the chosen candidate is not mature enough to take the lead. The temporary leadership is given to one of the brothers of *Abah*, until the time when the chosen candidate is mature enough, married, and ready to lead both mentally and spiritually. This shows that the appointment of a leader of Kasepuhan is not done recklessly, in order for that

leader to be able to be a good leader that fulfills the expectations based on the customs applied (Patriasih *et al* 2016).

Abah has a very vital function in the life order of the people in Kasepuhan. The role of *Abah* is very important in agriculture, religion, social and customs. The job of *Abah* is to decide everything related to every aspect of people's lives. Making the decision is done through meetings and discussion. In doing his job, *Abah* is assited by *Baris Kolot* and *Padamel Abah*. They are the staffs and assistants of *Abah* in doing various things. Their position is determined by ancestry but still based on the appointement from *Abah* after seeing some considerations. *Abah* Ugi, appointed as a leader in Kasepuhan Ciptagelar in 2000, is the youngest leader since the time when Kasepuhan was established. And on February 2nd, 2002 *Abah* Asep Nugraha was appointed as *Abah* in Kasepuhan Sirna Resmi (Patriasih *et al.* 2016).

As for Baduy society, they inhabit an area which is part of Kendeng Mountains located in the west of Banten Province. The topography of the Baduy area consists of hills. Administratively, Baduy area covers an area of about 5,101.85 hectares which is now included in Kanekes Village, Leuwidamar Subdistrict, Lebak Regency, Banten Province. The land in Baduy area can generally be divided into three kinds of land use; i.e., farmland, permanent forest, and settlement. Most of the land is used for farmland, some of which are forests that cannot be cultivated, and a small portion for settlement (Khomsan *et al*. 2009).

According to Prawiro (2013) the Baduy society is a society which intentionally rejects any culture contrary to the values of their culture. Although they have chosen to protect themselves from the outside communities, they respect other cultures. The Baduy society is not a society with rigid customs. On some customs associated with their own cultural structure, they are very strict, but in matters related to the culture of other people, they are open, respectful, and sympathetic and sometimes they adopt the culture of others that is, of course, not contrary to their own.

Tradition and social institutions that coexist in the life of Baduy people are one of their strengths in maintaining the food availability to fulfill their consumption. The food availability of Baduy people is mantained because they generally have *leuit* (rice barn). The traditional people such as Baduy tribe still retain the barn ownership because they generally rely on the subsistence of staple food provision from their own agricultural products. However, paddy production results of Baduy people are generally not sufficient for their needs. Thus, they still have to buy rice from outside. Besides that, not all *huma* rice (one of the upland rice varieties) is consumed by themselves, some of the rice is used for the needs of traditional ceremonies (Khomsan *et al*. 2009).

Food Security and Nutritional Status

Food security according to the World Health Organization (WHO) rests on three pillars: (1) food availability covers the supply side. Food availability is determined by food production and technology, inventory, efficiency of supply chains, and local and international trade; (2) food access is the ability to obtain adequate quantities of food, the purchasing power needed, and adequate delivery mechanisms, including social safety nets;

and (3) food utilization refers to the need to meet dietary needs and cultural preferences (Asian Development Bank 2013). In Indonesia itself, the definition of food security according to Government Regulation of The Republic of Indonesia Number 17 (2015) is the fulfillment of food for the state up to the individuals reflected by food availability in terms of sufficient (both in quantity and quality), safe, diverse, nutritious, prevalent and affordable as well as not conflicting with religion, belief and culture, to live healthy, active, and productive in sustainable manner.

According to Wibowo *et al*. (2012), Samin people have a uniqueness in building food security. Their cultural values and the method of value inheritance in meeting food security can be described either in terms of production, distribution, or consumption. As people living in a rural area, the agricultural production system of Samin people is mostly performed together (*gotong royong*/work together in mutual cooperation). *Gotong royong* is performed at the time of land clearing, cultivation, until harvesting. In Samin people, there is a hereditary tradition in the form of principle "do not let the agricultural land be sold, but buy land as much as possible when there is money."

Samin people have diverse food consumption patterns with rice as staple food. They also do food diversification such as the tradition of eating tubers as a snack, especially during a get-together. Samin people who have "ojo sampe ora iso mangan" view (do not let themselves unable to eat) has an impact on their hard work to farm properly. As farmers, they should be able to eat from their own agricultural produce. This principle is in line with their view "*petani tukang gawe pangan, ojo nganti kantu' dan prinsip 'ojo sampe nempur, nek iso ojo ngutang"* (never buy rice from outside, and never be in debt to meet the food requirement if it is possible) (Wibowo *et al*. 2012).

Samin people do not sell their crops immediately, but the crops are stored (each house has a *senthong*, the place to store grain in the house) until there is certainty that the crops can be sold in the next harvest season. They sell ground dry rice grains when they feel that the food supply at home is sufficient until the next harvest comes. Local wisdom or also can be said as a unique thing among them is that the Samin farmers always sell the crops in the form of ground dry rice grains, and never sell them in the form of "*tebasan*/slash" (crops bought before it is harvested) for fear of harming others (slasher). According to them, in terms of "tebasan", the value obtained when the rice is still in the fields is only based on estimates, thereby it is uncertain. This estimate can either be higher or lower than the real value. If the estimate is lower, Samin people do not concern about it. However, if the estimate is higher, they are afraid to make others lose money. Their principle is not to harm others. The local wisdom is also reflected in the management of the crops, in which the crops (unhulled rice) are immediately divided into three containers after they arrive at home as follows: (1) one-third for consumption; (2) one-third for the financing of farming management; and (3) one-third for social costs. Samin people will not spend the crops before the harvest season comes (Wibowo *et al*. 2012).

The rice production of Baduy community to supply its basic need is generally insufficient; as a result, they have to purchase rice from outside. In addition, not all rice they produce can be consumed because some of it is for the needs of traditional ceremonies. As

much as 25 % of the production is sold or given to their neighbors who are lack of rice, 25 % is sent for their neighbors‟ feast and for traditional ceremonies (for the elderly people, Jaro, and Puun), and the 50 % is stored in the rice barn for their daily consumption. Only poor households use their rice for their daily consumption. Baduy community usually purchases their foodstuffs at the market, the shop, or from the vegetable vendor who sells from one village to another (Khomsan *et al*. 2009).

According to classification of nutrient intake sufficiency, only 2.7% households in Outer Baduy are in the group with food insecurity. However, in Inner Baduy and Moslem Baduy, 80% households and 92% households are food-insecured, respectively. If the micronutrient is considered, it will show clearly that there are many households in Outer Baduy, Inner Baduy, and Moslem Baduy that cannot afford to meet their micronutrient sufficiency (Khomsan *et al*. 2009).

In Kasepuhan Ciptagelar and Sinar Resmi, a bad thing with regard to food security could have been avoided because Kasepuhan have many natural resources and human resources as well as having lots of local wisdoms in the form of taboos and other rules that could maintain the sustainability of natural resources that Kasepuhan have. The local policies as local wisdom in planting paddy, non-paddy farming, forest management, livestock and fisheries (Patriasih *et al*. 2016).

Habits of complex carbohydrate consumption in Kasepuhan Ciptagelar and Sinar Resmi are not different. They eat rice, noodles, and bread. Foods containing animal protein which were consumed much were salted fish, egg, and steamed seafish. Tofu and tempeh (plant protein sources) were consumed by households (Patriasih *et al*. 2016).

Child growth is internationally recognized as an important indicator of nutritional status and health in populations (WHO 2010). According to FAO/IFAD/WFP (2014), nutritional status is the physiological state of an individual that results from the relationship between nutrient intake and requirements and from the body’s ability to digest, absorb and use these nutrients. In Indonesia itself, based on Government Regulation of the Republic of Indonesia Number 17 of 2015, nutritional status is defined as the health condition of one’s body which is the end result of food intake into the body and its utilization.

According to the Ministry of Health (2013), the nutritional status of children under five is measured based on age, body weight, and body height. The body weight and height variables of children under five are presented in three forms of anthropometric indices; i.e., weight-for-age, height-for-age, and weight-for-height. To assess the nutritional status of a child under five, the body weight and height values of each child under five are converted into a standardized value (Z-score) using anthropometric standards for children under five (WHO 2005). Based on the Z-score value of each indicator, the nutritional status of children under five is then determined.

The body weight for age describes the indicator of nutritional condition. BW/A gives an indication of general or global nutritional problems this indicator does not provide any indication of chronic or accute nutritional problems because the body weight is positively correlated with age and the body height. The low BW/A indicator can be due to being stunted (chronic nutritional problem) or still sufferring diarhea or other infectious

diseases) accute nutritional problem. The body height for age describes chronic nutritional problem due to a bad condition which goes on for a relatively long time. The examples of the bad condition are poverty, unhealthy life behaviour, inadequate food intakes for a long period since a baby so this results in a child who becomes stunted. The indicators of nutritional status by index BW/BH gives an indication of nutritional problems which are accute as a result of an incidence which took place for a relatively short (relatively not long) period, For example there was an epidemic disease and a lack of food (hunger) which results in children becoming skinny (Patriasih *et al.* 2016).

The underweight prevalence of children in Outer Baduy is 26.4%. The stunting prevalence (short) in general is as much as 60.6%. The prevalence of wasted children is 16.7%. An interesting thing is that overweight children are also high (15.3%). However, the custom of Inner Baduy does not allow an outsider to weigh and measure the nutritional status anthropometrically. Based on the observation, the posture of the adult people in Inner Baduy is considered small, not so much different from that of Outer Baduy people. Their children are also small, like those of Outer Baduy. The prevalence of underweight children in Moslem Baduy is 9.5%. The stunting prevalence as a whole is 50.0%. The wasted prevalence is 11.1%. An interesting thing is that overweight children tend to be high, that is 15.3%. This shows that Baduy children suffer from chronic malnutrition (Khomsan *et al*. 2009).

In Kasepuhan Ciptagelar and Sinar Resmi, it is observed that the prevalence of underweight was 21.5%, which consists of severe underweight 4.0%, and moderate underweight 17.5%. If compared between the prevalences in both of the Kasepuhans, the underweight prevalence of the children under five in Kasepuhan Ciptagelar (23.0%) was higher than that of the children under five in Kasepuhan Sinar Resmi (14.3%). The stunting prevalence among the children under five in Kasepuhan Ciptagelar (44.3%) was higher than that among the children under five in Sinar Resmi (22.9%). What becomes a concern is why the stunting prevalence among the children under five in Kasepuhan Ciptagelar was almost twice greater than that in Kasepuhan Sinar Resmi. It is suspected that this is connected with the nutrient intakes which tended to be worse among the children under five in Kasepuhan Ciptagelar. The prevalence of the children under five who were wasting in Kasepuhan Ciptagelar (9.1%) was lower than that of the children under five who were wasting in Kasepuhan Sinar Resmi (14.3%) even though the difference was statistically not significant (Patriasih *et al*. 2016).

CHAPTER 3
CONCEPTUAL FRAMEWORK

Nutritional status is determined by many factors, either direct or indirect ones, as seen from UNICEF model 1990 below (Niehof 2010). The framework shows that child's dietary intake and health status both directly determine child's nutritional status. But furthermore, we can also see that both factors (dietary intake and health status) are determined by many underlying factors which also determined by many basic factors.

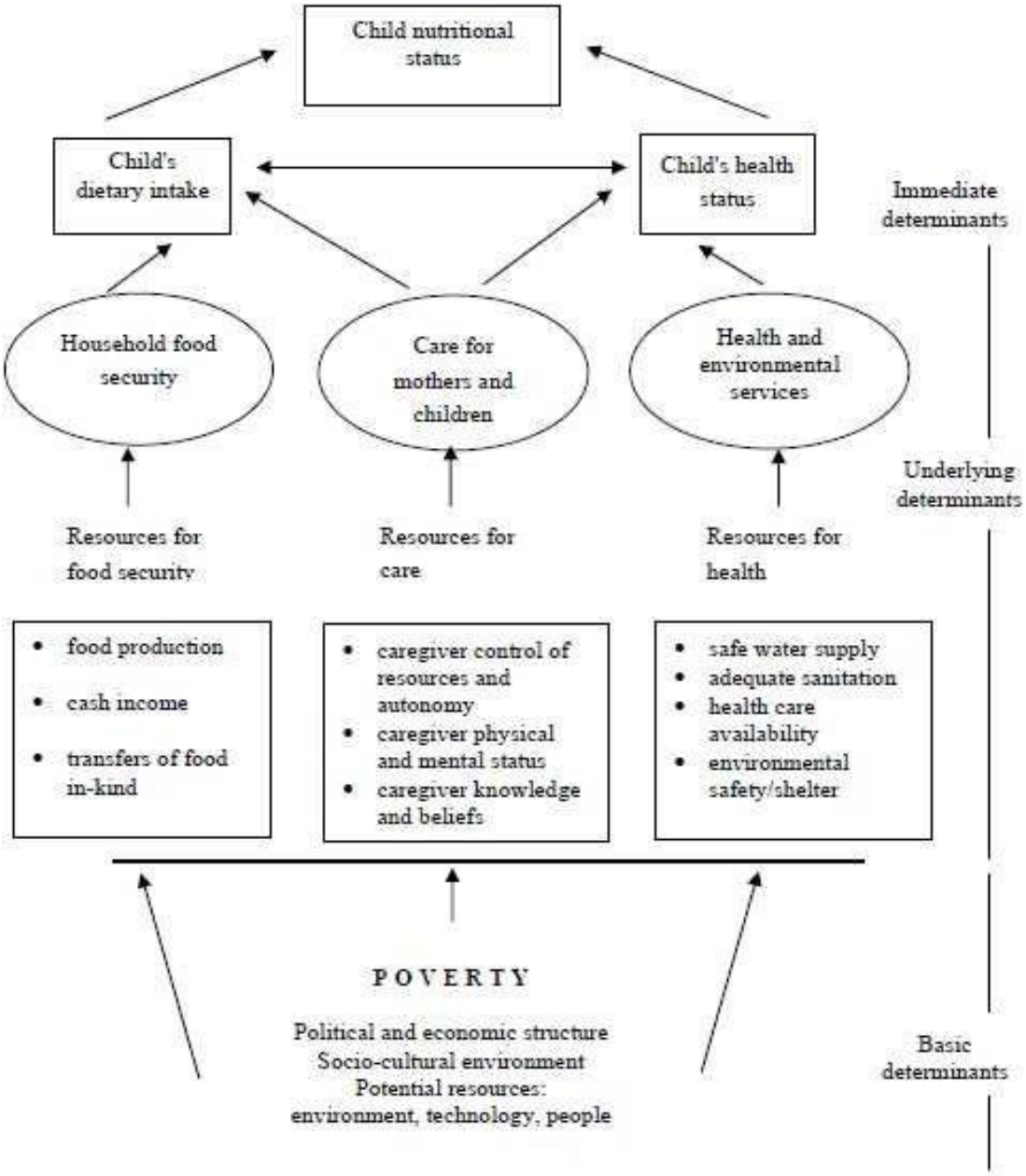

Figure 1. Conceptual Framework (Balatibat (2004) adapted from UNICEF model in Niehof (2010))

According to the UNICEF model, environmental aspects of a region is one of basic determinants for child's nutritional status. Environmental aspects especially the geographical condition of a region will determine the proper food system the region so it will affects the production of agricultural products and also the food availability for that region. Latter on it will also affect the food security of the region because food availability is one of three component of food security (Syaukat 2011). Through food availability, both environmental and agricultural aspects will influence food consumption of under-five children because it will determine what kind of food and also the amount of food that able to be consumed.

Environmental aspects especially the geographical condition can also determine the socio-economic condition of a region. Because it will also determine what kind of job available in the area (Khomsan *et al.* 2006). And if we take a look at the UNICEF model, socio-economic condition is also one of determinants of child's nutritional status. Socio-economic apects is not only about job or occupation but also about education, income, and also household size. The higher the level of someone education is, the better the job and the higher the income usually are. Someone with better education tends to have a better job and as the result their income is usually also better. And it's important, because someone's economic condition will determine his food purchasing power. Someone's education is also linked to his nutritional knowledge. Someone's nutritional knowledge will determine his ability to choose more nutritious food with the same resources (economis resources) or even with less resources. As a consequence, there will be better food availability, as well as better food consumption and nutrition status. Household size is also matter because it will also affects the food availability for each member of the household. In poor households, the bigger the household is, the more limited food availability is (Ricciuto *et al.*2006).

Culture is also basic determinant for child's nutritional status. Cultures related to food will create food consumption pattern of a region. Local culture will usually also determine the ways a household obtains their food, how the food is processed, how the food is distributed, and even food ideology which latter on can affect the food consumption. In this case, food taboo practice also has a role in determining child's nutritional status. This practice prohibits someone from consuming food, based on certain culture or belief, eventhough the taboo food might be nutritious (Oni & Tukur 2012). Besides, culture related to food, culture related to health is also another determinants for child's nutritional status. Culture related to health will create perception about health that will affects their practices realted to health such as practices on sanitation and hygine and their willingness to go to health facility.

All these basic factors will later on affects the underlying factors that determine child's nutritional status and one of them is the household food security. Food security is basically composed by three main components, namely food accessibility, food availability, and food consumption. Households considered food secured reflect food availability that is not only adequate, nutritious, but also safe, so that it will also reflect the adequate food consumption. As a consequence, nutrition status of the household will also remain good

(den Hartog 2006). This is also supported by Saaka and Osman (2013) that showed the children coming from food insecured household are prone to malnutrition.

The underlying factor will later on affects the immediate determinats for child's nutritional status such as the dietary intake and also health aspects. Children with adequate dietary intake will usually have adequate nutritional intake as well. They usually will also more resistance to infectious disease so their health aspects will also better. In opposite, health aspect which determined by health facility or culture related to health may also affect the adequacy of child's nutritional intake beacuse infectious disease can affect the absorption of nutrients in the body. So when children have better dietary intake and health status, their nutritional status will also better.

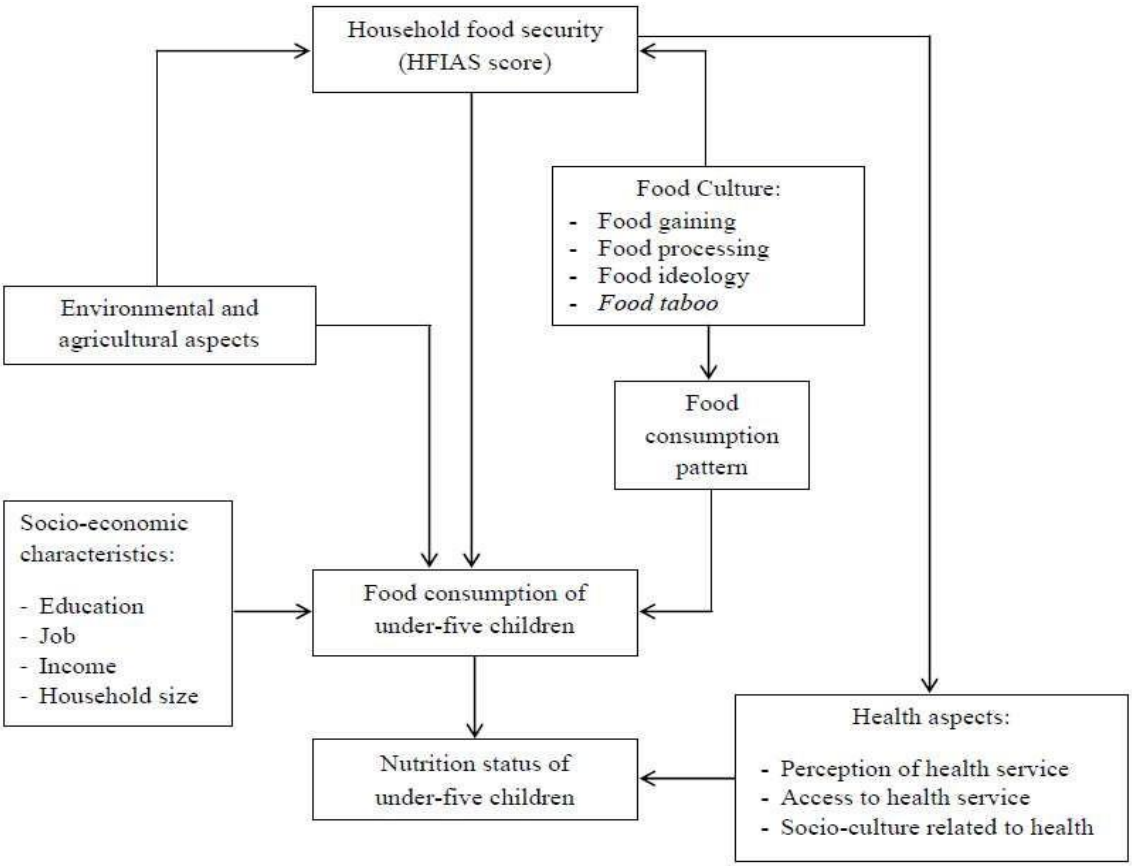

Figure 2. Socio Cultural Aspect of Food, Nutrition, and Health:
Study of Indigenous People of Samin (*Sedulur Sikep*) in Central Java

CHAPTER 4
METHOD

4.1. Research Design, Location and Time

The design study used in this research was crosssectional study, that explored both quantitatively and qualitatively. The data gathered was quantitative and qualitative data, as well as secondary ones. The study was started in July 2017 and ended in July 2018.

This research was conducted in three Districts of Central Java Province namely, Kudus, Pati, and Blora that presented in the map below:

Figure 3. Map of Central Java Province

The locations were selected purposively. Kudus and Pati were selected to represent Samin people who are still firmly hold their culture and got less influence from surrounding society. Blora was selected to represent Samin people who already explored and influenced by surrounding society. The exact locations of this research is presented in the table below:

Table 1. Research location

No	District	Hamlet	Village	Sub-Distrcit
1	Kudus	Kaliyoso	Karangrowo	Undaan
2	Pati	Bombong	Baturejo	Sukolilo
		Ngawen	Sukolilo	Sukolilo
3	Blora	Karang Pace	Klopodhuwur	Banjarejo
		Blimbing	Sambongrejo	Sambong

4.2. Sampling

The population of this study was the households which had children under five of Samin indigenous people from three districts in Central Java Province, namely Kudus, Pati, and Blora. Samin indigenous people were different from any other indigenous people. They were not centralized in one region but they were spread in some regions all along Kendeng Mountain Range in Northern part of Java Island. In this research we studied 2 Samin communities in Central Java Province area:

1. The first group were the "closed" Samin community. This group tended to hold their culture firmly and tended to close themselves off of government programs.
2. The other group were the "opened" Samin community. This group tended to be more opened to government programs.

The communities in Kudus and Pati represent the closed Samin community meanwhile the communities in Blora district represent the opened Samin community. One constraint about sampling during the study was the inavailability of the official record of Samin people so that the sampling frame could not be made. As a result, snowball sampling technique was used in this study. The total samples interviewed were 132 households. The distribution of the sample in each community is presented below:

Table 2. Distribution of sampel of Samin indigenous people

Location	**Number of samples**
Kudus	15
Pati	58
Blora	59
Total	132

This study was also used mixed method, not only quantitative approach but also qualitative approach. The qualitative data were obtained through in-depth interview and also FGD (Focus Group Discussion). The total respondents for qualitative approach were 71 respondents. There were 32 mothers of children under five and women over 50 years old who participated in FGD. Meanwhile, the total respondents for in-depth interview were 39 respondents. The list of these respondents is presented below:

Table 3. Distribution of qualitative respondents for in-depth interviews in Pati-Kudus

No	**Respondent**	**Number**
1	Samin's public figures	9
2	Midwives	2
3	Mother's of children undren five	12
Total		23

Table 4. Distribution of qualitative respondents for in-depth interviews in Blora

No	Respondent	Number
1	Samin's public figures	7
2	Midwives	2
3	Mother's of children undren five	5
4	Village officer	1
5	Woman in charge of the *Posyandu*	1
Total		16

4.3. Data Collection

Data in this study was collected through direct interviews and direct anthropometric measurements. Since mixed methods were used in this study, the data collection could be divided into two types, the quantitative data and the qualitative data. The quantitative data were collected through direct interview using a set of questionnaire and direct anthropometric measurements, both conducted by enumerators. Quantitative data collected consisted of household characteristics, household expenditure, Food Frequency Questionnaire (FFQ), recall 1x24 hours (children under five), Household Dietary Diversity Score (HDDS), Household Food Insecurity Access Scale (HFIAS), living environment, personal hygiene, perception on health, health status of children under five and mother, health services access, ante natal care, and nutrition knowledge of mother.

To make sure data quality, the interviewers were trained both on how to interview and also to conduct anthropometric measurement before data collection process. The interviews were all conducted in each sample's house and approximately 1 hour was spent to interview each sample and conduct the anthropometry measurement. The interviews were conducted in the morning until afternoon. The time of interview was flexible depended on the time availability of the samples. Anthropometric measurements were performed right after the interview finished.

There were some constraints found during data collection, such as:

1. The unavailability of the administrative record or list of the Samin people, children under five.
2. In some areas, such Kaliyoso-Kudus and Blimbing-Blora, the Samin people lived blended in with non Samin people, so that we need to be more careful to draw the right sample.
3. The people in Kudus tended to withdraw themselves from new comer so that more effort needed in collecting the data in this area
4. Samin people had a culture that stated **their age is "one" since they only live once** so that it's difficult for the interviewers to determine their exact age especially for the parents of the children under five.
5. Crop failure happened during the data collection so that it was hard to determine the income based on actual harvest so that the research team decided to use expenditure as an approach to determine the income.

6. Measurement of children heights was difficult to conduct since height measurement was identic to burial process in some Samin communities.

Those constraints were able to be overcome because of warm welcome and full support from the village governments, the midwives, and the leader as well as the family members of Samin people in each community. They were always ready to help research team so that the data collection could be conducted really well.

The qualitative data was collected through observation and in-depth interview to key informants. The qualitative data were also collected by an enumerator. The qualitative enumerator were also trained before data collection process to make the data quality. Qualitative data collected included socio-cultural aspects of the indigenous people of Samin (the origin, the education, the way of life, the belief and rituals of Samin people) and food cultural data (food taboo, food for certain celebrations, intra household food allocation, inter-household food exchange, and agricultural practices).

Focus Group Discussion (FGD) was also conducted to obtain qualitative data besides observation and in-depth interview. FGD was firstly scheduled in Pati because Samin people in Pati are the ones who hold their culture most firmly, but it was impossible to be conducted there because according to the wife of the leader, the Samin women in Pati rarely spoke on occasion such FGD. In the end, we decided to conduct the FGD in Blora. The FGD was conducted to mother of children under five and women over 50 years old. Through the FGD, the researchers were able to collect the data on socio-cultural aspects and food culture. There were no significant constraints found during FGD. The respondents were very welcomed and excited. They were also actively and communicatively participated so that the FGD could be carried out very well.

4.4. Data Analysis and Management

Data analysis were divided into 5 steps, that described below:

1. The first step was the preparation step. In this step, sheets in Ms Excel that contained variables for data entry were prepared. Coding was also done to the data on the questionnaire during the preparation step.
2. The next step was entrying the data from the questionnaires into the sheets. The third step of data analysis was editing the data.
3. Editing was done to the data that had non-conformance between the contents of the questionnaire with data entry file.
4. The next step was data cleaning. Cleaning was carried out to the extreme data and the incomplete data. In this research, at first we interviewed 132 samples but after cleaning step there were only 120 samples that were ready to be analyzed.
5. The last step was performing the analysis.

Data were analyzed was based on questionnaires (quantitative data) and anthropometric measurement results using IBM program Statistical Package for Social

Sciences (SPSS) version 23. Statistical data analysis was carried out based on the aims of the research and data availability to answer the research objectives, including (1) estimation of elementary statistic for numeric data such as min-max score, mean, and standard deviation; (2) estimation of proportion for categorical data; (3) Inference statistics to analyze the difference between groups using t-test and mann-whitney also correlation between variables using spearman correlation test, and (4) content analysis for qualitative data.

Qualitative data such as images and recordings. Transcription of recordings will be made then identified and analyzed for the meaning, value, belief, experience, and practice. The relationship between food taboos, food suggestions, traditional beliefs and practices and nutritional status of the pregnant women will be analyzed qualitatively descriptive. The quantitative and qualitative data will support each other so they will further illustrate the actual conditions at the research sites. Qualitative data can explain the reasons why and how an event occurs.

CHAPTER 5
DESCRIPTION OF THE STUDY SITES

Central Java is located between 5°40' and 8°30' South Latitude and between 108°30' and 111°30' East Longitude (including Karimunjawa Island). Based on its geographical position, Central Java borders with the Java Sea in the north, Special Region of Yogyakarta and the Indian Ocean in the south, West Java Province in the west, and East Java Province in the east. Central Java Province is divided into 29 regencies and 6 cities. The regions consist of 573 subdistricts and 8,559 villages or *kelurahan* (urban communities). The total area of Central Java is recorded at 3.25 million hectares or about 25.04% of the total area of Java Island (1.70% of the total area of Indonesia) (BPS 2017).

Based on the projection of population in 2016, the population of Central Java Province was 34,019.10 thousand people consisting of 16,871.19 thousand male population and 17,147.90 thousand female population. If compared to the projected population in 2015, its population experienced a growth of 0.73%. Meanwhile, the magnitude of the sex ratio of male population to female population in 2016 was 98.39. The population density in Central Java in 2016 reached 1,045 people/km^2. The population density in 35 regencies/cities was quite diverse, with the highest population was in Surakarta city with a density of 11,678 people/km^2, and the lowest was in Blora Regency (477 people/km^2) (BPS 2017).

The number of poor people (people below the Poverty Line) in Central Java Province in March 2017 reached 4,450.72 million people (13.01%). It decreased by 43.03 thousand people when compared to the poor population in September 2016 that was recorded at 4.49 million people (13.19%). The poverty line in March 2017 was IDR 333,224. BPJS participants in 2016 were 22,659,150 people consisting of 15,073,275 beneficiaries of State Budget (APBN) contributions and 655,430 beneficiaries of Regional Budget (APBD) contributions. Meanwhile, non-contributory participants consisted of 3,986,450 wage workers, 2,190,440 non-wage workers, and 753,555 non-workers (BPS 2017).

The Human Development Index (HDI) in Central Java Province in 2016 was 69.89. It increased when compared to the HDI in 2015 (69.49). If observed from each component, the Life Expectancy at Birth in the Central Java Province reached 74.02 years. Mean monthly per capita expenditure in Central Java in Indonesia was recorded at IDR 756,720/capita/month. In 2016, 49.1% of per capita expenditure or IDR 371,605 was used for food needs, while 50.89% or IDR 385,115 was used for non-food needs (BPS 2017).

Central Java Province is one of the national food support provinces. Therefore, the rice productivity is preferred to be encouraged continuously. In 2015, the productivity of lowland rice was 60.99 quintal per hectare, with a harvested area of 1.80 million hectares and the total production of 11.00 million tons. The productivity of *palawija* (non-staple food crops) in 2015 was as follows: 59.18 quintal/hectare of corn, 18.38 quintal/hectare of soybeans, 13.42 quintal/hectare of peanuts, 12.04 quintal/hectare of mung bean, 236.73 quintal/hectare of cassava, and 213.84 quintal/hectare of sweet potato (BPS 2017).

The types of livestock raised in Central Java are large cattle (beef/dairy cow, buffaloes, and horses) while the small cattle consists of goats, sheep, and pigs. Meanwhile, various livestock is also raised including poultry (free-range chicken, laying hens, broiler, and duck/Mandarin duck). The large cattle population in 2015 recorded were 1,777.25 thousand cows, 64.19 thousand buffaloes, and 15.87 thousand horses. Blora Regency is the regency with the largest number of large cattle in Central Java (BPS 2017).

The increased nutritional and health status in a community is crucial in the efforts to improve human quality in other aspects such as education and labor productivity. Achieving good quality health and nutrition is not only important for the present generation but also for the next generation. The availability of adequate health facilities is necessary for the efforts to improve the health and nutritional status of the community. This will be realized if there is support from the government and the private sector at once. In 2016, the number of the hospital in all regencies/cities in Central Java was 279 units and 206 maternity hospitals. It was also coupled with the Public Health Center (Puskesmas) which was available in almost all subdistricts. In 2016, there were 875 Puskesmas in Central Java. Besides that, other health facilities were also available; i.e., 48,831 Posyandu, 1,166 clinics/health centers, and 5,931 Polindes. The number of doctors in Central Java was as follows: 4,484 specialists, 4,420 general practitioners, and 1,069 dentists. The number of productive age couple in Central Java Province in 2016 was 6,727,894. Of these couples, there were 5,679,960 recorded as the active participants of family planning program (KB). The most widely used contraception was a contraceptive injection (2,963,642) and the least used was the Male Operation Method or vasectomy (47,399) (BPS 2017).

CHAPTER 6
SOCIO-CULTURE OF SAMIN (*SEDULUR SIKEP*)

A. Origin

The Samin ideology or often referred to as the Samin Movement or Saminism, in which the Samin ideology itself is one of the tribes that exist in Indonesia. Samin people are the descendants of Samin Surosentiko followers who taught *Sedulur Sikep*. Samin Surosentiko taught a form of resistance against the invaders without resorting to violence. The forms of resistance carried out were refusing to pay taxes and rejecting all regulations made by the colonial government. This Samin group is spread almost in several regions of Central Java, but the largest distribution is in Blora (Central Java) and Bojonegoro (East Java) regions. The number of Samin people is not much, and they live in the Kendeng Mountains on the border of Central Java and East Java Provinces. Samin people prefer to be called as *Sedulur Sikep* or *wong sikep* because the word "samin" has a negative meaning for them. People outside Samin often think of them as an innocent group, do not like to steal, refuse to pay taxes, and refuse to do programs that have been established by the government.

"Samin niku saking istilah sami-sami amin utawi sama-sama amin, sing duweni makna sami-sami membela negara ngelawan penjajahan. Contohe perlawanan jaman kuwi rakyat ora gelem bayar pajak, sebab pajak sing dibayar ora digunake kanggo rakyat, nanging kanggo penjajah" ***Mr. Gunretno (Pati, Bombong)***

"Samin comes from the term *sama sama amin* which means together to defend the country against the invaders. An example of resistance in the past was not to pay taxes because the proceeds from the tax were not used for the welfare of the people, only for the invaders"

"Sedulur Sikep kuwi artine sikep rabi, sing artine wong lanang sing duwe bojo. Nanging bocah cilik, kayak anakku sing durung rabi disebut Adam Timur. Adam kuwi artine ucapan yen timur kuwi duweni artine niti urip. Maknane adam timur kuwi omongan sing iso dicekel" ***Mr. Roso (Pati, Bombong)***

"*Sedulur Sikep* can also mean the marriage-related attitudes, which means a man who has a wife. However, a young child like my unmarried child is called Adam Timur. Adam means speech and Timur means living life. Thus, Adam Timur can be defined as the words that can be relied on"

Samin Surosentiko or the person who had the original name Raden Kohar was the person who first taught the Samin ideology to Indonesian people. He was born in Ploso Kedhiren Village, Randublatung in 1859, and he died in Padang during the exile in 1914. The followers of Samin ideology have five doctrines, namely not going to school; not wearing *peci* (untasseled fez) but wearing *iket* (a kind of cloth tied around the head like a Javanese in the past); not a polygamist; not wearing trousers and only wearing knee-length pants; not trading; and rejecting capitalism.

As a figure who taught Samin doctrine, Surosentiko also taught the principles of his doctrine, i.e., religion is a weapon or life guideline, the view of Samin does not discriminate against religion, therefore Samin people never deny or hate religion because the most important thing is the character; do not bother people, do not quarrel, do not often envy, and do not take people's things; always be patient and do not be arrogant; the living man should understand his life because life is the same as the spirit, and it is only one and brought eternally forever. According to Samin people, the spirit of the dead does not die but only undresses; and when they talk, they should be able to keep the mouth, be honest, and have mutual respect. For Samin people, trading is prohibited because there is an element of dishonesty in it, and they also cannot accept donations in the form of money.

The principles of Samin ideology in ethics are in the form of taboo of not doing *drengki* (making slander); *srei* (greedy); *panasten* (easily offended); *dawen* (accusing without evidence); *kemeren* (envy); *nyinyo marang sepodo* (doing contemptible deeds to the fellow inhabitants of nature); *bejok reyot iku dulure, waton menungso tur gelem di ndaku sedulur* (do not ignore others although they are disabled, the origin of man is brother if he wants to be a brother); and talking vulgar or disrespectful. The principles of interaction are in the form of *bedok* (accusing), *colong* (stealing), *pethil* (taking goods that are still integrated with nature such as vegetables when the vegetables are still in the field), *jumput* (taking goods that have become a market commodity such as rice), and *nemu wae ora keno* (find things to be taboo).

"Ajaran Sedulur Sikep kuwi ora oleh ngelakoke drengki, srei, panasten, dawen, kemeren, bedok, colong, pethil, jumput, nemu wae ora keno. Kuwi kabeh ajarane Sedulur Sikep sing wes diajarke kawit isih bocah cilik nganti sak lawase." ***Mrs. Gunarti (Pati, Bombong)***

"*Sedulur Sikep* ideology is not being envious, spiteful, easily irritated, easily angry, not stealing, shoplifting, not being stingy, and not taking things that are not theirs. The doctrines are taught from childhood and must be embraced for the rest of their life"

"Prinsip hidup Sedulur Sikep kuwi ora oleh drengki srei dahwen panasten bedok colong petil jumput nemu mawon kuwi nek iso ojo dilakoni. Dititi urip e kuwi mau ben ora ngelakoni kuwi mau. Nek iso ngelakoni ora drengki karo srei kuwi uripe wes becik" ***Mr. Roso (Pati, Bombong)***

"The life principles of *Sedulur Sikep* are not to be envious or spiteful, and stealing should not be done. The life is properly arranged so as not to perform such deeds. If they do not do the deeds, their life will be better"

The basic doctrines of characters are *kudu weruh te e dewe* (only see his own goods), *lugu* (naive), *mligi* (patient), and *rukun* (harmonious). *Kudu weruh te e dewe* (only see his own goods) means that the person should know the goods he has and not utilize the goods of others, either intentionally or unintentionally. Naïve means that if the person says yes, he should be true to his words, but it is better to say no if he is hesitant or unable to do it. *Mligi* is defined as behavior or principle in ethics and interacting. *Rukun* has a meaning of getting along with wife, children, parents, neighbors, and everyone.

"Sedulur Sikep sak temene, tindak tanduk kecap kuwi opo wae diati-ati merga Sedulur Sikep pingin njejeng no sing diarani siji mligi loro lugu. Mligi kuwi maksude perilaku, nek lugu ku maksude nek iyo yo iyo, nek ora yo ora, dadi ne ora keno nglakoni goroh (bohong). Wong sing iso ngelakoni lugu karo mligi kuwi ora garapan ringan." ***Mbah Gono (Kudus, Kaliyoso)***

"In fact, all the behavior of *Sedulur Sikep* must be careful because they do not want to be called unprincipled or inconsistent. *Mligi* is behavior, *lugu* means what it is, not lying. People who behave innocently and kind are not easy."

Samin people also have a holy scripture like other beliefs. The holy scripture believed by the Samin people is Serat Jamus Kalimasada consisting of several books, including Serat Punjer Kawitan, Serat Pikukuh Kasajaten, Serat Uri-uri Pambudi, Serat Jati Sawit, and Serat Lampahing Urip. The teachings in the Serat Pikukuh Kasajaten (Inauguration of True Life) book were written in the form of poetry or Javanese songs. By adhering to the book, the Samin people want to build an inner state that is far from *drengki, srei, tukar, padu, dahwen,* and *kemeren* attitudes. On the contrary, they want to realize these orders "*Lakonana sabar trokal. Sabare dieling-eling. Trokali dilakoni*" (Do it patiently. Must remember to be patient. Anything must be done)

Although Indonesia has been already independent, Samin people still cannot trust the current Indonesia government because many governments are not honest with their people. Therefore, when they are married, they do not register themselves at the Religious Affairs Office or the Civil Registry Office. Besides that, some Samin community groups do not want to run the government programs, either from health or education aspects. The Samin community groups in some regions do not want to come to Posyandu, do not want to check their health at the health center/Puskesmas/hospital. They also still use traditional methods during childbirth; i.e., with the help of *dukun bayi* (a traditional healer that specifically handles childbirth).

In everyday life, they communicate using a traditional language (i.e., Javanese). The Javanese language used is Javanese *ngoko* (the lowest level of Javanese language, usually for the common people). They do not know the level of Javanese language. They respect other people not from the language used but from the attitudes and actions shown. In their daily life, Samin people use ordinary clothes. However, when there are certain activities or celebrations, Samin people use different clothes. The men wear black long-sleeved shirts without collars, black knee-length pants, and headbands. The Samin women wear black long-sleeved kebaya and cloth just below the kneecap or above the ankles.

"Lah kenapa wong Samin seneng ngango iket, kuwi mau kangggo ngiket pikiran lan hati gunane kanggo ngendalikke unsur sing ono ning manungso. Unsur wae kuwi ono api, air, udara. Yen geni cilik kuwi ngangeti nanging yen gede kuwi iso bakar. Yen bayu sitik kuwi nyegeri tapi yen bayu ne akeh iso marai banjir. Lah kabeh unsur kuwi mau ono ning diri manusia dewe. Lah kenopo wong Samin seneng nganggo klambi werno ireng. Kuwi mergo dewe kuwi sadar yen dewe ora wong sing sempurna, dewe isih akeh salahe" ***Mbah Poso (Blora, Klopoduwur)***

"Why do Samin people wear a headband? The headband serves to bind the mind so that they do not behave strangely. Why do Samin people wear black clothes? Because they feel that they are imperfect and they still have many mistakes."

"Wong Samin kuwi nganggo klambi sing ireng kuwi duweni arti kabeh wong kuwi podo, arep sugih utawi kere kan bayangane tetep wae podo ireng. Dadi ora ono sing di beda-bedake" ***Mbah Lasio (Blora, Klopoduwur)***

"The Samin people wearing black clothes have the meaning that everyone is the same. Whether rich or poor, his shadow is still black. So, there is nothing different."

The Samin community is a community group that lives in groups in one area, and the houses of Samin people are lined with each other. It is intended to facilitate communication, as well as to maintain and preserve the kinship relations of Samin people. They also do not limit themselves to communicate with the community outside Samin. The houses of Samin people are made of teak wood and bamboo with *limasan*, *kampung*, or *joglo* shapes.

The matchmaking of Samin people is performed between the fellow followers of Samin (*tunggal bibit*). This choice is motivated by the interaction intensity between Samin people based on the principle of wishful thinking in mind (particles), considered deeply (articles), ventured in verbal communication (utterance), and followed up with marriage (behavior). In the marriage of Samin people, they have a promise "*janji sepisan kanggo saklawase*" or once in a lifetime.

The Samin people's viewpoint of the environment is very good. They use nature in moderation. In other words, they use it according to their needs. For them, the land is a mother which means that it provides them with a livelihood. Almost all Samin people work as farmers; thereby they treat the land as best as they can.

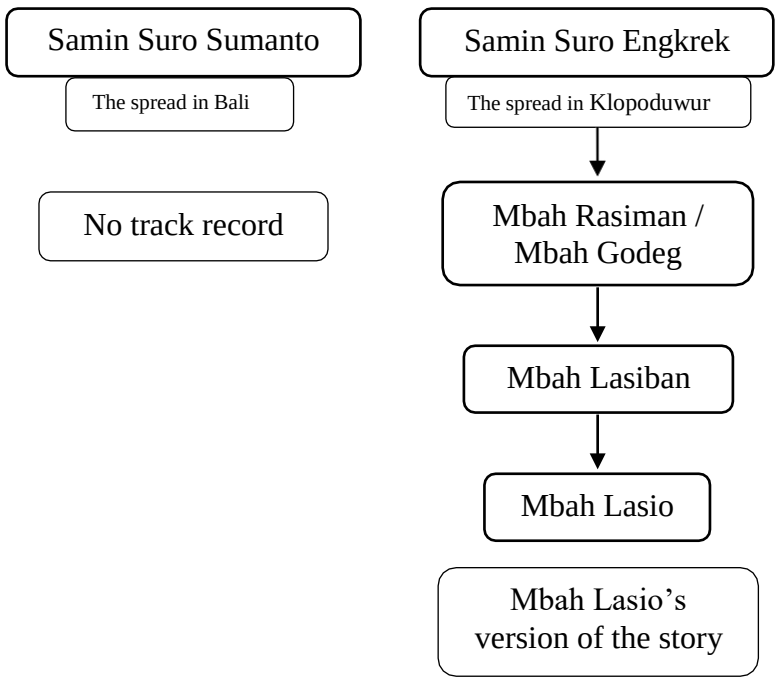

Figure 4. The Kinship of *Sedulur Sikep* Blora (Klopoduwur) – Kudus

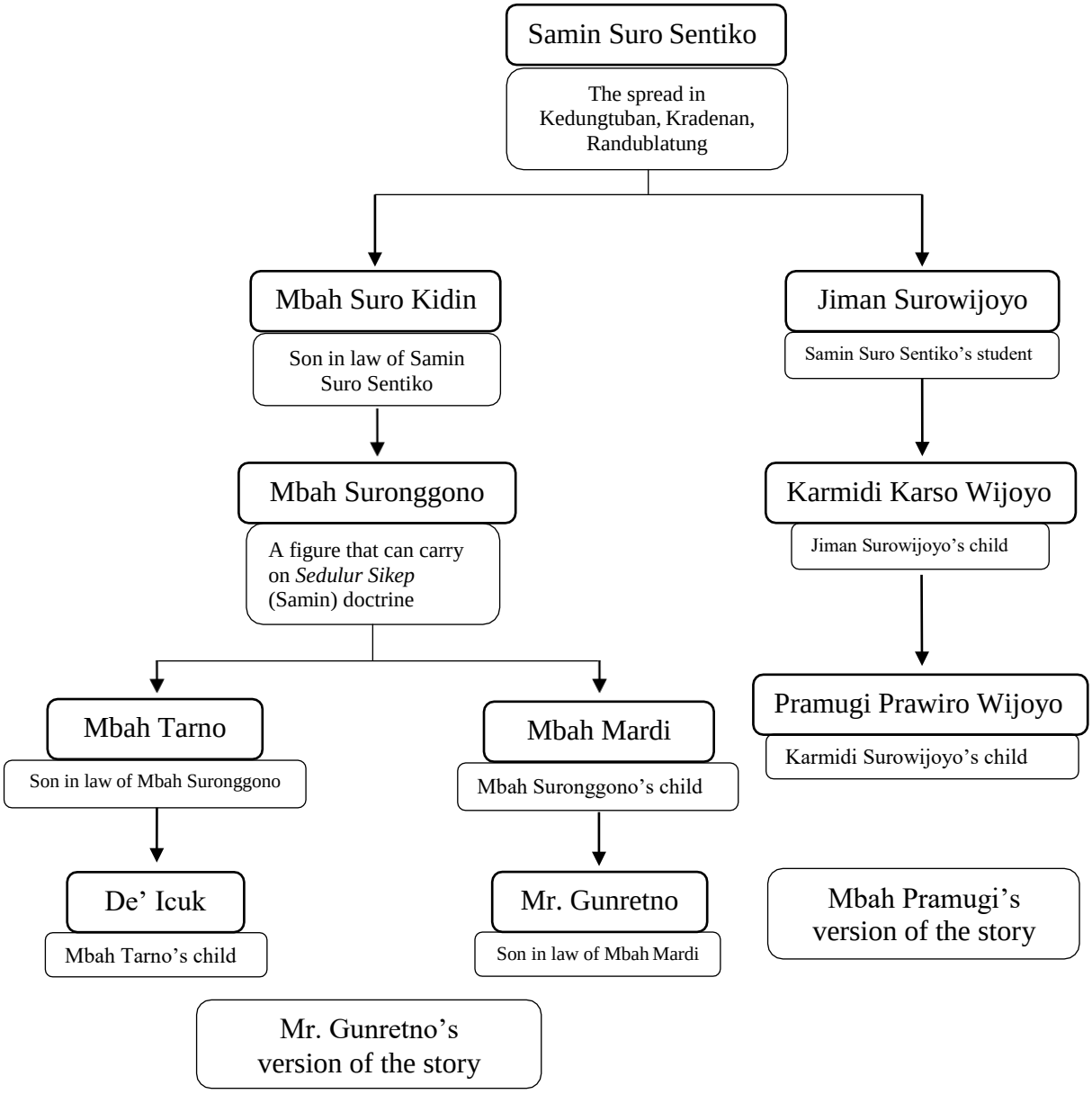

Figure 5. The Kinship of *Sedulur Sikep* Pati – Blora (Blimbing)

B. Education

Samin people are not allowed to send their children to school because education should be given by their parents. The word "*guru*" (teacher) means *digugu lan ditiru* (to obey and to follow*)*. Thus, the parents are expected to be able to teach their own children, either the life lesson, basic ethical principles, reading, or writing (informal school). For the education system of Samin people in Pati and Kudus, the education is usually carried out at the *kendeng* house located in Pati, and it is held every Monday. The education at *kendeng* house has begun since 2009. At the *kendeng* house, Samin children are taught to read, write, sing, and play *gamelan* (Javanese music tools). Writing and reading are taught by Mrs. Gunarti while singing and playing gamelan are taught by Mr. Tantri from Purwodadi.

"Sedulur Sikep kuwi memang ora sekolah secara formal, sing ngajari sinau kuwi yo wong tuane dewe-dewe utawa kakak e. Kan maksud guru kuwi digugu lan ditiru, sing iso digugu karo ditiru kan yo wong tua ne dewe dadi kuwi kenapa Sedulur Sikep ora perlu sekolah formal. Senajan ora sekolah Sedulur Sikep tetep iso dadi petani kan. Tapi ning Pati kene ono kegiatan sinau kanggo anak-anak Sedulur Sikep saben dinten Senin ono ning omah kendeng. Sing ngajari sinau kuwi yo aku dewe karo De' Tantri. De' Tantri kuwi wong Purwodadi, beliau kuwi dudu wong sikep tapi seneng karo tata carane wong sikep." ***Mrs. Gunarti (Pati, Bombong)***

"*Sedulur Sikep* is not attending a formal school. Those who teach reading and writing are their parents or older siblings. The word "*guru*" (teacher) means *digugu lan ditiru* (to obey and to follow). The behavior that can be imitated is the behavior of their own parents. Therefore, *Sedulur Sikep* do not need formal schooling. Although they do not go to formal school, they still become farmers. However, the *Sedulur Sikep* children in Pati can learn together at the *kendeng* house. The ones who teach them are me and Tantri. He is from Purwodadi, he is not a *sikep* person but likes to learn about Samin's culture."

"Sedulur Sikep kuwi sinau dewe, disinauni karo bapak ibu ne. Nek sinau kuwi dipenging nglakoni drengki, srei, dahwen, panasten, kemeren, petil, jumput, ngasi jupuk wae ora oleh nek ora we'e dewe. Nek baca tulis kuwi sing ngajari iso wong tuwane utowo kakak e, sing penting isih keluargane dewe, tapi kabeh ya terutama kudune wong tuwane." ***Mrs. Tatik (Pati, Bombong)***

"*Sedulur Sikep* learn by themselves, and they are taught by their own parents. They are taught not to be envious, spiteful, and stingy, as well as not stealing or taking other people's things."

"Anak ku ora perlu sekolah duwur, sing ngahari cukup bapak ibu e wae. Ora sekolah wae anakku bisa urip dadi petani. Nek menurutku sekolah yo ora marai dadi wong apik kok" ***Mr. Roso (Pati, Bombong)***

"My son does not need higher education. It is enough to have the parents to teach him. Even though my son is not going to school, he can still become a farmer. I think the school does not necessarily guarantee someone to be a good person."

All *Sedulur Sikep* children in Blora have attended school because the parents of the children there have understood the importance of education for their children. Although they have their own fields or livestock, they also want their children to be successful people. Even though almost all children in Blora have attended school, they and their environment still consider themselves as *Sedulur Sikep*.

"Anakku sing nomor 1 kuwi kan lanang, wes sekolah kelas 1 SMP. Sekolahe cedak cepu kono loh. Kan kuwi sekolah sing paling cedak seko omah. Aku mikire ben mbesuk anakku ora perlu rekasa golek duit yo mending tak sekolahke" ***Mrs. Las (Blora, Blimbing)***

"My first child is a boy, already in the first grade of junior high school. The school is near Cepu, the closest to home. I think, with formal school, I hope my child gets a job that makes money."

C. Way of Life - Belief and Rituals – Food for Certain Celebration

Samin people are prohibited from trading. It contains a message that someone who trades will get profits. According to Samin people, the profits generated are detrimental to others. If Samin people make a sales transaction, they must provide a selling price that is much lower than the purchase price.

"Sedulur Sikep kuwi ora ono sing dagang utowo dodolan, kuwi hukume dilarang. Nek jare mbah ku ndisik, Sedulur Sikep oleh dagang tapi kudu ngedol luwih murah timbang pas dewe tuku. Misalke aku tuku beras regane 15.000 nah aku kudu ngedol beras ku nek iso regane 7.500 ora oleh nganti 15.000 utowo punjul. Lah nek ngono kan artine dewe mau ora oleh dodolan, tapi larangane secara alus. Sebabe nek dewe dodolan kan ngerugike wong liyo." ***Mrs. Tatik (Pati, Bombong)***

"There are no *Sedulur Sikep* engaged in trade. It is prohibited. The older relatives say that *sikep* people are allowed to trade, but the selling price must be lower than the purchase price. Seeking profit will make others incur losses."

"Tatana sikep sing bedakke kaliyan sedulur liyane kuwi, wong sikep ora oleh dagang. Sebab wong dagang kuwi ngapusi. Nek gelem dagang misal kulake 1000 kudu gelem ngedol 800, lah kuwi keno dagang. Kan kuwi artine ora oleh dagang, tapi ngongkone nganggo coro sing alus. Ben ora ngapusi yo ora usah dagang" ***Mr. Roso (Pati, Bombong)***

"The rule that distinguishes *Sikep* people from others is that they are not allowed to trade because trade can be deceptive. A trade is a form of deception in a subtle way."

"Sedulur Sikep kuwi ora dagang kulak. Wong nek ngelakoni dagang kulak ki kiro-kiro opo iso dadi wong sing mligi lan lugu? Lah mulane Sedulur Sikep sing dilakoni kepingin cukup butuhe sandang pangan. Lah nek Sedulur Sikep pingin cukup butuhe sandang pangane dumunung yo ngandalke pertanian. Lah nek dagang kulak kan mesti golek untunge, misal kulak rokok 10ribu mesti ngedole kan iso 11ribu. Lah sing diarani lugu nek njaluk yo njaluk, nek utang yo nyaur. Sandang pangan sing dumunung kuwi upamane regane 10ribu kuwi kanda "iki regane 10ribu, wes tak lakoni aku tuku ning kono adoh, lah iki aku njaluk imboh sewu" kan yo ora ono ngono kuwi, berarti kuwi kan jenenge yo ora dumunung." ***Mbah Gono (Kudus, Kaliyoso)***

"*Sedulur Sikep* are not allowed to trade. What the *Sikep* people need are food and clothes only. Therefore, *Sikep* people simply rely on agriculture. It is not permissible for *Sikep* people to buy cigarettes at a price of 10,000 and then sell the cigarettes for 11,000 because it will make other incur losses."

In this modern age, Samin people (especially in Pati and Kudus) still preserve *Sedulur Sikep* customs without changing them. However, Samin people in Blora either in Klopo duwur or Blimbing are more open to accepting changes in this age. For example, in Pati and Kudus, *Sedulur Sikep* children are still not allowed to go to school. They still refuse to pay taxes, refuse the government regulations (e.g., ownership of identity cards and civil registration at marriage), and refuse the health programs (e.g., *Posyandu = health service post)*). However, Samin people in Blora have started to send their children to school, and they regularly attend the Posyandu activities. They have identity cards, and their marriages

have also been registered at the Civil Registry Office or Religious Affairs Office. Even though the Samin people in Blora are more advanced and open, they still preserve their customs. For example, they always hold an event to welcome the month of Suro, and they still carry out the customs of marriage, pregnancy, birth, breastfeeding, and death according to the customs that have existed long ago.

Many people in Blora have worked not as farmers. Some of them have become employees in a company, and some of them work as teachers or midwives. The freedom in Samin people in Blora still does not change their customs. They believe that their customs must be preserved at any time.

If a person violating the law or tradition in the Samin community, no one has the right to give them punishment. They believe that punishment will be given by nature for those who violate their own traditions. This rule applies either in Pati, Kudus, or Blora.

"Misal ono Sedulur Sikep wes nyekolahke anake, kuwi sakjane aku ora pantes menehi hukuman kanggo wong kuwi utowo keluargane. Hukum kuwi kan ono 3 sing pertama kan hukum alam. Hukum alam kuwi kan contone ana rina ana bengi, ana lanang ana wedok kan kabeh ora ono sing ngerubah, kabeh sing ngerubah kuwi kan alam. Terus ono hukum hitam diatas putih kan kuwi koyok sing dipelajari ning sekolahan ngono kuwi. Sing ketelu yo hukum adat, lah hukum adat kuwi kan adat kebiasaan sing wiwit dilakoni jaman ndisik kan kuwi opo wae terus diteruske. Nah wong sing wes ngelanggar hukum ngono ben alam karo adat sing hukum wae. Nek bangsa ne kayak aku kan ora oleh ngehukum, sebabe kabeh podo duwe salah." ***Mbah Gono (Kudus, Kaliyoso)***

"For example, in natural law there are day and night, there man and woman, there are no changed it, just the nature can changed it. Moreover, there are black and white law, such a lesson which we were studying in the school. The third is customary law, which is custom we learned since long time ago and should we follow. So, if someone breaking the law they will punishment by nature. For people like me, I couldn't punished people who break the law"

"Wonten mriki mboten wonten sanksi enek salah karo sedulur kudu dingene, ra ana mbak. Dadi kita mengingatkan sehingga setelah diingatkan nanti tunggu alam sendiri yang akan balas, itu karma nek bahasane" ***Mbah Poso (Blora, Klopoduwur)***

"There is no sanction here. If someone has been reprimanded but still do the deeds, nature will then punish him. That is called karma."

The matchmaking in the Samin community generally still uses the existing traditions event though some matchmaking has been recorded at the Religious Affairs Office or the Civil Registry Office. The matchmaking in the Samin community is generally still carried out between fellow Samin followers. The choice is motivated by three living standards between Samin residents; i.e., utterance, particle, and behavior. In the Samin's matchmaking custom, it is believed that marriage is once for a lifetime and the man can only have one wife. It is intended to avoid disputes within the household.

"Masyarakat Samin kuwi kan ada 3 patokan hidup sing harus dijalani, yaitu ucap, partikel, dan kelakuan. 3 patokan hidup itu berlaku selamanya, gunanya untuk mengatur

hidup masyarakat Samin, contohnya dalam hal perjodohan." ***Mbah Pram (Blora, Blimbing)***

"Samin people have three living standards that must be implemented; i.e., utterance, goods, and behavior. These living standards last forever, and the standards are useful to regulate the lives of Samin people, for example in matchmaking."

There are *four* stages of matchmaking in the Samin community, including *nyumuk, ngendek, pasuwitan,* and *paseksen.*

1. Nyumuk

Nyumuk is the arrival of the family of the prospective bridegroom to the bride's house or family to ask whether the prospective bride has a prospective husband or is still single (*lego*). If she still has no prospective husband, he expects to be the son-in-law.

"Nek nikahan kuwi ditoto karo wong tuwone dewe. Pertama ono nyumuk, nyumuk kuwi wong tuwone sing lanang ning omah sing wedok, arep ngendek, kan corone aku isih ono sing duwe yo kuwi bapak ibuku. Terusan bapake Mas Gun bojoku takon "opo kowe jeh duwe turun wedok kuwi jeh legan?"

"The marriage is arranged by the parents. First, we hold nyumuk, nyumuk is an event when the groom's parents come to the bride's house, to do ngendek. The point is that because I still owned by my parents and the its aimed to make sure that the bride to be have no spouse yet."

2. Ngendek

Ngendek (marriage proposal) is a statement from the prospective in-laws of the bridegroom to the mother of the prospective bride to do *ngendek.* It is attended by Samin figures, neighbors, and extended families.

"Aku ning kene nerusake bab rembung sing wingi. Nek turun wedok mu ijeh legan arep dikawinke karo turunku lanang pengarane Gunretno, nek jeh legan aku di pinangka ngedek." ***Mrs. Tatik (Pati,Bombong)***

"I am here to continue yesterday's conversation. If your daughter is still single, I hope she can marry my son, Prince Guritno. If she is still single, I will propose her to be together with my son."

3. Pasuwitan

At the *Pasuwitan* stage, the prospective bridegroom usually live together with the bride's family in one house. The time span of *pasuwitan* is not restricted, only restricted by the bride and bridegroom. If they feel suitable, it is indicated by the marital relationship they have done.

"Bar kuwi ono pasuwitan, pasuwitan kuwi Mas Gun diterke wong tuwone ketemu bapak ibu ku karepe arep nembung aku, takon e kuwi negene "opo bener panjenegan duwe turun wedok pengarane Hartati, nek padane sek legan arep kulo ajak bebrayan, lah nek jek lego yo di legano". Terus Mas Gun bojoku mau nunggu ning omah ku, nek wes podo seneng. Nunggu ning omah ku kuwi ora ono batese. Ngko nek tatanane wong wes dilakoni

ngko kondo karo bapak ibuku meneh ngene "aku kuwi wes ora joko, aku wes bebrayan karo turun mu wedok" ***Mrs. Tatik (Pati,Bombong)***

"There is a meeting after that. Mr. Gun will be accompanied by his parents to meet to confirm whether Hartati is single. If she is single, they will then be paired or married. Mr. Gun then waits in my house if they like each other. Waiting at home is not restricted. Then there is a meeting where the groom will convey that he is no longer a virgin to the bride's parents because he is married to their daughter."

4. Paseksen

Paseksen is an expression of the bridegroom in front of the in-laws which is attended by family, neighbors, and Samin figures. It is the last event in marriage which means that they have legally become husband and wife.

"Ngko terusan bar matur di klumpukno simbah-simbah ngono, terus dibrokohi meneh arane sesenan terus ngandakno sadate yo ngko diundang no sedulur. Nek wes kuwi yo wes resmi. Nek ngene ora ono sing dicatet ning KUA utowo opo kuwi lah arane." ***Mrs. Tatik (Pati,Bombong)***

"After conveying the news, the elders are gathered, and the couple is blessed to make the relationship official. The other relatives are invited to make the relationship official."

The stages of birth customs for the Samin community are different from other communities. The stages carried out are as follows:

1. Krayan

Krayan is an event to express gratitude to God that is held after the baby is born, and it is held in the evening. If the baby is born in the morning, *krayan* will be held in the evening. If the baby is born at night, *krayan* will still be held in the evening. The food served in the *krayan* procession is *urap*. The contents of *urap* are long beans, bean sprouts, the leaves of Indian mulberry (*Morinda citrifolia*), tempeh, tofu, peanut brittle, and grilled or fried side dishes.

2. Melekan

Melekan is staying up late or *jagongan*; i.e., all family, relatives, and neighbors do not sleep before 10 p.m. when a baby is born. It is done for four days.

"Melekan kuwi saben bengi meleh patang bengi, ngko sing melek wong akeh, ono tonggo omah, ono sedulur, ono mbah-mbahe dadi ngko ning omah kuwi kebak ngono." ***Mrs. Tatik (Pati, Bombong)***

"*Melekan* is staying up late for four nights. Many people stay up late, including neighbors and relatives. Thus, the house is full of guests."

3. Sepasaran

Sepasaran is an event to express gratitude to God that is held after the 5th day of birth. It is usually a big event. It can be held by inviting relatives or just a regular celebration.

The food served is almost the same as the food in the *krayan* event. Besides this food, the typical foods that must be present at the *sepasaran* event are *iwel-iwel, jadah, mendut, nagasari,* and *pisang raja* (the king of banana).

"Sepasar kuwi ngko masak akeh, nek arep di gawe sitik utowo digawe mberah yo karepe sing duwe gawe. Nek sepasar kuwi di wenehi bancakan, ngko wong ndeso di ter-teri sego kabeh." ***Mrs. Tatik (Pati,Bombong)***

"At the 5th-day celebration (*sepasar*), a lot of food will be cooked. If it is just a small celebration, it is up to the host. At this event, the packaged foods are given by delivering the food to the relatives."

"Acara sepasar kuwi biasane dilakoke nek wes 5 dino bayi kuwi lahir. Nek ning kene biasane dewe ngundang wong akeh ono nganti 50 wong kanggo acara iki, tapi bisa juga mung hajatan biasa wae. Panganan sing kudu ono kuwi iwel-iwel." ***Mrs. Pram (Blora, Blimbing)***

"*Sepasar* event (5th-day celebration) is usually held after five days of birth. There will be many people invited, but the host can also invite a few people. There are a lot of food."

4. Selapanan

Selapanan is an event to express gratitude to God which is held on the 40th day after birth. The typical food served during the *selapanan* are *brokohan* and market snacks such as *iwel-iwel*, *jadah*, *gemblong*, *nagasari*, and *mendut*.

"Nek wes rampung sepasar, terus 40 dino ne gek ngelakoke selapan." ***Mrs. Yuni (Blora, Blimbing)***

"After sepasar finished, in 40 days we conduct selapan event."

5. 3-month celebration
6. 7-month celebration
7. One-year celebration

"Asline acara nyambut kelahiran kuwi wes cukup nganti selapan wae, tapi kadang yo ono sing ngawe acara 3 wulan, 7 wulan, 1 tahun kanggo bayi sing bar dilahirke mau kuwi. Fungsi tetep podo, kanggo njaluk kesehatan lan keslametan bayi karo ibune. Panganan e sing di wenehi yo podo wae, paling sego urap sak lawuhe karo jajanan pasar ngono kuwi" ***Mrs. Pram (Blora, Blimbing)***

"The welcoming-baby event is originally held for 35 days only (*selapan*). However, sometimes there are 3-month, 7-month, and 1-year events for the born baby. The function remains the same; i.e., to ask for health and safety for the mother and the baby. The food given is still the same, consisting of rice, chicken, and other side dishes."

After giving birth, *Sedulur sikep* usually perform several stages of certain rituals, such as *walik dadah* or massaging which is usually done by *dukun bayi*. In the postpartum period, the mother is not allowed to engage in strenuous activities. Besides that, the cool

powder is applied throughout her body, and she performs *tarak* or *puasa mutih* (usually only eating white rice). *Walik dadah* is carried out after 40 days of giving birth, and the *dukun bayi* is invited to massage the mother. The massage is used for reversing the uterus position as before pregnancy. Before *walik dadah*, the mother is not allowed to bend her legs or do heavy work. They believe that a woman must take care of her body after giving birth so that her body is still in good shape when she is old. The aim of giving cool powder throughout the body is also to return the body shape as before pregnancy.

"Walik dadah nek cara jowone kuwi wes 40 dino terus dibalikno koyok biyen, dadi di toto ben kawite ndisik kuwi kandungane posisine ning tengah mbalik meneh ning tengah. Dadi nek wes di walik dadah iso nyambut gawe malih iso kerja sing rodo kasar-kasar ngono kuwi. Sak durung e walik dadah ora entuk nyambut gawe. Nekuk sikil wae ora entuk, dadi lungguh e ning nduwur koyok wong sing dimanja ngono kae. Diadusi, diwedaki, ngapehi ora oleh ngopo-ngopo. Jare mbah-mbah ku nek wong duwe bayi bar ngelahirke kuwi kudu sing jejeg dadi nek sesuk tuwo yo awake ijih apik. Ning nek wong iku ora gelem ngerumat awake yo besok nek tuwo yo awake ora apik. Selama selapan dino mau kudune wedakan ben kulite kenceng, wedakane kuwi nganggo wedak adem kuwi sing digawe seko beras. Sak awake diwenehi wedak adem kabeh." ***Mrs. Siti (Pati, Bombong)***

"Walik dadah in Javanese culture means after 40 days it is returned into the way it were before. The position of womb that was in the middle in the first place will come back to the middle. If walik dadah has been done, the mother can do her cores. Before walik dadah, folding our legs is prohibited, we will always sit on top of chair and we will be spoiled, even we will be bathed and applied on powder. We are not allowed to do anything by ourselves. Our ancestors said that after giving birth, we must sit upright to keep our body shape. If we did not take care ourselves we would lose our body shape in the future. During selapan we must apply powder made from rice to keep our skin elastic. The powder must be applied to all over our body."

"Bibar ngelahirke mboten pareng sikile ditekuk kan kabeh kejawen ngoten, tapi nek jaman sak iki anak-anak kan sampun terlalu modern dados nggih pun nopo-nopo mawon mpun nggih sing dianjurke. Jaman ruwiyin kulo duwe anak ngantos 1 taun kulo tasih ngagem stagen dadi wetenge niku tasih bakoh. Nek jaman sak iki nggih tasih ngagem stagen kalihan ubet (kendit)." ***Mbah Waini (Blora, Klopoduwur)***

"After giving birth we are not allowed to fold our legs just like Javanese culture in general. But nowadays, the children already affected by modern culture so they already do cores or anything the want after giving birth. In the past, I must wear stagen (traditional corset) so that my womb still firm. The children nowadays also still wear stagen and also kendit (traditional belt made from fabric) after giving births."

Samin people do not know the "death" word. Death is usually referred to as *salin sandang* which means changing places. According to Samin people, dead people are still alive and can be cared for. For the funeral procedure or process, it also depends on the wishes of the family. Sometimes there are *Sedulur Sikep* who held a death memorial event for seven, 40, 100, up to 1,000 days. However, there are also *Sedulur Sikep* who do not hold the event.

"Dulur kene nek diarani mati ki asline koyok dewe ngene ki, sing keno dirumati ngene. Mati kuwi nek pahame wong sikep mat kuwi namatno yen ti kuwi nyetitikno, misalke aku namatno jenengan tanglete nopo kuwi kulo setitikno. Nek sing dimaksud sedo kuwi pahame Sedulur Sikep kuwi arane salin sandangan. Uga diibaratno manuk iku kurungane pun rusak, terus manuke ngalih panggon, terus kurungan e mau dirumpoko ditukokke pemesti ngone pametren. Nek dulur kene salin sandang ono adate tapi yo bedo karo dulur liyane. Lah carane kabeh mau tergantung karo karepe keluargane, tapi biasane dirumati, diopeni, yo ditoto karo metri. Yen metri yo ning tempat pemetrian umum. Kadang yo ono sedulur sing nganake acara 7 dino ngo slametan brokohan, tapi sing di brokohi yo sing seger waras ben tenang pikire, tapi yen ora ngelakoke yo ora opo-opo. Kabeh karek kemantepan e rasane. Kadang yo ono sing nganti 40 dino. Nek ngono wae kuwi pihak keluarga duweni panganan khusus kanggo nyuguhi tamu utowo dulur sing teko tilawah. Nek keluarga sing mampu kadang beleh kebo, beleh wedus yo ono. Sebagian dulur islam sing teko yo wegah mangan, mikir e wong ono sing susah kok malah pesta tur neh dulur islam mau mikir nek dulur sikep beleh ngono kae kan ora dirapali. Terserah wae dulur liyane arep nganggep opo, kan adat e kene koyok ngene yo dewe ngelakoni sing sesuai adate dewe. Kadang bar dipetri terus dianake brokohan." ***Mr. Roso (Pati, Bombong)***

"Our people here, think dead people just like us the living ones. That we must take care of them. Mati (die) consisted of two words according to Sikep culture. Mat that means "namatke" or ending or finishing and ti that means "nyetitikno" or making right. For example, I'm finishing your question by making it right what the question means. Death for Sedulur Sikep is like an event of changing places. It's like if there was a bird with a broken cage, then it would move to another the cage. We have our own tradition regarding death but it depends on each family. We usually takes care of the dead people, give them clothes, and burry the body. we usually burry them in the public cemetery. Sometimes the people hold memorial event for 7 days. This event actually intended to the living family so that they feel restful, but it's not an obligatory event. Sometimes people also hold the memorial event for 40 days. Certain foods will be served during this event such as buffalo meat or goat meat. Muslim people who come usually not willing to consume the food, because feel wrong to enjoy the event when actually the host family is currently grieving. Another reason is that the served buffalo or goat were not slaughter in Islamic way, so that they can not consume the meat. We respect their opinion, but it is our tradition so we will do it as it is."

The boys in the Samin community in Pati, Kudus, or Blora are required to be circumcised. They believe that circumcision has a function to maintain health. A circumcision event in the Samin community is usually held livelier than other events. The rich families usually hold a wayang show. However, for the ordinary families, they simply have a celebration or *brokohan*.

"Ning kene ki yo wajib sunatan tapi ora ono umur e kudu kapan. Sak karepe bocahe arep njaluk sunat kapan. Kadang malah nek sunat kuwi duwe gawe sing luwih gede, kerepe nanggep wayang ngono kuwi." ***Mrs. Tatik (Pati, Bombong)***

"In here, circumference is obligatory but there's no exact rule when to do it. It depends on when the child ask to get circumference. Sometimes, there's more festive celebration for circumference events, mostly by reserving a traditional puppet show."

"Ono sunatan sing dirame-rameke nah wong sing duwe gawe sunatan mau gelem yen diwenehi sandang pangan ngono kuwi. Lah nek ono sing sunatan tapi dekne mung brokohan wae yo mboten gelem diwenehi beras, gulo, paling diwenehi gombal koyok katok kalmbi wae kanggo sing di sunat mau." ***Mr. Roso (Pati, Bombong)***

"There's circumference event that's celebrated festively. Usually they're willing to receive presents in form of clothes or foods.. In the other hand, there's also circumference event that's celebrated modesty. Usually they will refuse receiving foods as so we usually present them clothes."

The Samin community groups in Pati and Kudus do not allow their children to come to Posyandu because they do not trust the Indonesian government. Besides that, they consider that the height measurement is like a coffin measurement. They also believe that immunization can cause the baby to get sick.

"Sedulur Sikep ning kene ora ono sing lungo ning Posyandu, sebabe to jaman ndisik kae kan aku gowo anakku ning posyandu, terus disuntik. Jare petugase ben anake sehat. Tekan omah anakku malah loro panas, kawit kuwi wes ora tau ono sing lungo ning posyandu meneh" ***Mrs. Tatik (Pati, Bombong)***

"None of Sedulur Sikep here goes to Posyandu. In the past I brought my child to Posyandu to get a vaccine shot. The health staff told me it was to make my child healthy. When I arrived home, apparently my child got a fever. Since then none ever gone to Posyandu anymore."

These conditions are different from the ones in Blora, either in the Klopoduwur or Blimbing regions. Samin people in Blora are more open, and they are willing to follow the program determined by the government. Samin people in Blora have sent their children to school. Their marriage has also been registered to the Religious Affairs Office or the Civil Registry Office. They seek treatment at health centers such as Puskesmas and hospitals.

CHAPTER 7
FOOD CULTURE OF SAMIN (*SEDULUR SIKEP*)

A. Agricultural Practices

Food System is everything that is related to the regulation, development, and or supervision on food production activities or process and food circulation until ready for human consumption (Act of The Republic of Indonesia Number 7 of 1996). The *Sedulur Sikep's* food system is reflected in the agricultural system, food security efforts, and the eating habits.

Sedulur Sikep belongs to an agrarian society where the main livelihood is as farmers. The plant they usually grow is rice. The rice varieties grown by *Sedulur Sikep* are quite diverse. Most of them plant local rice varieties, but there are also those who plant hybrid rice varieties. The local rice varieties grown are *Menthik Wangi, Menthik Susu, Sirang Jumbo, Sirang Oranye, Sirang Taiwan, and Priabang*. Meanwhile, the hybrid variety grown is IR-64 variety. *Palawija* plant such as corn will replace rice when the dry season arrives.

The farming conducted by *Sedulur Sikep* was formerly traditional, but it has now changed. The changes in cropping patterns or land preparation methods have occurred since the change of manual irrigation into mechanical irrigation with water from the Kedung Ombo reservoir. In the past, *Sedulur Sikep* relied on the buffaloes or cows to plow the fields. However, since the existence of mechanical irrigation, there has been uniformity of irrigation and tractors have begun to be used to plow fields replacing buffaloes and cows. The changes also occur in the use of fertilizer. In the past, everyone chose to use organic fertilizers such as compost and manure, but many people now have also used chemical fertilizers.

There are several traditions in the farming system of *Sedulur Sikep*. There is a tradition called *sambatan*. It is a *gotong royong* tradition when the planting season arrives. Another tradition is called *mrapat*. This tradition is carried out when the harvest season arrives. *Mrapat* (a quarter) means that everyone who helps in the harvest will be given a quarter of the crops. The *mrapat* tradition is still preserved until now.

B. Culture Related to Food and Health

The cultural system is a part of a culture which is commonly called *adat istiadat* (customs) in Indonesian language. The form of culture is a complex of ideas, ideas of concepts, values, norms, rules, and so on. Many of the human ideas and notion live together in a society, giving the soul to the society. The ideas are not separated from one another but always related to a system called the cultural system. The function of the cultural system is to organize and strengthen human actions and behavior (Koentjaraningrat 1990). One of the elements in the cultural system is the norm. Norms are the rules or provisions that bind the group residents in the community. Norms are used as a guide, order, and controller of appropriate and acceptable behavior so that every citizen must obey them. A cultural norm is a concept that is expected to exist or a set of expected behaviors, a cultural image of how a person should behave (Departemen Pendidikan dan Kebudayaan 2001; Horton and Hunt

1984).

The value which is an element of the cultural system is the idea of whether an experience is meaningful or meaningless. In each community, some values have higher rewards than other values. Values can change from time to time. The changes in values also affect habits and behavior (Horton and Hunt 1984). Meanwhile, cultural values are concepts of what lives in the minds of most of the citizens in a society about what they consider valuable, worth, and important in life. Thus, the values can function as a guide that gives direction and orientation to the lives of the citizens.

Indonesia, which consists of various ethnic groups and cultures, has various sociocultural conditions. Sociocultural -- a relationship between human beings -- is often influenced by myths, norms, values, beliefs, and habits related to cultural patterns. Sociocultural is the effect of various accesses which can be in the form of access to food, access to information, and access to services as well as the capital owned. These conditions raise a form of parenting that ultimately affects nutritional status. Parenting or caring patterns are the behaviors and practices of the caregivers (mother, blood relatives, father, and child care providers) related to food provision, health care, stimulation, and encouragement that are essential for the growth and development of healthy children (Engle and Lhotska 1999). Therefore, various sociocultural conditions will influence different parenting patterns. It needs attention because these conditions are related to the prevalence of malnutrition that occurs.

Like other tribes in Indonesia, Samin people also have a culture which is then applied in their customs. Samin people are known to have a unique culture, whose inheritance is carried out from generation to generation. Through cultural influences, humans learn to communicate and view their world through the categories, concepts, and labels produced by their culture. In relation to health problems, Samin people also have a culture applied in their daily lives. Prayer or greeting that is always said when meeting other people is *seger waras* (may you be healthy and prosperous), and people will answer the greeting with the words *sami-sami seger waras* (may you also be healthy and prosperous). *Seger waras* is defined as hale and hearty, harmonious, and live well.

"Seger waras kuwi duweni makna sing becik yaiku permohonan supaya selalu diwenehi kesehatan, kerukunan, lan kebecikan urip. Yen ono wong sakit kuwi arane kan ora seger awake tapi waras pikirane, tapi yen ono wong sakit tapi jiwa ne berarti wong kuwi kan seger awake tapi ora waras pikirane. Nah kuwi mau landasane kenapa nyebut seger waras, supaya sehat awak lan pikirane" ***Mbah Poso (Blora, Klopoduwur)***

"Healthy and prosperous have good meaning and hope; i.e., that we are always given health, harmony, and a good life. By saying the words (i.e, may you be healthy and prosperous), the person who gets the greeting is expected to be not only physically healthy but also spiritually healthy"

The habit related to health ritual which is held by the people begins with a 7-month pregnancy ceremony. Samin people still know the 7-month custom or *mitoni* which is referred to as *tingkep*. *Tingkep* is a ceremony held on the seventh month of pregnancy. It is

one of the big ceremonies. The pregnant women who come from rich families usually slaughter buffaloes as the food to be served to guests who are present at the ceremony and to be delivered to neighbors, relatives, or other families. However, if the family is not rich, there is no need to hold a large ceremony. It is enough only to hold a *borokohan* event.

Dietary Patterns

The dietary patterns of Samin people depend more on the produce from the earth such as vegetables, fruits, rice, and other animal source foods (e.g., buffalo meat, chicken meat, and chicken eggs). Vegetables, fruits, and rice are often obtained from their own garden produce rather than buying from the market. There is a market in each village of Samin people, but the sellers are not Samin people because they are not allowed to trade.

Samin people are simpler regarding food selection. According to them, all the food is delicious. They rarely eat instant food. They prefer to eat the food that they process themselves.

"Nek mangan sehat lan sae niku sakjane nggih kudune enak ngoten, tapi nek tiyang kampah niku selama doyan, awak seger waras ki enak. Mila wonten mriki kan nek wong sikep niki rata-rata tiyange sederhana, dadi makan niku mboten terlalu di gatekna tenan. Nek awake seger waras mangan apa wae sing nang ngarepe iku yo wis enak. Kui setunggal, ping kalih permasalahane kan niku pangan kui lak salah satu kebutuhan, sehingga kudune kabeh pangan yo di pangan wae selama kuwi iso dewe trimo lan nyehatke awake dewe." ***Mbah Poso (Blora, Klopoduwur)***

"If you want to be healthy, you should eat delicious foods. However, for the village people, the food will be delicious if they are healthy and fond of eating. Samin people are simple people; thereby, they do not think too much about food. The important thing is being healthy so that all food will taste delicious. The food is also a necessity; thereby, just eat what's available."

Samin people sometimes also consume packaged food, but not often. They believe that packaged food is not healthy. It is healthier to consume the self-cooked food.

Samin people buy their needs in the market such as side dishes, vegetables, and cooking spices. However, they never buy rice because almost all Samin people are farmers and they have their own rice supply. Some Samin people plant vegetables in their fields which are not far from their homes.

Food Taboo in Certain Life Cycles

During pregnancy, Samin people in Pati do not have food taboo. They believe that all food is good and allowed to be consumed if the ones consuming it do not vomit or feel nauseous.

"Pantangan pas ngadut kuwi asline ora ono, sing iso duweni kiro-kiro endi sing kudune dipangan endi sing kudune ora dipangan kan yo awake dewe. Janjane awake dewe wes ngerti opo sing disenengi karo ora. Nek ono pangan sing ora cocok iku ya ora usah di maem. Kabeh sandang pangan iku angger doyan iku enak ora keno dipantang." ***Mrs. Siti (Pati – Mbombong)***

"There is no food taboo during pregnancy in the community. Only the person herself who understands what can and cannot be eaten."

During pregnancy, Samin people in Kudus have some food taboos. For example, the cold water is not allowed to drink during pregnancy. It is believed to cause the baby to become large in the womb so that it can complicate the birth process. During pregnancy, Samin people in Blora believe that pregnant women should not consume fruit that has a moon-like shape without cutting it in pieces; for example, apple. It is believed to cause a lump on the baby's head. Besides that, there is a restriction on consuming catfish. Consuming catfish during pregnancy is believed to cause fin growth on the right and left of the head of the newborns.

Besides food taboo, the pregnant women in the Samin community in Pati, Kudus, and Blora believe that they should not carry objects on their bodies while pregnant, such as carrying eggs. It is believed to cause boils on the baby's head at birth. Besides that, it is forbidden to build a house, kill animals, and cut hair while pregnant. They believe that doing these things will cause the birth process to be difficult.

"Pas ngandut ngoten mboten wonten pantangan, kabeh oleh di maem. Tapi jaman rumiyin mboten pareng ngantongi telor, mangke sirahe anake kadang melahirkan nek wes rodo gede bisul. Tapi niku jaman rumiyin nggih, nek jaman sak niki nggih mboten kan kabeh sak iki direwangi dokter kalihan bidan" ***Mbah Waini (Blora – Klopoduwur)***

"Actually, there are no food taboos during pregnancy. However, in the past, the pregnant women were not allowed to carry eggs, because it would cause boils on the baby's head. However, in the present, people do not obey it any more."

Besides the food taboo or behavioral restrictions, the lactating mothers or the women in the postpartum period also have things to do such as doing *tarak*, consuming coriander, drinking *jamu* (traditional herbal medicine), and applying cold powder throughout the body.

After giving birth, the mother is required to do *tarak*. It is white fasting in which the mother is not allowed to consume spicy food, vegetable soup, and fishy-smell food. The foods that can only be consumed are white rice, salt, and crackers. This fasting is believed to cure the womb faster. *Tarak* is carried out for 40 days or until the mother does *walik dadah*.

The mother who has performed *walik dadah* is still not allowed to eat spicy and fishy-smell foods, because people believe that consuming these kinds of foods will make the breast milk taste spicy and have fishy smell. After giving birth, the mother is also given a *jamu galian singset* which is mixed with *asem kawak*.

Samin people in Pati, Kudus, and Blora nowadays still have the principle that solid food or other foods besides breast milk can be given to the babies after birth. However, some mothers have understood that babies aged 0-6 months should only be given breast milk. The mothers give food to the babies before the age of 6 months because of the teachings given by their parents or grandmothers. According to them, if the baby is constantly crying, it means that the baby is hungry. The food given is mashed rice which is added with mashed banana or the soup from the vegetable soup.

"Anakku wes tak wenehi maem kawit bayi, soale nek ora diwenehi maem nangis. Nek wes di dulang yo anteng, kan kuwi artine njaluk mangan. Biasane anakku tak dulang sego di aluske karo duduh sayur bening, nek ora yo sego dialuske ditambahi karo gedang." ***Mrs. Warsiti (Kudus, Kaliyoso)***

"I have fed my child since he was a baby because he was fussy if he only drank breast milk. If the child is fed, he is not fussy. Therefore, fussy means hungry. My child is usually fed with soft rice with *sayur bening* or banana."

It is different from Samin's mothers in Blora. They have understood that solid food can only be given to babies after they are six months old. Before the age of six months, they are only given breast milk.

The tradition of sending food is usually performed when there is a big event, ceremony, or when people celebrate something such as *tingkep* (a ceremony held on the 7th month of pregnancy), a feast celebrating circumcision, and birth ceremony. However, people do not always have to send food. It depends on the intention and ability of the owner of the event. The type of food delivered also does not have certain rules. The rich family can slaughter a buffalo and then distribute the meat to their neighbors. A rather rich family slaughters goats, and the poor family only slaughters chickens.

The food distribution system in the house does not have regulations, and it does not require the father to eat before his children or his wife eat because they are not too concerned with such things. The food is cooked by their wife or daughters because their children have been taught to live independently since childhood and to be able to take care of themselves and their families.

Health Behaviors

Health issues in the Samin Pati, Kudus, and Blora communities received mixed responses. The response of Samin people in Pati to health issues was still negative. Some government programs such as Posyandu and immunizations were rejected by Samin people in Pati. Almost all children under five in the Samin community in Pati were not given immunizations. The immunization was rejected because it caused the child who was originally healthy to become sick. The sickness here was a fever that occurred after being immunized. In their viewpoint, the immunization was not beneficial for the health of their children, according to what was conveyed by village midwives or cadres in Pati.

"Takut imunisasi karna menurut mereka wong sehat kok malah digawe sakit" ***Midwife (Pati, Sukolilo)***

"They are afraid of immunization because they think why healthy children are injected and made sick."

Posyandu activities were still carried out in Mbombong Village, but many Samin people did not come because they felt afraid.

"Nek wonten posyandu kudu diparani siji-siji, ana sik kudu diparani ping papat, tapi durung mesti teka" ***Cadre, Mrs. Puji (Pati, Mbombong)***

"The people must be reminded of the Posyandu activity schedule. They are visited one by one, even up to four times. However, they do not necessarily come."

The health education in the Samin community in Pati also did not receive a positive response. Samin people were afraid of being gathered during health education. The health issues of Samin people in Pati were different from some of the Samin people in Kudus who had understood the issues. Therefore, some of Samin people in Kudus had given immunizations to their children. However, there were also some children under five who were not given immunization by their mothers. The reason for not being immunized was also the same as the Samin people in Pati. They still thought that the children under five would become ill after receiving immunization shots.

The response of Samin people in Blora regarding health issues was different from other Samin communities. Samin people in this region had already understood about health. Posyandu and immunization had also been carried out well. Almost all Samin people in Blora had been willing to give immunization to their toddlers. They also had been willing to come to the Posyandu which was held once a month. The mothers in the Samin community in Blora had understood the importance of immunization for the children under five.

"Sedulur Sikep di Desa Blimbing sudah paham dan mengerti tentang kesehatan, semua balita Sedulur Sikep juga sudah mau ikut kegiatan Posyandu secara rutin. Proses persalinan Sedulur Sikep jaman sekarang sudah dibantu oleh puskesmas sepenuhnya, bidan desa hanya bertugas untuk cek kehamilan dan membantu mengatasi masalah penyakit dasar seperti demam, batuk, pilek. Balita Sedulur Sikep di sini juga sudah diimunisasi semua. Jaman dulu kalau disuruh imunisasi ya susah, tapi ya lama kelamaan semuanya mau ikut posyandu dan ikut imunisasi sih." ***Mrs. Dian (Blora, Blimbing)***

"*Sedulur Sikep* in Blimbing Village have understood about health. All *Sedulur Sikep's* children under five have also been willing to participate in Posyandu activities regularly. The delivery process in *Sedulur Sikep* in the present time has been fully assisted by the Puskesmas. The village midwives are only responsible for checking pregnancy and helping to overcome basic disease problems such as fever, cough, and runny nose. All the children under five of *Sedulur Sikep* here have also been immunized. In the past, it was very difficult to get them to have immunization. However, all of them eventually participate in Posyandu activities and immunization."

"Untuk pengetahuan makan sering dikasih tau saat posyandu, kan di posyandu sering ada penyuluhan dari bidan. Selain dari bidan dan posyandu sering cari informasi lewat internet. Kalo anak saya sakit langsung di bawa ke bidan atau ke puskesmas." ***FGD participant (Blora, Blimbing)***

"The knowledge of eating is often told at the Posyandu because the counseling is often given there by the midwives. Besides midwives and Posyandu, I often search for information via the internet. If my child is sick, I immediately take him to a midwife or Puskesmas."

"Ibu-ibu disini aktif posyandu, manut-manut kalo dikasih tau tentang kesehatan ibu dan anak. Di posyandu kegiatannya penimbangan, kadang ada penyuluhan juga dari puskesmas." ***Miss Indah (Blora, Blimbing)***

"The mothers here actively participated in Posyandu. They are obedient if they are told about maternal and child health. The activities in Posyandu are weighing and sometimes counseling from the Puskesmas."

One of the reasons for the realization of health comprehension in the Samin community in Blora was a good explanation from the midwives. The midwives there explain to them the positive effects of immunization and provide examples.

"Biar mereka mau imunisasi ya kita harus ngasih tau mereka kalo ini program pemerintah, terus ngasih contoh dampak positif imunisasi itu apa. Misalkan "penyakit liver niku saget di atasi yen panjengan imunisasi". Jadi aku ya harus ngasih contoh-contoh biar mereka sadar. Aku kan harus mendekati mereka perlahan biar mereka bisa percaya sama aku juga." ***Mrs. Dian (Blora, Blimbing)***

"We must tell them that this is a government program and provide an example of the positive impact of immunization, so they are willing to do immunization. For example, liver disease can be treated with immunization. I have to give them examples to make them aware. I have to approach them slowly so they can also trust me."

The breast milk is given immediately after the baby is born. However, there is no age limit for breastfeeding especially in Samin people in Mbombong Pati Village who do not wean their children. The mothers stopped the breastfeeding after the child refused to consume breast milk. Meanwhile, in Samin people in Kudus and Blora, the weaning practices had been performed by the mothers of children under five. They had planned to wean their children after two years of age.

The complementary feeding on 0-month-old infants was carried out by Samin people in Pati and some of the Samin people in Kudus. It was according to their view that if the baby was crying, the crying was a sign that the baby was hungry. One of the methods to stop the crying was to feed the baby. The food given was the mashed rice or instant porridge. They also fed their baby so that the baby could sleep well.

Samin people in Blora had understood that they should not give the complementary food to the 0-month-old infants. During the age of 0-6 months, they only gave the breast milk to their babies. The complementary feeding was performed when the baby was six months old. It was according to the recommendation from the midwives and the guidelines in the *Kartu Menuju Sehat* (growth chart) book.

CHAPTER 8
PERCEPTION OF HEALTH AND NUTRITION SERVICES

The means of transportation commonly used by people to reach health facilities is a motorcycle. As is known, the Samin community lives in rural villages where public transport is not available to be used by the people.

Table 5 shows that the majority of Samin people in Blora (71.2% or 37 people) go to the midwife and 21.2% of them (11 people) go to the doctor/clinic. It was different from the Samin people who lived in Pati-Kudus, in which more people (35.4% or 24 people) went to the doctor/clinic than midwife (23.5% or 16 people). There were relatively more people in the Samin community in Pati-Kudus (22.1% or 15 people) doing self-medicine than Samin people in Blora (5.8% or 3 people). Table 5 also shows that Samin people in Blora do not seek treatment from the *dukun* or go to the public health center in village level (Poskesdes).

Table 5 Health access of indigenous people of Samin (*Sedulur Sikep*)

Health Access	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	n	%
Transportation to go to public health center						
– Motorcycle	68	100.0	52	100.0	120	100.0
If you are sick, you usually go to						
– Doctor/ clinic	24	35.3	11	21.2	35	29.2
– Midwife	16	23.5	37	71.2	53	44.2
– Buying medicine in store	15	22.1	3	5.8	18	15.0
– Public health center	10	14.7	7	13.5	17	14.2
– *Dukun* (healer)	7	10.3	0	0.0	7	5.8
– Public health center in village level	5	7.4	0	0.0	5	4.2
Do you have health care security						
– Yes	9	13.2	15	28.8	24	20.0
– No	59	86.8	37	71.2	96	80.0
Public Health Care distance (Mean ± SD), km	8.21 ± 9.9		3.0 ± 0.0		5.95 ± 7.8	

Note: Peran bidan di Blora sangat menonjol utk mengobati dan sangat dipercaya Samin Blora

Based on the data in Table 5, it was found that Samin people in Blora preferred midwife in the treatment of diseases and childbirth because the midwife lived in their neighborhood. The role of midwife will replace the role of a *dukun* (traditional healer) as the traditional health worker.

Samin people in Kudus and Pati (especially those living in Pati) tended to be more closed to the access of health services; thereby, they still went to the traditional health workers. Samin people that tended to be closed-off to health programs did not have access to health insurance. Table 5 shows that there are more Samin people in Pati and Kudus (86.8% or 59 respondents) who do not have health insurance compared to Samin people in Blora (71.2% or 37 respondents). These data indicate that the people in Kudus and Pati are

more closed to outside information about health including health insurance program, probably due to the lack of understanding regarding the importance of health insurance.

Table 6 Distribution of health perception of indigenous people of Samin (*Sedulur Sikep*)

Health perception	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	n	%
Do you take your children to *posyandu*						
- Yes	24	35.3	50	96.2	74	61.7
- No	44	64.7	2	3.8	46	38.3
The importance of taking children to *posyandu*						
- Yes	26	38.2	50	96.2	76	63.3
- No	42	61.8	2	3.8	44	36.7
Have your children ever received vaccination?						
- Yes	22	32.4	51	98.1	73	60.8
- No	46	67.6	1	1.9	47	39.2
Do your children have a growth chart book?						
- Yes	24	35.3	46	88.5	70	58.3
- No	44	64.7	6	11.5	50	40.8
Do you think that the growth chart is important to maintain children growth and development?						
- Yes	20	29.4	49	94.2	69	57.5
- No	48	70.6	3	5.8	51	42.5
Do vaccine prevent disease?						
- Yes	23	33.8	49	94.2	72	60.0
- No	45	66.2	3	5.8	48	40.0
Diarrhea is transmitted through:						
- Food/beverage	11	16.2	20	38.5	31	25.8
- Virus/bacteria/germ	6	8.8	10	19.2	16	13.3
- I don't know	51	75.0	22	42.3	73	60.8
Do you think that washing hands using soap before a meal will prevent diarrhea?						
- Yes	27	39.7	40	76.9	67	55.8
- No	41	61.3	12	23.1	53	44.2
Do you use commercial still water as a primary source of water for drink?						
- Yes	53	77.9	15	28.8	68	56.7
- No	15	22.1	37	71.2	52	43.3
Do you believe that boiling water before drinking will prevent any infection disease?						
- Yes	55	80.9	51	98.1	106	88.3
- No	13	19.1	1	1.9	14	11.7

Note: Di Blora ada PAM swakarsa sehingga penggunaan aqua kurang menonjol

Table 6 shows the significant differences in health behavior between Samin people in Blora and those in Pati and Kudus. It appears that the people who lived in Pati and Kudus never brought their children to Posyandu to check their health (64.7% or 44 respondents). This condition was very different from the Samin people living in Blora who always took their children to the Posyandu (96.2% or 50 respondents). The qualitative data indicated that the people who lived in Pati and Kudus did not have the awareness to come to the Posyandu. The cadres had to visit the mothers of the children under five one by one, even up to four times. However, they did not necessarily come because they did not want to participate in the Posyandu activities. They also believed that their children were healthy;

thereby the children did not need to be weighed. This condition was different from the Samin people living in Blora who had been aware of the importance of Posyandu for their children's health.

The same findings also appeared on child immunization data. The majority of the mothers in the Samin community in Blora (98.1% or 51 mothers) had immunized their children. Meanwhile, there were only 46 mothers (67.6%) in Kudus-Pati who did not immunize their children. The low immunization coverage in Kudus-Pati was certainly related to the low attendance of the children under five in Kudus-Pati at the Posyandu. The mothers who did not take their children to the Posyandu were certainly not well-informed about health programs, including immunization.

The low attendance at the Posyandu was also related to the ownership of *Kartu Menuju Sehat/KMS* (growth chart). A total of 44 mothers (64.7%) in Kudus-Pati did not have the growth chart, while the majority of the mothers (88.5% or 46 mothers) in Blora had growth chart. The mothers in Blora with a high level of attendance at Posyandu would be more exposed to health information because they received health education/counseling at Posyandu or from the midwives. It made them understand that the growth chart would be related to the child's growth and development as well as the child's health.

Samin people in Blora had better health knowledge. They understood that immunization would prevent their children from getting sick. This better knowledge was certainly related to the health behaviors; i.e., they actively brought their children to be immunized. This better knowledge was also shown in the understanding of the spread of the disease. They knew that diarrhea was caused by food, viruses, and a bad environment.

CHAPTER 9

SOCIO-ECONOMIC CHARACTERISTICS

9.1. Social Characteristics of the Households

The analysis results in Table 7 showed that the mean age of the fathers and mothers of the children under five in the Samin People were 31.8±7.5 and 27.5±6.4 years or belonged to the young adult category according to Moh (2009). The analysis results also showed that the fathers and mothers of the children under five in the Samin People in Kudus-Pati were younger than those in Blora. Age was and important issue for a mother because it **wa**s realted to organ maturity and psychological readiness to get pregnant and give a birth (Trihardiani 2011). A mother who was too young would have a greater risk during the partus (Ginting *et al.* 2012).

Table 7 Distribution of parental age of indigenous people of Samin (*Sedulur Sikep)*

Age (year)	Kudus-Pati (n=46)	Blora (n=52)	Total (n=98)
	Mean±SD	Mean±SD	Mean±SD
Father	28.5±4.6	34.4±8.2	31.8±7.5
Mother	25.6±5.6	29.1±6.6	27.5±6.4

*Not all parents in Kudus-Pati knew their exact age because of their culture that their age is only "one" since they only live once

The paternal and maternal age in this study belonged to the productive age group (15-64 years) according to BKKBN (2013). The productive age of the parents also showed by the parents' occupation that most of them worked as farmers (Table 9). Someone in productive age was considered to have a good physical condition to cultivate their land so that they would have maximum productivity (Mulyaqin *et al.* 2016). This study also showed that not all the fathers and mothers of the children under five in the Samin People in Kudus-Pati knew their exact age. For Samin people, their age is only one. They believe that they only live once so that their age is only one forever.

Table 8 shows that the education level of the fathers and mothers of the children under five in the Samin People is still relatively low. A total of 67% fathers and mothers of the children under five in the Samin People did not attend formal schooling. For Samin people, education could be obtained from everywhere, not merely from formal schooling and for them the main teacher that must teach the children was their own parents. This result was lower than the average length of education of the residents of Central Java Province in 2016 which reached 7.15 years or had graduated from elementary school (BPS 2017). Only 18.3% of the fathers and 15.0% of the mothers of the children under five in the Samin People who graduated from 9-year basic education (graduated until junior high school). The low education level of Samin people is due to their culture that does not allow their children to take formal schooling. Table 8 also shows that the education level of the fathers and mothers of the children under five in the Samin People in Blora is higher than the Samin People in Kudus-Pati. Only 3.8% of the fathers and mothers of children under five in the

Samin People in Blora not attending school compared to 95.6% of the fathers and mothers of children under five in the Samin People in Kudus-pati.

Table 8 Distribution of parental education level of indigenous people of Samin (*Sedulur Sikep)*

Characteristics	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	n	%
Father						
-Not attending school	65	95.6	2	3.8	67	55.8
-Elementary school	0	0.0	17	32.7	17	14.2
-Junior High school	3	4.4	19	36.5	22	18.3
-High school	0	0.0	12	23.1	12	10.0
-University	0	0.0	2	3.8	2	1.7
Mother						
-Not attending school	65	95.6	2	3.8	67	55.8
-Elementary school	1	1.5	18	34.6	19	15.8
-Junior High school	1	1.5	17	32.7	18	15.0
-High school	1	1.5	14	26.9	15	12.5
-University	0	0.0	1	1.9	1	0.8

Table 9 shows that most of the fathers of children under five (60.8%) in the Samin People work as farmers while most of the mothers of children under five (55.0%) are housewives. The diversity of occupation types of the fathers of children under five in both groups of Samin People was not much different. Farmer is the most common type of informal sector work among the fathers of children under five, either in the Samin People in Kudus-Pati (75%) or Blora (42.3%). Meanwhile, according to Khomsan *et al*. (2011), the occupation in the informal sectors that do not require certain requirements in the field of work makes the income received not fixed, and there is no guarantee of an increase in the amount of income over time. Based on Table 9, it can be seen that there is a difference in the occupation types of the mothers of children under five in both groups of Samin People. Most of the mothers of children under five in the Samin People in Kudus-Pati (45.6%) also worked as farmers, but most of the mothers of children under five in the Samin People in Blora (75%) worked as housewives.

The results of the study showed that there were households in the Samin community in which the people lived separately from the parents/in-laws/relatives (nuclear family), but some people still lived with the parents/in-laws/relatives (extended family). Based on Table 10, it can be known that the mean number of family members of Samin people is 4.3±1.2 people in each household, or it can be categorized into households with medium family size according to BKKBN (1998). This mean is greater than the mean number of household members in Central Java in 2014 which is 3.72 people per household or can be categorized into small family size. The mean number of family members in the Samin People in Kudus-Pati was 4.3±1.3 people per household. This number was not much different from the mean number of family members in the Samin People in Blora (4.4±1.0 people). The mean in both Samin People belonged to the medium family size category. Based on the distribution, it turns out that most of the Samin People in Kudus-Pati (64.7%) and the Samin People in

Blora (61.5%) have small family size. During the data collection we could see that majority of Samin household lived with their nuclear family only although we could still see some who lived with their extended family.

Table 9 Distribution of parental occupation of indigenous people of Samin (*Sedulur Sikep)*

Characteristics	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	N	%	n	%
Father						
-Farmer	51	75.0	22	42.3	73	60.8
-Farm worker	5	7.4	4	7.7	9	7.5
-Non-Farm worker	5	7.4	7	13.5	12	10.0
-Unemployed	1	1.5	0	0.0	1	0.8
-Service provider	1	1.5	5	9.6	6	5.0
-Others	5	7.4	14	26.9	19	15.8
Mother						
-Farmer	31	45.6	8	15.4	39	32.5
-Housewife	27	39.7	39	75.0	66	55.0
-Farm worker	9	13.2	0	0.0	9	7.5
-Non-Farm worker	1	1.5	0	0.0	1	0.8
-Entrepreneur	0	0.0	1	1.9	1	0.8
-Service provider	0	0.0	1	1.9	1	0.8
-Others	0	0.0	3	5.8	3	2.5

Table 10 Distribution of household size of indigenous people of Samin (*Sedulur Sikep)*

Household Size (persons)	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	n	%
Small (≤4)	44	64.7	32	61.5	76	63.4
Medium (5-6)	18	26.5	19	36.6	37	30.8
Large (≥7)	6	8.8	1	1.9	7	5.8
Mean±SD	**4.3±1.3**		**4.4±1.0**		**4.3±1.2**	

9.2. Economic Characteristics of the Households

Table 11 shows that the mean per capita household income of the Samin People is IDR 381,000±166,000 or classified as non-poor based on BPS (2017). BPS of Indonesia classifies household as poor or non-poor based on basic need approach. This approach sees poverty as an economic inability to meet the basic needs of both food and non-food which measured in terms of expenditure. During this study, we also calculated the household income based on the household expenditure approach to determine the economic status of a household. The decision was made because Samin people were suffering from crop failure during the data collection thus it was hard to determine their actual income.

Although in average Samin people could be classify as non-poor, it turns out that the percentage of the poor population in the Samin People (45.8%) was much higher than the percentage of the poor population in Central Java Province (13.7%) (BPS 2017). Table 11 also shows that the households of Samin People in Blora have a better economic level than the households of Samin People in Kudus-Pati. It can be concluded from the mean per capita household income of the Samin People in Blora (IDR 449,000±194,000) which is

higher than the one in Kudus-Pati (329,000±119,000). This result was also supported by the distribution of poor and non-poor households which showed a similar result. A total of 73.1% households in the Samin People in Blora were classified as non-poor households, while only 39.7% of households in the Samin People in Kudus-Pati were classified as non-poor households.

Table 11 also shows that there was a significant different of eceonomic level between Samin people in Kudus-Pati and Blora ($p<0.05$). According to Wulandari (2016), there were some factors that related to household poverty such education level, employment status of household head, and also household size. Our study has similar finding that the Chi square analysis showed significant correlation between father's occupation and economic level of Samin household. The Spearman test also showed significant correlation between household income and parents education. As shown by Table 8, that Samin people in Blora had better education compared to Samin people in Kudus-Pati. People with better education would have a better skill and knowledge to achieve better economic status.

Table 11 Economic level of the household (based on expenditure) of indigenous people of Samin (*Sedulur Sikep)*

Income/cap/month (IDR)	**Kudus-Pati (n=68)**		**Blora (n=52)**		**Total (n=120)**	
	n	**%**	**n**	**%**	**n**	**%**
Poor (<333,224)	41	60.3	14	26.9	55	45.8
Non-poor (≥333,224)	27	39.7	38	73.1	65	54.2
Mean±SD (000)	329±119		449±194		381±166	
p-value	0.000*					

*Mann-Whitney test

In general, the household income will be allocated for various purposes such as consumption, daily needs, child's school needs, social activities, and other needs. The household expenditure in this study was divided into two groups; i.e., food and non-food expenditures. The proportion size of non-food expenditure to total expenditure can be one of the reflections of the welfare of the population accordance to BPS (2017). The results of this study showed that the food expenditure (59.2%) was higher than non-food expenditure (40.8%) in the Samin People.

The staple food expenditure still became the biggest expenditure on food expenditure, followed by the animal-based protein expenditure and snacks expenditure in both groups of Samin People. The cigarette expenditure had the highest percentage on non-food expenditure which was followed by fuel and sanitation expenditures, either in the Samin People in Kudus-Pati or the Samin People in Blora. Overall, the largest household expenditure of the Samin People was for staple food expenditure. Cigarettes precisely became the second largest contributor to the expenditure of Samin People, followed by animal-based protein expenditure and fuel expenditure.

Table 12 Distribution of household expenditure of indigenous people of Samin (*Sedulur Sikep)*

Expenditure	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	Mean (IDR/month)	%	Mean (IDR/month)	%	Mean ± SD (IDR/month)	%
Food expenditure						
− Staple foods	281,358	20.6	242,444	12.6	264,496	16.5
− Animal-based protein	152,735	11.2	233,925	12.2	187,918	11.7
− Snacks	108,107	7.9	217,039	11.3	155,311	9.7
− Plant-based protein	59,494	4.3	98,237	5.1	76,283	4.7
− Fruits	54,113	4.0	79,525	4.1	65,312	4.1
− Others	46,887	3.4	69,805	3.6	56,818	3.5
− Vegetables	38,555	2.8	56,862	3.0	46,488	2.9
− Oil and fats	37,537	2.7	63,769	3.3	48,904	3.0
− Beverages	36,526	2.7	66,479	3.5	49,506	3.1
− Total food expenditure	815,315	59.6	1,128,084	58.8	951,034	59.2
Non-food expenditure						
− Cigarettes	245,147	17.9	219,442	11.4	234,008	14.6
− Fuel	147,150	10.8	196,560	10.2	168,561	10.5
− Sanitation	59,129	4.3	83,360	4.3	69,629	4.3
− Clothes and foot wears	49,532	3.6	81,148	4.2	63,233	3.9
− Health	23,306	1.7	34,081	1.8	27,975	1.7
− Communication	14,265	1.0	35,127	1.8	23,305	1.5
− Others	11,757	0.9	61,731	4.1	33,413	2.1
− Education	3,016	0.2	79,016	3.2	35,950	2.2
− Total non-food expenditure	553,303	40.4	790,465	41.2	656,073	40.8
Total expenditure	**1,368,617**	**100.0**	**1,918,549**	**100.0**	**1,607,107**	**100.0**

9.3. Personal Hygiene and Environmental Sanitation

Hygiene refers to acts that can lead to good health and cleanliness, such as frequent handwashing, face washing, and bathing with soap and water. Keeping hands clean is one of the most important ways to prevent the spread of infection and illness. However, in many areas of the world, practicing personal hygiene is difficult due to lack of resources such as clean water and soap. Many diseases (including diarrheal diseases) can be spread when hands, face, and body are not washed appropriately at the key times. Dental hygiene refers to the practice of keeping the mouth, teeth, and gums clean and healthy to prevent disease. Dental hygiene and oral health are often taken for granted but are essential parts of our everyday lives. Tooth decay (cavities) is a common problem for people of all ages. Adults of some racial and ethnic groups experience more untreated decay. Proper tooth brushing is critically important to good dental hygiene (CDC 2015).

Table 13 shows the personal hygiene aspect of Samin people, either those living in Kudus-Pati or Blora. There were 75% to 80.8% of Samin people who were used to taking a

bath twice a day. Due to the hot weather in those cities, there were quite a lot (19.2%-25.0%) of Samin people who even bathed three times a day. They were used to bathing using the bath soap. Despite their traditional life, Samin people have been far more advanced than the lives of the Baduy Tribe (Khomsan *et al.* 2009) and Ciptagelar Tribe (Patriasih *et al*. 2016). They live side by side with other Javanese people. Thus, it is difficult to distinguish them from the physical appearance. For the outside people who visit Samin people's residence, they may realize that the ones in front of them are Samin people if they have interacted or communicated with each other.

Table 13. Household distribution based on personal hygiene of indigenous people of Samin (*Sedulur Sikep*)

Personal Hygiene	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	N	%
Habit of taking a bath per day						
– Once	0	0.0	0	0.0	0	0.0
– Twice	51	75.0	42	80.8	93	77.5
– 3 times	17	25.0	10	19.2	27	22.5
Habit of applying soap during a bath						
– Yes	68	100.0	52	100.0	120	100.0
– No	0	0.0	0	0	0	0.0
Habit of brushing teeth per day						
– Once	13	19.1	7	13.5	20	16.7
– Twice	46	67.6	40	76.9	86	71.7
– 3 times	9	13.2	5	9.6	14	11.7
Habit of using toothpaste						
– Yes	68	100.0	52	100.0	120	100.0
– No	0	0.0	0	0.0	0	0.0
Habit of washing hair per week						
– Once	1	1.5	0	0.0	1	0.8
– Twice	26	38.2	11	21.2	37	30.8
– ≥ 3 times	41	60.3	41	78.8	82	68.3
Habit of washing hands using clean water and soap						
– Yes	29	42.6	27	51.9	56	46.7
– No	21	30.9	5	9.6	26	21.7
– Sometimes	18	26.5	20	38.5	38	31.7
Habit of using footwear						
– Yes	56	82.4	46	88.5	102	85.0
– No	8	11.8	3	5.8	11	9.2
– Sometimes	4	5.9	3	5.8	7	5.8

More than 70% of Samin people were used to brushing their teeth twice a day, and only 16.7% of them brushed their teeth once a day. The toothpaste had been used as a cleanser when brushing the teeth. The personal hygiene aspect of Samin people showed that they had quite understood the importance of personal hygiene.

Washing the head while bathing (shampooing) is normal for men, and they may do it every day. However, the women usually wash their heads several times a week. In this study, it was found that the family members of Samin people generally washed their heads

more than three times a week. This habit was performed by 60.3% respondents in Pati-Kudus and 78.8% respondents in Blora. Meanwhile, 46.7% of respondents had a habit of always washing hands with soap. According to CDC (2015), a large percentage of foodborne disease outbreaks are spread by contaminated hands. Appropriate handwashing practices can reduce the risk of foodborne diseases and other infections. It is estimated that handwashing with soap and water may reduce diarrhea-related deaths by up to 50%. Samin people are generally farmers, but they are used to wearing sandals or shoes everywhere for footwear.

From this personal hygiene aspect, it can be known that Samin people living in Kudus-Pati were not different from those living in Blora. Samin people who have lived side by side with Javanese people in rural areas have been exposed to clean living behavior.

Table 14 shows the environmental hygiene around Samin people's residence. Regarding the availability of water for daily needs, Samin people relied on the wells in their homes. A total of 92.6% of Samin people in Kudus-Pati used the well water for various necessities of life, but only 57.7% of Samin people in Blora used the well water. In Blora, many Samin people (25.0%) used the water from the public water company. It indicates that the water supply facilities are more enjoyed by Samin people than those in Kudus-Pati.

There were more Samin people in Blora (94.2%) who had bathrooms than those in Kudus-Pati (86.8%). Meanwhile, the toilet ownership had reached >80%, and the ownership of septic tank had reached 73.3% in both groups of Samin people. Compared to other rural people in Indonesia, Samin people can be considered more established in accessing personal hygiene facilities. The Basic Health Research (Riskesdas) data in 2010 showed that there were still many rural people in Indonesia (21.4%) who used rivers for toilet purposes (MoH 2010).

The habit of disposing garbage into the river was mostly performed by Samin people in Blora (30.8%), while Samin people in Kudus-Pati disposed their garbage into the available places. The access to the river that was close enough to the settlement of Samin people in Blora made them prefer to throw garbage into the river. Therefore, from other personal hygiene aspects, Samin people actually had already had good habits. However, the garbage disposal habits still have to be fixed.

WHO (2011) stated that the greatest risk to public health from microbes in water is associated with consumption of drinking-water that is contaminated with human and animal feces. The infectious diseases caused by pathogenic bacteria, viruses and parasites (e.g. protozoa and helminths) are the most common and widespread health risk associated with drinking-water. Indonesian people nowadays have been familiar with the commercial still water of which existence is easily found, either in urban or rural areas. Overall, 53.3% of Samin people bought the commercial still water as a source of drinking water, while others (35.8%) used the well water as a source of drinking water. There are two types of commercial still water; i.e., the one packaged directly by the industry and the refill one. The availability of the refill drinking water at low prices really helps the people in rural areas to get the drinking water that meets the health requirement.

Table 14. Distribution of household based on environmental living

Environmental living	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	N	%
Primary water source						
- Well	63	92.6	30	57.7	93	77.5
- River	2	2.9	0	0.0	2	1.7
- Public water company	2	2.9	13	25.0	15	12.5
- Spring	1	1.5	9	17.3	10	8.3
Bathroom ownership						
- Available	59	86.8	49	94.2	108	90.0
- Not available	9	13.2	3	5.8	12	10.0
Defecating places						
- Private toilet	56	82.4	45	86.5	101	84.2
- River	8	11.8	0	0.0	8	6.7
- Public toilet	4	5.9	4	7.7	8	6.7
- Others	0	0.0	2	3.8	2	1.7
- Garden	0	0.0	1	1.9	1	0.8
Septic tank ownership						
- Yes	53	77.9	35	67.3	88	73.3
- No	15	22.1	17	32.7	32	26.7
Distance of septic tank-well (<10 m)						
- Yes	37	54.4	23	44.2	60	50.0
- No	31	45.6	29	55.8	60	50.0
Garbage disposal						
- To disposal places	68	100.0	36	69.2	104	86.7
- To river	0	0.0	16	30.8	16	13.3
Primary drinking water source						
- Commercial still water	51	75.0	13	25.0	64	53.3
- Well	16	23.5	27	51.9	43	35.8
- Public water company	1	1.5	5	9.6	6	5.0
- Spring	0	0.0	7	13.5	7	5.8

WHO (2017) stated that housing-related health risks include: respiratory and cardiovascular diseases from indoor air pollution; illness and deaths from extreme temperature; communicable diseases spread due to poor living conditions, and risks of home injuries. WHO estimates that nearly 2 million people in developing countries die from indoor air pollution caused by the burning of biomass and coal in leaky and inefficient household stoves. Inadequate ventilation is also associated with a higher risk of airborne infectious disease transmission, including tuberculosis, as well as the accumulation of indoor pollutants and dampness, which are factors in the development of allergies and asthma. Poor housing quality and design also can exacerbate the health impacts from exposure to temperature extremes, which are occurring more frequently due to climate change.

Table 15. Distribution of household based on their housing

Environmental living	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	n	%
Floor material						
- Tile	27	39.7	29	55.8	56	46.7
- Cement	26	38.2	9	17.3	35	29.2
- Dirt	15	22.1	13	25.0	28	23.3
- Other	0	0.0	1	1.9	1	0.8
Wall material						
- Cement	62	91.2	19	36.5	81	67.5
- Board	3	4.4	32	61.5	35	29.2
- Bamboo	3	4.4	1	1.9	4	3.3
Ventilation						
- Good	56	82.4	50	96.2	106	88.3
- Not good	12	17.6	2	3.8	14	11.7

Samin people who lived in Kudus-Pati and Blora villages had a good and organized living environment as in the rural environment in Java. Their house floor was made of tile (46.7%) and cement (29.2%). However, there were still 23.3% of people whose house floors were made of dirt. The condition of the house floor can actually reflect the socioeconomic status of the family. Therefore, it can be said that three-quarters of Samin people have already had relatively good family economic conditions.

A total of 67.5% of Samin people's houses in Kudus-Pati and Blora had already had cemented walls, and 29.2% of them had the house walls that were made of boards. The board-walled houses were more common in Blora than Kudus-Pati, because the people in Blora felt that the board-walled houses were cooler and more comfortable. From the observations during the data collection, it was known that Samin people's environment in Blora seemed cleaner, either from the housing or environmental conditions. In general, Samin people's house ventilation can be considered good. A house with many windows shows better ventilation.

9.4. Maternal Nutritional Knowledge

According to FAO (2014), assessing nutrition-related knowledge, attitudes and practices offers an opportunity to better understand a given situation by providing insights into the social, psychological and behavioral determinants of nutritional status. Nutrition-related knowledge is an individual's understanding of nutrition, including the intellectual ability to remember and recall food- and nutrition-related terminology, specific pieces of information and facts.

The maternal nutritional knowledge among Samin people was classified as moderate with a score of 66.5±21.8. A significant difference ($p<0.00$) was seen between the maternal nutritional knowledge in Blora (75.4±19.3) that was higher than the one in Kudus-Pati (59.7±21.3). The maternal nutritional knowledge is affected by the formal education level. A study conducted by De Vriendt *et al*. (2009) on 803 women found that the important factors which influenced nutritional knowledge were women's education level, age, and type of occupation. The mothers in the Samin community in Blora were relatively more

educated than those in Kudus-Pati. From the education characteristics data, it was known that 95.6% of the mothers in Kudus-Pati had never attended school while more than 95% of the mothers in Blora generally had attended the elementary school, junior high school, and senior high school.

Table 16. Distribution of maternal nutritional knowledge score

Nutritional knowledge (%)	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	n	%
Poor (<60)	34	50.0	7	13.5	41	34.2
Moderate (60-80)	24	35.3	24	46.2	48	40.0
High (>80)	10	14.7	21	40.4	31	25.8
Mean±SD	59.7±21.3		75.4±19.3		66.5±21.8	
p-value	0.00*					

*Mann-Whitney test

Table 17 shows the distribution of mothers who answered nutrition-related questions correctly. The nutritional knowledge questions included: staple food, fruits and vegetables, breakfast, food safety, sanitation, iodized salt, and the child's growth and development. Most of the mothers (93.3%) in the Samin community had understood about the food sources of energy, and 88.3% of them also understood that disposing the garbage into the disposal bin was an example of clean and healthy living behavior. However, only a small percentage of mothers (43.3%) who understood goiter and that the consumption of iodized salt was able to prevent the disease.

Table 17. Distribution of mothers answering nutritional knowledge questions correctly

No	Nutritional Knowledge Questions	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
		n	%	n	%	n	%
1	Rice, bread, and corn are the sources of energy (T)	61	89.7	51	98.1	112	93.3
2	Orange has high vitamin C content (T)	32	47.1	45	86.5	77	64.2
3	Fruits and vegetables are the good source of fiber (T)	44	64.7	42	80.8	86	71.7
4	Reducing carbohydrate and fat consumption is a way to lose some weight (T)	33	48.5	38	73.1	71	59.2
5	Breakfast leads to weight gain because it reduce satiety (F)	42	61.8	38	73.1	80	66.7
6	Fritters are healthy food for breakfast (F)	32	47.1	30	57.7	62	51.7
7	Snacks wrapped by newspaper and black plastic bag are safe to be consumed (F)	36	52.9	27	51.9	63	52.5
8	Disposing garbage into disposal bin is an example of sanitation habit (T)	59	86.8	47	90.4	106	88.3
9	Consuming iodized salt prevents goiter (T)	21	30.9	31	59.6	52	43.3
10	Children will grow and develop well if breast milk is given until 2 years old (T)	46	67.6	43	82.7	89	74.2

*Note: T = True; F = False

There were only two questions that could be answered correctly by the mothers in Kudus-Pati, namely: (1) rice, bread, and corn are the sources of energy (True) and disposing garbage into disposal bin is an example of sanitation habit (True). Meanwhile, there were seven questions that could generally be answered correctly by the mothers in Blora, namely: (1) rice, bread, and corn are the sources of energy (True), (2) orange has high vitamin C content (True), (3) fruits and vegetables are the good source of fiber (True), (4) reducing carbohydrate and fat consumption is a way to lose some weight (True), (5) breakfast leads to weight gain because it reduce satiety (False), (6) disposing garbage into disposal bin is an example of sanitation habit (True), and (7) children will grow and develop well if breast milk is given until 2 years old (True).

CHAPTER 10

HOUSEHOLDS FOOD CONSUMPTION

Table 18 shows the food consumption frequency of Samin people. For staple foods, it is seen that rice (like other Indonesian people) is the most frequently consumed (21.1 times/week), followed by noodle (2.4 times/week), bread (1.6 times/week), and corn (1.2 times/week). The lack of success in diversifying food sources of carbohydrates towards non-rice is caused by several things. The first one is the superior image of rice which makes the preference for rice to outperform the preference for corn, cassava, sago, etc. The second one is the rice availability at all times in various regions, which turns out to be better than the availability of other food commodities. The third one is the relatively low fluctuation of rice prices. The fourth one is the technology of processing uncooked rice into cooked rice which is very simple, and it produces a neutral taste which is not boring. Other staple foods, especially tubers, are more rarely consumed. In rural Java, tubers are commonly consumed as snacks (e.g., sweet potatoes, cassava) or side dishes (e.g., potato fritters). Tubers as a staple food are only consumed by the people of Papua.

Table 18. Food consumption frequency (times/week) of indigenous people of *Sedulur Sikep*

Food	Kudus-Pati (n=68)	Blora (n=52)	Total (n=120)
	Mean±SD	Mean±SD	Mean±SD
Cereals			
1. Rice	21.2±1.7	21.0±0.0	21.1±1.3
2. Noodle	2.5±3.0	2.2±1.1	2.4±2.4
3. Bread	1.7±3.3	1.3±1.4	1.6±2.7
4. Corn	0.9±1.5	1.3±1.8	1.2±1.6
Tubers			
1. Cassava	0.8±1.1	1.1±1.3	1.2±1.2
2. Sweet potato	0.6±0.8	0.9±1.4	0.9±1.1
3. Potato	0.4±0.7	1.6±3.3	1.0±2.3
Vegetable			
1. Water spinach	4.1±2.6	2.7±1.8	3.5±2.4
2. Spinach	3.1±2.9	3.0±1.9	3.1±2.5
3. Carrot	2.3±2.0	2.9±2.9	2.7±2.4
4. Cabbage	2.2±2.2	2.9±2.6	2.6±2.3
5. String bean	1.7±2.0	2.3±1.8	2.2±1.9
6. Cassava leaf	1.6±2.4	2.4±2.9	2.1±2.6
7. Green bean	1.4±2.1	2.3±2.9	2.0±2.5
8. Cucumber	1.1±1.8	1.0±1.3	1.3±1.6
9. Papaya leaf	0.9±1.9	1.7±3.0	1.3±2.5

Table 18. Food consumption frequency (times/week) of indigenous people of *Sedulur Sikep* [continued]

Food	Kudus-Pati (n=68)	Blora (n=52)	Total (n=120)
	Mean±SD	Mean±SD	Mean±SD
Fruit			
1. Banana	1.5±1.6	2.2±1.9	1.9±1.8
2. Guava	1.2±2.4	0.9±1.0	1.3±1.9
3. Orange	0.7±1.3	1.5±1.3	1.3±1.3
4. Papaya	0.6±1.2	1.5±1.0	1.1±1.2
5. Watermelon	0.3±0.5	1.4±3.0	1.0±2.1
Animal-based Protein			
1. Egg	4.6±3.0	4.9±3.6	4.8±3.3
2. Chicken	2.7±3.3	2.4±3.4	2.6±3.3
3. Fish	1.9±2.8	2.2±2.2	2.2±2.5
4. Red meat	0.4±0.8	0.9±1.1	1.0±1.1
5. Salted fish	0.4±0.8	1.7±2.5	1.1±1.9
Legume			
1. Tofu	5.9±4.3	5.8±5.1	5.9±4.6
2. Tempeh	5.5±4.4	6.3±4.8	5.9±4.6
Oil and Fat			
1. Vegetable oil	9.2±5.2	10.8±6.2	9.9±5.7
2. Coconut milk	1.2±1.9	1.8±1.8	1.7±1.8
Sugar and Sweetener			
1. Sugar	7.4±5.4	10.9±6.0	9.0±5.8
2. Brown sugar	1.2±1.9	1.1±1.5	1.2±1.8
Beverage			
1. Tea	4.5±3.4	4.7±3.8	4.6±3.5
2. Coffee	2.6±4.5	4.4±4.8	3.5±4.6
3. Herbal drink	2.6±4.3	1.2±2.1	2.0±3.5
Snack			
1. Siomay	3.5±7.2	2.5±2.7	3.0±5.7
2. Biscuit	2.5±3.3	2.7±2.8	2.6±3.1
3. Fritter	2.0±3.8	2.1±2.7	2.1±3.3
4. Extruded snack	1.3±2.6	2.6±2.5	1.9±2.6
5. Sausage	1.3±2.6	1.7±2.2	1.5±2.4

Vegetables are the source of vitamins and minerals. Dark-green leafy vegetables are rich in minerals and vitamin A. Although the iron contained in the vegetables is non-heme iron which is not easily absorbed by the body, vegetables are a mainstay for the lower-middle-class people in contributing minerals to the body. The lower-middle-class people are generally unable to fulfill their nutritional requirements from the animal source foods which are said to be rich in heme-iron that is easily absorbed by the body.

In the nutritional recommendation, it is stated that we should consume at least five servings of vegetables and fruits every day. It means that the vegetables should always be available at breakfast, lunch, or dinner. The benefits of vegetables for health have been well-documented. Cruciferous vegetables such as cabbage, mustard greens, and broccoli are useful for preventing cancer.

Table 18 shows that the commonly and frequently consumed vegetables by Samin people are water spinach, spinach, carrot, cabbage, string bean, cassava leaf, green bean, etc. With a mean consumption frequency of twice a week, it indicates that the type of vegetables consumed by Samin people is quite diverse.

Fruits such as banana, guava, orange, papaya, and watermelon were consumed 1-1.9 times per week. Tropical fruits are seasonal, and some of them are available throughout the year. Banana and papaya are generally available at all times, and the price is not expensive. Therefore, people can buy and consume them at any time. In the rural areas, some people plant fruits in the yard or garden so that they do not have to buy them in the market or fruit vendor.

The people were categorized as "adequately consume vegetables and/or fruits" if they consume them at least five servings per day for seven days a week. They were categorized as having "inadequate consumption" if the consumption of vegetables and/or fruits was less than that provision. The national average proportion of inadequate vegetables and or fruits consumption behavior was 93.5% (MoH 2013). WHO suggests consuming more than 400 grams of fruits and vegetables per day to improve overall health and reduce the risk of certain NCDs (WHO 2018). Therefore, the socialization concerning fruit and vegetable consumption should always be conducted to increase the consumption in the community.

For the animal-based protein consumption, it is seen that the frequently consumed foods are eggs (4.8 times/week), chicken meat (2.6 times/week), and fish (2.2 times/week). The price of eggs is relatively cheap, and the eggs can be found anywhere. In the 1960s, most Indonesian people were unable to consume enough eggs. At that time, besides difficult economic conditions, they also only relied on the free-range chickens and ducks as the main contributors to egg commodities. Entering the 1970s, they began to get acquainted with laying hens with high production capabilities; thereby, eggs were easily found on the market at low prices. The annual production of broiler eggs can reach 300 eggs/chicken, while free-range chickens only produce 40-60 eggs.

Table 18 also shows that red meat usually consumed only 0.4 times per week which is very low. It is very common for Indonesian people especially who lives in rural area such as Samin people. Red meat usually only consumed once to two times per year during special occasion or ceremony (Lisanty and Takuda 2015).

Besides side dishes from animal-based protein, Samin people also consumed tofu and tempeh that were very popular among Javanese people. The mean consumption of tofu and tempeh of 4.9 times per week indicated that both types of food were almost always consumed every day. As one of the traditional foods, the position of tofu and tempeh is hard

to be replaced by other foods. Even for some people who have lived prosperously whose daily diet is dominated by meat, fish, or eggs, it turns out that they still miss tofu and tempeh as side dishes. Tofu and tempeh are known as the ingrained folk food.

The consumption frequency of cooking oil (9.9 times/week) showed that Samin people fried their food every day for daily consumption. The foods fried were generally the side dishes such as tofu, tempeh, eggs, chicken meat, and fish. The cooking oil was also used to fry snacks such as banana and tubers. Besides cooking oil, Samin people also consumed coconut milk 1.7 times per week. Cooking the vegetables with coconut milk is one of the habits of people in Indonesia. The examples of vegetables prepared with coconut milk are *sayur lodeh* and *opor*. Vegetables are commonly processed with various types of preparations; i.e., prepared with coconut milk, sautéed (stir-fried), and boiled (e.g., *sayur bening*).

The consumption frequency of sugar in Samin people was 9.0 times per week. The people in Central Java and East Java tend to like sweetened beverages. The tea consumption in Samin people was 4.6 times per week, and the coffee consumption was 3.5 times per week. The habit of drinking sweet tea is relatively dominant among Samin people in Central Java. Samin people also like to serve sweet coffee to their guests. It is different from Sundanese people in West Java who prefer unsweetened tea.

Snacking is a common thing for Indonesian people. Some snacks frequently consumed by Samin people were *siomay*, biscuits, fritters, extruded snacks, and sausage. Snacks are commonly energy-dense and low in other nutrients (protein, vitamins, minerals, and fiber) because most of them are made from flour. In children, excessive snacking habits can cause obesity.

CHAPTER 11
FOOD SECURITY

Food security has many denifinition. Maxwell (2001) stating that food security means the access to adequate food for everyone at everytime in order to be able to live actively and healthily as used (Niehof 2010). According to Indonesian' constitution (Act Number 18 year 2012), Food security is defined as the fulfillment of food for the state up to the individual reflected by food availability in terms of sufficient (both in quantity and quality), safe, diverse, nutritious, prevalent and affordable as well as not conflicting with religion, belief and culture, to live healthy, actuve, and productive in sutainable manner. Food security has been an issue since 1970s. At first food security concept focuses only on food availability, but in 1980s this concept start giving emphasize to household and individual food access (FAO 2002).

Table 19. Distribution of Household Dietary Diversity Score (HDDS)

HDDS (food groups)	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	n	%
Low (≤5)	7	10.3	8	15.4	15	12.5
Medium (6-7)	37	54.4	10	19.2	47	39.2
High (>7)	24	35.3	34	65.4	58	48.3
Mean±SD (score)	6.8±2.3		7.4±2.3		7.1±2.3	
p-value	0.018*					

*Mann-Whitney test

Food diversity is one of the indicators that can be used to determine the status of household food security. According to Kennedy *et al*. (2010), the Household Dietary Diversity Score (HDDS) is meant to provide an indication of household economic access to food. Thus, items that require household resources to obtain, such as condiments, sugar and sugary foods, and beverages, are included in the score. The higher the HDDS, the more food-secure the household is. The analysis results showed that there was a significant difference ($p<0.05$) in mean HDDS between the two Samin community groups (Table 19) . The Samin people in Blora had a relatively high mean HDDS (7.4±2.3) while the Samin People in Kudus-Pati had a moderate mean HDDS (6.8±2.3). Judging from the distribution, Samin people in Blora also showed a better HDDS in which 65.4% of them belonged to "high" category. Meanwhile, 54.4% of Samin people in Kudus-Pati had a medium HDDS. It could be concluded that based on HDDS score Samin people in Blora tended to be more food secure compared to Samin people in Kudus-Pati.

Abdullah *et al.* (2017), stated that age, gender, education, remittances, unemployment, inflation assets, and disease are important factors determining whether or not a household would be food secure. Samin people in Blora had better education, the mothers also had better nutritional knowledge so that they would have better knowledge regarding food choices. They also had better economic status that would make them have better food access to be more food secure.

Table 20. Distribution of Household Food Insecurity Access Scale (HFIAS)

HFIAS	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	n	%
Food secure	25	36.8	29	55.8	54	45.0
Mildly Food Insecure Access	3	4.4	3	5.8	6	5.0
Moderately Food Insecure Access	18	26.5	10	19.2	28	23.3
Severely Food Insecure Access	22	32.4	10	19.2	32	26.7
Mean±SD (score)	1.9±3.0		1.7±3.1		1.8±3.0	
p-value	0.199*					

*Mann-Whitney test

HFIAS is another instrument that can be used to assess household food security. According to Coates *et al.* (2007), the Household Food Insecurity Access Scale (HFIAS) can be used to assess the prevalence of household food insecurity (access) and to detect changes in the household food insecurity (access) situation of a population over time.Unlike HDDS, HFIAS is more subjective. The lower the score, the household can be said to be more food secure.

In line with the results of the HDDS analysis, the HFIAS analysis also showed that the Samin ethnic group in Blora tended to be more food secure than the Samin ethnic group in Kudus-Pati (Table 20). However, there was no significant difference in the mean HFIAS between the two groups. The mean HFIAS score for the Samin group in Blora was 1.7±3.1 while the mean HFIAS score for the Samin group in Kudus-Pati was 1.9±3.0. Judging from the distribution, most of the Samin People in Blora (55.8%) were classified as food secure. Only 36.8% of the Samin People in Kudus-Pati that were classified as food secure and even 32.4% of them were classified as severely food insecure households.

Ntwenya *et al.* (2015) stated that Household food insecurity score was negatively correlated with a dietary pattern characterized by a high intake of roots and cooking oil. It is reasonable that Samin people in Blora to be more food secure than Samin people in Kudus – Pati. Our findings showed that Samin people in Blora consumed roots and cooking oil more frequently compared to Samin people in Kudus-Pati (Table 18).

Food security also has positive correlation to dietary diversuty. The more diverse it is the more food secure a household is (M' Kaibi 2014). Our finding shows similar result. There was a significant correlation ($p<0.05$) between HFIAS score and the HDDS score. It is expected that Samin people in Blora to have a better HFIAS score since Table 19 shows that they also have a better diversity score.

CHAPTER 12
NUTRIENTS INTAKE, NUTRITIONAL AND HEALTH STATUS OF CHILDREN

12.1. Anthropometry Characteristics of Children Under Five

Nutritional status assessment of the children in this study could only use the weight-for-age (W/A) indicator. This indicator described the acute and chronic malnutrition. Besides W/A, the nutritional status was also assessed using the mid-upper arm circumference (MUAC) because the body length or height was not possible to be measured due to cultural reasons. According to WHO & UNICEF (2009), WHO standards for mid-upper arm circumference (MUAC)-for-age show that there are very few children aged 6–60 months with a MUAC less than 115 mm in a well-nourished population. Children with a MUAC less than 115 mm have a highly elevated risk of death compared to those who are above, because MUAC less than 115 mm indicates severe wasting.

Table 21 presents the characteristics of children's anthropometric measurements which include age, weight, and MUAC. The data are presented as mean, standard deviation, minimum values, and maximum values.

Table 21. Distribution of children under five characteristics of indigenous people of Samin (*Sedulur Sikep)*

Characteristics	Kudus-Pati			Blora			Total		
	min	max	Mean±SD	Min	Max	Mean±SD	Min	Max	Mean±SD
Age (month)	1.0	60.0	26.6±16.7	1.0	60.0	27.6±16.9	1.0	60.0	27.0±16.7
Weight (kg)	3.0	16.0	9.6±2.7	4.0	22.0	10.6±3.4	3.0	22.0	10.0±3.1
MUAC (cm)	9.0	17.0	13.4±1.9	12.0	23.0	15.3±2.1	9.0	23.0	14.3±2.2

*Not all parents allowed MUAC measurements to be conducted (n=59 for Kudus-Pati and n=46 for Blora)

Table 21 shows that the mean age of children in the two Samin People groups tends to be the same, with a mean age of 26.6±16.7 months for the children under five in the Samin People in Kudus-Pati and a mean age of 27.6±16.9 months for the children under five in the Samin People in Blora. The youngest age of the children in this study was one month old, and the oldest one was 60 months old. The mean body weight of the children under five in this study was 10.0±3.1 kg with the lowest weight of 3.0 kg and the highest weight of 22.0 kg. The mean body weight between the two groups also tended to be similar. The mean MUAC of the children was 14.3±2.2 cm or classified as normal. The mean MUAC of the children in the Samin People in Blora was 15.3±2.1 cm or classified as normal. The mean MUAC of the Samin children in Blora was higher than the Samin People in Kudus-Pati with the children's mean MUAC of 13.4±1.9 cm or still belonged to the mild malnutrition category. If observed based on the WHO standards for MUAC-for-age, it can be concluded that there were no children in the Samin People in Kudus-Pati and Blora classified as severe wasting.

A study by Amponsah et al. (2018) stated that age of the mother, marital status, and occupation were significantly related to malnutrition. Mothers with children with MUAC

below 12.5 cm were within age category of 15-25 years. The study also found that mothers who were single, their children's MUAC measuring below 12.5 cm. Trading mothers scored the highest occupation with children with MUAC of below 12.5 cm followed by farmers.

12.2. Nutrients Intake of Children

Access to affordable, diverse, nutrient-rich food; appropriate maternal and child-care practices; adequate health services; and a healthy environment including safe water, sanitation and good hygiene practices were directly influence nutrient intake and the presence of disease. After birth, a number of practices can directly lead to poor growth: inadequate breastfeeding practices such as non-exclusive breastfeeding; inappropriate complementary feeding, such as starting at the wrong age; poor access to or use of diverse types of food and inadequate intake of micronutrients (UNICEF 2013).

The children's intakes are presented in Table 22. The nutrients presented are energy, protein, vitamin A, vitamin C, iron, and calcium. These nutrients are presented because the children under five in Indonesia are commonly at risk of having deficiencies of these nutrients. Whereas, according to WHO (2015), in the first two years of a child's life, optimal nutrition fosters healthy growth and improves cognitive development. It also reduces the risk of becoming overweight or obese and developing NCDs later in life.

Table 22. Children's nutrients intake in Samin (*Sedulur Sikep*) community

Variables	Kudus-Pati (n=68)	Blora (n=52)	Total (n=120)
	Mean±SD	Mean±SD	Mean±SD
Intake			
Energy (kcal)*	625±283[a]	793±393[b]	698±344
Protein (g)	17.7±10.1[a]	23.6±13.9[b]	20.3±12.2
Vitamin A (RE)	360±290[a]	550±348[b]	442±329
Vitamin C (mg)	16.4±25.0[a]	21.4±23.2[a]	18.5±24.3
Iron (mg)	4.2±3.1[a]	5.9±4.5[b]	4.9±3.9
Calcium (mg)	201±139 [a]	310±274[b]	248±214
RDA			
Energy (kcal)	823±241	910±285	861±264
Protein (g)	18.6±5.4	20.7±6.3	19.5±5.8
Vitamin A (RE)	409±25	408±23	409±24
Vitamin C (mg)	41.5±	41.6±2.9	41.6±2.7
Iron (mg)	7.2±2.9	7.4±2.5	7.2±2.7
Calcium (mg)	666±251	658±236	663±243
% RDA			
Energy	76.8±30.1[a]	85.7±32.2[a]	80.7±31.2
Protein*	94.1±48.5[a]	109.5±55.2[a]	100.8±51.9
Vitamin A	88.2±68.0[a]	134.1±84.7[b]	108.1±78.7
Vitamin C	39.9±59.6[a]	51.5±56.3[a]	44.9±58.2
Iron	60.9±36.1[a]	80.9±50.6[b]	69.6±43.9
Calcium	39.9±37.9[a]	54.5±55.7[a]	46.2±46.8

Note: Different alphabet in the same row shows the p-value of <0.05 and the same alphabet in the same row shows the p-value of >0.05

*t-test

Table 22 shows that the energy and nutrients intakes of the children in the Samin People in Blora are higher than the ones in the Samin People in Kudus-Pati. The t-test and Mann-Whitney test also showed significant differences between the children's nutrients intakes in the Samin People in Blora and the Samin People in Kudus-Pati, except for vitamin C intake. The similar results were also seen on the nutrient adequacy levels, in which the children's nutrient adequacy levels in the Samin People in Blora were higher than the ones in Kudus-Pati. However, the significant differences in the nutrient adequacy levels were only seen in the vitamin A and iron adequacy levels. If observed from the nutrient adequacy levels, the children's mean intakes of energy and nutrients were still below the RDA, except for children's protein and vitamin intakes in the Samin People in Blora. The distribution of children based on the RDA fulfillment category is presented in Table 23.

Table 23. Distribution of children's nutrients intake based on %RDA category in Samin (*Sedulur Sikep*) community

Nutrients	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	n	%
Energy						
Severe deficiency (%RDA <70)	33	48.5	18	34.6	51	42.5
Moderate deficiency (%RDA 70-79)	10	14.7	6	11.5	16	13.3
Mild deficiency (%RDA 80-89)	9	13.2	5	9.6	14	11.7
Normal (%RDA 90-119)	10	14.7	14	26.9	24	20.0
Excessive intake (% RDA ≥120)	6	8.8	9	17.3	15	12.5
Protein						
Severe deficiency (%RDA <70)	24	35.3	16	30.8	40	33.3
Moderate deficiency (%RDA 70-79)	6	8.8	1	1.9	7	5.8
Mild deficiency (%RDA 80-89)	2	2.9	4	7.7	6	5.0
Normal (%RDA 90-119)	18	26.5	10	19.2	28	23.3
Excessive intake (% RDA ≥120)	18	26.5	21	40.4	39	32.5
Vitamin A						
Inadequate (%RDA<77)	37	54.4	13	25.0	50	41.7
Adequate (RDA≥77)	31	45.6	39	75.0	70	58.3
Vitamin C						
Inadequate (%RDA<77)	61	89.7	42	80.8	103	85.8
Adequate (RDA≥77)	7	10.3	10	19.2	17	14.2
Iron						
Inadequate (%RDA<77)	41	60.3	24	46.2	65	54.2
Adequate (RDA≥77)	27	39.7	28	53.8	55	45.8
Calcium						
Inadequate (%RDA<77)	57	83.8	43	82.7	100	83.3
Adequate (RDA≥77)	11	16.2	9	17.3	20	16.7

Table 23 shows the distribution of children who have energy deficiency that reaches 74% in the children of Samin People in Kudus-Pati. This result was higher than the energy

deficiency in children in Blora (56%). The percentage of children who had energy deficiency was also quite high; i.e., reaching 47% in Kudus-Pati and 40% in Blora.

The distribution of children with inadequate intake of vitamin A, vitamin C, iron, and calcium was also higher in the children in Kudus-Pati than those in Blora. In Kudus-Pati, the proportions of children with inadequate intake of vitamin A, vitamin C, iron, and calcium were 54.4%, 89.7%, 60.3%, and 83.8%, respectively. The proportions of children with inadequate intake of vitamin A, vitamin C, iron, and calcium in Blora were 25.0%, 80.8%, 46.2%, and 82.7%, respectively. The high proportion of children with inadequate intake of vitamins and minerals might be caused by the children's dislike of vegetables and fruits or the lack of access to vegetables and fruits. Meanwhile, according to the study by Amponsah *et al*. (2018) on the relationship between dietary intake and malnutrition, the vitamins, initiation time of water, and type of food introduced during weaning were found to be significantly related to malnutrition.

12.3. Nutritional Status (WAZ) of Children

The distribution of children according to children's nutritional status category based on WAZ index is presented in Table 24. In Table 24, it is seen that almost half of the children in Kudus-Pati were underweight while about one in five children in Blora were underweight. Overall, according to WHO (2010), the undernutrition problem among children in Samin People with a prevalence that reached 36.7% belonged to the category of public health problem with a fairly high prevalence. The percentage of moderate underweight in the children of Samin People (20% in both groups) was 9.5% higher than the percentage of moderate underweight among Indonesian children in 2016 which was only 10.5% (MoH 2017).

The lack of parental education on health and nutrition can be one of the causes of the high prevalence of health problems in the Samin community, especially children under five. The results of a study conducted by Kabahenda *et al*. (2011) concluded that nutrition education significantly improved the feeding practices and children's nutritional status. Table 24 also shows that the children's nutritional status in the Samin People in Blora is better than the Samin People in Kudus-Pati.

Table 24. Distribution of children-under-five's nutritional status based on WAZ of *Sedulur Sikep*'s indigenous people

Category	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	n	%
Severe underweight (Z score <-3 SD)	14	20.6	6	11.5	20	16.7
Moderate underweight (-3 SD < Z score <-2 SD)	19	27.9	5	9.6	24	20.0
Normal (-2 SD <Z score≤ 2SD)	35	51.5	40	76.9	75	62.5
Overweight (Z score>2 SD)	0	0.0	1	1.9	1	0.8

The children's nutritional status based on the children's MUAC index is presented in Table 25. The MUAC index can also predict the child's mortality rate as good as the WAZ index. The MUAC can be used to determine the children's protein-energy malnutrition status. Table 25 also shows that most of the children (57.1%) in the Samin People have normal MUACs. The results also showed that the percentage of malnourished children in Kudus-Pati and Blora were around 59% and 43%, respectively.

Better socio-economic status, mother's age between 20-35 years, birth order up to second, more than two years interpregnancy interval, recommended exclusive breast feeding, early recommended supplementary foods, complete immunization, and timely care seeking behaviors had positive effects on children' nutritional status, and these variables were also found statistically significant (Bhandari & Chhetri 2013). A study by Badake *et al*. (2014) stated that significant positive and linear relationships were found between underweight, stunting, and wasting among the children of 0-59 months. Negative and significant correlations were observed between children's age and nutritional status based on wasting and underweight. Negative significant relationship was observed between the household size and nutritional status based on stunting and wasting.

Table 25. Distribution of children under five's nutritional status based on MUAC of indigenous people *Sedulur Sikep*

Category	Kudus-Pati (n=59)		Blora (n=46)		Total (n=105)	
	n	%	n	%	n	%
Malnourished (MUAC <12.5 cm)	14	23.7	1	2.2	15	14.3
Mildly malnourished (12.5 ≤ MUAC ≤ 13.5 cm)	21	35.6	9	19.6	30	28.6
Normal (MUAC >13.5 cm)	24	40.7	36	78.3	60	57.1

12.4. Health Status of Children

One of the factors closely related to the nutritional condition is the health condition. The nutritional conditions can affect health. Conversely, the health conditions also affect the nutritional conditions. Children with nutritional deficiencies will be more vulnerable to suffer from a disease

The health conditions were assessed from the infectious diseases suffered by the children; i.e., upper respiratory tract infection (URTI), fever, and diarrhea. Diarrhea was defined as loose and watery stools according to National Institute of Diabetes and Digestive and Kidney Diseases (2014). Diarrhea that lasts only a short time is called acute diarrhea. Acute diarrhea is a common problem that usually lasts for a few days and goes away on its own. The distribution of children based on the infectious diseases they have in the last one month is presented in Table 26.

URTI, fever, diarrhea always become three infectious diseases that mostly suffered by Children at Indigenous Communities. Study conducted by Khomsan *et al.* (2009), showed 27.1% Outer Baduy Children suffered from diarrhea and 62.1% of them suffered from URTI. Study conducted by Patriasih *et al.* (2016), also showed that 60.5% Children from Kasepuhan Ciptagelar and Sinar Resmi community suffered from fever, 58% of them

suffered from URTI, and 17.5% of them suffered from diarrhea. Beside URTI, fever, and diarrhea both study also found that Children from those community also suffered from skin diseases.

Our study showed similar pattern that URTI, fever, and diarrhea were the infectious disease that mostly suffered by the Children of Samin Community. Our study also showed that eventually Samin Children had better health status since the prevalence of those three diseases were lower compared to Outer Baduy and Kasepuhan Ciptagelar as well as Sinar Resmi Community. Table 26 shows that most of the children have URTI (34% in total) with an illness duration of almost five days. The URTI affected more children in Blora than those in Kudus-Pati. Fever ranked second with a total proportion of patient reaching 24%, with an illness duration of two to three days. Fever also affected more children in Blora than those in Kudus-Pati. Diarrhea ranked third, which affected about 5% of children with an illness duration of three days. And no children suffered from skin disease.

Table 26 showed that in general Children from Samin Community in Blora had worse health conditions. Health condition is strongly related to environmental saniation. From this study it was found that apparently Samin people in Kudus-Pati had better habit regarding environment sanitation. Most Samin people in Blora had well as their primary source of drinking water and some them had it from spring. More than half of them also had less than 10 m of distance between septic tank and clean water source. We could also still find 30.8% Samin people in Blora who disposed their garbage into the river (Table 14).

Table 26. Distribution of children under five based on health status of indigenous people of Samin (*Sedulur Sikep*) (in the last one month)

Infectious disease	**Kudus-Pati (n=68)**			**Blora (n=52)**			**Total (n=120)**		
	n	**%**	**days**	**n**	**%**	**days**	**n**	**%**	**days**
URTI (cough and cold)	16	23.5	3.7	25	48.1	5.8	41	34.2	4.8
Fever	13	19.1	2.5	16	30.8	2.5	29	24.2	2.5
Diarrhea	5	7.4	2.8	1	1.9	3.0	6	5.0	2.9

Unlike URTI and fever, the prevalence of diarrhea were higher in Kudus-Pati compared to Blora. A study conducted by Elizabeth and Raj (2012) did not show any significant relationship between the prevalence of acute respiratory infection (ARI) and other selected variables such as sex of the child, number of living children under 5 years of age, maternal age at child's birth, maternal education, maternal occupation, caste, wealth index, standard of living index, vitamin A supplementation, source of drinking water, and toilet facilities. But the study also showed a significant relationship between the child's size at birth and the prevalence of diarrhea. It was also found that the prevalence of diarrhea was significantly higher among children who had not received complete vaccination than those who received complete vaccination course. Our study showed that most children from Samin Community in Kudus-Pati did not receive any vaccination and that's why they were prone to diarrhea. Most of them were also never be taken to Posyandu since the mother did not find it important.

CHAPTER 13
HEALTH STATUS OF MOTHERS

13.1. Health Status of Mothers

Table 27 shows that the maternal health status in the Samin community in Kudus-Pati is precisely better than the mothers of children under five in the Samin community in Blora. There were 28.8% of the mothers of children under five in the Samin community in Blora who had a URTI in the last six months, while only 16.2% of the mothers of children under five in Kudus-Pati had the disease. The health research conducted by Moh of Indonesia in 2013 showed that the prevalence of URTI infection ranged from 20.8 – 27.3% for population age of >25 years old. Similar to children URTI infection is related to environmental saniation in which this study showed that Samin Community in Blora had worse environment sanitation habit.

Table 27 showed that there were 2.9% of the mothers of children under five who had helminthiasis in the last six months in the Samin community in Kudus-Pati, while there were no mothers of children under five in Blora who had this infection. It might happen because the some of Samin people still live in a house which tile's made of dirt. Samin people in Kudus-Pati also had poorer usage of footwear compared to Samin people in Blora, so they were prone to helminthiasis.

Table 27. Distribution of mother' characteristics based on health status (in the last six months)

Disease	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	n	%
Infectious Disease						
- URTI	11	16.2	15	28.8	26	21.7
- Helminthiasis (worm infection)	2	2.9	0	0.0	2	1.7
Non-infectious disease						
- Gout	1	1.5	0	0.0	1	0.8
- Hypertension	0	0.0	2	3.8	2	1.7

Gout and hypertension were the two non-infectious diseases experienced by the mothers of children under five in the Samin People. However, the prevalence was not significant. Only one mother of children under five in the Samin community in Kudus-Pati who had gout and no mothers of children under five were found to have gout in the Samin community in Blora. Contrary to gout, hypertension was not found among the mothers of children under five in the Samin community in Kudus-Pati, and only two mothers or only 3.8% were found to have hypertension in the Samin community in Blora. This prevalence was way lower compared to prevalence of hypertension found in Central Java Province in 2013. There was 26.4% of Central Java Province Population who suffered from hypertension in 2013 (Moh 2013).

Hypertension is a condition when the blood pressure in the blood vein increases chronically. That case can occur because the heart works harder to pump blood to fulfill the oxygen need and nutrition of the body. Eventhough the prevalence was low, if it is neglected, this desease can disturb other organ functions, especially vital organs such as heart and kidney (MoH 2013). According to Saputra *et al.* (2016) and Sigarlaki (2006), diatery pattern was one of determinants for hypertension in adult. Unhealthy dietary pattern such as the high consumption of fat will increase the risk of hypertension. Samin people in Blora apparently had slightly higher consumption of oil and fat compared to Samin people in Kudus-Pati and it might be the reason why the prevalence of hypertension was higher here.

Similat to hypertension, gout arthritis prevalence was also very low. But according to Igel *et al*. (2017), gout has once again come to the fore as a disease bearing serious implications and requiring intricate therapy. Gout arthritis is a joint illness related to food patterns, and it has a relatively high prevalence in Indonesia. Gout arthritis emerges because there is a metabolic failure which leads to uric acid accumulation in the blood that exceeds a normal level (hyperuricemia). As a result, uric crystal sodium is formed and stored as tophi in small joint bones and surrounds the tissue as well as causes inflamation and pain (Mahan & Stump 2008).

13.2. Mothers' Antenatal Care (Mothers' ANC)

ANC practices performed by the mothers of children under five in the Samin community in Blora were better compared to the Samin community in Kudus-Pati. There were no mothers of children under five in Blora who did not have their pregnancies checked. The mean gestational age at the first ANC visit was even younger compared to the mothers of children under five in Kudus-Pati. Likewise with the frequency of ANC visit, in which the mothers of children under five in Blora checked their pregnancy more often than the pregnant women in the Samin People in Kudus-Pati.

The midwife was the most visited person for ANC in both groups. Some mothers even visited the *dukun* (traditional healer) to have their pregnancy checked. Most of the pregnant women were massaged when visiting the *dukun beranak* (traditional birth attendant) to correct their fetal position. The habit of taking supplements in both groups was quite good. The Fe-folate supplement was the most frequently consumed supplement because the consumption of this supplement was the most recommended to prevent anemia.

In a study by Gupta *et al*. (2015), ANC service utilization was found to be significantly associated with age, literacy, socioeconomic status (SES), and type of family, but was not significantly associated with the occupation of the mother. On enquiring about the reasons for inadequate utilization of ANC services, the three major responses were nonawareness, financial constraints, and nonavailability of transportation facilities. Samin people in Blora both the father and mother had better education compared to Samin people in Kudus-Pati. The mother also had better knowledge in term of nutrition. Their better

knowledge made them realize the importance of ANC and in result the performed better ANC practices.

Table 28. Distribution of mothers antenatal care

Mothers' Antenatal Care	Kudus-Pati (n=68)		Blora (n=52)		Total (n=120)	
	n	%	n	%	n	%
Doing antenatal visit						
– Yes	66	97.1	52	100.0	118	98.3
– No	2	2.9	0	0.0	2	1.7
Place to do antenatal visit						
– Midwife	61	89.7	51	98.1	112	93.3
– *Dukun* (healer)	14	20.6	2	3.8	16	13.3
– Doctor/ clinic	2	2.9	2	3.8	4	3.3
– Public health center	1	1.5	2	3.8	3	2.5
– *Posyandu*	0	0.0	1	1.9	1	0.8
Service received when visiting *dukun* (healer)						
– Receiving massage	13	92.9	2	100.0	15	93.8
– Receiving herbal drink	1	7.1	0	0.0	1	6.2
Gestational age at first visit to medical staff (Mean±SD), weeks	7.6±6.4		6.0±4.3		6.9±5.6	
Frequency of visit to medical staff (Mean±SD), times	5.8±3.4		8.0±1.9		6.8±3.1	
Did you take any supplements during pregnancy?						
– Yes	55	80.9	48	92.3	103	85.8
– No	13	19.1	4	7.7	17	14.2
Where did you get the supplements?						
– Buying	45	81.8	44	91.7	89	86.4
– Free from midwife/public health center	10	18.2	4	8.3	14	13.6
Frequency of taking supplements (Mean±SD, times/week)						
– Fe-Folate	5.8±6.5		5.3±2.7		5.6±5.2	
– Vitamin B6	2.8±7.0		2.4±3.3		2.7±5.7	
– Calcium	2.7±6.4		1.5±2.5		2.2±5.1	
– Multivitamin	1.1±3.4		1.0±2.0		1.0±2.9	

This study also showed that most of the mother visit trained health facilitator such as midwives and only few of them who visit un trained health facilitator such as Dukun (healer). This finding was inle with a study by Dixit *et al*. (2017) that showed that among the study countries, Indonesia showed a high percentage of ANC and births in health facilities.

CHAPTER 14
SUMMARY AND DISCUSSION

14.1. Summary

1. **a)** The mean age of father in Samin Community was 31.8 years old while the mother was 27.5 years old with the mean age of parents in Samin Community from Kudus-Pati tended to be younger than those from Blora; **b)** The parents of children under five from Samin community in Blora had better education compared to community in Kudus-Pati. 95.6% of both father and mother from Samin Community Kudus-Pati never attended school due to cultural reasons; **c)** The fathers in both Samin community were mostly working as farmer while the mother were mostly working only as a housewife. In Samin community Kudus-Pati, it was found more working mother compared to Samin Community in Blora; **d)** The household size in both community were similar with average of 4.3 people per household in Kudus-Pati Community and 4.4 people in Blora or both could be classified as medium household; **e)** The mean per capita of Samin people's income was IDR 381,000 according to the BPS they were classified as non-poor. According to the distribution, it was found that Samin people in Blora had significantly better economic status than those in Kudus-Pati. The mean per capita income of Samin people in Blora was IDR 449,000 while the mean per capita income of Samin people in Kudus-Pati were IDR 329,000. It was also found that the total expenditure of Samin Community in Blora were higher compared to Samin Community in Kudus-Pati; and **f)** The mean score of mothers' nutritional knowledge were 66.5 in both community. The mothers of Samin community in Blora had significant better nutritional knowledge. Most of the mother (46.2%) in Blora community had medium nutritional knowledge while 50.0% of the mother in Kudus-Pati community had low nutritional knowledge.

2. **a)** Samin people are the descendants of Samin Surosentiko followers who taught *Sedulur Sikep*. Samin Surosentiko taught a form of resistance against the invaders without resorting to violence. The followers of Samin doctrine have five doctrines, namely not going to school, not wearing *peci* (untasseled fez) but wearing *iket* (a kind of cloth tied around the head like a Javanese in the past); not a polygamist; not wearing trousers and only wearing knee-length pants; not trading; and rejecting capitalism. Regarding education, for Samin people education should be given by their parents and they think that school will not guarantee their children to be a good person. But nowadays some Samin people in Blora already realize the importance of education and they allow their children to go to school; **b)** Samin people still cannot trust the current Indonesia government because many governments are not honest with their people. Therefore, when they are married, they do not register themselves at the Religious Affairs Office or the Civil Registry Office. Besides that, some Samin community groups do not want to run the government programs, either from health or education aspects. The Samin community groups in some regions do not want to come to Posyandu, do not want to check their health at the health

center/Puskesmas/hospital; **c)** The farming conducted by *Sedulur Sikep* was formerly traditional, but it has now changed. There are several traditions in the farming system of *Sedulur Sikep* such as sambatan and mrapat; **d)** One culture regarding health problem of *Sedulur Sikep* can be seen in their daily lives. They always greet people with *seger waras* which defined as hale and hearty, harmonious, and live well; **e)** The habit related to health ritual which is held by the people begins with a 7-month pregnancy ceremony called *tingkep* until the baby reach one year old. The stages of birth customs for the Samin community are as follows *Krayan, Melekan, Sepasaran, Selapanan,* and some events that will be held when the baby is three months, seven months, and one year old; **f)** They also have simple perspective regarding food selection. According to them, all the food is delicious. the important thing is being healthy so that all food will taste delicious. The food is also a necessity; thereby, they just eat what's available; **g)** Food taboo was still found in *Sedulur Sikep* who live in Kudus and Blora but not in Pati. Foods that considered as taboo such as fruit that has a moon-like shape without cutting it in pieces; for example, apple, catfish, and also cold water. In Blora, pregnant women are also prohibited to carry eggs, build a house, kill animals, and cut their hair. They believe that doing these things will cause the birth process to be difficult. *Sedulur Sikep* also have customs for lactating mothers such as doing *tarak*, consuming coriander, drinking *jamu* (traditional herbal medicine), and applying cold powder throughout the body, as well as doing *walik dadah*; and **h)** Health issues in the Samin Pati, Kudus, and Blora communities received mixed responses. The response of Samin people in Pati to health issues was still negative. Some government programs such as Posyandu and immunizations were rejected by Samin people in Pati because they did not find it to beneficial. But These programs were well accepted in other area especially Blora.

3. **a)** All Samin people used motorcycle to go to public health center. Majority Samin people in Kudus-Pati usually go to doctor/clinic when they got sick but Majority of Samin people in Blora go to midwive when they got sick. It was because the midwive lives in their neighborhood. Only few of Samin people who go to public health center. The mean distance to nearest public health center in Kudus-Pati Community was about 8.21 km while it was only 3 km in Blora community. It was also found that majority of Samin people in both community did not have any heath insurance; **b)** Samin people in Blora Community had better perception regarding health and nutrition. 96.2% of them took their children to Posyandu and 98.1% of the children received vactination. 88.5 % of the children also had growth chart book. The mothers found that posyandu and vactination was important to the children health and growth and the growth chart book was helpful for them to monitor the growth of their children. In the contrary only few children of Samin Community in Kudus-Pati who were taken to Posyandu, gotten vaccination, and had growth chart book; and **c)** The majority of Both Samin community in Kudus-Pati and Blora had good hygine practices, but regarding environemental sanitation Samin Community in Blora was found to have poorer practices. 55.8% of them had less than 10 m distance between septic tank and water source, 30.8% of them still disposed their garbage into the river

and 51.9 of them use well as their primary drinking water source while 75.0% of Samin people in Kudus-Pati already use commercial still water as their primary drinking water source.

4. The food consumption pattern in both community were relatively similar. Rice was the most consumed cereals in both community with average consumption of 21.1 times per week. Water spinach and spinach were the vegetables that were most consumed in both community. Banana was the most consumed fruit in both community with average consumption of 1.5 times per week in Kudus-Pati and 1.9 times per week in Blora as banana could be found through out the year. In both community plant based protein such as tofu and tempeh were consumed more frequently than the animal based protein. With egg as the most frequently consumed.

5. The food security of Samin people were analyzed using HDDS and HFIAS. HDDS analysis showed that Samin people in Blora had significantly food secure compared to Samin community in Kudus-Pati. 65.4% of Samin Community in Blora had high dietary diversity score while only 35.3% of Samin Community in Kudus-Pati who had high dietary diversity score. In the other hand, the HFIAS analysis showed there were no significant difference regarding food security in both community. Although Blora was slightly food secure compared to Kudus.

6. **a)** The children of Samin Community in Blora had significantly better nutrients intake compared to those in Kudus-Pati. The average energy and protein intake of children in Blora were 793 kkal and 23.6 g while the average intake in Kudus-Pati were 625 kkal and 17.7g respectively. The average intake of vitamin A, iron, and calcium in Blora were 550 RE, 5.9 mg, and 310 mg respectively, which was higher compared to Kudus-Pati in which the average intake of those nutrients were 360 RE, 4.2 mg, and 201 mg. The children from Blora community also had better nutrient adequacy level compared to those in Kudus-Pati; and **b)** The nutritional status of children in samin Community in Blora was also better compared to Kudus-Pati. Those in Blora had an average of 15.3 cm MUAC compared to 13.4 cm in Kudus-Pati. Regarding WAZ, Children from Samin community in Blora also showed better status. 76.9% of children in Blora had normal nutritional status and only 11.5% of them were severely underweight. In Kudus-Pati 51.5 of the children had normal nutritional status based WAZ but the severly underweight children reached 20.6%.

7. **a)** URTI, fever, and diarrhea were the infectious disease that mostly suffered by Samin children. The result showed that the children in samin community in Blora had worse health status due to the the poor sanitation practices; **b)** URTI was the infectious disease that mostly suffered by the mother. 28.8% of the mother in Samin Community Blora suffered from URTI while only 16.2% of the mother in Kudus-Pati who suffered from URTI. Helminthiasis was also found in 2 mothers from Kudus-Pati community; **c)** The prevalence of mother who suffered from non infectious disease was very low. Gout artithis was only found in 1 mother in Kudus-Pati and Hypertension was only found in 2 mothers in Blora; and **d)** The ante natal care

practices in both community was already good. Majority of the mothers performed ante natal visit to midwives.

14.2. Discussion

The nutritional status of children under five of Samin community apparently found to be better compared to other indigenous people such as Baduy as well as the health status. It may be because they have a different characteristics which benefits Samin people's nutritional status and their public health degree. Firstly, in term of area occupancy. Other indigenous people, not only Baduy usually live in a centralized area. The area also usually exclusive only occupied by their communities. In case of Samin people, they live in overspread area which located along Kendeng Mountain Range in Northern part of Central Java Province. That's why we can find Samin people some districts in Central Java Province, even some part of East Java Province. In each area, Samin community usually live in a small group of houses. Samin people also do not live exclusively among their own community in those areas but they live together within non Samin community.

The difference between Samin and Baduy people also can be seen on how they practice their culture or their customs. For example regarding to the cultural changes. We can see that Samin people in Kudus-Pati are tend to be more closed compare to Samin people in Blora, but still in general they are all more opened compared to Baduy people. Baduy people also more obedient in practicing their culture or their customs. Simple example can be seen from their clothing. Samin people nowadays already wearing modern clothes and modern foot wears. They only wear their traditional clothes during certain occasion. Baduy people especially Baduy Dalam in the other hand still wearing their traditional clothes in their daily lives even many of them do not wear nay foot wears.

The next difference between Samin and Baduy people can be seen on their mobilization. We still can see Baduy people travelling on foot until now, but for Samin people almost all of them poses motorcycles which used for transportation, even some of them, their leaders have cars. It makes Samin people easier to mobilize so they can travel to more and further places.

These characteristics give Samin people to meet more people outside their community. They have more interactions with outsider. Even Samin people in Blora is declared as cultural asset by Blora District Government and turn their area as a tourist destination, so they're used in interacting with many people from different places, origins and backgrounds. It makes them having more access to information and also knowledge. These interactions can influence their way of thinking and perception in general aspects, especially regarding health and nutrition. These all resulted in Samin people being more opened to new innovations and more openend to government programs in general.

The next factor that also benefits Samin people is their socio-economic status. Economic status of a household is basic determinant for children's nutritional status. Economic will influence their ability in food purchasing that will determine their food and nutritional intake. A better economic status usually leads to better nutritional status. Our

finding shows that apparently Samin people has better socio-economic status compares to Baduy people. Samin people has lower food expenditure percentage than Baduy people. In average the percentage of food expenditure of Samin people was 59.2% while it was 77.9% for Baduy people. Lower food expenditure percentage shows better household prosperity.

The finding of our study also shows significant difference in characteristics between Samin people in Kudus-Pati and Blora. As explained in previous paragraphs, Samin people in Kudus-Pati tend to be more closed compares to Samin people in Blora. They still hold their culture and way of life more firmly than Samin people in Blora. Samin people in Kudus-Pati has many public figures that act as barriers in preventing outsider influences, they are Mr. Gunretno and Mrs. Gunarti in Pati and in Kudus they have Mbah Gono. They always guide and keep their people to practice their culture and way of life in right way and they also always give their people examples in practicing and preserving their culture and way of life that usually done by their anchestors. They still do what their ancestor usually done. Samin people has a bitter history with government in the past, that's why Samin people in Kudus-Pati still hard to trust the government. It leads them to reject government programs even program regarding health and nutrition such as posyandu. They also simply reject it just because their ancestor in the past never went to posyandu and they still able to live healthily.

Different from Samin people in Kudus-Pati, Samin people in Blora are more opened to government program or new innovations. Blora District Government has declared Samin as cultural asset and turn their area as a tourist destination, so that they have more interactions with many people outside their community. The Blora government also has better relationship with Samin people in their area so that they already earned the trust from Samin people. It makes their program easy to penetrate the Samin people and have higher chances to be accepted and implemented. Samin people in Blora also has high enthusiasm on socialization compares to Samin people in Kudus-Pati. It was seen during our FGD. Our proposal of conducting FGD in Kudus-Pati was declined because they were not used in such occasion and usually will only keep silence during discussions. In Blora, our proposal was accepted really well and the people were really enthusiastic, even the participants were exceeded the invitations, and they share their opinions really well so that the discussion went smoothly. This kind of characteristics make Samin people in Blora easy to get new information that enhance their knowledge in many aspects. They start to realize the importance of formal education, so the older people already send their children to formal school even until highest level. Samin people in Blora also has midwife who's really diligent to make closure with them. She's actively educate and socialize Samin peole the importance of posyandu and also vaccinations for children that these programs are highly attended and accepted.

The higher level of Posyandu attendance in Blora was also correlated to better children under five nutritional status. The analysis showed a significant difference on children under five WAZ score between children who attend the Posyandu and not. It showed that the children who attended Posyandu to have a better nutritional status reflected in better WAZ score. Similar result also found children under five MUAC. The analysis also showed a significant difference in MUAC between children who attend the Posyandu and

not. The children who attended Posyandu also showed greater MUAC compared to children who did not attend the Posyandu.

The result of our finding can reflect the effectiveness of Posyandu in enhancing children nutritional status. Each children who attend Posyandu will be given a growth chart book. It usually in pink for female children and blue for male children. Posyandu is conducted routinely, usually once a month. and anthropometric measurements are always conducted. By attending Posyandu, the mother will be able to track down the children growth and development regularly which recorded on the growth chart book. They will be able to track down the children vaccination as well. The children who regularly attend Posyandu usually never miss any compulsory vaccination. They usally will be healthier so that the nutrients absorption will also optimized. During Posyandu, socialization and education regarding children's nutrition and health or hygine and sanitation usually conducted regularly. It will improve the mother's knowledge regarding nutrtion and health that leads to their attitude and behavioral changes. Posyandu also usuallt attended by the midwife, so the mothers always have chances to consult regarding their children nutrition and health. Posyandu also has accompaniment program for under nourished children. The under nourished children will receive supplementary feeding, the Kader posyandu will accompany the mother and supervise the supplementary feeding until the nutritional status of the children improved.

Dukun Bayi attendance is another highlight in our finding. We can see that 20.6% of mothers of Samin community in Kudus-Pati still visit Dukun Bayi and only 3.8% of mothers of Samin community in Blora who visit Dukun Bayi. The role of Dukun Bayi in both area are actually the same. None of them help the mother in delivering the baby since there's a government regulation who prohibit non certified health staff to help the delivery. They usually visit Dukun Bayi to receive a maternal massage. They believe that the massage will help correcting the position of the fetus and it will help them to get smoother delivery. Another reason is to receive herbal drink for the same reason to help them getting smoother delivery.

CHAPTER 15
CONCLUSIONS AND RECOMMENDATIONS

15.1 Conclusions

The socio-economic characteristics between Samin people in Kudus-Pati and Blora apparently found to be different in which the community who lived in Blora tended to have better characteritics. They had better education level, economic level, even the mothers had significant better nutritional knowledge.

Both Samin communities came from the same ancestor that was Samin Surentiko. Their cultures were similar to Javanese culture in general although they have their own way of marriage called as Sikep. Cultural changes could be seen in both Samin people in Kudus-Pati and also Blora, but Blora was found to more affected. Samin people in Kudus-Pati tended to be more closed and still more firmly hold their culture.

The difference on perception of health and nutrition services also could be seen between Samin people in Kudus-Pati and Blora. Samin people in Blora tended to have better perception regarding both aspects as they were more opened to government programs. They already took their children to Posyandu regularly and even vaccinated their childrens. But apparently Samin people in Blora had worse hygine and sanitation practices on distance between septic tank and water source, garbage disposal, and primary drinking water source.

The food consumption pattern in both community were relatively similar but the household food security was significantly better in Samin community Blora. The same result also found on the children nutrients intake and nutritional status. The children under five from Samin community in Blora had better nutrients intake and nutritional status as seen from MUAC and also WAZ. In general the nutritional status of children under five in Samin community was found to be better compared to other indigenous community such as Baduy.

The same result was also found on their health status which found to be better than other indigenous people. The prevalence of non infectious disease suffered by mothers in both communities was also very low. The mothers in both communities were already practiced ante natal care as well.

15.2 Recommendations

Distirct Health Office and District Education and Cultural Offices must encourage the Samin people in Kudus-Pati to participate in government programs that orienting the public welfare. The findings in this study shows that the low level of nutritional knowledge, children under five nutritional status, and education of Samin people in Kudus-Pati. It indicates the low adherence of Samin people in Kudus-Pati in government programs regarding health and education. the finding even shows that apparently it brings a negative effects to the community. Continuous efforts from the government are required to resuscitate the awareness of Samin people in Kudus-Pati regarding the importance to utilize the health and education facilities provided by the government.

District Agricultural Offices must also encourage the Samin people in general to diversify their foods. As seen from the this study, agriculture is still main living sector for

Samin people. District Agricultural Offices should give them socialization or education regarding farming system so that Samin people will be able to plant more type of foods that will benefit their nutrition and health. The living area of Samin people is surrounded by limestone hills so it's hard for them to grow vegetables or fruits on land. Education on how to farm using hydroponic methods for example may help them to start planting more vegetables or any other plants that benefits their nutrition and health.

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Figure 6. Indepth interview with pregnant woman's family (husband and mother)

Figure 7. Indepth interview with TBA

Figure 8. Pregnant woman's meal observation

Figure 9. The kitchen of *Sedulur Sikep* (gas stove)

Figure 10. The kitchen of *Sedulur Sikep* (firewood furnace)

Figure 11. Necessaries to *menyirih*

Figure 12. *Mbah* was in the middle of *menyirih*

Figure 13. Burning refuse (*Sedulur Sikep* Pati)

Figure 14. Garbage bin (*Sedulur Sikep* Kudus)

Figure 15. The condition of river in *Sedulur Sikep* Blora

Figure 16. Green beans being sun-dried

Figure 17. Green beans grinding machine

Figure 18. Green beans were being separated from chaff

Figure 19. Bathroom in *Sedulur Sikep* house

Figure 20. *Omah Kendeng* in *Sedulur Sikep* Pati


Figure 21. Wild ducks livestock

Figure 22. Goats livestock

Figure 23. Cows livestock

Figure 24. Grains grinding machine

Figure 25. The process of grain grinding

Figure 26. House in *Sedulur Sikep* Kudus

Figure 27. House in *Sedulur Sikep* Pati

Figure 28. House in *Sedulur Sikep* Blora

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