

## Public Health Status of Arar Village, Sorong Regency, South West Papua

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### Abstract

Health Indonesia Program is one of the programs of the 5th Agenda of Nawa Cita, which is to improve the quality of life of Indonesian people. The community of Arar village lives on a small island directly adjacent to Aimas District, Sorong regency. Access to hospital is still limited as a priority for survival. Observations were carried out in Arar Village in February-March 2021. The important things in the observation were the general health conditions. This study was observed the location, population distribution, and survey data on the community. The observations were followed by the 17 indicators of the Sustainable Development Goals. One of the important indicators is health promotion, prosperous life, supporting well-being for all ages. The observation showed that in general the health status of the people of arar village was quite good. On the other side, the biggest obstacle experienced by the local community was health services by health workers still very limited. It is because the distance from Arar Village to Hospital or Health Center quite far. Also, the people complaint health services did not run regularly by the doctors and nurses. Therefore, the people were always to push themselves independently to find the nearest health center or hospital. Lack of health workers affected to people's hope to make appointment with them for monitor their health status regularly. It has an affect on demotivates people in an era mutual prosperity.

**Keywords:** Health Status, Arar village community, Southwest Papua

## Introduction

Arar village, located on an island directly opposite the Arar natural gas field production extraction facility, has become part of the goals and efforts to realize the SDG's (Sustainable Development Goals) in 2023. In sustainable development indicators used are as many as 17 indicators. In the 17 indicators of the Sustainable Development Goals, one of the important indicators is to promote healthy, prosperous life, supporting well-being for all ages [1]. Indonesia has succeeded in achieving most of the Middle Development Goals, 49 of the 67 MDGs indicators, but there are still some indicators that must be continued in the implementation. Some of the indicators that should be continued and improved are health programs [2]. The health Indonesia Program is implemented by upholding three main pillars, namely: First, application of the healthy paradigm. Second, the strengthening of health services, and third, implementation of national health insurance. The implementation of the healthy paradigm is carried out with the strategy of Health degradation in development, strengthening promotive and preventive efforts, and Community empowerment. Strategies to improve access to health services is strengthening health services, optimize referral systems, and improve quality using continuum of care approaches and health risk-based interventions. The implementation of national health insurance is a strategy of expanding targets and benefits, as well as quality and cost control. All of them are aimed at achieving healthy families [3].

Indonesia itself in Health Affairs, the family becomes the center of focus for solving health problems. Indicators used in assessing the Healthy Family Index are families following family planning programs, mothers give birth in health facilities, babies receive complete basic immunization, babies are exclusively breastfed, toddlers are monitored for growth, pulmonary TB patients get treatment according to standards, hypertensive patients take treatment regularly, people with mental disorders get treatment and are not abandoned, family members do not smoke, the family is already a member of JKN, the family has access to clean water facilities, and families have access to use healthy latrines according to standards[4,5,6].

The results of the Indonesian demographic and health survey by the National Planning and Development Agency in 2017 stated that demographic and health conditions of the Indonesian people are still not optimal generally. Further studies and data from various corners of the region are needed so that the assessment of public welfare numbers increases. Studies and data that have been collected include, maternal and infant mortality was still high. The capacity of health workers, the maternal referral system, and the management of maternal and Child Health Services, as well as reproductive health services have not been running optimally. Contraception (Contraceptive Prevalence Rate/CPR) modern showed decreased from 57.9 percent [4] to 57.2

percent [5]. The Age Specific Fertility Rate (ASFR) of 15–19-year-olds were also still high due to the low understanding of adolescents about reproductive health and the high rate of child marriage and preparation for family life that was also still not optimal [4,5,6]. Generally, the prevalence of smoking, alcohol consumption, and drug use increases by the time. The percentage of men who smoke and consume alcohol in urban areas is lower than in rural areas, while drug use is higher in men who live in urban areas. The percentage of risk behavior in men by Education Level does not indicate a specific pattern of predisposition. Parental understanding of good parenting, health environmental and the ability to provide adequate nutrition to prevent the stunting prevalence [5,6,7,8].

The prevalence of major infectious diseases (HIV/AIDS, Tuberculosis and malaria) is still high accompanied by the threat of emerging diseases due to high population mobility. An unhealthy lifestyle increases the risk factors for diseases such as obesity, high blood pressure, and still high smoking and lack of physical activity, so that non-communicable diseases such as stroke, heart and diabetes increase. Environmental conditions are exacerbated by the air, water and sanitation pollution and waste of hazardous or toxic materials that have not been properly managed. The proportion of households occupying habitable houses was 54.1 percent with access to decent drinking water at 87.8 percent, and decent sanitation at 74.6 percent. Health care referral system is not optimal seen from the number of patient queues. Health center and private first-level health facilities have not been able to act as gate keepers optimally. Drug and vaccine shortages and irrational use of drugs still occur, high dependence on imports of raw materials for pharmaceutical preparations and medical devices, and drug and food control systems are not optimal. Health system performance disparities between regions are also still high, such as low immunization coverage in eastern Indonesia. Accredited health care facilities and health workers still accumulate in Java-Bali and urban areas [5,6,7,8].

The results of the government survey encourage all parties to get involved in fighting poverty and achieving prosperity. The village or village becomes the administrative center of the legal government which is given the authority to manage the health of its citizens. The health of the village community is the benchmark for the health of Indonesian citizens. All development programs in Indonesia that are implemented are important and strategic. The implication of the existence of Village Community Health is the availability of several human resources that can drive village development activities and other development in related and other strategic sectors. Thus, the measure of Family Health in the village becomes the main target. Therefore, the purpose of this study is to assess the condition of villages/villages located in the outer urban areas, especially those in Sorong regency.

**Materials and Methods**

Research Location

Arar village is one of the 8 villages located in Mayamuk District, Sorong regency. The location of this village is located on Arar Island which can be accessed through Arar port in SP 3 Sorong regency. Travel to Arar Island, can use a motor boat / katinting from the surrounding community. The distance from the port using a motor boat is 5-15 minutes or more depending on the type of boat used and the weather when traveling.

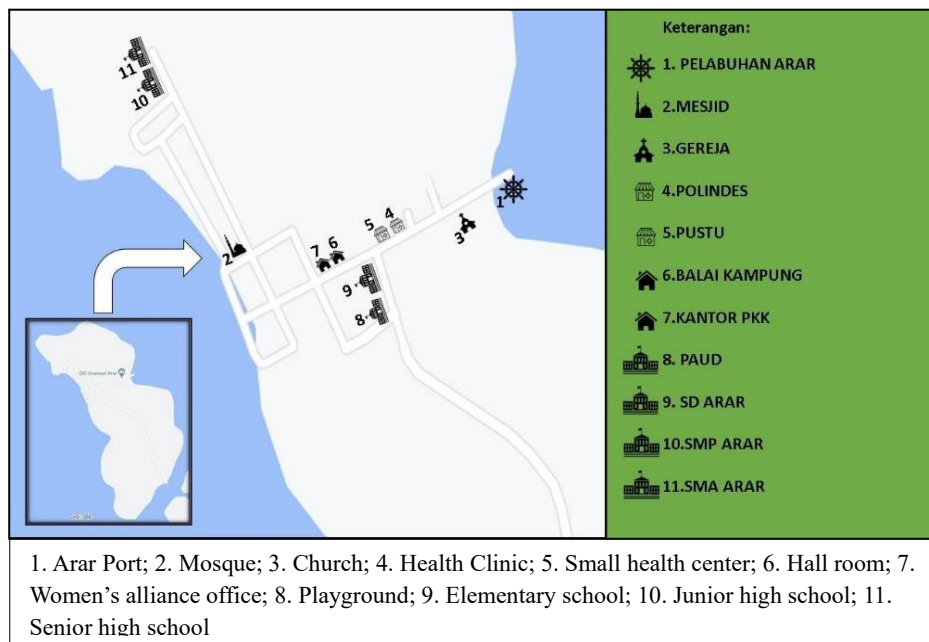


Fig.1: Map Research Location

**Parameter**

Healthy family index (HFI)

The formula used to calculate HFI:

$$HFI = \frac{\sum \text{Healthy family index graded 1}}{12 - \sum \text{none indicators in family}}$$

Tabel 1: Category of Healthy family index

Healthy family index (HFI)	Index Value
Healthy Family	>0,800
Pre-Healthy Family	0,500-0,800
Unhealthy Family	<0,500

**Results**

General State of The Environment

The water source used by the community for bathing, cooking, and washing was digging well water on the ground. It is accommodated into people's homes using a water suction machine. The

quality of the well water was classified as quite good, because the water is clear and can be used directly. The wells are also protected using zinc at the top. So, when it rains coming, the water does not mix with well water. Arar village is an island that has a geographical location of the island surrounded by the sea. So, the people use it more as a source of livelihood and food source. As for the land that can be used for planting, but only a small part of it and because the structure of the soil is mixed with sand so that the plants planted are not too many.

Table 2: Healthy Family Index

Healthy Family Index (HFI)	Index Value	Σ
Healthy Family	>0,800	19
Pre-Healthy Family	0,500-0,800	38
Unhealthy Family	<0,500	10

$$Village\ HFI = \frac{Family\ with\ index\ >\ 0,800}{\Sigma All\ family}$$

Based on the results obtained, the HFI value of village level is 0.28. It means Arar village is unhealthy (<0.500). Families are diverse, some consist of only 2 elderly people, for example, grandparents; but it can also be a large family: husband, wife, 10 children whose age is from infancy to adolescence. Therefore, the family is declared healthy if the indicators that are feasible to be applied to the family >80% are classified as good. In a certain area, for example, one village, suppose there are 1000 families, after seeing 12 indicators of healthy families, it can be seen how many percent of families are healthy. If there are 450 healthy families, the proportion of healthy families in the village is  $450 / 1000 * 100\% = 45\%$ . This proportion when written in index form becomes 0.45. So, the HFI of the village is 0.45. Thus, the HFI is the proportion of healthy families / the number of whole families, whose size ranges from 0 – 1. The number of families in Arar village was approximately 71 families. However, when collecting data, the owners or residents of some houses are outside the village. So, the data collection was found only 67 households. Arar village consists mostly of various tribes, including Seram, Java, Ternate, Java, Bugis, Raja Ampat, and some Indigenous Moi tribes. The language used by the people is Indonesian and very rarely uses regional languages. The village has a population of 299. The number of populations by gender is obtained by male population as much as 50.16% and female population as much as 49.84%. Population distribution by age can be seen in Table 3 and Figure 2.

Table 3: people distribution in Arar village

Group	Number	Percentage (%)
Babies (0-4 years old)	24 people	8,02
Kids (5-18 years old)	96 people	32,01
Adults (≥ 19 years old)	179 people	59,86

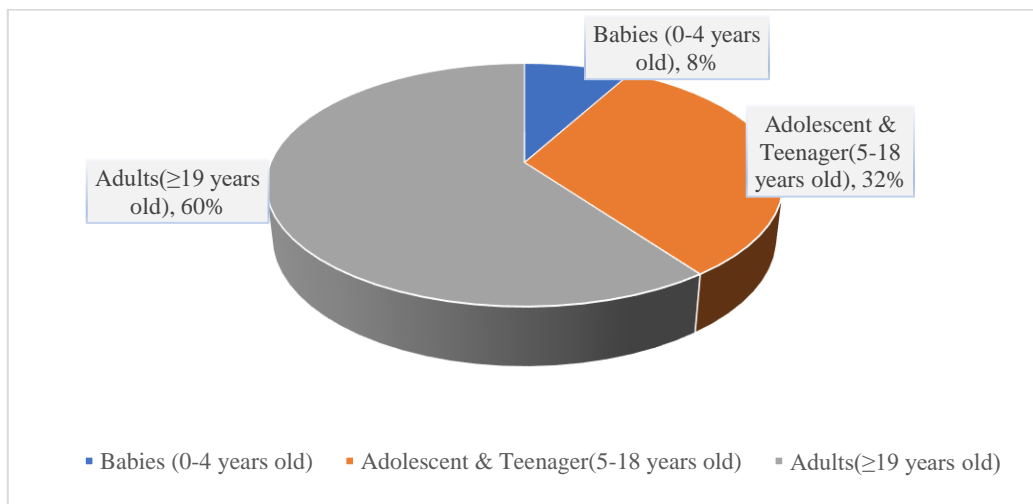


Fig. 2. People distribution by the age

The distribution and number of populations in the table and diagram above, then it will be assessed for the health status. For example, consisting of pregnant women's health, infant and toddler health, adolescent health, increased thinking skills for children and adolescents' control of blood pressure, nerve health, clean and healthy lifestyle, control of glucose levels, uric acid & cholesterol, control of nutritious foods, muscle health. Based on this study, it was found that, first, the health status of pregnant women was monitored healthy, the mother and the average understood the importance of maintaining reproductive health, the uterus, and the fetus. This can prevent pregnancy complications, monitor fetal health, and be able to prepare for childbirth. Pregnant women can use the book of mother and child in order to better monitor fetal development [9]. However, the biggest obstacle is that there are almost no health workers assigned by the government in that village. So, it will hard to pregnant women to control their health. First reason was considering that the location of arar village requires sea crossing for 60 Minutes in order to get further appointment and general check-up by specialist doctors of Obstetrics and Gynecology at the nearest hospital. Maternal and Child Health is a top priority in the medium-term development plan towards 2030. Women population was the second biggest after men.

Next population was teenager. Teenager is a young person that still explore their identity, encourage themselves to maintain relationships with others and learn to be independent [10,11]. Early health education needs to be given constantly, especially on personal hygiene and reproductive health. Reproductive Health Education has been provided at Arar village especially for junior and senior high schools. The results of the education provide a positive impact and help the understanding of adolescents in kampung arar to continue to work in maintaining personal hygiene and reproductive health [17]. In addition, the importance of physical change education in adolescents ' bodies needs to be continuously socialized so that

they understand and know the changes that occur in their bodies, and can handle these changes in the right way. The results of interviews with some teenagers give the impression of enthusiasm and motivate them to understand the handling of physical changes physiologically and psychologically well.

Third, the results of observations of heart health on average at risk of decline and difficulty in getting access to health services because only one heart doctor serving in Sorong regency. Another thing that supports is hypertension and people's cholesterol increases. The results of these observations and assessments are estimated that the next 10-15 years the arar community is at risk of having uncontrolled high blood pressure and cholesterol that leads to stroke or heart failure [12]. Another thing that is encountered is the population consumes seafood continuously within 2x24 hours. The salt content in seawater is so high that the consumption of excess salt will increase the amount of sodium in the cells and disrupt the fluid balance. The entry of fluid into the cells will shrink the diameter of the arteries so that the heart must pump blood more strongly which results in increased blood pressure. Increased blood pressure influences increasing the work of the heart, which will ultimately increase the risk of having a heart attack and stroke [13,14,15]. This shows, the need for self-awareness of the community to control diet and drinking (lifestyle), regulate the type of food, food hygiene in order to prevent the risk of heart attack and stroke. The prevalence of coronary heart disease in Indonesia is still quite high. Factors that cannot be changed to the incidence of coronary heart disease are: age, sex, and family history. While the factors that can still be changed are Hypertension, diet, body activity, dyslipidemia, obesity, and smoking habits [16]. Therefore, the importance of controlling blood pressure in people with coronary heart disease in order to avoid a heart attack that will result in death.

Fourth, the results of observations and studies on clean and healthy lifestyles are better than in previous years. This is evident from personal and Home Hygiene. However, some families still use public toilets so that the risk of contracting infectious diseases can develop even greater. improved personal hygiene, regular and correct sanitation of public toilets, and safe use of public toilets can prevent the transmission, diffusion, and spread of bacterial infections [17,18]. For example, skin diseases (tinea versicolor, scabies) are still found 1 or 2 people in Arar village. The public awareness in collaborating with the government in the construction of clean and healthy toilets. Fifth, brain health and thinking power of adolescent and teenager are classified as very good and easy to understand the development of science and technology.

Some trials and education, such as training on the use of Microsoft programs, internet access, use of mobile phones and cameras (photography). The results showed the population of

teenager and children enthusiastic and satisfied with the development of technology and more attention and time in using technology to get more information. Internet has become one of the main needs, but network access by the community is very limited and has not been able to maximize online learning. In the era of the COVID-19 pandemic, encouraging the educational process from their respective homes [19,20]. The need for other alternatives that may help the community in improving access to information more flexible and controlled via the internet, such as the purchase of internet data packages on mobile phones.

In general, the health status of the people of kampung arar is quite good, but the biggest obstacle experienced by the local community is the lack of health workers and access to the nearest health center or hospital takes more than an hour using sea and land transportation. This constraint limits and demotivates the people of kampung arar to seek treatment or monitor their health status regularly. If this continues, it can have an impact on the uncontrolled development of the disease to death.

### **Conclusion**

Arar village is located on an island directly adjacent to the Arar natural gas field extra production facilities, has become part of the goals and efforts to achieve its Goals SDG (Sustainable Development Goals / Sustainable Development Goals). In sustainable development indicators used are as many as 17 indicators. In the 17 indicators of the Sustainable Development Goals, one of the important indicators is to lead a healthy, prosperous, prosperous life for all ages. Based on the results obtained, the value of village level is 0.28. The interpretation is that Arar village is not healthy ( $<0.500$ ). Of course, families are different, some consist of only 2 elderly people, for example, brothers and sisters; but it can also be a large family: husband, wife, 10 children, whose age is from infancy to adolescence. Therefore, the family is known as healthy when the indicators used applied to the family are  $>80\%$  strong good.

Public health Status ranging from the health of pregnant women, adolescent reproductive health, clean and healthy lifestyle, blood pressure health, nerve health, health levels of glucose, uric acid and cholesterol, healthy eating control, muscle health increasing the ability to think for children and adolescents. In general, the health status of the people of kampung arar is quite good, but the limited constraints experienced by the community are health services that are not in line with either, lack of health workers and limited access to health centers or hospitals require one hour more to use sea and Land Transportation. Kampung arar community to seek treatment or get their overall health status. If this happens constantly, it can lead to uncontrolled progression of the disease to death.

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### Conflict of Interest

The author has no conflict of interest to states.

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