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## Stunting case based on the character of the settlement area in Mantuil Banjarmasin

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### ABSTRACT

Ensuring adequate nutrition through a balanced and healthy diet is essential to maintaining overall health. Maintaining adequate nutrition remains the main priority of the Banjarmasin City Government, especially in remote areas of Mantuil District which has the highest prevalence of stunted children in Banjarmasin. This research aims to determine the prevalence of stunting cases in Mantuil District using a qualitative descriptive method with data collection techniques through interviews, observation and documentation and analyzed using the Miles and Huberman interactive model. The research results found that stunting cases in Mantuil District occurred more frequently in riverbank settlements due to sanitation problems, uninhabitable housing and large numbers of families in one house. This research also found that unhealthy residential conditions, low public awareness about stunting, unclean lifestyles also contribute to the prevalence of stunting cases.



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### Introduction

Stunting is a global health issue that is closely related to world development issues. Stunting is closely related to aspects of nutrition, children's growth which is evidence of inequality in access to good nutrition and adequate medical care. Stunting can also be seen as an indicator of uneven and non-inclusive welfare and development. Therefore, stunting is a very important issue in development in the long term so that it will determine the quality of human resources in the future, especially in terms of health (Titaley et al., 2019). The problem of stunting has developed into a global health problem and is closely related to the global development agenda (Bappenas, 2022). This is because stunting can cause linear growth disorders in toddlers due to nutritional deficiencies that last for a long time, from in the womb to 1,000 days. The short-term impact of stunting on children results in brain problems, intelligence, impaired physical growth and metabolic problems. On the other hand, the long-term impact of stunting on children can include decreased cognitive abilities and learning achievement, decreased immunity resulting in easy disease, increased risk of diabetes, obesity, heart and blood vessel disease, cancer, stroke and disability in old age, as well as increased the risk of perinatal and neonatal disease and death, as well as a decrease in the quality of work and a decrease in the quality of human resources (Anugraheni & Kartasurya, 2012; Apriluana & Fikawati, 2018; Banjarmasin, 2022; Bappenas, 2018; Dewey & Begum, 2011; Helmyati et al., 2019; Hossain et al., 2017; Izwardy, 2019; Onis et al., 2020; RI, 2016).

The problem of stunting is not only related to health aspects, but also reflects food security problems (Kubeka & Modjadji, 2023). Efforts to overcome stunting must involve broader strategies and ensure the availability of

sufficient, nutritious and affordable food (Atamou et al., 2023), (Shinde & Singh, 2023). Stunting reflects imbalance and inclusivity in development (Wahono et al., 2023). Children who experience stunting have lower health and development risks, creating disparities that can continue in the next generation (Abdeeq et al., 2024). Stunting can have a long-term impact on the quality of human resources (Beal et al., 2018). Children who experience stunting have a high risk of experiencing health and growth problems which can affect their productivity in adulthood (Moreno et al., 2023). Handling the stunting problem requires an integrated approach involving the health, food, education and environmental sectors (Kamuri et al., 2023), (Danso & Appiah, 2023). Coordination between these sectors is needed to achieve optimal results (Salsabila et al., 2023). The role of the government and various other stakeholders is very crucial in dealing with stunting (Rafique et al., 2023). Supportive policies, intervention programs and adequate investment are needed to achieve the goal of reducing stunting (Husna et al., 2023), (Nope, 2023).

Based on the Sustainable Development Goals Indonesia (SSGi) report carried out in 2022, it was found that the prevalence rate of stunting toddlers in Banjarmasin City was 22.4%. This figure is still above the national figure of 21.6% and has not yet exceeded the WHO standard of 20% and is not yet close to the national target of 14%. This means that the Banjarmasin City Government needs to take quick and precise steps in handling stunting, both through specific interventions and sensitive interventions. Based on Mayor's Decree No.82/2022, Mantuil sub-district is one of the sub-districts in Banjarmasin which has the highest stunting cases in Banjarmasin City with the number of stunting cases reaching 155 children in 2022 and the number of stunting cases in Mantuil sub-district in 2023 has decreased with the number of cases amounting to 117 children based on Banjarmasin Mayor Decree No.153/2023. The results of the stunting audit also stated that Mantuil Subdistrict, South Banjarmasin District was the subdistrict with the highest number of stunting cases (Masrida, 2023).

Why is the number of stunting in Mantuil Subdistrict, Banjarmasin, the highest among other subdistricts? According to (Lawaceng & Rahayu, 2020) Hereditary factors contribute 15% of the causes of stunting, problems with nutritional intake, growth hormones, and the occurrence of recurrent diseases are the dominant determining factors that cause stunting in children. From the research results (Lawaceng & Rahayu, 2020) It can be concluded that there are many factors that cause stunting in children, so strategic steps need to be taken to reduce stunting, especially in Mantuil Village, Banjarmasin. Important strategic steps are taken to map families with stunted children, especially based on residential areas so that appropriate policies can be taken to reduce stunting.

Appropriate policies need to be implemented in Mantuil Village because most of the population lives on the River Banks. Research result (Poel et al., 2007) stated that the characteristics of community residential areas have an influence on stunting cases. According to (Saputri & Tumangger, 2019) Stunting is caused by multi-dimensional factors, not only caused by poor nutrition experienced by pregnant women and toddlers. The report of the National Team for the Acceleration of Poverty Reduction of the Republic of Indonesia, 2017 states that stunting that occurs in Indonesia is actually not only experienced by poor families but also experienced by families whose social and economic welfare levels are above 40%. (Simamora et al., 2019) stated that there are five main factors that cause stunting, namely poverty, social and cultural, increased exposure to infectious diseases, as well as food insecurity and community access to health services.

Based on the studies above, it is proven that stunting cases can occur in various geographic areas, in all socio-economic classes, and are determined by factors related to community access to health services. Therefore, researchers focused their study on the stunting problem in Mantuil District, taking into account the multifaceted and unique characteristics that characterize this residential area. Residential areas include residents who live in housing complexes, non-complex areas, river banks and floating houses. Apart from that, it also includes merging settlements on Bromo Island. By increasing understanding and awareness about the importance of dealing with stunting, it is hoped that there will be more joint efforts to achieve and improve the welfare of children and society as a whole (Handini et al., 2023), (Endrinikapoulos et al., 2023 ) especially in the Mantuil sub-district, Banjarmasin City. Based on the problems that have been explained, this research aims to determine the prevalence of stunting cases in Mantuil District in order to identify the problems that cause stunting cases. By knowing the prevalence of stunting cases, we can understand how widespread the stunting problem is in the Mantuil District area so as to direct targeted prevention efforts. Through this research, it is hoped that the main risk factors that contribute to the high rate of stunting in Mantuil District can be found and that effective and targeted intervention steps can be implemented to overcome the stunting problem.

## Method

The research method used is a qualitative approach with a case study in Mantuil Village, Banjarmasin City. The selection of case studies in Mantuil Village, Banjarmasin City was based on the level of public awareness of stunting cases that occurred in the area and was also based on Mayor Decree No. 82/2022 and Banjarmasin Mayor Decree No. 153/2023 regarding the exact level of stunting cases in Mantuil City Village, Banjarmasin. The stunting case in Mantuil Village, Banjarmasin City is a complex social phenomenon and includes various aspects and perspectives. This phenomenon then allows for a more comprehensive exploration of the results. Using qualitative methods, the aim is to describe stunting cases in Mantuil Subdistrict, Banjarmasin City comprehensively by analyzing the characteristics of settlements such as housing complex areas, non-complex areas, settlements on river banks, and settlements in floating houses.

### Data Collection Techniques and Instruments

#### Data collection technique

The qualitative data collection technique in this research was carried out to collect non-numerical information regarding the prevalence of stunting cases in Mantuil District. Data collection techniques are used to obtain the data needed in research, the techniques that will be used in this research are as follows:

#### Interview

Interviews are the form of data collection most often used in qualitative research. This in-depth interview method was used to interview the Mantuil Village Head, the Mantuil Health Center's ahi giji, the Family Assistance Team and families at risk of stunting to reveal data or information regarding the prevalence of stunting cases in Mantuil District, Banjarmasin City by observing the conditions and environment as well as the activities of residents in residential areas. complex, non-complex, riverbank and floating settlements (on the river).

#### Observation

Observation is a person's ability to use their observations through the work of the five senses of the eyes, ears, and assisted by the other five senses. Observation is essentially an activity using the five senses, including sight, smell, hearing, to obtain the information needed to answer research problems. The results of observations in the form of certain activities, occurrences, events, objects, conditions or atmosphere were carried out to obtain information on stunting cases in Mantuil District, Banjarmasin City.

#### Documentation Study

The documentation method is a data collection method, by searching for data or information, which has been recorded or published in several existing documents, such as master books, personal books and other certificates. According to (Sugiyono, 2017) states that documents are records of past events. The documentation study used by researchers was taken from data from Mayor's Decree No. 82/2022 and Banjarmasin Mayor's Decree No. 153/2023 determining Priority Subdistricts for Stunting Prevention and Handling as well as Specific and Sensitive Nutritional Interventions in Banjarmasin City in 2022 and 2023 in Mantuil Kota Subdistrict Banjarmasin.

#### Data Collection Instrument

Instruments are an important step in the research procedure pattern and function as a tool in collecting the necessary data. An instrument is basically a compilation of evaluation tools, because evaluating is obtaining data about something being researched, and the results obtained can be measured using standards that have been previously determined by the researcher. The data collection instruments in this research are presented in the table below:

**Table 1.** Research Informant

Informants	Amount	Information extracted
Head of Mantuil Village	1	The role of sub-districts in handling stunting
Mantuil Community Health Center Nutritionist	1	The cause of the high number of stunting cases in Mantuil Village
Family Assistance Team (TPK)	2	Community participation in utilizing posyandu
Families are at risk of stunting	3	Residential status and daily habit patterns

#### Data processing techniques

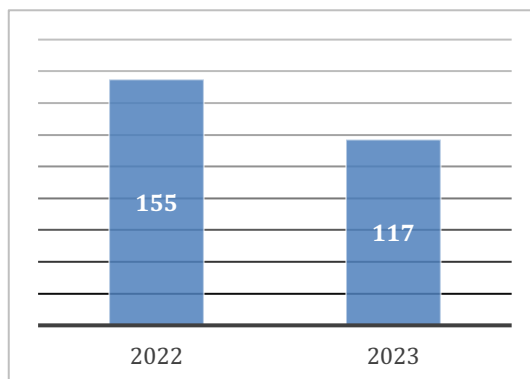
The data processing technique uses the Miles and Huberman interactive method which consists of 1) data collection, namely by collecting data sourced from primary and secondary sources; 2) data condensation, namely selecting relevant data, focusing according to the research problem, summarizing data, and simplifying data and classifying data; 3) data presentation (data display) is carried out in the form of narrative, frequency tabulation

and cross tabulation as well as in the form of graphs/images; 4) conclusion drawing/verification, namely drawing conclusions from the analysis carried out based on evidence, data and research findings. Testing the validity of the data uses triangulation techniques, namely source triangulation and technical triangulation.

## Results and Discussion

### Trends in Stunting Cases

Based on documentation studies, this research found that Mantuil Subdistrict, Banjarmasin City is the subdistrict with the most stunting cases in Banjarmasin City with a decreasing trend, namely from the number of stunting cases of 155 in 2022, decreasing in 2023 to 117 cases (down 25%).



**Figure 1.** Statistic of stunting cases in Mantuil in 2021-2023

Source: Mayor's Decree No.82/2021 and No.153/2022

From the results of an interview with a member of the Mantuil Village TPK who is also a nutrition expert at the Mantuil Community Health Center (V), he said that: "The number of stunting cases in Mantuil Village is influenced by the influx and outflow of residents and is also still an unserved area, such as in the Kuin Kecil RT area. 14 and parts of Bromo Island. "Unless they are discovered when they come to the Puskesmas and receive social assistance which requires them to be examined by Puskesmas officers" (Interview results on 2 July 2023). From this interview, it can be concluded that stunting cases can increase or decrease, one of which is due to factors involving the entry and exit of families at risk of stunting. This is because some of the residents of Mantuil Village live in housing complexes, some of which are non-resident residents with rental housing status. Apart from that, it is also influenced by the existence of families who have not been reached by officers or are not active in accessing health services and are not reported by the Rukun Tetangga.

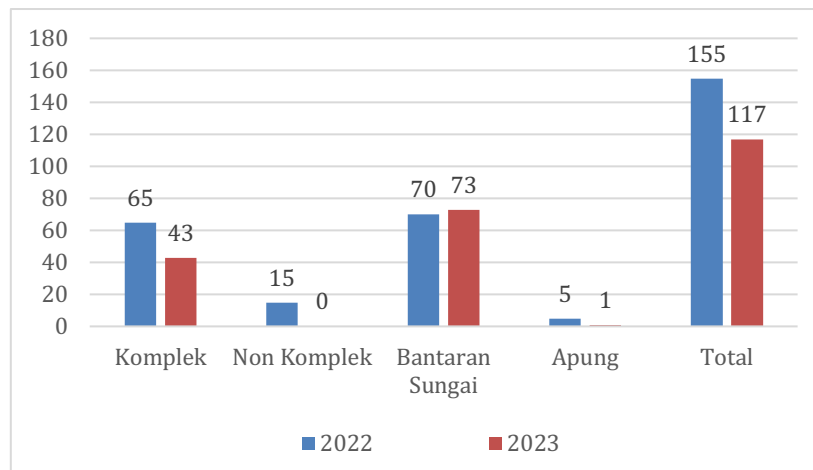
### Characteristics of Settlements and Distribution of Stunting Cases

Mantuil Village is divided into 2 RWs and 26 RTs. RW.01 includes RT.1, 2, 3, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25 and 26 while RW.02 includes RT.4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 23 with residential characters seen from the four dominant characters in each RT, with the following classification:

**Table 2.** Residential character of the Mantuil Village community

Karakter	Keterangan
Complex residential character	RT.1, 2, 3, 18, 19, 20, 21, 22, 24, 25 dan 26.
Character of non-complex settlements	RT.23.
Character of riverbank settlements	RT.4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16 dan 17.
Floating settlement character	RT.7

Based on Figure 2, stunting cases in Mantuil Village, Banjarmasin City occur more frequently in riverbank residential areas with 70 cases in 2022 and will increase in 2023 to 73 cases. The second highest number of stunting cases were in complex settlements with a total of 65 cases in 2022 and decreasing in 2023 to 43 cases. Meanwhile, in non-complex settlements in 2022 there were only 15 cases and in 2023 there were no cases of stunting. Meanwhile, in floating settlement areas, stunting cases in 2022 were 5 cases and decreased in 2023 to 1 case. The results of direct observations showed that on October 7 2023, the majority of the population on Bromo Island lived on riverbanks with sanitation in the form of floating latrines (floating toilets) and still used river water for defecation or urination purposes. . Even though PT. Drinking Water (PTAM) has been included in the wilayah, but some residents still use river water for daily needs and only use water from PT Air Drinking (PTAM) for cooking and drinking purposes.



**Figure 2.** Stunting case per settlement area in Mantuil urban in 2022-2023

Source: Mantuil Community Health Center, 2023 (Data Processed)

The results of observations on September 10 2023 in Kuin Kecil RT.14 and RT.15 found that the community environment had unhealthy sanitation conditions, where almost every house had a floating toilet behind the house and some of the lanting showed their Toilet Washing (MCK) activities. do it in the river and use the river water for daily needs. Results of an interview with one of the TPK members (A): "In my opinion, people who live in the complex are less interested in taking their children to the posyandu than people who live in the villages" (Results of interviews on 16 October 2023). The results of the interview were also confirmed by a member of the TPK (L): "Half of the people who come are usually during Posyandu activities and the other half are visited at home" (Interview results on 16 October 2023).

Based on several observations of Posyandu activities in Mantuil Subdistrict in September 2023, it can be seen that parents are more enthusiastic about bringing their children to Posyandu activities outside the complex compared to Posyandu activities inside the complex. Generally, the person who brings children to Posyandu is the mother herself and there are also some babies/babies/toddlers brought by their grandmothers. RT.09 is one of the RTs with the most cases of stunting in 2023 in Mantuil Village, namely 20 cases. If you look at RT.09, access is actually easier because the area is close to the Mantuil Village Office and is now closer to the Mantuil Community Health Center and Jalan Mantuil Raya and close to the Trans Banjarmasin Bus Terminal, making it easier to access other public service facilities outside Mantuil Village. However, based on the results of researchers' observations on October 7 2023, almost all of the population is on the riverbanks and some of the settlements are still in unhealthy sanitary conditions (floating latrines are still used, river water is still used for toilet purposes). Meanwhile, the second highest number of cases in Mantuil Subdistrict in 2023 is RT.04. The RT.04 area is at the tip of Bromo Island, access is easier via the jukung/klotok crossing because if you cross the Bromo Island Bridge it is too far and takes longer, especially as the footbridge you pass through is in an unsafe/damaged condition.

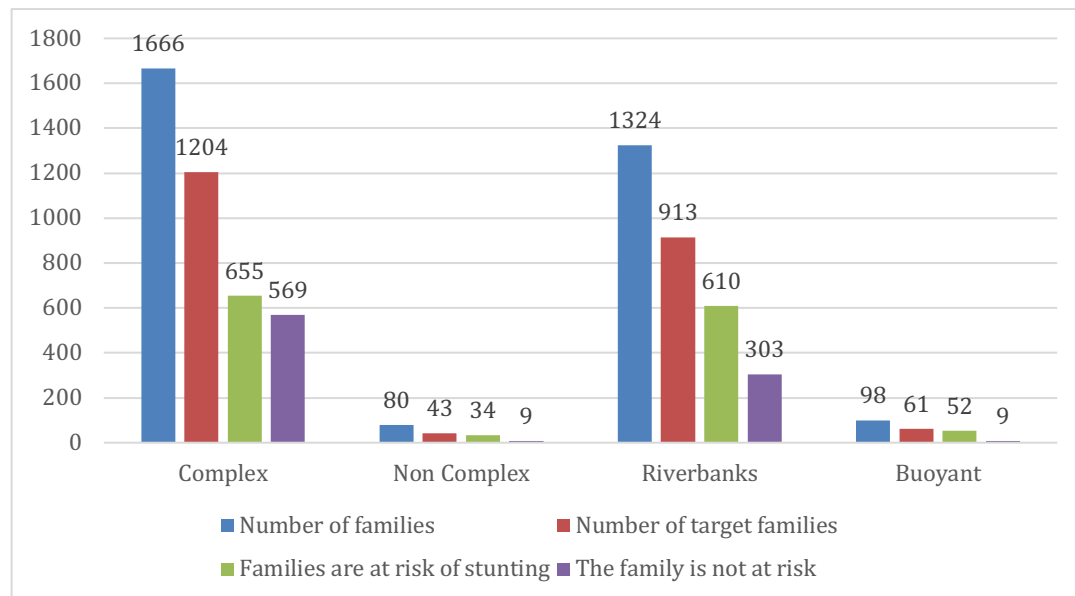
The non-complex residential area, which is located in RT.23, is an RT with no stunting cases in Mantuil Village. Access to this RT is very easy because it is close to Jalan Mantuil Raya and can be accessed by road using R.2 or R.4 vehicles to various public service facilities in the Mantuil Village area and outside Mantuil Village. In the RW.01 area, most of the population lives on the riverbanks, some live in housing complexes and a small number live in non-complex areas. In general, the residents of RW.01 live in the Antasan Bromo area, the housing complex area and the Kuin Kecil area. The highest number of stunting cases in RW.01 were in RT.03 with 7 cases, RT.19 with 6 cases and RT.01, RT.02 and RT.14 with 5 cases each. Meanwhile, the smallest number of stunting cases was in RT.25 with only 2 cases. This means that in all RTs in the RW.01 area there are cases of stunting. Meanwhile, in the RW.02 area, although the number of stunting cases is smaller than in the RW.01 area, the most stunting cases in RT.09 are in Mantuil Village, namely 20 cases, followed by RT.04 with 14 cases. RT.11 and RT.23 are RTs that have no cases of stunting. In the RW.02 area, the residents live in the Bromo Island area and live across Bromo Island in the area around the Mantuil Village Office (Halinau Road, Masjid Bay, Selaras Beach to the end of Mantuil (near the Gunung Meranti company).

Responding to the stunting case in Mantuil Village, the Head of Mantuil Village stated that: "It is true that the number of stunting cases in Mantuil Village is the highest in South Banjarmasin District and even the highest in Banjarmasin City. "Therefore, the sub-district party carries out coordination and communication activities with other stakeholders such as related OPDs and private parties who care about stunting to jointly handle

stunting in Mantuil Sub-District." (Results of interviews dated October 16 2023). Based on the results of the interview, the village head as the leader in Mantuil Subdistrict and as Chair of the Team for the Acceleration of Stunting Reduction in Mantuil Subdistrict has taken steps to coordinate and communicate with the leadership above him, such as the subdistrict head and with related agencies as well as companies/private parties in the area. as well as outside the Mantuil Subdistrict area who are concerned about stunting.

### Families at Risk of Stunting and Settlement Distribution

Handling stunting is not only carried out for stunted toddlers, but also needs to pay attention to families at risk of stunting. Families at risk of stunting are families with teenagers, brides and grooms, pregnant women, breastfeeding mothers and children aged 0-59 months. Families at risk of stunting in Mantuil Subdistrict with distribution based on residential area:



**Figure 3.** Number of Families, Families at Risk of Stunting and Families Not at Risk of Stunting per Settlement Area in Mantuil urban village  
Source: BKKBN, PK2021 (2021)

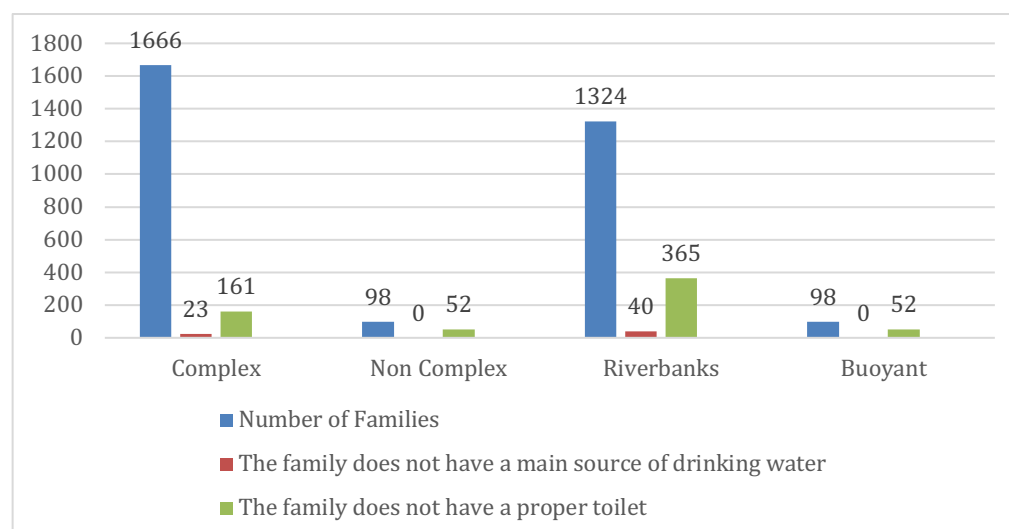
Based on Figure 3 above, it is known that the number of families at risk of stunting in Mantuil Village is dominated by complex residential areas and river banks. In complex settlements, the number of families is 1,666 with the number of target families being 1,204. There are 655 families at risk of stunting and 569 families not at risk of stunting. Families who live on the riverbanks consist of 1,324 families, 913 target families, 610 families at risk of stunting and 303 families who are not at risk of stunting. There are 80 families living in non-complex residential areas with a target family of only 43 families and there are 34 families at risk of stunting and only 9 families who are not at risk of stunting. Meanwhile, there are 98 families living in the floating settlement area with the target families being only 61 and 52 families at risk of stunting and only 9 families not at risk of stunting.

Judging from the distribution per RT, the highest number of families at risk of stunting are in RT.20 (residential area in the complex), namely 104 families. The large number of families at risk of stunting in residential complexes is closely related to the large number of young families who live in complexes. Meanwhile, the smallest number of families at risk of stunting is in RT.15 (Kuin Kecil area which is a settlement on the riverbank), namely 17 families. Small families are at risk of stunting because most of the coastal settlements are inhabited by descendants of families who are native residents of Mantuil Village. One family at risk of stunting who lives along the river (N) said: "The house we live in now is a house inherited from our parents, and other relatives already have their own houses, so we are the ones who live in this house." (Interview results, July 8 2023).

### Sanitation Conditions and Distribution of Stunting Cases

Stunting is also related to sanitation problems, especially in terms of access to main sources of drinking water and adequate latrines as in Figure 4 below:





**Figure 4.** Number of Families without Primary Drinking Water Sources and Families without Adequate Sanitation Facilities across different Settlement Areas within Mantuil Subdistrict  
source: BKKBN, PK2021 (2021)

Based on Figure 4. above, it shows the condition of families in Mantuil Village, where the most families who live in riverbank areas do not have a main source of drinking water, namely as many as 40 families and as many as 365 families do not have proper toilets. Families who do not have an adequate main source of drinking water are 63 families (2%) with the largest number being in RT.16, namely 28 families (families who live on the riverbanks) and in RT.20 with a total of 23 families. A total of 23 families live in complex settlements but do not have a proper main source of drinking water because PTAM Bandarmasih pipes have not been installed in their houses and some of their houses are on riverbanks. There are 609 families who do not have a proper toilet in Mantuil Village (19%). Generally, RTs located along river banks do not have proper latrines. The largest number of families who do not have proper toilets are in RT.1 (part of which is a residential area along the river), namely 61 families.

Thus, it can be said that there are still families in Mantuil Village who do not have a proper main source of drinking water. Even though the PTAM Bandar network is actually available throughout the Mantuil Subdistrict area. Due to inability, some families do not subscribe to PTAM Bandarmasih water, they choose to ask/buy from neighbors who have PTAM Bandarmasih water sources and use more river water. Apart from that, there are still many families who do not have proper toilets. This condition is reinforced by the results of researchers' observations that along the riverbanks in Mantuil Village there are floating latrines behind their houses. This will certainly have a negative impact on the health of the family and its environment and has the potential to increase cases of stunting.

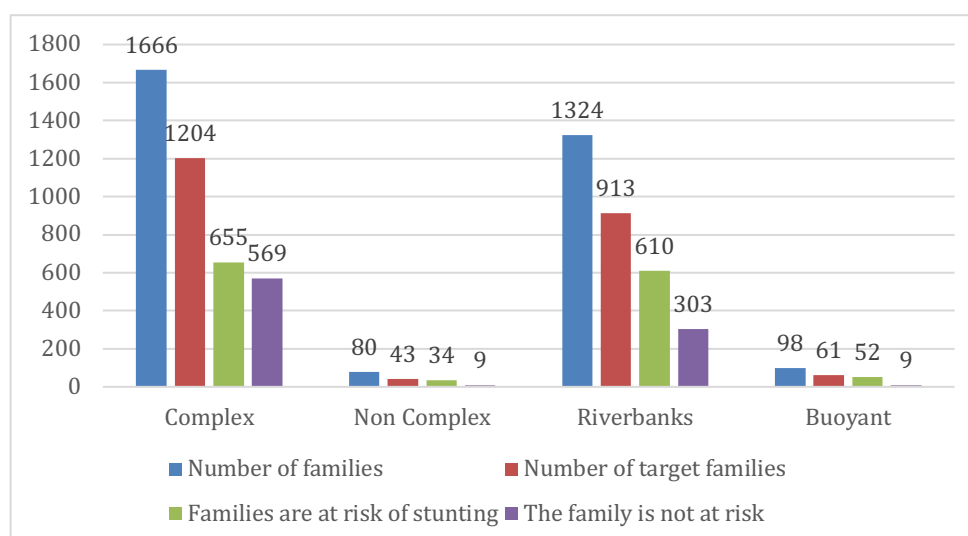
#### **Conditions of couples of childbearing age (PUS) 4 too and distribution of residential areas**

The condition of 4 couples of childbearing age (PUS) in Mantuil Village can be seen in Figure 5. Based on Figure 5, case 4 is also dominated by families who live in the complex and live along the river bank. In families living in the complex, there were 340 cases of being too old and 291 cases being too old, while there were only 3 cases of being too young and only 2 cases being too close. In families who live along the river, too old cases also dominate, namely 248 and 210 too many cases, while only 6 cases of too young and only 5 too close. In families who live in non-complexes and floating homes, there are no cases of being too young or too close. There were only 14 cases of too old in families living in non-complexes and 12 cases of too many, while in floating families there were 5 cases of being too old and 3 families being too close.

There are 9 families in Mantuil Village that are in the Too Young category (wife is 20 years old), there are 608 families that are in the Too Old category (wife is 35-40 years old), there are 7 families that are in the Too Close category (< 2 years old). ) and there were 516 families in the Too Many category (> 3 children). Thus, the largest number of families in Mantuil Subdistrict are in the Too Old and Too Many categories. Apart from the potential for an increase in the Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR), this can also contribute to an increase in stunting cases.

Families in the Too Young category are in RT.17 and RT.22 with 2 families each. The families in the Too Old category are in RT.20 with a total of 48 families and the smallest with 5 families are in RT.7 Bromo Island. Families in the Too Close category with 1 family each are in RT.5, RT.8, RT.10, RT.12, RT.13, RT.20 and

RT.26. The families in the Too Many category with the largest number, namely 51 families are in RT.20. Based on the mapping of residential areas above, it can be seen that riverbank settlements are the areas with the most stunting cases in 2022 and 2023 and do not have a main source of drinking water and do not have proper latrines. Meanwhile, in complex residential areas there are more families at risk of stunting and PUS with the criteria of being too old and too many. There are relatively few families who live in non-complexes and floating houses/on rivers.



**Figure 5.** Number of Overmaturity (PUS 4) Families per Settlement Area in Mantuil Subdistrict  
source: BKKBN, PK2021 (2021)

The condition of most stunting cases in Mantuil Subdistrict is among families who live on riverbanks, strengthening research (Shinta et al., 2020) who found that the environmental health conditions of people living on riverbanks are very bad when referring to WHO standards, due to the lack of adequate sanitation facilities related to water management and disposal of solid and liquid waste, coupled with the habits of people living on riverbanks. People still throw rubbish directly into the river. Second Finding: The potential for stunting in riverbank communities is quite large, because most communities do not take into account the nutritional content of food, so awareness and empowerment needs to be carried out so that in the future there will be an increase in the quality of health of children, mothers and adolescents.

The socio-economic and sanitary conditions of residence are also related to the occurrence of stunting. Economic conditions are closely related to the ability to provide nutritious food and health services for pregnant women and toddlers. Meanwhile, sanitation and food safety can increase the risk of infectious diseases. Infectious diseases caused by poor hygiene and sanitation (for example diarrhea and worms) can disrupt the absorption of nutrients in the digestive process. Some infectious diseases suffered by babies can cause the baby to lose weight. If this condition occurs for a long time and is not accompanied by adequate intake for the healing process, it can result in stunting (Pusdatin Kemenkes RI, 2018).

Pregnant women under 20 years of age are at risk of stunting, as are mothers over 35 years of age (WHO, 2018). This can be caused by psychological problems, risk of anemia, fetal growth and development disorders, miscarriage, prematurity (LBW), labor disorders, preeclampsia, and antepartum hemorrhage (Wanimbo & Wartingsih, 2020). The mother's age and parity influence the child's growth. Parity also influences conception results. High parity is more risky than low parity, where high parity often finds pregnancy complications due to frequent births. The mother's education level is a factor associated with stunting in toddlers. At a low level of maternal education, it is possible that the mother does not know the importance of good nutritional intake for toddlers and behavior that is less supportive of keeping children healthy can cause stunting (Astuti & Sulistyowati, 2013).

One of the risks that causes stunting is the presence of children born early to women who marry and experience pregnancy at an early age (Efevbera, 2017). This research states that the first child born to a pregnant mother at a young age or under 20 years will experience delays or even a decrease in growth and physical development. On research (Fitriahadi, 2018) states that there are 60% of young mothers who are at high risk of stunting. This can be calculated as 2:3, meaning that mothers who give birth at a younger age or under 20 years old have a 1.5 times greater chance of stunting in their children.



### **Trends in Stunting Cases**

The trend of decreasing stunting cases in Mantuil Village, Banjarmasin City from 2022 to 2023 should be noted that even though there has been a decrease of 25%, the number of stunting cases is still quite high in 2023, reaching 117 cases. This shows that the problem of stunting is still an important concern in the Mantuil Village area, Banjarmasin City. Several factors that might contribute to the reduction in stunting cases in Mantuil Village, Banjarmasin City need to be considered. For example, there are nutritional intervention programs carried out by the government or non-governmental organizations, increasing access to health services, or changes in people's diet and lifestyle. Apart from that, even though there has been a decline in stunting cases, it is important to remember that the number of stunting cases is still quite high, requiring continued efforts to overcome stunting in Mantuil Village, Banjarmasin City. In-depth analysis is needed to understand the factors that contribute to stunting cases, as well as the development of more effective intervention strategies to reduce stunting rates significantly in the future.

### **Characteristics of Settlements and Distribution of Stunting Cases**

The stunting case in Mantuil Village, Banjarmasin City shows an interesting pattern. Based on the research findings described previously, it appears that stunting cases tend to occur more often in residential areas along river banks and housing complexes. First, high cases of stunting in riverbank residential areas can be caused by unhealthy sanitation conditions. The use of floating latrines and dependence on river water for daily needs such as bathing and defecating increases the risk of stunting due to exposure to germs and diseases that can disrupt children's growth. Second, although stunting cases in housing complexes have shown a decline, they are still a concern because the number of cases is quite high. This decline may be caused by intervention efforts carried out by local governments or non-governmental organizations, but it is necessary to identify the specific factors that caused this decline. Furthermore, the absence of stunting cases in non-complex settlements shows that better sanitation conditions can contribute to preventing stunting. Easy access to public service facilities can also increase awareness of children's health and nutrition. The efforts made by the Mantuil Village Head and the Stunting Reduction Acceleration Team in Mantuil Village to coordinate and communicate with other stakeholders are a positive step in handling stunting. Collaboration between various parties, including the government, private sector and society, is needed to address the stunting problem holistically.

### **Families at Risk of Stunting and Settlement Distribution**

Based on the findings regarding families at risk of stunting and the distribution of settlements in Mantuil Subdistrict, it can be explained that residential complexes and riverbanks are two areas with a significant number of families at risk of stunting. First, complex residential areas show a fairly high number of families at risk of stunting. This may be due to the large number of young families living in the complex, as well as the possibility of risk factors such as limited access to health services and inadequate sanitation in some housing complexes. Second, settlements along river banks also have a significant number of families at risk of stunting. However, there are differences in the distribution of families at risk of stunting among existing RTs.

This could be related to demographic characteristics and the local environment, such as the presence of young families living in housing complexes and the continued residence of original families in riverbank settlements. In efforts to overcome stunting in Mantuil Village, it is necessary to pay attention to the characteristics and distribution of families at risk of stunting in each residential area. Intervention programs tailored to the needs of local communities, such as increasing access to health services, improving sanitation, and providing education about nutrition and reproductive health, can help reduce stunting rates in Mantuil Village effectively. In addition, collaboration between the government, non-governmental organizations and local communities is very important to increase awareness and participation in efforts to overcome stunting.

### **Sanitation Conditions and Distribution of Stunting Cases**

Sanitary conditions in Mantuil Village, especially for families who live in riverbank areas, are still worrying. Many families do not have access to a proper main source of drinking water, and do not have adequate toilets. These factors can contribute to an increase in the risk of stunting in families. Firstly, there are families who do not have access to a suitable main drinking water source, even though the PTAM Bandarmasih pipeline network has reached the entire Mantuil Village area. However, some families cannot afford to subscribe to water from PTAM Bandarmasih due to economic factors. As a result, they are forced to use river water as a source of drinking water, which can contain contaminants and cause health problems. Second, there are still many families who do not have proper toilets, especially in riverbank areas. The use of floating latrines behind the house is an indication of lack of access to adequate sanitation.

This can increase the risk of disease transmission and infection, which can affect the growth and development of children in the family. Thus, poor sanitation conditions in Mantuil Village can be a significant risk factor in increasing stunting cases. More serious efforts are needed from the local government and various stakeholders to increase access to adequate sources of drinking water and adequate sanitation for the entire population,

especially for families living in riverbank areas. Intervention steps can include providing access to economically affordable drinking water, installing a clean water pipe network covering the entire Mantuil Subdistrict area, as well as outreach and education regarding the importance of good sanitation for family health. Collaboration with the private sector, community institutions and local communities is also important to increase awareness and participation in improving sanitation conditions in Mantuil Village, so as to reduce stunting rates and improve overall community welfare.

### **Conditions of couples of childbearing age (PUS) 4 too and distribution of residential areas**

Environmental health conditions in riverbank settlements play an important role in the high number of stunting cases in Mantuil Village. This is in accordance with previous research findings which show that poor sanitation conditions in riverbank areas, including the habit of throwing rubbish directly into rivers, contribute to a high risk of stunting. Apart from that, the potential for stunting in riverbank communities is also influenced by a lack of awareness of the importance of nutrition in food. The combination of poor sanitation conditions and a lack of understanding of good nutrition can worsen the health conditions of children, mothers and adolescents in the long term. Socioeconomic factors also play a role in the occurrence of stunting. Families with low economic conditions may have limitations in meeting nutritional needs and access to adequate health services for pregnant women and toddlers.

Apart from that, poor sanitation and food insecurity also increase the risk of infectious diseases which can interfere with nutritional absorption in children. The mother's age and parity also influence the child's growth. Pregnant women aged less than 20 years or over 35 years have a higher risk of stunting, due to psychological problems, anemia, impaired fetal growth and development, and other pregnancy problems. The mother's education level also has a significant impact, where mothers with low education may be less aware of the importance of good nutritional intake for their children. Apart from that, early marriage and pregnancy at an early age are also risk factors that contribute to stunting. Children born to women who marry at an early age have a higher risk of experiencing delayed physical growth.

## **Conclusion**

The results of this research found that there is an important correlation between slum areas and increasing cases of stunting. This correlation is also seen along with other factors, such as lack of knowledge about stunting and lack of compliance with clean and healthy living practices in Mantuil Village, especially in riverside settlements and housing complexes. However, there is a need for more in-depth identification of the factors that cause stunting and effective policies in dealing with stunting cases in Mantuil Village. This research also provides suggestions regarding handling stunting cases in Mantuil Village; 1) preventing stunting in Mantuil District must be a primary concern for families who often live on river banks, with an emphasis on specific and sensitive interventions; 2) families need to be informed and supervised by professionals in complex residential areas so they can change their collective beliefs about being too old and having too many children.

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