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Characteristics of Couples of Childbearing Age (Efa) Who Give Birth at the Age of 35 Years and Over

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Abstract: The total fertility rate in West Sumatra Province is relatively high when compared to Riau, South Sumatra, and Jambi Province. The 2010 Population Census showed that there were still many couples of childbearing age (EFA) who gave birth over the age of 35 in West Sumatra Province. The highest birth rate by age (ASFR) is in Agam Regency and Pariaman City, so both are designated as research areas. This study aims to reveal the characteristics of EFA who give birth at the age of over 35 years in West Sumatra Province. The survey method was applied to 100 respondents, consisting of 48 respondents in Agam Regency and 52 respondents in Pariaman City. The results of the study revealed that the highest number of PUS giving birth at the age of over 35 years in Agam Regency was in the 35-39 year age range, while in Pariaman City was in the 40-44 year age range. In both Agam Regency and Pariaman City, EFA is dominated by mothers who work as housewives (75%). The high rate of EFA births over the age of 35 is also influenced by the age of marriage. In both Agam Regency and Pariaman City, most of the women who gave birth over the age of 35 were married in the young adult age range (20-29 years). In addition, there are couples of childbearing age who married more than once at the age of over 30 years. This encourages EFA to have children up to the age of 35 years and over. The highest to lowest maternal age at the last birth, respectively, was in the range of 35-39 years (74%), 40-44 years (25%), and 45-49 years (1%).

Keywords: characteristic, couples of childbearing age (EFA), over 35 years, West Sumatera, fertility.

INTRODUCTION

The development paradigm that is often echoed today is population-oriented development. The population is a fundamental thing in development [1]. In universal values, residents are actors, targets as well as those who enjoy the results of development. About this role, the population quality needs improvement through various inherent resources and create quality small families as well as efforts to plan for a balanced population measure and distribution [2].

Fertility (births), mortality (death), and migration (moving places) affect the population, age and sex composition, and the increase or decrease of the population rate [3]. These three variables are components that affect population changes. In [4], Indonesia's population growth between 2000-2010 was still quite high at 1.49%, and West Sumatra's population growth reached 1.34%. Taking into account the data presented by various sources, both the results of the Census, SUPAS, and IDHS data, the number and population growth in West Sumatra need serious attention. The population has increased significantly every year. The West Sumatra BKKBN [5] states, in early 1971 the population in West Sumatra was 2.80 million people, in 1980 it increased to 3.05 million people. Then, in 1990 it rose to 4 million people and in 2000, it reached 4.25 million people. The results of the population census

(SP) in 2010, the population in West Sumatra increased to 4.85 million people with a population growth rate (LPP) for the 2000-2010 period of 1.34% per year, while the LPP for the 1990-2000 period was only 0.7%.

Currently, the crude fertility rate (CBR), the general fertility rate (GFR), birth rate by age (ASFR), and total fertility rate (TFR) in West Sumatra are still relatively high. According to the 2007 IDHS report [6], the TFR of West Sumatra is 3.4. This figure is higher than neighboring provinces such as Riau (2.7), South Sumatra (2.7), and Jambi 2.8. Based on the results of data analysis in the 2010 population census [6, 7] there are still many couples of childbearing age (EFA) who give birth at the age of 35 years and over (Table 1). This is thought to be related to several factors such as economic factors, education, age at first marriage, number of couples of childbearing age, age at first birth, marital status, age at first sexual intercourse, knowledge, and acceptance of family planning programs, health facilities, accessibility (especially in the Galciltas area), un-met need and sociological factors (the value of children in the family). The purpose of this study was to reveal the characteristics of couples of

childbearing age (EFA) who gave birth at the age of 35 years and over.

RESEARCH METHODS

This research is survey research by combining quantitative and qualitative approaches (mixed methods) regardless of which one is the main one [8]. A quantitative approach is used to reveal and explain mainly data related to the characteristics of couples of childbearing age (EFA) who give birth at the age of 35 years and over, and the factors that cause EFA to give birth at the age of 35 years and over. The causes of EFA giving birth at the age of 35 years and over, have been discussed through discussion forums (FGD) with related parties including formulating policy directions to overcome these problems [9]. The population in this study was all couples of childbearing age (EFA) who gave birth at the age of 35 years and over in West Sumatra Province. The research area is based on ASFR aged 35 years and over in each Regency and city in West Sumatra. The sample areas were selected from Regencies/cities with the highest ASFR at the age of 35 years and over. The following presents ASFR data (Tabel 1) for those aged 35 years and over and TFR in each Regency and city in West Sumatra.

Table 1. Regency/City ASFR results of 2010 population census analysis

Items	Regency/City	ASFR				TFR
		35-39	40 – 44	45-49	\sum ASFR \geq 35 years	
Regency						
1	Mentawai Islands	65	15	4	74	3,5
2	Pesisir Selatan	84	41	12	137	3,3
3	Solok Selatan	78	22	8	108	2,6
4	Solok	67	23	5	95	3,0
5	Dharmasraya	49	13	12	74	2,9
6	Sijunjung	85	21	7	113	3,1
7	Agam	74	53	10	137	3,0
8	Pasaman	101	26	5	132	3,2
9	Pasaman Barat	81	33	10	114	3,1
10	Padang Pariaman	104	28	7	139	3,2
11	Tanah Datar	80	30	6	116	2,7
12	Limapuluh Kota	67	50	8	125	3,0

City						
13	Padang	78	6	3	87	2,1
14	Pariaman	85	52	8	145	2,9
15	Bukit Tinggi	67	28	8	103	2,4
16	Padang Panjang	61	38	5	104	2,6
17	Payakumbuh	68	31	7	106	2,8
18	Sawah Lunto	77	11	4	92	2,9
19	Solok	72	22	8	102	2,7

Source: [10]

Based on the ASFR and TFR above, the two highest regencies/cities are Pariaman City and Agam Regency. Thus, Pariaman City and Agam Regency were chosen as research areas to represent the cities and regencies, respectively. Based on the total population in the sample area (137 for Agam, 145 for Pariaman), 35% of respondents were selected for each research area. Thus, there are 48 respondents from Agam Regency and 52 respondents from Pariaman City. In Agam Regency, respondents are spread across four Sub-Districts, namely Ampek Angkek, Tilatang Kamang, Lubuk Basung and Tanjung Mutiara. In Pariaman City, respondents are spread across four Sub-Districts, namely South Pariaman, East Pariaman, North Pariaman, and Central Pariaman.

RESEARCH RESULTS

The age of couples of childbearing age, especially the wife, is an important indicator in assessing fertility behavior and reproductive patterns. Biologically, the fertile age of a woman is in the range of 15 to 49 years, although some have given birth before the age of 15 years and after the age of 49 years. Therefore, in accordance with the fertile age, birth will occur in a long life span. In the age range above 35 years, the fertility rate of women has decreased but it is still possible to give birth. It is just that with the level of fertility and health that began to decline, the opportunity for various hazards and risks to reproductive health, both to the child to be born and to the mother, becomes greater. Because of the decreased fertility rate, the occurrence of abnormal egg cell division or commonly called non-disjunction, which allows the occurrence of defects in babies born, is also higher [12].

The risk of miscarriage at 4 months of age in women over 35 years is also 10% higher than the risk of miscarriage at 20 years of age, due to chromosomal problems in the fetus [13]. Various other risks, even death in childbirth at this age range are also higher. In West Sumatra, the national maternal rate is relatively high. Two Regency/cities in West Sumatra have more than 130 cases of mothers giving birth over the age of 35 years. This research was conducted in the two regencies/cities, namely Agam Regency and Pariaman City. The research in Agam Regency was conducted in four sub-districts, namely Ampek Angkek, Tilatang Kamang, Lubuk Basung and Tanjung Mutiara. Meanwhile, in the Pariaman City, the research was conducted in all sub-districts, namely South Pariaman, East Pariaman, North Pariaman, and Central Pariaman.

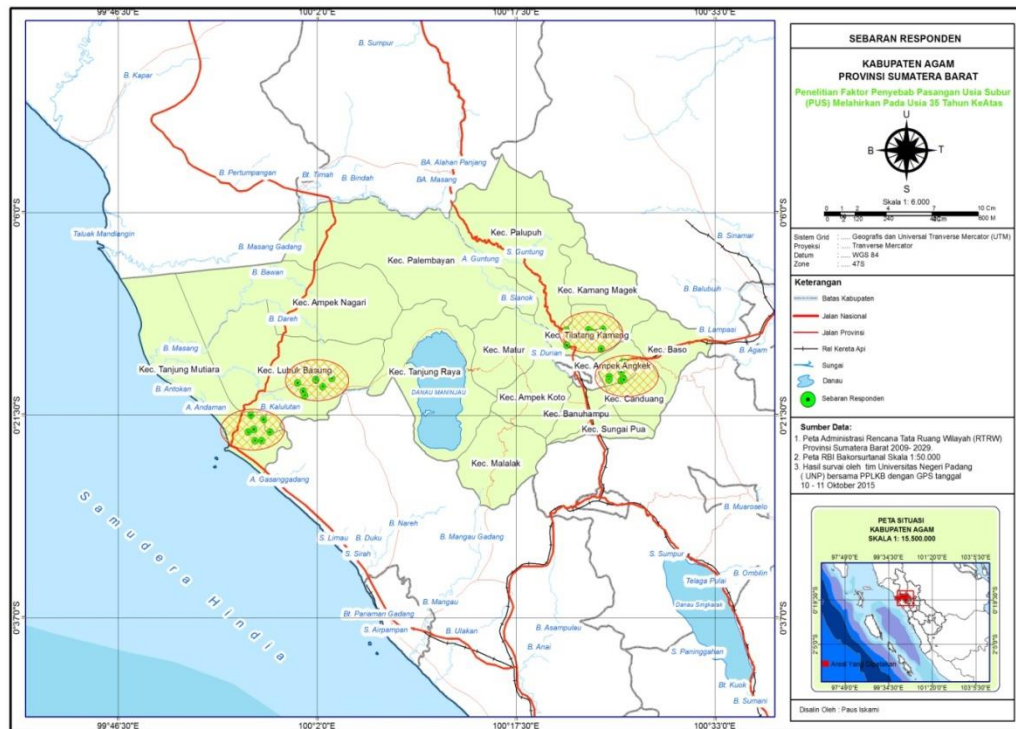


Fig 1. Distribution of Respondents' Samples in Agam Regency

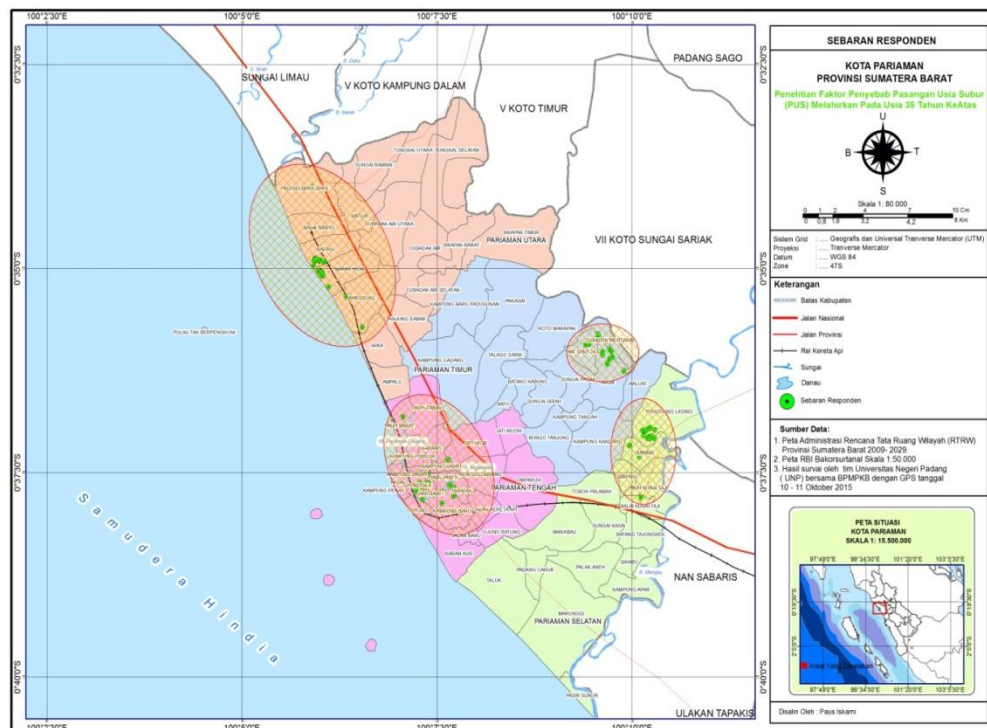


Fig 2. Distribution of Respondents' Sample in Pariaman City

Table 2. Age of respondents

Items	Age Range	Agam Regency		Pariaman City		Total	
		(F)	%	(F)	%	ΣF	%
1	35-39	22	45,84	19	36,54	41	41
2	40-44	16	33,33	21	40,38	37	37
3	45-49	10	20,83	12	23,08	22	22
Total		48	100	52	100	100	100

Table 3. Age of husband

Items	Agam Regency				Pariaman City			
	Ampek Angkek	Tilatang Kamang	Lubuk Basung	Tj. Mutiara	South Pariaman	East Pariaman	North Pariaman	Central Pariaman
1	41	39	40	49	47	36	40	38
2	47	59	43	46	43	48	42	42
3	40	43	43	45	41	47	38	37
4	36	47	42	50	54	43	41	42
5	39	51	45	50	41	38	50	43
6	43	52	40	45	45	55	41	65
7	48	42	48	47	50	40	42	53
8	38	43	44	49	47	40	38	43
9	32	48	40	45	43	47	56	39
10	39	43	52	55	47	45	50	52
11	41	33	49	37	48	50	37	45
12	52		47 (die)	42	49	42	38	41
13	-		35		58	36	49	39

In the research area, it can be seen that the age range of respondents is normally distributed, meaning that the largest number is in the age range of 35-39 years, followed by the age range of 40-44 years, and lastly 45-49 years. 41 out of 100 respondents (41%) of mothers, who gave birth over the age of 35 years studying in Agam Regency and Pariaman City, were in the age range of 35-39 years. While in the age range of 40-44 years, there are 37 respondents (37%), and in the age range of 45-49 years, there are 22 respondents (22%). It is just that if examined between Regencies and cities, there are differences between Agam Regency and Pariaman City. In Pariaman City, the highest number of respondents were in the age range of 40-44 years, which reached 21 out of 52 respondents (40.38%). The large population distribution in the 40-49 year age group provides a greater opportunity to give birth at a higher age, which is certainly directly proportional to the decline in the quality of maternal physical health. It can also mean a greater chance of a risky birth. Meanwhile, in Agam Regency, the distribution of respondents in the age range of 35-39 years is still more dominant than the other two age groups of mothers giving birth, which is 22 out of the 48 respondents studied (45.84%).

Knowing economic conditions including employment and family income has room to understand the relationship between economic status and the probability of fertility behavior. As explained by [12] that fertility will decrease if there is an improvement in the economy and the standard of living of the population. Meanwhile, in the fertility economics analysis, New Household Economics argues that 1) parents begin to

prefer smaller quantities of higher quality children so that the "purchase price" increases; and 2) when income and education increase, more time (especially mother's time) spent to care for the child so that the child becomes more expensive.

In the research area, it was found that women who do not have a main job other than being a housewife or do not have their source of income, seem to have a greater chance of giving birth over the age of 35 years. Of the 100 respondents in Agam Regency and Pariaman City, 73 of them only fulfill their obligations as housewives. This figure is in line with 73% of the total number of respondents. This percentage is higher than women who work as entrepreneurs (7%) and civil servants or teachers (11%).

In Regency of Agam, 75% of the respondents who gave birth over the age of 35 did not have any other job other than being housewives. Meanwhile, in Pariaman City it reached 73%. Only 2.08% of respondents in Agam Regency and 7.69% of respondents in Pariaman City who gave birth over the age of 35 years had a job selling at home by opening a small shop or shop. Meanwhile, the lowest percentage of women giving birth over 35 years of age occurred in women who worked as casual daily laborers (BHL), as many as 2.08% in Agam Regency and 1.93% in Pariaman City.

However, out of 100 respondents in Agam Regency and Pariaman City, only 21 people (21%) had a side job. Of that number, most of the respondents (61.90%) sell-by opening a shop at home, 1 person (4.76%) works to help her husbands in farming and 4.76% works as an entrepreneur. While the remaining 28.57% work in other fields, such as washing and so on. The percentage of mothers who have a side job in Agam Regency is higher than in Pariaman City, 57.14% compared to 42.86%. It can be seen that in addition to the problem of the level of welfare, work provides other possibilities for physical and psychological conditions. Where busy doing work will consume a person's time, so that physical and psychological fatigue will affect the intensity of the husband and wife relationship, which will also affect fertility. So it is natural that the wife of a couple of childbearing age whose main job is as a housewife dominates (75%) of the total respondents because the type of work can affect fertility.

Marriage in the young age group (15-19 years) in Pariaman City has a percentage of 9.6% of 52 respondents. This figure is higher than Agam Regency which is only 4.17%. Meanwhile, the ratio of first marriage over the age of 35 in Agam Regency (8.34%) is higher than in Pariaman City (7.7%). Likewise, marriages over the age of 30-34 years in Agam Regency(16.66%) are higher than the percentage of age at first marriage in the same age range in Pariaman City which only reached 11.5%. The percentage of age at first marriage in the high age range above 30 years needs attention. Since the first marriage in the high age group is very close to the probability of giving birth at the age of over 35 years, even the first birth is very likely to occur.

Table 4. Age at first marriage

Item	Age Range	Agam Regency		Pariaman City		Total	
		F	%	F	%	ΣF	%
1	15-19	2	4,17	5	9,6	7	7
2	20-24	21	43,75	19	36,5	40	40
3	25-29	13	27,08	18	30,7	31	31
4	30-34	8	16,66	6	11,5	14	14
5	35-39	2	4,17	4	7,7	6	6
6	40-44	2	4,17	0	0	2	2
7	45-49	-	-	0	0	-	-
Total		48	100	52	100	100	100

In addition to the first marriage, marriages that are more than once will also determine the pattern of fertility and childbirth, especially those related to the desire to have children with a second or third husband. In Agam Regency there were five cases of mothers marrying more than once while in Kota Pariaman there were 6 cases with various possibilities, either due to divorce or because the husband died. In both Agam Regency and Pariaman City, 6 cases (54.55%) were the last marriage in the maternal age range of 30-34 and 36.36% cases were the last married in the 35-39 year age range. In Agam Regency, the percentage of respondents who were married more than once and last married in the 35-39 age range was higher than the number of respondents who were last married in the previous age range. This can also be interpreted as the possibility of mothers giving birth in the age range above 35 years because of the husband's request.

Table 5. Number of marriages

Resp.	Marriage							
	Ampek Angkek	Tilatang Kamang	Lubuk Basung	Tj Mutiara	South Pariaman	East Pariaman	North Pariaman	Central Pariaman
1	First	First	First	First	First	First	First	First
2	First	First	First	First	First	First	Second	First
3	First	First	First	First	First	First	First	First
4	First	First	First	First	Second	First	First	First
5	Second	First	First	First	First	Second	First	First
6	First	First	First	First	First	First	Second	First
7	First	First	First	First	First	First	First	First
8	First	First	First	First	First	First	First	First
9	Third	First	First	Second	First	First	First	First
10	First	First	Second	First	First	Second	First	First
11	First	First	First	First	First	First	First	First
12	First	-	First	First	First	First	Second	First
13	-	-	Second	-	First	First	Second	First

Table 6. Age at last marriage

Item	Age Range	Agam Regency		Pariaman City		Total	
		F	%	F	%	ΣF	%
1	15-19	-	-	-	-	-	-
2	20-24	-	-	1	16,66	1	9,09
3	25-29	-	-	-	-	-	-
4	30-34	2	40,00	4	66,67	6	54,55
5	35-39	3	60,00	1	16,66	4	36,36
6	40-44	-	-	-	-	-	-
7	45-49	-	-	-	-	-	-
Total		5	100	6	100	11	100

Table 7. Length of first marriage

Item	Marriage Length Range (Years)	Agam Regency		Pariaman City		Total	
		F	%	F	%	ΣF	%
1	1-5	1	20	4	57,13	5	41,67
2	6-10	2	40	2	28,57	4	33,33
3	11-15	1	10	1	14,29	2	16,67
4	16-20	1	10	-	-	1	8,33
5	> 20	-	-	-	-	-	-
Total		5	100	7	100	12	100

Overall, the age at first birth is relatively the same as the age at first marriage. 37% of mothers who gave birth over the age of 35 years gave birth for the first time in the age range of 25-29 years and 31% gave birth for the first time in the age range of 20-24 years. The number of first births over the age of 30 is quite high (29%). Two cases, which were the first births, occurred between the ages ranges of 40-44 years. Meanwhile, the age of first birth in the age range of 15-19 years is relatively low, only 3%. However, with the record of giving birth first at a young age and then still giving birth at an age range above 35 years, this means that the span of their reproductive period is longer.

In Agam Regency, the age at first birth in the 25-29 year range is higher than in other age ranges. This is in line with the high percentage of first marriages in this age range. In this age range, the first birth rate reached 33.33% of respondents. The first birth rate in Agam Regency over the age of 30 is very high with a percentage of 35.32% of 48 respondents. Of that amount, 4.17% of them were first-born over 40 years of age. A condition in which a mother has experienced a decline in the physical condition and gave birth to her first time at this high age range.

In Pariaman City, the number of respondents who gave birth between the ages of 25-29 is quite high. Nearly half of the 52 respondents studied gave birth to their first child in this age range. Meanwhile, the age range of 20-24 years reached 34.6% of the total respondents. The number of mothers giving birth at a higher age range (above 30 years) is quite low, with only 23.1% of the 52 respondents. The rate of giving birth at the young age of 15-19 years is also relatively low, only 1.9% or only 1 case out of 52 respondents. This figure is in line with the age range of first marriage which is dominated by first marriage in the age range of women 20-24 and 25-29 years.

The age at first marriage followed by the high age at first birth plus the high average birth spacing causes the high possibility of women giving birth over 35 years in Agam Regency. Meanwhile, in Pariaman City, the average age at first marriage which is considered ideal plus the age at first birth is also ideal, but the intensity is quite high, which is indicated by the large number of mothers who give birth to 5-6 children and the close birth spacing (1-2 years), be the cause of the demographic background of high birth rate in mothers over the age of 35 years.

The age of the mother at the time of her last birth was the most decisive factor in classifying the data in this study. Of the 100 respondents in Agam Regency and Pariaman City, 74% gave birth last in the age range 35-39 years, 25% gave birth in the age range 40-44 years and there was 1 case or 1% of a mother gave birth last in the age range 45-49 years. In Agam Regency, the number of mothers who gave birth over the age of 35 years and is in the range between 40-44 years is fairly high, namely 37.50% of the 48 respondents. While in Pariaman City, the number of mothers who gave birth in this age range was only 13.5%, or only 7 cases. The

last birth in Pariaman City occurred in the age range of 35-39 years where 44 mothers or 84.6% gave birth in this age range. Meanwhile, in Agam Regency, there are 62.50% or 30 mothers who gave birth in that age group. 1.9% or 1 respondent gave birth in the age range above 45 years.

Table 8. Mother's age at last childbirth

No	Age Range	Agam Regency		Pariaman City		Total	
		F	%	F	%	ΣF	%
1	35-39	30	62,50	44	84,6	74	74
2	40-44	18	37,50	7	13,5	25	25
3	45-49	-	-	1	1,9	1	1
Total		48	100	52	100	100	100

Table 9. Number of births since age 35 years

No	Total Births (Time)	Agam Regency		Pariaman City		Total	
		F	%	F	%	ΣF	%
1	1	38	79,17	39	75	77	77
2	2	9	18,75	13	25	22	22
3	≥ 3	1	2,08	0	0	1	1
Total		48	100	52	100	100	100

CONCLUSIONS

The survey results reveal that the age range of the respondents is normally distributed. The highest and lowest number of couples of childbearing age (EFA) who gave birth at the age of over 35 years, respectively, were in the age range of 35-39 years, 40-44 years and 45-49 years. 75% of respondents are housewives, so they have a greater chance of giving birth over the age of 35 years. Most of the respondents married in the young adult age range (20-29 years). EFA who were married more than once with the last marriage age above 30 years, contributed to the high birth rate for couples of childbearing age over the age of 35 years. The same thing was also found in cases of age at first marriage followed by a high age at first birth. In Agam Regency, respondents with a high age at first marriage followed by a high age at first birth plus a high average birth spacing result in a high probability of mothers giving birth over 35 years. Meanwhile in the Pariaman City, the average age at first marriage which is considered ideal plus the age at first birth which is also ideal with a fairly high birth intensity (number of children 5-6 people) and

the close birth spacing (1-2 years) causes the high chance of mothers giving birth above 35 years old. In this case, the age of the mother at the time of her last delivery is a key factor. Of the 100 respondents in Agam Regency and Pariaman City, 74% gave birth last in the age range of 35-39 years, 25% gave birth in the age range 40-44 years and there was 1 case (1%) of mother who gave birth last at the age of 45-49 years.

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