

Original Research

Early Marriage Age Trends in Magetan Regency, Indonesia: A Review of 2021-2023

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ABSTRACT

Background: Early marriage is a significant women's reproductive health issue, especially because of its association with the risk of abortion, stunting, malnutrition and infection in infants. The aim of the study was to describe the age trend of early marriage in Magetan Regency from 2021 to 2023. **Methods:** This type of research is descriptive quantitative with the population of all couples who married in Magetan Regency during the period. The sample of this study included all married individuals with a total of 12,772 people. The main variable was age at marriage. Data were collected through a documentation study of age of marriage reports recorded at the PPKBPP and PA Office of Magetan Regency using a data recapitulation table. Data analysis was conducted with descriptive statistics, in the form of frequency distribution and percentage. **Results:** The results showed an increasing trend of early marriage in most sub-districts, with a predicted prevalence that tends to increase until the end of 2024. Between 2021 and 2023, the trend of early marriage age in Magetan Regency showed a varied pattern, with some years increasing and others decreasing. The main factors influencing this trend include economic factors, education, and local policies. The impacts of early marriage include challenges in health and education, which require continued attention in mitigation and response efforts. **Conclusion:** The conclusion of this study is that there is a need for serious attention to this problem, including prevention efforts through education, counseling, and improving the quality of education and policies to prevent early marriage from the government and related institutions.

Keywords: Trend; prediction; marriage age

1. INTRODUCTION

Adolescents are vulnerable to misuse of risky attitudes and behaviors in reproductive health. Early marriage, which is still an important problem in Indonesia, increased in 2020-2021 and decreased in 2022.⁽¹⁾ The ideal age of marriage for reproductive health is 21 years for women and 25 years for men. Early marriage can lead to maternal and infant health risks, including abortion and contribute to maternal mortality rates (MMR) and infant mortality rates (IMR). Data shows an increase in early marriage in the age range of 15-19 years in Magetan District.^(1,2) Women who marry early and are pregnant are very vulnerable to abortion, due to immature reproductive organs as well as limited knowledge about reproductive health and contraception that can affect the occurrence of abortion.⁽³⁾ Early marriage is also one of the contributors to the Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) in Indonesia.^(2,4) Early marriage can increase the risk of complications during pregnancy and childbirth including maternal death. Early

marriage also has an impact on the well-being of the baby. Babies born to mothers who married early are at higher risk of stunting, malnutrition and infection.⁽⁵⁾

Early marriage also has an impact on divorce and stunting in Magetan Regency. Prevention efforts through education to parents, children and adolescents and programs such as Generation Planning (GenRe) need to be improved.⁽⁶⁾ Increasing the role of third parties such as Village Heads, Puskesmas (Community Health Center), BKKBN (The National Population and Family Planning Board) and KUA (Kantor Urusan Agama or Office of Religious Affairs) as well as cooperation with school principals to increase higher education and village socialization about the negative impact of early marriage can help reduce the prevalence of early marriage.⁽⁷⁾ Prevention programs carried out by the Magetan District Government through the PPKBPP and PA Office and involving the Religious Court and PPTPPA are expected to reduce the demand for early marriage and provide assistance for children and parents in early marriage dispensation cases.⁽⁸⁾

This study is important because early marriage age has a major impact on health and well-being, especially for women and children. By analyzing the trends and factors causing early marriage in Magetan Regency, this study aims to formulate more effective policies and improve the quality of life of the community. The purpose of the study is to understand the pattern of early marriage age, identify influencing factors, and evaluate related policies. The novelty of this study lies in the analysis of current data that combines local social and economic factors, as well as the evaluation of the effectiveness of policies that have not been widely studied in the region.

2. METHODS

2.1 Study Design

This study uses a quantitative descriptive approach⁽⁹⁾ with a population that includes all married couples in Magetan Regency from 2021 to 2023. Data collected from all individuals in this population aims to describe the pattern of early marriage age.

This type of research is descriptive quantitative with the population of all couples who married in Magetan Regency during the period. The sample of this study included all married individuals with a total of 12,772 people. The main variable was age at marriage. Data were collected through a documentation study of

age of marriage reports recorded at the PPKBPP and PA Office of Magetan Regency using a data recapitulation table. Data analysis was conducted with descriptive statistics, in the form of frequency distribution and percentage.

2.2 Population

The population of this study consists of all married couples in Magetan Regency, Indonesia during the period 2021 to 2023. This study aims to analyze marriage data from this population to understand the pattern of age at marriage. All married couples during this period are the main sample in this study.⁽¹⁰⁾ The inclusion criteria for this study include couples who married in Magetan Regency during the period 2021 to 2023 with complete marriage age data and registered in official documents from the PPKBPP and PA Office of Magetan Regency. Couples who meet these criteria will be analyzed to understand the pattern of early marriage age.

Exclusion criteria include couples with incomplete or unavailable marriage age data in official documentation, couples who married outside the study period, and couples with invalid or unverifiable data. These criteria ensure that only accurate and relevant data are used in the analysis.

2.3 Data Collection

The data for this study were collected through a documentation study of marriage age reports recorded at the PPKBPP and PA Office of Magetan Regency. The data used includes all married couples in Magetan Regency during the period 2021 to 2023, with a focus on marriage age. Data recapitulation tables are used to organize and analyze information obtained from the official reports.

2.4 Data Analysis

Data analysis was conducted using descriptive statistics to identify and describe patterns of early marriage age.⁽¹¹⁾ Data collected from official documents will be presented in the form of frequency distribution and percentage to provide clear insight into the trend of marriage age. The results of this analysis will be used to assess the prevalence of early marriage and identify factors that influence the age of marriage in Magetan Regency.

2.5 Ethical Clearance

This study has obtained ethical approval from the Ethics Committee of the Health Polytechnic of the Ministry of Health of Surabaya, Indonesia with the number No.EA/2280/KEPK-Poltekkes_Sby/V/2024. This approval ensures that the research is conducted in accordance with applicable ethical standards.

3. RESULTS

3.1 Marriage Age Data in Magetan Regency in 2021-2023

Table 1 shows the distribution of data and the average number of marriages in Magetan Regency from 2021 to 2023, with the total number of marriages continuing to increase each year, namely 4,235 in 2021, 4,260 in 2022, and 4,277 in 2023. The total number of marriages during this period reached 12,772, with an average of 4,257 marriages per year. This data indicates an increasing trend in the number of marriages in Magetan Regency during this period.

Table 1. Distribution data and average marriage in Magetan Regency in 2021-2023

Year	Total
2021	4,235
2022	4,260
2023	4,277
Total	12,772
Average	4,257

Table 2 shows the average age of marriage in Magetan Regency from 2021 to 2023, focusing on two age groups: ≤ 20 years and ≥ 21 years. There was a decrease in the number of marriages at the age of ≤ 20 years from 345 in 2021 to 221 in 2023, while the number of marriages at the age of ≥ 21 years increased from 3,890 in 2021 to 4,056 in 2023. The average number of marriages per year shows that the majority of couples marry at the age of ≥ 21 years, which continues to increase every year, indicating a shift in the trend towards marriage at a more mature age.

Table 3 shows the distribution of early marriages in Magetan Regency from 2021 to 2023. Of the total 12,772 marriages during the period, 803 were early marriages, accounting for 18.88% of all marriages. The percentage of early marriages shows a downward trend from 8.15% in 2021 to 5.17% in 2023, with an annual

average of 6.293%. This data shows a significant decline in the number of early marriages over the past three years.

Table 2. Average marriage data in Magetan Regency in 2021-2023

Age group	Year 2021	Year 2022	Year 2023
≤ 20 Year	345	237	221
≥ 21 Year	3,890	4,023	4,056
Total	4,235	4,260	4,277
Average	352.9	355	356.4

Table 3. Distribution of early marriage in Magetan Regency in 2021-2023

No.	Year	Σ Overall Married	Σ Early Marriage	%
1	2021	4,235	345	8.15%
2	2022	4,260	237	5.56%
3	2023	4,277	221	5.17%
	Total	12,772	803	18.88%
	Average	4,257	268	6.29%

3.2 Trend of Early Marriage Prevalence in Each Subdistrict in 2021-2023

Data on trends in the prevalence of early marriage in each sub-district in Magetan Regency from 2021 to 2023, as well as predicted prevalence at the end of 2024, such as Table 4.

Table 4 shows that the trend of early marriage in Magetan Regency varies between sub-districts, with some areas experiencing an increase, while others experience a decrease. Parang and Sidorejo sub-districts, for example, show an increasing trend in the prevalence of early marriage, with predictions predicting a further increase by 2024. On the other hand, sub-districts such as Poncol and Takeran show a consistent decline in the prevalence of early marriage, reflecting the possible effectiveness of the interventions that have been implemented. Fluctuations in sub-districts such as Kawedanan and Sukomoro indicate instability that may be influenced by local factors that need further investigation. Overall, these data indicate the need for a more specific and area-based approach to addressing early marriage in Magetan Regency.

Table 4. Trend of early marriage prevalence in each subdistrict in 2021-2023

Subdistrict	Average Early Marriages (2021-2023)	Increase (%) in 2022	Decrease (%) in 2023	Trend	Predicted Prevalence (2024)
Parang	7.19	-	-	Increasing	9.52%
Sidorejo	7.48	1.39%	-0.33%	Increasing	8.5467%
Kawedanan	5.88	-2.61%	4.06%	Fluctuating	7.3333%
Magetan	3.31	2.4%	-2.25%	Fluctuating	3.46%
Poncol	13.34	-6.64%	1.3%	Decreasing	8.007%
Lembeyan	4.25	-	-	Decreasing	2.99%
Takeran	5.03	-	-	Decreasing	2.853%
Plaosan	13.06	-	-	Decreasing	6.337%
Panekan	6.80	3.76%	-5.4%	Decreasing	5.1667%
Sukomoro	5.92	-10.49%	5.78%	Decreasing	1.213%
Bendo	3.6	0.52%	-1.14%	Decreasing	3.0467%
Maospati	1.15	-	-	Decreasing	0.5033%
Barat	2.14	-3.41%	0.06%	Decreasing	1.2033%
Karangrejo	7.57	-10.37%	-0.85%	Decreasing	3.647%
Karas	9.08	-2.33%	0.65%	Decreasing	7.403%
Kartoharjo	3.65	0.31%	-1.93%	Decreasing	2.0333%
Ngariboyo	8.64	0.82%	-3.58%	Decreasing	5.883%
Nguntoronadi	4.33	-	-	Decreasing	0.49%

4.4 Trend of Early Marriage Age Prevalence in Magetan Regency in 2021-2023

Figure 1 shows that the prevalence of early marriage in Magetan Regency has decreased. The trend in the prevalence of early marriage also tends to decrease. The average early marriage in Magetan

Regency in 2021-2023 is around 6.29 early marriages each year. In 2022 it decreased by 2.59% and in 2023 it decreased again by 0.39%. From the calculation of the prediction of the prevalence of early marriage in Magetan Regency in the following year is 3.3133% at the end of 2024 (Year 4).

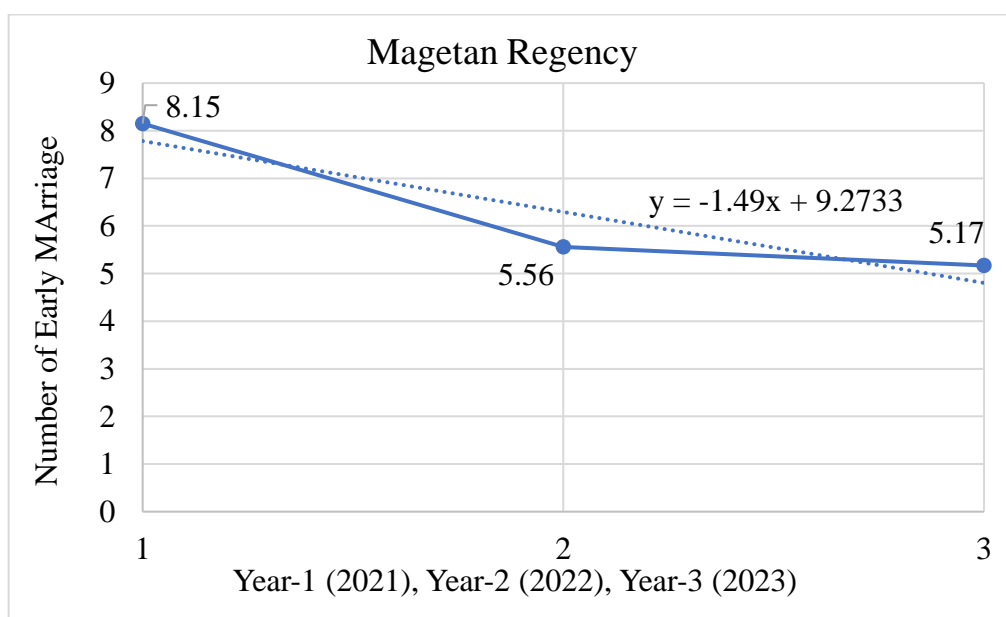


Figure 1. Trend of Early Marriage Prevalence in Magetan Regency

4. DISCUSSION

The results of the study show that the number of marriages in Magetan Regency experienced a consistent increasing trend from 2021 to 2023. The data in Table 1 reveals that the total number of marriages increased from 4,235 in 2021 to 4,277 in 2023, with an annual average of 4,257 marriages. This increase in the number of marriages may reflect social, economic, and cultural factors that support marriage in the area. The increase in the number of marriages may be related to a variety of factors, including changes in local policies, shifts in social norms, or increased accessibility of marriage services.⁽¹²⁾

However, the increase in the number of marriages also requires attention to its impacts, especially those related to early marriage and reproductive health. Research by Ahmed et al. (2022) emphasizes the importance of prevention and education efforts in addressing early marriage and its impact on child and maternal health.⁽¹³⁾ In addition, efforts to increase the role of third parties such as village heads, health centers, BKKBN, and KUA can help reduce the prevalence of early marriage and its negative impacts, such as stunting and maternal and infant mortality rates.⁽¹⁴⁾ Therefore, it is important to continue to monitor and evaluate marriage trends and implement effective prevention strategies to ensure the welfare of the community as a whole.

The results of the study in table 2 show that there was a significant change in the age of marriage in Magetan Regency between 2021 and 2023. The decline in marriage at a young age may indicate a positive effect of efforts to prevent early marriage and increased awareness of the importance of a more mature age of marriage for reproductive health and social welfare. The shifting trend towards marriage at a more mature age seen in this data is in line with findings from previous studies showing that increasing the age of marriage can have a positive impact on maternal and infant health. Research by Baker et al. (2022) shows that marriage at a later age is associated with a reduced risk of stunting and health complications related to pregnancy and childbirth, given better physical and psychological development at an older age.⁽¹⁵⁾ Despite the positive shift, it is important to continue to strengthen early marriage prevention programs and reproductive health education in Magetan Regency.

Research by Lee et al. (2021) emphasizes the crucial role of community leaders and health programs in reducing early marriage and its impacts, as well as the importance of collaboration between various parties such as schools, local governments, and health organizations to expand the reach and effectiveness of these programs.⁽¹⁶⁾ Continued efforts to educate the public about the benefits of a later age of marriage and strengthen related policies and programs are expected to further reduce the number of early marriages and their negative impacts on the health and well-being of children and mothers in the future.

The results of the study in table 3 show that early marriage in Magetan Regency experienced a significant decline during the period 2021 to 2023. This situation illustrates the effectiveness of various prevention efforts carried out in the area. This is consistent with the findings in a study by Afolabi et al. (2023) which showed that community-based education and intervention efforts can significantly reduce the rate of early marriage in various regions.⁽¹²⁾ This decrease in the percentage of early marriage shows the positive impact of the programs implemented, including the Generation Planning (GenRe) program and the active role of third parties such as village heads, Puskesmas, BKKBN, and KUA. Baker et al. (2022) also noted that preventing early marriage through education and public awareness programs is effective in reducing cases of early marriage in rural areas.⁽¹⁵⁾ With increased cooperation between related parties and wider socialization, it is hoped that the rate of early marriage can continue to decline, as expected by the Magetan Regency government. However, despite the decline, there are still challenges in completely overcoming early marriage. Lee et al. (2021) showed that the success of prevention programs is highly dependent on community involvement and consistent support from various institutions. Therefore, continuing to strengthen cooperation between the government, educational institutions, and the community is key to further reducing early marriage and improving adolescent welfare in Magetan Regency.⁽¹⁴⁾

The results of the study showed significant variations in the trend of early marriage in Magetan Regency between sub-districts. As shown in Table 4, Parang and Sidorejo Sub-districts experienced an increase in the prevalence of early marriage, which is expected to continue to increase in 2024. This increase may be related to local factors such as low levels of

education and economy, as well as lack of access to reproductive health education programs. In contrast, Poncol and Takeran Sub-districts showed a consistent decrease in the prevalence of early marriage, which may indicate the success of interventions implemented in the area, such as more effective education programs and awareness campaigns. Fluctuations in Kawedanan and Sukomoro Sub-districts indicate instability that requires further investigation to identify the causal factors, whether it is caused by local policies, social changes, or other factors. This study is in line with the findings of several previous studies which show that an area-based approach in addressing social problems such as early marriage is key to the effectiveness of interventions. According to Lee et al. (2021), the success of early marriage prevention programs is greatly influenced by local community involvement and support from community leaders and health institutions.⁽¹⁴⁾ In addition, Ahmed et al. (2022) underlined the importance of adapting strategies based on local conditions to reduce the prevalence of early marriage and its impact on health.⁽¹³⁾ Therefore, a more specific and area-based approach, accompanied by continuous monitoring and evaluation, is needed to address the challenges faced by each sub-district in Magetan Regency.

The results of the study in Figure 1 show that the prevalence of early marriage in Magetan Regency has decreased from 2021 to 2023. This decrease reflects the effectiveness of preventive interventions carried out by the local government and programs such as Generation Planning (GenRe), which raise awareness of the negative impacts of early marriage. Projections show that the prevalence of early marriage in Magetan Regency is expected to reach 3.3133% by the end of 2024, indicating a continued downward trend. In this context, several studies have shown that increasing the role of community leaders and prevention programs contribute to the decline in the prevalence of early marriage. For example, research by Ahmed et al. (2022) shows that education and outreach programs are effective in reducing the rate of early marriage and its impact on reproductive health and child welfare.⁽¹³⁾ In addition, Baker et al. (2022) emphasize the importance of involving community leaders and locally designed prevention programs in addressing early marriage in rural areas.⁽¹⁵⁾

5. CONCLUSION

The conclusion of this study shows that efforts to prevent early marriage in Magetan Regency have shown positive results. The decline in the prevalence of early marriage in recent years illustrates the success of the programs implemented and the increasing public awareness of the negative impacts of early marriage on health and well-being. Recommendations, however, need to continue monitoring and evaluation to ensure this downward trend continues. The effectiveness of existing interventions must continue to be improved to achieve more significant results in reducing the prevalence of early marriage and its impact on the community.

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Conflict of Interest

No conflict of interest.

REFERENCES

1. Sivagurunathan C. Adolescent Health: Present Status and Its Related Programmes in India. Are We in the Right Direction? *Journal of Clinical and Diagnostic Research*. 2015;9(3): : LE01-LE06. <http://dx.doi.org/10.7860/jcdr/2015/11199.5649>
2. Wang Y, Qiao J. Trends and social determinants of adolescent marriage and fertility in China. *The Lancet Global Health*. 2020;8(7):E873-E874. [http://dx.doi.org/10.1016/s2214-109x\(20\)30207-2](http://dx.doi.org/10.1016/s2214-109x(20)30207-2)
3. Mwendwa P, Mutea N, Kaimuri MJ, De Brún A, Kroll T. "Promote locally led initiatives to fight female genital mutilation/cutting (FGM/C)" lessons from anti-FGM/C advocates in rural Kenya. *Reproductive Health*. 2020;17:30. <http://dx.doi.org/10.1186/s12978-020-0884-5>
4. Mohammadi K, Rahnema P, Rafei Z, Ebrahimi-Aveh SM, Montazeri A. Factors associated with intimacy and sexuality among young women with multiple sclerosis. *Reproductive Health*. 2020;17:110. <http://dx.doi.org/10.1186/s12978-020-00960-5>
5. Luo D, Yan X, Xu R, Zhang J, Shi X, Ma J, et al. Chinese trends in adolescent marriage and fertility between 1990 and 2015: a systematic synthesis of national and subnational population data. *The Lancet Global Health*. 2020;8(7):E954-E964. <http://dx.doi.org/10.1016/s2214->

- 109x(20)30130-3
6. Yoosefi Lebni J, Solhi M, Ebadi Fard Azar F, Khalajabadi Farahani F, Irandoost SF. Exploring the Consequences of Early Marriage: A Conventional Content Analysis. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*. 2023;60:004695802311599. <http://dx.doi.org/10.1177/00469580231159963>
 7. Vaivada T, Akseer N, Akseer S, Somaskandan A, Stefopoulos M, Bhutta ZA. Stunting in childhood: an overview of global burden, trends, determinants, and drivers of decline. *The American Journal of Clinical Nutrition*. 2020;112:777S-791S. <http://dx.doi.org/10.1093/ajcn/nqaa159>
 8. Mustakim MRD, Irwanto, Irawan R, Irmawati M, Setyoboedi B. Impact of Stunting on Development of Children between 1-3 Years of Age. *Ethiopian Journal of Health Sciences*. 2022;32(3). <http://dx.doi.org/10.4314/ejhs.v32i3.13>
 9. Barroga E, Matanguihan GJ. A Practical Guide to Writing Quantitative and Qualitative Research Questions and Hypotheses in Scholarly Articles. *Journal of Korean Medical Science*. 2022;37(16):e121. <http://dx.doi.org/10.3346/jkms.2022.37.e121>
 10. Patino CM, Ferreira JC. Inclusion and exclusion criteria in research studies: definitions and why they matter. *Jornal Brasileiro de Pneumologia*. 2018;44(2):84-84. <http://dx.doi.org/10.1590/s1806-37562018000000088>
 11. Cooksey RW. Descriptive Statistics for Summarising Data. *Illustrating Statistical Procedures: Finding Meaning in Quantitative Data*. 2020;61-139. http://dx.doi.org/10.1007/978-981-15-2537-7_5
 12. Afolabi A, Akpan S, Afolabi O. Impact of Early Marriage on Stunting and Divorce in Nigeria: A Comprehensive Study. *International Journal of Population Research*. 2023;2023:1-10. <http://dx.doi.org/10.1155/2023/7273405>
 13. Jiao J, Shi L, Chen H, Wang X, Yang M, Yang J, et al. Containment strategy during the COVID-19 pandemic among three Asian low and middle-income countries. *Journal of Global Health*. 2022;12. <http://dx.doi.org/10.7189/jogh.12.05016>
 14. Binyaruka P, Balabanova D, McKee M, Hutchinson E, Andreoni A, Ramesh M, et al. Supply-side factors influencing informal payment for healthcare services in Tanzania. *Health Policy and Planning*. 2021;36(7):1036-1044. <http://dx.doi.org/10.1093/heapol/czab034>
 15. Baker P, Galipeau R, Thomas J. Preventing Early Marriage through Education and Community Programs: Evidence from a Rural Area in Southeast Asia. *Global Health Action*. 2022;15(1):21119.
 16. Binyaruka P, Balabanova D, McKee M, Hutchinson E, Andreoni A, Ramesh M, et al. Supply-side factors influencing informal payment for healthcare services in Tanzania. *Health Policy and Planning*. 2021;36(7):1036-1044. <http://dx.doi.org/10.1093/heapol/czab034>