CHARACTERISTICS AND DISTRIBUTION OF UNMET NEED SOUTH SUMATRA BASED ON GEOSPATIAL

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ARTICLE INFO

ABSTRACT

Unmet need in South Sumatra in 2019 was 11.13% and in 2021 the number of unmet need was 15.23%, this figure had increased quite significantly and also still did not fulfill the work agreement of the BKKBN representative for South Sumatra Province which targeted 8.07% That is, this achievement, when referring to BKKBN's target of reducing unmet need for family planning, can be said to have not decreased significantly. The purpose of this study is to determine the characteristics and distribution of Unmet Need in South Sumatra on a geospatial basis. The method in this study uses a quantitative descriptive approach by utilizing secondary data from the 2017 IDHS as well as data on Indonesian families for 2021 conducted by the BKKBN. The treatment of unmet need data is to determine the characteristics and distribution of unmet need data in South Sumatra Province by processing data, analyzing data, and producing geographically referenced outputs. Characteristics of unmet need occur mostly in PUS aged over 35 years with more than two children, the highest education level is at the elementary school level of 11.8% and living in urban areas. The results obtained in the field are that there are many unmet needs due to the impact of the Covid-19 pandemic where many PUS are afraid to access contraceptives at health facilities, complete large-scale social activities, and terminate employment.

Keywords: Characteristics; Distribution; Geo spatial; Unmet need

INTRODUCTION

Indonesia is the fourth most populous country in the world after China, India and the United States, a large population if it is not followed by good quality human resources will cause various problems and will become a big burden for the country to cope with sufficient population growth. At high levels, the government has carried out several programs to reduce the growth rate of educators, such as conducting socialization on the importance of family planning, providing free family planning services, and forming family planning villages for suburban areas where there are many population
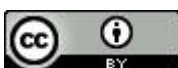
problems. These efforts were made by the government to form a small, happy and prosperous family. There are several reasons why the number of births in Indonesia is still quite high, such as the still high rate of early marriage, the assumption that many children have many risks, declining economic levels, difficulty obtaining access to family planning services (Damayati, Heldayani, & Anggraini, 2020).

South Sumatra is a province that has contributed to the success of the Family Planning program so as to realize the level of welfare of the Indonesian people in general and South Sumatra in particular. One of the strategic goals is to reduce the unmet need for family planning. In this case the BKKBN set a target percentage of unmet need for family planning in 2016 of 7.4% and in the previous year, 2015 set a target of 10.60% (BKKBN, Laporan Kinerja Instansi Pemerintah 2015 Badan Kependudukan dan Keluarga Berencana Nasional. , 2015).

Based on the achievements of the South Sumatra BKKBN Family Planning Program (2016), it shows that the percentage of unmet need has reached 13.15% (BKKBN, Capaian Program Kependudukan, KB dan Pembangunan Keluarga sd. Bulan Mei 2016. Perwakilan Badan Kependudukan dan Keluarga Berencana Nasional Provinsi Sumatera Selatan., 2016). This percentage decreased from the previous year with the achievement of 14.40% with a different target percentage from the previous year. That is, this achievement, when referring to the BKKBN target in reducing unmet need for family planning, can be said to have not decreased significantly where the highest percentage is in OKU-Selatan district and the lowest is in Lahat district.

The family planning program has not yet been fully realized for all people considering that there is unmet need in several districts in South Sumatra which has an impact on people's access to family planning services as a result of the uneven distribution of health facilities and the availability of family planning service facilities. Social conditions and the physical condition of the community environment may influence access to family planning for the community so that it needs to be studied so that it can minimize the failure to achieve a predetermined program.

Each region has different characteristics as well as the social and economic life of the community which also influences unmet need. Therefore, geospatial is needed to help make decisions and make a policy so that the achievement of targets can be realized evenly and with quality so that the objectives of the family planning program are achieved.

Law Number 4 of 2011 concerning Geospatial Information states that Geospatial is a spatial aspect that indicates the location, position and position of an object or event that is under, on or above the earth's surface expressed in a certain coordinate system. To provide geospatial information, a technology is needed that can accommodate this information, one of which is using the Arcgis 10.2 program. Arcgis is software released by ESRI that functions to process data, analyze and produce geographically referenced data output. The intended output data are geospatial characteristics and distribution of Unmet Need in South Sumatra. This geospatial can later be used by the government in determining policies and making decisions in equitable distribution of the supply of health facilities and infrastructure, as well as family
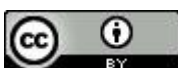
planning services both in quantity and quality so that family planning programs in realizing community welfare can be realized.

Based on this description, researchers will conduct research with the title "Geospatial-Based Characteristicsand Distribution of Unmet Need in South Sumatra." The results of this study are expected to be part of realizing the family planning program.

MATERIALS AND METHODS

This research is applied research, which aims to apply and produce a research product. In this research is to produce geospatial characteristics and distribution of Unmet Need in South Sumatra by processing data, analyzing data, and producing geographically referenced outputs.The data used is in the form of a base map of South Sumatra sourced from Bappeda Palembang city and statistical data regarding Unmet Need per region sourced from BKKBN. Then, the tools used to process the data consist of a set of computers (hardware) and the program/software used is Arcgis 10.2.

The analysis was carried out using the overlay technique which is one of the techniques in the Arcgis program. The

term Overlay was inspired from the process of placing a transparent map on top of another map that has a different phenomenon to produce a new map. The combination of two or more maps that have different geometries and attributes will produce a new map according to the creator's goals (Mujib, Murjainah, & Daulay, 2017).
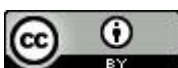
The population and sample in this study refer to the 2017 IDHS survey data and family data collection data for the South Sumatra province in 2021 obtained from the BKKBN for the South Sumatra Province with the main variable observed being the number of unmet need for family planning.
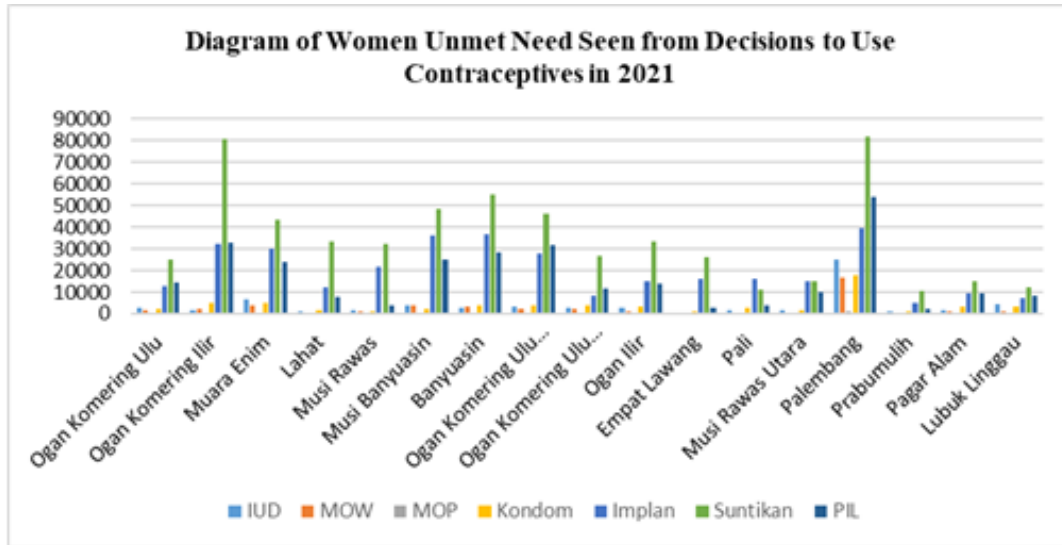
RESULTS AND DISCUSSION

Characteristics of Women Unmet Need KB

Women in the household play a role in determining the occurrence of unmet need. According to Utami, Gustina, &Samosir (2020) revealed that women's

participation in household decision making can be in the form of participation in making decisions regarding health care, decisions for large household expenses and decisions to visit family or family (Utami, Gustina, & Samosir, 2020). In addition, women's decisions to have children to women's decisions to choose to use contraception. Contraceptives in their use are divided into long-term and short-term use. Long-term use of contraceptives including implants, IUDs, WOM and MOP. Meanwhile, short-term contraceptives, including condoms, injections, pills. The use of contraceptives can be a solution to regulate birth spacing so as to minimize unwanted pregnancies (promkes, 2018). Data on the use of contraceptives for 2021 compiled by the BKKBN can be seen in **Figure 1.**

Figure 1. Diagram of Women Unmet Need Viewed from Decisions to Use Contraceptives in 2021

Based on **Figure 1**, it shows that in every region in South Sumatra, both cities and regencies use IUDs, WOM, MOP, Condoms, Injections, Pills and Implants on average. The highest use of contraceptives was widely used in the districts of Oganm Komering Ilir and Palembang City, while the lowest areas were mostly in Prabumulih. The most widely used contraceptive method is injection. Contraceptive use is most widely used in OganKomeringIlir and Palembang. Meanwhile, the contraceptive method that was used the least was MOP, namely in the city of Prabumulih.

The use of contraceptives in every region in South Sumatra is influenced by women's decisions based on their autonomy in making decisions. Women who have high autonomy, if women are involved in all household decision-making, moderate autonomy if they are involved in 1-2 household decision-making and low autonomy if they are not involved in household decision-making at all. In making decisions, women with high autonomy have lower chances of Unmet Need restrictions compared to women with low autonomy (Utami, Gustina, & Samosir, 2020). Furthermore, Casterline, Perez, & Anne (1997) argues that employed women have the capacity to make decisions and to purchase contraceptives for spacing their births (Casterline, Perez, & Anne, 1997).

The results of the 2017 SDKI data in South Sumatra show that in 2017 the number of unmet needs was 9%, this figure underwent a slight change when compared to the 2012 SDKI data of 8% unmet need. From this figure, it can be

seen that the unmet need has increased in 2017. than in 2012. In 2019 the number of unmet need in South Sumatra was 11.13% and in 2021 the number of unmet need was 15.23% this figure has increased quite significantly and also still has not fulfilled the work agreement of the BKKBN representative for South Sumatra Province targeting 8.07% of the cause of unmet need for family planning is due to the limited implantable contraceptives available at the BKKBN representative warehouse for South Sumatra Province (BKKBN, Laporan Akuntabilitas Kinerja Instansi Pemerintah. BKKBN perwakilan Provinsi Sumatera Selatan, 2019).

Demographic Characteristics Unmet Need KB

Demographic characteristics related to the age of PUS unmet need are used to see the age of PUS Unmet need in South Sumatra Province, the data is obtained from the results of family data collection conducted by the BKKBN of South Sumatra Province where the results obtained show that the age of unmet need is mostly over thirty-five years old, The impact of demographic characteristics of unmet need is presented in **Table 1.**

Table 1. Demographic characteristics of unmet need

Characteristics	Presentase (%)
Age	
< 35 Year	43.56
> 35 Year	56.44
Child is Still Alive	
1	31.57
2	24.33
>2	44.10

Source: BKKBN Sumsel, 2022

The results of **Table 1**, show that most of the unmet need in South Sumatra are aged 35 and over, this is because at the age of 35 and over PUS unmet need feels that the risk of getting pregnant and giving birth is very small or even impossible, this is in line with what Ardhika stated, et al. (2018) which says that the age of women with PUS who do not need family planning is >30 years because women who are women of childbearing age who do not need family planning feel that they cannot get pregnant anymore. At the age of over 30 years they have a higher percentage of rarely having sexual intercourse with their husbands (Ardhika & Rara, 2018) (Putri & Oktora, 2020).

The data above shows that there are still many women who do not understand the age limit for productive women to give birth. In general, women will experience menopause at the age of 45-55 years. large, considering that the age of 35 years is classified as a productive age for giving birth even though it carries a greater health risk to both the mother and the baby being born.
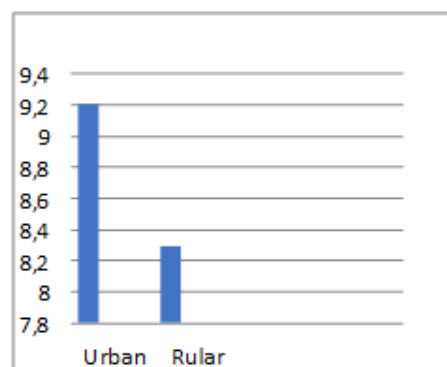
The high number of unmeet need that occurred in 2021 is inseparable from the impact of the Covid-19 pandemic which has made people afraid to visit health facilities such as health centers, hospitals, posyandu, and practicing midwives. The fear of accessing contraception causes a lot of unmet need, especially women of childbearing age who use short-term family planning.

There are several ways you can do to reduce the number of unmet need over the age of 35 with more than 2 children, namely by raising awareness of the importance of long-term family planning. Apart from that, socialization, education, mentoring, monitoring and more optimal service activities, socialization of the importance of maturing the age of marriage and giving life skills to young women, especially those who are married (Apriansi, Damayati, & Idris, 2021).

Social Characteristics Unmet Need KB

The social character studied in this study is the area of residence and education of PUS, becausearea of residence and level of education are interesting things to study in unmet need, the areas of residence studied in this study are rural and urban areas, The results of the analysis of the data obtained are presented in **Figure 2.**

Figure 2. Residential characteristics
Source: IDHS 2017

In the diagram in **Figure 2** can see that unmet need occurs a lot in urban areas 9.2% compared to rural areas 8.3%, the large number of unmet need occurring in urban areas is an interesting thing to study considering that urban areas have complete, close and easy health facilities accessible, but many people, especially married women of childbearing age, cannot meet their family planning needs. There are many factors that affect unmet need, such as education level, wealth quintile, and area of residence, but in general unmet need occurs more in rural areas than in urban areas, but in South Sumatra the 2017 IDHS data shows that unmet need is more prevalent in urban areas, namely 9 .2%. The findings in the field show that an unhealthy lifestyle, high life pressures make the fertility rate of women decrease so that they do not use family planning either intentionally or unintentionally.

Unpleasant experiences in using family planning make many WUS who live in urban areas do not want to have children but do not use family planning. Stories about the negative effects of family planning have been experienced by themselves as well as stories from neighbors, or from families. Many WUS do not use family planning, in line with what was found. by Jain (1999) who stated that unpleasant experiences with contraception in the past made women not use contraceptives again (Jain, 1999). Educational Characteristics of Unmet Need for Family Planning are presented in **Table 2.**

Table 2. Educational Characteristics of Unmet Need KB

Educational Characteristics	Persentase
Not completed in primary school	11.8
Graduated from elementary school	5.0
Did not finish high school	6.1
Graduated from high school	4.0
College	7.2

Source: IDHS 2017

In line with Westoff (2001), Korra (2002), Hatmadhi (2006), Makripuddin (2011), and Rahamaningtias (2014), women who have primary to junior secondary education experience more unmet need for family planning (Westoff, 2006) (Korra, 2002) (Hatmadhi, 2006) (Makripuddin, 2011) (Rahmaningtias, 2014). This is due to a lack of knowledge regarding
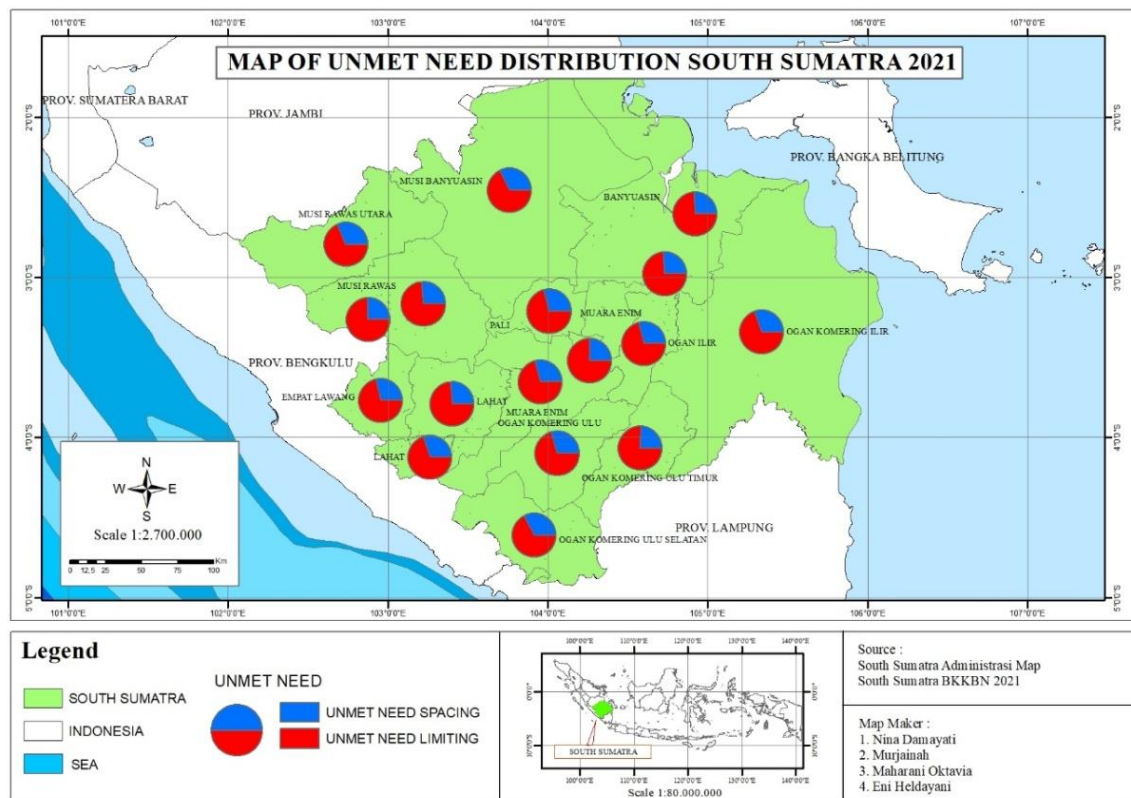
contraception and family planning. Meanwhile, according to Nyauchi&Omedi (2014) revealed that the lower the education, the greater the chances that such women will have an unmet need for distance. correctly reported that women with primary education were most likely to have unmet distance needs (Nyauchi & Omedi, 2014).

The role of increasingly sophisticated technology makes it easier for WUS to get information about family planning, but in getting information there are still many people who are consumed with hoax information, for this reason, the role of the government is needed in providing reliable information easily accessible so that negative news about family planning is not consumed by married women of childbearing age. Advertisements about the benefits of family planning and optimizing services at health facilities also need to be done to reduce the number of unmet need in urban areas.

Distribution Of Unmet Need South Sumatra

South Sumatra is one of the regions in Indonesia with the highest cases of unmet need. Based on the results of the spatial analysis using the overlay technique using Arcgis 10.5, it can be seen from the cases of unmet need spacing and unmet need limiting, showing that the highest unmet need is found in the city of Palembang with 52,597 with unmet need limiting of 38,836 people and unmet need spacing of 13,761 people. Then, the city of Prabumulih is 21,992 people with an unmet need spacing of 5,692 people and an unmet need limiting of 16,300 people. Meanwhile, the lowest unmet need cases were in Pagaralam district with 3,443 people with unmet need spacing of 1,034 people and unmet need limiting of 2,409 people. Likewise, EmpatLawang district is the area with the lowest unmet need cases, namely 3,811 people consisting of 1,085 unmet need spacing and 2,726 unmet need limiting people. The distribution map of unmet need can be seen in **Figure 3.**

Figure 3. Map of distribution of Unmet Need KB in South Sumatra

Unmet need is divided into two types, namely unmet need spacing and limiting which in South Sumatra Province unmet need occurs a lot, namely the type of limiting as much as it shows that couples of childbearing age (PUS) do not want to have but do not take part in family planning. The results of data collection on Indonesian families conducted by the BKKBN stated that unmet need in South Sumatra occurs mostly in urban areas, especially Palembang City with 26% followed by LubukLinggau City with 19.47% and Prabumulih City with 16.93%. for unmet need at least in EmpatLawang District.

The distribution of unmet need in South Sumatra is very interesting because in general unmet need occurs a lot in rural areas but things are inversely proportional, where unmet need actually occurs a lot in urban areas, this shows there is a shift in the factors that affect unmet need which is very interesting to study Furthermore.

The results of the study (Antarini, Masfiah, Fitriani, &Junaidi, 2017) show that unmet need limiting tends to occur in women of childbearing age who marry more than 15 years of marriage, have high parity, mothers tend to be old, and have a secondary education level.

above (high school). Then it was also found that neither distance nor confinement had any differences according to economic situation, all of them were mostly wives or housewives from low-income families. In addition, the husband's participation in not using contraception was found both in maintaining birth spacing and in limiting births (Antarini, Masfiah, Fitriani, & Junaidi, 2017). Meanwhile, the results of the study (Putri &Oktora, 2020) show that the high percentage of unmet need for family planning for limiting in women aged 35-49 years is because they have a higher percentage of rarely having sexual intercourse with their husbands (19.30%) so they feel have a lower risk of getting pregnant and giving birth than younger women, so they decide not to use contraception.This birth restriction occurs because women of childbearing age who do not use family planning have a high risk of becoming pregnant and have a great risk of experiencing complications during pregnancy, childbirth and the puerperium. An unwanted pregnancy can cause an abortion where abortion has a very high risk for pregnant women (Putri & Oktora, 2020) (Antarini, Masfiah, Fitriani, & Junaidi, 2017).

The hope is that in the future, after the Covid-19 pandemic has disappeared, the government through the health service and BKKBN will be more active in providing socialization on the importance of family planning and returning and increasing the community's sense of trust, convenience, and comfort in health services, especially in urban areas, so that the number of unmet needs decreases and there are no another unwanted pregnancy.

CONCLUSIONS

Characteristics of unmet need for family planning in South Sumatra seen from the age of most of them are over the age of 35 years with the number of children still alive, more than 2 children, seen from the education of unmet need for family planning women who do not finish elementary school the most presentation, and are in urban areas, the number of unmet need for family planning increases Family planning in 2021 is inseparable from the incident of the Covid-19 pandemic which has made people, especially in urban areas, afraid to come and access contraceptives in health facilities.

REFERENCES

A. Jain. (1999). Should Eliminating Unmet Need for Contraception Continue to be A Program Priority? International Family Planning Perspective. 25, Supplement, , pp. 39-43.

A. Korra. (2002). Attitudes toward Family Planning and Reasons for Nonuse among Women with Unmet Need for Family Planning in Ethiopia., ORC Macro Calverton, Maryland, USA.

A. Rahmaningtias. (2014). Kebutuhan Keluarga Berencana yang Tidak Terpenuhi di Nusa Tenggara Timur. Tesis. SekolahPascasarjana Universitas Gadjah Mada. Yogyakarta.

Antarini, S. Masfiah, A. Fitriani and L. Junaidi. (2017). Unmet need to space and limit childbirth among reproductive age women in Pangkalpinang City, Bangka Belitung Province, Indonesia. Global Health Management Journal Vol 1 No.1, pp. 4-9.

B. Nyauchi and G. Omedi. (2014). Determinants of Unmet Need for Family Planning Among Women in Rural Kenya," African Population Studies Vol. 28 No. 2 July, 2014.

BKKBN. (2015). Laporan Kinerja InstansiPemerintah 2015 Badan Kependudukan dan KeluargaBerencana Nasional.22 Maret 2015. [Online]. Available: https://www.bkkbn.go.id/po-content/uploads/LAKIPBKKBN_20161.pdf.

BKKBN. (2016). Capaian Program Kependudukan, KB dan Pembangunan Keluarga sd. Bulan Mei 2016. Perwakilan Badan Kependudukan dan Keluarga Berencana Nasional Provinsi Sumatera Selatan. Maret 2016.

BKKBN. (2019). Laporan Akuntabilitas Kinerja Instansi Pemerintah. BKKBN perwakilan Provinsi Sumatera Selatan. 10 Agustus 2019. [Online].

C. Westoff. (2006). New Estimates of Unmet Need and The Deman for Family Planning., DHS Comparative Studies No. 14. Calverton, Maryland, USA: Macro International.

D. Ardhika and M. Rara. (2018). Faktor Penyebab Unmeet Need KB Pasangan Usia Subur di Kecamatan Labuhan Ratu. Jurnal Penelitian Geografi, Vol 6, No.1.

D. Utami, L. Gustina and O. Samosir. (2020). Pengaruh Otonomi Wanita dan Karakteristik Sosial Demografi terhadap Unmet Need Kb pada Wanita Kawin di Indonesia. Jurnal Berkala Kesehatan, Vol 6, No. 1, Mei, pp. 1-8.

E. Apriansi, N. Damayati and M. Idris.(2021). Efektivitas Program Kampung KB Di Desa Sidorejo Kecamatan Keluang Kabupaten Musi Banyuasin. Jurnal Swarnabhumi Vol.6, No.1.

J. Casterline, A. Perez and B. Anne. (1997). Factors Underlying Unmet Need for Family Planning in the Philippines. Studies in Family Planning, 28(3), pp. 173-191.

L. Makripuddin. (2021). Perempuan Unmet Need Di Kabupaten Lombok Timur. Universitas Gadjah Mada. Yogyakarta.

M. A. Mujib, M. Murjainah and R. W. Daulay. (2017). Aplikasi Sistem Informasi Geografis (SIG) Untuk

Identifikasi Perubahan Sempadan Sungai Musi di Kota Palembang (1922-2012) in Prosiding Seminar Nasional Universitas PGRI Palembang; Palembang.

Damayati Nina, E. Heldayani and W. Anggraini.(2017).Trends and Fertility Control in South Sumatera Province (Further Analysis of IDHS 2017). Sumatera Journal of Disaster, Geography and Geography Education. Vol 4. No 1 Juni , 2020.

Promkes.(2018). PentingnyaPenggunaan Alat Kontrasepsi, 11 Agustus. [Online]. Available: https://promkes.kemkes.go.id/pentingnya-penggunaan-alat-kontrasepsi.

Putri, V. Shabrina and S. Oktora. (2020). Determinan Status Unmet Need For Limiting Birth Pada Wanita UsiaSuburBerstatus Kawin Di Jawa Barat Tahun 2017.Jurnal Kependudukan Indonesia, Vol 15. No 1 Juni.

S. Hatmadhi. (2006). Unmet Ned for Family Planning in Indonesia: Trends and Detemninants. Journal of Population, 12 (1).

V. Putri and S. Oktora. (2020). Determinan Status Unmet Need For Limiting Birth pada Wanita Usia Subu rBerstatus Kawin di Jawa Barat Tahun 2017. Jurnal Kependudukan Indonesia Vol. 15 No. 1 Juni, pp. 85-102.