

ACCESS, QUALITY OF FAMILY PLANNING SERVICE, AND UNMET NEED: A SYSTEMATIC REVIEW

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ABSTRACT

Background: Unmet need for family planning (FP) is one of the current critical FP and reproductive health issues. It makes contraceptive use difficult to increase. This may cause population explosion and will have a continuous impact on life. The direct impact of unmet need for FP is the occurrence of unwanted and unplanned pregnancies. Previous studies showed that good access and quality of service have an important role to overcome the unmet need. It helps to ensure the continuous use of contraceptives. This study aimed to systematically review the access, quality of service, and unmet need of the FP program.

Subjects and Method: A systematic review was carried out by searching articles from 4 online databases, namely PubMed, Scopus, ProQuest, and JSTOR. The materials under review were free full text articles published from 2009 to 2019. After a journal was obtained, the journal was selected according to PICO. The researchers read the titles and abstracts of each journal.

Results: A total of 12 articles were selected to be reviewed in this study. Access and quality of FP services were important determinants of unmet need events. Effective intervention to reduce the incidence of unmet need can be done through access and quality service approaches. It included providing mobile service facilities, utilizing the geo-coordinate capacity of households and health facilities utilizing Geographic Information System (GIS) and Global Positioning System (GPS) technology, and friendly services. Service outreach must be provided according to the request from the community, subject to availability of medicines and contraceptive supplies.

Conclusion: Unmet need for FP can be overcome by providing mobile service facilities and utilizing GIS and GPS technology. Competence officers must be available to manage community needs.

Keywords: unmet need, access, quality of service, family planning, contraception

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BACKGROUND

Unmet need for family planning services is defined as the percentage of married women who do not want to have any more children or want to spawn subsequent births, but do not use contraception. Unmet need can be said to be problematic when viewed from the trend. The trend of unmet need in the world consistently experienced a decrease in the period of 1990-2005 which initially amounted to 13.1% decreased to 12.3% in 1995 then decreased again to 11.5% in 2000 and decreased to 10.9% in 2005. However, the incidence

of unmet need in the world experienced an increase in 2009 to 11.2%. The trend of unmet need shows that it does not seem like a significant change yet. The most unmet need in 2009 occurred in Africa, reaching 22.7%, followed by Latin America and the Caribbean, Asia and North America with 9.9%, 9.3% and 6.6% respectively (UN, 2011).

Among the 1.9 billion women of reproductive age (15-49 years), living in the world in 2019, 1.1 billion have a need for family planning, that is, they are current contraceptive users or have unmet needs for

the family planned. Of these 1.1 billion women, 842 million are users of modern contraception methods and 80 million are users of traditional contraception methods. In 2019, 190 million women of reproductive age throughout the world who wish to avoid pregnancy do not use any contraceptive methods, up from 156 million in 2000. The proportion of women with unmet needs for family planning currently stands at 10 percent, a proportion that has remained unchanged since 2000. The proportion of women who have their needs for family planning satisfied with modern methods (SDG indicator 3.7.1) has increased from 74 to 76 percent from 2000 to 2019 (UN DES, 2015).

The high unmet need for family planning causes a decrease in the prevalence of contraception and this will be a cause of population explosion due to an uncontrolled population growth rate. The high rate of population growth will have an impact on the provision of food, agricultural land, housing and other consumer goods (Surapaty, 2016). Unmet family planning needs will have a continuous impact on one's life. The impact of unmet need for family planning that can be felt directly is the occurrence of unwanted and unplanned pregnancies (UNFPA, 2008).

Use of contraception is appropriate to prevent unwanted pregnancy and to make a healthy time and birth control. Elimination of unmet need in developing countries in 2012 will prevent 54 million unplanned pregnancies, including 21 million unplanned births and 26 million abortions (Singh et al., 2012).

Eliminating the unmet need for modern methods in developing countries in 2012 will prevent around 54 million unwanted pregnancies, including 21 million unplanned births and 26 million abortions. Ultimately, this will prevent 79,000 maternal deaths and more than one million infant deaths. The consequences of unwanted pregnancy and close childbirth can be a problem for women

and their children, especially in countries that do not have access to high-quality maternal health care services. Therefore, increasing access to modern contraception is an important means of protecting the lives and well-being of women and children (Rani et al., 2013).

The high number of unmet need for family planning shows that there is a possibility that family planning services in some communities are not fulfilled. Although the government is currently trying to increase family planning participation in all regions with various existing programs, the family planning needs that are not being met are still high. The problem of family planning needs not being met cannot be allowed to continue to occur.

The impact of unmet need for family planning can affect TFR and increase maternal mortality. Along with the increase in maternal mortality will certainly have an impact on the health of the child being born. In addition, from the TFR which is still in a condition of a significant reduction in numbers, of course it can also have an impact on the population growth rate.

Therefore, it is still very necessary to pay attention to the fulfillment of family planning needs for women. The use of contraception helps couples and individuals realize their basic right to decide freely and responsibly in determining when and how many children to have. Increasing use of contraception will result in not only an increase in health-related outcomes such as a decrease in maternal and infant mortality rates, but also an increase in education and the economy, especially for girls (UN, 2017). Good access and quality of service provided has an important role in the continued use of contraceptives for acceptors and prospective acceptors so that they can overcome the unmet need.

Improving access and quality of services is an effective way to reduce the prevalence of unmet need for family planning. Communities experience obstacles in the use of family planning services so that their access is limited, or completely closed. In common communities not using contraception, but in fact they need it.

Target 3.7 of the Sustainable Development Goals (SDGs) calls for countries "By 2030, to ensure universal access to sexual and reproductive health care services, including for family planning, information and education, and integration of reproductive health into national strategies and programs". In accordance with the commitment of the international community to achieve universal access to reproductive health by 2030 requires monitoring of key indicators of family planning.

Trends in contraceptive prevalence and the needs of family planning who are satisfied with modern methods that show that increased investment and commitment by governments and international organizations are needed for the realization of reproductive rights for everyone, and to help fulfill the promise of Agenda 2030 for Sustainable Development that "There will be no left behind" (UN DES, 2015).

Access to family planning, quality of service and exploring barriers to service utilization are key factors in the adoption and continuation of contraception (Eltomy et al., 2013). The increasing use of contraceptive methods results in a decrease in maternal and infant mortality rates, an increase in school and economic outcomes, especially for girls and women.

Therefore the researchers conducted a systematic review to see the relationship between access and quality of service with the occurrence of unmet need and identify interventions through effective access and

quality of service to reduce the incidence of unmet need from various studies obtained.

SUBJECTS AND METHOD

1. Study Design

This study was conducted using systematic review to identify various relevant journals. This systematic review is carried out in a team and in accordance with the PRISMA methodology (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) (Liberati et al., 2019). There are 4 stages carried out in the Systematic review, starting from identification, screening, eligibility and include. In the identification stage, the things done are the determination of PICO-S (Population, Intervention, Comparison, Outcome, Study), determination of keywords, determination of inclusion and exclusion criteria for later use as a basis in searching journals in an online database.

2. Inclusion and Exclusion Criteria

A systematic search was carried out by searching English journals in four online databases, namely PubMed, Scopus, ProQuest and JStor, which were published in a span of ten years from 2009 to 2019 and were a free full text journal. All journals obtained from the database are then checked for duplicate journals using Mendeley. In addition, Mendeley is also used as a tool to manage all the journals obtained. Journals obtained and already grouped into each folder in Mendeley, then filtered according to the criteria set. Filtering starts from the screening of titles and abstracts, screening of complete papers, data abstraction and assessment of reference quality. After the screening is complete, twelve journals are obtained and then a matrix of each journal is made to facilitate synthesis.

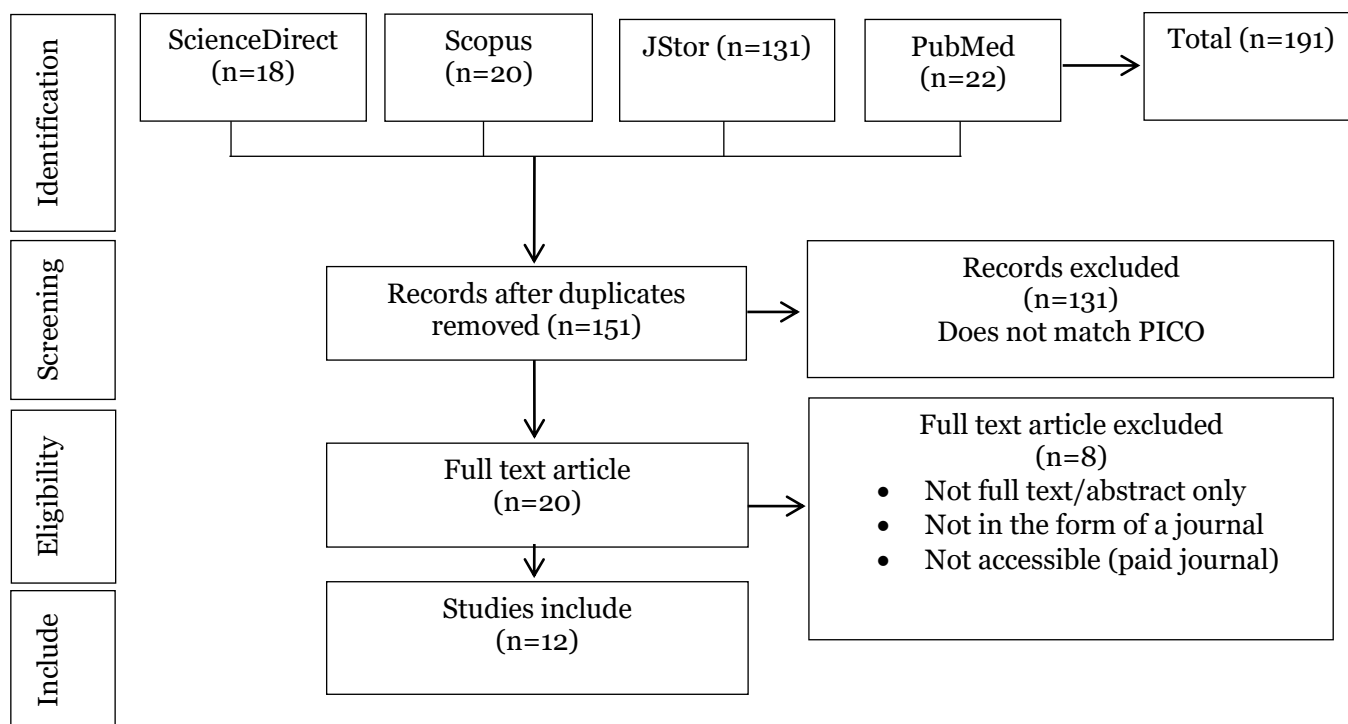


Figure 1. PRISMA Flow Diagram (Liberati et al., 2009)

RESULTS

This systematic review resulted in 12 journals obtained showing that the unmet need incident has not decreased significantly. Access and quality of family planning services are important determinants of the unmet need incident. Therefore, it is necessary to develop health services that are easily accessible and mobile facilities as interventions in overcoming these problems (Khalil et al., 2018; Ettarh and Kyobutungi, 2012).

Use of contraception at the provincial and district levels, where prevalence is higher in districts in the North province and lower in districts in the western provinces. Use of contraception is significantly higher among women who live relatively close to facilities (less than 2 kilometers) that have a wide range of contraception. The main sources of modern contraceptive methods for married rural women are health posts and health centers. Thus, household data collection is representative nationally that can be linked to the health facility environment through

geographic information systems. This approach also helps visualize patterns of contraceptive use along with various available methods and contraceptive supplies (Shiferaw et al., 2017; Habyarimana & Ramroop, 2018).

This lack of access largely contributes to the high unmet needs of women. Those who have full access to health services are significantly less likely to have an unmet need. This points to the need to expand family planning efforts, specifically targeting women with many children and women in the immediate post-natal period and their partners, to fill knowledge and communication gaps and expand information. Increasing women's access to family planning will play a role in counteracting current trends for unmet needs. Expansion of access and information is done by counseling, educational efforts (Machiyama and Cleland, 2014; Juarez et al., 2018; Wulifan et al., 2017)

Women who give birth in a health facility are 1.4 times more likely to use con-

trapection than women who give birth at home. Specifically, living in a community where women receive quality antenatal care and where there is discussion about birth spacing has a positive effect on contraceptive use (Dynes et al., 2016; Tappis et al., 2015).

An important indicator of quality service delivery is "availability of medicines and contraceptive supplies" in an area that suits the needs of the community. This is because it is not uncommon for reverse availability to occur in the quality of health services, which means that the available contraceptive methods are generally not preferred by users, this is due to a lack of supply and causes unmet need. The government must also be wise in ensuring that family planning activities cover every nook and cranny (Bellows et al., 2017; Chukwuji et al., 2018; Torres et al., 2019).

DISCUSSION

This systematic review is to identify that access and quality of service has a strong effect on contraceptive use and unmet need events, ensuring access to a variety of affordable contraceptive methods is essential to counteract current trends for unmet needs and secure well-being and support health and community development (Wulifan et al., 2017).

This is in line with the results of other studies which say that access to health facilities is an important determinant of the use of modern contraception and the incidence of unmet need (Ettarh et al., 2012). The main reason not to use contraception is the inaccessibility of family planning methods (Khalil et al., 2018).

Those who have full access to public services are significantly less likely to have unmet needs for spaces (Juarez et al., 2018). The relative contribution to unmet needs is from lack of access to contraceptive methods (Machiyama and Cleland, 2014).

Women in rural areas have a higher proportion of unmet needs for contraception compared to women in urban areas as observed by Westoff & Pebley (1981) and Kongsri et al. (2011). This may be due to easier access to health facilities and health care providers for contraception, easy access to media and information, and the high cost of living in urban areas that motivates them to limit births. Ultimately, addressing unmet needs among rural women is likely to result in significant improvements in women's health while also limiting further population growth to enable the country to overcome several challenges towards sustainable development (Machiyama and Cleland 2014; Wulifan et al., 2017; Adebowele & Palamuleni, 2014).

In addition, the quality of health services is an obstacle in implementing contraception and causes a high incidence of unmet need (Tappis et al., 2015). Family planning activities and services are instruments used by people or nations to achieve the goal of reducing poverty, maternal and infant mortality, examining population explosion, increasing the income of its citizens, all for the sake of a better life (Chukwuji et al., 2018). This requires interventions through effective access and quality of service to overcome this.

Based on the study results, several interventions to overcome the laziness of access and quality of services that are important causes of the occurrence of unmet need are obtained. Increasing access to contraceptive needs is an important step towards increasing the use of methods in areas with unmet needs and limited progress. Access and proximity to health care facilities shows that distance plays a key role in determining access to family planning services and other maternal health services using georeferenced information (Shiferaw et al., 2017). The use of GIS and GPS technology to map service points is an underutilized strategy in family

planning that is appropriate in developing countries that have not yet achieved family planning goals and reduced or even eliminated unmet need events (Bertrand et al., 2014).

The importance of utilizing the capacity of household geo-coordinates and health facilities to inform program and policy decisions relating to improving supply chain systems and contraceptive demand and use. The distance to the nearest health facility and the availability of various contraceptive methods and the limited frequency of supplies are associated with a higher likelihood of use of modern contraception.

It also helps to emphasize the importance of focused interventions aimed at ensuring a reliable supply of contraception and the expansion of various contraceptive methods and services to areas with limited physical access to health facilities (Shiferaw, et al, 2017) so that it facilitates the community to get contraceptives that suit their needs and wants and also help them get information about access to health services to get family planning services.

Another strategy that must also be developed in underserved countries to mitigate the challenges of distance to health facilities is to provide services that are easy to reach and mobile facilities because there may be some areas where people have difficulty accessing health facilities. Thus, it can be helped by the existence of moving facilities towards these areas (Khalil et al., 2018; Ettarh & Kyobutungi, 2012).

It should be emphasized that the importance of interventions that are focused and aimed at ensuring a reliable supply of contraception and the expansion of various methods and services of contraception to areas with limited physical access to health facilities. An important indicator of quality service delivery is "availability of medicines and contraceptive supplies" in an area. The

availability of contraception must be adjusted to the demands and needs of the community in order to increase the use of contraception so as to reduce the incidence of unmet need. In addition, outreach efforts must be targeted according to contraceptive requests from the public, especially those hampered by poverty levels (Bellows et al., 2017; Torres et al., 2019; Tappis et al., 2015).

Family planning activities and services are instruments used by people or nations to achieve the goal of reducing poverty, maternal and infant mortality, examining population booms, increasing the incomes of its citizens, all for the sake of a better life. Information is power, because it is the basis for making the right decision whether as an individual or as a government. Therefore the availability of family planning information has been determined to be very vital in this regard (Chukwuji et.al., 2018).

Strong benefits in using contraception can be realized by improving the quality of pregnancy care, including counseling about family planning, and by supporting public health workers to involve community members in discussions about the healthy time and distance of pregnancy.

Quality of service may be at the core of unmet requests. Wider counseling and educational efforts to eliminate the fear of unjustified side effects associated with contraceptive practices, such as menstrual disorders, are one possible way to increase contraceptive use so as to reduce unmet need. One plausible explanation can be related to the fact that family planning is not always managed at the facility level, because counseling and the provision of relevant services are provided as a component of outreach activities, potentially dealing specifically with the most vulnerable women (Juarez et al., 2018; Wulifan et al., 2017; Tappis et al., 2015).

Other study also states that better strategies for integrating birth control into rou-

tine care visits, encouraging women to discuss family planning with their partners and providers, increasing family planning training among providers, and expanding family planning options and information sources can help reduce unmet needs for birth control, and ultimately reduce maternal and neonatal mortality rates (Dynes et al., 2016).

Quality of service at the community level has a strong effect on contraceptive use and unmet need events. This shows that large benefits in the use of contraception can be realized by improving the quality of public health services. Public health workers should focus on conducting discussions about community birth spacing (Tappis et al., 2015).

Those who are involved in providing family planning services must always treat patients in a friendly and dignified manner when interacting and providing services to them. The government must build more family planning centers in an even and strategic location, with relevant and modern family planning instruments and employ qualified personnel to manage them.

Furthermore, governments, individuals, philanthropic organizations and non-governmental organizations must fully participate and increase funding and logistical support to ensure that family planning activities cover every nook and cranny (Chukwuji et al., 2018). In addition, community-based family planning interventions must be considered as complementary actions to strengthen current service delivery and reach more women (Wulifan et al., 2017).

Although the literature search is carried out systematically and assesses all related studies within the desired scope, it is possible that we missed relevant publications, e.g. publications are reported in non-English journals and most of the recent studies have not been reported and unpublished journals and journals that cannot be accessed because of paid and incomplete journals or from

other online databases. In addition, we only focus on academic literature, peer-review, the possibility of missing important findings from gray literature.

Although these restrictions on country coverage and the number of publications were finally reviewed, the findings of this study remain relevant for developing countries with similarities in social, community and regional contexts, and health systems across countries.

It can be concluded that an effective intervention to reduce the incidence of unmet need is to provide mobile service facilities, utilizing GIS and GPS technology. Competent officers (qualified personnel) must be available to manage community needs (counseling and educational efforts on contraception and family planning, family planning service centers that are spread evenly with strategic locations, availability of medicines and contraceptive supplies and targeted outreach according to demand contraception from the public).

REFERENCES

- Adebowale SA, Palamuleni ME (2014). Determinants of unmet need for modern contraception and reasons for non-use among married women in rural areas of Burkina Faso. *Etude de La Population Africaine*, 28(1): 499–514. <https://doi.org/10.11564/28-1-503>.
- Bellows B, Mackay A, Dingle A, Tuyiragize R, Nnyombi W, Dasgupta A (2017). Increasing contraceptive access for hard-to-reach populations with vouchers and social Franchising in Uganda. *Global Health Science and Practice*, 5(3): 446–455. <https://doi.org/10.9745/GHSP-D-17-00065>.
- Bertrand JT, Kayembe P, Dikamba N, Mafuta E, Hernandez J, Hellen J et al. (2014). Using Mapping of Service Delivery Sites to Increase Contraceptive Availa-

- bility in Kinshasa, Democratic Republic of the Congo. *International Perspectives on Sexual and Reproductive Health*, 40(2): 95–99. Retrieved from <http://www.jstor.org/stable/10.1363/intsexrepha.40.2.95>.
- Chukwuji CN, Gadanga AT, Sule S, Zainab Y, Zakarriya J (2018). Awareness, access and utilization of family planning information in Zamfara State, Nigeria. *Library Philosophy and Practice*, 2018.
- Dynes MM, Bernstein E, Morof D, Kelly L, Ruiz A, Mongo W et al. (2016). Client and Provider Factors Associated with Integration of Family Planning Services among Maternal and Reproductive Health Clients in Kigoma Region, Tanzania: A, (July), 1–19.
- Eltomy EM, Saboula NE, Hussein AA (2013). Barriers affecting utilization of family planning services among rural Egyptian women. *Eastern Mediterranean Health Journal= La Revue de Sante de La Mediterranee Orientale= Al-Majallah Al-Sihhiyah Li-Sharq Al-Mutawassit*, 19(5): 400–408. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/24617117>.
- Ettarh RR, Kyobutungi C (2012). Physical access to health facilities and contraceptive use in Kenya : Evidence from the 2008-2009 Kenya Demographic and Health Survey. *African Journal of Reproductive Health/ La Revue Africaine de La Santé Reproductive*, 16(3): 48–56. Retrieved from <http://www.jstor.org/stable/23485693>
- Habyarimana F, Ramroop S (2018). Spatial analysis of socio-economic and demographic factors associated with contraceptive use among women of child-bearing age in Rwanda. *International Journal of Environmental Research and Public Health*, 15(11). <https://doi.org/10.3390/ijerph15112383>.
- Juarez F, Gayet C, Mejia-Pailles G (2018). Factors associated with unmet need for contraception in Mexico: evidence from the National Survey of Demographic Dynamics 2014. *BMC Public Health*, 18(1): 546. <https://doi.org/10.1186/s12889-018-5439-0>.
- Khalil SN, Alzahrani MM, Siddiqui AF (2018). Unmet need and demand for family planning among married women of Abha, Aseer Region in Saudi Arabia. *Middle East Fertility Society Journal*, 23(1): 31–36. <https://doi.org/10.1016/j.mefs.2017.07.004>.
- Kongsri S, Limwattananon S, Sirilak S, Prakongsai P, Tangcharoensathien V (2011). Equity of access to and utilization of reproductive health services in Thailand: national Reproductive Health Survey data, 2006 and 2009. *Reproductive Health Matters*, 19(37): 86–97. Retrieved from <http://www.jstor.org/stable/41409153>
- Liberati A, Altman DG, Tetzlaff J, Mulrow C, Gøtzsche PC, Ioannidis JPA et al. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. *Journal of clinical epidemiology*. <https://doi.org/10.1016/j.jclinepi.2009.06.006>.
- Machiyama K, Cleland J (2014). And Attitudinal Resistance Unmet Need for Family Planning in Ghana: The Shifting Contributions of Lack of Access and Attitudinal Resistance Increased access to and contraceptive and reduction of unmet need have historically. *Studies in Family Planning*, 45(2): 203–226.
- Pebley AR, Westoff CF, Mitra SN, Hatmadji SH, Rahman AA, Regmi GPS et al. (1982). Unmet Need For Contraception In World Fertility Surveys Of Developing Countries. *East-West Population*

- Institute East-West Center Honolulu, Hawaii February, (1)13(February), 109.
- Rani U, Soest, A. Van, Saha, U. R., & Soest, A. Van. (2017). Contraceptive Use, Birth Spacing, and Child Survival in Matlab, Bangladesh are preceded very birth intervals are at higher mortality risk. *Haaga*, 44(1): 45–66.
- Shiferaw S, Spigt M, Seme A, Amogne A, Skrøvseth S, Desta S et al. (2017). Does proximity of women to facilities with better choice of contraceptives affect their contraceptive utilization in rural Ethiopia? *PLoS One*, 12(11). <https://doi.org/http://dx.doi.org/10.1371/journal.pone.0187311>.
- Singh S, Darroch JE, Darroch S (2012). Adding It Up: Costs and Benefits of Contraceptive Services Estimates for 2012. *Guttmacher Institute and United Nations Population Fund (UNFPA)*, 201.
- Surapaty SC (2016). Kebijakan Program Kependudukan, Keluarga Berencana, Dan Pembangunan Keluarga Dalam Mendukung Keluarga Sehat (Rapat Kerja Kesehatan Nasional Gelombang II) (Population Program Policy, Family Planning, and Family Development in Supporting Healthy Families (National Wave Work Meeting II). BKKBN: Jakarta.
- Tappis H, Kazi A, Hameed W, Dahar Z, Ali A, Agha S (2015). The Role of Quality Health Services and Discussion about Birth Spacing in Postpartum Contraceptive Use in Sindh, Pakistan : A Multilevel Analysis. *PLoS One*, 10(10). <https://doi.org/http://dx.doi.org/10.1371/journal.pone.0139628>.
- Torres-Pereda P, Heredia-Pi IB, Ibáñez-Cuevas, Midiam, Ávila-Burgos, L. (2019). Quality of family planning services in Mexico : The perspective of demand. *PLoS One*, 14(1). <http://dx.doi.org/10.1371/journal.pone.0210319>.
- UN (2011). World Contraceptive Use 2010 POP/DB/CP/Rev2010 Regional Averages for Unmet Need for Family Planning. Population Division Department of Economic and Social Affairs.
- UN (2017). World Family Planning. Department of Economic and Social Affairs ST/ESA/SER.A/414, 1–43. <https://doi.org/ST/ESA/SER.A/414>.
- UN DESA (2015). Inequality and the 2030 Agenda for Sustainable Development. *Development Issues*, 4, 1–10. Retrieved from <https://www.un.org/development/desa/dpad/publication/no-4-inequality-and-the-2030-agenda-for-sustainable-development/>.
- UNIFA (2008). Reducing unmet need for family planning: Evidence-based strategies and approaches. *Reproductive Health*, 25(1).
- Wulifan JK, Jahn A, Hien H, Ilboudo PC, Meda N, Robyn PJ et al. (2017). Determinants of unmet need for family planning in rural Burkina Faso : A multilevel logistic regression analysis. *BMC Pregnancy and Childbirth*, 17(1): 1–12. <https://doi.org/10.1186/s12884-017-1614-z>.