Journal of Policy Research, 10(3), 142-147
https://jprpk.com
https://doi.org/10.61506/02.00330

Causal Factors of Unmet Need for Family Planning in Pakistan

Muhammad Farhan Asif[1], Muhammad Ibrahim[2*], Muhammad Yousaf Noor[3], Qamer Zaman[4]

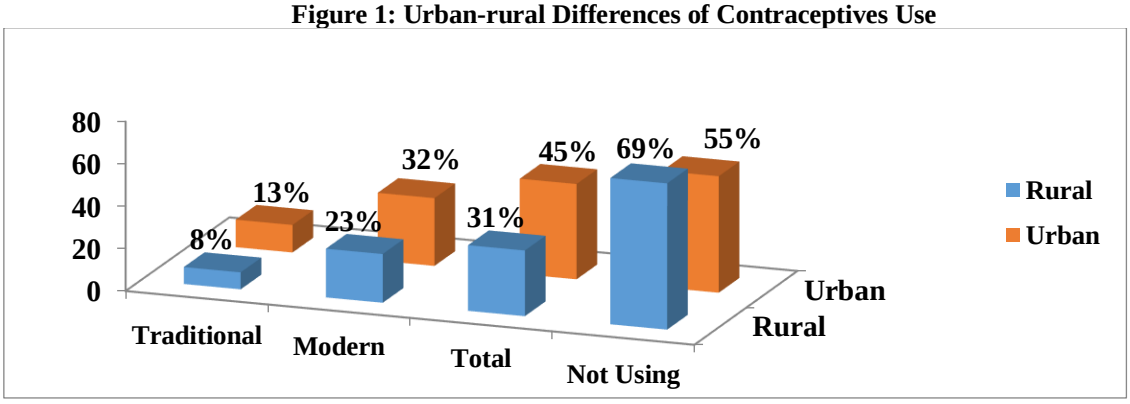
Abstract
Family planning is an important instrument to control population and to bring improvement in mother as well as child health. The government has been unceasingly trying to increase the availability of contraceptives facilities but still unmet need for family planning (UMNFP) exists in Pakistan. Women are said to have UMNFP if they want to limit or space child bearing, but are not using any contraception methods due to any reason. According to Pakistan Demographic and Health Survey (PDHS) 2017-18, the existence of UMNFP is 17.3% in Pakistan. The aim of this study is to scrutinize the determinants of UMNFP in Pakistan. The household dataset of PDHS 2017-18 is utilized for analysis. Results show that older women are less probable to have UMNFP as compared to younger women. Uneducated women are less likely to have UMNFP as compare to educated women. The likelihood of UMNFP is higher among women who are unemployed than those who are employed. Those women who belong to richer wealth quintile are less probable to have UMNFP. In contract, those women who belong to poorer wealth quintile are more likely to have UMNFP than those women who belong to poorest wealth quintile. Those women who have availability of contraceptives are less likely to have UMNFP than those women who have no availability of contraceptives. Similarly, those women who have made decision regarding contraceptives use are less probable to have UMNFP than those women whose husband have made decision regarding contraceptives use.
Keywords: Availability of Contraceptives, Unmet need for family planning, Pakistan

1. Introduction

Economic development is the ultimate objective of all economic activities. Economic growth has been one of the most commonly used indicators to measure the economic development of the countries. However, this measure has been severely criticized because it does not show the actual picture of the welfare of people (Hicks and Streeten, 1979; Sen, 1987; Streeten, 1994; Stiglitz et al., 2010; Afridi et al., 2021). During the last quarter of 20th century, the concept of economic development has emerged with a focus on human lives. Development is thought to be meaningless if it does not improve the wellbeing of the people. Among many other variables, population can be important factor in the process of economic development. Size and growth of population is expected to be linked with economic development in number of ways. The association between population and economic development has long been a topic of discussion and investigation. The characteristics of population dynamics (birth rate, death rate, and migration) and its relation with socio-economic factors make a significant contribution to successful planning and the resolution of issues pertaining to population growth and economic development (Asif et al., 2021).

Many factors affect population growth. Among many economic and socio-cultural factors availability and effectiveness of family planning programmes can be important in this regard. Figure 1 shows the prevalence of contraceptive use in different regions of Pakistan. The use of FP is different in different regions of the country. Urban women are more probable to use FP that is 45 percent than their rural counterpart is 31 percent. While on the other side, non-use of contraceptive use in rural women is 69% and in urban women is 55%.

Figure 1: Urban-rural Differences of Contraceptives Use



Source: PDHS, 2018

Family planning (FP) programmes can also help to decline fertility rate. As a result of fertility decline, increased working age adults in the population as compare to children and the elderly. This reduced dependency ratio tends

[1] Department of Economics, National College of Business Administration & Economics Lahore, Punjab, Pakistan
[2*] Department of Sociology, Kohsar University Murree, Punjab, Pakistan, dr.muhammad.ibrahim@kum.edu.pk
[3] Imperial College of Business Studies, Lahore, Pakistan
[4] Literacy and Non Formal Basic Education Department, Punjab, Pakistan

to increase economic growth through increase in saving and investment. Reducing population growth enhances economic growth by bringing improvement in the health, productivity, education, and population skills. The resources are to be dispersed among peoples, thus improving human capital (Hydari et al., 2019). Family planning programmes are thought to be useful for population control. Both population and contraceptives use have increased in the world. Women in underdeveloped nations continue to face various obstacles in gaining access to modern contraceptive techniques. Access to contraceptives, knowledge of contraceptives and inconvenience to use contraceptives can be important factors of family planning use. Among many other variables, unmet need for family planning (UMNFP) is one of important factor for population growth. The UMNFP is defined as "the proportion of married women of reproductive age who do not use any method but wish to delay their next pregnancy or who do not wish to have any more children" (PDHS, 2018). A proper implemented FP programmes can work to decrease UMNFP.

In developing countries, 2.32 billion women had UMNFP in 2020 (UNFPA, 2020). Statistics shows that the prevalence of UMNFP was 80% in Central and West Africa and around 45% in Eastern Europe, Asia, and North Africa during 2015 (UNFPA, 2015). UMNFP among married women was 23.7% in Nepal (NDHS, 2016), 22% in Ethiopia (EDHS, 2016), 22% in Tanzania (TDHS, 2016), 13% in India (IIPS, 2017) and 6.6% in Peru during 2016 (PFFP, 2016). UMNFP was 30% in Guyana (WHO, 2018) and 10.6% in Indonesia during 2017 (IDHS, 2017) as compared to 12% in Bangladesh (BDHS, 2018) and 17.3% in Pakistan during 2018 (PDHS, 2018).

Understanding the causes of UMNFP would reduce the risk of UMNFP. The non-use of family planning (FP) can occur due to several reasons. These reasons includes “limited choice and access of FP methods, lack of knowledge of FP methods, fear of side effects for contraceptive use (FSE), economic status of individuals, cultural and social norms, poor quality of FP services, couple’s participation in decision making, cost of FP methods, access to FP methods, availability of family planning methods and inconvenient to use” (Asif & Pervaiz, 2019; Asif et al. 2021).

In 1990, Pakistan's population was 107 million (World Bank, 2020) which almost doubled in 30 years and reached 215.6 million at an annual rate of 1.8% in 2021 (GOP, 2021). Pakistan has been at sixth position in world population due to rapid and persistent population growth (GOP, 2020). A sharp increase in population reduces individuals’ income, savings as well as investment. As a result, capital formation is slow down and job opportunities are declined, thus enhanced unemployment and poverty. In addition, average complementary resources per worker are reduced as labor force rises for scarce resources like land and capital. FP is accepted as an effective instrument to control the population growth. In 1953, a FP programme was launched in Pakistan by an NGO named “Family Planning Association of Pakistan” which advocated and facilitated reduced family size. The present Pakistan Government gives priorities to FP services. A number of local and international NGOs have also focused on the distribution of FP services in the country (PDHS, 2018).

Contraceptives use has been increasing around 1% per year since 1990. Still, UMNFP exists in Pakistan, where 56% of reproductive married women intend to use FP services. However, only 39% of women were using these services. In Pakistan, the prevalence of UMNFP was found to be 17.3% with 9.5% spacing and 7.8% limiting during 2017-18 (PDHS, 2018). Family planning (FP) is acknowledged as an efficient method for reducing population and enhancing child and mother health. The Pakistani government has continually worked to enhance the accessibility of family planning services. Nonetheless, like many others underdeveloped nations in the world, UMNFP still exist in the country. This issue is worth to be discussed as UMNFP is growing at a rapid pace in underdeveloped countries. In this regard, this research is an endeavor to examine the determinants of UMNFP in Pakistan.

2. Methodology

We have investigated the impact of different socio-demographic and economic factors on UMNFP. Dependent variable of our study is categorical variable. Binary logistic regression is considered suitable when outcome variable is categorical variable with two possible outcomes. For example, In Binary regression analysis, the variable of UMNFP has been constructed by using information of unmet need for spacing (UMNS) and unmet need for limiting (UMNL). In doing so, the responses of UMNS and UMNL have been coded as 1 and all other cases have been coded as 0.

To examine the effect of different factors on UMNFP, the functional form of the model used is:

UMNFP = f(WA, WED, WES, WSH, NLC, EMM, HED, ROR, AFPM, CPDM) **. . . . (1)**

Where

Unmet need for family planning (UMNFP) is categorized into two categories, women having UMNFP (spacing and limiting), then coded as 1 and women not having UMNFP then coded as 0. Women’s age (WA) is categorized into different five years age groups. These groups are divided into 7 different five years age groups. If women’s age lies between 15-19 years age group then coded as 1, if women’s age lies between 20-24 years age group then coded as 2, and so on. Women/husband’s education (WED/HED) has been categorized into 4 categories. If women have no education then coded as 0, if women have completed maximum five year school education then coded as 1, if women have attained maximum ten year school education then coded as 2 and if women have

attained higher education then coded as 3. Wealth status of women's household has been classified into five different categories. Coded as 1 if woman reside in a poorest quintile, coded as 2, if woman belong to a poorer quintile, if women reside in a middle quintile then coded as 3, coded as 4, if woman belong to a richer quintile and coded as 5, if woman reside in a richest quintile. Women's employment status has been divided into two categories. If women are currently not working then coded as 0, and if women are currently working then coded as 1. Number of living children (NLC) is divided into three categories. If women have no children then coded as 0, if women have minimum 1 and maximum 3 children then coded as 1 and if women have four or more than four children then it is also coded as 3. Exposure to mass media (EMM) has been divided into two categories. If women heard a family planning message then coded as 1, otherwise 0. Region of residence (ROR) is divided into two categories. If women belong to urban areas then coded as 1 and if women belong to rural areas then coded as 2. Availability of family planning methods (AFPM) is divided into two categories. If family planning methods are easily available then coded as 1 otherwise coded as 0. Couple participation in decision making (CPDM) for not using contraceptives is divided into two categories, i.e. when women take decision for not using contraceptives then coded as 1 and if husband take decision for not using contraceptives then coded as 0.

3. Data Source

In this study, we have utilized the dataset of Pakistan Demographic and Health Survey 2017-18.

4. Results and Discussions

Table 2 provides the results of the impact of socio-economic and demographic factors on UMNFP.

Table 1: The Effect of Socioeconomic Factors on UMNFP

Dependent Variable: Unmet Need for Family Planning				
Independent Variables		β	Sig.	Exp (β)
Women's Age	15-19		Reference	
	20-24	-.257	.243	.774
	25-29	-.073	.730	.930
	30-34	.027	.896	1.028
	35-39	-.206	.320	.814
	40-44	-.844	.000	.430
	45-49	-1.217	.000	.296
Women's Education	No Education		Reference	
	Primary	.131	.033	1.139
	Secondary	.118	.061	1.125
	Higher	.106	.002	1.107
Women's Employment Status	Currently Unemployed		Reference	
	Currently Employed	-.107	.048	.899
Wealth Status of Household	Poorest		Reference	
	Poorer	.181	.001	1.198
	Middle	.015	.800	1.015
	Richer	-.185	.006	.831
	Richest	-.316	.000	.729
Number of Living Children	No Children		Reference	
	1 – 3 Children	-.452	.134	.637
	More than 3 children	-.818	.381	.441
Exposure to Mass Media	No		Reference	
	Yes	-.119	.173	.801
Husband's Education	No Education		Reference	
	Primary	.139	.023	1.149
	Secondary	.036	.473	1.037
	Higher	.092	.166	1.097
Region of Residence	Rural		Reference	
	Urban	-.343	.192	.860
Availability of Contraceptive Methods	Available		Reference	
	No Available	.272	.014	1.570
Decision Maker for Not Using Contraceptive	Women		Reference	
	Husband	.211	.000	1.810
Constant		.271	.242	1.311

Table 1 shows the relationship of different socio-economic and demographic determinants with UMNFP by applying binary logistic regression. Findings indicate that UMNFP is considerably lower among females aged 40 and older compared to those aged 15 to 19 years. The age of women and their level of UMNFP are comprehensibly related with each other. When women are young, UMNFP is linked to spacing out births, but when they are older, it is linked to limiting births. The UMNFP reaches its peak in the late thirties, where it remains until the early forties, when it begins to decline. It is true that the probability of UMNFP is higher for women in their early thirties, but this difference is not statistically significant. As age goes up, UMNFP goes down. Most women have as many kids as they want between the ages of 35 and 39. At that point, they are likely to start using birth control. The fall in UMNFP is by increase in age, because the woman usually wants their first pregnancy to be postponed, so there is more desire of having family planning at young age women, but is not receiving it. Our findings are congruent with those of earlier research (Hailemariam and Haddis, 2011; Woldemicael and Beaujot, 2011).

The odds of UMNFP are greater among female who are attained maximum five-year school education than those with no education. Women without education do not require contraception since they are ignorant of the practice. Women with secondary education had a lower propensity of UMNFP. In other words, as women's education rises, UMNFP tendencies to fall. Well-educated women have easier access to family planning services due to their increased knowledge. In the same way, women with higher levels of education are better equipped to make judgments about the use of birth control (Asif et al., 2022). Our results align with previous studies that examined the elevated UMNFP among illiterate and less educated women in Kenya (Ojakaa, 2008) and in Pakistan (Asif and Pervaiz, 2019; Asif et al., 2021).

Women who are in the lower wealth quintiles had significantly higher probabilities of UMNFP than women in the higher wealth quintiles. Because wealthy women can afford modern contraception, are more educated, and are capable of making their own decisions, compared to poorer women (Asif et al., 2022; Asif et al., 2022). The same findings from earlier research, which examined the possibility that wealthy people in Kenya had a lower risk of UMNFP than those who were poor (Ojakaa, 2008), in Delhi, India (Saini et al., 2007) and in Pakistan (Asif et al., 2021).

Women who are currently employed are less likely to be UMNFP than those who are currently out of work. Moreover, women's employment has been proven to be connected with their empowerment, placing them in a better position to make decisions regarding the usage of contraceptives (Riaz and Pervaiz, 2018). The study results show that the odds of UMNFP are higher among those women whose husbands are uneducated or primary educated among those women whose husbands are more educated. Previous study also explores the same result that UMNFP decreases with increase in husbands' education in Indonesia (Rahayu et al., 2009) and in Pakistan (Asif et al., 2022). In addition to women's education and the education of their husbands can also lessen the risk of UMNFP, as fertility decisions in any home can be taken jointly by women and their husbands. Individuals with a higher level of education may be better informed and have easier access to family planning services (Khan et al., 2020; Ali et al., 2020).

The odds of UMNFP are higher among women who do not available of FP methods. Availability of contraceptives remains a general problem in maximum low-middle income countries (Robey et al. 1996; Asif et al., 2023). Several researches have exposed that big section of the population, residing in rural areas, and face huge problem in obtaining high-quality family planning services with low cost (Robinson et al., 1981; Rukanuddin and Hardee-Cleaveland, 1992; Rosen and Conley 1996).

The odds of UMNFP are higher in those women whose husbands are decided for not using contraceptives. All women should have the ability to make their personal reproductive decisions therefore this is striking. This also demonstrates the importance of empowering women, as this will grant them freedom over their own lives and bodies and enable them to make decisions regarding reproduction (Ewerling et al., 2017).

5. Conclusion

Government of Pakistan has been struggling continuously to bring down population growth because the growth rate and size of population can have immense consequences for economic development. The prevalence of UMNFP results unwanted pregnancies, increases population growth rate and can hinder these efforts. Thus, to formulate appropriate policies and to cope with this issue, we need to explore the determining factors of UMNFP. The key objective of this study is to explore the important determinants of UMNFP. The study has identified that women's age, education, wealth status of the household, women's employment status, husband's education, availability of FP and involvement of wife and her husband in decision making for not using contraceptives as important determinants of UMNFP. The UMNFP is considerably lower among women between 40 years and above compared to women 15-19 years. The probability of UMNFP is higher among women who are educated up to the primary level compared to those with no education. Uneducated women do not know about contraceptives, so they do not have any need about something they do not know. The tendency of UMNFP is less among secondary educated women than primary educated women. It means that if women's education increases, the tendency of UMNFP decreases. Because of their greater awareness, educated women have access to family planning services. Similarly, educated women are more capable of making decisions regarding the usage of

contraceptives. The likelihood of UMNFP is lower among women who are employed compared to those who are not employed. Women's employment has been proven to be connected with their empowerment, placing them in a better position to make decisions regarding the usage of contraceptives. Different wealth quintile level affects differently on UMNFP. The likelihood of UMNFP is higher among women who belong to poorer wealth quintile compared to the poorest wealth quintile. In contrast, UMNFP is significantly lower among women who belong to richer and the richest wealth quintile compared to the poorest wealth quintile. UMNFP is lower among those women who have availability of contraceptives than those women who have no availability contraceptives. Similarly, UMNFP is higher when a decision on the contraception use is merely made by the husband than women. We conclude that, availability of contraceptives as well as couple participation in decision making for using contraceptive methods are major cause for not adopting family planning programmes.

5.1. Recommendations

The empirical results of this study suggest that, education especially women's education can be used as an important tool to reduce UMNFP. Women's access to education should be ensured. Education will enhance their awareness not only for reproductive health and usage of modern contraceptives but also for gaining empowerment in their family. In this way, women can have an effective role in decision regarding fertility, use of contraceptives and size of their family. In addition, population growth can be controlled through launching of an effective campaign through mass media to create awareness among people about the availability and good quality contraceptives may help to reduce people's fear of side effect. Provision of employment opportunities, as another tool is used to reduce UMNFP. The Employed women are considered to be more empowered, as they are in better position in taking decisions about family planning methods. Cultural and social hurdles of women employment need to be removed through an effective public policy, mass spread of education and an effective media campaign. Hence, the rural areas need to be particularly more focused regarding availability of family planning programme as compared to urban areas in the country. Government should promote nongovernmental organizations (NGOs) and government agencies to expand and diversify public and private sector sources of family planning information and services in order to increase availability. Family planning programmes should be prepared taking into account these different factors which influence UMNFP.

References

Afridi, J. R., Pervaiz, Z., & Asif, M. F. (2021). Welfare implications of economic growth: An empirical assessment for Pakistan. Humanities & Social Sciences Reviews, 9(3), 363-371.

Ali, S., Asif, M. F., Khan, M. K., Fatima, N., Safdar, H., & Lassi, Z. S. (2020). Moderating role of husband's education and their employment on female labor force participation in Pakistan. Ilkogretim Online, 19(4), 5265-5276.

Asif, M. F., & Pervaiz, Z. (2022). Determinants of child mortality in Pakistan: Moderating role of mother's education. Journal of ISOSS, 8(2), 29-40.

Asif, M. F., Ali, S., Ali, M., Abid, G., & Lassi, Z. S. (2022). The moderating role of maternal education and employment on child health in Pakistan. Children, 9(10), 1559.

Asif, M. F., and Pervaiz, Z. (2019). Socio-demographic determinants of unmet need for family planning among married women in Pakistan. BMC Public Health, 19(1), 1-8.7

Asif, M. F., Ishtiaq, S., Abbasi, N. I., Tahir, I., Abid, G., & Lassi, Z. S. (2023). The Interaction Effect of Birth Spacing and Maternal Healthcare Services on Child Mortality in Pakistan. Children, 10(4), 710.

Asif, M. F., Khalid, S., & Khalid, K. S. (2021). Effect of mother's employment on child mortality in Pakistan: Moderating role of mother's empowerment. Journal of ISOSS, 7(4), 175-186.

Asif, M. F., Meherali, S., Abid, G., Khan, M. S., & Lassi, Z. S. (2022). Predictors of child's health in Pakistan and the moderating role of birth spacing. International Journal of Environmental Research and Public Health, 19(3), 1759.

Asif, M. F., Pervaiz, Z., Afridi, J. R., Abid, G., and Lassi, Z. S. (2021). Role of husband's attitude towards the usage of contraceptives for unmet need of family planning among married women of reproductive age in Pakistan. BMC Women's Health, 21(1), 1-7.

Asif, M. F., Pervaiz, Z., Afridi, J. R., Safdar, R., Abid, G., & Lassi, Z. S. (2022). Socio-economic determinants of child mortality in Pakistan and the moderating role of household's wealth index. BMC pediatrics, 22, 1-8.

EDHS. (2006). Demographic and Health Survey 2005. Central Statistical Agency Addis Ababa, Ethiopia. Calverton, Maryland, USA.

Government of Pakistan. (2020). Economic Survey of Pakistan 2020-21. Economic Advisory Wing, Finance Division, Government of Pakistan, Islamabad.

Government of Pakistan. (2021). Economic Survey of Pakistan 2021-22. Economic Advisory Wing, Finance Division, Government of Pakistan, Islamabad.

Hailemariam A, and Haddis F. (2011). Factors affecting unmet need for family planning in southern nations, nationalities and peoples region, Ethiopia. Ethiopian Journal of Health Science. 21(2), 77–90.

Hicks, N., and Streeten, P. (1979). Indicators of development: The search for a basic needs yardstick. World Development, 7(6), 567-580.
Hydari, M. A., Abid, G., Asif, M. F., Butt, T. H., & Lassi, Z. S. (2019). The effects of COVID-19 (Corona Virus Disease 2019) pandemic: An exploratory study of Pakistan. Int. J. Dis. Rec. Bus. Cont, 12(1), 1431-1449.
IDHS. (2017). Indonesia Demographic and Health Survey 2017. National Population and Family Planning Board, Statistics Indonesia, Ministry of Health, The DHS Program.
International Institute for Population Sciences. (2017). India Demographic and Health Survey 2015-16. International Institute for Population Sciences-IIPS, India.
Khan, R. S., Jan, S. A., Afridi, J. R., & Asif, M. F. (2020). Impact of" Food for Education Program" on Child Labour Incidence in Tribal Districts of Khyber Pakhtunkhwa, Pakistan. Ilkogretim Online, 19(3), 3307-3320.
National Institute of Population Studies. (2018). Pakistan Demographic and Health Survey 2017-18, National Institute of Population Studies (NIPS), Islamabad, Pakistan; ICF International, Calverton, Md, USA.
Ojakaa, D. (2008). Trends and Determinants of Unmet Need for Family Planning in Kenya. DHS Working Papers No. 56. Calverton, MD: Macro International, Inc.
Rahayu, R., Utomo, I., and McDonald, P. (2009). Contraceptive use pattern among married women in Indonesia. In International Conference on Family Planning: Research and Best Practices (pp. 15-18). Kampala.
Riaz, S., and Pervaiz, Z. (2018). The impact of women's education and employment on their empowerment: An empirical evidence from household level survey. Quality & Quantity, 52(6), 2855-2870.
Saini, N. K., Bhasin, S. K., Sharma, R., and Yadav, G. (2007). Study of unmet need for family planning in a resettlement colony of east Delhi. Health and Population-Perspectives and Issues, 30(2), 124-133.
Sen, A. (1987). The Standard of Living, Cambridge University Press, Cambridge. USA.
Stiglitz, J.E., Sen, A. and Fitoussi, J.P. (2010). Mismeasuring our lives: Why GDP doesn't add up. New York: The New Press.
Streeten, P. (1994). Human development: Means and ends. The Bangladesh Development Studies, 21(4), 65-76.
Tanzania Demographic and Health Survey. (2016). Tanzania: 2015-16 Demographic and Health Survey and Malaria Indicator Survey. Key Findings.
UNFPA (2015). Trend of contraceptive use. Available at: https://www.google.com.pk/#q=In+2015%2C+United+Nation +Population+Fund+Activities+estimated+that+289%2C000+maternal+deaths+worldwide+out+of+which +85%25+occurs+in+Africa+and+Southern+Asia+(UNFPA%2C+2015).&*
UNFPA. (2020). Impact of the COVID-19 Pandemic on Family Planning and Ending Gender-based Violence, Female Genital Mutilation and Child Marriage, Interim Technical Note.
Woldemicael G., and Beaujot R. (2011). Currently married women with an unmet need for contraception in Eritrea: profile and determinants. Canadian Studies in Population 38(1–2), 61–81.
World Bank. (2020). World Development Indicator online. Available at: https://data.worldbank.org/indicator/SH.STA.MMRT.
World Health Organization. (2018). Family Planning. Available at: http://www.who.int/factsheets/fs351/en/index.html.