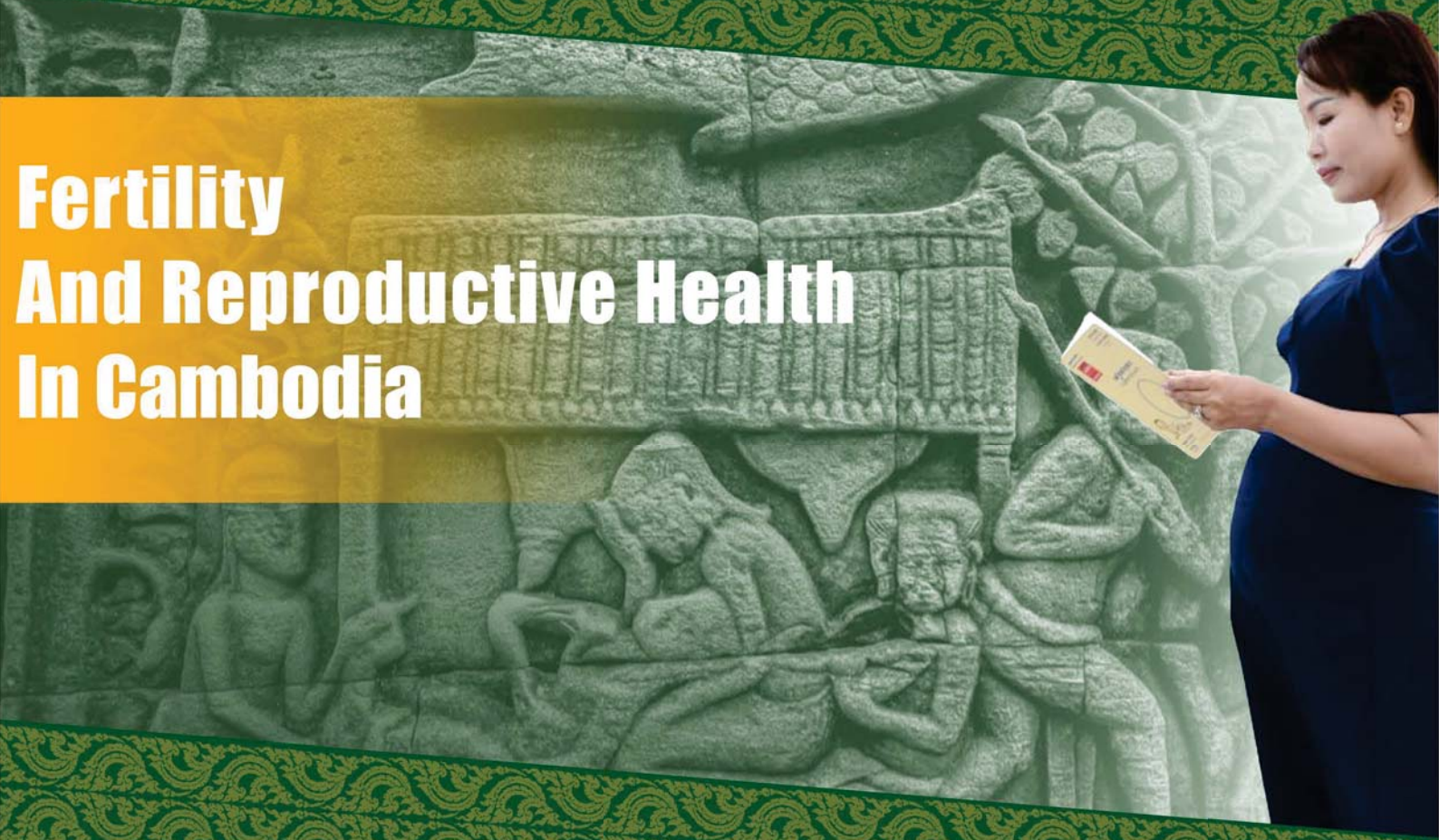
KINGDOM OF CAMBODIA

Nation Religion King

Further Data Analysis Report
From the Cambodia Demographic and Health Survey 2021-2022

Fertility And Reproductive Health In Cambodia



JANUARY 2024

National Institute of Statistics
Ministry of Planning
CAMBODIA

Bloomberg Philanthropies
DATA FOR HEALTH INITIATIVE
Vital Strategies

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TABLE OF CONTENTS

Preface

This report on "Fertility and Reproductive health in Cambodia" uses secondary data from the Demographic and Health Survey 2021-2022 CDHS. This exercise attempts to study fertility patterns and demand for family planning in Cambodia and how these may be shaped or vary by axes of inequality, such as residence areas, province, educational levels and wealth index. This secondary analysis was undertaken by the National Institute of Statistics (NIS) in collaboration with the Ministry of Health and Vital Strategies.

I would like to extend special thanks to **His Excellency Kitti Settha Pandita Chhay Than**, former Honorable Senior Minister and Minister of Planning, whose keen interest to support the CDHS series has always been a source of inspiration and encouragement, both to the national and international project teams, as well as to its users. I also would like thanks **His Excellency Bin Troachhey**, Minister , Ministry of Planning, whose keen interest and support this for successful.

I sincerely thank the United Nations Population Fund (UNFPA) for supporting the process of development of the survey, including resources and technical assistance. I would like to take this opportunity to thank the United States Agency for International Development (USAID), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Australian Aid, the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), World Food Programme (WFP) and Development Partners (DPs) for their contribution to the survey. Deepest thanks to the Royal Government of Cambodia that through the Ministry of Economy and Finance, provided almost full financial support.

On behalf of the National Institute of Statistics, Ministry of Planning, I would like to express my gratitude and appreciation to Vital Strategies for their technical and financial support to produce this report on Fertility and Reproductive Health in Cambodia as a reference for use as needed by stakeholders. Valuable inputs in the form of technical contributions, reviews, suggestions, and feedback were received from the Vital Strategies Team: **Mr. Luis Armando Ocaranza-Ordaz**, Senior Technical Advisor, and **Dr. Mean Ratanak Sambath**, Country Coordinator.

Finally, I would like to express sincere thanks to the NIS team for their effort. The team composed by **H.E. Sok Kosal**, Advisor to Ministry of Planning and Deputy Director General, **H.E. Buoy Somethea**, Advisor and Director Department of Statistical Information Service Department, **Mrs. Sron Sokaun**, Deputy Director General of NIS, **Mr. Hor Chanla**, Deputy Director Department of Science Technology and Innovation Statistics Department , **Mr. Phluk Soriya**, Deputy Director Department of Statistical Information Service Department and other NIS staff who actively participates in writing this report.

It is anticipated that the findings from this report will enhance the information available to line-ministries, international agencies, non-government organizations, policy makers, program implementers, development planners, and researchers. and support their decision-making.

We trust this report will provide useful information to addresses the interventions and concerns and future planning in health sectors.

Director General
National Institute of Statistics

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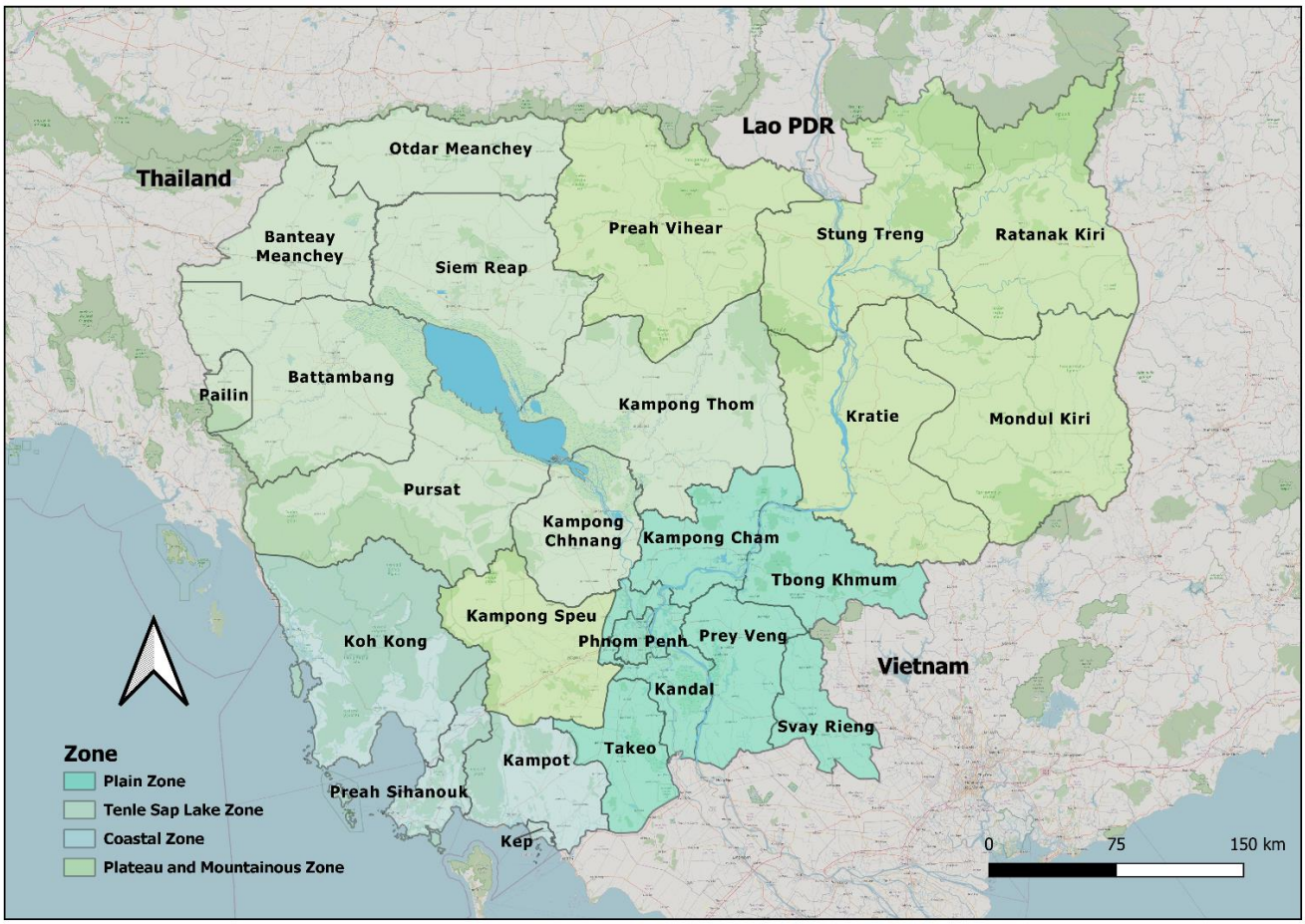
List of tables

List of figures

Maps

Map 1: KINGDOM OF CAMBODIA



List of Acronyms

ANC	Antenatal Care
ARI	Acute Respiratory Infection
ART	Antiretroviral Therapy
ASFR	Age-Specific Fertility Rates
BCG	Bacillus Calmette-Guérin
BMI	Body Mass Index
CAPI	Computer-Assisted Personal Interviewing
CBR	Crude Birth Rate
CDHS	Cambodia Demographic and Health Survey
CPR	Contraceptive Prevalence Rate
CSDG	Cambodia Sustainable Development Goals
DHS	Demographic and Health Survey
GAR	Gross Attendance Ratio
GFR	General Fertility Rate
GRR	Gross Reproduction Rate
IBR	Intrinsic Birth Rate
JMP	Joint Monitoring Programmed for Water Supply, Sanitation and Hygiene
MoH	Ministry of Health
MTCT	Mother-to-Child Transmission
NGO	Non-Governmental Organization
NIS	National Institute of Statistics
PRMR	Pregnancy-Related Mortality Ratio
PSU	Primary Sampling Unit
PNC	Postnatal Care
RGC	Royal Government of Cambodia
SDG	Sustainable Development Goal
SDM	Standard Days Method
SE	Standard Error
SE/R	Relative Standard Error
STI	Sexually Transmitted Infections
TAR	Total Abortion Rate
TFR	Total Fertility Rate
VIP	Ventilated Improved Pit
WFP	World Food Programmed
WG	Washington Group on Disability Statistics
WHO	World Health Organization

Summary

This report provides a comprehensive analysis of the Total Fertility Rate (TFR) of the women in reproductive age (15-49) in Cambodia using the Cambodia Demographic and Health Survey (CDHS) fielded in 2021-2022. The report provides information on the TFR among women in reproductive age as well as inequalities between poorest and richest ("quintile gaps") across demographic characteristics including urban residence, province, education. In addition, the report provides an analysis of the change in key indicators for women since 2000 when the first CHDS was fielded. The change in indicators over time TFR of women in reproductive age (15-49).

As Cambodia works on improving the civil registration system, censuses and surveys have become a useful source of data analysis on TFR. Therefore, censuses and surveys have become the main sources of demographic estimates in Cambodia as in other countries with deficient vital registration systems. Therefore, different demographic techniques need to be applied for estimating fertility from data collected at Cambodia Demographic and Health Survey (CDHS). As such, estimates of fertility based on the CDHS 2021-2022 data should be interpreted as providing indications of trends in these demographic parameters and of the range in which the values of parameters could lie.

- Most of the young women aged 15-19 has never married (88.2%). The proportion never married rapidly declines with age. The percentages increase with age up to age 40-44 years, with 86.3% of the women are married after that, the percentages start a slow declined. The percentage widowed increases with age, reaching comparatively high percentages at older age's group.

- The median age at first marriage among women aged 15-49 is 21.5 years, an increased by one year as compared to 20.5 years in 2014.

- The median age at first sexual intercourse among women aged 15-49 in Cambodia is 21.4 years. There are significant differences in median age at first sexual intercourse among women aged 15-49 by residence. Women aged 15-49 in rural initiate sexual intercourse 1.3 years earlier than women aged 15-49 in urban.

- The age at which childbearing commences is an important determinant of the overall level of fertility as well as the health and well-being of the mother and child. In Cambodia, the median age at first birth among women aged 15-49 is 23.3 years.

- The age-specific fertility rate in the 15-19 age groups is 48 births per 1,000 women; the highest rates were in the 20-24 age groups (154 births per 1,000 women) and declined, followed by only 3 births per 1,000 women in the 45-49 age group. The reduction in ASFR was most significant from the earliest to the most recent survey year. However, the decline in ASFRs in 2000 and 2021-2022 was negligible among younger age groups (15-24 years) and older age groups (35-49 years), while substantial decline was observed among middle-aged age groups (25-34 years).

- An estimate derived, it may be concluded that the Total Fertility Tate (TFR) for the 3 years preceding the survey is 2.7 (2.4 in urban areas and 3.0 in rural areas). Between 2005 and 2021-2022, TFR declined by almost one child (0.7) (from TFR 3.4 children in 2005 to 2.7 children in 2021-2022).

- The TFR declines with increasing education, from 3.4 children among women with no formal education to 2.4 children among those with more than a secondary education

- The TFR also differs by household wealth. The TFR is 3.5 children among women in the lowest wealth quintile and 2.2 children among those in the highest wealth.

- The current CBR is 20.2 per 1,000 populations for the five years prior to the survey. The CBR and GFR had rapidly declined from (27.7 and 129.0) per 1,000 women 2000 to (20.2 and 93.7) per 1,000 women 2021-2022.

- The mean fertility rate based on women's fertility intentions in Cambodia is 2.8 children per woman, compared with the actual total fertility rate of 2.7 children and mean child ever born 3.0 per woman at the end of reproductive age. The gap between the actual and wanted fertility rate is 0.1 children among women aged 15-49 in rural areas, compared with 0.2 children among women in urban areas.

- Nine percent of women aged 15–19 have ever been pregnant. The percentages of women aged 15–19 that have ever been pregnant have declined since 2014, from 12% to 9%. The percentage of women aged 15–19 who have ever been pregnant differs by education. Teenage pregnancy is less common in the wealthiest households (4% of women in the highest wealth quintile have begun childbearing, as compared with 16% of those in the lowest quintile)

- The gap between the actual and wanted fertility rates is much higher among women with no schooling (0.3) than women with more than secondary education (0.1). The level of wanted fertility declines with rising levels of wealth, as does the gap between actual and wanted fertility.

- Short Birth Interval negatively affects the health of both mothers and children in developing countries. Sustainable Development Goal 3 aims to reduce maternal, infant and under five mortalities by 2030. The median birth interval between the previous births in Cambodia was 54.1 months. 11% of births occurred less than 24 months after the preceding birth, 16% occurred 24–35 months after the previous birth, and another 16% occurred 36–47 months after the previous birth.

- Overall, the contraceptive prevalence rate (CPR) is 62% of currently married women aged 15-49. Almost half (45%) of currently married women use a modern method and 17% use a traditional method. For those women who currently used any contraceptive method have a high TFR (4.7 children per woman) when compared to women currently not used contraceptive (2.0 children per woman). This may indicate that the women start to use contraceptive method when they have more children.

- On average, women desire number of children (2.8 children). This is also true among women who are currently married (3.0 children and 3.1 children respectively). Women who do not want to have children but in actual women have 2.0 children. As for the women who ideally want to have one or two children actually have 2.5 children. Separately the women who want to have 3 to 4 children, the women among them actually have 3 children. Whereas women with 5 or more children actually have 3.5 children. The ideal number of children is slightly lower among urban women than among rural women.

- Almost three-fourths of currently married women aged 15-49 have a demand for family planning; 12 percent have an unmet need and 62 percent have a met need for family planning. Sixty-two percent of currently married women have been used a contraceptive method; therefore, those women have their met need for family planning. Unmet need for spacing births decreases with age, from 14% among currently married women aged 15–19 to 1% among those ages 45–49. The data show that women with unmet needs for family have less children than women with met needs for family planning (2.9 child vs 4.1 child per woman respectively).

- Institutional delivery increases the chances of a skilled birth, as well as increasing the mother's access to essential equipment and supplies. In total, 98% of live births and stillbirths in the two years prior to the survey occurred at a health facility. Seventy-eight percent of live births and stillbirth were delivered at public facilities, while only 1.7 % at home. The data shows that the mothers who have no education delivered at home and other health facilities compared with among who get higher than secondary is nothing. The percentage that delivered in public sector health facility differs by wealth quintile.

- Eighty-four percent of women received postnatal care first two days after delivery, with 59.9% receiving care within four hours after delivery and only 9% of women received no postnatal care. Both urban and rural areas, the percentage of women who received health check-up four hours after the first delivery was high.

- The broadcast and print media are important because it provides an indicate of the exposure of women to mass media that can be used to disseminate family planning, health and other information to reduce the TFR.

- As expected, unemployment women have higher fertility rates than women who have any employment worker counterparts and those women whose have improved drinking water, fertility levels were low (there are some exceptions). Women in the labor force have lower fertility than economically inactive women. Among those economically active women, unpaid family workers and "own account" workers exhibit the highest levels of fertility. Women living in households headed by women have higher fertility than those living in households headed by men. Finally, women living in dwellings with electricity and with internet access have lower fertility rates than women living in dwellings that lack these services.

- Women's residence, mother's education, father's education, birth order, birth interval, health facility and wealth quintile play a significant role for women decided going to find skilled provider for checking ANC. Father's education, birth interval, health facility and wealth quintile of household play a negative role on access to skilled provider for checking ANC.

CHAPTER 1
INTRODUCTION

Fertility refers to the number of live births women have in their lifetime. It differs from fecundity, which denotes the physiological capability of women to reproduce. Fertility is directly determined by a number of demographic factors called intermediate variables (age at marriage, use of contraception, period of breastfeeding, etc.). These factors are, in turn, affected by other social, cultural, environmental, economic, and health factors.

Current fertility data is usually collected by the vital statistical system through birth registration. If the respective data is not collected or is incomplete (as in Cambodia) the census and survey are become a major source of these data analysis. The CDHS 2000, 2005, 2010, 2014 and 2021-2022 measured current fertility by gathering data on children born during the 36 months prior to the date of the Demographic and Health Survey (by age of woman). The population census also possible to compute Age-Specific Fertility Rates (ASFR) and the Total Fertility Rate (TFR) too.

Maternal health refers to the health of women during pregnancy, childbirth and the postnatal period. Each stage should be a positive experience, ensuring women and their babies reach their full potential for health and well-being. Most maternal deaths are preventable, as the health-care solutions to prevent or manage complications are well known. All women need access to high-quality care in pregnancy, and during and after childbirth. Maternal health and newborn health are closely linked. It is particularly important that all births are attended by skilled health professionals, as timely management and treatment can make the difference between life and death for the mother as well as for the baby.

1.1. Needs of study

Fertility and Reproductive Health in Cambodia Results 2021-2022 were prepared by the National Institute of Statistics (NIS), Ministry of Planning in collaboration with the Ministry of Health (MoH) and provided technical assistance and financial support by Vital Strategies. The Cambodian Reproductive and Maternal Health Outcomes 2021-2022 are important, providing information on reproductive and maternal health in Cambodia to provide updates, baseline estimates, related fertility, maternal and child health indicators and the use of contraception, family planning, nutritional status and other health issues.

1.2. Objectives

The main objective of the series analysis report on fertility using series of Cambodia DHS 2000, 2005, 2010, 2014 and 2021-2022 is to identify the current determinants of fertility and reproductive health. and to provide information on changes in family structures, relationships, children and their influence on population fertility and reproductive health. This information assists in revising the population projections and provides a landscape to understand the future needs for health care and social programs. The report includes:

- Analysis on fertility patterns and changes in Cambodia considering background characteristics including: residence area, province, educational levels and wealth quintile index
- Estimates of key indicators, including crude birth rate (CBR), general fertility rate (GFR), age specific fertility rate (ASFR), total fertility rate) and total fertility rate (TFR)

and differential changes by residence area, province, educational levels and wealth quintile index.
- To provide information related to maternal health care in different residence areas, provincial level, education level and wealth quintile index.

1.3. Data sources

The Cambodia Demographic and Health Survey (CDHS) 2021-2022 was implemented by the National Institute of Statistics (NIS) in collaboration with the Ministry of Health (MoH). Data collection took place from September 15, 2021, to February 15, 2022. Almost all funds for field data collection were supported by the Royal Government of Cambodia through the Ministry of Economy and Finance. ICF provided technical assistance through the DHS Program, which is funded by the United States Agency for International Development (USAID) and offers financial support and technical assistance for population and health surveys in countries worldwide. Other agencies and organizations that facilitated the successful implementation of the survey through technical or financial support were the Deutsche Gesellschaft für International Zusammenarbeit (GIZ), Australian Aid, the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), and the World Food Programme (WFP).

The CDHS 2021-2022 and previous editions of the CDHS were the main source of data for this analytical report. Where appropriate and when available other data sources were used. The CDHS-2021-2022 survey covers a nationally representative sample of more than 19,496 women aged 15-49 years from 25 municipality and provinces.

1.4. Methodologies

Data on fertility have been collected in several ways from population census and surveys. First, each woman in reproductive age (15-49) were asked about the number of children born (sons and daughters) who live with her, the number who live elsewhere, and the number who were born alive and later died. Second, the complete history of all the woman's births is obtained, including the name, sex, month and year of birth, age, and survival status for each of the births. For living children, a question is asked about whether the child was living in the household or away. For dead children, the age at death is recorded. Finally, information was collected on whether a woman was pregnant at the time of the survey.

The CDHS 2021-2022 collected data on fertility preferences by asking women and men a series of questions including their desire to have another child, the length of time they would like to wait before having another child, and what they would consider to be the ideal number of children. Calculations for indicators were adapted to the Cambodian context considering measurement of the role of abortion, and provision of estimates for sub-groups nationally and by province: including age, education, residence and wealth quintile status.

The measures of fertility used were the gross reproduction rate (GRR), the total fertility rate (TFR), the intrinsic birth rate (IBR), and the crude birth rate (CBR). The TFR was calculated using the following method:

1. Count births in last 0-36 months by mother's age group
2. Count woman-years of exposure in last 0-36 months by mother's age group

3. Divide births/exposure within each age group and multiply by 1000 to get ASFRs
4. Multiply each ASFR by 5 (5 years in each age group)
5. Sum ASFRs and divide by 1000 to get TFR

Multinomial logistic regression analysis was performed to understand the relationship between healthcare utilization and women's background. Dependent variables used were dichotomic measures for Antenatal Care Visits (ANC) (None or less than 3 visits = 0 and 4 or more visits=1), and for skill providers (no skilled provider at birth=0 and skilled provider at birth=1). Independent variables included: mother's age, residence, mother's education, father's education, mother's employed, ideal number of children, birth order, birth interval, ANC provider, exposure to mass media, health facility and wealth quintile. Through such a functional model, we attempt to calculate quantitative estimates of the weight of the various independent variables in explaining differences in the dependent variables. This method is not flawless and involves a series of crucial assumptions to select the variables, estimate the regression coefficients and explain their bearing on the results and their interpretation.

1.5. Organization's report

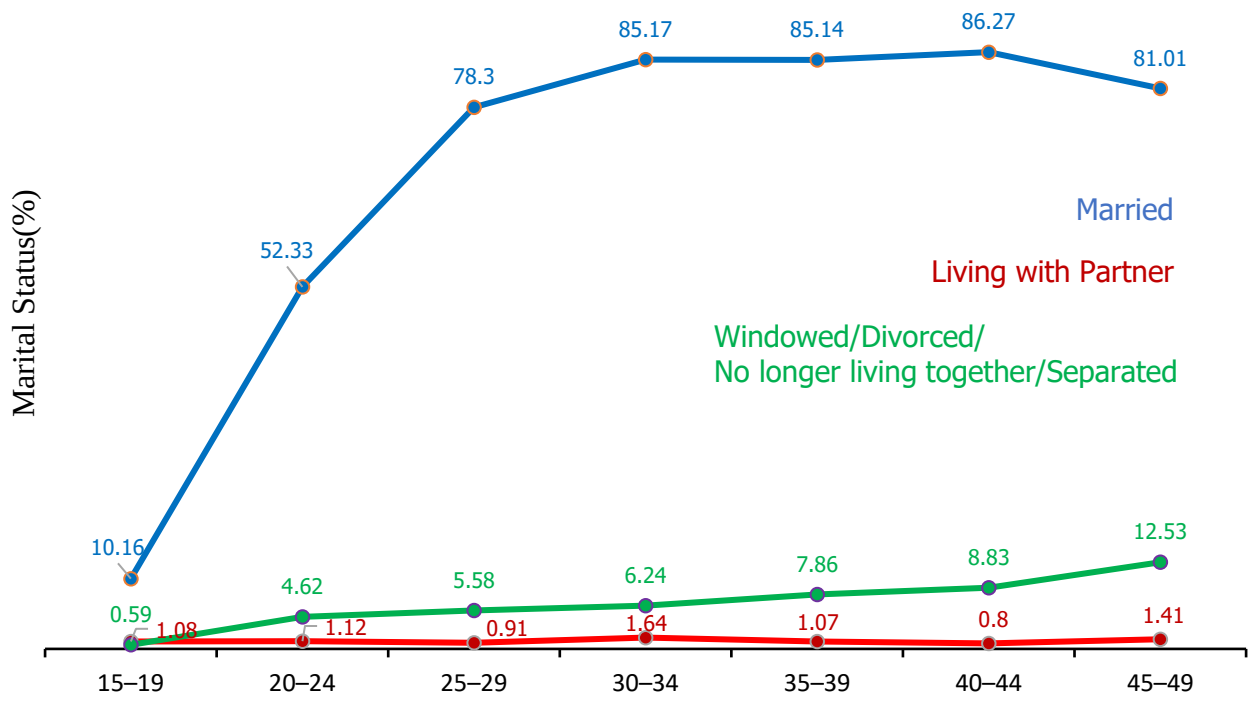
The report includes a description of socio-economic background of women in reproductive age in chapter 2, a description of characteristics of women and fertility metrics in chapter 3, analysis of indicator on family planning in chapter 4 and analysis of utilizations of maternal health care services in chapter 5.

CHAPTER 2

SOCIO ECONOMIC BACKGROUND OF WOMEN IN REPRODUCTIVE AGE

This chapter describes the demographic profile of women in reproductive age (15-49) in from the Cambodia Demographic and Health Survey 2021-2022 (CDHS) such as age, current place of residence, religion, education, literacy, marital status and household's wealth index. The sample from the survey includes 19,496 women in reproductive age: 4,788 single or never married, 13,269 currently married or living with partner, and 1,439 widowed/divorced/no longer living together/separated. The proportion of never married women rapidly declines with age. By age group 30-34, the percentage reaches single digits, and by age 45-49 only 5%. From the age group of 25-29 3 out of 4 women are married, reaching a maximum for the age group of 40-44 years, with 86.3%. The percentage widowed increases with age, reaching comparatively high percentages at older age's group.

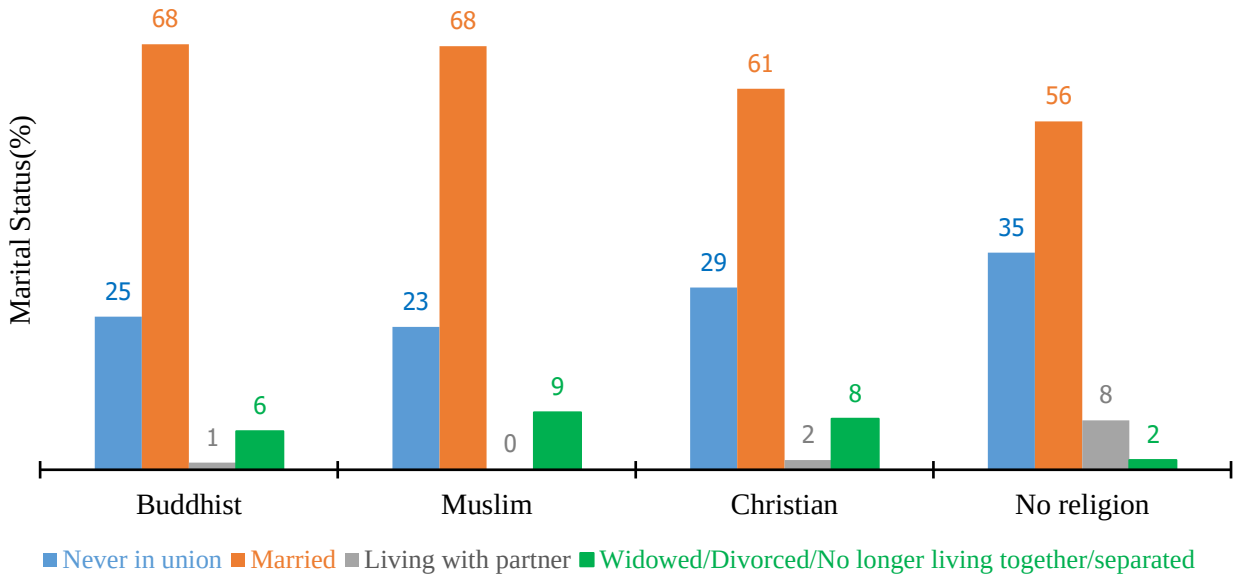
Figure 2. 1: Distribution of Marital status by age group, Cambodia DHS 2021-2022



The average amount of time spent in single age is larger in urban areas than in rural areas. Twenty seven percent of women aged 15-49 in urban corresponding to 23% of women in the same age group in rural.

The predominant religion in Cambodia is Buddhism. More than sixty percent of Buddhist, Muslim, and Christian women are currently married or living together. Muslim and Christian have a higher percent in widowed/divorced/No longer living together/separated 9% and 8% respectively.

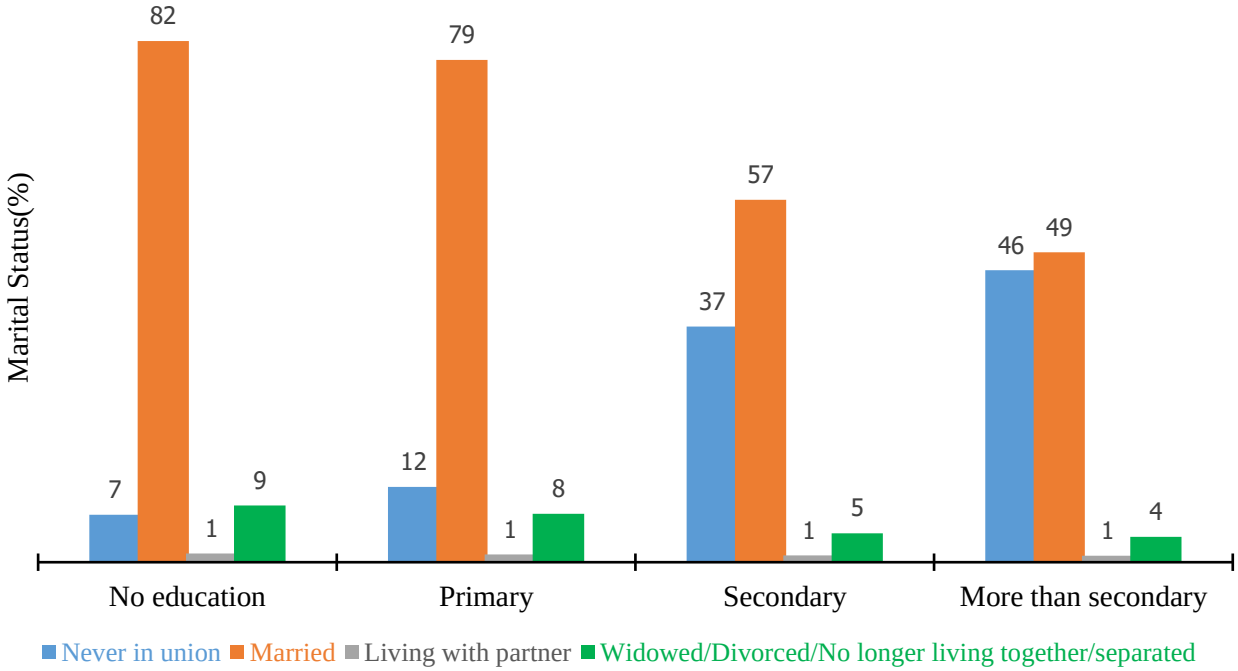
Figure 2. 2: Distribution of Marital Status by religion, Cambodia DHS 2021-2022



Education is one of the most important determinants of an individual's knowledge and behavior. Respondents were considered literate if they could read aloud all or part of a sentence shown to them.

Table 2.1 shows about 82% of no education is currently married while more than 1% living with partner and 9% are widowed/divorced/No longer living together/separated. For those who has completed the primary school, 79% currently married, above 1% living with partner and 8% are currently widowed/divorced/No longer living together/separated. Less education women have a high proportion in widowed/divorced/no longer living together and separated compare with those who had secondary and more than secondary educations.

Figure 2. 3: Distribution of Marital Status by education, Cambodia DHS 2021-2022



The table 2.1 also provide distribution of women in reproductive age by current marital status and provincial level. Phnom Penh, Siemreap, Kandal and Battambang have the highest proportions of women covered by the survey.

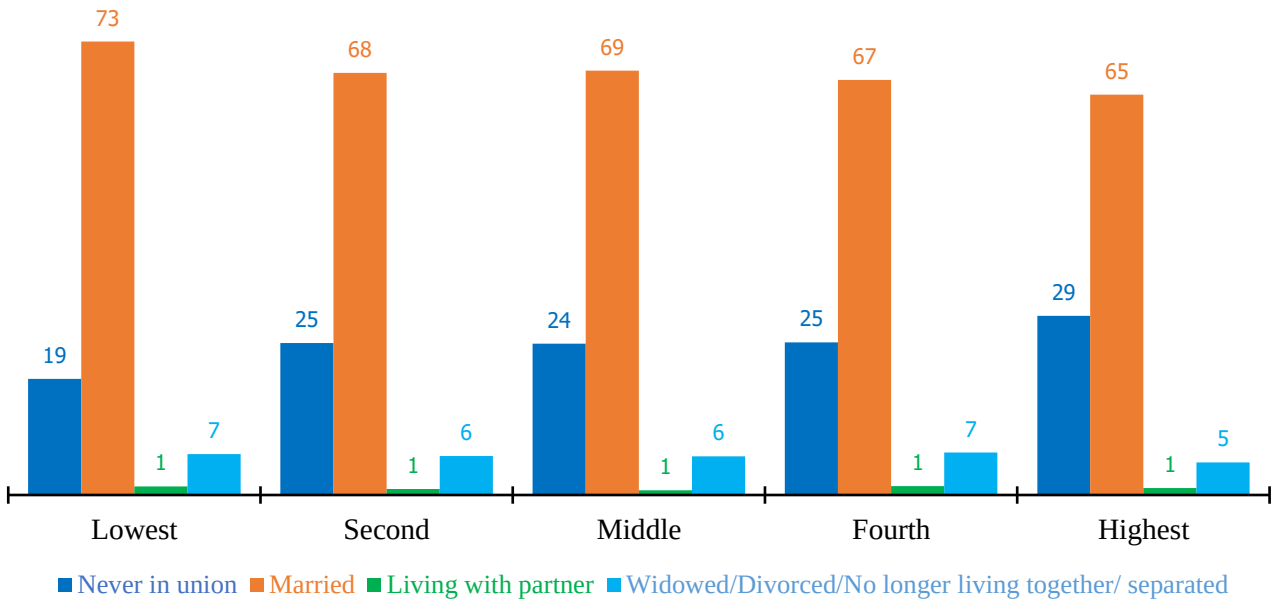
Table 2. 1: Percent distribution of women aged 15-49 by selected background characteristics of respondents, Cambodia DHS 2021-2022

Background characteristics	Current marital status					
	Never in union	Married	Living with partner	Widowed/ Divorced/No longer living together separated	Total	Number
Age						
15–19	88.17	10.16	1.08	0.59	100	2,981
20–24	41.92	52.33	1.12	4.62	100	2,589
25–29	15.21	78.30	0.91	5.58	100	2,986
30–34	6.95	85.17	1.64	6.24	100	3,272
35–39	5.93	85.14	1.07	7.86	100	3,367
40–44	4.10	86.27	0.80	8.83	100	2,598
45–49	5.05	81.01	1.41	12.53	100	1,704
Residence						
Urban	27.33	64.18	1.41	7.08	100	8,239
Rural	22.53	70.90	0.95	5.62	100	11,257
Province						
Banteay Meanchey	29.26	64.69	0.47	5.58	100	763
Battambang	26.29	66.40	1.39	5.91	100	1,347
Kampong Cham	21.21	72.62	0.23	5.93	100	1,163
Kampong Chhnang	25.32	67.25	0.30	7.13	100	675
Kampong Speu	25.26	67.42	1.03	6.29	100	1,226
Kampong Thom	21.54	75.03	0.57	2.87	100	819
Kampot	25.23	68.23	0.49	6.06	100	781
Kandal	25.72	66.46	0.46	7.36	100	1,445
Koh Kong	24.16	67.78	1.95	6.11	100	140
Kratie	19.80	69.70	3.26	7.24	100	443
Mondul Kiri	23.03	71.78	0.65	4.54	100	115
Phnom Penh	29.58	60.81	2.30	7.31	100	3,160
Preah Vihear	19.85	70.91	4.07	5.16	100	332
Prey Veng	21.66	71.70	0.68	5.97	100	1,233
Pursat	22.49	74.71	0.35	2.45	100	432
Ratanak Kiri	18.67	77.68	0.96	2.70	100	293
Siemreap	20.57	71.97	0.18	7.28	100	1,548
Preah Sihanouk	23.27	66.67	3.58	6.48	100	243
Stung Treng	19.39	73.89	1.36	5.36	100	195
Svay Rieng	20.60	72.74	0.36	6.30	100	735
Takeo	28.44	64.07	1.42	6.07	100	1,162
Otdar Meanchey	21.97	72.03	1.24	4.76	100	242
Kep	23.78	69.02	0.67	6.53	100	57
Pailin	20.80	71.19	2.84	5.17	100	96
Tboung Khmum	22.24	69.31	1.40	7.05	100	851
Religion						
Buddhist	24.53	68.14	1.15	6.18	100	18,980
Muslim	22.86	67.86	0.07	9.21	100	342
Christian	29.19	61.04	1.58	8.19	100	135

Background characteristics	Current marital status					
	Never in union	Married	Living with partner	Widowed/ Divorced/No longer living together separated	Total	Number
No religion	34.75	55.80	7.92	1.53	100	38
Other	79.19	20.81	0.00	0.00	100	2
Education						
No education	7.47	82.22	1.37	8.95	100	2,265
Primary	11.88	79.27	1.21	7.64	100	7,554
Secondary	37.17	57.20	1.05	4.58	100	8,278
More than secondary	46.06	48.91	1.01	4.02	100	1,399
Wealth quintile						
Lowest	18.77	73.22	1.40	6.61	100	3,393
Second	24.52	68.19	0.97	6.32	100	3,529
Middle	24.45	68.54	0.75	6.26	100	3,831
Fourth	24.66	67.02	1.46	6.86	100	4,266
Highest	28.96	64.64	1.12	5.28	100	4,477
Total	24.56	68.06	1.14	6.24	100	19,496

Wealth quintile was calculated based on the number and kinds of consumer goods women own, ranging from a television to a bicycle or car, and housing characteristics such as source of drinking water, toilet facilities, and flooring materials. These scores were derived using principal component analysis. Household National wealth quintiles are compiled by assigning the household score to each usual ranking each person in the household population by her or his score, and then dividing the distribution into five equal categories, each comprising 20% of the population. Women of reproductive age tend to live in households that are slightly better off than the average Cambodian household, as evidenced by the fact that a higher proportion of women are in the richer versus the poorer households across survey waves.

Figure 2. 4: Distribution of Marital Status by wealth quintile, Cambodia DHS 2021-2022



CHAPTER 3
CHARACTERISTICS OF WOMEN AND FERTILITY

This chapter provides trends in the total fertility rate, age at marriage, pregnancy outcomes, teenage pregnancy, birth interval durations, the desire for more children, and son preference. The estimates from the CDHS 2021-2022 illustrated in this section can help in setting benchmarks for the Cambodia Sustainable Development Goals (CSDG) at the national and subnational level. This chapter also examines current fertility levels, differentials in fertility, cumulative fertility, birth intervals, age at first birth, and teenage pregnancy The fertility indicators presented in this chapter are based on information obtained from the questionnaires for women aged 15-49.

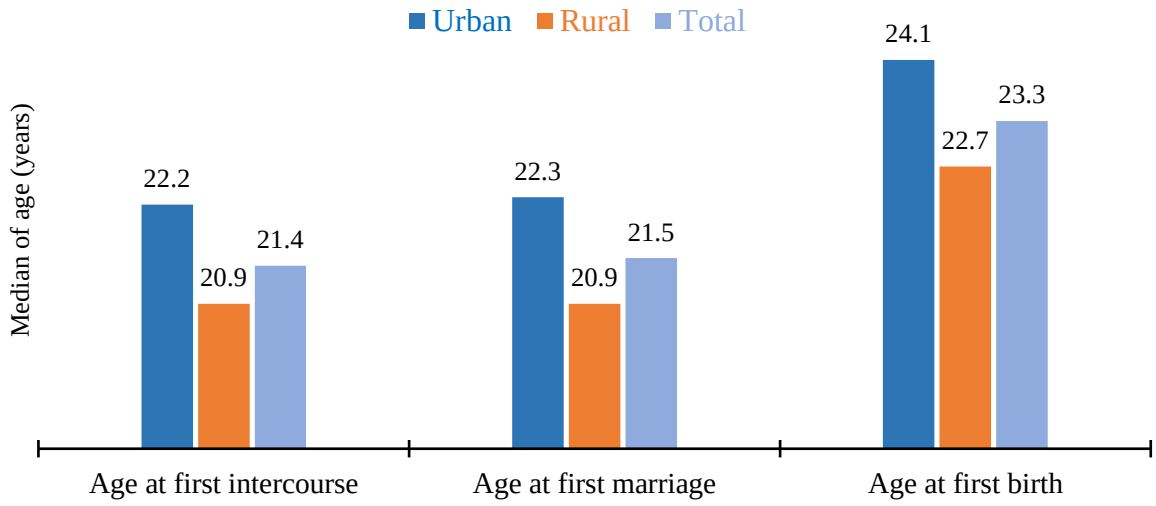
3.1. Median age first intercourse, age at marriage and age at first birth

The median age at first sexual intercourse among women aged 15-49 in Cambodia is 21.4 years. There are significant differences in median age at first sexual intercourse among women aged 15-49 by residence. Women aged 15-49 in rural areas initiate sexual intercourse 1.3 years earlier than women aged 15-49 in urban areas. This could be associated with similar differences noticeable by education level. Women with no education engage in the first sexual intercourse earlier than women with more than secondary education (20.2 years versus 24.3 years).

The median age at first marriage among women aged 15-49 years in Cambodia is 21.5 years. Similar trends for area of residence and province to age at first intercourse are noticeable, urban women married later (22.3 years) than rural women (20.9 years), and Ratanak Kiri had the lowest age at first marriage (18.8 years) and Phnom Penh the highest (23 years).

The age at which childbearing commences is an important determinant of the overall level of fertility as well as the health and well-being of the mother and child. In Cambodia, the median age at first birth among women aged 15-49 is 23.3 years. This means that half of women aged 15-49 gave birth for the first time before this age. Urban women aged 15-49 begin childbearing 1.4 years later than their rural counterparts (24.1 years versus 22.7 years). Phnom Penh is the highest (24.7 years).

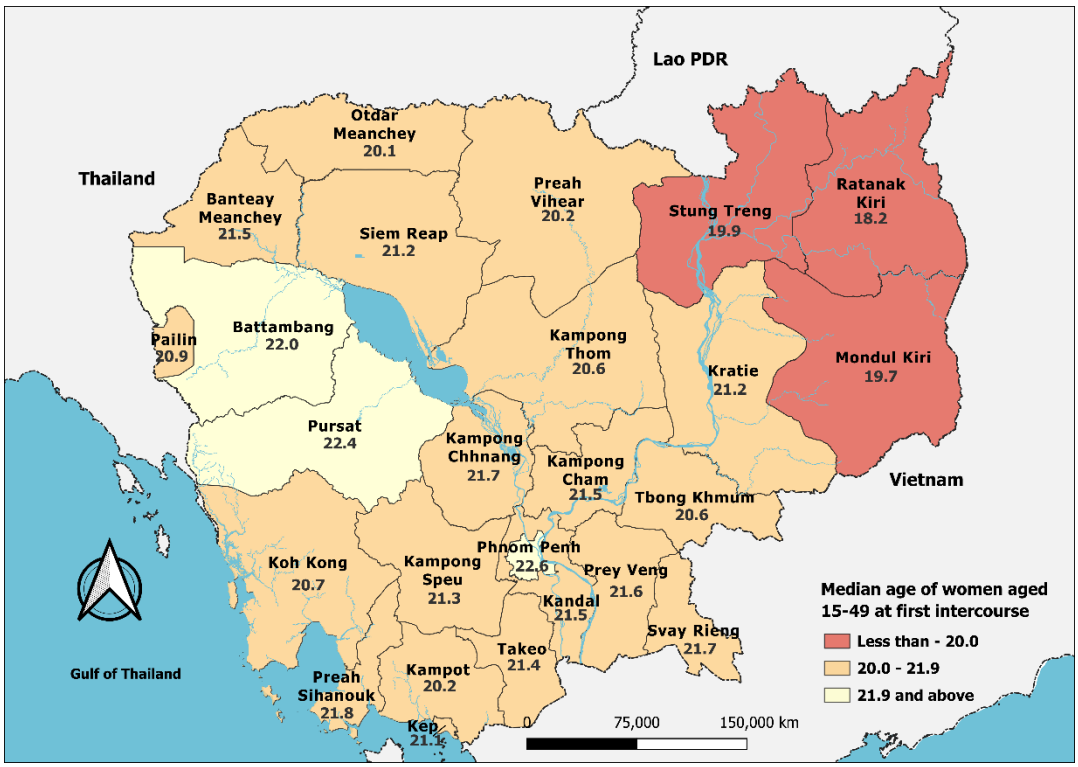
Figure 3.1. 1: Median age first intercourse, age at marriage and age at first birth women aged 15-49 years by residence, Cambodia DHS 2021-2022



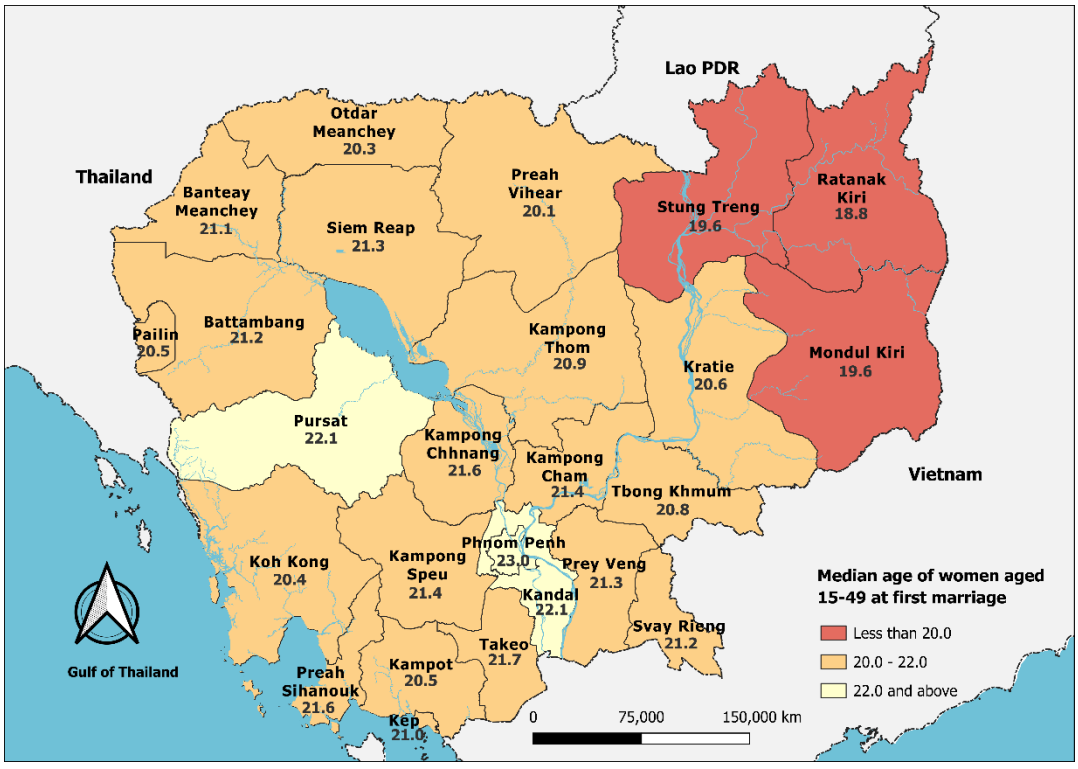
The median age at first sexual intercourse varies across the provinces of Cambodia. There is very early initiate sexual intercourse among women aged 15-49 in Ratanak Kiri, Mondul Kiri and Stung Treng and late initiate sexual intercourse among women aged 15-49 in Phnom Penh, Battambang and Pursat. The median age at first sexual intercourse is earliest among women in Ratanak Kiri (18.2 years) and

latest among women in Phnom Penh (22.6 years). There are highest median ages at first marriage and age at first birth for women aged 15-49 is also found in Phnom Penh (23.0 years and 24.7 years), Kandal (22.1 years and 23.5 years) and Pursat (22.1 years and 24.0 years). The provinces with the lowest median ages at first marriage and age at first birth for women aged 15-49 is also found in Ratanak Kiri (18.8 years and 20.6 years), Mondul Kiri (19.6 years and 21.2 years), and Stung Treng (19.6 years and 21.7 years).

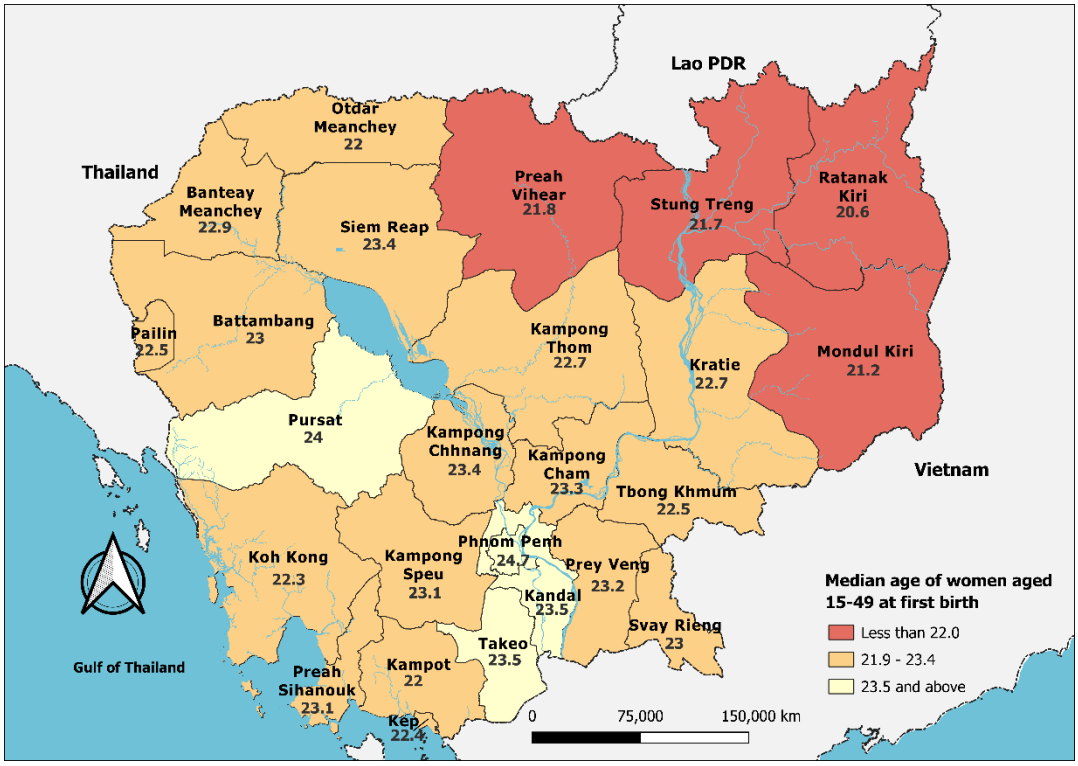
Map 3. 1: Median age of women aged 15-49 at first intercourse, Cambodia DHS2021-2022



Map 3. 2: Median age of women aged 15-49 at first marriage by province, Cambodia DHS 2021-2022



Map 3. 3: Median age of women aged 15-49 at first birth by province, Cambodia DHS 2021-2022



Women with no education engage in the first sexual intercourse earlier than women with more than secondary education (20.2 years versus 23.8 years). There are the same patterns in age at first marriage and age at first birth. Women in age 15-49 have education more than secondary had first birth later than those women in no education level.

Women in the lowest wealth quintile initiate sexual intercourse and have their first marriage and birth earlier (20.5 years, 20.7 years and 22.5 years respectively) than women in the highest quintile (22.5 years, 22.5 years and 24.3 years respectively).

Table 3.1. 1: Median of Age at first intercourse, Age at first marriage and Age at first birth among women aged 15-49 by selected background characteristics, Cambodia DHS 2021-2022

Background	Age at first intercourse	Age at first marriage	Age at first birth
Residence			
Urban	22.2	22.3	24.1
Rural	20.9	20.9	22.7
Province			
Banteay Meanchey	21.5	21.1	22.9
Battambang	22.0	21.2	23.0
Kampong Cham	21.5	21.4	23.3
Kampong Chhnang	21.7	21.6	23.4
Kampong Speu	21.3	21.4	23.1
Kampong Thom	20.6	20.9	22.7
Kampot	20.2	20.5	22.0
Kandal	21.5	22.1	23.5
Koh Kong	20.7	20.4	22.3

Background	Age at first intercourse	Age at first marriage	Age at first birth
Kratie	21.2	20.6	22.7
Mondul Kiri	19.7	19.6	21.2
Phnom Penh	22.6	23.0	24.7
Preah Vihear	20.2	20.1	21.8
Prey Veng	21.6	21.3	23.2
Pursat	22.4	22.1	24.0
Ratanak Kiri	18.2	18.8	20.6
Siemreap	21.2	21.3	23.4
Preah Sihanouk	21.8	21.6	23.1
Stung Treng	19.9	19.6	21.7
Svay Rieng	21.7	21.2	23.0
Takeo	21.4	21.7	23.5
Otdar Meanchey	20.1	20.3	22.0
Kep	21.1	21.0	22.4
Pailin	20.9	20.5	22.5
Tboung Khmum	20.6	20.8	22.5
Education			
No education	20.2	20.2	22.0
Primary	20.8	21.0	22.8
Secondary	21.8	21.8	23.5
More than secondary	23.8	24.3	23.7
Wealth quintile			
Lowest	20.5	20.7	22.5
Second	21.1	21.1	22.9
Middle	21.2	21.2	23.0
Fourth	21.5	21.6	23.3
Highest	22.5	22.5	24.3
Total	21.4	21.5	23.3

3.2. Age-Specific Fertility Rate (ASFR)

The Age-Specific Fertility Rates (ASFR), the Total Fertility Rate (TFR), the Crude Birth Rate (CBR), and the General Fertility Rate (GFR) by residence education and wealth of Cambodia are shown in table 3.2. There are consistencies in ASFR between urban and rural residence Cambodia as may see in table 3.2.1.

The highest difference is in 20-24 years old. ASFR are generally lower among urban women than their rural counterparts.

On average, rural women have 46 more children than urban women (174 children versus 128 children). The ASFR in the 15-19 age group is 48 births per 1,000 women; the highest rates were in the 20-24 age groups (154 births per 1,000 women). The ASFR declines with increasing education, from 181 children among women aged 20-24 with no formal education to 56 children among those with more than a secondary education. Similar discrepancies also exist among women from the lowest and the highest wealth quintile.

Figure 3.2. 1: Age-specific fertility rates for the 3 years preceding the survey, by residence, Cambodia DHS 2021-2022

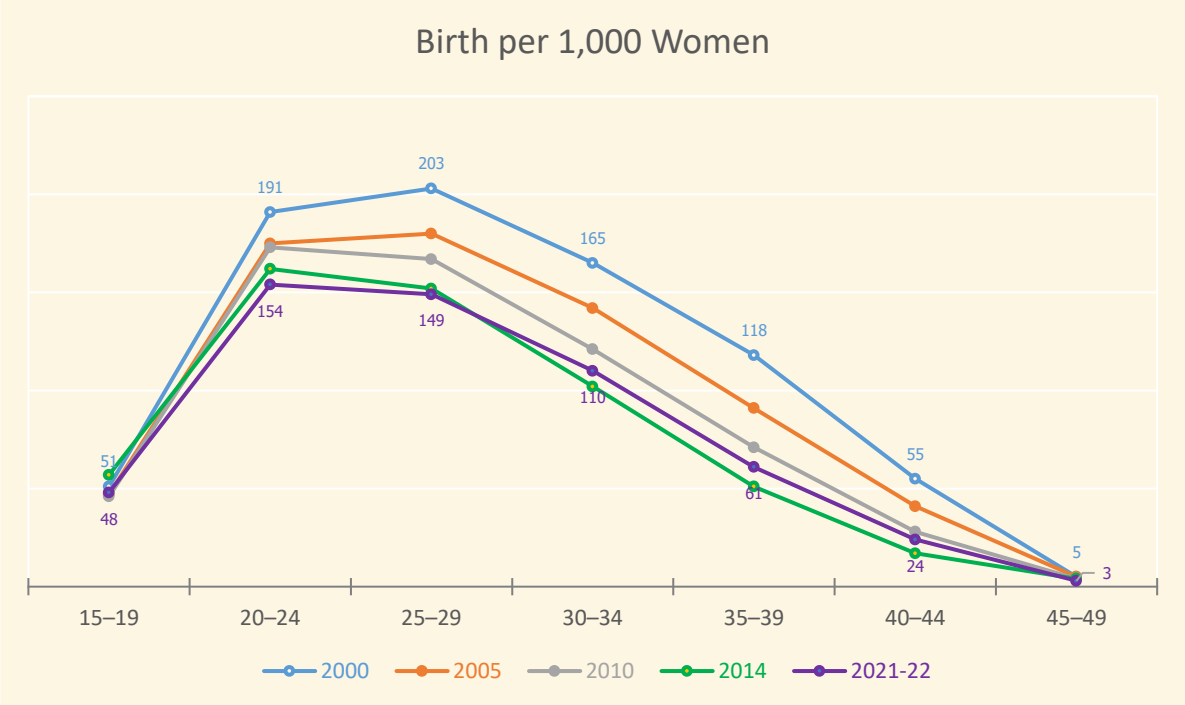


Figure 3.2.1 depicts a consistent and gradual decline in fertility over time. However, the decline in ASFRs from 2000 to 2021-2022 was negligible among younger age groups (15-24 years) and older age groups (35-49 years), while substantial decline was observed among middle-aged age groups (25-34 years). The fertility rate was highest among women aged 25-29, after age 29, fertility started declining.

Table 3.2. 1: Age specific and total fertility rates, the general fertility rate, and the crude birth rate for the 3 years preceding the survey, by selected background characteristics of respondents, Cambodia DHS 2021-2022

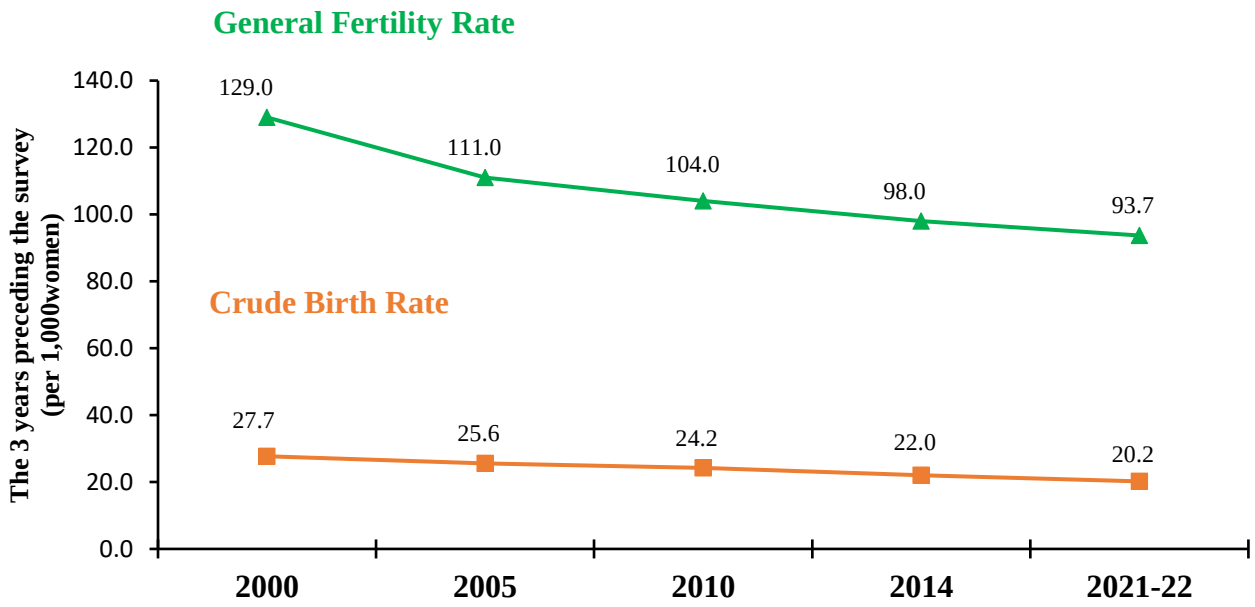
Background	Age-specific fertility rates							Other Fertility Indicators		
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	TFR	CBR	GFR
2000	51	191	203	165	118	55	5	4.0	27.7	129.0
2005	47	175	180	142	91	41	5	2.8	25.6	111.0
2010	46	173	167	121	71	28	4	3.0	24.2	104.0
2014	57	162	152	102	51	17	4	2.7	22.0	98.0
2021-2022	48	154	149	110	61	24	3	2.7	20.2	93.7
Residence										
Urban	39	128	127	107	57	23	3	2.4	20.5	85.0
Rural	55	174	166	112	64	24	3	3.0	20.1	100.3
Education										
No education	117	181	160	112	65	34	8	3.4	8.0	86.9
Primary	97	177	159	109	65	20	1	3.1	18.4	122.4
Secondary	38	167	143	109	47	20	2	2.6	32.8	94.6
More than secondary	1	56	137	111	79	99	0	2.4	38.6	576.3
Wealth quintile										
Lowest	84	198	163	117	82	38	8	3.5	22.0	115.1
Second	56	158	186	121	66	20	2	3.0	19.6	213.5

Background	Age-specific fertility rates							Other Fertility Indicators		
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	TFR	CBR	GFR
Middle	47	156	145	97	61	25	4	2.7	18.8	89.8
Fourth	33	149	146	116	62	15	1	2.6	21.2	169.4
Highest	27	124	120	101	40	23	5	2.2	19.6	78.0

*Notes: * An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.*

The current CBR was 20.2 live births per 1,000 populations and the GFR 93.7 per 1,000 women aged 15-45 for the five years prior to the survey. The GFR vary by urban-rural residence, on average the GFR was 100.3 for rural women, higher than that for urban women (85). There is no significant difference between CBR in rural areas (20.1) and urban areas (20.5). The CBR and GFR had rapidly declined from (27.7 and 129.0) per 1,000 women in 2000 to (20.2 and 93.7) per 1,000 women in 2021-2022.

Figure 3.2. 2: Distribution of crude birth rate and general fertility rate, Cambodia DHS 2000 to 2021-2022

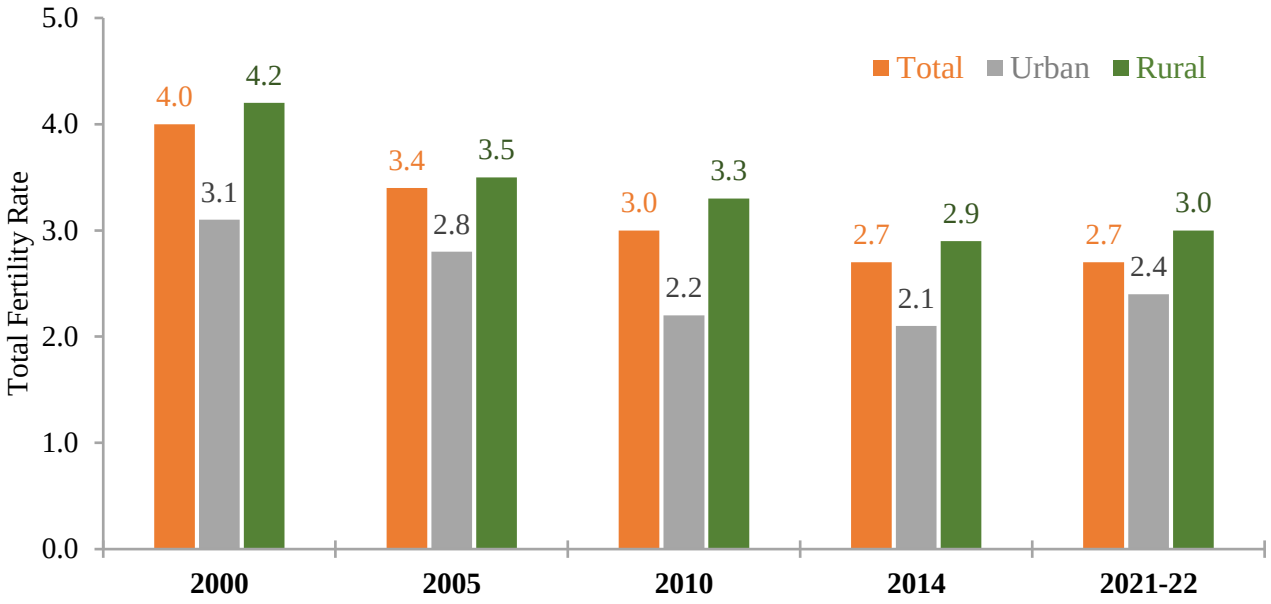


3.3. Total Fertility Rate (TFR)

Total Fertility Rate (TFR) approximates the average number of children that would be born to a woman by the time she ended childbearing if she were to experience all her childbearing years conforming to the age-specific fertility rates of a given year.

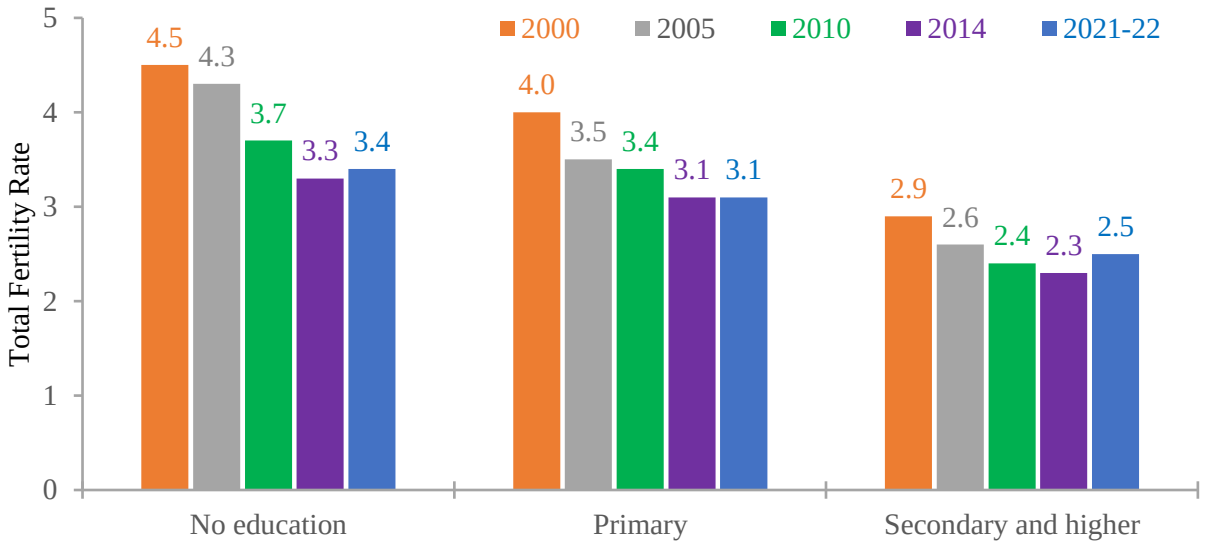
Fertility decline has been occurring for several decades until now and, above all, it is this phenomenon which is opening up completely new employment and educational prospects for young women. The current fertility rate for Cambodia in 2021-2022 was 2.7 births per woman. Between 2005 and 2021-2022, the TFR declined by almost one child (0.7). The TFR among women in rural areas dropped from 3.5 children in 2005 to 3.0 children in 2021-2022, while in urban areas it had a similar decline from 2.8 children in 2005 to 2.4 children in 2021-2022.

Figure 3.3. 1: Trends in Total Fertility Rate 3 years preceding the survey, by residence, Cambodia DHS 2021-2022



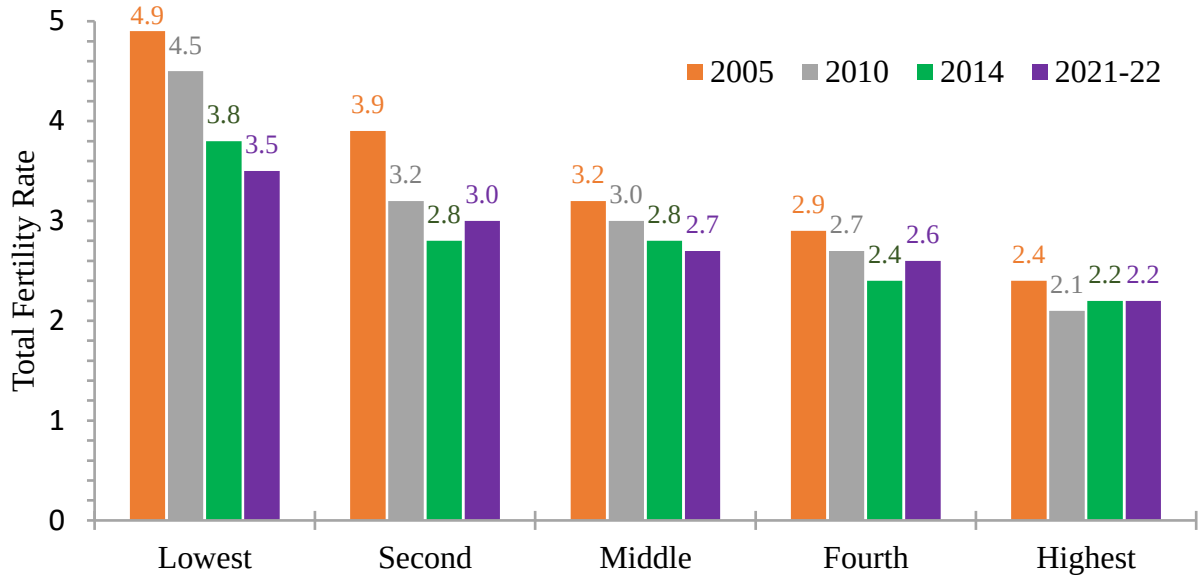
The Total Fertility Rate (TFR) differentials by education are also substantial. In the country as a whole, the TFR ranges from 3.4 among no formal education women to 2.4 among women who have completed secondary and higher.

Figure 3.3. 2: Total Fertility Rate 3 years preceding the survey, by education, Cambodia DHS 2021–22



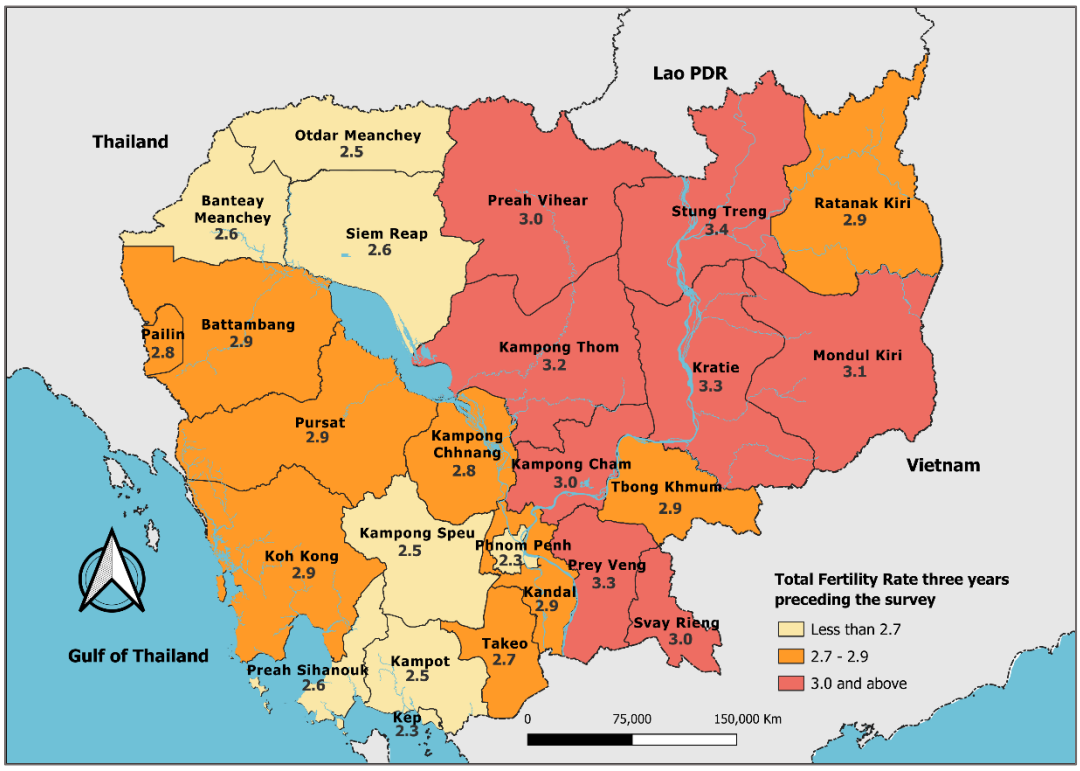
In 2021-2022, the TFR also declined with increasing household wealth. The TFR was 3.5 children among women in the lowest wealth quintile and 2.2 children among those in the highest wealth quintile. The lowest quintile is the one that presented the highest drop since 2014 and the only one with constant declines since 2005.

Figure 3.3. 3: Total Fertility Rate three years preceding the survey, by Wealth quintile, Cambodia DHS 2005 to 2021-2022



The TFR for Cambodia DHS 2021-2022 was estimated at 2.7 children per woman, but like other indicators presented before there are wide variations by province. Eight provinces (Table 3.4.1)- have relatively high fertility, with TFRs of 3.0 or higher. Stung Treng has by far the highest fertility of any provinces of Cambodia, with a TFR of 3.4, 26% higher than the national average. Seven provinces have a lower TFR than the national average, Phnom Penh and Kep have the lowest TFRs of 2.3.

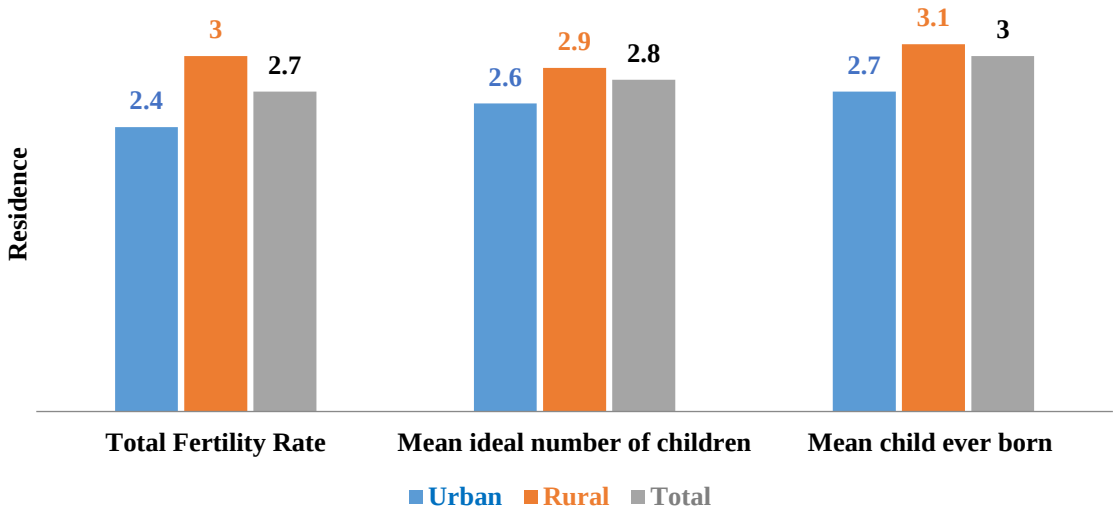
Map 3. 4: Total Fertility Rate three years preceding the survey, by province, Cambodia DHS 2021-2022



3.4. Fertility and mean ideal of fertility

The mean ideal fertility rate indicates the level of fertility that would result if all unwanted births were prevented. The mean ideal of fertility rate in Cambodia is 2.8 children per woman, compared with the actual total fertility rate of 2.7 children and mean child ever born 3.0 per woman at the end of reproductive age. The gap between the actual and wanted fertility rate is 0.1 children among women aged 15-49 in rural areas, compared with 0.2 children among women in urban areas.

Figure 3.4. 1: Fertility, mean ideal and mean child ever born of fertility by residence, Cambodia DHS 2021-2022

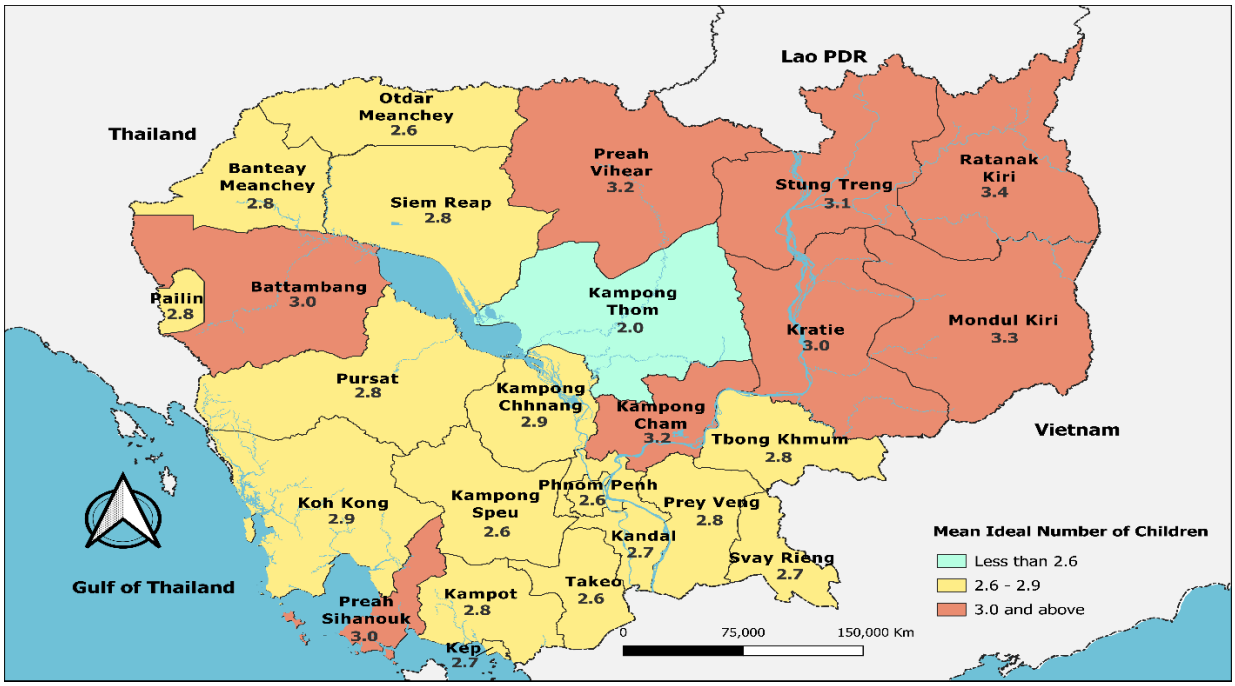


Education is also important for the knowledge and use of contraceptives and the ability of better educated women to reduce the gap between the desired and the actual number of children.

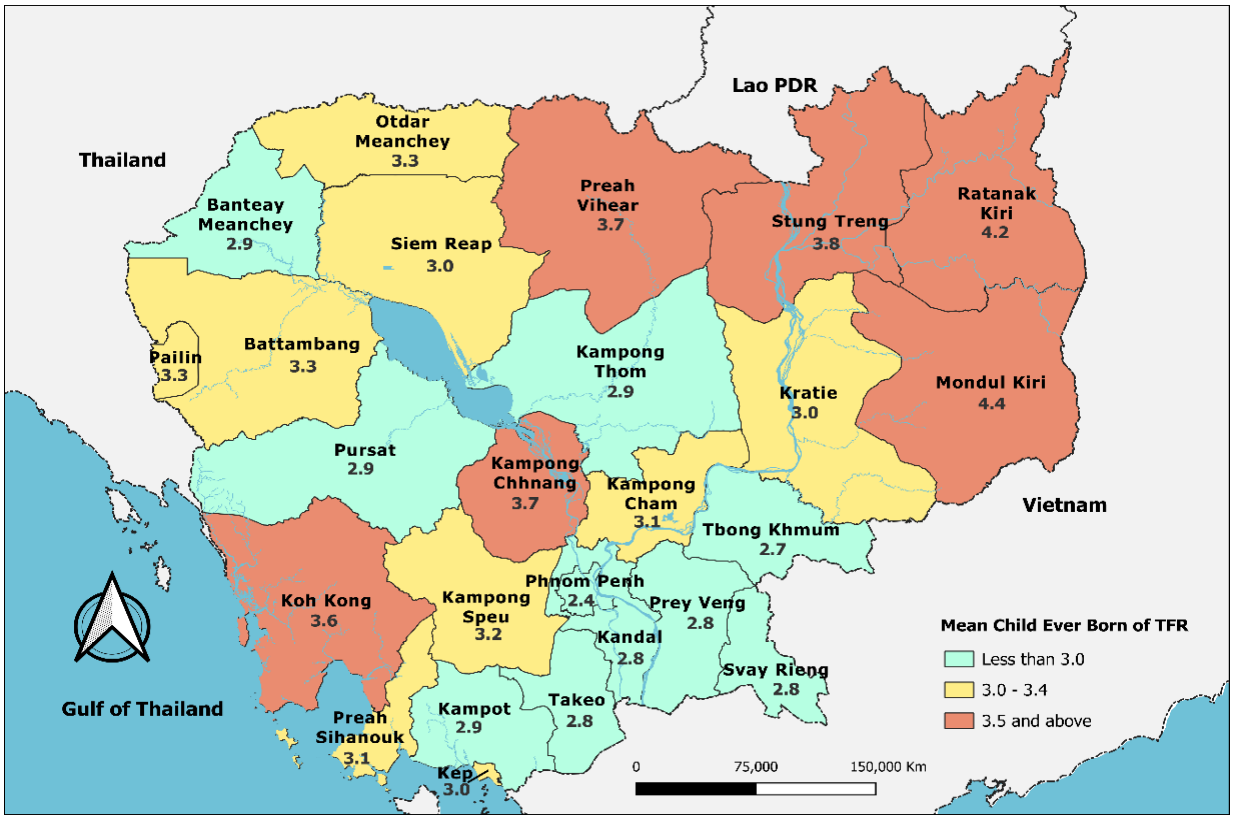
The total wanted fertility rate for women with no schooling is 3.1 children, compared with only 2.5 children for women with more than secondary education. The gap between the actual and wanted fertility rates is much higher among women with no schooling (0.3) than women with more than secondary education (0.1).

In Cambodia, only one province has a mean ideal of fertility rate below the replacement level of fertility, Kampong Thom with 2.0. The gap between the actual and wanted fertility rate 0.5 children or more only in Kampong Thom (1.2), Prey Veng (0.5) and Ratanak Kiri (0.5).

Map 3. 5: Mean Ideal Number of Children by province, Cambodia DHS 2021-2022



Map 3. 6: Mean Child Ever Born of Fertility by province, Cambodia DHS 2021-2022



The level of wanted fertility declines with rising levels of wealth, as does the gap between actual and wanted fertility. The wanted fertility rate is 2.9 children among women in the lowest wealth quintile and 2.6 children among women in the highest quintile. The gap between actual and wanted fertility is 0.4 children for women in the lowest wealth quintile and women in the highest quintile.

Figure 3.4. 2: Fertility, mean ideal and mean child ever born of fertility by wealth quintile, Cambodia DHS 2021-2022

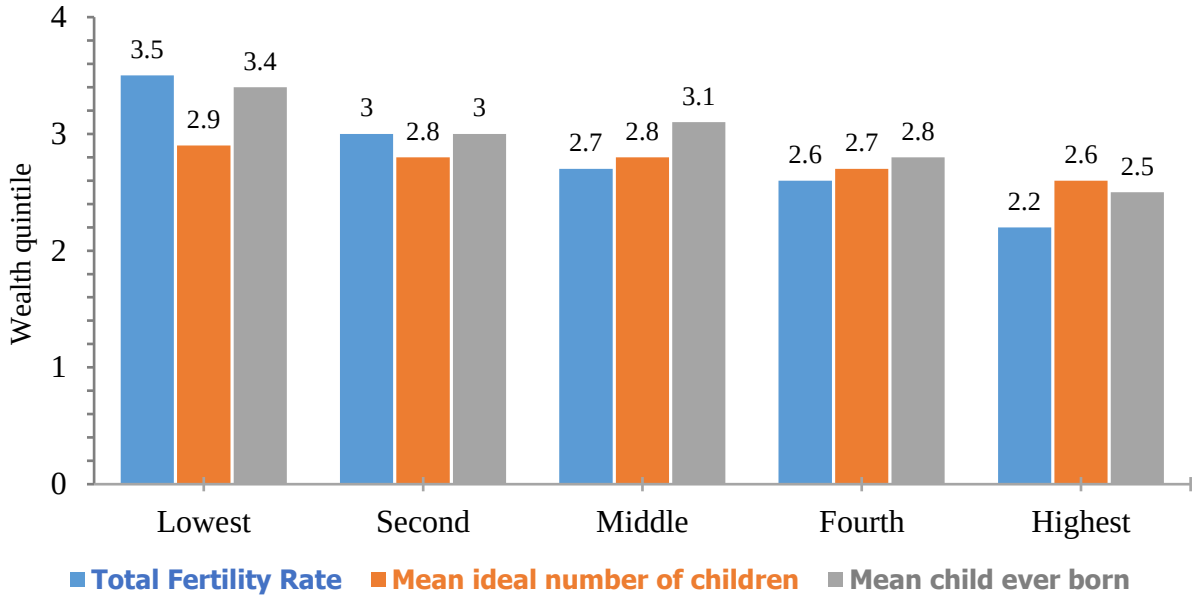


Table 3.4. 1: Fertility, mean ideal number and mean child ever born by background characteristics, Cambodia DHS 2021-2022

Background	Total Fertility Rate	Mean ideal number of children	Mean child ever born
Residence			
Urban	2.4	2.6	2.7
Rural	3.0	2.9	3.1
Province			
Banteay Meanchey	2.6	2.8	2.9
Battambang	2.9	3.0	3.3
Kampong Cham	3.0	3.2	3.1
Kampong Chhnang	2.8	2.9	3.7
Kampong Speu	2.5	2.6	3.2
Kampong Thom	3.2	2.0	2.9
Kampot	2.5	2.8	2.9
Kandal	2.9	2.7	2.8
Koh Kong	2.9	2.9	3.6
Kratie	3.3	3.0	3.0
Mondul Kiri	3.1	3.3	4.4
Phnom Penh	2.3	2.6	2.4
Preah Vihear	3.0	3.2	3.7
Prey Veng	3.3	2.8	2.8
Pursat	2.9	2.8	2.9
Ratanak Kiri	2.9	3.4	4.2
Siemreap	2.6	2.8	3.0
Preah Sihanouk	2.6	3.0	3.1
Stung Treng	3.4	3.1	3.8
Svay Rieng	3.0	2.7	2.8
Takeo	2.7	2.6	2.8
Otdar Meanchey	2.5	2.6	3.3
Kep	2.3	2.7	3.0

Background	Total Fertility Rate	Mean ideal number of children	Mean child ever born
Pailin	2.8	2.8	3.3
Tboung Khmum	2.9	2.8	2.7
Education			
No education	3.4	3.1	3.3
Primary	3.1	2.9	3.0
Secondary	2.6	2.6	2.7
More than secondary	2.4	2.5	(2.1)
Wealth quintile			
Lowest	3.5	2.9	3.4
Second	3.0	2.8	3.0
Middle	2.7	2.8	3.1
Fourth	2.6	2.7	2.8
Highest	2.2	2.6	2.5
Total	**2.7**	**2.8**	**3.0**

3.5. Lifetime Fertility (children ever born and living)

CDHS-2021-2022 collected data on the number of children ever born to women aged 15-49 and those still living. Table 3.5.1 shows the percentage distributions of women aged 15-49, according to parity (number of children ever born) and mean number of children ever born and mean surviving. The table shows information on completed fertility for women aged 15-49 have given birth to 1.7 children over their lives. Of these, 1.6 children survived to the time of the survey. About 35.0 % of women aged 25 -29 years old had 2 children at the time of CDHS 2021-2022. Women in the same age group (25-29) had an average number of 1.3 children, child ever born and average number 1.3 children surviving per woman.

Currently married women aged 15-49 had an average of 2.3 children, and 2.2 of these were alive at the time of the survey. At the end of reproductive age (45-49) the currently married women had an average of 3.4 children, and 3.1 of these were alive at the time of CDHS 2021-2022 (Table 3.5.1)

Table 3.5. 1: Children ever born and living, Cambodia DHS 2021-2022

Percent distribution of all women and currently married women aged 15-49 by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, Cambodia DHS 2021-2022

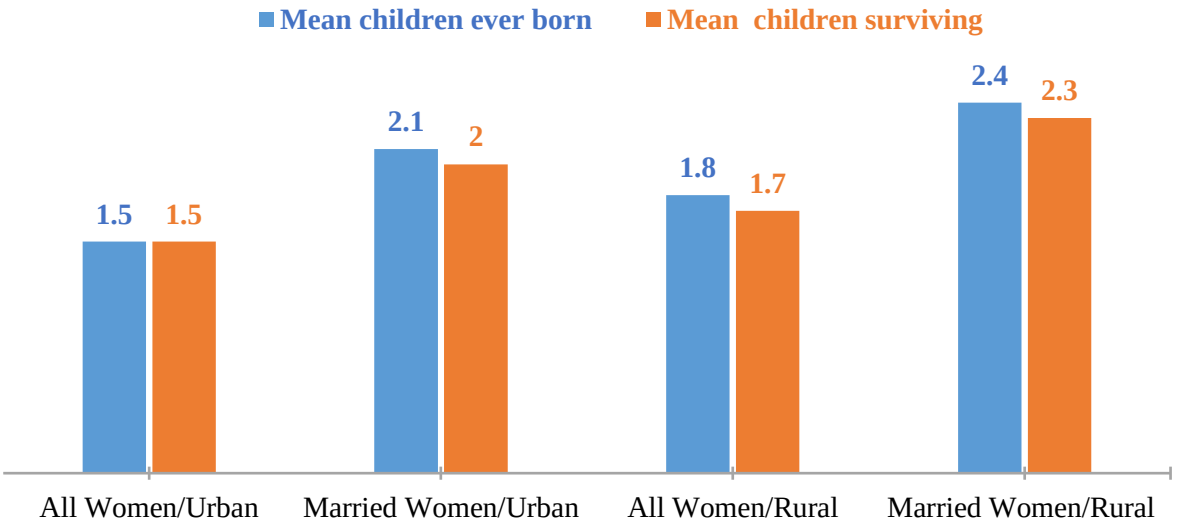
Age	Parity							Women	Mean children ever born	Mean children surviving
	0	1	2	3	4	5+	Total			
All Women										
Total	**29.8**	**17.1**	**26.3**	**16.0**	**6.3**	**4.5**	**100**	**19,496**	**1.7**	**1.6**
15 - 19	93.4	5.9	0.7	0.0	0.0	0.0	100	2,981	0.1	0.1
20 - 24	54.1	33.7	10.6	1.6	0.1	0.0	100	2,589	0.6	0.6
25 - 29	23.3	32.0	35.0	8.1	1.4	0.2	100	2,986	1.3	1.3
30 - 34	11.0	18.4	45.1	19.9	4.4	1.3	100	3,272	1.9	1.9
35 - 39	7.9	10.9	36.0	30.3	9.4	5.4	100	3,367	2.4	2.3
40 - 44	6.7	8.1	28.0	29.4	16.0	11.7	100	2,598	2.8	2.7
45 - 49	7.4	8.9	21.7	23.4	17.9	20.6	100	1,704	3.1	2.9
Married Women										
Total	**6.9**	**21.2**	**35.4**	**21.8**	**8.5**	**6.1**	**100**	**13,492**	**2.3**	**2.2**
15 - 19	44.4	49.6	6.1	0.0	0.0	0.0	100	335	0.6	0.6
20 - 24	20.8	57.3	18.8	2.9	0.1	0.0	100	1,384	1.0	1.0

Percent distribution of all women and currently married women aged 15-49 by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, Cambodia DHS 2021-2022

Age	Parity							Women	Mean children ever born	Mean children surviving
	0	1	2	3	4	5+	Total			
25 - 29	9.3	36.1	42.7	9.9	1.7	0.2	100	2,365	1.6	1.6
30 - 34	4.4	18.4	48.8	22.1	4.9	1.4	100	2,840	2.1	2.1
35 - 39	1.9	9.5	39.2	33.1	10.2	6.2	100	2,902	2.6	2.5
40 - 44	2.6	6.5	29.0	31.9	17.6	12.5	100	2,262	3.0	2.9
45 - 49	2.9	7.5	21.8	25.6	19.6	22.6	100	1,404	3.4	3.1
Urban										
All Women										
Total	**33.2**	**18.1**	**26.1**	**14.6**	**4.9**	**3.1**	**100**	**8,239**	**1.5**	**1.5**
15 - 19	94.8	4.4	0.8	0.0	0.0	0.0	100	1,144	0.1	0.1
20 - 24	65.9	25.3	7.5	1.3	0.0	0.0	100	1,128	0.4	0.4
25 - 29	31.7	34.8	27.0	5.5	0.8	0.1	100	1,375	1.1	1.1
30 - 34	15.2	21.7	43.6	16.1	2.5	0.9	100	1,480	1.7	1.7
35 - 39	9.1	12.7	36.9	29.6	7.6	4.1	100	1,473	2.3	2.2
40 - 44	6.0	9.6	31.1	29.2	15.0	9.2	100	1,014	2.7	2.6
45 - 49	7.8	11.5	28.6	23.5	15.2	13.4	100	625	2.8	2.6
Married Women										
Total	**8.06**	**23.29**	**36.68**	**21.03**	**6.80**	**4.14**	**100**	**5,404**	**2.1**	**2.0**
15 - 19	50.02	41.55	8.43	-	-	-	100	109	0.6	0.6
20 - 24	25.87	53.56	17.51	3.05	-	-	100	473	1.0	1.0
25 - 29	12.67	42.01	36.38	7.60	1.13	0.20	100	986	1.4	1.4
30 - 34	6.31	23.10	48.31	18.51	2.86	0.92	100	1,249	1.9	1.9
35 - 39	1.61	11.02	41.30	33.67	7.94	4.46	100	1,215	2.5	2.5
40 - 44	1.82	8.40	31.80	32.37	16.30	9.31	100	873	2.8	2.7
45 - 49	3.85	10.06	29.76	24.94	16.38	15.01	100	499	2.9	2.8
Rural										
All Women										
Total	**27.3**	**16.4**	**26.4**	**17.0**	**7.3**	**5.7**	**100**	**11,257**	**1.8**	**1.7**
15 - 19	92.5	6.8	0.6	0.0	0.0	0.0	100	1,837	0.1	0.1
20 - 24	44.9	40.1	13.1	1.8	0.1	0.0	100	1,461	0.7	0.7
25 - 29	16.2	29.7	41.9	10.2	1.8	0.2	100	1,610	1.5	1.5
30 - 34	7.6	15.6	46.3	23.0	6.0	1.5	100	1,792	2.1	2.0
35 - 39	6.9	9.4	35.3	30.8	10.8	6.8	100	1,894	2.5	2.4
40 - 44	7.2	7.2	26.0	29.6	16.7	13.3	100	1,584	2.9	2.7
45 - 49	7.2	7.5	17.7	23.4	19.5	24.8	100	1,078	3.4	3.1
Married Women										
Total	**6.2**	**19.9**	**34.6**	**22.3**	**9.7**	**7.4**	**100**	**8,088**	**2.4**	**2.3**
15 - 19	41.6	53.4	4.9	-	-	-	100	226	0.6	0.6
20 - 24	18.2	59.3	19.5	2.8	0.2	-	100	911	1.1	1.1
25 - 29	6.9	31.9	47.2	11.6	2.1	0.3	100	1,379	1.7	1.7
30 - 34	2.9	14.8	49.1	25.0	6.6	1.7	100	1,591	2.2	2.2
35 - 39	2.1	8.4	37.7	32.6	11.8	7.4	100	1,688	2.7	2.6
40 - 44	3.1	5.3	27.3	31.6	18.4	14.4	100	1,389	3.1	2.9
45 - 49	2.3	6.1	17.4	26.0	21.3	26.9	100	905	3.6	3.3

Table 3.5.1 shows the average number giving birth and surviving in urban is 15.5 is lower than urban where the average number giving birth is 1.8 and the average number of surviving children 1.7 . Among the married women in urban areas, an average of 2.1 children were born, and the average number of surviving children was 2.0, with a difference of 0.1, while in rural areas an average of 2.4 children and an average of 2.3 children live.

Figure 3.5. 1: Lifetime Fertility (children ever born and living) by residence, Cambodia DHS 2021-2022



3.6. Teenage Fertility

Teenage pregnancy is a major health concern because of its association with higher morbidity and mortality for both the mother and the child. Childbearing during adolescence is known to have adverse social consequences, particularly regarding educational attainment, as women who become mothers in their teens are more likely to drop out of school. Nine percent of women aged 15-19 have ever been pregnant.

Table 3.6. 1: Percentage of women aged 15–19 who have ever been pregnant, according to background characteristics, Cambodia DHS 2005-2021–22

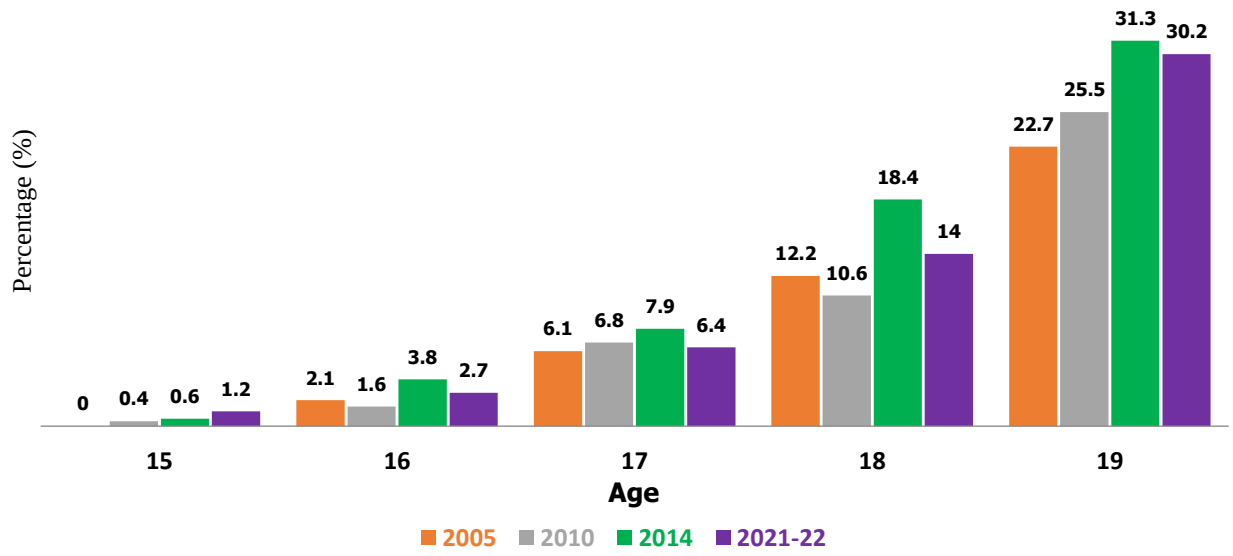
	Have ever been pregnant			
Background	2005	2010	2014	2021-2022
Age				
15	0.0	0.4	0.6	1.2
16	2.1	1.6	3.8	2.7
17	6.1	6.8	7.9	6.4
18	12.2	10.6	18.4	14.0
19	22.7	25.5	31.3	30.2
Residence				
Urban	6.0	4.8	6.2	8.3
Rural	8.3	9.1	13.3	10.0
Education				
No education	21.4	17.0	37.1	35.2
Primary	9.0	12.7	18.4	20.6
Secondary+	4.1	5.6	8.1	6.5
Wealth quintile				
Lowest	11.2	13.3	18.1	16.1
Second	9.5	10.9	14.9	9.0
Middle	7.9	9.1	13.8	9.5
Fourth	7.6	6.5	8.6	8.6
Highest	5.4	4.0	7.1	4.2

Background	Have ever been pregnant			
	2005	2010	2014	2021-2022
Total	**7.8**	**8.2**	**12.0**	**9.2**

The percentage of women aged 15-19 who have ever been pregnant increases with age, from 1% among those age 15 to 30% among those age 19. The percentage of women aged 15-19 who have ever been pregnant declines with increasing education, from 35% among those with no formal education to less than 1% among those with secondary or more education. Teenage pregnancy is less common but still present in the wealthiest households with 4% of women aged 15-19 in the highest wealth quintile have begun childbearing, as compared with 16% of those in the lowest quintile.

The percentage of women aged 15-19 who have ever been pregnant increased from 7.8% in 2005 to 12.0% in 2014 and then declined to 9% in 2021-2022 There are uneven changes across specific ages over time, the percentage of women age 15 ever pregnant doubled from 2014 to 2021-2022 (1.2 vs 0.6%), while for women age 18 the percentage decreased the most (14 vs 18.4%).

Figure 3.6. 1: Percentage of women aged 15-19 who have ever been pregnant, Cambodia DHS 2005-2021-2022

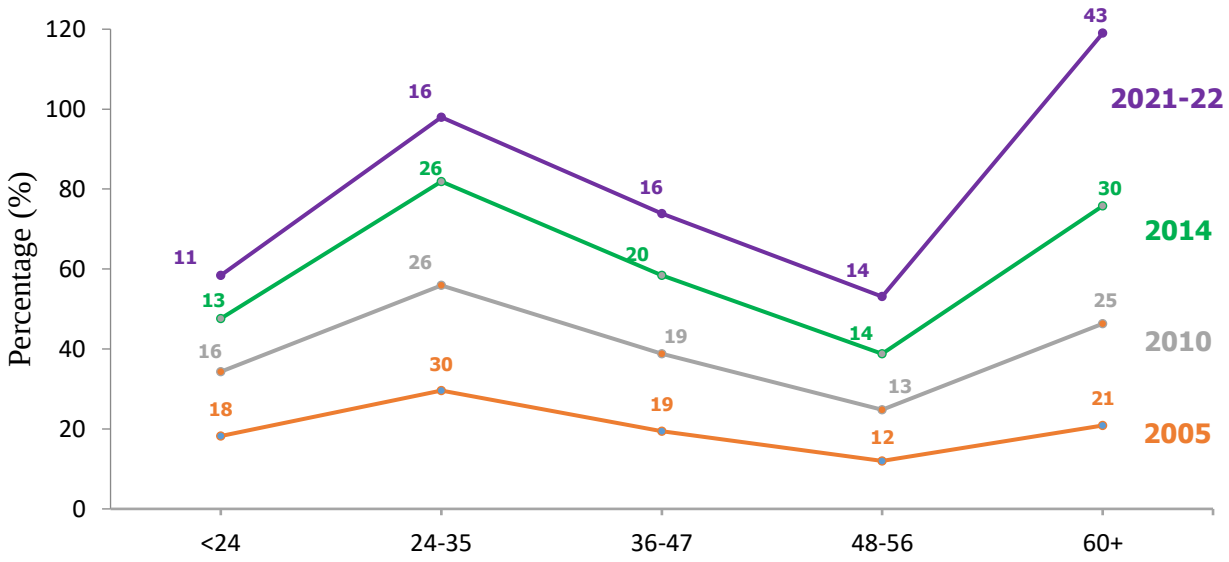


3.7. Birth intervals

Short birth interval (SBI) negatively affects the health of both mothers and children in developing countries. Sustainable Development Goal (SDG) 3 aims to reduce maternal and mortality under five by 2030. The incidence of these deaths is strongly associated with shorter delivery intervals. Identifying factors associated with SBI is critical for planning interventions to reduce the occurrence of SBI and associated adverse consequences.

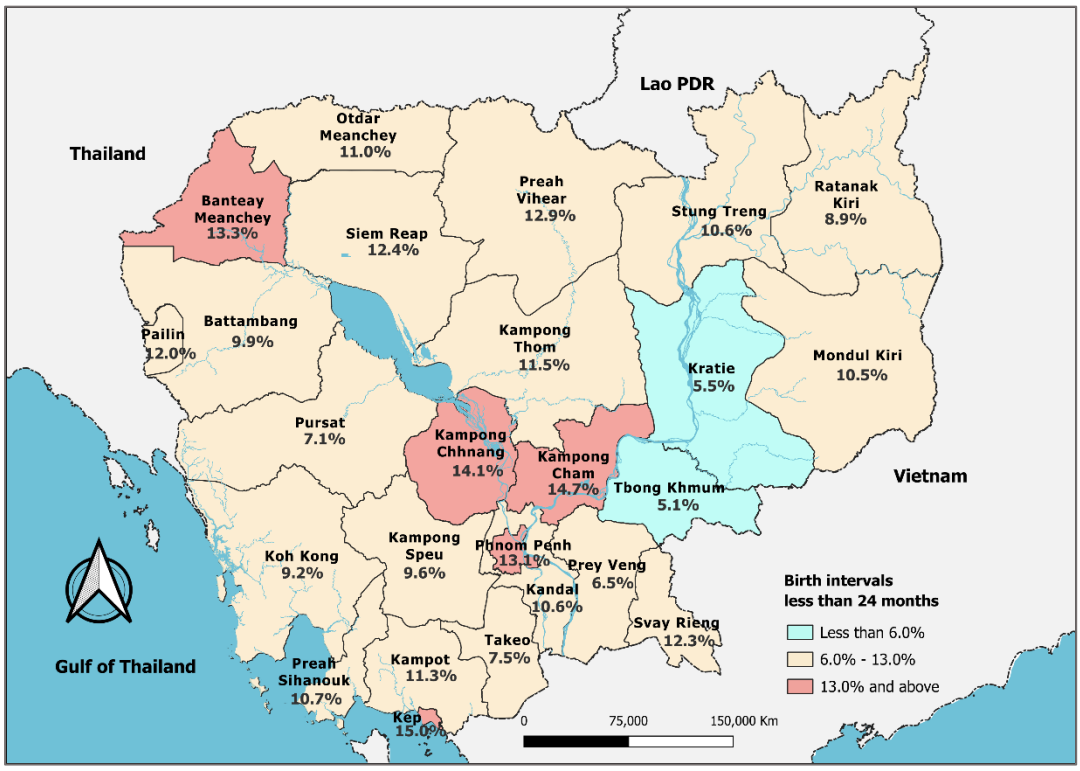
The results from the CDHS 2021-2022 show that the median birth interval between the previous births in Cambodia accounted for 54.1 months. Median birth intervals have increased over time, from 36.8 months in 2005 to 40.0 months in 2010, 43.8 months in 2014, and 54.1 months in 2021–22. By percent, the results from the series round of CDHS show that the proportion of short birth interval less than 24 months had decreased from 18.2% in 2005 to 10.8 % and the long birth interval 60 months and more has rapidly increased from 20.9 to 43.3 % over the years 2005–2021-2022.

Figure 3.7. 1: Percentage of birth intervals in months, Cambodia DHS 2005 to 2021-2022



Though the sub-national level shows optimal median birth intervals, individual provinces observed to be having differences in birth intervals. The result shows a most of the provinces having a significant high in percentages of births occurring at short intervals. In Phnom Penh a short birth interval was 13.1%, Banteay Meanchey 13.3%, Kampong Chhnang 14.1 %, Kampong Cham 14.7% and in Kep it was estimated at 15.0%.

Map 3. 7: Percentage of less than 24 months of birth intervals by province, Cambodia DHS 2021-2022



The median and proportion of long birth intervals, (60 months and more) decreased with increasing level of mother's education from 58.7 months or 48.5% with mothers no education to 40.8 months or 22.4% with mothers has more than secondary education. Births to women in wealthier households

occurred after longer birth intervals. The median birth interval in the highest wealth quintile is 2 months longer than in the lowest quintile (53.5 months versus 51.6 months).

Figure 3.7. 2: Percentage of birth intervals less than 24-months, 60+ and median birth, Cambodia DHS 2005 to 2021-2022

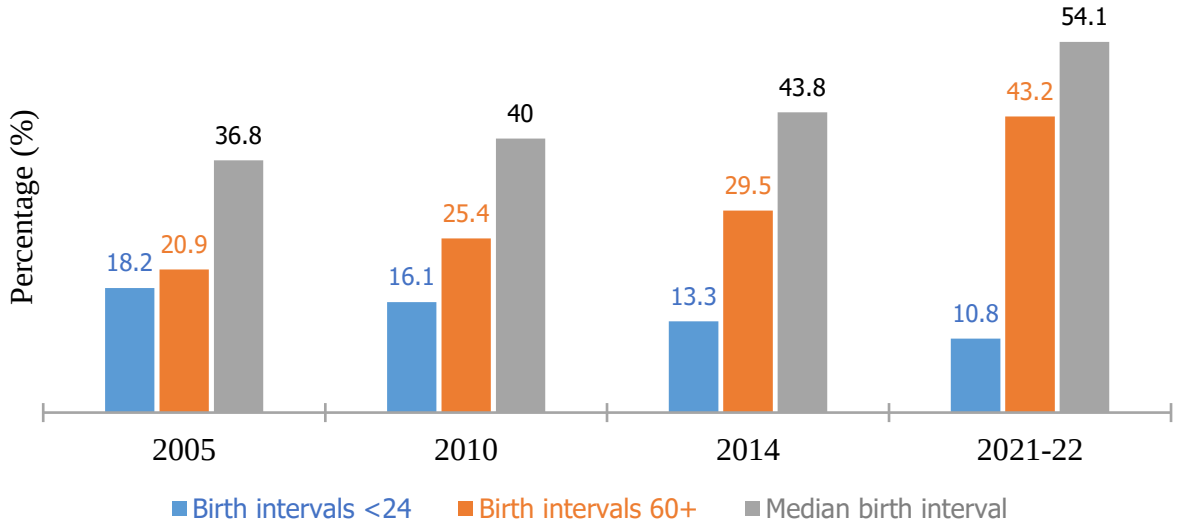


Table 3.7. 1: Birth intervals for women aged 15-49 by selected background characteristics, Cambodia DHS 2021-2022

Background	Birth intervals						Median birth interval
	Total	<24	24-35	36-47	48-56	60+	
2005	100	18.2	29.6	19.4	12.0	20.9	36.8
2010	100	16.1	26.3	19.4	12.8	25.4	40.0
2014	100	13.3	26.0	19.6	14.0	29.5	43.8
2021-2022	100	10.8	16.1	15.5	14.3	43.2	54.1
Residence							
Urban	100	12.6	15.6	15.2	12.8	43.8	53.7
Rural	100	9.7	16.4	15.7	15.3	42.8	54.6
Province							
Banteay Meanchey	100	13.3	11.7	15.3	13.9	45.8	57.1
Battambang	100	9.9	14.9	17.7	18.5	39.0	52.3
Kampong Cham	100	14.7	12.9	12.7	15.0	44.7	56.8
Kampong Chhnang	100	14.1	22.0	15.0	13.1	35.8	46.9
Kampong Speu	100	9.6	11.7	13.1	14.2	51.4	61.6
Kampong Thom	100	11.5	16.4	12.8	16.5	42.8	53.7
Kampot	100	11.3	14.4	14.8	14.9	44.7	56.1
Kandal	100	10.6	17.6	19.1	12.0	40.7	52.1
Koh Kong	100	9.2	20.2	13.4	16.7	40.6	53.3
Kratie	100	5.5	23.6	17.6	12.9	40.4	51.2
Mondul Kiri	100	10.5	12.3	14.7	20.1	42.3	55.4
Phnom Penh	100	13.1	17.1	11.7	13.3	44.8	53.8
Preah Vihear	100	12.9	15.9	16.7	18.0	36.6	51.5
Prey Veng	100	6.5	17.8	18.0	14.2	43.6	54.6
Pursat	100	7.1	17.1	25.8	12.7	37.4	48.1

Background	Birth intervals						Median birth interval
	Total	<24	24-35	36-47	48-56	60+	
Ratanak Kiri	100	8.9	14.1	16.7	15.3	45.0	57.8
Siemreap	100	12.4	17.6	14.3	14.3	41.3	50.9
Preah Sihanouk	100	10.7	22.4	11.8	12.5	42.7	53.7
Stung Treng	100	10.6	19.4	15.7	15.0	39.3	53.9
Svay Rieng	100	12.3	14.2	12.3	13.2	48.0	57.7
Takeo	100	7.5	14.7	17.8	13.0	47.0	57.1
Otdar Meanchey	100	11.0	9.2	13.4	18.5	47.9	59.1
Kep	100	15.0	18.5	15.7	16.8	34.0	48.6
Pailin	100	12.0	18.4	17.1	13.0	39.4	51.1
Tboung Khmum	100	5.1	16.5	23.3	11.8	43.3	55.4
Education							
No education	100	10.0	15.1	12.8	13.6	48.5	58.7
Primary	100	8.4	15.1	13.8	14.1	48.7	59.0
Secondary	100	12.5	18.0	17.5	14.9	37.1	49.5
More than secondary	100	22.7	15.4	24.2	15.3	22.4	40.8
Wealth quintile							
Lowest	100	11.5	17.2	16.0	15.8	39.4	
Second	100	8.2	14.8	15.9	15.4	45.8	51.6
Middle	100	9.7	17.5	16.6	12.5	43.7	56.8
Fourth	100	10.7	15.5	15.1	13.6	45.1	53.5
Highest	100	13.6	15.6	14.2	14.1	42.6	55.9

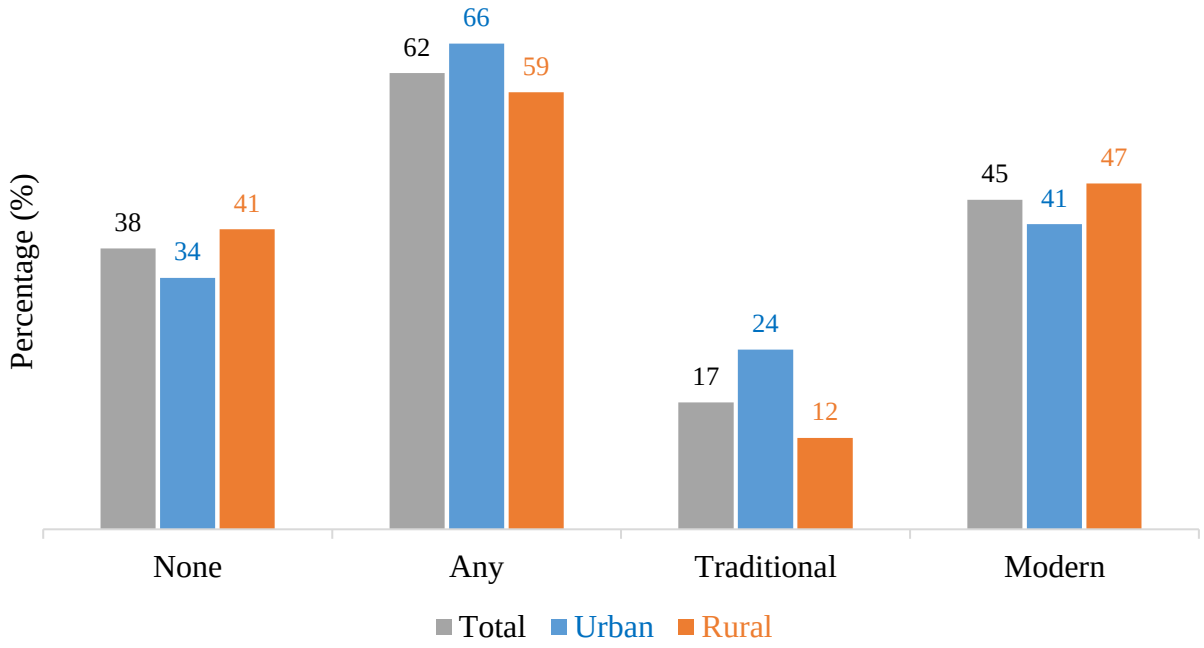
CHAPTER 4
FAMILY PLANNING

Couples can use contraceptive methods to limit or space the number of children they have. The level of current use of contraceptive methods is one of the indicators most frequently used to assess the success of family planning program activities. It is also widely used as a measure in analyzing the determinants of fertility. This chapter presents information on the use of contraceptive methods and its TFR. The chapter also examines the unmet need for family planning and exposure to family planning messages across residence area, province, education level and wealth index.

4.1. Current contraceptive use

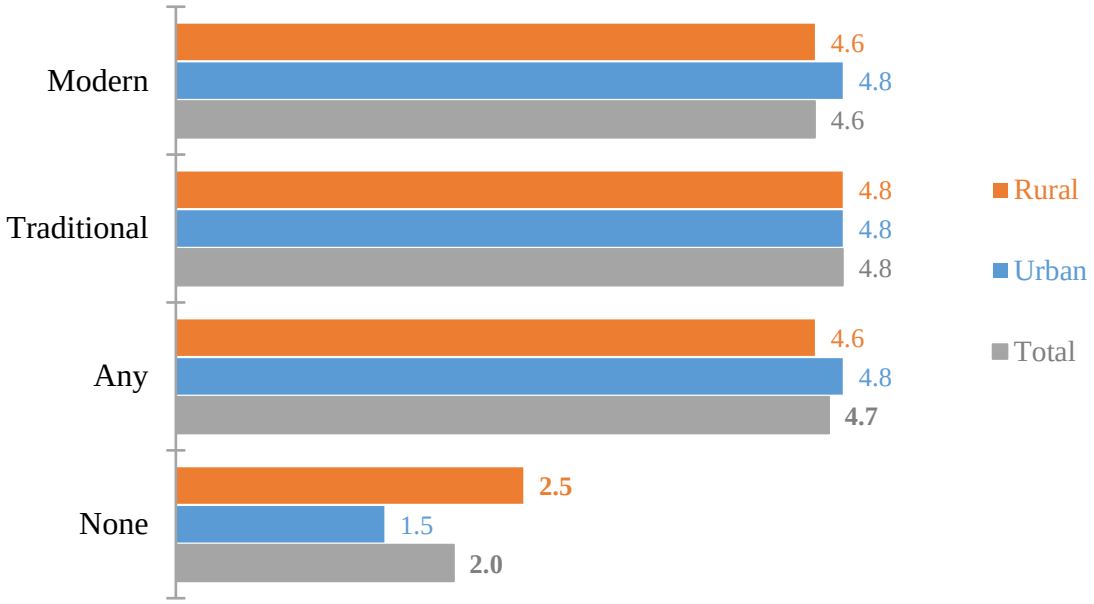
Overall, the contraceptive prevalence rate (CPR) is 62% of currently married women aged 15-49. 45% of currently married women use a modern method and 17% use a traditional method. 24% of sexually active unmarried women use a contraceptive method, all of them using a modern method. Use of modern contraceptive methods is higher among currently married women in rural areas (47%) than among those in urban areas (41%).

Figure 4. 1: Percentage of Current contraceptive used by Residence, Cambodia DHS 2021-2022



Women who currently use any contraceptive method have a higher TFR (4.7 child per woman) compared to women who currently not use contraceptive methods (2.0 child per woman). Women in urban areas who did not use contraception had a lower TFR (1.5 children per woman) than women in rural areas (2.5 children per woman). There were no relevant differences between urban and rural areas for women using any, modern or traditional methods.

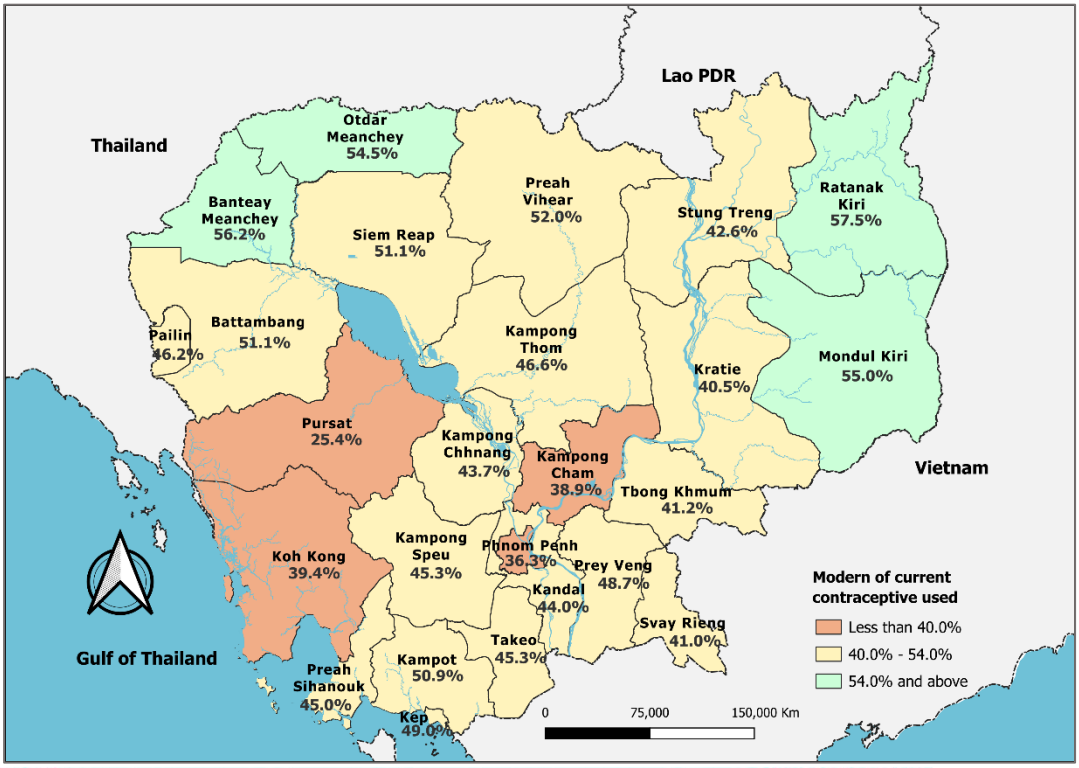
Figure 4. 2: Total fertility rate of Current contraceptive used by Residence, Cambodia DHS 2021-2022



The proportion of currently married women using any contraceptive methods increases with increasing education, 57.1 among women with no education to 64.2% for women with more than secondary education. Contraceptive use also increases with wealth, from 59.2% in the lowest wealth quintile to 67.5 percent of women in the highest quintile. However, use of modern methods decreases with higher education and income level.

The lowest use of any contraceptive methods among women in reproductive health is in Pursat (32.5%), while Mondul Kiri had the highest (70.4%) There are provincial differences in the use of traditional and modern methods as seen in Table 4.1.1.

Map 4. 1: Percent of Modern of current contraceptive used by province, Cambodia DHS 2021-2022



Women in Cambodia who have more children also have higher use of contraceptive methods, 62% of users had 4.7 children, while 38% had 2.0 children did not use any contraceptive method. There were significant differences between women who used traditional contraception (17% had 4.8 children) and modern methods (45% had 4.6 children).

There was a significant difference among married women who used any method of contraception between urban and rural areas (66% had 4.8 children versus 59% had 4.6 children).

Among women aged 15-49 who did not use any contraceptive method , the higher proportion in Pursat (67.5% had children 2.5) versus (33% had children 5.4) for use contraceptive any method, Koh Kong (54.3% had children 2.4) versus (46% had children 4.1) for use contraceptive any method and Kampong Cham province (54% had children 2.6) versus (46.4% had children 5.0) for using contraceptive any method, while lower in Mondol Kiri (30% had children 2.5) versus (70% had children 4.4) for using contraceptive in any method, Kandal (31% had children 1.8) versus (69% had children 5.2) for using contraceptive any method and Preah Sihanouk (32% had children 1.8 versus 68% had children 4.3) for using contraceptive any method.

Table 4.1. 1: TFR by Current contraceptive used of women aged 15-–49 by selected background characteristics, Cambodia DHS 2021-–22

Background	Current contraceptive used								
		None		Any		Traditional		Modern	
	Total	%	TFR	%	TFR	%	TFR	%	TFR
Residence									
Urban	2.4	34.1	1.5	65.9	4.8	24.4	4.8	41.4	4.8
Rural	3.0	40.7	2.5	59.3	4.6	12.4	4.8	46.9	4.6
Province									
Banteay Meanchey	2.6	37.8	2.0	62.2	4.4	6.0	*	56.2	4.4
Battambang	2.9	34.5	2.2	65.5	4.7	14.4	4.1	51.1	4.9
Kampong Cham	3.0	53.6	2.6	46.4	5.0	7.5	3.9	38.9	4.9
Kampong Chhnang	2.8	38.1	2.2	61.9	5.1	18.2	5.6	43.7	4.6
Kampong Speu	2.5	38.2	1.7	61.8	4.2	16.6	4.1	45.3	4.4
Kampong Thom	3.2	40.2	2.3	59.8	5.3	13.2	4.1	46.6	5.4
Kampot	2.5	33.7	2.0	66.3	3.9	15.4	4.3	50.9	3.9
Kandal	2.9	30.7	1.8	69.3	5.2	25.3	5.6	44.0	4.7
Koh Kong	2.9	54.3	2.4	45.7	4.1	6.3	1.3	39.4	4.4
Kratie	3.3	43.3	2.8	56.7	4.7	16.2	4.4	40.5	4.8
Mondul Kiri	3.0	29.6	2.5	70.4	4.4	15.4	4.4	55.0	4.1
Phnom Penh	2.3	32.0	1.1	68.0	5.0	31.8	4.8	36.3	5.0
Preah Vihear	3.0	33.7	2.5	66.3	4.4	14.3	3.5	52.0	4.4
Prey Veng	3.3	36.8	2.9	63.2	5.0	14.6	5.6	48.7	5.0
Pursat	2.9	67.5	2.5	32.5	5.4	7.1	*	25.4	4.9
Ratanak Kiri	3.0	36.4	2.5	63.6	4.2	6.1	1.0	57.5	4.3
Siemreap	2.6	34.5	2.4	65.5	4.1	14.4	6.9	51.1	3.8
Preah Sihanouk	2.6	31.9	1.8	68.1	4.3	23.1	4.6	45.0	4.1
Stung Treng	3.4	45.5	2.7	54.5	4.6	11.8	4.5	42.6	4.8
Svay Rieng	3.0	41.9	2.5	58.1	4.6	17.1	5.0	41.0	4.5
Takeo	2.7	40.6	2.0	59.4	4.6	14.1	3.1	45.3	5.0
Otdar Meanchey	2.6	33.8	2.2	66.2	3.2	11.8	2.8	54.5	3.3
Kep	2.0	38.9	2.0	61.1	4.0	12.0	3.4	49.0	2.0
Pailin	2.9	36.1	2.1	63.9	4.2	17.7	4.7	46.2	3.8

Background	Current contraceptive used								
		None		Any		Traditional		Modern	
	Total	%	TFR	%	TFR	%	TFR	%	TFR
Tboung Khmum	2.9	40.7	2.3	59.3	4.5	18.1	4.8	41.2	4.5
Education									
No education	3.4	42.9	2.9	57.1	4.2	10.3	3.0	46.8	4.1
Primary	3.1	37.4	2.4	62.6	4.6	16.2	5.0	46.4	4.5
Secondary	2.6	37.3	1.9	62.7	4.7	19.6	4.4	43.1	4.8
More than secondary	2.4	35.8	1.3	64.2	4.2	28.4	5.4	35.8	3.3
Wealth quintile									
Lowest	3.5	40.8	2.9	59.2	5.0	10.2	5.4	49.1	4.9
Second	3.1	40.4	2.7	59.6	4.6	13.8	4.1	45.8	4.7
Middle	2.7	40.2	2.0	59.8	4.5	16.2	5.0	43.6	4.3
Fourth	2.6	37.4	1.8	62.6	4.7	19.3	5.1	43.3	4.4
Highest	2.2	32.5	1.2	67.5	4.7	25.1	4.4	42.4	4.9
Total	**2.7**	**38.1**	**2.0**	**61.9**	**4.7**	**17.2**	**4.8**	**44.7**	**4.6**

*Notes: * An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.*

4.2. Ideal family size

Respondents with no children were asked "If you could choose exactly the number of children to have in your whole life, how many would that be?" Respondents who had children were asked "If you could go back to the time when you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?"

On average, women desire number of children (2.8 children). This is also true among women who are currently married compared to unmarried (3.0 children and 3.1 children respectively). Women who stated they did not want to have children actually have 2.0 children. As for the women who stated their ideal number of children was one or two actually have 2.5 children. Separately, the women who wanted to have 3 to 4 children, actually have 3 children. Whereas women desiring 5 or more children actually have 3.5 children. The ideal number of children is slightly lower among urban women than among rural women. Women who did not want to have children in urban areas actually have 1.4 children compared to 2.4 in rural. The women who wanted three or four children in urban areas actually have 2.7 children as against 3.2 in rural. Finally, women desiring five or more children in urban actually have 3.4 children compare to 3.6 children in rural.

Figure 4. 3: Total fertility rate of Ideal family by Residence, Cambodia DHS 2021-2022

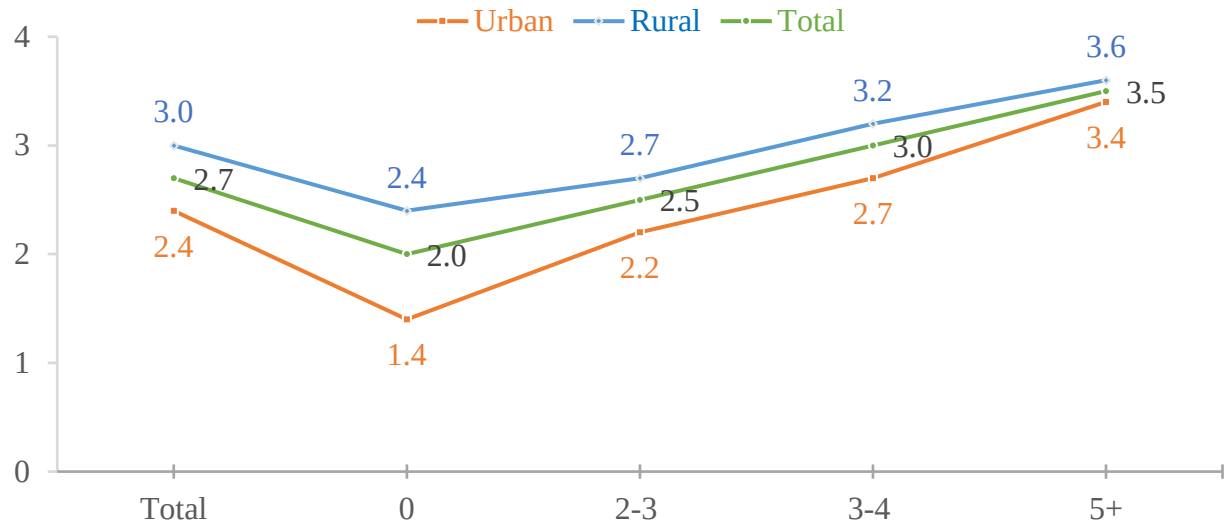


Table 4.2.1 shows the distribution of the TFR by ideal family size according to background characteristics. based on the number of surviving children. Among women aged 15-49 that did not want to have children have a higher education than the average, but their current TFR is 1.3 children, while women with no education that did not want to have children, their current TFR is an average of 2.7 children.

Married women in the lowest wealth quintile that did not want to have children had an average of 2.5 children, compared with 1.4 children of women in the highest wealth quintile. Women in the lowest wealth quintile that wanted five or more children had current TFR of 3.9 compared to, compared to 4.1 children of the women among the highest quintile (Table 4.2.1).

Table 4.2. 1: TFR by ideal number of children for women aged 15–-49 selected background characteristics, Cambodia DHS 2021–-22

Background	TFR by idea number of children				
	Total	0	1-2	3-4	5+
Residence					
Urban	2.4	1.4	2.2	2.7	3.4
Rural	3.0	2.4	2.7	3.2	3.6
Province					
Banteay Meanchey	2.6	2.6	2.2	2.8	3.2
Battambang	2.9	3.2	2.3	3.0	3.5
Kampong Cham	3.0	0.0	2.2	3.8	3.2
Kampong Chhnang	2.8	*	2.4	2.8	4.6
Kampong Speu	2.5	0.7	2.5	2.2	2.8
Kampong Thom	3.2	3.6	2.8	3.4	3.3
Kampot	2.5	1.6	2.0	2.8	3.9
Kandal	2.9	0.7	2.6	3.3	3.9
Koh Kong	2.9	0.0	2.5	3.4	3.8
Kratie	3.3	1.7	2.9	3.9	3.1
Mondul Kiri	3.0	*	2.3	3.5	2.4
Phnom Penh	2.3	1.2	2.1	2.6	5.4
Preah Vihear	3.0	*	2.7	3.1	3.8
Prey Veng	3.3	0.0	3.0	3.6	5.4
Pursat	2.9	0.9	2.4	2.8	4.6

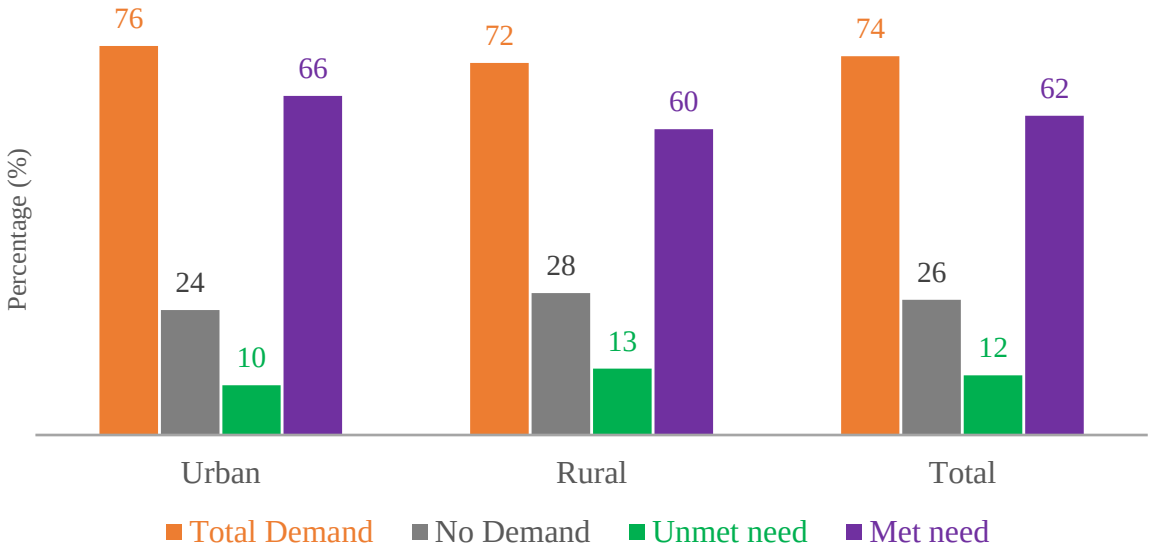
Background	TFR by idea number of children				
	Total	0	1-2	3-4	5+
Ratanak Kiri	3.0	*	1.9	3.1	3.6
Siemreap	2.6	1.0	2.7	2.8	2.1
Preah Sihanouk	2.6	*	2.1	2.7	3.3
Stung Treng	3.4	0.0	4.4	3.2	4.2
Svay Rieng	3.0	0.0	3.0	3.2	*
Takeo	2.7	1.7	2.4	3.0	*
Otdar Meanchey	2.6	3.2	2.4	3.2	*
Kep	2.0	0.0	2.3	2.5	0.0
Pailin	2.9	*	2.6	3.0	3.0
Tboung Khmum	2.9	*	2.8	2.8	5.3
Religion					
Buddhist	2.7	1.9	2.5	3.0	3.5
Muslim	3.5	1.0	1.2	4.3	4.5
Christian	4.4	*	*	2.9	6.2
No religion	1.7	*	*	*	0.0
Other	*	*	*	*	*
Education					
No education	3.4	2.7	2.8	3.8	3.3
Primary	3.1	2.0	2.8	3.5	3.7
Secondary	2.6	2.3	2.4	2.8	3.5
More than secondary	2.4	1.3	2.3	2.6	*
Wealth quintile					
Lowest	3.5	2.5	2.9	3.7	3.9
Second	3.1	2.5	3.0	3.2	3.0
Middle	2.7	1.6	2.5	2.9	2.9
Fourth	2.6	1.6	2.4	2.8	4.4
Highest	2.2	1.4	2.0	2.5	4.1
Total	2.7	2.0	2.5	3.0	3.5

4.3. Demand for Family Planning

Proportion of women who (1) are not pregnant and not postpartum amenorrheic and are considered fecund and want to postpone their next birth for 2 or more years or stop childbearing altogether but are not using a contraceptive method, (2) have a mistimed or unwanted current pregnancy, or (3) are postpartum amenorrheic and their last birth in the last 2 years was mistimed or unwanted.

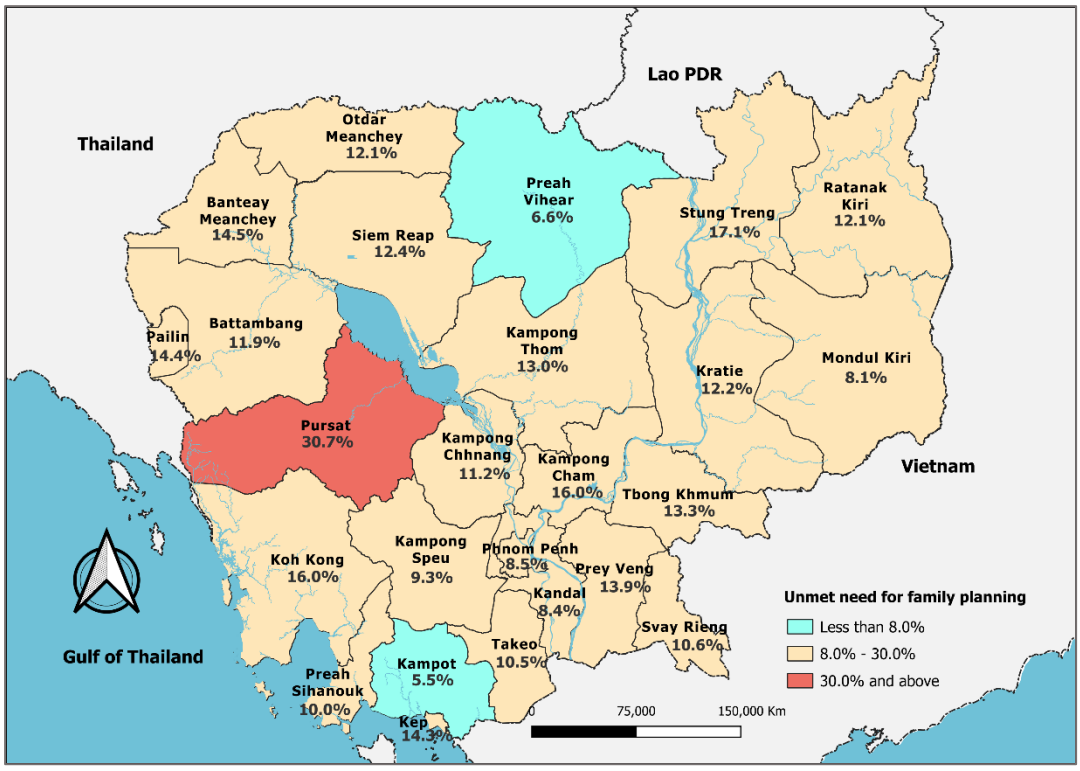
Table 4.3.1 presents information on need and demand for family planning among women and sexually active unmarried women according to various background characteristics. Almost 2 out of 3 currently married women aged 15-49 have a demand for family planning; 12 percent have an unmet need and 62 percent have a met need. Unmet need for spacing births decreases with age, from 14% among currently married women aged 15–19 to 1% among those age 45–49. In contrast, unmet need for limiting births generally increases with increasing age.
Total demand for family planning is higher among currently married women in urban areas (76%) than among those in rural areas (72%). And unmet need for family planning is higher in rural areas (13%) than in urban areas (10 %).

Figure 4. 4: Percentage of demand for family planning by residence, Cambodia DHS 2021-2022



Unmet need for family planning varies by province, ranging from a high of 31% among currently married women in Pursat to a low of 6% in Kampot.

Map 4. 2: Percent of Unmet need for family planning by province, Cambodia DHS 2021-2022



Unmet need for family planning is higher among currently married women with no formal education (14%) than among currently married women with more than a secondary education (10%). There is the same pattern in terms of unmet need for family planning and wealth quintiles.

For those women who have demand for family planning seem to have higher TFR (3.8 child per woman) when compared to women with no demand for family planning (0.9 child per woman). The data show that women with unmet needs for family have less children than women with met needs for family planning (2.9 child versus 4.1 child per woman respectively).

Figure 4. 5: Percentage of demand for family planning by education level, Cambodia DHS 2021-2022

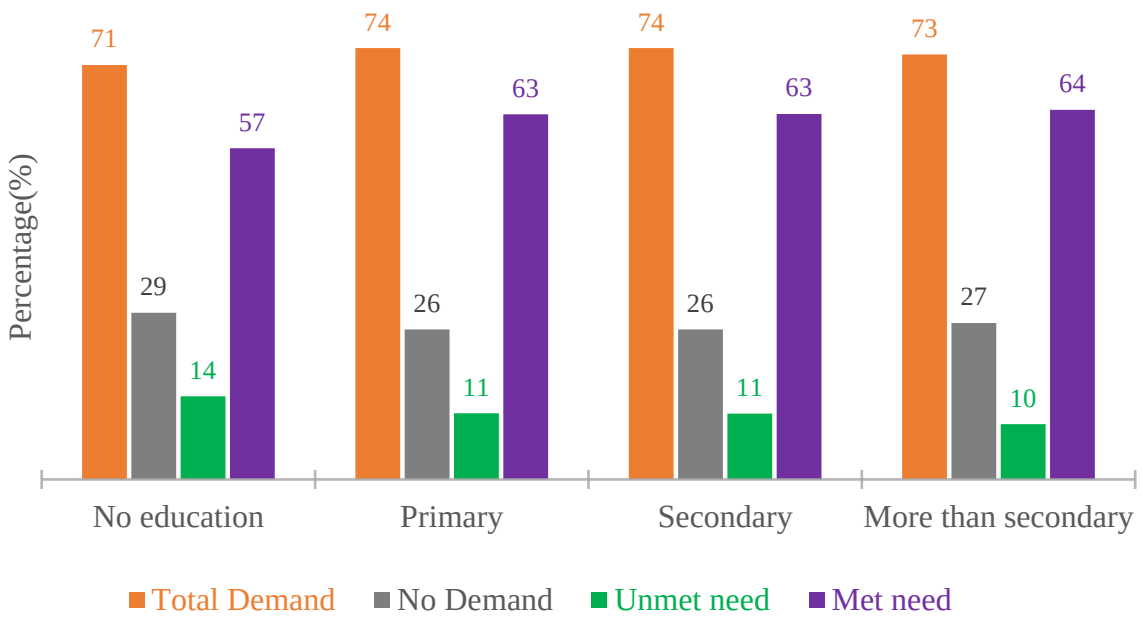


Figure 4. 6: Percentage of demand for family planning by wealth quintile, Cambodia DHS 2021-2022

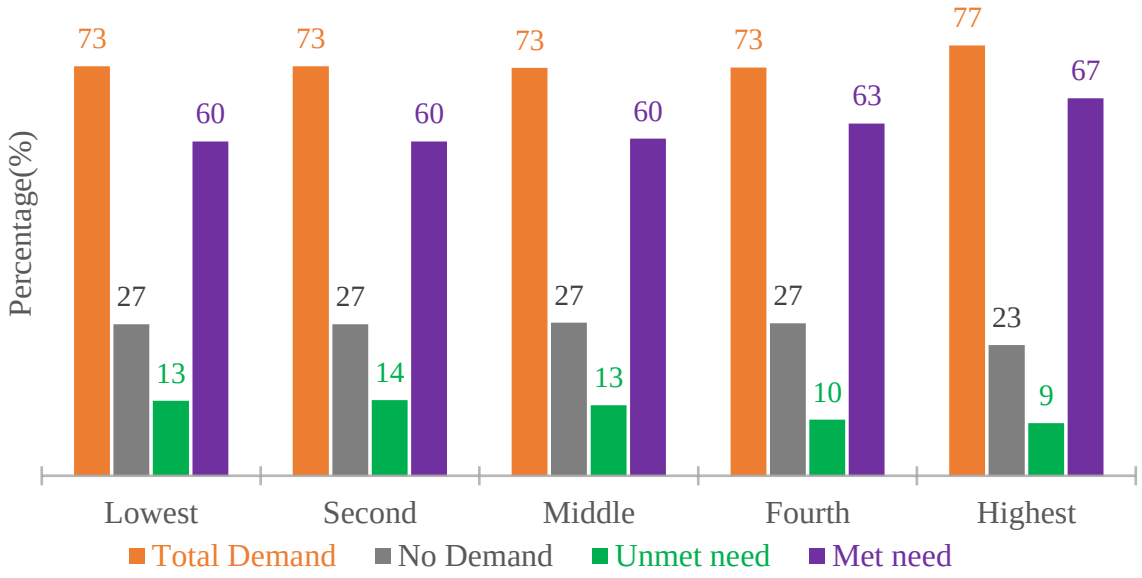


Table 4.3. 1: TFR by Demand for family planning for women aged 15-49 selected background characteristics, Cambodia DHS 2021-2022

Background	Total Demand		No Demand		Unmet need		Met need	
	%	TFR	%	TFR	%	TFR	%	TFR
Residence								
Urban	75.7	3.9	24.3	0.6	9.7	2.6	66.0	4.3
Rural	72.4	3.7	27.6	1.0	12.9	3.0	59.5	4.0
Province								
Banteay Meanchey	76.9	3.0	23.1	0.7	14.5	1.7	62.4	3.5

Background	Total Demand		No Demand		Unmet need		Met need	
	%	TFR	%	TFR	%	TFR	%	TFR
Battambang	77.5	3.2	22.5	0.4	11.9	1.2	65.5	3.8
Kampong Cham	62.3	4.2	37.7	0.8	16.0	4.1	46.3	4.3
Kampong Chhnang	73.4	4.4	26.6	0.9	11.2	4.0	62.2	4.8
Kampong Speu	71.5	3.9	28.5	0.7	9.3	3.6	62.1	4.0
Kampong Thom	73.0	3.9	27.0	1.3	13.0	1.9	60.0	4.2
Kampot	71.9	3.6	28.1	1.6	5.5	2.6	66.4	3.8
Kandal	77.9	4.4	22.1	1.0	8.4	2.3	69.5	4.7
Koh Kong	61.2	4.4	38.8	1.6	16.0	4.4	45.1	4.3
Kratie	69.6	4.1	30.4	1.1	12.2	2.3	57.4	4.4
Mondul Kiri	78.8	4.3	21.2	1.2	8.1	4.0	70.7	4.5
Phnom Penh	76.6	3.7	23.4	0.5	8.5	2.2	68.1	4.3
Preah Vihear	73.2	3.7	26.8	1.6	6.6	1.4	66.5	4.0
Prey Veng	76.6	3.8	23.4	0.7	13.9	2.1	62.7	4.3
Pursat	63.3	3.8	36.7	1.2	30.7	3.1	32.6	4.9
Ratanak Kiri	75.6	3.7	24.4	1.5	12.1	4.2	63.5	3.7
Siemreap	78.3	3.7	21.7	0.9	12.4	4.1	65.9	3.7
Preah Sihanouk	78.5	3.9	21.5	0.6	10.0	4.1	68.5	3.8
Stung Treng	72.1	4.5	27.9	1.2	17.1	5.0	55.0	4.3
Svay Rieng	68.9	4.0	31.1	1.0	10.6	3.0	58.3	4.2
Takeo	70.3	3.7	29.7	0.9	10.5	2.9	59.8	4.1
Otdar Meanchey	78.6	2.8	21.4	0.9	12.1	2.3	66.5	3.0
Kep	74.6	3.5	25.4	0.8	14.3	3.7	60.3	3.8
Pailin	78.1	3.4	21.9	0.6	14.4	2.8	63.7	3.6
Tboung Khmum	72.6	3.7	27.4	0.6	13.3	3.0	59.3	4.0
Education								
No education	71.3	3.3	28.7	1.3	14.3	2.8	57.0	3.5
Primary	74.2	3.9	25.8	1.0	11.4	3.1	62.8	4.1
Secondary	74.2	3.7	25.8	0.8	11.3	2.5	62.9	4.1
More than secondary	73.1	3.5	26.9	0.2	9.5	3.1	63.6	3.6
Wealth quintile								
Lowest	73.0	4.2	27.0	1.2	13.4	3.7	59.6	4.3
Second	73.0	3.5	27.0	1.1	13.5	2.4	59.6	3.8
Middle	72.7	3.7	27.3	0.7	12.6	2.9	60.1	4.1
Fourth	72.8	3.6	27.2	0.8	10.0	2.6	62.8	4.0
Highest	76.7	4.0	23.3	0.6	9.4	2.7	67.3	4.4
Total	**73.7**	**3.8**	**26.3**	**0.9**	**11.6**	**2.9**	**62.1**	**4.1**

*Notes: * An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed*

CHAPTER 5
MATERNAL HEALTH CARE

Health care services during pregnancy and childbirth and after delivery are important for the survival and wellbeing of both the mother and the infant. Antenatal care (ANC) can reduce the health risks for mothers and their babies by monitoring pregnancies and screening for complications. Delivery at a health facility, with skilled medical attention and hygienic conditions, reduces the risk of complications and infections during labor and delivery.

This chapter presents information on ANC providers, the number and timing of ANC visits, and various components of maternal care. The chapter examines childbirth and postnatal care and presents information on the place of delivery, assistance during delivery, cesarean delivery, cost of delivery, and postnatal health checks for mothers and newborns.

5.1. Antenatal Care

Almost all women aged 15-49 who had a live birth in the 2 years preceding the survey received Antenatal Care (ANC) from a skilled provider (99%) at least once for their most recent birth. Most women (84%) received ANC from a nurse or midwife, while 12% received ANC from a doctor and 2% from an auxiliary midwife. More women in urban areas (22%) than in rural areas (7%) reported receiving ANC from a doctor. In contrast, more rural women (89%) than their urban counterparts (76%) received ANC from nurses and midwives.

Table 5.1.1 presents ANC provided to women aged 15–49, broken down by ANC provided to Child Ever Born and Child Surviving. In both cases, most women (86.5%) received full ANC, while not receiving ANC were only 1.3%. In urban areas, women with no child ever born were more likely to not have received antenatal care than in rural areas (1.5% and 0.9%). The highest percent of women who received full ANC were found in Battambang (94.0%) and lowest in Ratanak Kiri (56.1%).

The percentage of women aged 15-49 who not received ANC declined with increased of education from 4.4% with no educated women to 0.3 for women who got more than secondary, while opposite trend occurred among women received ANC more than four times. ANC has increased with increasing level of education from 73.6% with no education women to 97.5% among women with more than secondary.

The same trend as above, the percentage of women in the highest wealth quintile that did not receive ANC is lower than those of women in the lowest wealth quintile (0.1% and 2.5%). Consequently, 75.6% of women in the lowest wealth quintile received ANC more than four times compared to 95.8% of women in the highest wealth quintile.

Table 5.1. 1: Antenatal Care for women aged 15-49 selected background characteristics, Cambodia DHS 2021-2022

Background	Antenatal care											
	Number ANC											
	Mean Child Ever Born						Mean Child Surviving					
	ANC%	0	ANC%	1-3	ANC%	4+	ANC%	0	ANC%	1-3	ANC%	4+
Residence												
Urban	0.9	2.5	7.9	2.6	91.1	2.0	0.9	2.5	7.9	2.6	91.1	2.0
Rural	1.5	3.0	15.0	2.6	83.5	2.1	1.5	2.9	15.0	2.5	83.5	2.1
Province												
Banteay Meanchey	0.6	1.0	13.8	2.5	85.5	2.3	0.6	1.0	13.8	2.4	85.5	2.2

Background	Antenatal care											
	Number ANC											
	Mean Child Ever Born						Mean Child Surviving					
	ANC%	0	ANC%	1-3	ANC%	4+	ANC%	0	ANC%	1-3	ANC%	4+
Battambang	0.7	5.6	5.3	3.7	94.0	2.2	0.7	4.4	5.3	3.4	94.0	2.2
Kampong Cham	0.9	3.5	7.4	2.2	91.7	2.3	0.9	3.5	7.4	1.9	91.7	2.2
Kampong Chhnang	1.0	3.0	16.8	2.7	82.2	2.2	1.0	3.0	16.8	2.7	82.2	2.1
Kampong Speu	2.4	2.0	10.9	1.8	86.7	2.0	2.4	2.0	10.9	1.8	86.7	1.9
Kampong Thom	1.3	3.1	18.4	2.8	80.3	2.1	1.3	3.1	18.4	2.7	80.3	2.1
Kampot	0.7	2.0	7.6	2.6	91.7	2.1	0.7	2.0	7.6	2.5	91.7	2.0
Kandal	1.0	3.5	10.0	3.0	89.0	2.0	1.0	3.5	10.0	3.0	89.0	2.0
Koh Kong	6.4	3.1	16.6	2.6	77.1	2.1	6.4	3.0	16.6	2.5	77.1	2.0
Kratie	2.9	2.3	31.2	2.2	65.8	2.1	2.9	2.3	31.2	2.2	65.8	2.1
Mondul Kiri	3.5	4.1	21.0	2.8	75.5	2.5	3.5	3.4	21.0	2.6	75.5	2.4
Phnom Penh	0.8	2.5	7.7	2.7	91.5	2.0	0.8	2.5	7.7	2.7	91.5	2.0
Preah Vihear	2.1	3.5	39.1	2.1	58.8	2.1	2.1	3.5	39.1	2.0	58.8	2.0
Prey Veng	0.0		12.5	2.7	87.5	1.9	0.0		12.5	2.6	87.5	1.9
Pursat	1.6	3.9	10.5	4.3	87.9	2.1	1.6	3.9	10.5	4.1	87.9	2.0
Ratanak Kiri	4.1	2.9	39.7	2.3	56.1	2.4	4.1	2.9	39.7	2.2	56.1	2.3
Siemreap	0.4	3.0	9.6	2.7	90.1	2.1	0.4	3.0	9.6	2.6	90.1	2.1
Preah Sihanouk	1.3	6.4	12.2	2.2	86.5	2.1	1.3	6.4	12.2	2.1	86.5	2.1
Stung Treng	3.5	1.9	26.5	2.6	70.0	2.2	3.5	1.9	26.5	2.6	70.0	2.1
Svay Rieng	0.8	1.0	9.3	2.7	90.0	1.9	0.8	1.0	9.3	2.6	90.0	1.8
Takeo	2.5	2.8	13.2	2.5	84.3	2.0	2.5	2.8	13.2	2.4	84.3	1.9
Otdar Meanchey	0.7	2.0	19.3	1.8	80.1	2.2	0.7	2.0	19.3	1.7	80.1	2.2
Kep	1.2	5.6	11.4	2.1	87.4	2.0	1.2	5.0	11.4	2.1	87.4	2.0
Pailin	2.0	2.4	13.2	1.6	84.8	2.2	2.0	2.4	13.2	1.6	84.8	2.1
Tboung Khmum	2.4	2.7	7.6	2.1	90.0	2.0	2.4	2.7	7.6	2.0	90.0	2.0
Education												
No education	4.4	3.5	22.0	3.3	73.6	2.9	4.4	3.4	22.0	3.1	73.6	2.8
Primary	1.3	2.8	14.6	2.7	84.0	2.3	1.3	2.8	14.6	2.6	84.0	2.2
Secondary	0.5	1.8	9.2	2.0	90.3	1.8	0.5	1.8	9.2	2.0	90.3	1.8
More than	0.3	1.0	2.1	2.1	97.5	1.7	0.3	1.0	2.1	2.1	97.5	1.7
Wealth quintile												
Lowest	2.5	3.1	21.9	2.7	75.6	2.3	2.5	2.9	21.9	2.6	75.6	2.3
Second	1.3	2.7	12.3	2.3	86.5	2.0	1.3	2.7	12.3	2.3	86.5	2.0
Middle	1.4	2.7	11.9	2.3	86.7	2.1	1.4	2.7	11.9	2.3	86.7	2.0
Fourth	0.9	3.0	10.6	2.8	88.5	2.1	0.9	3.0	10.6	2.8	88.5	2.0
Highest	0.1	1.0	4.0	2.5	95.8	2.0	0.1	1.0	4.0	2.5	95.8	1.9
Total	**1.3**	**2.9**	**12.3**	**2.6**	**86.5**	2.1	**1.3**	**2.8**	**12.3**	**2.5**	**86.5**	**2.**

5.2. Delivery Place

Institutional delivery increases the chances of a skilled birth, as well as increasing the mother's access to essential equipment and supplies. Seventy-eight percent of live births and stillbirths were delivered at public facilities, while only 1.7% at home. The proportion of deliveries in public sector hospitals compared to private facilities is different in urban than in rural settings. In urban settings 69.6% of the deliveries were in public sector hospitals compared to 83.2% in rural areas.

In the provincial analysis, Siem Reap, Otdar Meanchy, Kampong Chhang and Preah Vihear provinces had the highest proportions of deliveries in the public sector (97.4%, 96.7%, 95.7 and 94.8 respectively) while Phnom Penh, Tboung Khmum, Kandal and Kep province had the lowest (57.8%, 65.5%, 66.7% and 68.5% respectively.) Women whose deliveries were at Private and NGO were highest in Phnom Penh 42.2% and lowest in Otdar Meanchey 0.5%. Among women who delivered.at home, the highest was in Ratanak Kiri province 14.1%.

Among women that completed more than secondary education level, 50.8% delivered in public sector facilities. In contrast, 85.4% of women with no education, delivered in public sector. This trend is the same when comparing women in the lowest wealth quintile and the highest wealth quintile (89.7% and 53% respectively).

Table 5.2. 1:Percent distribution of live births and/or stillbirths in the 2 years preceding the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, Cambodia DHS 2021-2022

Background	Health facility				
	Total	Public sector	Private and NGO	Home	Other
	LIVE BIRTHS				
Residence					
Urban	100	69.6	29.6	0.7	0.0
Rural	100	83.2	13.7	2.4	0.6
Province			0.0		
Banteay Meanchey	100	90.8	8.5	0.8	0.0
Battambang	100	77.5	20.0	1.4	1.1
Kampong Cham	100	78.3	20.0	0.0	1.7
Kampong Chhnang	100	95.7	3.5	0.8	0.0
Kampong Speu	100	83.4	14.3	2.3	0.0
Kampong Thom	100	76.5	14.3	9.2	0.0
Kampot	100	75.1	25.0	0.0	0.0
Kandal	100	66.7	31.3	0.8	1.1
Koh Kong	100	88.0	5.9	3.2	3.0
Kratie	100	85.6	11.3	3.1	0.0
Mondul Kiri	100	77.2	13.6	9.1	0.0
Phnom Penh	100	57.8	42.2	0.0	0.0
Preah Vihear	100	94.8	1.6	3.6	0.0
Prey Veng	100	72.0	25.9	2.1	0.0
Pursat	100	91.1	8.9	0.0	0.0
Ratanak Kiri	100	83.1	2.1	14.1	0.7
Siemreap	100	97.4	2.1	0.0	0.5
Preah Sihanouk	100	81.4	14.5	2.3	1.8
Stung Treng	100	83.1	5.5	11.4	0.0
Svay Rieng	100	91.8	5.5	2.8	0.0
Takeo	100	77.6	22.4	0.0	0.0
Otdar Meanchey	100	96.7	0.5	2.1	0.7
Kep	100	68.5	30.6	0.9	0.0
Pailin	100	91.5	8.5	0.0	0.0
Tboung Khmum	100	65.5	33.5	0.0	1.0
Mother's education					
No education	100	85.4	6.3	7.0	1.2
Primary	100	84.1	13.6	2.0	0.4
Secondary	100	74.8	24.4	0.5	0.3
More than secondary	100	50.8	49.2	0.0	0.0
Wealth quintile					
Lowest	100	89.7	3.8	5.9	0.6
Second	100	84.8	13.2	1.2	0.8

Background	Health facility				
	Total	Public sector	Private and NGO	Home	Other
	LIVE BIRTHS				
Middle	100	82.1	17.0	0.7	0.3
Fourth	100	78.1	21.2	0.3	0.3
Highest	100	53.0	46.6	0.4	0.0
Total	**100**	**78.0**	**19.9**	**1.7**	**0.4**

5.3. Postnatal Care

A large proportion of maternal and neonatal death occurs during the first 48 hours after delivery. Safe motherhood programs have recently increased their emphasis on the importance of postnatal care (PNC), recommending that all women receive a health checkup withing two days of delivery. A PNC visits an ideal time to educate a new mother about how to care for herself and her newborn and can reduce mortality and morbidity among mothers and babies. Table 5.3.1 indicated that 84.4% of women received PNC in the first two days after delivery, and 60% of women received PNC within four hours after delivery. Only 9% of women received no PNC or received it after 41 days of delivery.

Both in urban and rural areas, the percentage of women who received health check-up within four hours after the first delivery was also the highest compared and very similar to each other (59.7% and 60%, respectively). In urban areas, the percentage of women aged 15-49 who received PNC the first 48 hours after delivery for the mother was higher (88%) than rural (73%).

By province, the highest percentage of women that did not receive health check-ups after delivery where in Siem Reap (29.0%), while 99.2% of women in Takeo and Kampong Chhnang received postnatal care. The provinces with higher percentage of postnatal cere received less than 4 hours after delivery are Kampong Chhnang, Svay Rieng, Koh Kong, Kampong Speu and Takeo province (93.3%, 81.4%, 81.3%, 81.2% and 80.5% corresponding) compared to Rattan Kiri, Pailin, Siem Reap Otdar Meanchey and Preah Vihear province with the lowest (17.9%, 34.4%, 36.2%, 36.4%, and 36.5%) corresponding.

Sixteen percent of women with no education did not receive postnatal care, while only 8.6% of women with more education. There was no significant difference in the percentage of women aged 15-49 who received their first postnatal examination less than two days after delivery, in which 49% of women did not have education compared with 52.9% of women with secondary or more years education.

The percentage of women who do not receive postnatal care declines with increasing wealth quintile from 13.9% in the lowest quintile to 6.3% in the highest quintile.

Table 5.3. 1: Timing of first postnatal check for the mother

Among women age 15-49 with a live birth and/or stillbirth in the 2 years preceding the survey, percent distribution of the mother's first postnatal check for the most recent live birth or stillbirth by time after delivery, and percentage of women with a live birth or stillbirth during the 2 years preceding the survey who received a postnatal check in the first 2 days after giving birth, according to background characteristics, Cambodia DHS 2021-2022

Background Characteristic	Total	No postnatal check[2]	Time after delivery of mother's first postnatal check[1]					
			Less than 4 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing
			LIVE BIRTHS					
Residence								
Urban	100	7.4	59.7	8.1	20	1	2.3	1.6
Rural	100	10	60.1	8.8	13.6	1.2	3.2	3.1
Province								
Banteay Meanchey	100	3.9	62.8	16.6	12.8	1.3	1	1.6
Battambang	100	7.3	57.9	17.2	6.9	0	2.8	7.8
Kampong Cham	100	5.3	58	3.6	31	2.1	0	0
Kampong Chhnang	100	0.8	93.3	5.3	0.6	0	0	0
Kampong Speu	100	2.2	81.2	2.3	11.3	0.8	0	2.1
Kampong Thom	100	19.6	65.2	9.4	3.9	1.4	0.6	0
Kampot	100	7.5	56.6	11	4.8	0	3.3	16.8
Kandal	100	9.3	70.5	13.6	4.5	1.3	0	0.8
Koh Kong	100	5.4	81.3	8.6	4.2	0	0	0.4
Kratie	100	5.1	48.7	7	37.3	0.6	0	1.3
Mondul Kiri	100	14.4	69.5	4.5	10.7	0.5	0	0.4
Phnom Penh	100	7.4	46.7	3.1	40.4	0.5	1.5	0.3
Preah Vihear	100	23.3	36.5	13.3	18.2	1.2	4.3	3.1
Prey Veng	100	8.1	69.5	6.3	11.7	4.3	0	0
Pursat	100	10	60.9	15.2	8.1	0.7	2.3	2.8
Ratanak Kiri	100	24.2	17.9	12.4	16.6	0.7	0	28.2
Siemreap	100	29	36.2	3	4.1	0.5	25.2	2

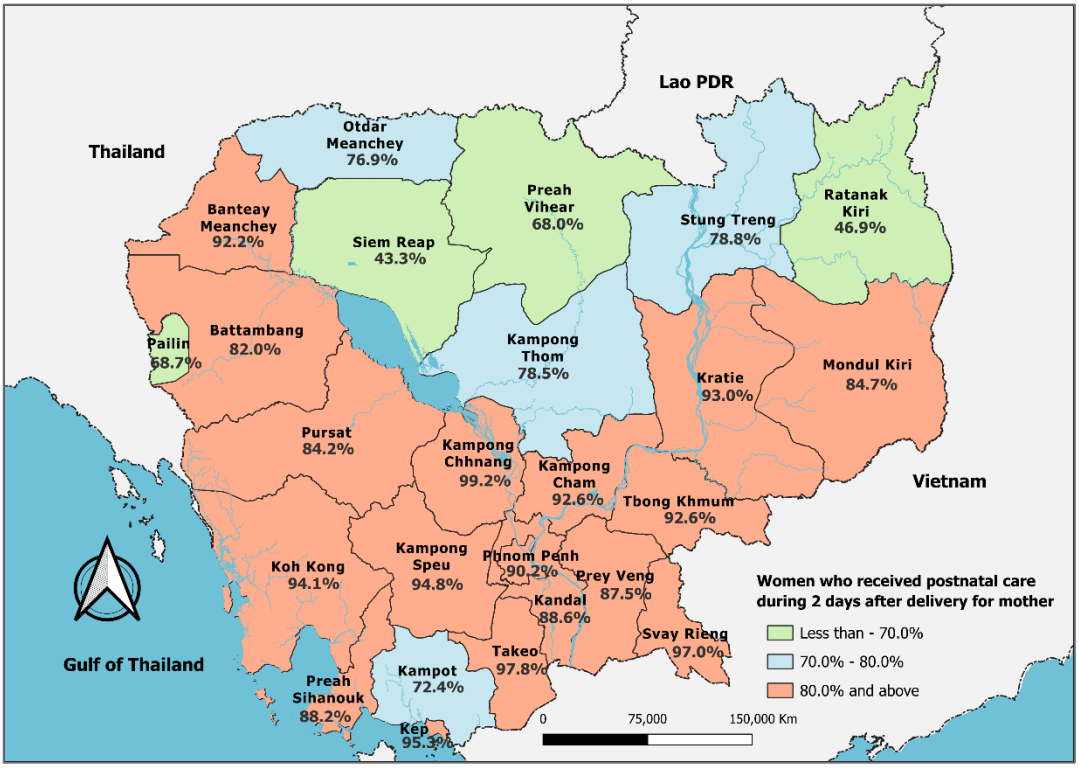
Among women age 15-49 with a live birth and/or stillbirth in the 2 years preceding the survey, percent distribution of the mother's first postnatal check for the most recent live birth or stillbirth by time after delivery, and percentage of women with a live birth or stillbirth during the 2 years preceding the survey who received a postnatal check in the first 2 days after giving birth, according to background characteristics, Cambodia DHS 2021-2022

Background Characteristic	Total	No postnatal check[2]	Time after delivery of mother's first postnatal check[1]					
			Less than 4 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing
LIVE BIRTHS								
Preah Sihanouk	100	3.5	73	11	4.2	0	0	8.3
Stung Treng	100	16	56.5	14.8	7.5	2.6	0.9	1.7
Svay Rieng	100	1.7	81.4	11.9	3.7	0.6	0.6	0
Takeo	100	0.8	80.5	9.5	7.8	0.8	0	0.7
Otdar Meanchey	100	17.4	36.4	11.5	29	3.2	1.6	0.9
Kep	100	4.8	75.7	1.8	17.8	0	0	0
Pailin	100	9.4	34.4	11.8	22.5	1.4	16.2	4.3
Tboung Khmum	100	2.8	37.5	9.1	46	1.5	2.3	0.9
Education								
No education	100	15.9	49.4	6.3	21.6	1	4.3	1.6
Primary	100	9.6	63	8.5	12.8	1.4	2.6	2.1
Secondary	100	6.9	60.9	9.1	16.4	0.7	2.9	3.1
More than secondary	100	8.6	52.9	8.4	23.4	2.2	2.2	2.3
Wealth quintile								
Lowest	100	13.9	52.1	9.9	14	1.5	5.2	3.4
Second	100	9.2	61.8	8	12.6	1.2	3.8	3.4
Middle	100	7.5	66.6	9.3	12.6	1	1.3	1.7
Fourth	100	8	62.1	9.2	15.9	0.5	1.7	2.7
Highest	100	6.3	57.1	6	25.8	1.3	2.3	1.2
Total	100	9	59.9	8.5	16	1.1	2.9	2.5

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes women who received a check from a doctor, nurse/midwife, auxiliary midwife, community health worker/fieldworker, or traditional birth attendant
[2] Includes women who received a check after 41 days

Map 5.1 shows the percentage among women who received postnatal care within two days after delivery for the mother. Of note are Siem Reap (43.3%) and Rattanak Kiri (46.9%) with the lowest percentages, and with the highest in Kampong Chhnang (99.2%), Takeo (97.8%), Svay Reing (97%) and Kep province (95.3%).

Map 5. 1: The percentage of women who received postnatal care during 2 days after delivery for mother by province, Cambodia DHS 2021-2022



The probability of neonatal death is high during the first 48 hours after birth, making postnatal checks in this period particularly important. Table 5.3.2 shows the timing of the first postnatal checkup for newborns in the past two years of the survey. Seventy percent of newborns received postnatal care within the crucial first two days of delivery, with 53% of all receiving care within four hours of delivery. However, almost 1 in 5 newborns (19%) did not receive postnatal care or did not receive it within their first week of life.

Postnatal care for newborns during the first two days after delivery was higher in urban areas (89.9%) than in rural (75.6%). Newborns whose mother had more than secondary education received higher rates of postnatal care within two days of delivery (77%) than those whose mother had no education (67.9%), which also had the greatest percentage of no postnatal care (28%). Similar trends are noticeable for wealth index, 28% of newborns in the poorest quintile did not receive postnatal care, compared with 14.6% of newborn in the richest quintile.

Table 5.3. 2: Timing of first postnatal check for the newborn

Percent distribution of most recent live births in the 2 years preceding the survey by time after birth of first postnatal check, and percentage of births with a postnatal check during the first 2 days after birth, according to background characteristics, Cambodia DHS 2021-2022

Background characteristic	Total	No postnatal check[2]	Time after delivery of newborn's first postnatal check[1]					
			Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	Don't know
Residence								
Urban	100	16.9	5.9	43.8	8.8	21.4	1.8	1.5
Rural	100	19.8	4.5	49.9	6.6	14.6	1.8	2.8
Province								
Banteay Meanchey	100	6.7	0.6	57.4	18.4	14.8	1.3	0.8
Battambang	100	25.4	12.2	39.8	12.8	5.6	0.4	3.9
Kampong Cham	100	14.8	0.9	47.8	3.1	30.9	1.8	0.7
Kampong Chhnang	100	3.3	4.8	87.3	3.4	0.6	0	0.6
Kampong Speu	100	4.4	23.5	51.3	1.5	14.6	2.5	2.1
Kampong Thom	100	23.4	15.2	51.7	6	2.5	0.7	0.5
Kampot	100	20	0	46.9	7.3	9.2	1.4	15.3
Kandal	100	18.9	0.8	56.3	11	7.7	4.5	0.8
Koh Kong	100	8.1	21	56.2	6.8	7.9	0	0
Kratie	100	20.1	2.1	36.6	4.9	35	0	1.3
Mondul Kiri	100	16.2	1.7	67.3	4.7	9.7	0	0.4
Phnom Penh	100	14.2	4.1	33.5	6.1	39.6	1.1	1.4
Preah Vihear	100	62.3	2	13.8	3	15.4	0.7	2.8
Prey Veng	100	10.4	0	57.1	5.9	17.3	8.8	0.6
Pursat	100	13.1	1.9	55.8	13.1	15.3	0.7	0
Ratanak Kiri	100	34.7	0	11.6	11.8	17.9	0	24
Siemreap	100	56.3	0	36.8	2.2	3.5	0.5	0.7
Preah Sihanouk	100	10.5	6.8	58.7	9.8	6.7	0	7.5
Stung Treng	100	25	5.9	45.3	10.2	9.7	1.2	2.5
Svay Rieng	100	18.2	16.5	50.3	9.2	5.8	0	0
Takeo	100	1.4	2	73.6	9.5	9.8	1.5	2.2
Otdar Meanchey	100	31.3	2.8	30.1	9.7	22.2	3.1	0.9

Percent distribution of most recent live births in the 2 years preceding the survey by time after birth of first postnatal check, and percentage of births with a postnatal check during the first 2 days after birth, according to background characteristics, Cambodia DHS 2021-2022

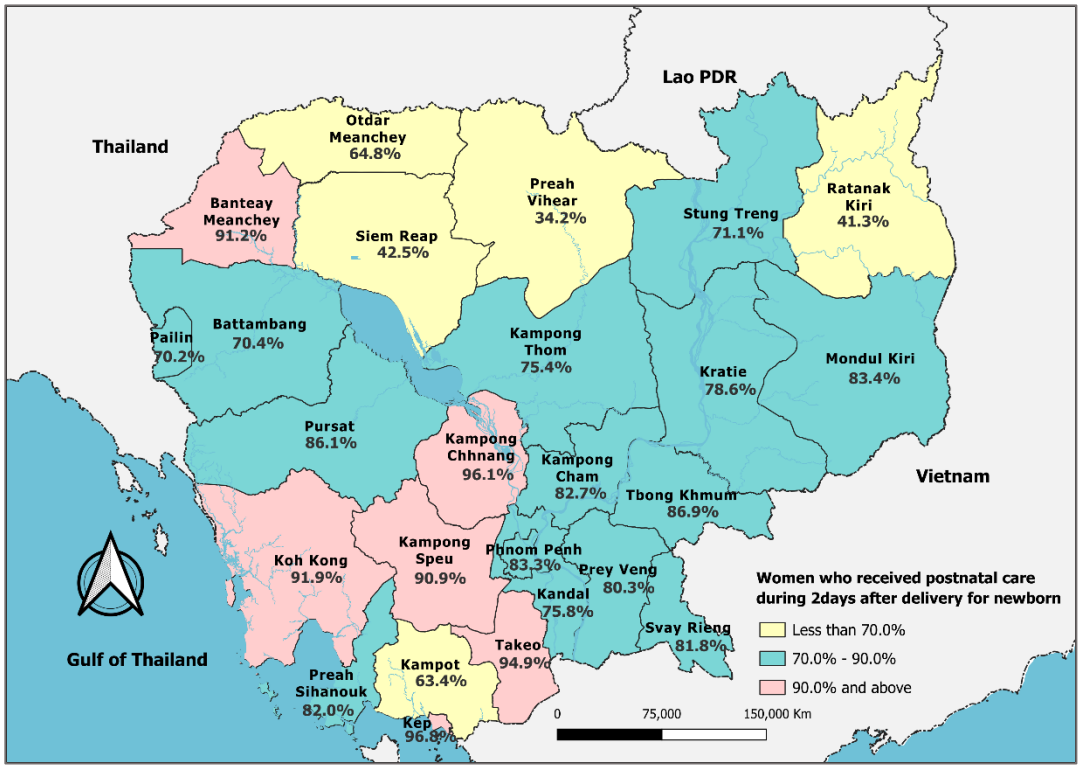
Background characteristic	Total	No postnatal check[2]	Time after delivery of newborn's first postnatal check[1]					
			Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	Don't know
Kep	100	2.4	0	54.7	6.2	35.9	0.7	0
Pailin	100	25.6	2.2	21.9	16.5	29.6	2.2	1.9
Tboung Khmum	100	11.7	0	30.4	8.5	48	0.7	0.6
Mother's education	100							
No education	100	28	3.6	38.1	4.4	21.8	2.1	2.1
Primary	100	19.2	5.2	49.7	6.9	15.4	2.1	1.6
Secondary	100	15.9	5.5	49.4	8.1	16.8	1.5	2.7
More than secondary	100	18.3	3.7	38.5	11.1	23.7	1.6	3.2
Wealth quintile								
Lowest	100	28.3	4.5	41.1	7.7	14.7	1	2.6
Second	100	17.5	4.7	51.8	6.5	14.3	2.3	2.8
Middle	100	14.8	6.5	52.5	6.7	15	2.6	2
Fourth	100	17.6	5.2	51.5	7.6	15.2	0.8	2.1
Highest	100	14.6	4.4	40.4	8.6	27.9	2.4	1.9
Total	100	18.7	5.1	47.5	7.4	17.2	1.8	2.3

[1] Includes newborns who received a check from a doctor, nurse/midwife, auxiliary midwife, community health worker/fieldworker, or traditional birth attendant

[2] Includes newborns who received a check after the first week of life

Map 5.2 indicates the large differences across provinces. Newborns who received postnatal care during the first 2 days after delivery in Preah Vihea (34.2%) had the lowest percentage, followed by Ratannak Kiri (41.3%) and Siem Reap (42.5). On the other extremeKep (96.8%), Kampong Chhang (96.1%), Takeo (94.9%), Koh Kong (91.9), Banteay Meanchey (91.2%) and Kampong Speu (90.9%) all had levels above 90%.

Map 5. 2: The percentage of women who received postnatal care during 2days after delivery for newborn by province, Cambodia DHS 2021-2022



Social Media

The survey collected exposure of respondent to both broadcast and print media. This information is important because it provides an indication of the exposure of women to mass media that can be used to disseminate family planning, health and other information.

Table 5.4.1 also shows the differences in fertility levels of women aged 15-49 have received family planning through various media both urban and rural (except some expectation). Among women who received information on family planning through media outlets, the TFR were lower than women who reported not receiving information on family planning. (For example, among women who received social media on family planning, the TFR is lower than not received both urban (2.4 versus 2.5) and rural (2.9 versus 3.1) corresponding. But some TFR level among women received media on family planning is higher than women have received it such Poster/ leaflet, outdoor sign or billboard and community meeting or event (2.9 versus 2.6), (2.9 versus 2.7) and (2.9 versus 2.7) corresponding.

Table 5.4. 1: Among women aged 15-49 with a social media for the mother, according to background characteristics, Cambodia DHS 2021-2022

Background	TFR					
	Total		Urban		Rural	
	YES	NO	YES	NO	YES	NO
Radio	2.6	2.8	2.4	2.4	2.8	3.0
Television	2.6	2.8	2.5	2.4	2.8	3.0

Background	TFR					
	Total		Urban		Rural	
	YES	NO	YES	NO	YES	NO
Newspaper/ magazine	2.2	2.8	1.8	2.5	3.0	3.0
Mobile phone	2.7	2.8	2.5	2.4	2.9	3.0
Social media	2.6	2.8	2.4	2.5	2.9	3.1
Poster/ leaflet/ brochure	2.9	2.6	2.5	2.3	3.2	2.7
Outdoor sign or billboard	2.8	2.7	2.7	2.3	3.0	3.0
Community meeting or event	2.9	2.7	2.5	2.4	3.1	3.0
None of these eight sources	2.6	2.8	2.4	2.4	2.8	3.0

Living Condition

In this section we analyze other background characteristics that could help to explain the changes in the Total Fertility Rate in women The analysis includes employment status, possession of assets in the household, and other household physical conditions.

In general, the results presented in Table 5.4 are as expected. Unemployed women have higher fertility rates than women with any employment (4.0 and 2.5 respectively). This suggests that women in the labor force have lower fertility than economically inactive women. Among those economically active women, there is little variation on their fertility rate, although urban employed women have the lowest fertility across employment status and area of residence.

Women living with improved drinking water and sanitation facilities have lower fertility rates. In urban areas, the TFR had the highest difference for improved drinking water (2.4) and surface water (3.3). In rural areas, women in household with improved sanitation had lower rates (2.9) compared to open defecation (3.5). Finally, women living in dwellings with electricity and possessing other household's assets had lower fertility rates than women living without them.

The increasing labor force participation of women is a second aspect of women's rising empowerment in society and this change too tends to lead to a decline of the number of children that women have.

Table 5.5. 1: TFR by living Condition of women aged 15-49

According to background characteristics, Cambodia DHS 2021-2022			
Background	Total	Urban	Rural
Mother's employment			
Any worker	2.5	2.2	2.7
Paid worker	2.5	2.3	2.7
Non-Paid worker	2.9	2.5	3.0
Unemployment	4.0	3.5	4.2
Water			
Improved	2.7	2.4	3.0
Unimproved	2.9	2.3	3.0
Surface	3.1	3.3	3.1
Sanitation			
Improved	2.7	2.4	2.9
Unimproved	3.0	3.4	3.0
Open	3.4	2.9	3.5
Electricity			
Yes	2.7	2.4	2.9
No	3.4	3.0	3.4
Radio			

According to background characteristics, Cambodia DHS 2021-2022			
Background	Total	Urban	Rural
Yes	2.5	2.3	2.7
No	2.8	2.4	3.0
Television			
Yes	2.6	2.3	2.8
No	3.0	2.6	3.2
Refrigerator			
Yes	2.3	2.2	2.6
No	2.9	2.6	3.1
Bicycle			
Yes	2.5	2.2	2.7
No	3.0	2.7	3.3
Motorcycle			
Yes	2.4	2.9	2.7
No	2.5	3.4	3.1
Cars			
Yes	2.4	2.3	2.7
No	2.8	2.5	3.0

The term "work" is broad and includes both paid and unpaid work. This report uses three work indicators for adults. The first one is the employment population ratio, also called the employment rate. It captures the share of the adult population who are employed, i.e., working for pay or those who are self-employed. The second is the paid employment rate which captures the share of the population who work for pay. The third is the unpaid employment rate which captures the share of the population who participated in unpaid work. Unpaid work can be, for instance, working in a family enterprise

Improved drinking water includes piped water, public taps, standpipes, tube wells, boreholes, protected dug wells and springs, rainwater, water delivered via a tanker truck or a cart with a small tank, and bottled water.

Improved sanitation includes flush/pour flush toilets that flush water and waste to a piped sewer system, septic tank, pit latrine, or unknown destination, ventilated improved pit (VIP) latrines, pit latrines with slabs, and composting toilets.

Multinomial logistic regression

Multinomial logistic regression analysis also is performed. The method consists in determining an equation or system of equations where the dependent variable is ANC (None or less than 3 = 0, f4 or more =1) indicator and the independent variables are mother's age, residence, mother's education, father's education, mother's employed, ideal number of children, birth order, birth interval, exposure to mass media and wealth quintile as the factors. Through such a functional model, the evaluator can attempt to calculate quantitative estimates of the weight of the various independent variables in explaining differences in the dependent variable. This method is not without difficulties and involves a series of crucial steps selection of the variables, procedure for estimating regression coefficients etc.-whose bearing on the results and their interpretation is of fundamental importance.

Table 5.6.1 presents the result of binary logistic models to investigate potential factors that influence the selected indicators. The results of logistics regression show that by far the most important factor that determines whether women have full ANC is? The result shows women's residence, mother's education, father's education, birth order, birth interval and wealth quintile have a significant role in women going to skilled provider for ANC. Father's education, birth interval, and wealth quintile of household play a negative role on access to skilled provider for ANC. For instance, women with birth

order 4 are more likely than two times (OR=2.27, P<0.01). No association between full ANC and age group of mothers, mother's occupation, ideal number of children and exposure to mass media.

Table 5.6. 1: Determinants of full ANC of women aged 15-49 by last live birth three years preceding the Cambodia DHS 2021-2022

Background	Coefficient	S.E.	Significant	Exp(B)	95% C.I. for EXP(B)	
					Lower	Upper
Mother's Age						
15-19						
20-24	-0.49	0.94	0.60	0.61	0.10	3.87
25-29	-0.39	0.71	0.58	0.68	0.17	2.71
30-34	-0.57	0.69	0.40	0.56	0.15	2.17
35-39	-0.11	0.69	0.87	0.89	0.23	3.43
40-44	-0.80	0.68	0.24	0.45	0.12	1.71
45-49	-0.97	0.70	0.16	0.38	0.10	1.49
Residence						
Urban						
Rural	0.28	0.15	0.06	1.33	0.99	1.78
Mother's Education						
No education@						
Primary	-1.18	0.50	0.02	0.31	0.12	0.82
Secondary	-0.73	0.48	0.13	0.48	0.19	1.24
More than secondary	-0.61	0.48	0.00	0.54	0.21	1.39
Father's Education						
No education						
Primary	-0.41	0.20	0.04	0.67	0.45	0.99
Secondary+	-0.44	0.13	0.00	0.64	0.49	0.84
Mother's Occupation						
Working						
Not Working	-0.08	0.12	0.53	0.92	0.72	1.18
Ideal Number of Children						
0						
1-2	-0.32	0.36	0.37	0.72	0.36	1.47
3-4	0.01	0.20	0.97	1.01	0.68	1.50
5+	0.20	0.19	0.28	1.22	0.85	1.76
Birth Order						
1						
2	-0.61	0.20	0.00	0.54	0.37	0.80
3	-0.45	0.18	0.01	0.64	0.45	0.90
4	0.82	0.99	0.01	2.27	0.33	15.79
5+	0.12	0.20	0.54	1.13	0.77	1.66
Birth Interval						
>24						
24-35	-0.41	0.20	0.04	0.66	0.44	0.99
36-47	-0.29	0.18	0.11	0.75	0.53	1.07
48-59	-0.10	0.18	0.57	0.90	0.64	1.28
60+	0.25	0.20	0.20	1.28	0.87	1.89
Exposure to mass media						
No exposure						
Partial exposure	0.18	0.14	0.21	1.20	0.91	1.59

Background	Coefficient	S.E.	Significant	Exp(B)	95% C.I. for EXP(B)	
					Lower	Upper
High exposure	-0.09	0.18	0.61	0.91	0.64	1.30
Wealth quintile						
Lowest						
Second	-1.39	0.29	0.00	0.25	0.14	0.44
Middle	-1.04	0.28	0.00	0.36	0.20	0.62
Fourth	-1.02	0.27	0.00	0.36	0.21	0.62
Highest	-1.14	0.26	0.00	0.32	0.19	0.53

Significant level: P<0.01, P<0.05, P<0.1

There are significant associations of skill assistance during delivery to women's residence, father's education, mother's occupation, ideal number of children, birth order, birth interval and wealth quintile of households. The women who live in rural areas are less likely to access skill assistance during delivery as compared to those women who living in urban.

Table 5.6.2 show that there are significant associations of skill assistance during delivery to women's residence, father's education, mother's occupation, ideal number of children, birth order, birth interval and wealth quintile of households. Women who live in rural are 0.77 times less likely access to skill assistance during delivery as compared to those women who living in urban. In compared to father's education level, those fathers have primary level of education are 0.6 times and those fathers have secondary and higher are 0.85 times less likely access to skill assistance during delivery as compared to father's education level have no education.

By birth order it shows that those whose birth order is two and there, they are 0.6 times less likely to visit for skill assistance during delivery than those with birth order one.

By wealth quintile, those whose wealth quintile is second, middle, fourth and highest are more likely to visit for skill assistance during delivery than those with wealth quintile lowest.

There is no significant association between skill assistance during delivery and mother's age, mother's education and exposure to mass media.

Table 5.6. 2: Determinants of skill assistance during delivery of women aged 15-49 by last live birth three years preceding the Cambodia DHS 2021-2022

Background	Coefficient	S.E.	Significant	Exp(B)	95% C.I. for EXP(B)	
					Lower	Upper
Mother's Age						
15-19@						
20-24	-1.38	1.88	0.46	0.25	0.01	9.95
25-29	-1.78	1.56	0.25	0.17	0.01	3.59
30-34	-1.63	1.54	0.29	0.20	0.01	4.02
35-39	-1.93	1.54	0.21	0.15	0.01	2.97
40-44	-1.75	1.54	0.25	0.17	0.01	3.53
45-49	-2.26	1.55	0.14	0.10	0.01	2.15
Residence						
Urban@						
Rural	-0.27	0.19	0.12	0.77	0.53	1.11
Mother's Education						
No education@						
Primary	-0.17	0.48	0.73	0.85	0.33	2.17
Secondary	0.21	0.45	0.64	1.24	0.51	2.99
More than secondary	0.21	0.44	0.64	1.23	0.52	2.91

Background	Coefficient	S.E.	Significant	Exp(B)	95% C.I. for EXP(B)	
					Lower	Upper
Father's Education						
No education@						
Primary	-0.51	0.25	0.04	0.60	0.37	0.99
Secondary+	-0.16	0.18	0.14	0.85	0.60	1.23
Mother's Occupation						
Working@						
Not Working	-0.24	0.16	0.14	0.79	0.58	1.08
Ideal Number of Children						
.0@						
1-2	0.31	0.48	0.52	1.37	0.53	3.52
3-4	0.61	0.25	0.02	1.84	1.12	3.01
5+	0.45	0.22	0.04	1.56	1.02	2.40
Birth Order						
1@						
2	-0.46	0.25	0.07	0.63	0.39	1.03
3	-0.49	0.22	0.02	0.61	0.40	0.94
4	0.16	1.02	0.87	1.18	0.16	8.63
5+	0.35	0.29	0.12	1.42	0.81	2.48
Birth Interval						
>24@						
24-35	-0.52	0.22	0.01	0.60	0.39	0.91
36-47	-0.32	0.20	0.11	0.72	0.49	1.07
48-59	0.00	0.21	1.00	1.00	0.66	1.51
60+	0.31	0.26	0.23	1.36	0.82	2.26
Exposure to mass media						
No exposure@						
Partial exposure	-0.26	0.20	0.19	0.77	0.52	1.14
High exposure	-0.09	0.26	0.74	0.92	0.55	1.53
Wealth quintile						
Lowest@						
Second	-1.00	0.34	0.00	0.37	0.19	0.72
Middle	-0.91	0.33	0.01	0.40	0.21	0.78
Fourth	-0.55	0.34	0.10	0.58	0.30	1.12
Highest	-0.73	0.30	0.02	0.48	0.27	0.88

Significant level: P<0.01, P<0.05, P<0.1

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Glossary

Age-Specific Fertility Fate (ASFR): Based on Age-Period Rates, is calculated as the quotient of the numerator divided by the denominator for each age group, multiplied by 1000. The result is an average rate over the 36-month period, expressed as an annual rate per 1000 women.

Antenatal Care (ANC): is Percentage of women with a birth in the last 5 years, distributed by highest type of provider of antenatal care for most recent birth and Percentage of women with a birth in the last 5 years receiving antenatal care from a skilled provider for the most recent birth.

Crude Birth Rate (CBR): is the annual average number of births per thousand of the whole population.

General Fertility Rate (GFR): is the average number of children currently being born to women of reproductive age in the period, typically 1-36 months preceding the survey, expressed per 1,000 women aged 15-44.

Postnatal Care (PNC): is to show about Among women giving birth in the 2 years preceding the survey, percent distribution of the mother's first postnatal check for the most recent live birth by time after delivery and percentage of women with a live birth in the 2 years preceding the survey who received a postnatal check during the first 2 days after giving birth.

Total Fertility Rate (TFR): is an age-period fertility rate for a synthetic cohort of women. It measures the average number of births a group of women would have by the time they reach age 50 if they were to give birth at the current age-specific fertility rates. The TFR is expressed as the average number of births per woman. Unless otherwise specified, the TFR is for all women.

Wealth index: is a composite measure of a household's cumulative living standard. It is calculated using household assets, such as televisions; bicycles; materials used for housing construction; types of water access and sanitation facilities, etc. In this study wealth index are categorized by poor (poorest and poorer), middle, rich (richest and richest).