

# Access of Syrian refugee women to reproductive health services in Türkiye during the COVID-19 pandemic

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## Abstract

**Background:** Türkiye hosted more than 3.5 million Syrian refugees, including women who needed reproductive health services during the COVID-19 pandemic.

**Aim:** To assess how the COVID-19 pandemic affected access to and use of essential reproductive health services by Syrian refugee women in Ankara, Türkiye.

**Methods:** From April to December 2021, this descriptive epidemiological study collected data from 637 ever-married Syrian refugee women aged 15–49 years in 2 districts of Ankara, Türkiye. The data were collected using a structured multiple-choice questionnaire and analysed using SPSS version 23.

**Results:** The mean age of the women was 29.6 (SD±8.4) years, with a median first-marriage age of 17 (range 12–45) years. Among them, 8.6% were illiterates and 96.7% had ever been pregnant. Since the beginning of the pandemic, 35.6% of them had been pregnant, with 78.2% livebirths and 21.8% miscarriages. Alarming, 12.8% gave birth at home without specialist support. Absence of antenatal care increased from 7.0% before to 41.1% after the pandemic, and missed postpartum assessment increased from 10.6% to 45.1%. Due to the fear of side effects or spousal disapproval, 26.4% never used any contraceptive. Hospitals and migrant health centres were the primary reproductive health information sources.

**Conclusion:** The COVID-19 pandemic severely affected access to reproductive health services for Syrian refugee women in Ankara, Türkiye. The increased rate of missed antenatal and postpartum care and number of home-based pregnancy terminations are causes for serious concern. Urgent policy adjustments and targeted interventions are needed to address these concerns.

Keywords: maternal health, COVID-19, reproductive health, refugee, migrant health, Syria, Türkiye

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## Introduction

Since March 2011, the Syrian war has caused > 306 000 civilian deaths, equivalent to 1.5% of the pre-war population (1). According to the UN estimates on conflict-related civilian deaths, an average of 15 women and girls lost their lives daily from 2011 to 2021 in the Syrian Arab Republic (1). In 2023, 70% of Syrians (15.3 million) required humanitarian aid, including 5.3 million internally displaced people, 9.9 million residents and 52 700 returnees (2). Around 6.6 million Syrians have been forced to flee their homes, and the refugee crisis has become a humanitarian crisis, driven by prolonged conflict, climate shocks, and health challenges such as waterborne diseases and malnutrition (2, 3). Türkiye shares border with the Syrian Arab Republic and provides free access; therefore, it hosts the largest number of registered Syrian refugees; 3.5 million as of January 2023 (4). Türkiye has granted temporary protection status to Syrians to address their immediate needs within the international law framework (5).

Displaced individuals face increased health risks because of poor living conditions during and after

migration. Critical health issues include malnutrition, infectious diseases, respiratory infections, paediatric developmental disorders, anaemia, violence-related injuries, sexual abuse, sexually transmitted infections (STIs), pregnancy complications and chronic illnesses; all contributing to premature deaths among refugees (6).

To mitigate the health impacts of mass migration, Türkiye provides free health services to registered Syrians who have temporary protection identity documents within their residing province (5). Since 2015, 185 migrant health centres have been established, affiliated with district community health centres in refugee-dense areas. These centres are staffed by Syrian medical professionals who prioritize preventive and primary health care for Syrians, while addressing linguistic and cultural challenges to enhance health service access. Demand for secondary or tertiary health care is directly met by the health services. Extensive research has been conducted on migrant health, including health systems, physical and mental well-being, health care access, impact on health care services, and social determinants (6).

Recent studies have yet to establish the impact of the COVID-19 pandemic on women's health. The pandemic amplified existing vulnerabilities in ongoing humanitarian crises. For refugees and migrants in crowded conditions, disease transmission risk increases, compounded by an inability to implement basic public health measures. Additionally, anxiety induced by pandemics can limit access to essential health services. Income loss, health insecurity, legal uncertainties and reduced employment opportunities disproportionately affect refugees and migrants during crises. During crises, women and girls have heightened vulnerabilities, with increased risks of STIs, unplanned pregnancies, maternal deaths and gender-based violence (7). Hence, assessing the health status of vulnerable women and girls is crucial for identifying unmet healthcare needs. Around 46% of Syrian women in Türkiye are aged 15–49 years; therefore, research into their access to primary and reproductive health care is vital. In Ankara, 99 332 Syrians under temporary protection comprise 1.8% of the city's population; nearly half are female and 22.8% are women aged 15–49 (4).

The 2018 Turkey Demographic and Health Survey Syrian Migrant Sample (TDHS-2018) was published before the COVID-19 pandemic (8); therefore, it does not include information on the impact of the pandemic. This emphasizes the necessity for additional research to understand the effects of the pandemic on the reproductive health of Syrian women. Resource reallocation during the pandemic left specialized services such as reproductive health care under-resourced and understaffed, further hindering refugee access already challenged by language, legal status and stigma. Clinic closures and limited transport exacerbated these barriers, leading to unintended pregnancies, unmet contraceptive needs and untreated STIs among this vulnerable group.

This study aimed to evaluate the reproductive health characteristics, service access and unmet needs among Syrian refugee women in Ankara during the COVID-19 pandemic. The findings will provide information for policy and interventions aimed to improve the health of this vulnerable group.

## Methods

### Study design and population

This descriptive epidemiological study was conducted between April and December 2021 to evaluate the access to reproductive health services among ever-married Syrian refugee women aged 15–49 years in 2 districts of Ankara, Türkiye, where most Syrian refugees reside.

Data on the exact distribution of Syrian refugees in Türkiye according to province and sex were unavailable; therefore, we estimated the sample size using data from the Presidency of Migration Management, which indicates that 22.8% of Syrian women were aged 15–49 years (4). We assumed that the percentage of women aged 15–49 among all migrants was similar

in the 2 research districts; therefore, we estimated 15 098 women aged 15–49 years were living in Altındağ District and 3020 in Yenimahalle District. TDHS-2018 data showed that 83.4% of interviewed women were married (8); therefore, we estimated that there were 12 592 and 2519 married women aged 15–49 years in these districts. Using the formula  $n = (t^2pq)/d^2$  and prevalence of modern contraceptive use among Syrian women in Türkiye ( $t = 1.96$ :  $t$  value for 95% confidence level;  $p = 0.24$ : prevalence of modern contraceptive use from previous studies (8);  $q = 0.76$ : proportion not using modern contraceptives ( $1 - p$ );  $d = 0.05$ : margin of error) (8), we calculated the sample size to be 280. To account for multiple variables, we aimed for a sample of at least 500 and ultimately interviewed 637 women.

### Data collection

Data were collected through face-to-face interviews using a structured questionnaire that contained multiple-choice questions created by researchers based on relevant literature, to ensure content validity. The translation and back-translation by native Arabic speakers with degrees in linguistics ensured construct and linguistic validity. Three female Syrian interviewers and 2 male supervisors, fluent in Arabic and Turkish, conducted the household visits. To enhance internal validity and reduce interviewer bias, interviewers received comprehensive 1-day training, focusing on the survey objectives and methodology. This was followed by a 3-day field pretest among 25 married Syrian women outside the study area. Participant confidentiality was ensured and identifying information was not collected. Interviews were conducted outdoors to conform with COVID-19 safety protocols and informed consent was obtained from the women. Data collection targeted neighbourhoods with the highest Syrian populations, as identified through satellite imagery. Households were visited in a phased approach, from the centre to the periphery and vice versa. In households with multiple eligible women, 1 was selected by drawing lots.

### Data analysis

Data from the survey results were summarized as numbers and percentage distributions and analysed using  $\chi^2$  and Fisher's exact tests for categorical variables, with a significance level of  $P < 0.05$ . SPSS version 23 was used for data entry and analysis.

### Ethics approval

Approval from the Hacettepe University Non-Interventional Clinical Research Ethics Committee (2021/02-36) and permission from the Ankara Provincial Directorate of Migration Management were obtained before the study.

## Results

The average age of participants was 29.6 years (Table 1). Most of them had primary education or lower, 55 (8.6%) were illiterate, and only 51 (8.0%) completed high school

or higher education. The majority (n = 604, 94.8%) were married and living with their spouses (average age 34.7 years). Literacy rates among spouses were low: 68 (11.3%) were illiterate and 85 (14.0%) had completed high school or higher education.

Median age at first marriage was 17 (range 12–45) years and mean age was 18.0 ± 3.7 years. There were 133 (20.9%) participants who got married at age 15 years or younger

and 450 (70.9%) at 15–19 years. Nearly a third (29.8%) had consanguineous marriages.

For area of residence, 486 (76.3%) participants lived most of their lives in urban and semiurban areas, compared with 151 (23.7%) in rural areas. Average time in Ankara was 5.1 (2.0) years (range 1 month–9 years).

Language barriers were significant: 412 (64.7%) women could not speak Turkish and only 119 (18.7%) and

**Table 1. Sociodemographic characteristics of the participants and their spouses (Ankara, 2021)**

Characteristic	n	%
<b>Participant's age in years (n = 637)<sup>a</sup></b>		
≤19	44	6.9
20–24	211	33.1
25–29	113	17.7
30–34	91	14.3
35–39	73	11.5
40–44	59	9.3
45–49	46	7.2
<b>Educational attainment (n = 637)</b>		
No education	55	8.6
Primary incomplete	177	27.8
Complete primary	271	42.5
Complete secondary	83	13.0
Complete high school/higher	51	8.0
<b>Marital status (n = 637)</b>		
Currently married, living with her husband	604	94.8
Widowed	20	3.1
Separated/divorced	10	1.6
Lives apart	3	0.5
<b>Spouse's age in years (n = 604)<sup>b</sup></b>		
≤24	54	9.0
25–29	134	22.2
30–34	151	25.0
35–39	106	17.5
40–44	63	10.4
45–49	48	7.9
≥50	48	7.9
<b>Educational attainment of spouses (n = 604)<sup>c</sup></b>		
No education	68	11.3
Primary incomplete	115	19.0
Complete primary	239	39.6
Complete secondary	87	14.4
Complete high school/higher	85	14.0
Other <sup>c</sup>	10	1.7
<b>Household type<sup>d</sup> (n = 636)</b>		
Nuclear	486	76.5
Extended	150	23.5

<sup>a</sup>Mean 29.6 (8.4) yr; median 27 yr; 1st–3rd quartile 23–36 yr; min–max 17–49 yr

<sup>b</sup>Mean 34.7 (9.2) yr; median 33 yr; 1st–3rd quartile 28–40 yr; min–max 19–99 yr

<sup>c</sup>Husband attended school, but the details are not known (n = 7); husband's educational status not known (n = 3).

<sup>d</sup>No response (n = 1).

109 (17.1%) could read and write Turkish, respectively. Among spouses, 139 (23.0%) could not speak Turkish and 200 (33.1%) and 174 (28.8%) could read and write Turkish, respectively.

Forty-one (6.4%) participants and 477 (79.0%) spouses had income-generating jobs while they were living in the Syrian Arab Republic. After migration, only 6 (0.9%) participants worked, while 486 (80.5%) spouses were employed. Two hundred and seventy-six (43.5%) participants perceived their economic status as below average or poor compared to their neighbours.

There were 571 (89.8%) participants who reported not having health insurance. However, they were still eligible to receive free health services at public health facilities, as provided under the Temporary Protection Regulations. Based on this access, 609 (95.6%) reported visiting migrant health centres at least once. Sixty (9.4%) reported having at least 1 chronic disease, mostly hypertension or diabetes, diagnosed by a physician.

A total of 616 (96.7%) participants stated that they had been pregnant at least once, with a mean  $4.4 \pm 2.8$  pregnancies (median 4; range 1–21);  $3.3 \pm 1.9$  live births (median 3; range 0–13);  $0.1 \pm 0.4$  stillbirths (median 0; range 0–5);  $0.8 \pm 1.2$  spontaneous abortions (median 0;

range 0–8); and  $0.2 \pm 0.6$  induced abortions (median 0; range 0–7). The proportion of spontaneous ( $P < 0.001$ ), and induced abortions ( $P = 0.002$ ) increased significantly with age (Table 2). There was a significant association between chronic disease and spontaneous abortion ( $P = 0.005$ ); however there was no significant association with education or economic status.

Since the COVID-19 pandemic began in March 2020, 219 participants (35.6%) had been pregnant, with 86 (14.0%) pregnant at the time of the study (Table 3). Among 133 women whose pregnancies ended during this period, 104 (78.2%) had a live birth and 29 (21.8%) experienced an abortion; 4 of which were induced. The Turkish Ministry of Health recommends at least 4 antenatal visits for low-risk pregnancies. During the pandemic, among participants who were pregnant, 90 (41.1%) did not receive antenatal care. For the 129 women who received antenatal care, the median number of visits was 4 (range 1–25), and 50 (40.3%) had fewer antenatal care visits than recommended. Ninety-one (70.5%) participants received antenatal care at a maternal health centre, and 92 (71.3%) consultations were conducted by Syrian doctors. Iron pill supplementation was received by 126 of 129 (97.7%) participants, 121 of 126 (96.0%) had their blood pressure

**Table 2. Abortion status according to sociodemographic characteristics (Ankara, 2021)**

Characteristic <sup>a</sup>	Abortions										P <sup>**</sup>	
	Spontaneous abortions					Induced abortions						
	Not experienced		Experienced		Total	Not experienced		Experienced		Total		
	n	% <sup>*</sup>	n	% <sup>*</sup>	n							
<b>Age in year (n = 616)</b>												
<20	28	71.8	11	28.2	39		37	94.9	2	5.1	39	
20–34	258	64.0	145	36.0	403	<0.001	363	90.1	40	9.9	403	0.002
≥35	81	46.6	93	53.4	174		140	80.5	34	19.5	174	
<b>Educational status (n = 616)</b>												
Illiterate	28	52.8	25	47.2	53		46	86.8	7	13.2	53	
Literate	101	58.7	71	41.3	172		155	90.1	17	9.9	172	
Primary school	153	58.8	107	41.2	260	0.450	224	86.2	36	13.8	260	0.672
Secondary school or higher	85	64.9	46	35.1	131		115	87.8	16	12.2	131	
<b>Educational status of spouse (n = 574)</b>												
Illiterate	40	60.6	26	39.4	66		62	93.9	4	6.1	66	
Literate	58	51.8	54	48.2	112		95	84.8	17	15.2	112	
Primary school	143	61.6	89	38.4	232	0.316	204	87.9	28	12.1	232	0.346
Secondary school or higher	101	61.6	63	38.4	164		143	87.2	21	12.8	164	
<b>Perceived economic status (n=614)</b>												
Good	13	68.4	6	31.6	19		17	89.5	2	10.5	19	
Fair	189	58.0	137	42.0	326	0.554	291	89.3	35	10.7	326	0.442
Poor	164	61.0	105	39.0	269		231	85.9	38	14.1	269	
<b>Chronic disease (n = 616)</b>												
Yes	34	57.6	25	42.4	59	0.005	10	16.9	49	83.1	59	0.257
No	215	38.6	342	61.4	557		66	11.8	491	88.2	557	

<sup>a</sup>Row percentages. <sup>\*\*</sup>Pearson's  $\chi^2$  test. <sup>°</sup>21 women had never been pregnant.

measured, 121 of 128 (95.3%) underwent blood tests, and 121 of 128 (95.3%) had urinalysis during antenatal care.

Among 133 participants whose pregnancies were terminated during the pandemic, 60 (45.1%) were not visited by a healthcare professional after termination of their pregnancy. Among the 73 women who were visited, the median number of visits was 2 (range 1–9) and was performed within the first 42 days after the pregnancy was terminated.

During the pandemic, 116 (80.2%) pregnancies resulted in deliveries at public hospitals, while 17

(12.8%) were home deliveries (14 women reported that no one assisted them while giving birth). Four of these 14 women were aged  $\geq 35$  years; 11 had completed less than secondary school education and their spouses less than high school; 7 were living in Ankara for  $< 5$  years; 9 of them and 5 of their spouses did not understand Turkish; 10 had a nuclear family; and 8 were aged  $< 18$  years at first marriage.

A total of 168 (26.4%) participants reported never using contraceptives (Table 4). Among those currently using contraception, 152 (35.2%) were using IUDs, 75

**Table 3. Pregnancy and antenatal visits during the COVID-19 pandemic (March 2020–March 2021) (Ankara, 2021)**

<b>Pregnancy (n = 616)</b>	<b>n</b>	<b>%</b>
<b>No pregnancy</b>	397	64.4
<b>Pregnancy</b>	219	35.6
Currently pregnant	86	14.0
Not currently pregnant	133	21.6
Livebirth	104	16.9
Abortion	29	4.7
Spontaneous	25	4.1
Induced	4	0.6
<b>Characteristics</b>	<b>n</b>	<b>%</b>
<b>Antenatal care (n = 219)</b>		
Yes	129	58.9
No	90	41.1
<b>Number of antenatal visits<sup>a</sup> (n = 124b)</b>		
Less than recommended number	50	40.3
Recommended number or more	74	59.7
<b>Place of antenatal care (n=129)</b>		
Migration health centre	91	70.5
Public hospital	48	37.2
Private practice/private hospital	12	9.3
House	3	2.3
<b>Antenatal care provider (n = 129)</b>		
Syrian doctor	92	71.3
Turkish physician	54	41.9
Turkish nurse	12	9.3
Syrian nurse	11	8.5
Syrian midwife	4	3.1
Turkish midwife	1	0.8
<b>Components of antenatal care<sup>c,d</sup></b>		
Iron pill supplementation (n = 129)	126	97.7
Blood pressure measuring (n = 126)	121	96.0
Blood test (n = 128)	121	95.3
Urinalysis (n = 128)	121	95.3
Measuring weight (n = 126)	112	88.9
Listening to foetal heartbeat (n = 126)	103	84.1
Nutritional recommendations (n = 129)	80	62.0

<sup>a</sup>Recommended number in Türkiye  $\geq 4$ . No. of antenatal visits: mean 4.5 (3.0); median 4; 1st–3rd quartiles 3–6; range 1–25

<sup>b</sup>No response for 5 participants.

<sup>c</sup>Percentage evaluated at least once. <sup>d</sup>Different numbers of unanswered questions.

**Table 4. Use of contraception, methods used and source of information (Ankara, 2021)**

Contraceptive method use and sources of information	n	%
<b>Ever use of contraceptive methods (n = 637)</b>		
Ever	432	67.8
Never	168	26.4
No response	37	5.8
<b>Current use of contraceptive methods (n = 432)</b>		
Not using any method	114	26.4
Using any method	318	73.6
Intrauterine device	152	35.2
Oral contraceptive	49	11.3
Condom	26	6.0
Diaphragm/foam/jelly	3	0.7
Withdrawal	75	17.4
Breastfeeding	13	3.0
<b>Sources of information on contraceptive methods (n = 634)<sup>a</sup></b>		
Hospital	338	53.3
Migrant health centre	330	52.1
Physician/nurse/other health professional	55	8.7
Other (friend/neighbour, internet, NGO, etc.)	6	0.9
Using no sources	60	9.5

<sup>a</sup>Multiple answers, 3 missing. NGO = nongovernmental organization.

(17.4%) withdrawal and 49 (11.3%) oral contraceptive pills. The 3 most common reasons for not using any contraceptive method until then were: fear that the methods were harmful to health (n = 44; 26.2%); infertility of the woman or her spouse (n = 21; 12.5%); and husband's disapproval (n = 13; 7.7%). Hospitals (n = 338; 53.3%) and maternal health centres (n = 330; 52.1%) were the most frequently consulted sources for information on pregnancy, childbirth and contraception, while 60 (9.5%) women did not consult any source for information.

The study revealed significant variations in contraceptive use related to age and parity (Table 5). Younger women tended to use traditional contraceptive methods, whereas older women were more inclined towards modern contraceptive methods ( $P = 0.014$ ). There was a notable increase in the use of modern contraceptive methods, correlating with the increasing number of pregnancies ( $P < 0.001$ ).

## Discussion

This study reported the multifaceted reproductive health challenges confronting Syrian refugee women in Ankara, including educational gaps, child marriage and adolescent pregnancy, language and structural barriers affecting healthcare access, and pregnancies complicated by unmet healthcare needs, which have been further complicated by the COVID-19 pandemic.

Education is a pivotal factor affecting access to reproductive health services. In our study, only 8.0% of participants had a high school education or higher and 8.6% were illiterate, contrasting with a 21.9% illiteracy

rate in TDHS-2018 (8). Lower educational attainment adversely affects reproductive health awareness, which is linked to risks such as preterm births and low birth weight (9), as well as reduced health-related quality of life (10).

Child marriage and adolescent pregnancy are pressing issues among Syrian women in Türkiye, and may be influenced by factors such as poverty and limited educational opportunities, as reported in other countries (11,12). We found a higher prevalence of child marriage (34.9%) compared with TDHS-2018 data (13.4%) (8). These early marriages pose significant health risks and contribute to maternal mortality among younger women (13). Almost 40% of Syrian women in Türkiye experience adolescent pregnancy, with associated complications exacerbating health risks (14,15). Child marriage also limits women's educational and economic opportunities (12).

Language barriers present a significant obstacle for Syrian women accessing health care in Türkiye. Despite living in Ankara for an average of 5.1 years, most could neither speak nor read and write in Turkish. Although MHCs employ Syrian health personnel, language difficulties persist, especially for the 9.4% with chronic illnesses requiring regular medical follow-up. This highlights the need for local integration efforts, including language programmes and culturally sensitive healthcare services. Considering these challenges, it is imperative to provide more comprehensive reports to international agencies like WHO and UNICEF, which can play a pivotal role in advocating and implementing

Table 5. Current use of contraception according to sociodemographic characteristics (Ankara, 2021)

Characteristics <sup>a</sup>	Current use of contraception						Total n	P <sup>**</sup>
	Not currently using		Modern method		Traditional method			
	n	% <sup>*</sup>	n	% <sup>*</sup>	n	% <sup>*</sup>		
<b>Age in years (n = 431)</b>								
<20	3	21.4	6	42.9	5	35.7	14	0.014
20–34	74	25.5	161	55.5	55	19.0	290	
≥35	50	39.4	62	48.8	15	11.8	127	
<b>Educational attainment (n = 431)</b>								
None/primary incomplete	49	33.3	75	51.0	23	15.6	147	0.075
Primary completed	51	27.7	107	58.2	26	14.1	184	
	27	27.0	47	47.0	26	26.0	100	
<b>Educational attainment of spouses (n = 412)</b>								
None/primary incomplete	38	30.4	69	55.2	18	14.4	125	0.793
Primary completed	49	28.2	92	52.9	33	19.0	174	
	29	25.7	62	54.9	22	19.5	113	
<b>Perceived economic status (n = 430)</b>								
Good	3	17.6	11	64.7	3	17.6	17	0.200
Fair	60	25.8	130	55.8	43	18.5	233	
Poor	64	35.6	87	48.3	29	16.1	180	
<b>No. of pregnancy (n = 431)</b>								
0	–	–	–	–	3	100	3	<0.001
1 or 2	18	23.1	37	47.4	23	29.5	78	
≥3	109	31.1	192	54.9	49	14.0	350	
<b>Marriage (n = 429)</b>								
<18 yr	68	30.1	122	54.0	36	15.9	226	0.67
≥18 yr	59	29.1	105	51.7	39	19.2	203	
<b>Chronic disease (n = 431)</b>								
Yes	17	45.9	17	45.9	3	8.1	37	0.47
No	110	27.9	212	53.8	72	18.3	394	
<b>Induced abortions (n = 428)</b>								
Yes	106	28.7	200	54.2	63	17.1	369	0.563
No	21	35.6	29	49.2	9	15.3	59	
<b>Using maternal health centre in Ankara (n = 431)</b>								
Yes	124	29.7	218	52.3	75	18.0	417	0.100
No	3	21.4	11	78.6	0	0.0	14	
<b>Employment of spouses while in Syria (n = 417)</b>								
Yes	18	23.4	45	58.4	14	18.2	77	0.611
No	98	28.8	181	53.2	61	17.9	340	

<sup>a</sup>Different numbers of unanswered questions.

<sup>\*</sup>Row percentages.

<sup>\*\*</sup>Pearson's  $\chi^2$  test.

policies that address these critical healthcare needs and barriers faced by Syrian refugee women.

The most frequently consulted source for reproductive health information was MHCs (52.1%), but language issues contributed to a lack of awareness about available services (16, 17). This affects timely access to various forms of care and can generate concerns about inadequate treatment (17). Our study showed limited Internet use among Syrian women for reproductive health information, despite

its potential as a key resource. The majority relied on hospitals for information, with a significant portion consulting no source at all. Enhancing online health literacy could be a valuable strategy in communities with limited traditional healthcare access.

Structural barriers in the Turkish healthcare system, including its complexity and varying levels of access based on refugee status, further complicate Syrian women's access to reproductive health care (16, 18, 19).

Despite some protective measures, like exemption from social security premiums, challenges persist. Data show a preference for secondary over primary care, with 80.8% of Syrians accessing secondary care compared with 40.9% for primary care in 2020 (20). Unfamiliarity with the healthcare system, combined with ambiguous procedures and potential facility limitations, dissuade women from seeking essential health care (21–24). These barriers contribute to inadequate antenatal care, adolescent pregnancy and increased maternal mortality among Syrian women (14, 25–28).

The pandemic has disrupted routine antenatal care visits and follow-up appointments, potentially creating gaps in monitoring and managing pregnancy-related conditions (29, 30). Our study highlights a substantial decline in healthcare access: 41.1% reported no antenatal care, marking a significant increase from the 7.0% prepandemic rate (8). Additionally, 40.3% had suboptimal antenatal visits, representing a 4-fold increase from earlier rates (8). Postnatally, 45.1% of participants received no checks, in contrast to 10.6% recorded prior to the pandemic (8).

Before the pandemic, studies had already indicated increased risks of adverse obstetric outcomes among Syrian refugee women, including preterm delivery, preterm premature rupture of membranes, lower birth weight and anaemia (9, 31, 32). These issues might have been amplified during the pandemic because of the shift in health services towards pandemic-related care. Remarkably, the percentage of unassisted home births increased from 0.6% before the pandemic (8) to 12.8% during pandemic. This increase might be attributed to the pandemic restrictions impeding access to medical facilities.

The pandemic has compromised access to reproductive health care, including contraception and family planning, aggravating an already significant unmet need among refugee women (29). This has implications for unintended pregnancies and abortion demand. Our study revealed that 4.1% of participants experienced spontaneous abortions, possibly reflecting unaddressed healthcare needs exacerbated by pandemic-induced limitations. The 0.6% rate of induced abortions signals inadequate family planning services, aggravated by the strain on healthcare systems and shifting priorities related to the pandemic. This scenario raises concerns about unsafe abortions and subsequent complications, leading to elevated maternal mortality (33).

Contraceptive use among Syrian refugee women is influenced by various factors, including limited healthcare access, cultural and religious beliefs, social

norms and economic limitations (25, 34). TDHS-2018 data show a mismatch between fertility desires and contraceptive use. Although 63.9% of married Syrian women aged 15–49 years had a demand for family planning, only 43.1% actually used contraceptives, with a 20.8% unmet need (8). In this study, 26.4% never used any contraception, mainly because of health fears and spousal refusal. In our study, IUDs (35.2%), withdrawal (17.4%) and oral contraceptives (11.3%) were the most used methods. These findings echo previous research showing varied contraceptive use among Syrian refugee women (9, 35). TDHS-2018 data also show a similar trend among currently married women, with withdrawal at 18.4%, IUDs at 13.1% and oral contraceptives at 6.3% (8).

The strengths of this study included its sizable sample of 637 Syrian refugee women, offering robust data for analysis. The comprehensive scope of the data, spanning diverse factors related to reproductive health, added depth to our understanding of this population's challenges. The limited availability of studies of Syrian women's reproductive health, before and during the pandemic, was a challenge to comprehensive comparison and contextualization of our findings. Our study, therefore, serves as an initial exploration into this under-researched area. The focus on Ankara may restrict our ability to generalize our findings to Syrian refugee women in other regions in Türkiye, particularly rural areas with potentially limited healthcare access. The cross-sectional design captured a particular moment but cannot track temporal changes or establish causality. Additionally, reliance on self-reported data may have introduced recall and social desirability biases, potentially leading to under-reporting of sensitive issues such as induced abortions.

## Conclusion

There is a critical need for policy reforms to improve healthcare access for Syrian refugee women and to address the social and health challenges they face. Future research should focus on evaluating the effectiveness of interventions and understanding the long-term health outcomes and experiences of these women, which are crucial for meeting their reproductive health needs and enhancing their overall well-being.

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## Accès des femmes réfugiées syriennes aux services de santé reproductive en Türkiye pendant la pandémie de COVID-19

### Résumé

**Contexte :** La Türkiye accueille plus de 3,5 millions de réfugiés syriens, y compris des femmes qui avaient besoin de services de santé reproductive pendant la pandémie de COVID-19.

**Objectif :** Évaluer dans quelle mesure la pandémie de COVID-19 a entravé l'accès aux services de santé reproductive essentiels et leur utilisation par les femmes réfugiées syriennes à Ankara (Türkiye).

**Méthodes :** D'avril à décembre 2021, la présente étude épidémiologique descriptive a permis de recueillir des données auprès de 637 femmes réfugiées syriennes mariées ou ayant été mariées âgées de 15 à 49 ans, dans deux districts d'Ankara, en Türkiye. Les données ont été collectées à l'aide d'un questionnaire à choix multiples structuré et ont été analysées au moyen du logiciel SPSS version 23.

**Résultats :** L'âge moyen des femmes était de 29,6 ans (écart-type  $\pm 8,4$ ), avec un âge médian du premier mariage de 17 ans (entre 12 et 45 ans). Parmi elles, 8,6 % étaient analphabètes et 96,7 % avaient déjà été enceintes. Depuis le début de la pandémie, 35,6 % d'entre elles étaient enceintes, avec 78,2 % de naissances vivantes et 21,8 % de fausses couches. Il est alarmant de constater que 12,8 % des femmes ont accouché à domicile sans l'aide d'un spécialiste. L'absence de soins prénatals est passée de 7,0 % à 41,1 % avant et après la pandémie, et le pourcentage de femmes qui n'ont pas été évaluées pendant la période du postpartum a augmenté, passant de 10,6 % à 45,1 %. En raison de la crainte d'effets secondaires ou de la désapprobation du conjoint, 26,4 % n'ont jamais utilisé de contraceptif. Les hôpitaux et les centres de santé pour migrants étaient les principales sources d'information sur la santé reproductive.

**Conclusion :** La pandémie de COVID-19 a gravement entravé l'accès des femmes réfugiées syriennes aux services de santé reproductive à Ankara (Türkiye). L'augmentation du nombre de soins prénatals et postpartum manqués et du nombre d'interruptions de grossesse à domicile est très préoccupante. Des ajustements urgents des politiques et des interventions ciblées sont nécessaires pour répondre à ces préoccupations.

### إتاحة خدمات الصحة الإنجابية للأجنت السوريات في تركيا خلال جائحة كوفيد-19

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#### الخلاصة

الخلفية: تستضيف تركيا أكثر من 3.5 مليون لاجئ سوري، منهم نساء كن في حاجة إلى خدمات الصحة الإنجابية خلال جائحة كوفيد-19.

الأهداف: هدفت هذه الدراسة إلى تقييم تأثير جائحة كوفيد-19 على إتاحة خدمات الصحة الإنجابية الأساسية للأجنت السوريات في أنقرة بتركيا واستفادتهن منها.

طرق البحث: في الفترة من أبريل / نيسان إلى ديسمبر / كانون الأول 2021، جمعت هذه الدراسة البوابة الوصفية بيانات من 637 لاجئة سورية متزوجة أو سبق لها الزواج، تتراوح أعمارهن بين 15 و49 عامًا في منطقتين في أنقرة بتركيا. وقد جمعت البيانات باستخدام استبيان منظم يتضمن أسئلة اختيار من متعدد، وحُللت البيانات بالإصدار 23 من برنامج SPSS.

النتائج: كان متوسط العمر للنساء 29.6 سنة (مع انحراف معياري  $\pm 8.4$ )، وبلغ العمر الوسيط عند الزواج الأول 17 سنة (المجال: 12-45). ومن بينهن، كانت 8.6% أميات، و96.7% سبق لهن الحمل. ومنذ بداية الجائحة، كانت 35.6% منهن حوامل، وقد وضعت 78.2% منهن مواليد أحياء في حين تعرضت 21.8% للإسقاط. والمقلق أن 12.8% من النساء وضعن في المنزل بلا أي مساعدة من متخصص. وارتفعت نسبة عدم توافر الرعاية السابقة للولادة من 7.0% قبل الجائحة إلى 41.1% بعدها، وارتفعت كذلك نسبة عدم الحصول على التقييم بعد الولادة من 10.6% إلى 45.1%. وبسبب الخوف من الآثار الجانبية أو عدم موافقة الزوج، لم تستخدم 26.4% من النساء أي وسيلة لمنع الحمل مطلقًا. وكانت المستشفيات والمراكز الصحية للمهاجرين هي المصادر الأولية للمعلومات المتعلقة بالصحة الإنجابية.

الاستنتاجات: أثرت جائحة كوفيد-19 بشدة على إتاحة خدمات الصحة الإنجابية للأجنت السوريات في أنقرة بتركيا. ومن دواعي القلق الشديد زيادة معدل افتقاد الرعاية السابقة للولادة وبعدها، وعدد حالات إنهاء الحمل في المنزل، ولمواجهة ذلك هناك حاجة إلى إجراء تعديلات عاجلة على السياسات وتدخلات موجهة.

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