

Adolescents Youth-Friendly Health Services (AYFHS): Qualitative Study of the Perspective of Adolescents in Ghana

Edmond Banafo Nartey¹, Abraham Norman Nortey², Seye Babatunde³, Kelechi Okonta⁴, Robert Kokou Dowou⁵, Johnpaul Amenu⁶ & Delali Victus Geyevu^{6*}

¹School of Public Health University of Port Harcourt, Port Harcourt, Nigeria

²School of Medical Sciences University of Cape Coast, Cape Coast, Ghana

³Department of Preventive and Social Medicine University of Port Harcourt, Port Harcourt, Nigeria

⁴Department of Surgery University of Port Harcourt, Port Harcourt, Nigeria

⁵Department of Epidemiology and Biostatistics, School of Public Health, University of Health and Allied Science, Ho, Volta Region, Ghana

⁶Department of Epidemiology and Biostatistics, School of Public Health, College of Health Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

***Corresponding author:** Delali Victus Geyevu, Department of Epidemiology and Biostatistics, School of Public Health, College of Health Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.

Submitted: 02 January 2026 **Accepted:** 09 January 2026 **Published:** 16 January 2026

Citation: Banafo Nartey, E., Norman Nortey, A., Babatunde, S., Okonta, K., Kokou Dowou, R., Amenu, J., & Geyevu, D. V. (2026). Adolescents' youth-friendly health services (AYFHS): Qualitative study of the perspective of adolescents in Ghana. *Jour of Sexu Heal and AIDS Res*, 3(1), 01-07.

Abstract

Background: Adolescents Youth Friendly Health Services (AYFHS) in Ghana aims to meet the health needs of adolescents, but utilization remains low. This leads to the rise in teenage pregnancies and unmet family planning needs. This study aimed to explore the perspectives of adolescents about the drivers and barriers to youth accessing AYFHS.

Methods: We conducted 33 focus group discussions with youth aged 13–19 in 8 regions in Ghana. Focus group discussion interviews were translated and transcribed. Transcribed data was analysed thematically using Atlas.ti 7.5.

Results: Major themes include AYFHS overview, insights into specific AYFHS Services, and a health services comparison to evaluate AYFHS against other options. The results also highlight positive experiences at AYFHS and larger hospitals. Parental restrictions, stigma, the costs of family planning services pills, and negative attitudes of health professionals were major barriers identified. Participants said improving counselling and education services, nurse shifting system (24-hour service), and effective communication ethics are important in improving the utilization of AYFHS.

Conclusions: This study revealed that household restrictions, stigma and health system barriers pose major hindrances to AYFHS. Policymakers and program implementers should consider the preferences of youth and adolescents by establishing youth clubs, school-based services and 24-hour AYFHS.

Keywords: Adolescent, Sexual and Reproductive Health, Barriers, Ghana.

Introduction

Adolescents, defined by the World Health Organization (WHO) as individuals aged 10-19 years, represent a significant portion

of the global population, accounting for approximately 1.2 billion people [1]. This demographic is crucial for the future development of societies, yet they face numerous health challenges

that necessitate targeted health services. Adolescent and Youth Friendly Health Services (AYFHS) are designed to address these unique needs by providing accessible, acceptable, equitable, appropriate, and effective health services [2]. Globally, the implementation of AYFHS has been recognized as a critical strategy to improve adolescent health outcomes. Studies have shown that adolescents often face barriers such as stigma, lack of confidentiality, and unfriendly attitudes from healthcare providers, which impede their access to necessary health services [1-3]. For instance, a scoping review of AYFHS in low- and middle-income countries (LMICs) highlighted the importance of creating a non-judgmental environment and culturally appropriate interventions to enhance service utilization [1]. These efforts align with the Sustainable Development Goals (SDGs), particularly SDG 3, which aims to ensure healthy lives and promote well-being for all at all ages [4].

In Sub-Saharan Africa, adolescents constitute a significant proportion of the population, and their health needs are particularly pressing due to high rates of HIV, teenage pregnancies, and other reproductive health issues [5]. Despite efforts to implement AYFHS, barriers such as inadequate resources, cultural norms, and lack of trained healthcare providers persist. A study in Ghana identified facility-level, provider-level, community-level, and personal-level barriers that restrict adolescents' access to health services [6]. These barriers include negative provider attitudes, lack of privacy, and financial constraints [6].

In Ghana, the establishment of AYFHS aims to address the specific health needs of adolescents. However, utilization of these services remains suboptimal due to various barriers. Research indicates that many adolescents in Ghana have low knowledge of available youth-friendly services, and while some healthcare providers exhibit poor attitudes, most adolescents have positive perceptions towards these services [1]. A study conducted in the Ashaiman District revealed that adolescents face significant barriers at multiple levels, including inadequate knowledge, poor provider attitudes, and lack of confidentiality [1]. Additionally, predictors of AYFHS utilization in Ghana include gender, education, and religion, with females and Muslims being less likely to utilize these services compared to their counterparts [7]. Research shows that many adolescents in Ghana are unaware of available youth-friendly health services (AYFHS), which contributes to low utilization despite generally positive perceptions of these services [1]. A scoping review of adolescent-friendly services in low- and middle-income countries highlights barriers such as poor provider attitudes, stigma, and lack of confidentiality. It emphasizes the need for a non-judgmental environment and culturally appropriate interventions, as well as the importance of consistent core components across different contexts [5]. Understanding perceptions of AYFHS and the barriers they encounter is crucial for improving health utilisation and outcomes. The study explored the perspectives of adolescents about the drivers and barriers to youth accessing youth-friendly health services (AYFHS).

Methods

Study Setting

Ghana, located on the coast of West Africa, covers 238,537 square kilometres and is bordered by Togo, Burkina Faso, and Côte d'Ivoire. It features a 560-kilometer coastline along the

Gulf of Guinea and predominantly lowland terrain, with the highest point being Mountain Afadjato at 884 meters. Ecologically, Ghana is divided into three zones: coastal plains, semi-deciduous rainforests in the middle and west, and northern savannah drained by the Black and White Volta Rivers. The country has a population of 32,617,516, with 16,594,292 males and 16,023,225 females. Christianity is the main religion, and the population distribution includes 36.5% under 15 years, 60% between 15 and 64 years, and 3.5% aged 65 and above, with a dependency ratio of 66.7%. Life expectancy is 61 years overall, with 59.8 years for males and 62.3 years for females [8]. Healthcare in Ghana is primarily government-provided, organized into three tiers: national, regional, and district, with five levels of providers, including health posts and hospitals [9]. The country has 16 administrative regions, each with a regional hospital offering adolescent reproductive health services. For this study, eight regions Northern, Upper East, Bono East, Oti, Ashanti, Eastern, Greater Accra, and Western were randomly selected to ensure diverse representation.

Study Design

Phenomenological study design was employed due to its inherent strengths in exploring and comprehending the subjective experiences and perceptions of adolescents regarding the utilization of AYFH services. This aligns with the study's objective of uncovering the perspectives and challenges faced by adolescents and youth concerning the utilization of AYFH services and implementation by service providers. This design's emphasis on capturing the essence of individual experiences is fundamental to unraveling the complexities and nuances surrounding healthcare utilization in this demographic, facilitating a more comprehensive and holistic understanding of their perspectives and challenges.

Sampling and Recruitment of Participants

The study conducted Focus Group Discussions (FGDs) with adolescents, totaling 33 interviews across eight regions chosen based on teenage pregnancy prevalence. In each district, four groups were formed to encourage expression, separating boys and girls. Each group consisted of seven to ten participants, providing diverse perspectives on adolescent and youth-friendly health services and ensuring representation from various sexes. No additional interviews were conducted once saturation was reached. The recruitment period for this study began on November 20, 2023, and concluded on July 31, 2024.

Sampling Procedure

The study utilized a multistage cluster sampling method, starting with the categorization of Ghana into 16 administrative regions. Eight regions with the highest rates of teenage pregnancy reported in the DHIMS II in 2023 were purposively selected to focus on areas with significant adolescent health issues. High prevalence districts within these regions were then chosen for participation. A comprehensive list of communities was created based on information from district assemblies, and a sampling frame of adolescents and youths was established. Convenient sampling was used to select participants, ensuring diverse representation across regions. Adolescents who engaged in adolescent and youth friendly health services (AYFHS) were specifically purposively sampled to enrich the study with varied experiences and needs.

Data Collection Process

Face-to-face focus group discussions (FGDs) were conducted with youths and adolescents by a trained team of eight research assistants on qualitative data collection. Interviews were audio recorded with participants' consent, and if participants were uncomfortable with recording, key points were noted instead using note pads. Language preferences were respected, with interviews conducted in English, Twi, or Ga, and interpreters used when necessary. The interviews were conducted at the place of convenience and preference of the adolescents. The discussions lasted on average 60 to 120 minutes.

Data Management

All the transcriptions, and audio recordings, have been securely stored and passworded on google drive. Additionally, all informed consent forms and field notes are securely stored alongside this information in a cabinet under lock and key. This data is retained for five years and will be made available to research supervisors as required.

Data Analysis

Two trained research assistants transcribed the audio recordings of the interviews verbatim into Microsoft word documents. The transcriptions were then meticulously reviewed and analyzed to establish a coding scheme. All transcripts were then imported into Atlas.ti 7.5, a qualitative analysis software, for coding and continuous analysis. The agreed-upon codes were organized into categories and then developed into themes. A thematic analysis

approach was used to contextualize the study's findings.

Ethical Considerations

This study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. Ethical approval was obtained from the University of Port Harcourt Research Ethics Committee (UNIPORT REC) and the Ghana Health Service Research Ethics Committee (GHS REC). Additionally, local permissions were secured from relevant regional health directorates and participating health facilities.

To ensure informed and voluntary participation, all participants were provided with comprehensive information about the study's purpose, procedures, potential risks, and benefits. They were also informed of their right to withdraw from the study at any time without penalty. Informed consent was obtained either through signature or thumbprint on approved consent forms. Participant confidentiality and anonymity were strictly maintained throughout the study, and all identifiable information was securely protected.

Results

Social Demographic Characteristics

Out of the 33 adolescents who participated in the FGD, 26 (78.5%) were aged 16-19, while 7(24.2%) were between 13 and 15. Females comprise 63.6 % of the participants, and all have never married. Most participants are in Junior High School (51.5%) in table 1.

Table 1: Social Demographic Characteristics

Variables	Frequency(n=33)	Percentages (%)
Adolescents Age (years) 13-15	7	24.2
Marital Status 16-19	26	75.8
Never Married	33	100.0
Sex		
Male	12	36.4
Female	21	63.6
Educational Status		
JHS	17	51.5
SHS	15	45.5
No Education	1	3.0
Religious Affiliation		
Christianity	26	78.8
Islamic	7	21.2
Employment Status		
Students	32	97.0
Unemployed	1	3.0
Ethnicity		
Akan	20	60.6
Ewe	3	9.1
Ga-Dangbe	2	6.1
Guan	1	3.0
Mole-Dagbon	5	15.2
Others	2	6.1

Adolescents' Perspective on the Utilization of Adolescents and Youth Friendly Health Services

Adolescents' Perspectives on AYFHS

Most adolescents indicated concerning their perception and understanding of AYFHS that AYFHS are services provided to the youth adolescents to ensure their wellbeing. Below are some quotes that summarise their response: "They are the health services provided to the youth and being friendly to the adolescents" (FDG AD3) "...in my understanding when we talk about adolescent health services friendliness it means assistance given to an individual from the age of 10 to 24 to ensure their wellbeing" (FDG AD6)

AYFHS Services

Concerning the AYFHS services, the most prominent services identified by adolescents were health education services, menstrual and sanitary Pad services and Health Prevention and Medical

Services, which also received considerable attention. Below are some quotes from the respondents; "Sometimes they [Health Professionals] do health talks on how to remain healthy" (FDG AD7)

"Sometimes the girls too, they give us pads to use when we are in our menses" (FDG AD4)

AYFHS Satisfaction

A significant majority of the adolescents reported a more positive experience and satisfaction at AYFHS infirmary as compared to experience at bigger hospitals, which suggests that AYFHS is perceived as more supportive. The quotes below summarise from the respondents;

"...my experience in the infirmary was good one, they take good care of me despite my health insurance wasn't functioning..." (FDG AD4)

"...when you are sick and you come to the facility, the only medication they give is paracetamol. On campus, I have paracetamol in my trunk so personally; to come here and they will take money from me and give me paracetamol, I will not come here at all. I will use the one in my trunk" (FDG AD2)

"...one issue with big Hospital, is long waiting, I don't know if the doctors have connections with some of the patients, you will be there before some people but someone who just arrived will be called in and attend to. So, I think infirmary is much better". (FDG AD4)

Barriers to AYFHS

The geographic and economic inaccessibility, poor quality of SRH Services and stigma were the main barriers reported by the adolescents. The adolescents indicated that the health facility where they could get adequate AYFHS is far away from their place of residence. Below is a quote from one particular respondents: "The distance from where I stay and the health facility is far and the time I pick moto to the place, time will be far spent, as result I will prefer to be home and not go at all" (FDG AD8) Besides the distance as a barrier to AYFHS, some of the adolescents also lamented of financial challenges being one major constraint of using AYFHS. The quote below summarises the view

of some of the respondents: "Sometimes, I don't have money before my menses time, so when my menses come like that, I really suffer, I would want to go the health facility but I cannot so, I just keep myself together and endure the pain..." (FDG AD8) "As for the pills, when you come here you have to pay for it, if you do family planning and you face any challenges and they give you the pills you have to pay for it they always say that they are selling it". (FDG AD1) Regarding poor quality of SRH Services a barrier, some of the adolescents indicated due to the quality service they received in the past, they are not willing to go back seeing AYFHS.

Below are Some Quotes from the Respondents

"I went to the health facility but did not get the service I wanted, for example, the last time I went there for some condom but the nurse just got angry and shout at me that that it was not there, so I do not want to go back to the facility". (FDG AD8)

"We are not hearing all that we want to hear I want to hear when you're having sex with somebody you are going to get this or that, but they are not telling you, so that deter me from going again". (FDG AD2) Stigmatization was another hurdle the adolescents lamented about as being the hindrance to their desire to seek AYFHS. One particular adolescent has this to say:

"...when you are going there [health facility] people think you are going for family planning which prevent me from going". (FDG AD8)

AYFHS Recommendation

Adolescents suggest some recommendations that they think can help improve the quality of services and facilitate AYFHS. Prominent among their recommendations were adequate Staffing, Frequent SRH programs and activities, and constant availability of supplies. Below are some quotes from the respondents: "... I feel like if they can provide us with more nurses I think when two are not around the three of them can run the clinic". (FDG AD6) "With the staff problem, the health facility should have more staff so nurses can run shifts, so that every time somebody will be there to take care of us. And also supplies should always be available here so we are not asked to go and buy it outside". (FDG AD6)

Discussion

The study revealed that most adolescents do not adequately understand adolescent-friendly health services. This observation correlates with similar arguments by authors in previous studies that argued that most adolescents for whom adolescent-friendly health services are designed and targeted have limited information about it [8, 9]. The findings from our study could be attributed to a lack of access to adolescent-friendly health service information and education. This finding points to the need for more education and promotion of adolescent-friendly health services among adolescents to improve their understanding of the services because their understanding is necessary in shaping their perception of AYFHS and subsequent use of adolescent-friendly health services.

A significant majority of the adolescents reported a more positive experience and satisfaction at AYFHS infirmaries showing a high level of satisfaction with the offered services. This sug-

gests that AYFHS at the infirmaries is seen as more supportive and accommodating for adolescents as compared to the lower satisfaction recorded in larger hospitals. These findings are consistent with existing literature that highlights both the challenges and opportunities in providing quality care to young people. Research across various countries, including Zambia, Ethiopia, Sri Lanka, and Nepal, indicates that while AYFHS are essential, their implementation frequently falls short of WHO standards [10, 11]. Common barriers identified include inadequate infrastructure, limited provider training, and lack of privacy. However, when effectively implemented, AYFHS can lead to higher satisfaction levels compared to general hospital services [11]. Factors that positively influence AYFHS utilization include increased awareness of services, lower costs, and overall client satisfaction [12]. The predominant Positive Experience reported at AYFHS Infirmaries likely stems from their youth-friendly environment and tailored services that foster comfort and support for adolescents. In contrast, larger hospitals may be perceived as impersonal and less accommodating, contributing to lower satisfaction levels. This positive perception underscores the crucial role of AYFHS in effectively addressing adolescents' health needs, which can encourage increased service utilization and improved health outcomes. The inferences of these findings are significant for healthcare policy and practice. Recognizing the strengths of AYFHS can inform investments in similar youth-friendly initiatives across various healthcare settings.

Enhancing provider training, engaging youth in facility governance, and strengthening awareness campaigns are essential recommendations for improving AYFHS [10-12]. We found that the poor quality of SRH Services constitutes a barrier that influences poor sexual and reproductive health services, indicating significant gaps in service availability. These findings are consistent with existing literature that highlights considerable barriers to accessing adolescent friendly sexual and reproductive health services (SRHS). Akinwale et al. note that many adolescents lack awareness of these services, and some healthcare providers are unsupportive, leading to low utilization [13-14]. Furthermore, Akinwale et al. note that low awareness of available services and negative attitudes from healthcare providers contribute to the underutilization of these services [15]. Jacobs et al. further corroborate these findings by pointing out that higher education institutions often lack comprehensive care and provider understanding, exacerbating accessibility issues [16]. The projection of lack of deliveries as a barrier likely stems from logistical challenges, insufficient funding, and a shortage of trained personnel. These gaps in service availability can severely hinder adolescents' access to essential health services [17]. The implications of these findings underscore the necessity for coordinated efforts among healthcare providers, policymakers, and community organizations to enhance the reliability and accessibility of sexual and reproductive health services. Addressing these delivery gaps is critical for improving access to care, as failure to do so may contribute to poor health outcomes, including increased unintended pregnancies and higher rates of sexually transmitted infections.

The current study identifies geographic inaccessibility as a significant barrier to accessing sexual and reproductive health (SRH) services for adolescents. This finding underscores the critical role of geographic accessibility, as distance to health fa-

cilities emerges as a primary obstacle. These results align with previous studies that emphasize geographic accessibility as a major concern for adolescents seeking SRH services. Research by Ndayishimiye et al. and Ramadina et al. similarly highlight distance as a primary barrier, while financial constraints are recognized as additional impediments [17-20]. This barrier may be attributed to several factors, including inadequate transportation options, particularly in rural or underserved areas. Many adolescents may lack the means to travel long distances to access health services, making geographic accessibility a paramount concern [21]. The implications of these findings are significant, highlighting the urgent need for targeted interventions to improve access to SRH services. Establishing more local health facilities or mobile clinics could significantly enhance accessibility for adolescents. Additionally, strengthening linkages between clinics and SRH education programs, providing youth-friendly services, and ensuring that adolescents have sufficient information and support to access care are critical steps [22]. Addressing the issue of distance is essential for improving health outcomes among adolescents, as neglecting this barrier may lead to the underutilization of vital services and an increase in unintended pregnancies and sexually transmitted infections.

Financial inaccessibility was another main barrier reported by adolescents. This finding is consistent with previous studies that have identified financial challenges as part of the major barriers that hinder adolescents' adequate use of AYFHS including SRH services [16, 23, 24]. This finding could be ascribed to the fact that most of the AYFHS are not free and the adolescents are made to pay out of pocket for these services, however, these adolescents are not working to earn any money to afford payment for services therefore they find it difficult to utilise SRH services that required out of pocket payment. This finding points to the need for health policymakers as well as program planners to implement AYFHS/SRH services that are free of charge or that are covered by national Health insurance.

We further found stigmatisation as another major barrier hindering the effective use of AYFHS including SRH services. This finding confirms the observations made in previous studies regarding stigma being a major factor that influences adolescents' use of SRH services [3, 18, 25]. The stigma experienced by adolescents seeking AYFHS or SRH services emanates from both the health care providers and the community members at large. This level of stigma is influenced by religious beliefs and community norms and often prevents adolescents from seeking SRHS. Family influences, socio-cultural stigma, and religious barriers further complicate access [3].

Study Limitations

The study on adolescents' views of Adolescent Youth-Friendly Health Services (AYFHS) in Ghana lack of generalizability due to its qualitative design and reliance on focus group discussions. While targeting adolescents, group dynamics may lead to peer pressure, causing conformity to dominant opinions. Participants might also provide socially desirable responses, impacting data authenticity. It is essential to acknowledge these limitations for a comprehensive understanding of the study's implications.

Conclusion and Recommendation

This study revealed that adolescents have diverse perspectives

regarding AYFHS including service design to target the health and wellbeing of the young people. However, the adolescents also lamented about the myriads of challenges they face in seeking AYFH services. In this regard, we recommend that policy-makers and program implementers should consider the preferences of youth and adolescents and continue seeking their input when designing policies and programs. Also, we recommend that AYFHS services and facilities be made more geographically and financially accessible to all adolescents who need these services [26].

Acknowledgement

We are grateful to adolescents and other respondents who provided their valuable time to speak to us.

Authors' Contributions

EBN, ANN, SB, KO, RKD, JA and DVG conceived the study and developed the study methods. KO, ANN, EBN, and RKD collected and analysed the study data. EBN, RKD, ANN and DVG wrote the first draft of the manuscript. ANN, JA and DVG reviewed the data, supervised the study, and provided technical support that improved the quality of the manuscript. EBN, ANN, SB, KO, RKD, JA and DVG revised and approved the final version of the manuscript for publication.

Funding

This research received no specific funding.

Availability of Data and Materials

All relevant data are within the manuscript. Any further requests regarding the data used for this study could be made through the corresponding author.

Declarations

Ethics Approval

This study was approved by the Research Ethics Committee of the University of Port Harcourt and the Ghana Health Service Research Ethics Committee.

Consent to Participate

Consent to participate in the study was obtained through written informed consent forms from the participants and parental assents from the parents of the minors.

Consent for Publication

Not applicable

Competing Interests

The authors declare that they have no competing interests

References

- Jakobsson, C., Sanghavi, R., Nyamiobo, J., Maloy, C., Mostert, C., Mwanzu, A., et al. (2024). Adolescent- and youth-friendly health income and interventions in low-income countries: A scoping review. 1-19.
- Anokye-Mensah, S. (2019). Knowledge, attitudes and perceptions of youth-friendly health services among adolescents in the Ashaiman District of Ghana [Thesis]. University of Ghana.
- Nmadu, A. G., Mohamed, S., & Usman, N. O. (2020). Barriers to adolescents' access and utilisation of reproductive health services in a community in north-western Nigeria: A qualitative exploratory study in primary care. *African Journal of Primary Health Care & Family Medicine*. 12: 1-8.
- United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. Department of Economic and Social Affairs.
- Abuosi, A. A., & Anaba, E. A. (2019). Barriers to access to and use of adolescent health services in Ghana. *Journal of Health Research*. 33: 197-207.
- Abuosi, A. A., & Anaba, E. A. (2019). Barriers to access to and use of adolescent health services in Ghana. *Journal of Health Research*. 33: 197-207.
- Adokiya, M. N., Cudjoe, F. K., & Yakong, V. N. (2022). Predictors of education and utilization of adolescent-friendly health services among youth in Kumbungu District, Ghana. *Journal of Health Research*. 36: 311-322.
- Jakobsson, C., Sanghavi, R., Nyamiobo, J., Maloy, C., Mwanzu, A., Venturo-Conerly, K., Mostert, C., Peterson, S., & Kumar, M. (2024). Adolescent and youth-friendly health interventions in low-income and middle-income countries: A scoping review. *BMJ Global Health*. 9: e013393.
- Pastrana-Sámano, R., Heredia-Pi, I. B., Olvera-García, M., Ibáñez-Cuevas, M., Castro, F. D., Hernández, A. V., & Torres-Pereda, M. D. (2020). Adolescent-friendly services: Quality assessment with simulated users. *Revista de Saúde Pública*. 54: 36.
- Gebrie, M., Asrade, G., Tsehay, C. T., Yazachew, L., & Dellie, E. (2021). Quality of adolescent and youth-friendly health services in Dehana District public health facilities, northeast Ethiopia: Using the Donabedian quality framework. *PLoS ONE*. 16: e0258718.
- Sharma, M., Khatri, B., Amatya, A., Subedi, N., Upadhyaya, D. P., Sapkota, B. P., et al. (2023). Utilization of adolescent-friendly health services and its associated factors among higher secondary students in mid-western Himalayan mountainous district of Nepal. *PLOS Global Public Health*. 3: e0001616.
- Vithana, P. V. S. C., Nilaweera, R. I. W., Basnayaka, A. J. M., Jayasundera, C. J., Handagiriathira, H. M. I., & Barnasuriya, A. N. J. (2021). Perception of public health midwives on adolescent and youth-friendly health service: Sri Lankan experience. *Journal of the College of Community Physicians of Sri Lanka*. 27: 420.
- Akinwale, O., Bello, C., Akpor, O., & Elemile, M. (2022). Evaluation of adolescent/youth-friendly sexual and reproductive health services: A 7-year systematic review from January 2016 to April 2022. *Journal of Integrative Nursing*. 4: 177-192.
- Iverson, B. L., & Dervan, P. B. (2021). Ghana 2021 population and housing census. Ghana Statistical Service.
- Ministry of Health (MoH). (2020). Overview of the health system in Ghana. Ghana Service Provision Assessment Survey 2020.
- Jacobs, C., Mwale, F., Mubanga, M., Kasonde, M., Saili, A., Mukonka, R., et al. (2023). Perceptions of youth-friendly sexual and reproductive health services in selected higher and tertiary education institutions of Zambia: A qualitative study on the perspectives of young people and healthcare providers. *PLOS Global Public Health*. 3: e0002650.
- Nmadu, A. G., Mohamed, S., & Usman, N. O. (2020). Adolescents' utilization of reproductive health services in Ka-

- duna, Nigeria: The role of stigma. *Vulnerable Children and Youth Studies*. 15: 246-256.
18. Ndayishimiye, P., Dine, R. D., Dukuze, A., Kubwimana, I., Nyandwi, J. B., & Biracyaza, E. (2020). Perceptions and barriers toward sexual and reproductive health services accessibility, availability, and quality among adolescents in selected cities of Rwanda. 1-23.
 19. Ramadina, N., Ardisasmita, M. N., & Sujatmiko, B. (2021). Geographic accessibility towards primary health care in Karawang District. *Kesmas: National Public Health Journal*. 16: 199-205.
 20. Nambile Cumber, S., Atuhaire, C., Namuli, V., Bogren, M., & Elden, H. (2022). Barriers and strategies needed to improve maternal health services among pregnant adolescents in Uganda: A qualitative study. *Global Health Action*. 15: 2067397.
 21. Wakjira, D. B., & Habedi, D. (2022). Barriers to access and utilisation of sexual and reproductive health services among adolescents in Ethiopia: A sequential mixed-methods study. *BMJ Open*. 12: e063835.
 22. Lee, K. M. N., Hunleth, J., Rolf, L., Maki, J., Lewis-Thames, M., Oestmann, K., et al. (2023). Distance and transportation barriers to colorectal cancer screening in a rural community. *Journal of Primary Care & Community Health*. 14: 1-4.
 23. Finkle, C., Bai, Y., Chandra-Mouli, V., O'Keefe, S., Tetui, M., Fischer, S., Lokko, K., Mwaikambo, L., & Ohkubo, S. (2024). The Challenge Initiative: Lessons on rapid scale-up of family planning and adolescent and youth sexual and reproductive health services. *Global Health: Science and Practice*, 12.
 24. Arije, O., Hlungwani, T., & Madan, J. (2022). Key informants' perspectives on policy- and service-level challenges and opportunities for delivering adolescent and youth-friendly health services in public health facilities in a Nigerian setting. *BMC Health Services Research*. 22: 1493.
 25. Ninsiima, L. R., Chiumia, I. K., & Ndejjo, R. (2021). Factors influencing access to and utilisation of youth-friendly sexual and reproductive health services in sub-Saharan Africa: A systematic review. *Reproductive Health*. 18. 1-7.