

## ORIGINAL RESEARCH ARTICLE

# Two decades of women's sexual and reproductive health and rights in Nigeria: Successes, challenges, and opportunities

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## Abstract

With over 200 million people, 50% of Nigeria's population comprises women of reproductive age (15–49 years), making Sexual Reproductive Health and Rights (SRHR) invaluable in achieving SDGs 3 and 5 on health and well-being and gender equality, respectively. Although Nigeria's reproductive health indices have improved over the past two decades, some critical gaps must be closed. We examined SRHR trends in Nigeria using the Nigerian DHS data sets spanning 2003–2018. Key indicators examined included contraceptive prevalence, skilled assistance during delivery, child marriage, and female genital mutilation prevalence. Reducing maternal mortality rates, closing the quality and availability data gaps, equitably increasing the needed healthcare workforce, and systematically integrating a gender lens into programming remain key priority areas for action. Implementation research through gender transformative approaches is highly relevant in identifying, testing, and scaling effective and culturally appropriate interventions. (*Afr J Reprod Health* 2025; 29 [1]: 25-37).

**Keywords:** Sexual and reproductive health; women; Universal Health Coverage; Reproductive health services; Nigeria

## Résumé

Avec plus de 200 millions d'habitants, 50 % de la population du Nigéria est composée de femmes en âge de procréer (15 à 49 ans), ce qui rend la santé et les droits sexuels et reproductifs (SDSR) inestimables pour atteindre les ODD 3 et 5 sur la santé et le bien-être et l'égalité des sexes, respectivement. Bien que les indices de santé reproductive du Nigéria se soient améliorés au cours des deux dernières décennies, certaines lacunes critiques doivent être comblées. Nous avons examiné les tendances en matière de SDSR au Nigeria à l'aide des ensembles de données de l'EDS nigériane couvrant la période 2003-2018. Les principaux indicateurs examinés comprenaient la prévalence de la contraception, l'assistance qualifiée lors de l'accouchement, le mariage des enfants et la prévalence des mutilations génitales féminines. Réduire les taux de mortalité maternelle, combler les lacunes en matière de qualité et de disponibilité des données, augmenter équitablement le personnel de santé nécessaire et intégrer systématiquement une perspective de genre dans la programmation restent des domaines d'action prioritaires clés. La recherche sur la mise en œuvre par le biais d'approches transformatrices en matière de genre est très pertinente pour identifier, tester et mettre à l'échelle des interventions efficaces et culturellement appropriées. (*Afr J Reprod Health* 2025; 29 [1]: 25-37).

**Mots-clés:** Santé sexuelle et reproductive ; femmes; Couverture maladie universelle ; Services de santé reproductive ; Nigeria

## Introduction

Sexual health is an integral part of the overall physical and emotional health and well-being of an individual, which depends on ensuring that people can have pleasurable and safe sexual experiences

free of coercion, discrimination, or health risks<sup>1,2</sup>. Sexual and reproductive health (SRH) is a person's right to a healthy body; the autonomy, healthcare, and education to freely decide who to have sex with; and the knowledge and healthcare products to avoid sexually transmitted infections or unintended

pregnancy<sup>3,4</sup>. Everyone has the right to access SRH services, including services that will enable women to go through pregnancy and childbirth safely, allow couples to have access to safe, effective, affordable, and acceptable methods to regulate their fertility, and have healthy infants to healthy mothers<sup>5</sup>.

In Nigeria, reproductive health rights include the right to family planning education and to decide on the number of spacing of children, the right to access affordable, adequate, and accessible health services, the right to be protected against sexually transmitted infections (STIs), and the right to self-protection. Over the years, Nigeria has been part of the global movement of advocacy to achieve Sustainable Development Goal (SDG) Target 3.7 of ensuring universal access to SRH services, including family planning, information, education, and the integration of SRH into national strategies by 2030<sup>6,1</sup>. Among the nations of Sub-Saharan Africa, Nigeria set the pace to make adoptive policy statements to address sexual and reproductive health and rights (SRHR) issues<sup>7</sup>. Despite these seeming efforts, there has been minimal progress in achieving the desired status of SRHR in Nigeria.

## Methods

### *SRHR situation in Nigeria*

Nigeria has a robust, complex, and multifaceted framework to protect SRHR. These frameworks can be grouped into international and regional frameworks, national legal and institutional frameworks, and plural legal systems. International treaties like the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), adopted in 1979, and the SDGs obligate Nigeria to secure the rights of women to make autonomous SRHR decisions. At the national level, Nigeria's constitution guarantees the right to life, dignity, and personal liberty, including SRHR. The institutional framework comprises multiple international, national, and civil society stakeholders who lead the development, implementation, and monitoring of SRHR policies<sup>8</sup>.

The Plural legal system in Nigeria allows the coexistence of customary, religious, and statutory laws. These fuels conflicting legal frameworks that promote disparities in SRHR

outcomes. For instance, SRHR outcomes are poorer in states governed by customary and religious laws compared to those governed by statutory laws<sup>9</sup>. These results in challenges in achieving a uniform implementation of SRHR policies. Other challenges of the legal and institutional frameworks include a lack of awareness of these frameworks, judicial reluctance, and socio-cultural challenges. Addressing these challenges is crucial for the progress of SRHR in Nigeria and requires a multifaceted approach, such as legal reforms, awareness creation, and improved institutional capacities.

In this paper, the state of SRHR in Nigeria is assessed over the last two decades using eight key SRHR indicators for Nigeria. They include contraceptive prevalence, skilled assistance during delivery, age of first sex, teenage childbearing, the prevalence of sexual violence, the prevalence of harmful cultural practices like female genital mutilation (FGM) and child marriage, and the prevalence of pre-marital sex among young women of Table 1 shows the state of SRHR in Nigeria over the last two decades from the demographic and health survey.

### *Contraceptive prevalence*

The use of contraception prevents pregnancy-related health risks for women, especially for adolescent girls<sup>10</sup>. Ensuring access for all people to their preferred contraceptive methods advances several human rights, including the right to life and liberty, freedom of opinion and choice, and significant health and other benefits<sup>11</sup>. Women's ability to choose whether to reproduce, to have access to complete and accurate information, and to select their preferred method of contraception is fundamental to the life and health of women and their families<sup>12</sup>.

The prevalence of unintended pregnancies in Nigeria is high, and this could be attributable to low contraceptive use among women of reproductive age as a result of limited access to contraceptive services, particularly among young, poorer, and unmarried people; fear or experience of side effects; cultural or religious opposition; poor quality of available services; users' and providers' bias against some methods; and gender-based barriers to accessing contraceptive services<sup>13,14</sup>.

The high rate of unwanted pregnancies in Nigeria has resulted in unsafe abortion, child neglect, child trafficking, and baby factories<sup>13</sup>. However, the Nigerian National Demographic Health Survey (NDHS) showed that contraceptive use has marginally increased from 13% in 2003 to 17% in 2018 (as shown in Table 1), representing about 30% increase. A 2018 survey found that in Nigeria, 10.5% of women between the ages of 15 and 49 years use modern family planning methods<sup>15</sup>, showing that of every 100 women of reproductive age who are not willing to get pregnant, only 11 of them use modern contraceptives. A study conducted in the South-eastern part of Nigeria suggests that the low contraceptive prevalence rate in the region is likely due to a lack of awareness of where to obtain family planning services<sup>5</sup>.

### ***Skilled assistance during delivery***

Skilled birth attendance (SBA) is a key strategy for averting maternal mortality ratio (MMR)<sup>16</sup>. SBA is considered the single most important strategy in preventing maternal and neonatal morbidity and mortality<sup>17</sup>. SBA during labor, delivery, and the early postpartum period reduces actual and potential complications and increases the survival of most mothers and newborns<sup>18</sup>. Generally, reports by many experts agree that about 20% to 30% of stillbirths or deaths due to intrapartum-related complications can be reduced if births are attended to by skilled personnel<sup>19</sup>.

This evidence may not be generalizable to all Sub-Saharan African countries, but Ghana experienced a reduction in MMR from 499 in 2000 to 263 maternal deaths per 100,000 live births in 2020<sup>20</sup> following an increase in the availability of skilled birth personnel, amongst other factors, including the implementation of a free maternal and child health care policy<sup>21</sup>. Table 1 shows little improvement in skilled care during delivery, from 36% in 2003 to 43% in 2018. This shows about 19% increase in SBA use and indicates a persistent gap to be filled to improve skilled care during delivery in Nigeria. A study by Oppong-Nkrumah (2020) highlights certain factors like distance, residence in rural areas, and cost as barriers to the utilization of SBA<sup>21</sup>. These barriers need to be addressed and identified facilitators such as education re-enforced to improve the utilization of SBA in the country.

### ***Age of first marriage***

Child marriage is an important challenge impacting the well-being of adolescent girls globally. In Nigeria, there is a high prevalence of child marriage, with 4 in 10 girls getting married before they turn 18 years old. This total 24 million child brides, making Nigeria rank third globally in child bride prevalence<sup>23</sup>.

Nigeria's child marriage rates vary by geo-political locations, with ranges from 39% to 67.6% in Northern Nigeria to 13.9% to 21.65 in Southern Nigeria<sup>24</sup>. Further, in Nigeria, child marriage is mostly prevalent in rural areas among girls with little or no education and among poor households<sup>25</sup>. Some other reasons responsible for the practice are religion and tradition<sup>25</sup>. It is important to highlight that in most instances, child brides are forced to engage in sexual activities with their spouses once they get married, which leads to early pregnancy and, sometimes, vesicovaginal fistula (VVF) due to childbirth<sup>25</sup>.

### ***Age of first sex***

According to the 2014 NDHS violence against children survey, 1 in 4 girls and 1 in 10 boys would experience sexual abuse before their 18th birthday, with the girl child more at risk probably as a result of the gender discrimination deeply rooted in Nigerian societies. Engaging in sexual activities with anyone below 18 years is a crime according to the Child Rights Act, 2003, adopted in 34 out of 36 states in Nigeria; enforcing this Act and ensuring every state adopts it will reduce early sexual coitus among Nigerian children. Child marriage is another practice challenging the reproductive health status of Nigeria, as it is common in the northern part of the country<sup>5</sup>. Prevalence of sex before age 15 has decreased by about 67% over the last 20 years, from 37% in 2003 to 12% in 2018 (as shown in Table 1). This shows significant progress in reducing the burden of early adolescent sexual initiation. However, women are more at risk of HIV in Nigeria and early sexual initiation is an important risk factor for young girls<sup>26</sup>. It is important to tackle this social and public health issue because early marriage prevents women from advancing educationally, hence limiting their capacity to contribute to the well-being of their families and the economy.

**Table 1:** National demographic and health survey reports on indicators of interest from 2003-2018

Indicator	2018	2013	2008	2003
Contraceptive prevalence	17%	15%	15%	13%
Skilled assistance during delivery	43%	38%	39%	36%
Child marriage (girls married at 15 years)	8.3%	11.6%	12.4%	16.1%
Age of first sex (had sex before 15 years old)	12%	17%	16%	37%
Teenage childbearing (15-19 years)	19%	23%	23%	25%
Prevalence of sexual violence in the past 12 months	4%	3%	No record	No record
Prevalence of FGM	20%	25%	30%	55%
Prevalence of pre-marital sex among never-married women (15-24 years) in the past year	15-19: 9.6% 20-24: 16.3%	15-19: 15.9% 20-24: 49.2%		15-19: 23.3% 20-24: 49.4%

FGM: female genital mutilation

### ***Teenage childbearing***

It is globally acknowledged that adolescents are having unprotected sex<sup>27</sup>. Unprotected sexual behaviour among teenagers exposes them to negative outcomes, such as unwanted pregnancies and unsafe abortions. Teenage pregnancy in Nigeria has also been linked to higher maternal and child morbidity and mortality and hence remains a significant health concern in Nigeria<sup>28</sup>. Hence, there is a need to highlight the SRH needs of this priority group as it is the main services packages that prevent and reduce adolescent reproductive health risks and problems<sup>4, 29</sup>. Teenage pregnancy can be an unpleasant situation and one of the social problems Nigeria is experiencing<sup>30</sup>.

According to Nigeria's National Population Commission (NPC), 23% of girls between 15-19 years have begun childbearing<sup>31</sup>, and around 400,000 unplanned births are recorded annually, with half of these births attributed to teenage girls between 15-19 years<sup>30</sup>. As of 2018, the NDHS reports that 19% of girls aged 15-19 have begun childbearing. Although there has been a reduction in the prevalence of teenage childbearing over the years from 25% in 2003 to 19% in 2018 (as shown in Table 1), resulting in about 24% reduction. This indicates persistent gaps that need to be addressed to accelerate the reduction of teenage childbearing in the Nigerian population. Another unhealthy practice that results in teenage childbearing is child marriage, which is a major contributor to teenage pregnancy, especially among people of low socioeconomic status<sup>32</sup>.

### ***Prevalence of sexual violence (SV)***

SV is any sexual act or any attempt to obtain a sexual act through violence or coercion, which, according to WHO, encompasses rape, sexual abuse, sexual or physical abuse of those with disabilities, sexual abuse of children, forced marriage, and child marriage, denial of the right to use contraceptive prevention of sexually transmitted diseases as well as forced abortion<sup>33, 34</sup>.

A WHO 2024 report shows about 30% of women globally from the age of 15 have experienced physical or sexual violence, with Africa as one of the regions with the highest prevalence<sup>35</sup>. These could be due to gender discrimination in African societies. The NDHS, as shown in Table 1, reveals that there has been inadequate data to track the prevalence of SV between 2003 and 2018. Table 1 also shows that, although SV was not reported in the NDHS 2003 and 2008, it increased from 3% in 2013 to 4% in 2018, representing a 33% increase. This reveals poor performance in addressing the prevalence of SV in the country, showing there are wide gaps to be closed to tackle SV in Nigeria, especially among adolescent girls and young women who suffer a disproportionate share of the burden, as reported by the 2014 NDHS.

### ***Prevalence of FGM***

FGM comprises all procedures that involve partial or total removal of the external female genitalia or other injury to the female genital organs for non-medical reasons<sup>36</sup>.

According to a WHO report, more than 200 million girls and women alive today have undergone FGM in 30 countries in Africa, the Middle East, and Asia where FGM is still being practised<sup>35</sup>. FGM is a violation of the human rights of girls and women<sup>37</sup>. It is a harmful cultural practice that results in serious complications, injury, infections, and even death and is still prevalent in Nigeria. It shows deep-rooted gender inequality and discrimination against girls and women<sup>38, 39</sup>. The prevalence of FGM decreased from 55% in 2003 to 30% in 2008 and 20% in 2018 (as shown in Table 1). This decrease is estimated at more than 63% in the last 20 years. However, there is a need to scale up efforts to eradicate the practice and protect the health and well-being of girls in the country, especially in regions where this practice is most prevalent.

### **HIV and AIDS**

The first case of AIDS in Nigeria was identified in 1985 and reported at an International AIDS Conference in 1986. Some contributing factors to HIV transmission in Nigeria include gender inequalities and inequities, poverty, and also persistent HIV/AIDS-related stigma and discrimination<sup>40</sup>. With around 2 million people living with HIV and AIDS in Nigeria<sup>41</sup>, the country ranks third among countries with the highest burden of HIV and AIDS globally with a 1.7 prevalence rate among women of reproductive age<sup>41,42</sup>. As of 2018, up to 40% of HIV infections in Nigeria were amongst the young population (ages 15-24), and just 34% of young men and 43% of young women had HIV prevention knowledge<sup>43</sup>. HIV infection is highly prevalent among adolescents in Nigeria; a 2011 study showed that 40% of all new HIV infections occurred among people aged 15–24 years, making Nigeria the country with the highest number of HIV-infected adolescents<sup>44</sup>. A strategy for reducing the risk of getting STIs, including HIV, is for young people to delay the age at which they become sexually active<sup>45</sup>.

The NDHS from 2003-2018 shows a reduction in the prevalence of pre-marital sex among never-married women aged 15-24 years in the past year, but the data also shows some gaps need to be filled to address earlier sexual initiation, especially among women to prevent the transmission of HIV.

### **Success stories**

Even though Nigeria could not achieve the Millennium Development Goals (MDGs) on maternal and child health, few achievements were made. This includes a 39.7% decrease in maternal mortality ratio from 1350/100000 live births in 1990 to 814 in 2015<sup>46</sup>. Also, there was an increase from 47% in 1990 to 70% in 2018 in the percentage of women aged 15–49 who got antenatal care from a skilled provider<sup>47</sup>. The proportion of births delivered by skilled birth attendants also increased from 39% in 2008 to 43% in 2018<sup>47</sup>.

In the case of preventing and controlling HIV transmission, national efforts, together with support from different donors and development partners, have immensely contributed to a notable improvement in prevention, care, and treatment programs aimed at eliminating the disease<sup>48</sup>.

Evidence from other programs in Nigeria shows working with stakeholders at the state and local government levels has helped maintain the relevance of interventions and promote their acceptance<sup>49</sup>, hence contributing to the success of SRHR interventions in the country. This is supported by other research that affirms that community-based participatory intervention involving the local authorities is highly impactful because it helps bring more understanding to SRHR issues through the lens of the community.

For example, studies from interventions in trouble zones in the country, like internally displaced people (IDP) camps in North-Eastern Nigeria, have shown that free and convenient healthcare facilities have positively impacted SRHR advancements<sup>49</sup>.

Other health sectors in the country are encouraged to learn from the successes of such interventions. In addition, Civil Society Organisations (CSOs) in Nigeria have been influential in advancing SRHR<sup>50</sup>. Nigeria has a huge CSO sector that has shown commitment to improving the country's reproductive and sexual health-related outcomes that also impact governmental accountability to fulfil these commitments<sup>51</sup>. The CSO's involvement in addressing SRHR issues is a success story.

### ***Challenges over the years***

Comprehensive sexuality education (CSE) is a curriculum-based teaching and learning platform and part of the comprehensive packaging of SRHR in the Universal Health Coverage (UHC) to equip children and young people with information, knowledge, skills, and values that will enable them to be conscious of their SRHRs<sup>52</sup>. Using the challenges of the CSE implementation as an example of challenges other SRHR interventions encounter, the CSE program faces challenges like a lack of political will to execute<sup>53</sup>. In addition, implementing such programs in sub-Saharan African countries like Nigeria is donor-driven and often faces funding problems. Local ministries or government agencies are often given oversight for implementing SRHR projects like the CSE, which may result in accountability problems<sup>53</sup>. Another challenge such projects face is leaving out the community, adolescents, or women for whom these programs are designed or implemented as part of the stakeholders for the program's success<sup>53</sup>. Also, although generalization from the findings of a study<sup>47</sup> on state government performance in scaling up family planning programming in Nigeria may not be ideal, it is worth highlighting that the study bolsters the points of political will, funding needs, the competing priorities of governments in low and middle-income countries and limited human resources to address SRHR issues. A study in Kogi State, Nigeria, further suggests key challenges experienced by CSOs in Nigeria, including persistent health workers' strikes, data collection issues, health workers' hostile attitude, and inadequate staffing in most health facilities<sup>50</sup>.

### ***Some priority action areas***

#### ***Mental health and SRHR***

SRH is an integral part of a person's right to enjoy the highest attainable standard of physical and mental health<sup>54</sup>. Mental health has intrinsic and instrumental value and is integral to the well-being of individuals. A complex interplay of individual, social, and structural stresses and vulnerabilities determines mental health<sup>55</sup>. There is evidence that in sub-Saharan Africa, exposure to STIs like HIV is linked with negative adolescent and youth mental health outcomes<sup>56</sup>. For example, the HIV stigma can lead to social isolation, humiliation, and condemnation for many young people, which can increase poorer mental status<sup>57</sup>. Also, exposure to unfavourable social, economic, environmental, or geopolitical conditions like inequality and violence, including sexual violence, could increase the risk of having a mental health condition<sup>55</sup>. Most of such exposure begins in the adolescent years, being the formative years of an individual<sup>48</sup>. With 14% of the world's 10-19-year-olds experiencing mental health issues, it is crucial to address their mental health needs<sup>58</sup>, especially regarding SRHR, as sexual risk behaviors and violence, particularly SV, often begin in adolescence and contribute to mental health conditions. Pregnant adolescents and those in early or forced marriages have also been identified to be at greater risk of mental health conditions<sup>58</sup>.

It is important to note that on the 5th of January 2023, the Nigerian former president, Muhammadu Buhari, signed the Mental Health Bill 2021 into law, reflecting the political will in Nigeria to improve mental health care. This bill supports efforts to achieve the mental health of Nigerians, including adolescents. The political will to address mental health in the country will be proven through effective implementation and execution of the bill through funding and provision of resources<sup>59</sup>. The needs of adolescents who develop or are at risk of developing mental health conditions as a result of sexual and gender-based violence (GBV), including early marriage, should be prioritized at different levels, from the organizational level to the community and societal levels. Strategic platforms to attend to such adolescents could

include adolescent-friendly health facilities, integrating mental health services into general health care, digital/social media, schools, and community settings<sup>58,59</sup>. The bill will encourage efforts like implementing school-based mental health programs and training mental health caregivers, especially for task sharing, to increase human resources for universal coverage.

### ***Conflict and SRHR***

Conflict exacerbates the effects of climate change, and climate change, at least indirectly, drives conflict. The climate change crisis pressures peace and prosperity and complicates efforts to build peace in areas already affected by and vulnerable to conflict<sup>60</sup>. Conflict and climate change impact the Nigerian health system and inhibit the progress of the individual building blocks that make up the health system as stipulated by WHO. This is because conflicts and displacement of people put pressure on health systems, leading to difficulties in accessing vital SRH services, and this is evident in conflict-prone settings in Nigeria. Conflicts come with consequences to health systems, and their outcome can include limitation of access to SRH services, damages to health facilities and infrastructure, SV against women and girls, human trafficking, and sexual exploitation, including forced marriage. Studies have shown that about 60% of maternal deaths and 45% of newborn deaths occur mostly in countries affected by a humanitarian crisis or other similar conditions<sup>61</sup>. There is evidence that girls and women experiencing humanitarian crises are more at risk of SRH vulnerabilities like unwanted pregnancies, GBV, forced marriage, and other negative SRH outcomes<sup>62,63</sup>. A study in North-Eastern Nigeria confirms this<sup>64</sup>. A demographic and health survey in Borno state, one of the conflict-prone states in Nigeria, noted that poor SRH outcomes in the state are likely higher among internally displaced persons and underreported in the camps<sup>65</sup>.

### ***Climate change and SRHR***

Our planet is struggling to keep up with the impact caused by human activities for many decades. Increases in the average global temperature and the frequency of extreme weather events are

transforming ecosystems worldwide and threatening entire species of plants and animals equally<sup>66,67</sup>. Climate-related events (CREs), such as floods and droughts, cause millions of people to become at risk of negative outcomes<sup>68</sup>. CREs can also affect social structures and aggravate poverty<sup>69</sup>. Importantly, CREs impact health outcomes<sup>68,70</sup> of underserved groups like women, who have less stamina to withstand the harsh results of CREs, and who are affected by gender inequalities<sup>68</sup>. The SRHRs of women and girls are especially affected by episodes of CRE<sup>71,72</sup>.

In the case of Nigeria, floods are responsible for displacement and harm to people compared to other forms of disaster. It is also a leading cause of property damage<sup>73</sup>. Floods, which are quite common in Nigeria, cause damage to health facilities and infrastructure, leading to disruptions in medical services<sup>74</sup>, including access to SRH services<sup>75,76</sup>. It also results in poverty, which limits the purchasing power of individuals, especially women and girls.

A study by UNICEF reveals that the inability of women and girls to afford basic health needs and menstrual hygiene products correlates with reproductive and urinary tract infections. Some of these women and girls are forced to exchange sex for money because of poverty, which puts them at risk of negative SRH outcomes<sup>77</sup>.

### ***Universal coverage of SRHR services***

SRHRs are essential to UHC and achieving SDG 3.7 by 2030. Universal access to SRHR is only possible by ensuring a rights-based and people-centred approach<sup>6</sup>. In this view, the Nigerian government must provide leadership in setting policies and laws to support the UHC of SRHR services and ensure sufficient funding of SRHR programs and policy implementation. In addition, the state and readiness of the Nigerian health system to address SRHR issues is vital to achieving UHC. The WHO 2010 health system building blocks could provide a structure for attaining UHC for SRHR services. This is broken down in Table 2.

### ***The way forward***

One of the SDGs is to ensure healthy lives and well-being for everyone at all ages. Important targets to

**Table 2:** Structure for attaining UHC of SRHR services through the WHO health system building blocks

S/N	WHO Health System Building Blocks	Actions to be taken to achieve UHC
1.	Leadership and Governance	The Nigerian government needs to provide leadership in developing and implementing policies and laws that can support SRHR <sup>78</sup> , just like the recent Mental Health Bill 2021 that former President Buhari signed.
2.	Service delivery	SRHR services should be easily accessible, acceptable, convenient, youth-friendly, and affordable to enhance the achievement of UHC. This is similar to the case of a study of internally displaced persons in Borno state, Nigeria, where study participants spoke highly of the maternal services, they received due to these factors <sup>64</sup> . As documented in various studies, adolescent SRHR services must also be friendly to improve utilization.
3.	Health system financing	The government should prioritize SRH in health budgets <sup>78</sup> , and to achieve UHC, out-of-pocket expenditure should be avoided by providing health insurance <sup>79</sup> .
4.	Health workforce	Task shifting and sharing should be strengthened as a stop-gap measure to increase the workforce and coverage of SRHR services.
5.	Medical products, vaccines, and technologies	Priority should be given to funding medical products like contraceptives and ensuring they are affordable and accessible.
6.	Health information systems	Investments should be made to ensure there is available data for evidence-based planning, policies, and SRHR interventions.

UHC: Universal Health Coverage

achieve this goal, which aligns with the indicators in this study and should be achieved by 2030, are the reduction of maternal mortality to less than 70 per 100,000 live births, ending preventable under-five deaths, increasing universal access to sexual and reproductive care and family planning education and integration of reproductive health into national strategies and programs, UHC, access to quality essential health services and affordable essential medicines and vaccines for all, substantially increasing health financing and recruiting, developing, training and retaining health personnel in Nigeria and other developing countries.

Also, considering the realities of conflicts and disasters like floods occurring in the country, it is important to understand how they impact people across various genders, ages, and backgrounds differently. The United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) advocates thorough gender-based analyses to inform intervention programmes<sup>80</sup>. To leave no one behind, especially as it relates to gender and other areas of social inclusion, bilateral and multilateral funding circles have also stressed and continue to

stress the importance of paying attention to gender inequalities in emergency settings<sup>81</sup>.

An example of gender transformative research in the country is an intervention done in Northeastern Nigeria that assessed Save the Children's humanitarian activities to provide evidence on how the activities can better follow gender transformative approaches<sup>81</sup>.

Stakeholders should pay attention to such interventions as they can help bridge the research to policy gap in the country.

Nigeria's newly appointed Minister of Health, Hon. Muhammad Ali Pate, emphasized his vision for the Nigerian health sector during his screening exercise with the Nigerian Senate<sup>82</sup>. He stressed the need for adequate health sector financing and showed his displeasure with the fact that families and individuals in Nigeria pay a huge part of their health care bills through out-of-pocket payments.

He urged the Nigerian government to improve its health sector funding to enable the health sector to achieve its priorities without depending on external financial sources. His vision aligns with the global goals and the crucial targets of SDG 3, which includes universal access to SRH care as it is geared

towards healthcare quality and affordability, emphasizing some of the indicators highlighted in this review.

## Conclusion

Nigeria has made strides in addressing SRHR issues in the past two decades, yet significant challenges persist. Cultural and structural barriers hinder the progress of SRHR in Nigeria. Certain cultural norms and traditions like child marriage, and female genital mutilation, widow inheritance still exist in parts of the country. High rates of teenage childbearing, limited contraceptive use, and insufficient skilled care during delivery remain concerns, especially in rural areas. Stigma, fear, shame, and judgmental behaviors are prevalent and make SRHR services in the country unwelcoming. To address these issues, strategic SRHR interventions are crucial. These interventions in Nigeria will thrive with multi-faceted approaches<sup>83</sup>. Some of which exist in the country.

Over the years, community-focused interventions have improved young people's access to SRHR services. According to a study in south-eastern Nigeria, such interventions are much more acceptable among communities, stakeholders, policymakers, and healthcare providers<sup>84</sup>.

School-based SRHR interventions have also proven to be effective in advancing gender equality and reducing harmful SRHR practices among adolescents in Nigeria. Although this intervention faces resistance from religious and community bodies in Northern Nigeria, stakeholders like school management boards in this region have stressed the need for involving religious and traditional leads at every programmatic stage of such interventions to achieve successful implementation<sup>85</sup>.

Capacity-strengthening interventions for SRHR healthcare providers have also led to a positive shift in attitude among Nigerian healthcare providers. To further improve SRHR outcomes in the country, such interventions need to be scaled up<sup>86</sup>.

Other successful SRHR interventions exist in Nigeria, but they need to be scaled up, and more awareness should be raised about them. There is also a need to develop interventions that will

improve the self-efficacy of women of reproductive age and empower them to utilize these services<sup>87</sup>. Challenges in implementing CSE and other SRHR interventions include political will, funding, and community involvement.

Mental health has emerged as a critical component of SRHR, particularly among adolescents, with the recent Mental Health Bill signaling progress. Conflicts and climate change disrupt access to SRHR services, highlighting the need to integrate strategies to mitigate these challenges. To achieve UHC for SRHR services, Nigeria must prioritize leadership, accessible service delivery, health system financing, a sufficient health workforce, accessible medical products, and robust health information systems. Addressing these challenges requires sustained funding, effective policy implementation, improved governance, and a holistic approach considering the interconnected factors affecting SRHR, including mental health, conflicts, and climate change.

Policymakers should collaborate with SRHR programmers and researchers to develop evidence-based policies to improve SRHR outcomes. Upscaling existing national programs and supporting civil society organizations are crucial. Continuous evaluation of intervention outcomes is also critical. Effective partnerships and collaborations among key players in the SRHR field are essential for Nigeria to significantly contribute to achieving SDG 3, ensuring healthy lives and well-being for all.

## Data availability

Data used in this study is publicly available.

## Conflict of interest

None

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None

## Contribution of authors

LEB conceptualised the paper. AEO wrote the first draft of the manuscript. All Authors reviewed and approved the last version of the manuscript.

## References

- World Health Organization. *Sexual and Reproductive Health: Fact Sheet on Sustainable Development Goals (SDGs): Health Targets*. World Health Organization. Regional Office for Europe, 2017.
- Bond, K.T., and Radix, A.E. "Sexual Health and Well-Being: A Framework to Guide Care." *Medical Clinics* 108, no. 2 (2024): 241-55.
- Klu D, Gyapong M, Agordoh PD, Azagba, C., Acquah, E., Doegah, P., Ofosu, A., and Ansah, E.K. "Adolescent Perception of Sexual and Reproductive Health Rights and Access to Reproductive Health Information and Services in Adaklu District of the Volta Region, Ghana." *BMC Health Services Research* 23, no. 1 (2023): 1456.
- World Health Organization. *WHO Recommendations on Adolescent Sexual and Reproductive Health and Rights*. 2018.
- Omo-Aghoja, L. "Sexual and Reproductive Health: Concepts and Current Status among Nigerians." *African Journal of Medical and Health Sciences* 12 (2013): 101-11.
- World Health Organization. *Regional Strategic Framework for Accelerating Universal Access to Sexual and Reproductive Health in the WHO South-East Asia Region 2020–2024*. World Health Organization. Regional Office for South-East Asia, 2020.
- Glasier, A., Gülmezoglu, A.M., Schmid, G., Garcia Moreno, C., and Van Look, P.F. "Sexual and Reproductive Health: A Matter of Life and Death." *Lancet* 368 (2006): 1595-607.
- Akintayo, A. "Challenges and Prospects of Litigating Sexual and Reproductive Health and Rights of Women in Nigeria: Lessons from Comparative Foreign Jurisprudence." *Comparative and International Law Journal of Southern Africa*, 2022. <https://doi.org/10.25159/2522-3062/7662>.
- McGovern, T., Baumont, M., Fowler, R., Parisi, V., Haerizadeh, S., Williams, E., and Garbers, S. "Association between Plural Legal Systems and Sexual and Reproductive Health Outcomes for Women and Girls in Nigeria: A State-Level Ecological Study." *PLoS ONE* 14 (2019). <https://doi.org/10.1371/journal.pone.0223455>.
- Ahinkorah, B.O., Hagan Jr, J.E., Seidu, A.A., Hormenu, T., Otoo, J.E., Budu, E., and Schack, T. "Linking Female Adolescents' Knowledge, Attitudes and Use of Contraceptives to Adolescent Pregnancy in Ghana: A Baseline Data for Developing Sexuality Education Programmes." *Healthcare* 9, no. 3 (2021): 272.
- World Health Organization. *Ensuring Human Rights within Contraceptive Programmes: A Human Rights Analysis of Existing Quantitative Indicators*. 2014.
- Gomez, A.M., Fuentes, L., and Allina, A. "Women or LARC First? Reproductive Autonomy and the Promotion of Long-Acting Reversible Contraceptive Methods." *Perspectives on Sexual and Reproductive Health* 46, no. 3 (2014): 171.
- Joseph, I. Amuka, Tochukwu G. Onyechi, Fredrick O. Asogwa, and Anthony O. Agu. "Couples' Social Characteristics, Family Planning, and Unwanted Pregnancy Risk: Evidence from Two Nigerian Demographic and Health Surveys." *African Journal of Reproductive Health* 25, no. 3 (2021). <https://doi.org/10.29063/ajrh2021/v25i3.6>.
- Kebede, Y., Teshome, F., Binu, W., Kebede, A., Seid, A., Kasaye, H.K., Alemayehu, Y.K., Tekalign, W., Medhin, G., Abera, Y., and Tadesse, D. "Structural, Programmatic, and Sociocultural Intersectionality of Gender Influencing Access-Uptake of Reproductive, Maternal, and Child Health Services in Developing Regions of Ethiopia: A Qualitative Study." *PLoS ONE* 18, no. 3 (2023): e0282711. National Population Commission Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF. *Demographic and Health Survey (DHS)*. 2018.
- World Health Organization. "Skilled Birth Attendants." 2019. [https://www.who.int/reproductivehealth/topics/mdg/skilled\\_birth\\_attendant/en/](https://www.who.int/reproductivehealth/topics/mdg/skilled_birth_attendant/en/).
- Graham WJ and Bell JS. "Can Skilled Attendance at Delivery Reduce Maternal Mortality in Developing Countries?" 2018. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.534.7502&rep=rep1&type=pdf>.
- Mathewos Oridanigo E and Kassa, B. "Utilization of Skilled Birth Attendance among Mothers Who Gave Birth in the Last 12 Months in Kembata Tembaro Zone." *Advances in Medicine*, 2022. <https://doi.org/10.1155/2022/7625291>.
- World Health Organization, UNICEF, UNFPA, World Bank Group, and United Nations. *Trends in Maternal Mortality: 1990 to 2015*. 2015.
- World Health Organization. *Trends in Maternal Mortality 2000 to 2020: Estimates by WHO, UNICEF, UNFPA, World Bank Group, and UNDESA/Population Division: Executive Summary*. 2023.
- Opong-Nkrumah O. *Essays on the Impact of the National Health Insurance Scheme of Ghana*. 2020.
- Adeyinka W, Adewemimo Sia E, Msuya Christine T, Olaniyan, and Adetoro A. Adegoke. "Utilisation of Skilled Birth Attendance in Northern Nigeria: A Cross-Sectional Survey." *Midwifery* 30, no. 1 (2014): e7-e13. <https://doi.org/10.1016/j.midw.2013.09.005>.
- UNICEF. "UNICEF.org/Nigeria/Press Release." 2024.
- UNICEF Nigeria. *Multiple Indicator Cluster Survey 2016–17 (MICS)*. Accessed September 17, 2019. <https://www.unicef.org/nigeria/reports/multiple-indicator-cluster-survey-2016-17-mics>.
- Buzome Chukwuemeke, Henry N. Ugwu, and Momoh A. Radietu. "Early Child Marriage in Nigeria: Research 4, no. 1 (2018).
- Population Council. *Nigeria: Child Marriage Briefing*. New York: Population Council, 2005.

26. Ihejiamaizu CC, Ajake UE, Amalu MN and Meremikwu AN. "Influence of Reproductive Health Unit of Instruction on Undergraduate Students' Sexuality in South-South Nigeria." *American Journal of Educational Research* 1 (2013): 177-80.
27. Ali A, Khaliq A, Lokeesan L, Meherali S and Lassi ZS. "Prevalence and Predictors of Teenage Pregnancy in Pakistan: A Trend Analysis from Pakistan Demographic and Health Survey Datasets from 1990 to 2018." *International Health* 14, no. 2 (2022): 176-82.
28. Haile B, Shegaze M, Feleke T, Glagn M and Andarge E. "Disparities in Utilization of Sexual and Reproductive Health Services among High School Adolescents from Youth-Friendly Service Implemented and Non-Implemented Areas of Southern Ethiopia." *Archives of Public Health* 78 (2020): 1-11.
29. Alabi OT and Oni IO. "Teenage Pregnancy in Nigeria: Causes, Effect, and Control." *International Journal of Academic Research in Business and Social Sciences* 7, no. 2 (2017): 16.
30. National Population Commission and ICF International. *Nigeria Demographic and Health Survey 2018*.
31. Okoli C. Ifeanyi, Mohammad Hajizadeh, Mohammad M. Rahman, Eswaran Velayutham and Rasheda Khanam. "BMC Public Health." *BMC Public Health* 22 (2022): 1729. <https://doi.org/10.1186/s12889-022-14146>.
32. Borumandnia N. Khadembashi, Tabatabaei M, and Alavi Majd. "The Prevalence Rate of Sexual Violence Worldwide: A Trend Analysis." *BMC Public Health* 20 (2020): 1-7.
33. World Health Organization. *Violence Against Women*. 2021. <https://www.who.int/news-room/fact-sheets/detail/violence-against-women>. Accessed August 2, 2024.
34. World Health Organization. *Violence Against Women*. 2024. <https://www.who.int/news-room/fact-sheets/detail/violence-against-women>.
35. World Health Organization. *Female Genital Mutilation*. 2024. <https://www.who.int/news-room/fact-sheets/detail/female-genital-mutilation>. Accessed September 2, 2024.
36. Khosla R, Banerjee J, Chou D, Say L, and Fried ST. "Gender Equality and Human Rights Approaches to Female Genital Mutilation: A Review of International Human Rights Norms and Standards." *Reproductive Health* 14, no. 1 (2017): 1-9.
37. Williams-Breault BD. "Eradicating Female Genital Mutilation/Cutting: Human Rights-Based Approaches of Legislation, Education, and Community Empowerment." *Health and Human Rights* 20, no. 2 (2018): 223.
38. Earp BD. "Genital Cutting as Gender Oppression: Time to Revisit the WHO Paradigm." *Frontiers in Human Dynamics* 4 (2022): 778592.
39. National Agency for the Control of AIDS. *HIV Mode of Transmission in Nigeria 2009*. Abuja, Nigeria: National Agency for the Control of AIDS, 2010.
40. UNAIDS. *Nigeria Country Profile*. 2023. Accessed January 12, 2025. <https://www.unaids.org/en/regionscountries/countries/nigeria>.
41. Odugbesan, J.A., and Rjoub, H. "Evaluating HIV/AIDS Prevalence and Sustainable Development in Sub-Saharan Africa: The Role of Health Expenditure." *African Health Sciences* 20 (2020).
42. Lena, F., Michael, E., and Sanni, Y. "HIV-Related Knowledge in Nigeria: A 2003-2018 Trend Analysis." *Archives of Public Health* (2018).
43. UNICEF, and UNAIDS. *Opportunity in Crisis: Preventing HIV from Early Adolescence to Young Adulthood*. 2011. [https://www.unicef.org/aids/files/Opportunity\\_in\\_crisis-Report\\_EN\\_052711](https://www.unicef.org/aids/files/Opportunity_in_crisis-Report_EN_052711).
44. National Demographic and Health Survey (NDHS). 2003.
45. World Health Organization. *Trends in Maternal Mortality: 1990 to 2015. Estimates by WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division*. Geneva, Switzerland: World Health Organization, 2015.
46. Ishola, O.D., Holcombe, S.J., Ferrand, A., Ajijola, L., Anieto, N.N., and Igharo, V. "What Underlies State Government Performance in Scaling Family Planning Programming? A Study of The Challenge Initiative State Partnerships in Nigeria." *Global Health: Science and Practice* 11, Suppl 1 (2023): e2200228. <https://doi.org/10.9745/GHSP-D-22-00228>.
47. National Demographic and Health Survey (NDHS), 2018.
48. Marlow, H.M., Kunnuji, M., Esiet, A., Bukoye, F., and Izugbara, C. "The Sexual and Reproductive Health Context of an Internally Displaced Persons' Camp in Northeastern Nigeria: Narratives of Girls and Young Women." *Frontiers in Reproductive Health* 3 (2022): 779059. <https://doi.org/10.3389/frph.2021.779059>.
49. Adelekan, Ademola L., Gabriel Musa, Comfort Agada, S. Peterside Akogu, Christy Abayomi-Oluwole, Remi Obinatu, Hamza Aliyu, Williams Shaibu, et al. "Achievements and Implications of HIV Prevention of Mother-to-Child Transmission among Women of Reproductive Age: A Systematic Evaluation of HAF II Project in Kogi State, Nigeria." *International Journal of Health Sciences and Research* (2017).
50. Otiye-Igbuzor, Ejiro J., Theresa Kaka Effa, Emily Teitsworth, Rufaro Kangai, Chantal Hildebrand, Diana Lara, and Denise Dunning. "Saving the Lives of Women, Newborns, and Children: A Formative Study Examining Opportunities to Improve Reproductive, Maternal, Neonatal, and Child Health Outcomes in Nigeria." *African Journal of Reproductive Health* 21, no. 3 (2017): 102-108.
51. UNESCO. *Why Comprehensive Sexuality Education Is Important*. 2018. <https://en.unesco.org/news/why-comprehensive-sexuality-education-important>.
52. Wekesa, F.M., Nyakangi, V., and Onguss, M. *Comprehensive Sexuality Education in Sub-Saharan Africa*. 2019. <https://aphrc.org/wp>

- content/uploads/2020/01/CSE-in-SSA-FINAL-2019.
53. Puras, D. "Report of the Special Rapporteur on the Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health." *Philippine Law Journal* 95 (2022): 274.
  54. World Health Organization. *Mental Health*. 2022. [https://www.who.int/news-room/factsheets/detail/mental-health-strengthening-our-response/?gclid=CjwKCAiAt5euBhB9EiwAdkXW029\\_QhLA-wFgy6Gcqsact1Xu9r0f06N79pDjRD1227Cm4C6a20AYRoCfvUQAvD\\_BwE](https://www.who.int/news-room/factsheets/detail/mental-health-strengthening-our-response/?gclid=CjwKCAiAt5euBhB9EiwAdkXW029_QhLA-wFgy6Gcqsact1Xu9r0f06N79pDjRD1227Cm4C6a20AYRoCfvUQAvD_BwE).
  55. Kemigisha, E., Zononi, B., and Bruce, K. "Prevalence of Depressive Symptoms and Associated Factors Among Adolescents Living with HIV/AIDS in South Western Uganda." *AIDS Care* 31 (2019): 1297-1303.
  56. Audet, C.M., McGowan, C.C., Wallston, K.A., and Kipp, A.M. "Relationship Between HIV Stigma and Self-Isolation Among People Living with HIV in Tennessee." *PLoS ONE* 8 (2013): e69564.
  57. World Health Organization. *Adolescent Mental Health*. 2021. [https://www.who.int/news-room/factsheets/detail/adolescent-mental-health/?gad\\_source=1&gclid=CjwKCAjwqtqmwBhBVEiwAL-WAYYKNo26v82OQvZ1fDsixAkLFSB9m79fLYieDo0npeFli6VyuGGV3LhoC66sQAvD\\_BwE](https://www.who.int/news-room/factsheets/detail/adolescent-mental-health/?gad_source=1&gclid=CjwKCAjwqtqmwBhBVEiwAL-WAYYKNo26v82OQvZ1fDsixAkLFSB9m79fLYieDo0npeFli6VyuGGV3LhoC66sQAvD_BwE).
  58. Saied, AbdulRaman A. "Nigeria's National Mental Health Act 2021: Any Challenges Ahead?" 2023. [https://doi.org/10.1016/S0140-6736\(23\)00345-8](https://doi.org/10.1016/S0140-6736(23)00345-8).
  59. Nordås, R., and Gleditsch, N.P. "Climate Change and Conflict." In *Competition and Conflicts on Resource Use*, November 13, 2014, 21-38.
  60. UNHCR. *Saving Newborn Lives in Refugee Settings: Evaluation Summary*. 2018. <https://www.unhcr.org/5e1897084.pdf>.
  61. Iyakaremye, I., and Mukagatare, C. "Forced Migration and Sexual Abuse: Experience of Congolese Adolescent Girls in Kigeme Refugee Camp, Rwanda." *Health Psychology Report* 4 (2016): 261-71. <https://doi.org/10.5114/hpr.2016.59590>.
  62. UNFPA. *Adolescent Girls in Disaster and Conflict: Interventions for Improving Access to Sexual and Reproductive Health Services*. New York: UNFPA, 2016.
  63. Marlow, Heather M., Michael Kunnuji, Adebayo Esiet, Funmilola Bukoye, and Chimaraoke Izugbara. "The Sexual and Reproductive Health Context of an Internally Displaced Persons' Camp in Northeastern Nigeria: Narratives of Girls and Young Women." *Frontiers in Reproductive Health* 3 (2022): 779059. <https://doi.org/10.3389/frph.2021.779059>.
  64. UNHCR. *Annual Report. Sexual and Gender-Based Violence Northeast Nigeria: UNHCR's Contribution to Prevention, Risk Mitigation and Multi-Sectoral Response. Internally Displaced Persons and Returnees in Borno, Yobe, Adamawa States, Northeast Nigeria*. Maiduguri: UNHCR, 2020.
  65. Sage Rowan F. "Global Change Biology: A Primer." *Global Change Biology* 26, no. 1 (2020): 3-10.
  66. Muluneh Melese G. "Impact of Climate Change on Biodiversity and Food Security: A Global Perspective—a Review Article." *Agriculture & Food Security* 10, no. 1 (2021): 1-25.
  67. Smith Kirk R, Alistair Woodward, Diarmid Campbell-Lendrum, D. D. Chadee, Yoshihiro Honda, and Qiyong Liu. "Human Health: Impacts, Adaptation, and Co-Benefits." In *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects*, edited by V. R. Barros, D. J. Dokken, K. J. Mach, M. D. Mastrandrea, T. E. Bilir, M. Chatterjee, 709-754. Cambridge: Cambridge University Press, 2014.
  68. Banwell Nicola, Sarah Rutherford, Brendan Mackey, Roger Street, and Cordia Chu. "Commonalities between Disaster and Climate Change Risks for Health: A Theoretical Framework." *International Journal of Environmental Research and Public Health* 15, no. 3 (2018): 538. <https://doi.org/10.3390/ijerph15030538>.
  69. Mahapatra Bhola, Meenu Walia, and Niranjan Saggurti. "Extreme Weather Events Induced Deaths in India, 2001-2014: Trends and Differentials by Region, Sex and Age Group." *Weather and Climate Extremes* 21 (2018): 110-116. <https://doi.org/10.1016/j.wace.2018.08.001>.
  70. Olsson Lennart, M. Opondo, Petra Tschakert, Arun Agrawal, Siri H. Eriksen, and Shaojun Ma. "Livelihoods and Poverty." In *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects*, edited by C. B. Field, V. R. Barros, D. J. Dokken, K. J. Mach, M. D. Mastrandrea, T. E. Bilir, 793-832. Cambridge: Cambridge University Press, 2014.
  71. Women Deliver. *The Link Between Climate Change and Sexual and Reproductive Health and Rights*. Women Deliver, 2020. <https://womensdeliver.org/wp-content/uploads/2021/02/Climate-Change-Report.pdf>.
  72. Etuonovbe Angela Kesiena. "The Devastating Effect of Flooding in Nigeria." 2011. <https://api.semanticscholar.org/CorpusID:130082301>.
  73. Benjamin A, Chioma A, Victor O, Charles A, and Beatrice E. "MAR Case Reports: A Brief Look and Its Impacts on Nigeria's Health Sector." 2022. <https://www.researchgate.net/publication/359119425MAR>.
  74. Centers for Disease Control and Prevention. "PEP." Centers for Disease Control and Prevention. Last reviewed August 6, 2019. <https://www.cdc.gov/hiv/basics/pep.html>.
  75. Onyango Monica, and Shirin Heidari. "Care with Dignity in Humanitarian Crises: Ensuring Sexual and Reproductive Health and Rights of Displaced Populations." *Reproductive Health Matters* 25, no. 51 (2017): 1-6.

- <https://www.jstor.org/stable/26495946> (accessed June 29, 2020).
76. UNICEF. "Fast Facts: Nine Things You Didn't Know About Menstruation." 2018. Accessed online: [https://www.unicef.org/press-releases/fast-facts-nine-things-you-didnt-know-about-menstruation#\\_edn2](https://www.unicef.org/press-releases/fast-facts-nine-things-you-didnt-know-about-menstruation#_edn2).
  77. Ravindran TK, Sundari, and Veloshnee Govender. "Sexual and Reproductive Health Services in Universal Health Coverage: A Review of Recent Evidence from Low- and Middle-Income Countries." *Sexual and Reproductive Health Matters* 28, no. 2 (2020). <https://doi.org/10.1080/26410397.2020.1779632>.
  78. McIntyre Di, and Joseph Kutzin. *Health Financing Country Diagnostic: A Foundation for National Strategy Development*. Geneva: World Health Organization, 2016. Licence: CC BY-NC-SA 3.0 IGO.
  79. UNOCHA. "Nigeria: Situation Report." 2021. <https://reports.unocha.org/en/country/nigeria/> (accessed June 30, 2021).
  80. Nwoke J, Becker, Sofiya Popovych, Mathew Gabriel, and Logan Cochrane. "Gender Transformation in Humanitarian Response: Insight from Northeast Nigeria." *Journal of Humanitarian Affairs* (2022). <https://doi.org/10.7227/JHA.080>.
  81. The Cable. "Ali Pate: Nigeria Must Prioritise Investment in Health, Encourage Domestic Production of Vaccines." 2023. <https://www.thecable.ng/ali-pate-nigeria-must-prioritise-investment-in-health-encourage-domestic-production-of-vaccines>.
  82. Ajuwon A, and W Brieger. "Evaluation of a School-Based Reproductive Health Education Program in Rural South Western Nigeria." *African Journal of Reproductive Health* 11, no. 2 (2007): 47–59. <https://doi.org/10.2307/25549715>.
  83. Eze I, C Okeke, C Ekwueme, C Mbachu and O. Onwujekwe. "Acceptability of a Community-Embedded Intervention for Improving Adolescent Sexual and Reproductive Health in South-East Nigeria: A Qualitative Study." *PLOS ONE* 18 (2023). <https://doi.org/10.1371/journal.pone.0295762>.
  84. Emenike N, F Onukwugha, A, Sarki, and L. Smith. "Adolescents' Sexual and Reproductive Health Education: Perspectives from Secondary School Teachers in Northern Nigeria." *Sex Education* 23 (2022): 66–80. <https://doi.org/10.1080/14681811.2022.2028613>.
  85. Agu I, C Agu C, Mbachu and O. Onwujekwe. "Impact of a Capacity-Building Intervention on Views and Perceptions of Healthcare Providers Towards the Provision of Adolescent Sexual and Reproductive Health Services in Southeast Nigeria: A Cross-Sectional Qualitative Study." *BMJ Open* 13 (2023). <https://doi.org/10.1136/bmjopen-2023-073586>.
- Ayamolowo S, M Aladegboye, A Olowokere, and I Bamidele. "Sexual and Reproductive Health Rights and the Use of Reproductive Health Services Among Women in Ile-Ife, Nigeria." *African Journal of Midwifery and Women's Health* (2023). <https://doi.org/10.12968/ajmw.2022.0014>.