

Chapter 5

Health and Well-Being

Health and well-being are key factors in determining positive youth development, as they tend to have a significant influence on poverty, educational attainment, socio-economic growth and psychological well-being during the transition from adolescence to adulthood. Ghana's national health priorities are addressed in successive health service medium-term national development plans. With regard to youth, these priorities include achieving universal health coverage; improving access to and quality of health services; and reducing morbidity and mortality from communicable and non-communicable diseases. Ghana's key health indicators have improved significantly in the past decade as a result of public awareness campaigns and expansion of the health insurance scheme, yet challenges addressing health inequalities persist. These relate to unequal distribution of health care funding, limited numbers of skilled providers and shortages of medical supplies and facilities. This section reviews the status of key determinants in youth health.

5.1 HIV/AIDS

5.1.1 Prevalence

HIV/AIDS is one of the largest contributors to youth mortality in Ghana (IHME, 2018). Although prevalence across youth populations has remained below 2 per cent since 2010, with the most recent estimate being 1.8 per cent in 2014, it has not

Box 5.1 HIV/AIDS, reproductive health and rural communities

In 2009, Rondini and Krugu's study of the secondary school population of Bolgatanga in Upper East region of Ghana revealed a lack of knowledge of family planning methods and sexually transmitted infections (STIs). Poor infrastructure and low accessibility in rural areas in northern Ghana may have led to the uneven distribution of reproductive health education programmes, indicating a need for increased interventions aimed at equipping youth in these high-risk groups to deal with the HIV/AIDS epidemic, STIs, unwanted pregnancies and unsafe illegal abortions. HIV/AIDS prevalence grew in Ghana from 2000, after a decline in the 1990s, with those aged 15–24 showing an increase from 2.3 per cent in 2000 to 3.6 per cent in 2003. In Bolgatanga, prevalence reached 3.8 per cent, with the highest rate among those aged 25–29, at 4.5 per cent. These populations have limited knowledge of sexual health but also on how to prevent HIV/AIDS, further contributing to the stigmatisation of people living with the disease.

Source: Rondini and Krugu (2009).

stabilised and is still in flux (from 3.6 per cent in 2007 to 1.3 per cent in 2013 and then up to 1.8 per cent in 2014) (MOH, 2016). From 2011 to 2014, prevalence rates among the 15–19 and 25–34 age groups decreased, while prevalence rates among those aged 20–24 increased. There was an estimated 5 per cent increase in HIV infections in this demographic between 2003 and 2017 (Ghana AIDS Commission, 2017).

Many risk factors have been identified as contributors to the increasing prevalence of HIV. The Ghana Demographic and Health Survey (GDHS) 2014 points to limited knowledge of HIV (only 20 per cent of young females and 27 per cent of young males have comprehensive knowledge), persistent engagement in risky sexual behaviour among youth (44 per cent of females and 66 per cent of males aged 15–24 have had more than one sexual partner in the span of one year) and discriminatory attitudes towards people with HIV/AIDS, which may prevent people from testing or seeking treatment (only 8 per cent of females and 10 per cent of males aged 15–24 expressed accepting attitudes towards people living with HIV/AIDS) (GSS et al., 2015).

5.1.2 HIV/AIDS targets and initiatives

The Ghana National Healthcare Quality Strategy 2017–2021 (MOH, 2016) indicates that, to make further progress in combating HIV/AIDS, there is a need to address the unstable supply of antiretroviral medicines, risky sexual behaviour and stigmatisation of and discrimination against those living with tuberculosis and HIV. To this end, several initiatives in Ghana have attempted to promote awareness of health services and treatment options, providing counselling and testing services, endorsing safe sex practices, reducing mother-to-child HIV transmission and increasing the use of antiretroviral drug access and adherence.

More specifically, GES is working to increase comprehensive HIV/AIDS education with support from the United Nations Children's Fund (UNICEF), UNFPA, UNESCO, Planned Parenthood Association of Ghana (PPAG), the National Population Council (NPC) and DFID. It is currently revising the School Health Education Programme (GES, 2005) to expand comprehensive sexuality education and incorporate recommendations made in the Adolescent Sexual and Reproductive Health Policy (NPC, 2015) to reduce new HIV infections among young people (Bekoe and Eshun, 2013; Quashigah et al., 2014; Panchaud et al., 2018).

Another initiative, led by the Joint United Nations Programme on HIV/AIDS (UNAIDS), UNDP and GHS, targeted stigmatisation and discrimination facing youth with HIV/AIDS by supporting national dialogues. This eventually led to the passing of the Ghana AIDS Commission Act 2015. This protects the rights of people living with HIV/AIDS by establishing safe spaces, creating support programmes and encouraging equal access to services.

UNAIDS, UNICEF and the Ministry of Health (MOH), with support from the United States President's Emergency Plan for AIDS Relief, developed a programme to eliminate mother-to-child transmission. This has trained over 300 services to incorporate prevention of mother-to-child transmission as part of maternal, newborn and child health services. Other initiatives, coordinated by the World Bank

(Treatment Acceleration Programme for Public–Private Partnership in HIV/AIDS Management), the World Health Organization (WHO) (3 by 5 Initiative to mobilise the use of antiretroviral therapy) and the Global Fund (Fight against AIDS, Tuberculosis and Malaria Project) have all have been crucial in implementing Ghana’s National Strategic Plan for HIV/AIDS and the 90-90-90 roadmap, which has the goal of 90 per cent of people living with HIV being aware of their HIV status; 90 per cent of people who know their HIV status accessing treatment; and 90 per cent of people receiving treatment achieving viral suppression within 12 months.

Despite successes, targets including ensuring equal access to health services, reliable stocks of antiretroviral drugs, increased knowledge of risk factors for HIV/AIDS and reducing stigmatisation among youth populations are yet to be met.

5.2 Sexual and reproductive health

5.2.1 Child marriage, teenage pregnancy and early parenthood

Early marriage and parenthood are encouraged in Ghanaian culture, especially for females in their late 20s, those who have completed some form of higher education and the employed. However, in many cases, youth engagement in unprotected sex results in

Box 5.2 National Strategic Framework on Ending Child Marriage in Ghana 2017–2026

In Ghana, one in five girls will be married before their eighteenth birthday and one in twenty before their fifteenth birthday. In 2017, GoG, acknowledging the universal call to end child marriage, with the support of various development stakeholders including UNICEF, developed and launched the National Strategic Framework on Ending Child Marriage in Ghana 2017–2026 (MOGCSP and UNICEF, 2016). In line with this framework, several stakeholders, including academic institutions and international organisations, continue to work to address the challenge of child marriage through data collection and programmatic intervention (de Groot et al., 2018; Domfe and Oduro, 2018). For example, work by World Vision in this area has led to recognition of the need for a multifaceted approach, one that simultaneously addresses the causal factors with programmes deliberately designed to target young brides. Moreover, research has revealed that not only should policy focus on the eradication of child marriage but also interventions should be designed to assist girls who have already been married (University of Ghana and World Vision Ghana, 2017). Although surveys such as the GDHS and the Multiple Indicator Cluster Survey (MICS) have been useful in understanding child marriage trends, many data gaps remain. Current data does not include information on women and children living outside households, such as those living in institutions, in informal settlements or on the streets. Widening the scope of data collection to include administrative records, qualitative studies and ad hoc surveys would help provide relevant information on a wider context.

teenage pregnancy. Unfortunately, this often means access to educational opportunities is over for pregnant teens and young mothers (Human Rights Watch, 2018).

In certain parts of Ghana, in particular the regions in the north and the Greater Accra, Bono and Ahafo regions, child marriage remains prevalent despite laws criminalising it, which set the legal age for marriage at 18 for both males and females. Child marriage varies greatly by wealth and geographical residence: data reveals higher incidence of child marriage in rural areas and among poorer families than in urban areas and among wealthier families. The most recent Maternal Health Survey, conducted in 2017, showed that 8 per cent of women were married by age 15 and 53 per cent by age 22 (GSS and MOH, 2018). Furthermore, 14 per cent of women aged 15–19 had already begun child-bearing. In general, marriage before the age of 18 has been decreasing (35 per cent in the 1990s to 25 per cent in 2008), yet recent national surveys from 2011 to 2014 indicate that, although it decreased in the south (20.9 per cent to 18.5 per cent and 19.2 per cent to 18.5 per cent, respectively), it increased in the three northern regions (26.4 per cent to 33.6 per cent), indicating greater disparities between the north and the rest of the country (GSS, 2012; GSS et al., 2015).

‘As a child, if you ask for permission from your parents... [to go] to a particular programme for sex education, they will think that you are going to do something bad.’ Female, 15–20 years

5.2.2 Family planning and contraceptive use

The Maternal Health Survey in 2017 estimated that knowledge on family planning was highest among women aged 30–34 (90 per cent) and lowest among girls aged 15–19 (59 per cent) (GSS and MOH, 2018). Furthermore, while 99 per cent of women

Box 5.3 Adolescent Reproductive Health Policy – nearly 19 years on

Ghana’s Adolescent Reproductive Health Policy was developed in 2000 under the auspices of NPC through a multi-stage participatory process that involved various government sectors, NGOs and individuals. Its overarching framework hopes to guide various sector ministries, departments, institutions, organisations and individuals involved in adolescent reproductive health programmes and activities by underscoring a number of important approaches and issues critical to enhancing adolescents’ reproductive health. These issues include the right to information; the right to services; gender concerns, including the education of adolescent males and females on reproductive health and related socio-cultural responses; and meaningful youth participation in policy planning and implementation. A number of key stakeholders have responded with various interventions since adoption of the Policy in 2000. While it is important to examine the impacts of the Policy, it is perhaps more critical to create a revised gender-, age- and location (rural or urban)-sensitive policy that reflects the contemporary sexual and reproductive health needs of young people.

aged 15–49 are aware of modern contraceptive methods, only 20 per cent reported actually using them. The percentage of sexually active, unmarried girls aged 15–19 and 20–24 using modern contraceptive methods only ranges from 27 per cent to 39 per cent (ibid.).

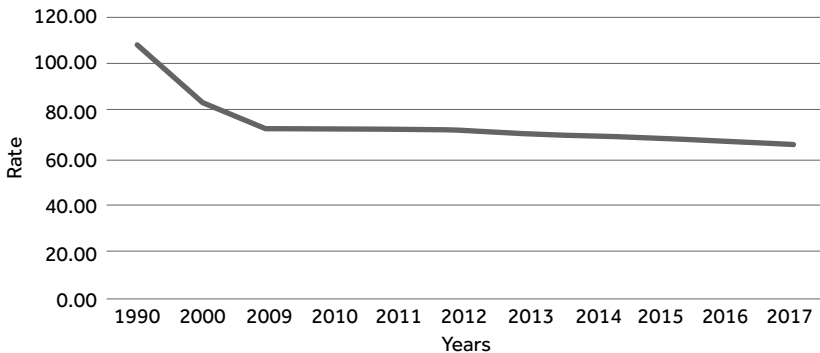
The increasing use of contraceptives among 30–34-year-old women can be attributed to the positive impact of HIV/AIDS prevention and family planning educational campaigns (MOH, 2016). However, these campaigns are not reaching Ghanaian youth: research indicates that youth do not use condoms because they question the efficiency, are unsure how to use them or are afraid of the social stigma that accompanies their use (Rondini and Krugu, 2009). Furthermore, adolescents are not using health care services offering contraceptives because of a lack of trust (MOH, 2016). Research shows that poverty and poor school attendance are also factors in lower contraceptive use, and that females with some form of secondary education are more than twice as likely to use contraception (Rondini and Krugu, 2009). Likewise, girls in urban areas are more likely to use contraceptives than those in rural areas (ibid.).

Although the adolescent fertility rate in Ghana has declined over the years as a result of reproductive health care initiatives implemented among youth, it noteworthy that it remains high, as Figure 5.1 shows.

5.2.3 Sexual and reproductive health rights and services

Early parenthood and child-bearing has decreased in Ghana as a result of multiple programmes aimed at raising awareness of sexual and reproductive health rights and services. The Ghana Adolescent Reproductive Health Programme coordinated by NPC and GHS works in Brong Ahafo region to improve reproductive health knowledge and behaviour for up to 350,000 adolescents and strengthen family planning services. This region, known for its high teenage pregnancy rates, has shown a significant drop in pregnancies compared with the national average (GHS, 2016a). The programme has also set up over 50 adolescent-friendly/youth corners to encourage the seeking of reproductive health and family planning services, and

Figure 5.1 Adolescent fertility rate, 1990–2017 (births per 1,000 women aged 15–19)



Source: World Bank WDI.

health clubs in schools to promote peer education and activities encouraging healthy sexual and reproductive behaviour.

A number of key stakeholders, including PPAG, have also identified numerous challenges and strategies regarding sexual and reproductive health and rights moving forwards (see GHS, 2016b). Many civil society organisations in Ghana have also advocated for Comprehensive Sexuality Education and related programmes. These entail more than the current form of sexuality education in schools, which do not embrace the majority of adolescents, particularly those out of school and/or in rural and remote locations (Owusu-Amoako, 2019).

5.2.4 Maternal mortality

Given that a significant proportion of young people start giving birth during their adolescent years, maternal mortality, or death resulting from the complications of pregnancy and/or childbirth, is very relevant for this age group. In Ghana, it is estimated that there are 310 maternal deaths per 100,000 live births – significantly higher than the Millennium Development Goal (MDG) target of only 190 per 100,000 live births, and yet a significant improvement from 760 per 100,000 deaths

Box 5.4 Sexual and reproductive health and rights in Ghana – role of Parliament and policy

Since the early 1990s, Ghana has been proactive in developing and creating access to sexual and reproductive health and rights, by adopting and enforcing international and national human right laws and policies. For example, the Ghana Shared Growth Development Agenda (Volume I and Volume II) prioritises coverage, availability and accessibility of sexual and reproductive health and rights and family planning, particularly with respect to adolescents and youth, and sets goals in accordance with the 1994 International Conference on Population and Development's Programme of Action, the African Charter on Human and Peoples Rights Protocol on the Rights of Women in Africa and the SDGs, among others.

Additionally, other important policies have been enacted to guarantee the rights of citizens (particularly women and youth) and promote sexual and reproductive health and rights, such as the Children's Act 1998, the Domestic Violence Act 2007, the Provisional National Defence Council Law 1985 and the Criminal Code (amendment) Act 2007. Despite progress in policy development, implementation and results have been mixed, suggesting there are still challenges in ensuring universal access to sexual and reproductive health and rights. Parliament needs to ensure proper integration into educational curriculum and an increase in financial allocation towards programmes related to sexual and reproductive health and rights.

Source: Boateng (2017).

Box 5.5 Agenda 2063 and the SDGs – implications for youth development

The vision of Agenda 2063 is for an integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in the international arena (AUC, 2015). This aligns with the SDGs, adopted by 193 countries in 2016, including Ghana, and their aim to take action against the world's most pressing challenges, promote peace and prosperity for all by 2030, foster economic growth, ensure social inclusion and protect the environment.

The Agenda 2063's First and Sixth Aspirations converge with SDG 3 to envision an Africa with healthy and well-nourished citizens. Ghana recognises that ensuring healthy lives and promoting well-being for everyone is important to building prosperous societies, and is committed to prioritising access to and equity of quality health care for all. This has major implications for youth as it will reduce the burden of disease and disability, including HIV/AIDS, malaria, anaemia, child and maternal mortality, malnutrition and the prevalence of other non-communicable diseases, enabling a better future for Ghana's young people.

in 1990 (NDPC and UN Ghana, 2015). Among women, 12 per cent of all deaths owe to maternal causes such as pregnancy-related complications, haemorrhage, sepsis infections and unsafe abortions (UNFPA, 2013). Abortion contributes 15–30 per cent of maternal mortality in Ghana (Boah et al., 2019). It is also established that the percentage of pregnancies ending in induced abortion decreases with age (GSS, 2017), which suggests that more youth are involved in abortions. It is also important to note that teenage pregnancies increase the risk of neonatal mortality. In Ghana, it is estimated that neonatal mortality accounts for 42 deaths per 1,000 births among mothers who are less than 20 years old (GSS et al., 2015).

Several important initiatives have been launched to reduce maternal mortality among youth populations. Notable examples include the Making Pregnancy Safer Initiative, the Safe Motherhood Initiative, the Maternal and Neonatal Health Programme, the Campaign for Accelerated Reduction of Maternal Mortality in Africa and the MDG 5 Acceleration Framework. Results of these have included 97 per cent of young women receiving ante-natal care from a skilled provider, 80 per cent of births attended by a skilled provider and 84 per cent of young women receiving a postnatal check-up within the first two days following delivery (GSS and MOH, 2018). Despite these positive trends, there remains significant inequity with respect to access to maternal care.

5.3 Mental health

In Ghana, recent studies indicate that about 20 per cent of adolescents suffer from moderate to severe psychological distress (Kleintjes et al., 2010; Sipsma et al., 2013). Multiple vulnerabilities faced by youth in Ghana, such as poverty, limited access to

education, teenage pregnancy and living with HIV/AIDS, can lead to poor mental health outcomes. As a result, youth are more susceptible to a lower quality of life, less access to opportunities, violence, child abuse, suicide, crime and physical illnesses. In 2012, Ghana passed the Mental Health Bill, with the goals of ensuring the rights of people with mental illnesses, promoting access to treatment and coordinating mental health services. Yet mental health in Ghana continues to pose a challenge, as there is little evidence of any implementation of existing policies. Evidence suggests complete unavailability of essential mental health medications, leaving 98 per cent of patients untreated (MOH, 2016). Other challenges include a shortage of trained professionals capable of treating mental illnesses, the stigmatisation youth with mental illnesses face, social exclusion and human rights violations as these illnesses remain largely misunderstood, and underfunded (Adu-Gyamfi, 2017). This can have negative impacts on the desire to create a healthy and productive youth who serve as an asset for the nation.

5.4 Substance use

Increased alcohol consumption has emerged as a particular risk factor for youth in Ghana. In a large study of homeless youth in Accra, researchers found that 81.3 per cent reported using alcoholic beverages and 72 per cent having smoked marijuana (Oppong et al., 2014). In light of these concerning trends, Ghana took action in 2017 by passing a National Alcohol Policy, with the purpose of regulating the production, distribution, sale, advertisement and safe consumption of alcohol. To date, however, no initiatives have been developed as part of this policy.

Besides alcohol, another increasingly concerning public health issue surging within Ghana's youth populations is the non-medical use of Tramadol, a prescription synthetic opioid used for pain relief, which also produces effects similar to the 'high' of heroin. It is often used by poorer, uneducated populations, who typically mix it with alcohol, increasing the risks of overdose and engagement in reckless behaviour. In fact, many incidences of armed robbery, youth vandalism and car accidents have been linked to Tramadol abuse (Akweley Okertchiri, 2018).

In 2018, Ghana's Food and Drug Authority put in place measures to restrict Tramadol access, yet international agencies such as WHO have not yet proposed sanctions on its illegal trade, use and access (WHO, 2017). Most medical practitioners in Ghana recognise the importance of Tramadol as a cost-effective alternative to other less accessible opioids, despite their concerns regarding potential abuse (Yorke et al., 2019). One study showed that, out of 300 respondents, 78 per cent of those aged 11–25 reported using Tramadol (Elliason et al., 2018). Most alarmingly, 55 per cent believed the main purpose of Tramadol was to boost energy, 30 per cent thought it was to enhance sexual activity and only 15 per cent believed it was to relieve pain (ibid.). Of these respondents, only 39 per cent had a basic education, which indicates that the people who are generally abusing Tramadol do not have adequate information on its effects (ibid.). Lack of regulation in the manufacturing and distributing of Tramadol has Ghana on the cusp of an opioid epidemic; stricter measures and international cooperation are needed to tackle this issue.

5.5 Other non-communicable diseases and disability

Non-communicable diseases (NCDs) have been progressively on the rise and are projected to become the most common cause of death in sub-Saharan Africa by 2030 (Dalal et al., 2011). WHO (2014) estimates that NCDs alone account for 42 per cent of deaths in Ghana. A study examining autopsy reports found that 41 per cent of deaths among youth populations were attributable to NCDs, particularly blood disorders, cancers, cardiovascular problems and renal problems (Ohene et al., 2011). Education and awareness campaigns can increase understanding of NCDs and their associated risk factors among youth populations. For example, information about the risks of high blood pressure or hypertension, and how deaths in adulthood have been linked to behaviours initiated in adolescence such as smoking, drinking, lack of physical activity and unhealthy eating habits, could go a long way in promoting lifestyle change.

Furthermore, health complications and physical disabilities arising from NCDs or injuries can result in discrimination and disadvantages, such as being excluded from work or school, and ultimately a significant reduction in quality of life (WHO and World Bank, 2011). In 2012, Ghana established the National Policy for the Prevention and Control of Chronic Non-Communicable Diseases in Ghana, yet this does not highlight NCDs among youth as a national burden, and little has been done to implement initiatives or maintain data related to NCDs. Moving forward, Ghana needs to commit to the challenges of managing NCDs through early prevention, diagnosis, management and health care coverage that focus on youth population.

5.6 Nutrition

Malnutrition is also closely linked to future educational outcomes, as it seriously affects the immediate and future cognitive development of young people.

As with the economic situation, significant regional disparities exist in nutrition and food security in Ghana. The prevalence of stunting (chronic malnutrition or low height-for-age) is 19 per cent nationally but rises to 33 per cent in the Northern region (USAID, 2018). Teen youth living in rural areas are more likely to be underweight than those in urban areas, and those born to mothers with little or no education are substantially more likely to be underweight than children of more educated women (GSS et al., 2015).

Moreover, child-bearing begins early for some young people in Ghana. In 2014, 36.1 per cent of adolescents had begun child-bearing by age 19 (GSS et al., 2015). This has serious consequences because, relative to older mothers, adolescent girls are more likely to be malnourished and have low birth-weight babies, who are more likely to become malnourished and be at increased risk of illness and death than those born to older mothers.

The causes of malnutrition among children are interrelated and complex. The primary causes are insufficient access to food, inadequate maternal and child-caring practices (particularly poor breastfeeding practices), insufficient access to safe water

and sanitation, and poor health care (FAO, 2010). Although rates of anaemia have declined, from 78 per cent in 2008 to 66 per cent in 2014, the rate is still far above the 40 per cent WHO threshold for a severe public health concern (NDPC, 2016). As might be expected, anaemia is most prevalent among people living in rural areas, in families with less-educated mothers or younger mothers, and among people living in poorer households (UNICEF and Ministry of Women and Children's Affairs, 2011).

5.7 Summary points

1. Youth health priorities include achieving universal health coverage, improving access to and quality of health services and reducing morbidity and mortality from HIV/AIDS, malaria and NCDs. Major challenges concerning youth health include addressing health inequalities, persistent discrimination and awareness of health rights.
2. HIV/AIDS is one of the largest contributors to youth mortality in Ghana. Several initiatives have halted the spread of HIV/AIDS by promoting awareness of treatment and testing services, endorsing safe sex practices, reducing mother-to-child HIV transmission and increasing the use of antiretroviral drugs.
3. Teenage mothers are often affected by malaria. However, the National Malaria Control Programme is addressing the burden of malaria by promoting the use of insecticide-treated nets and providing free preventive anti-malaria treatment as part of ante-natal care for pregnant women.
4. Early parenthood and child-bearing are prominent issues that pose many risks for young females. Increasing awareness of sexual and reproductive health rights and services and family planning have helped maintain a steady decrease in teenage pregnancies.
5. NCDs including blood disorders, cancer, renal problems, cardiovascular issues, mental health disorders and substance use have been progressively on the rise and can be reduced by promoting awareness on healthy lifestyle choices and incorporating prevention, management and treatment options as part of health policy initiatives.

5.8 Recommendations

1. In order to tackle HIV/AIDS, increase campaigning to combat stigmatisation and discrimination, as well as initiatives to reduce risky behaviour among youth and increased communication and collaboration between health facilities to ensure a stable supply of antiretroviral drugs.
2. Encourage research and development on NCDs to improve prevention, detection, treatment and control of common conditions, and to inform interventions with a primary and secondary prevention focus for youth.
3. Conduct education and awareness campaigns to increase understanding of NCDs and their associated risk factors among youth populations.

4. Improve adolescent and youth health communication strategies to enhance awareness and behaviour change.
5. In the area of early marriage, adopt a multifaceted approach that simultaneously addresses the causal factors and helps young brides. The focus should not be only on the eradication of teen marriage but also on assisting girls who are already married.
6. Improve youth data collection in both rural and urban locations through administrative data (e.g. national population census), DHS and MICS, to contribute to understanding young people's health and well-being trends.
7. Improve youth nutrition, followed by micronutrient deficiency and nutrition campaigns and education, and prioritise the nutritional well-being of youth to build a healthy and productive youth force for the present and future.

References

- Adu-Gyamfi, S. (2017) 'Mental Health Service in Ghana: A Review of the Case'. *International Journal of Public Health Science* 6(4): 299–313.
- Akweley Okertchiri, J. (2018) 'Ghana's Fight against Tramadol Abuse'. *Daily Guide Network*, 5 May. <https://dailyguidenetwork.com/ghanas-fight-against-tramadol-abuse/>
- AUC (African Union Commission) (2015) *Agenda 2063: The Africa We Want*. Addis Ababa: AUC.
- Bekoe, S.O. and I. Eshun (2013) 'Curriculum Feuding and Implementation Challenges: The Case of Senior High School (SHS) Social Studies in Ghana'. *Journal of Education & Practice* 4: 39–45.
- Boah, M., S. Bordotsiah and S. Kuurdong (2019) 'Predictors of Unsafe Induced Abortion among Women in Ghana'. *Journal of Pregnancy*. <https://doi.org/10.1155/2019/9253650>
- Boateng, J.A. (2017) 'Policy Outcome and Challenges of Sexual and Reproductive Health and Rights in Ghana: What Is the Role of Parliament?' Policy Brief 4. Accra: Parliament Research Department.
- Dalal, S., J.J. Beunza, J. Volmink et al. (2011) 'Non-Communicable Diseases in Sub-Saharan Africa: What We Know Now'. *International Journal of Epidemiology* 40(4): 885–901.
- De Groot, R., M.Y. Kuunyem and T. PalermoGhana LEAP 1000 Evaluation Team (2018) 'Child Marriage and Associated Outcomes in Northern Ghana: A Cross-Sectional Study'. *BMC Public Health* 18(1): 285. doi:10.1186/s12889-018-5166-6
- Domfe, G. and A.D. Oduro (2018) *Prevalence and Trends of Child Marriage in Ghana*. Accra: Centre for Social Policy Studies.
- Elliason, E.K., B. Sandow, T. Asechaab et al. (2018) 'Abuse and Misuse of Tramadol among the Youth in the Wassa Amenfi West Municipality in the Western Region of Ghana'. *Psychology & Psychological Research International Journal*. DOI: 10.23880/pprij-16000181
- FAO (Food and Agricultural Organization of the United Nations) (2010) 'Nutrition Country Profile'. Rome: FAO.

- GES (Ghana Education Service) (2005). *Guidelines for the School Health Program*. Accra: GES.
- Ghana AIDS Commission (2017) *National and Sub-National HIV and AIDS Estimates and Projections: 2017 Report*. Accra: Ghana AIDS Commission.
- GHS (Ghana Health Service) (2016a) 'Regional Health Directorate Brong Ahafo Region. Annual Report 2015'. Accra: GHS.
- GHS (2016b) *Adolescent Health Service Policy and Strategy 2016–2020*. Accra: GHS.
- GSS (Ghana Statistical Service) (2012) *Ghana Multiple Indicator Cluster Survey with an Enhanced Malaria Module and Biomarker 2011*. Accra: GSS.
- GSS (Ghana Statistical Service) (2017) *Ghana Maternal Health Survey 2017*. Accra: GSS.
- GSS (Ghana Statistical Service) and MOH (Ministry of Health) (2018) *Maternal Health Survey 2017. Main Report*. Accra: GSS.
- GSS (Ghana Statistical Services), GHS (Ghana Health Services) and ICF International (2015) *Ghana Demographic and Health Survey 2014*. Accra and Rockville, MD: GSS, GHS and ICF International.
- Human Rights Watch (2018) *Leave No Girl Behind in Africa: Discrimination in Education Against Pregnant Girls and Adolescent Mothers*. New York: Human Rights Watch.
- IHME (Institute for Health Metrics and Evaluation) (2018) *Mortality Visualization*. Seattle, WA: IHME, University of Washington.
- Kleintjes, S., C. Lund and A.J. Flisher/MHAPP Research Programme Consortium (2010) 'A Situational Analysis of Child and Adolescent Mental Health Services in Ghana, Uganda, South Africa and Zambia'. *African Journal of Psychiatry* 13(2): 132–139.
- MOGCSP (Ministry of Gender, Children and Social Protection) and UNICEF (United Nations Children's Fund) (2016) *National Strategic Framework on Ending Child Marriage in Ghana 2017–2026*. Accra: GoG.
- MOH (Ministry of Health) (2016) *Ghana National Healthcare Quality Strategy 2017–2021*. Accra: GoG.
- NDPC (National Development Planning Commission) and UN Ghana (2015) *Ghana Millennium Development Goals: 2015 Report*. Accra: NDPC and UN Ghana.
- NPC (2015) *Adolescent Reproductive Health Policy*. Accra: NPC.
- Ohene, S.A., Y. Tettey and R. Kumoji (2011) 'Cause of Death among Ghanaian Adolescents in Accra Using Autopsy Data'. *BMC Research Notes* 4: 353. doi:10.1186/1756-0500-4-353
- Opong, A., A. Meyer-Weitz and I. Petersen (2014) 'Correlates of Psychological Functioning of Homeless Youth in Accra, Ghana: A Cross-Sectional Study'. *International Journal of Mental Health Systems* 39(1). doi: 10.1186/1752-4458-9-1
- Owusu-Amoako, M. (2019) 'Review of Key Laws and Policies Pertaining to Young People and HIV in Ghana to Identify Gaps and Those Posing Barriers to Implementation and Accessibility of Services Including Sexual and Reproductive Health Rights (SRHR)'. Mimeo.
- Panchaud, C., S. Keogh, M. Stillman et al. (2018) 'Towards Comprehensive Sexuality Education: A Comparative Analysis of the Policy Environment Surrounding

- School- Based Sexuality Education in Ghana, Peru, Kenya and Guatemala'. *Sex Education*. DOI: 10.1080/14681811.2018.1533460
- Quashigah, A.Y., G.Y. Dake, S.O. Bekoe et al. (2014) 'Evaluation of Colleges of Education (COE) Social Studies Curriculum Vis-à-Vis the Junior High School (JHS) Social Studies Curriculum in Ghana'. *European Journal of Training and Development Studies* 1: 1–13.
- Rondini, S. and J.K. Krugu (2009) 'Knowledge, Attitude and Practices Study on Reproductive Health among Secondary School Students in Bolgatanga, Upper East Region, Ghana'. *Africa Journal of Reproductive Health* 13: 51–66.
- Sipsma, H., A. Ofori-Atta, M. Canavan et al. (2013) 'Poor Mental Health in Ghana: Who Is At Risk?' *BMC Public Health* 13(288). doi:10.1186/1471-2458-13-288
- UNFPA (United Nations Population Fund) (2013) *Motherhood in Childhood: Facing the Challenge of Adolescent Pregnancy*. New York: UNFPA.
- UNICEF (United Nations Children's Fund) and Ministry of Women & Children's Affairs (2011) *A Situation Analysis of Ghanaian Children and Women: A Call for Reducing Disparities and Improving Equity*. Accra: UNICEF and GoG.
- USAID (United States Agency for International Development) (2018) 'Ghana: Nutrition Profile'. Washington, DC: USAID.
- University of Ghana and World Vision Ghana (2017) *A Study on Child Marriage in Selected World Vision Ghana Operational Areas*. Accra: University of Ghana and World Vision Ghana.
- WHO (2014). *Non-communicable Diseases (NCD) Country Profiles: Ghana*. Available at: <https://www.who.int/nmh/publications/ncd-profiles-2018/en/> (Accessed: March 20 2019).
- WHO (World Health Organization) (2017) *World Malaria Report 2017*. Geneva: WHO.
- WHO (World Health Organization) and World Bank (2011). *World Report on Disability*. Geneva and Washington, DC: WHO and World Bank.
- Yorke, E., F. Oyebola, S. Otene and A. Klein (2019) 'Tramadol: A Valuable Treatment for Pain in Ghana and Nigeria'. *Current Medical Research and Opinion* 35(5): 777–784.

