Chapter

The Role of Leadership in Sub-Saharan Africa in Promoting Maternal and Child Health

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Abstract

Sub-Saharan Africa (SSA) continues to face adverse maternal and child health (MCH) outcomes compared to other regions of the world. Previous research showed that SSA countries did not reach Millennium Development Goals (MDG)-4 and MDG-5. To further our understanding of levels and correlates of MCH outcomes, numerous studies have focused on socioeconomic factors, both at individual, household, and community levels. This chapter adopted a different approach and emphasized the role of leadership at regional, national, and local levels to improve MCH outcomes in SSA countries. Overall, the chapter demonstrated that without an enlightened leadership, SSA countries will be lagging behind SDG-3 targets. Additionally, evidence to guide policymaking in most countries is lacking mainly due to lack of sound data to specifically meet the needs of policymakers. There is an urgent need to focus on Research and Development (R&D) and Innovation. To achieve this goal, a crucial shift in leadership is compulsory.

Keywords: leadership, governance and public policy, maternal and child health, universal health coverage, Sustainable Development Goals, sub-saharan Africa

1. Introduction

This chapter draws from the international agendas, Millennium Development Goals (MDGs) for 2000–2015 and the Sustainable Development Goals (SDGs) for 2015–2030 to highlight the role of leadership in promoting maternal and child health (hereafter, MCH) in sub-Saharan Africa (SSA). These perspectives set out to ensure acceptable levels of MCH outcomes across regions and countries, and within countries. For instance, under MDGs, the international agenda aims at reducing child mortality (MDG-4) and improve maternal health (MDG-5) [1]. However, only six countries (Botswana, Cape Verde, Eritrea, Malawi, Mauritius, and Seychelles) were on track to achieve Millennium Development Goal (MDG)-4, to reduce under-five mortality rate (U5MR) by two-thirds by 2015 [2]. Similarly, evidence showed many SSA countries were making insufficient progress in achieving MDG-5 of reducing

the maternal mortality ratio (MMR) by three-quarters by 2015 [3]. It is therefore not surprising that research about maternal, newborn, and child health (MNCH) remains a top priority in the post-2015 development agenda. The new development agenda specifically sets out in goal 3 to "ensure healthy lives and promote well-being for all at all ages" including reducing MMR to 70 per 100,000 live births and neonatal mortality to as low as 12 per 1000 live births and under-five mortality to as low as 25 per 1000 live births. Worldwide, SSA countries are the greatest contributors of most preventable maternal and child deaths [4], yet an improvement of MCH in this region could lead to substantial reduction of maternal and child morbidity and mortality. In sum, most SSA countries did not reach MDG-4 and MDG-5, and likely they will not reach SDG-3. Therefore, this chapter answers the following overarching question: "Why SSA countries might not achieve SDG-3?" It posits that envisioned leadership, which is of paramount importance to achieving this goal, is crucially lacking in the region.

2. Sub-Sharan Africa: the world of poverty and hunger

In the past decade, the world has experienced significant socioeconomic progress, even though the effects of the COVID-19 pandemic have had negative effects on population wellbeing [5]. In this chapter, the Human Development Index (HDI) is used to show the inequalities across world regions and within region, essentially SSA. The underlying assumption is that poverty and hunger are rampant in countries with low HDI. Furthermore, it is unlike to expect sustainable health, including MCH, if people are not fed properly, and live in extreme poverty. The recent report on HDI shows the following. First, SSA is the least developed region in the world based on HDI. Indeed, HDI in developing regions range from 0.547 in SSA to 0.705 in Arab states. It is clear that the region is still facing a number of challenges, including leadership and governance, women's empowerment, education, and employment among others. Turning to the distribution of HDI at country level, the report clearly shows that most SSA countries are located at the bottom of the ranking. For instance, 31 SSA countries ranked between 157th (Mauritania) and 187th position (Niger). This is a clear indication of poor leadership and governance in the region, adding up armed conflict and wars which are literally impeding sustainable democracies in the countries. Furthermore, the AIDS pandemic is still causing a number of serious damages in SSA countries, leaving behind vulnerable children and increasing the percentage of populations living under the poverty line [6]. Additionally, policymakers paid less attention to nutrition, while SSA is the region of the world where the number of underweight children has stagnated over time as a clear alarm to detrimental effects of malnutrition on children development growth, with all known consequences such as brain development [7–9]. Yet, fully complete nutrition is key to ensure optimal development and to ensure citizens are prepared to build national wealth while fighting hunger and eliminating poverty.

There is evidence of the co-occurrence of poverty and hunger in many regions of the world, including SSA and scholars really wonder if extreme poverty in SSA can be eliminated by 2030 [10, 11]. According to the World Bank, households with a per capita income or expenditure less than $1.90 per person per day are defined being poor [12]. From the Economic Development Report released recently [13], there is evidence that most SSA countries have made progress in reducing the number of

people living below the poverty line. In fact, between 2010 and 2019, the percentage of households living below the poverty line ($1.9 per person per day) declined from 40 to 34%, in spite of the COVID-19 pandemic. It is common that people living in poverty to be undernourished, which led scholars to question the relationship between poverty and nutrition by adopting the human capital approach: Is it the cause or the consequence? Scholars posit that nutritional status has a profound impact on human capital [14], especially at earlier ages where the brain continues to develop. In the search of pathways of influence, scholars posited that malnutrition has adverse consequences on physical and mental health/development, productivity, and the economic potential of an individual. Likewise, poverty and malnutrition both affect MCH in the following ways. Poverty can be a strong barrier to access good healthcare services on the one hand [15–17], and on the other hand, malnutrition can be detrimental for maternal and child health [18].

Although most SSA countries made progress to reduce poverty levels amid the COVD-19 pandemic, the region is still lagging very behind compared with other regions in the world. Therefore, it is important to further our understanding of structural barriers impeding most SSA countries from meeting SDGs targets on maternal and child health. Before moving there, let us take a look on common indicators of MCH in the region.

3. Maternal and child health in sub-Saharan Africa: key indicators

This section addresses a number of MCH in sub-Saharan Africa, including antenatal care services, skilled birth attendant, facility-based delivery, utilization of postnatal care services, child health services, HIV testing, and prevention of mother-child transmission.

3.1 Antenatal care service coverage

Indicators to monitoring antenatal care services include, among others, utilization, frequency, and timing of ANC [17]. This chapter reports on two ANC indicators: (*i*) percentage of women who received four or more ANC visits during pregnancy according to WHO recommendations [19] and (*ii*) percentage of women who received ANC visit from a skilled provider (**Figure 1**). The number of women of reproductive ages in SSA countries has increased over time [20]. Data were available for 32 countries and findings showed that, on average, 56% of women received at least four visits during pregnancy. This figure ranged from 29.2% in Senegal to 90.5% in Ghana. Likely, Ghana has made tremendous progress in ANC coverage and access mainly due to a developed national insurance scheme [21] The percentage of women of reproductive ages who received antenatal care from a skilled provider was even higher on average in 36 countries with available data. Indeed, 88% of women received ANC visits from a skilled provided. While SSA countries made incredible progress on this area, there still are significant differences across countries. The lowest (51.6%) and highest (99.2%) percentages were observed in Togo and Burundi, respectively. It is worthy to mention that these two countries are among smallest countries in SSA in terms of superficies which can be a key element allowing national governments to better serve women of reproductive ages during pregnancies, a major cause of maternal deaths in the region.

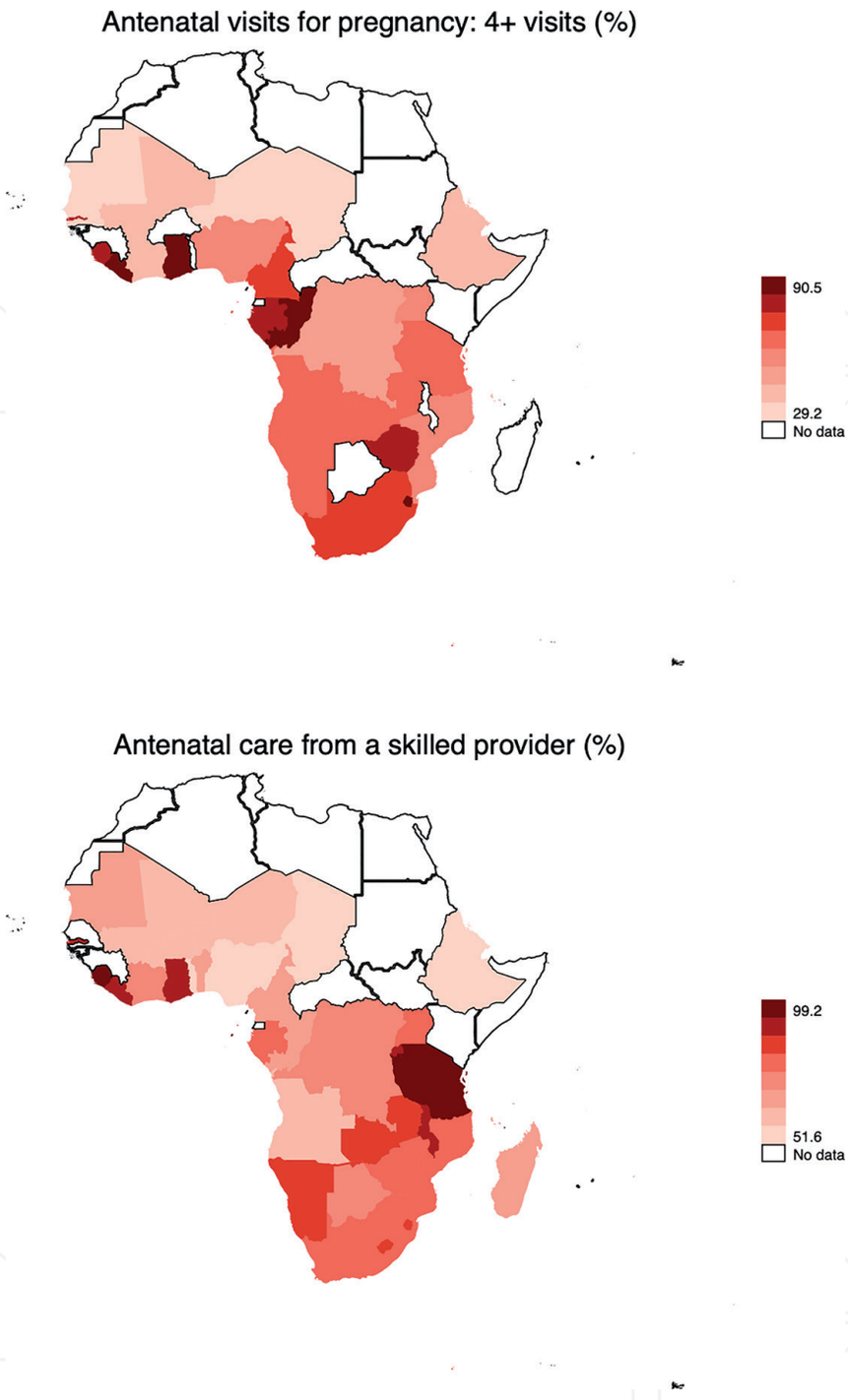

Figure 1.
Antenatal care utilization in sub-Saharan Africa.

Sub-Saharan Africa has a long history of Knowledge-Attitudes-Practices (KAP) studies since 1980s to better understand knowledge, attitudes, and practices of modern contraction among women of reproductive ages. It was expected like it was in the case of Asian Tigers that after more than four decades women have embraced modern contraception as a path to reduce/control the persistent higher fertility levels in the region. The reality is that women of reproductive ages in the region are still suffering of unmet needs for family planning (**Figure A.1**, appendix). Yet, without universal access to family planning, the population will continue to grow, even faster.

3.2 Skilled birth attendance

Skilled birth attendance (SBA) has attracted much attention three decades ago when the Safe Motherhood campaign was launched in Kenya [22, 23]. It is posited that SBA can substantially reduce maternal deaths when skilled birth attendants (e.g. doctors) assist women during deliveries [22, 24–27]. Therefore, many preventable deaths during pregnancies in SSA are due to the quality of health professionals who assist women during deliveries. Data available on 28 countries indicated that, on average, 71% of women were assisted by a skilled professional at delivery, which contrasts a bit with the alarming level of maternal deaths in the region (**Figure 2**). Perhaps, the inequalities across countries concerning access to a skilled provided may explain the higher number of maternal deaths which is observed in the region. Indeed, only one-fourth of women of reproductive ages are assisted by a skilled birth attendant, while the corresponding figure is 96.7% in South Africa [25]. There are two things worthy to point out here. First, reliable data to provide evidence on the state of skilled birth attendance are still missing. Governments in SSA countries and the AU council should engage in providing sufficient finding to collect data supporting planning, implementation, and monitoring of MCH programs in the region at national and subnational levels. Second, it seems there is a correlation between the level of socioeconomic development and access to SBA when one looks into the bottom (Chad) and the top (South Africa). Further research could devote much attention on this hypothesis and if confirmed, this means that collective efforts in the region should be done to reduce these inequalities across countries.

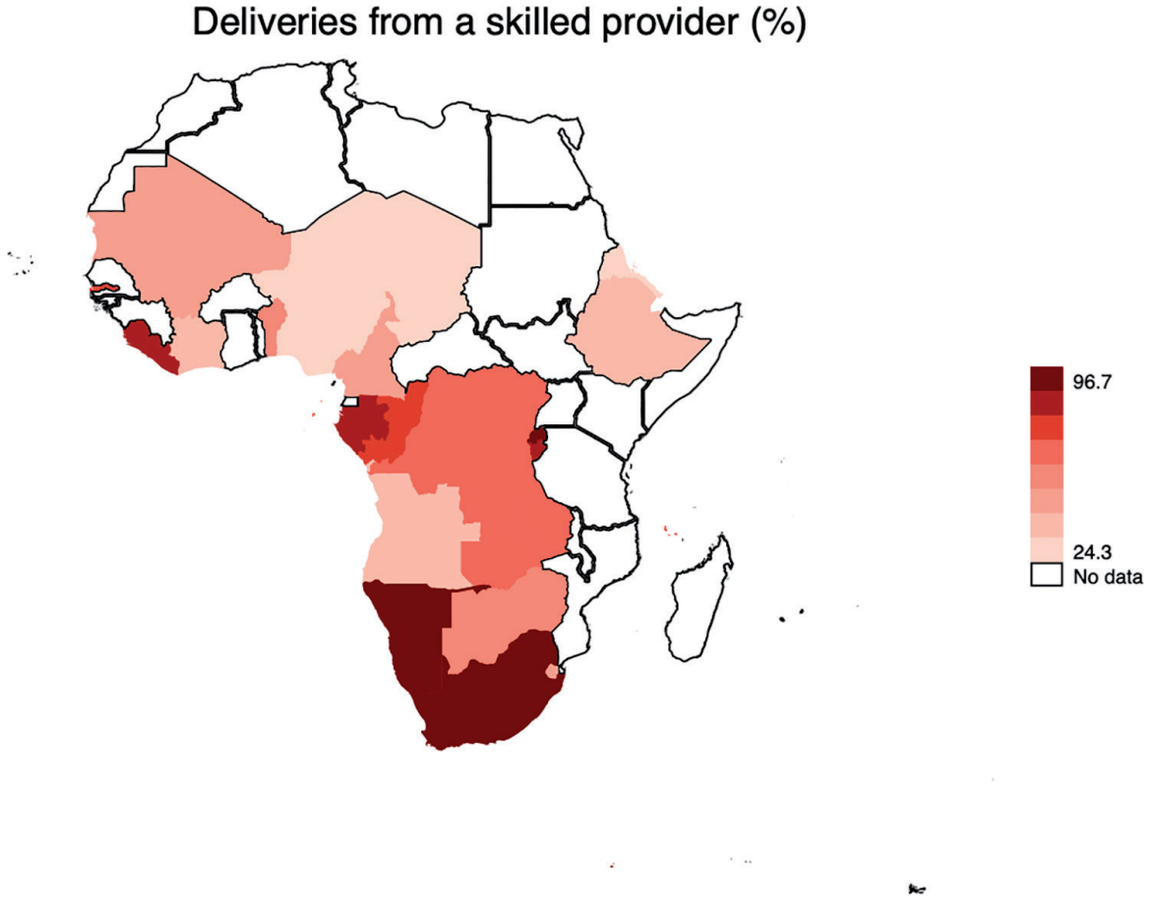

Figure 2.
Skilled birth attendance in sub-Saharan Africa.

3.3 Under-five mortality

Under-five mortality rate (U5MR), referred to as the probability to die before the fifth anniversary, is a key indicator to measure the socio-development of a country and child health [28–30]. In the last few decades, tremendous progress has been done to reduce the probability of a live birth to die before his/her fifth birthday, even though the levels of U5MR still are higher in SSA countries compared with other regions in the world. Yet, it is important to identify appropriate targets and devise effective interventions if SSA countries to reduce mortality among children under 5 years of age [28]. Again, that is where leadership comes into play because main causes of infant morbidity and mortality have been extensively studied worldwide and the region, but still progress has been very limited so for. Data from 29 countries showed that SSA countries register on average 83 deaths per 1000 live births (**Figure 3**). Alarmingly, this figure is far above the target of SDG-3.2 which aims 25 deaths per 1000 live births [31]. Furthermore, there are significant inequalities across SSA countries which need to be tackled collectively if national Governments want to reach SDG-3.2 [32]. Indeed, U5MR ranged from 41 deaths per 1000 live births in Mauritania to 158 deaths per 1000 live births in Central African Republic. Additional efforts targeting Central Africa are crucial to improve child health as shown in this chapter. A previous work showed that socioeconomic indicators are worse in Central Africa compared with other regions in the region [33]. The region has also been

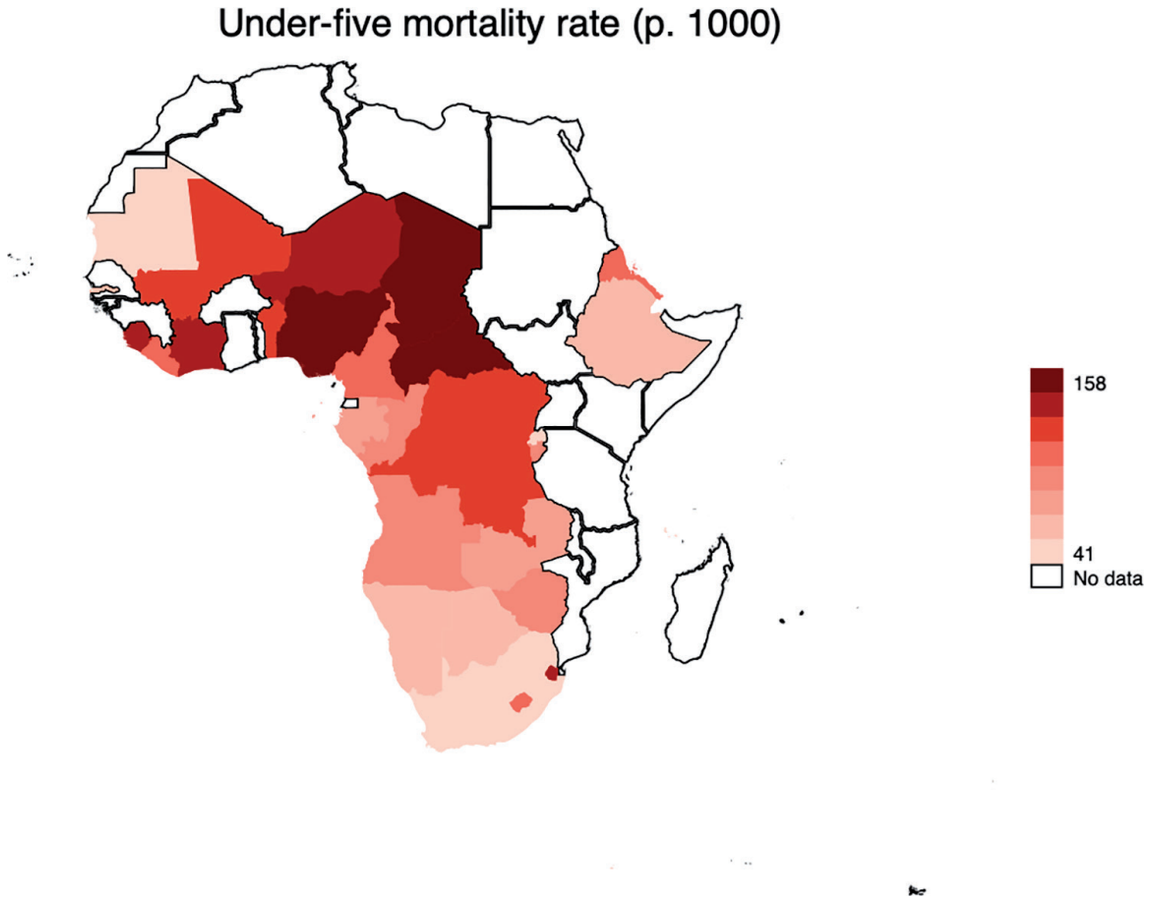

Figure 3.
Under-five mortality rate in sub-Saharan Africa.

suffering with poor leadership through dictatorship and armed conflict. For instance, the Democratic Republic of the Congo has suffered since 1965 with poor leadership, lack of transparency, corruption, among others. Likewise, Central African Republic has been very unstable and until now, the country does not have effective government due to armed conflict. Gabon, the Republic of Congo, and Cameroon have been relatively stable, but they lack clear vision and accountability, and rampant corruption is knocking the doors every time. Such context is not conducive to boost economic development, and thereafter, improve MCH in the countries.

3.4 Child health: stunting and wasting

Over the last four decades, child (mal)nutrition has crystalized interest in both scientific and policymaking spheres [34–37] for several reasons. First, child malnutrition is a major public concern in SSA countries; it represents both a cause and a manifestation of poverty. Second, poor nutrition among young children has short- and long-term consequences. For instance, child malnutrition increases the risks of morbidity from infectious diseases and mortality; it affects cognitive and mental/brain development and work productivity in adulthood. Finally, there is increasingly evidence that poor nutrition yields to poor reproductive outcomes, obesity, and chronic diseases in later life [7, 9, 34, 38–42]. At some point, one might wonder if poor brain development could explain the rampant poor leadership observed in SSA countries. First, most "leaders" come from poor households where they suffered from poor nutrition in their 1000 first days in life. Second, most people ruling did not have a chance to attend kindergarten where children are taught good behaviors in early life, such as sharing, listening, respect, love, among others. Turning back to data available on 27 countries (**Figure 4**), findings indicated that on average, 32% of children are stunted, with significant geographical variations in the region. Indeed, the percentage of children stunted varies from 16.5% in Gabon to 55.9% in Burundi. Such figures do not health in achieving SDG-3.2, since poor nutritional status among children is a major cause of morbidity and mortality. Furthermore, previous studies have documented the interlinkages between slow growth in height during childhood and impaired health, and poor school and economic performance [8, 9, 43]. With regard to wasting, findings showed that on average, 6.6% of children are affected. The lowest and highest percentage of wasted children were observed in Rwanda (1.1%) and Niger (18.0%), respectively. Like stunting, wasting during gestation and childhood has short- and long-term consequences later in life [44]. The Dutch famine of 1944 –1945 is illustrative of such chaos [45]. This study showed that exposure to famine during gestation resulted in antisocial personality and affective disorders, among others. Yet, these traits are very important to develop/foster a strong leadership. Even though people ruling developed countries are not perfect, one might admit that commitments toward public service are likely indication of social personality and affective traits, which in turn engage rulers to build their countries and treat people well somehow. In contrast, people ruling SSA countries do not feel accountable, more likely because they have antisocial personality and affective disorders, as a result of poor nutrition during pregnancy and early childhood.

Within this background showing clearly that key indicators of MCH are SSA countries is still of great concern while being a major public health issue, the region needs a significant shift through a strategic vision and leadership to devise and implement sound policies to improve MCH and therefore help SSA countries to achieve globally SDG-3.

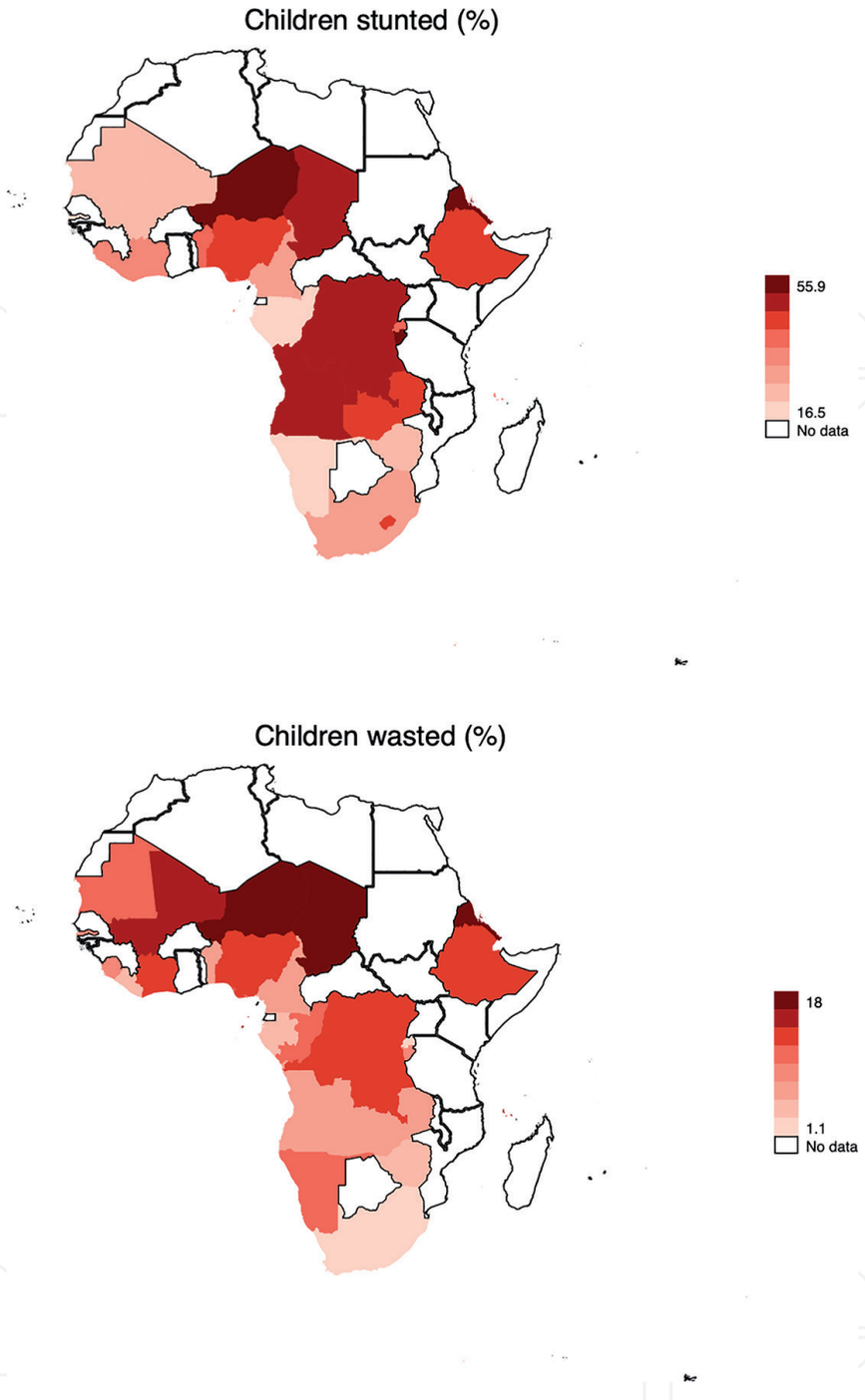

Figure 4.
Stunting and wasting among children in sub-Saharan Africa.

4. Leadership: improving maternal and child health within a new lens

As aforementioned, SSA is one of the poorest regions on the earth in spite of plenty resources in the SSA countries. That is where leadership comes into play as it is usually posited that "to great evils, great remedies." In this chapter, it is assumed that a transformational leadership is compulsory for SSA countries to achieve SDGs and substantially improve MCH in the region in the context of weak economies and heightened pressures for action, including global economic crisis and austerity

politics, demographic changes [46], and increasing inequity of maternal healthcare utilization between poor and rich [17], and amid the rampant consequences of urban poverty [16], and the unstoppable effects of COVID-19 in SSA.

Kuhlmann et al. offer an interesting perspective to further our understanding of healthcare policy and governance within an integrative approach to include, among others, policies and governance to ensure universal coverage, access to healthcare, financing, quality of care, and health equity [46]. Deepening all these areas is beyond the scope of this chapter. These notions have been extensively discussed elsewhere [47]. Furthermore, previous research clearly identified eight governance principles to account for to better activate the workplace in health sector [48]. These include information, accountability, strategic vision, transparency, efficiency, equity, responsiveness, and voice and participation. More importantly, they pointed out to leadership as a key action in Health Action Framework. Turning now on what should be the role of leadership in enhancing MCH in sub-Saharan Africa, this chapter borrows from the demographic dividend (DD) to sharpen its importance in the MCH context (see **Figure 5**).

The overarching question from **Figure 5** stems from the precedence in the "enabling environment" to more likely reach the goal of improved maternal and child health in sub-Saharan Africa, while assuming all factors (education, health, economics, and governance) are important. In a previous work, I argued that governance was the most important piece to manage if SSA countries wanted successfully to reach SDGs, and specifically SDG-3. Before expanding on the role of leadership on MCH in SSA, let us revisit what scholars have done so far regarding the role of governance on MCH.

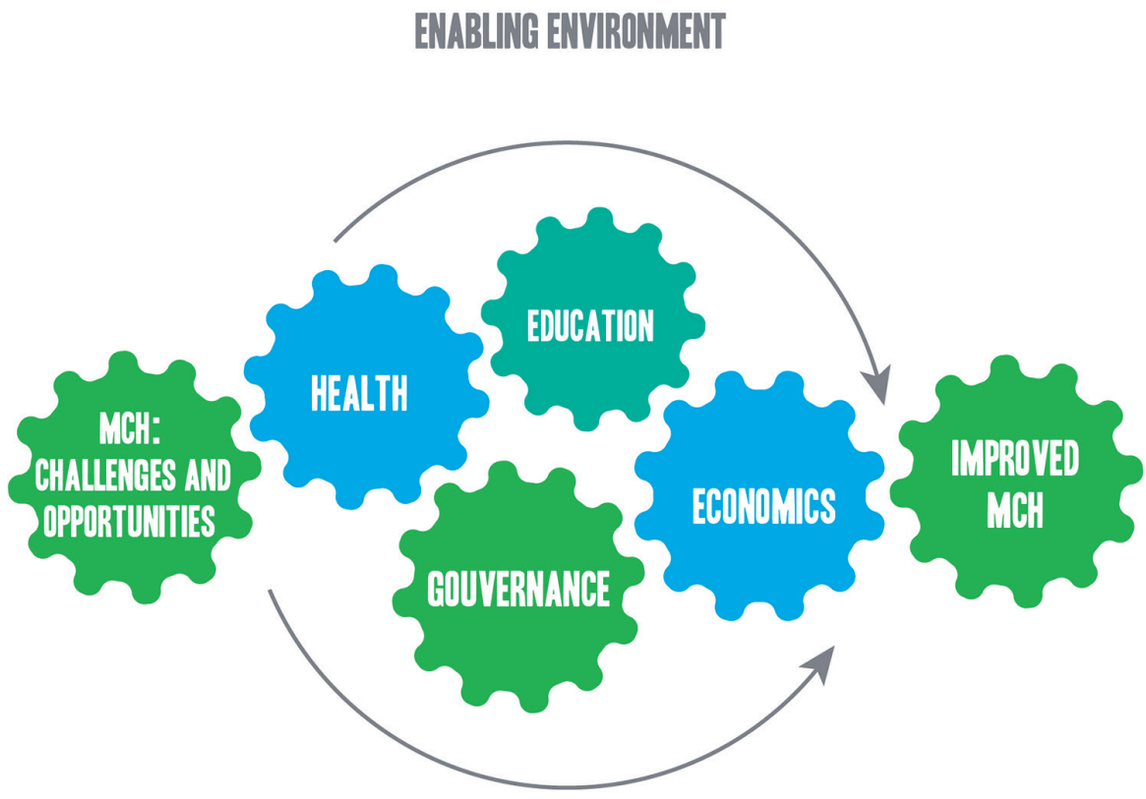

Figure 5.
Pathways to improved maternal and child outcomes in sub-Saharan Africa.

4.1 Governance and maternal and child health in sub-Saharan Africa

There are several attempts to address the importance of governance in SSA concerning challenges and opportunities to substantially improve MCH at both national, subnational, and local levels [18, 49–52]. These studies identified strengths and weaknesses. Kaplan et al. provide a good summary of strengths and weaknesses within the human resource perspective [48]. Strengths include among others, increasing transparency of financial flows and responsiveness to population needs through training of new cadres of health workers to address shortages and deliver care to more vulnerable populations and remote areas; implementing pilot programs that apply financial and nonfinancial incentives which ultimately increase efficiency; and easing onboarding process for health workers. Regarding weaknesses, most countries lack to develop, implement, and evaluate health workforce policies that outline a strategic vision, to implement accountability regulations in the health workforce, and to use health information systems to provide evidence for better decision-making. However, as shown later, most interventions to strengthening governance in healthcare have mainly focused on the use of resources. Indeed, Schneider et al. showed that initiatives to strengthen the governance of district health systems in South Africa which are pivotal to reach SDG-3 have used various methodologies [52], and therefore results are not necessarily comparable on the one hand, and on the other hand, have focused on improving the efficiency of resource use. This is likely because most SSA countries spend less moment in national budgets and mostly rely on public aid on development (PAD), with high control over resource is a requirement to benefit PAD. But overall, governance in SSA countries has been ineffective given the results obtained in terms of improving MCH in these countries. There is still then an unanswered question, why is governance so ineffective in SSA countries yet it is of crucial importance to boost MCH in this deprived region of world? This chapter addresses this question in the next section.

4.2 Leadership and maternal and child health in sub-Saharan Africa

The interlinkages between governance and leadership are important to catch up at a glance if one might understand the chief importance of leadership in shaping MCH in SSA countries. There are many reasons to seriously address the role of leadership in the context of MCH in SSA. First, and as it was shown earlier, the region is lagging very behind in terms of socioeconomic indicators. Second, the region is the most politically unstable region in the world. The recent coups in Mali, Burkina Faso, and Guinea may tell us more. Third, there are almost no indications that the region will perform well in the next few decades with the observable effects of COVID-19 placing SSA in the most vulnerable position [53, 54].

What is governance? The concept is not new and has been over decades in political and academic spheres. Governance comprises collective actions and measures adopted by a group of people to achieve common goals [55]. According to The World Bank, collective actions and measures are not an end, instead they should be guided by a number of formal and unformal rules [56]. According to Rhodes, "governance refers to: a new process of governing; or a changed condition of ordered rule; or the new method by which society is governed" [57]. In practice and for the best of people's wellbeing, the international community has introduced the concept of "good governance" as opposed to "poor governance" which is a multifaceted concept comprising eight factors, including Participation, Rule of

Law, Transparency, Responsiveness, Consensus Oriented, Equity and Inclusiveness, Effectiveness and Efficiency, and Accountability [58]. All these components are important; however, responsiveness refers to as the leadership required to boost the collective actions and measures taken by the national governments. Therefore, one might question the interlinkages between leadership and effective MCH interventions in SSA countries.

This chapter builds on a modified framework from policy interventions facilitating demographic dividend (see **Figure 5**) [59]. There have been several attempts to address the linkages between leadership and MCH; however, they have mainly focused on "lower levels" targeting professionals and cadres in health workforce [60–64]. Most studies have focused on capacity-building, development of skills to better serve more deprived segments of the population, and accountability. Although this research agenda is quite important, this chapter posits that it is not sufficient to reach SDG-3 given the results obtained during the MDG momentum. Therefore, it is of paramount importance to bring the debate at higher levels to expect a substantial shift which can really change the current situation of MCH in SSA, including the African Union (AU)'s and country's commitments to improve MCH in the region. This is not unexpectable because countries such as Thailand or Korea have shown such great successes in the past to improve population wellbeing, including maternal and child health [15, 65, 66].

4.2.1 Maternal and child health in sub-Saharan Africa: AU agenda

In 2016, the African Union (AU) discussed its heath strategy in Addis Ababa in preparation of the 2016 meeting of Ministers of Health in Geneva, Switzerland, in May 2016 [67]. In the situation analysis, one might read that the "region still faces urgent need to accelerate progress" toward (*i*) improving child health. Indeed, even though a decline of 40% in infant mortality rate (IMR) between 1990 and 2014 from 90 deaths per 1000 live births to 54 deaths per 1000 live births, there still are substantial variations across and within countries, and therefore impeding the regions to reach SDG-3. Furthermore, the region still experiences a significant percentage of unmet need for modern contraceptives estimated at 26% which has almost flattened between 1990 and 2013.

Expectedly, the AU report pointed out the path to better MCH outcomes as it indicated that top-level commitment, stewardship, accountability, and transparency in the leadership and governance within the health sector are critical to improve health in SSA countries in general, and specifically MCH. It also extended saying that SSA countries should consider instituting effective decentralization of functions, authority, and resources to improve health sector performance. However, the report is silent about the time horizon on the one hand, and on the other hand it does not provide any indication of dictatorship and centralized power in the region, and how they are detrimental to achieve good health [68]. Previous research showed that despite of some progress made in SSA countries to improve maternal healthcare utilization [17], there are increasing inequalities between poor and rich and this might impede the progress observed so far.

The report mentioned among other strategic approaches, health research, and innovation as a transformational path to health sector and the African economy as a whole by suggesting an investment of 2% of the national budget in Science and Technology between 2014 and 2024. The reality is that Research & Development still unfunded (or at least poorly funded) in most SSA countries. Most initiatives of

research funding are foreign/international, and therefore, they do not sound and sustainable research on the one hand, and on the other hand, they might overlook specific needs of SSA countries. For instance, the Innovating for Maternal and Child Health in Africa (IMCHA) Initiative aimed at improving maternal and child health in SSA countries through research and was funded by International Development Research Centre (IRDC) of Canada [69]. The project is certainly worthy since it addresses critical knowledge gaps and increases awareness among policymakers; however, it is not sufficient to provoke a significant shift in the organization of health systems in most SSA countries without enlightened leadership from national and local governments in SSA countries. First, the project was geographically unbalanced since it was led in 11 countries. Second, the project less focused on ownership of the outcomes, and it is not obvious that policymakers will use the generated knowledge to implement sound policies to improve MCH in SSA countries. Likewise, African Population and Health Research Center (APHRC) in Nairobi (Kenya), the 2015 UNFPA Population Award, has been doing since 2000s such an incredible job in generating knowledge and evidence for the African continent [70]. This organization operates through international research grants since its inception and has rarely benefited money from African governments to undertake research which African-funded, African-led research, and context-specific. Observers would ask themselves if African governments do really understand the importance of research and evidence-based policymaking. It is time to make the shift if SSA countries want to achieve SDG-3.

4.2.2 Maternal and child health in sub-Saharan Africa: country-level commitments and progress

The last section focused on the highest level of commitment, the AU agenda. The most functional level, the country level, is pivotal in implementing sound programs and policies to expect progress in MCH indicators. The section expands on the previous one and borrows main ideas from **Figure 5**. The enabling environment is critical for a country to achieve optimal maternal and child health, while significantly reducing the poor-rich inequality and eliminating urban advantage. But in this search of the "quality of MCH," what is the best enabling mechanism? Of course, education, health, economics, and governance are all important. However, to optimize the achievement of universal health coverage within the lens of MCH, national governments should decide where or what to focus on first and foremost. What need to be done to efficiently utilize resources to create good quality of MCH services? How long did it take to reach SDG-3?

These questions are complementary but even more complex. For instance, what will be the added value in terms of MCH outcomes when healthcare workforce is well trained but not well paid? Just take a minute and think about the Arab spring and all consequences of the long-term frustration in the region, which have devastated the fragile economies. There is an urgent need to critically think of the best way to articulate education and motivation in the health sector in SSA countries. Relatedly, what will happen if human resources are well trained but are employed in small jobs that do not fit their skills? It is a human being instinct to survive. If a well-trained health professional cannot find a job that really fits his/her skills, he/she will take whichever given job to survive. This impeding situation will lead to demotivation and less productivity as the individual will always be thinking of another work and will not be

creative as he/she would have been in a job-matching context. In this case, education has a less added value than in a conducive environment.

The paper posits that what happened in "Asian Tigers" to put their economies in right paths and implement sound policies that improved population wellbeing and health is a "manifestation of enlightened and strong leadership," which was able to guide public opinions and behaviors. In 2015, African Union for Population Studies (UAPS) organized its 7th Population Conference in Pretoria (South Africa) under the theme "Demographic dividend in Africa: Prospects, opportunities, and challenges" which registered a high number of papers and presentations, and interesting debate about how sub-Saharan Africa can reap demographic dividend. Dr. Prata presented a paper entitled "Access to family planning and women's health." Using a graph from a previous study to illustrate the relationship between fertility, contraception, and abortion in Korea between 1960 and 2000 [71], Dr. Prata pointed out a striking fact in her presentation to highlight the major differences between SSA countries and the Asian Tigers. The Korean experience showed that the initial stage of fertility decline was accompanied by both increases in contraception and abortion for more than 15 years. However, the difference between SSA and Korea was that Korean women had access to safe abortion, while SSA still experience unsafe and high abortion rates. This illustration symbolizes how policy decisions may have greater impact than simple vows.

Back to our question about the gradient among the enablers and put differently, while the world is vibrating at the rhythm of SDGs and demographic dividend, the paper assumes that "Governance" should be the most important pillar to drive the necessary and sufficient decisions for SSA countries to reach SDG-3. Let us use malaria as a simple case for illustration. It is well known that malaria still is one of the major causes of death in SSA account for 94% of deaths [72], and it is also well known that SSA countries have poorest MCH indicators worldwide. This endemic illness costs to Africa, the poorest continent of the planet, an amount of $US 12 billion in lost productivity and health expenditures per year [71]. It means that if SSA countries have worked together to find sustainable ways to fight malaria, they could have been able to save up to $US 12 billion to invest in other productive sectors to boost their economies and improve MCH outcomes. Likewise, better housing and investments in clean environments can mitigate the reproduction of mosquitoes in rural and urban areas and could have saved lives and money.

Both scientists and policymakers however are hiding behind the broad theme of "enabling environment" and unable to decode the black box "Enabling Environment." The terms "governance" seems vague and confusing in some sense, and it has become a condition for international aid. As seen rhetorically, it means "democracy" or "change of regime." Many SSA countries have witnessed changes of regime in the last decade; however, does it really mean "governance" or "good governance"? Admittedly, democracy and change of regime are ingredient to governance, but a transformational leadership capable to guide the countries in the right direction and responsibly address the bottlenecks impeding economic growth to improve population wellbeing is blatantly lacking in the region. SSA has experienced an average growth rate on gross domestic product (GDP); yet most of SSA countries have the lowest Human Development Index (HDI). That is what makes the difference between the Asian Tigers and SSA countries. Strong and transformational leadership in Asian Tigers had a vision and took the necessary policies to change their business models and boost economic growth. In SSA, it is intriguing that countries do not learn from

past experiences: slavery, structural adjustment programs, democratization, political instability, and so on. All those factors are key to understand SSA's history and should guide our vision for the future. The same recipes will always produce to some extent the same results. SSA countries experienced very bad results worldwide on MDGs; they will likely experience the worst results for SDGs. Therefore, SDG-3 will be a futile slogan if there is no radical political shift of leadership in SSA countries. The problem is well known: SSA is suffering from a very poor leadership without a vision of what the governments want for their countries to stand for in the next few decades. SSA countries are comparable to machines without captains. Are we going to expect miracles without a clear roadmap? Absolutely not! Therefore, it is important for SSA governments to stop and see what they are doing well, and mostly what does not help their nations. SSA countries have the potential to reap demographic dividend; however, that should be accompanied by a shift in political will leading to a strong leadership and decisions benefiting the countries.

5. Conclusion: takeaway messages about leadership and MCH in SSA countries

This chapter has stressed the well-known socioeconomic disadvantage sub-Saharan Africa (SSA) is facing adverse maternal and child health (MCH) outcomes compared to other regions of the world. Essentially, it showed that most SSA countries did not reach Millennium Development Goals (MDG)-4 and MDG-5. Also, it is very likely that SSA countries will not achieve Sustainable Development Goals (SDG)-3 based on the actual progress of most countries in the region. Given the alarming landscape of the region regarding MCH, and based on previous work, the chapter has demonstrated that leadership plays a pivotal to boost MCH outcomes in the region on the one hand and to accelerate the socioeconomic development of the region as a whole. Indeed, most SSA countries have committed in international agenda about maternal and child health, and they all have policies and programs targeting MCH outcomes. However, significant progress toward targets on SDG-3 is rare in most countries. First, data are lacking to provide them with clear evidence to devise specific programs and interventions. On this matter, data revolution in the region is compulsory. Most sources of data, mainly Demographic and Health Surveys (DHS) and Multiple Indicators Surveys (MIS) are not funded by national/local governments. Therefore, there is a lack of ownership in the region and SSA countries. Second, research funding is lacking in most SSA countries; yet it is harder to think of development with Research and Development (R&D) and Innovation. Third, the region is struggling to get enlightened leaders with a clear vision to determine where their respective countries and the region is heading in the next 10 or 20 years.

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Conflict of interest

The authors declare no conflict of interest.

A. Appendix

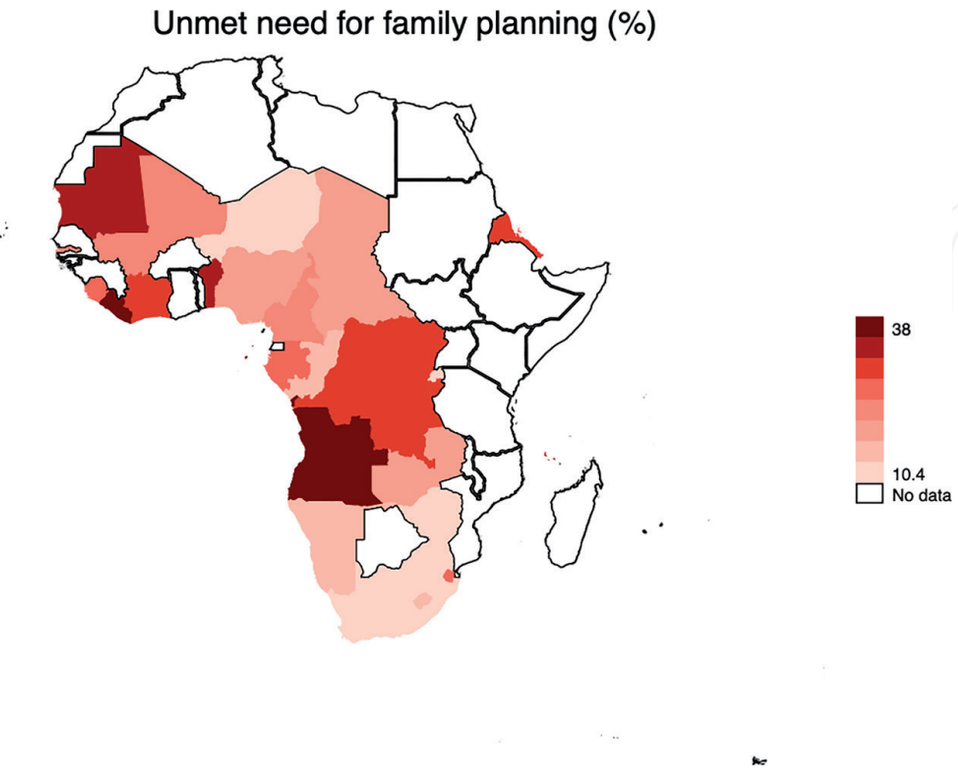

Figure A.1.
Unmet needs for family planning in sub-Saharan Africa.

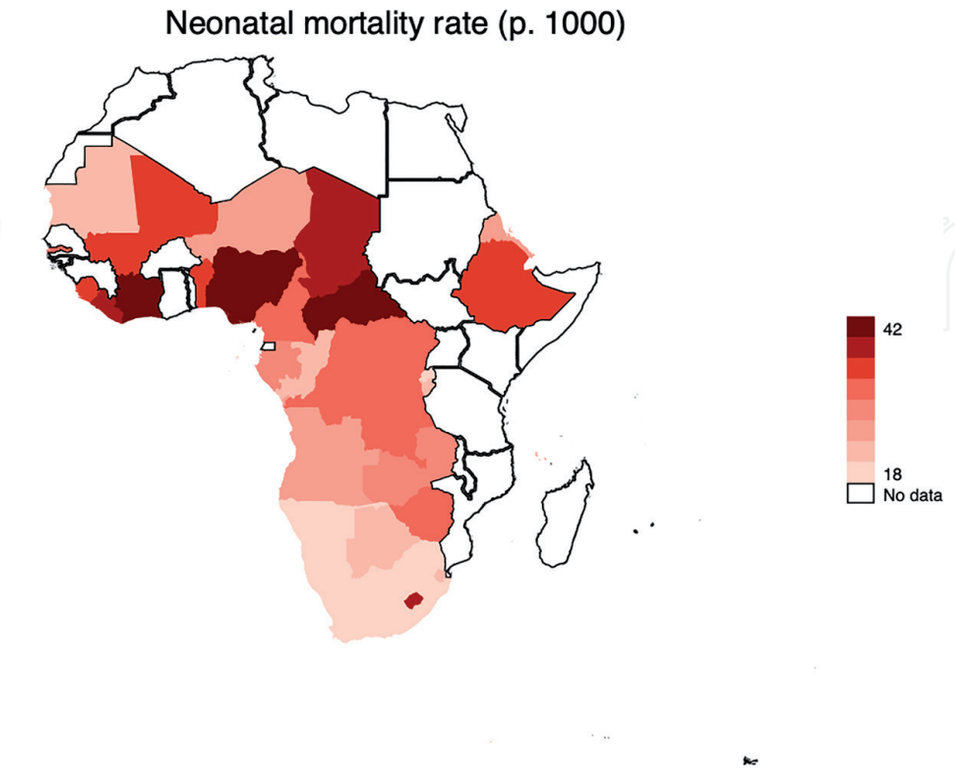

Figure A.2.
Neonatal mortality rate in sub-Saharan Africa.

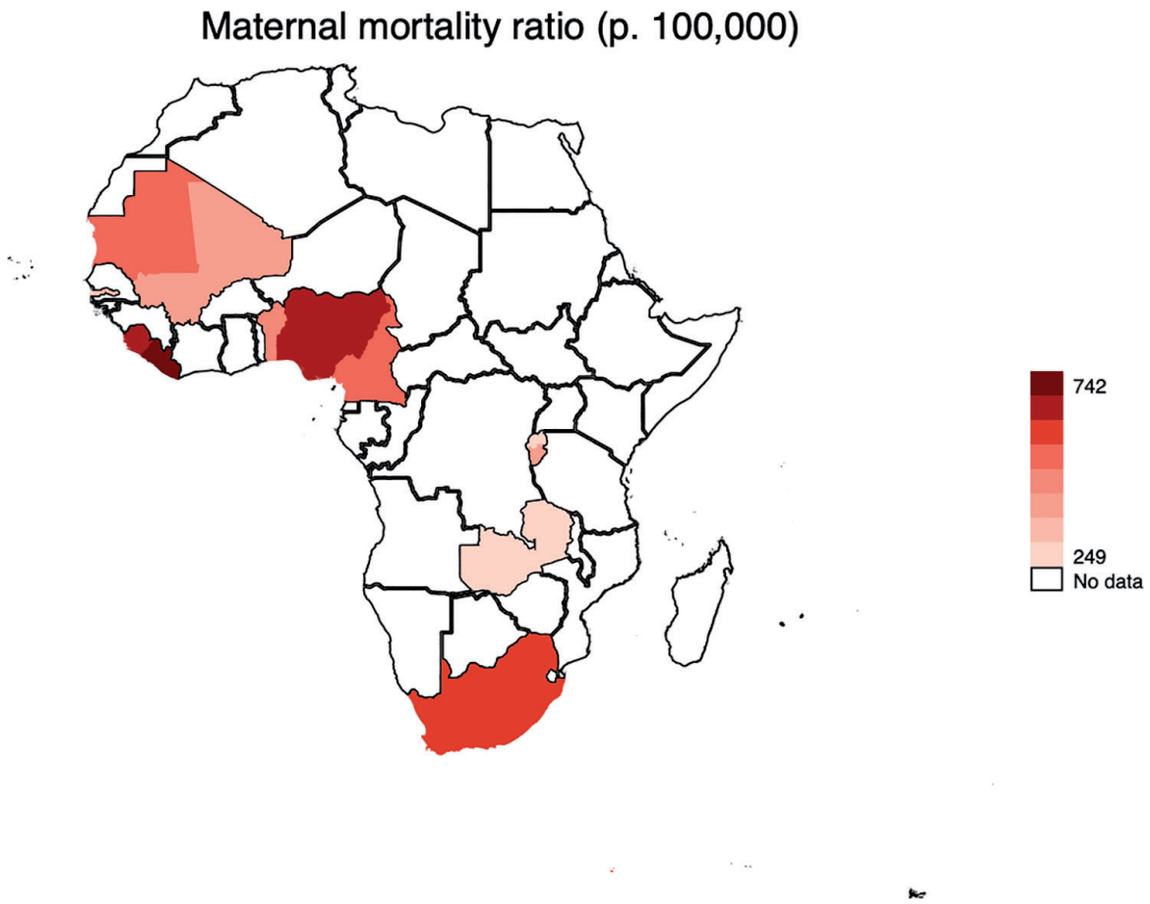

Figure A.3.
Maternal mortality rate in sub-Saharan Africa.

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