

A LOOK AT THE DEMOGRAPHIC TRANSITION PROCESS IN GUINEA-BISSAU

Angelita Alves de Carvalho¹

Vavito Andre da Costa²



Introduction

Demography has produced one of the best-documented generalizations in the social sciences: the demographic transition (Kirk 1996). According to Lee (1987), demographic theories developed as scholars sought to analyze and systematize the theoretical foundations of population science, giving special emphasis to demographic thinking. The demographic transition is one of the best-known theoretical currents in demography, which has been developed over time and marked by different contributions in the quest to understand its processes and associated factors in different regions and countries around the world.

The classic formulation of demographic transition theory, as discussed by Kirk (1996), traces back to early contributions by authors such as Warren Thompson (1929), Adolphe Landry (1934), Kingsley Davis (1945), and Frank Notestein (1945), all cited in Kirk (1996). From the 1960s onward, Ansley Coale further systematized the study of demographic transitions in European countries through a major project at Princeton University, contributing to the consolidation of what is now regarded as the classic version of the theory (Coale 1973, cited in Kirk 1996; Grupo de Foz 2021).

¹ Graduate Program in Population, Territory and Public Statistics, Escola Nacional de Ciências Estatísticas (ENCE/IBGE). Rio de Janeiro, Brazil. E-mail: Angelita.carvalho@ibge.gov.br. ORCID: <https://orcid.org/0000-0002-9342-4181>.

² Graduate Program in Population, Territory and Public Statistics, Escola Nacional de Ciências Estatísticas (ENCE/IBGE). Passo Fundo, Brazil. E-mail: vavitociso@gmail.com. ORCID: <https://orcid.org/0009-0004-2636-9938>.

According to Kirk (1996), demographic transition has been an important topic for modern demography. The demographic transition model began as a classification of populations differentiated by different combinations of fertility and mortality. Societies undergoing modernization progressed from a pre-modern regime of high fertility and mortality to a post-modern regime in which both were low. There is a classification by phases or groups. In the first phase, both fertility and mortality were at a very high rate. In the following phases, mortality began to decline, followed by a decline in fertility.

Specifically, in the sub-Saharan context, studies show that the delay was caused by severe recessions in economic development and various problems in the historical past that directly affected the demographic transition process in the region. Using data from the United Nations Population Projection, we can identify how the transition is occurring in Sub-Saharan Africa, particularly in the sub-region of West Africa, the area in which Guinea-Bissau is located. Since the 1990s, which are considered by many authors to be the beginning of the transition in this region of Africa, data on both mortality and fertility have continued to decline at a very slow pace. In West Africa in 1990, the fertility rate was 6.65 children per woman, falling to 6.04 children in 2000. In 2010, there was a further decline to 5.71 children per woman, and to 5.05 for the year 2020 (United Nations 2022). Data on mortality for the same region can be observed for the same period. In 1990, the mortality rate was 17.5 per thousand inhabitants; in 2000, it declined to 15.7‰; the downward trend continued until 2010, 12.5‰, and in 2020, the observed crude death rate (CDR) is 10.7‰ (United Nations 2022). Guinea-Bissau, which has very similar characteristics to those of other countries in the region, is believed to be following similar trends in the demographic transition process.

This research in the Guinean context is highly relevant, since there are no studies on this country that seek to demonstrate the specificities of the demographic transition in the country. This is the first study with this aim, which seeks to encourage new research and, with it, the knowledge necessary for the development of public policies directed toward various demographic phenomena in Guinea-Bissau.

Beyond filling a geographic gap, this study distinguishes itself from existing regional analyses — such as those by Tabutin and Schoumaker (2021) or the World Bank (Canning, Raja, and Yazbeck 2015) — by moving beyond the aggregate trends of Sub-Saharan Africa to isolate the unique demographic trajectory of a fragile state. While regional models often treat Guinea-Bissau as a mere data point within a broader trend, our analysis addresses the “Demographic Transition in Conflict Contexts”. By integrating historical and political

factors, such as the chronic instability and the 1998-1999 civil war (Koudawo 2001; Cardoso 1995), we explore how political shocks and governance failures have created a “stalled” or idiosyncratic transition pattern that defies the linear assumptions of classical demographic theory. This historical-political lens is the primary innovation of this work, offering a nuanced interpretation of how the state’s fragility directly impacts demographic outcomes.

The Political, Social, and Demographic Context of Guinea-Bissau

Guinea-Bissau, located on the west coast of Sub-Saharan Africa, remains one of the least studied countries from a demographic point of view, despite its geopolitical relevance. In 2023, the country had 1.78 million inhabitants (INE 2023), a GDP per capita of 556,421 FCFA, and a Human Development Index of 0.480, in addition to persistent levels of poverty affecting almost half of the population (INE 2023). Its administrative organization includes three provinces, eight regions, and the Autonomous Sector of Bissau, and its ethnic diversity is marked by the coexistence of Creole — the national language — and Portuguese — the official language.

Since democratization in the 1990s, Guinean politics has been characterized by chronic instability, multiple *coups d’état*, and successive changes of government, elements that hinder institutional consolidation and the lasting implementation of public policies (Cardoso 1995; M’bundé 2017). These contemporary weaknesses are compounded by a complex past: the territory has been inhabited by different groups since prehistoric times, integrated into African trade routes, and later colonized by Portugal in the 15th century. After a long process of resistance, the African Party for the Independence of Guinea and Cape Verde (PAIGC, from Portuguese *Partido Africano para a Independência da Guiné e Cabo Verde*) led the anti-colonial struggle that culminated in independence in 1973–1974 (Benzinho and Joana 2015).

The post-independence period was also marked by turmoil. The government of Luís Cabral faced serious economic challenges and was overthrown by a coup led by João Bernardo Vieira in 1980, which established a single-party regime until the beginning of the multiparty opening in the 1990s (Gomes 2014; Koudawo 2001). The democratic transition, however, did not reverse the cycles of instability: the civil war of 1998 and the coup of 2012 compromised governance and affected essential sectors such as health and education (Sangreman, Proença, and Martins 2016).

Public health was deeply impacted by this instability. After 1974, the creation of the primary care network and the first National Health Plan (PNS, from *Portuguese Plano Nacional de Saúde*), approved in 1993, sought to strengthen maternal and child health, family planning, and disease prevention (Guerreiro et al. 2019). However, subsequent reforms — PNDS³ I (1998), PNDS II (2003–2007), and the third PNDS (starting in 2017) — have progressed slowly due to the fragile political environment. Severe structural limitations persist: lack of energy, irregular water supply, and a shortage of qualified human resources across most units (Indi 2021). Investments in health are historically low, not exceeding 9% of the national budget and representing about 1.9% of GDP, which is lower than that of neighboring countries (Guerreiro et al. 2019). Even the Simão Mendes National Hospital faces significant difficulties in infrastructure, management, and information systems, hindering the production of reliable indicators.

The poor quality of demographic data is one of the structural challenges pointed out in the literature. Torrisi et al. (2025) demonstrate that civil registries significantly underreport deaths in Bissau, compromising mortality estimates and hindering robust analyses of demographic dynamics. Political instability, in turn, has a direct impact on mortality levels. Using indirect techniques, Fazzio, Mann, and Boone (2011) show that infant mortality remained high between 1977 and 2007, declining over time but rising again between 1997 and 2001 — a period that includes the 1998–1999 civil war. The risk of infant death varied by ethnicity: among Balanta until 2001 and Fula between 2002 and 2007, while factors such as distance to health centers and polygamy had less significant effects. The importance of ethnicity as an axis of vulnerability also appears in Balde (2019), who identifies the influence of cultural and socioeconomic factors — such as insufficient prenatal care and birth in the dry season — on the survival of children under one year of age.

The effects of instability extend to women. Kotsadam and Ostby (2019) show that conflicts and political crises have increased the mortality of women of reproductive age over the last few decades. Similarly, Damerow et al. (2024) analyze the quality of perinatal care in rural areas, identifying structural limitations that have exacerbated maternal and neonatal mortality. These findings reinforce that persistent inequalities and slow improvements in mortality levels make the demographic transition process particularly slow in the country.

3 National Health Development Plan (PNDS, from Portuguese *Plano Nacional de Desenvolvimento Sanitário*).

In this context, recent projections by African Futures (Institute for Security Studies 2023) indicate that Guinea-Bissau will maintain an extremely young age structure in the coming decades, and that the possibility of enjoying a demographic dividend will depend on expanding access to contraceptive methods and consistent advances in reproductive health. Together, these historical, political, and institutional factors shape Guinea-Bissau's demographic dynamics, influencing patterns of mortality, fertility, and the speed of demographic transition, which are discussed in more detail in the following sections.

The analysis of the demographic transition in Sub-Saharan Africa requires moving beyond classical linear models to incorporate contemporary debates on African Demographic Exceptionalism and Non-Linear Transitions. According to Bongaarts and Casterline (2013), the trajectory in the region is unique, characterized by a slower pace and occurring under distinct socioeconomic conditions compared to other global regions. This uniqueness is often marked by the phenomenon of fertility stalls — periods where the decline in birth rates stagnates or even undergoes slight reversals before resuming (Bongaarts 2008, 2017; Garenne and Joseph 2002).

Furthermore, recent literature emphasizes the “Demographic Transition in Conflict Contexts”, where chronic political instability and state fragility act as primary disruptive forces. The impact of armed conflict on demographic outcomes is multifaceted; studies on exposure to armed conflict and fertility in Sub-Saharan Africa suggest that while conflict can lead to temporary fertility declines due to displacement and economic shocks, it often results in a “catch-up” fertility or a sustained high-fertility environment as a response to high mortality risks and uncertainty. As explored in “The Political Demography of Conflict in Modern Africa” (Green 2012), the interplay between ethnic diversity, land competition, and population pressure often creates a feedback loop that fuels further instability, particularly in states with weak institutional capacity.

This theoretical framework also highlights the critical relationship between population growth, age structure, conflict, and governance in Sub-Saharan Africa. In fragile states, a youthful age structure (a “youth bulge”) combined with poor governance can exacerbate the risk of civil unrest, further stalling the demographic transition (Green 2012). Comparisons with countries such as Rwanda, Sierra Leone, and the Democratic Republic of the Congo (DRC) reinforce the thesis of non-linear transitions, where prolonged conflicts dismantle health systems and result in a stalled epidemiological

transition (Omran 2001; Kraehnert et al. 2019; Schoumaker 2019; Tabutin and Schoumaker 2021).

Methodology

This article is characterized as a descriptive quantitative study, based on the analysis of secondary empirical data to respond to the proposed objectives. Initially, a literature review was conducted, in which texts were selected that presented a historical and current overview of the social and demographic processes in Guinea-Bissau and the region. The National Research Institute of Guinea-Bissau (INEP, from Portuguese *Instituto Nacional de Estudos e Pesquisa*) is the main source of information, as it provides various collections and studies that address the social, political, and economic history of the country, as well as academic research that discusses demographic transition and local reproductive patterns.

Next, to analyze Guinea-Bissau's demographic transition, aggregate data made available on the digital platforms of the United Nations Population Fund (UNFPA) and the National Institute of Statistics of Guinea-Bissau (INE, from Portuguese *Instituto Nacional de Estatística*) were explored. While this study utilizes secondary data from the United Nations Population Division (United Nations 2022), it is essential to acknowledge the inherent limitations of demographic indicators in Guinea-Bissau, where historical political instability and resource constraints have hindered systematic data collection. Estimates of infant and adult mortality are subject to substantial underreporting due to the lack of a robust civil registration system, particularly in rural areas or during periods of conflict; thus, the trends presented here should be interpreted as conservative estimates of the actual demographic burden (Omran 2001; Tabutin and Schoumaker 2021). Furthermore, population projections remain highly sensitive to assumptions about future stability and migration, which may not fully capture potential shocks given the country's history of sudden political shifts (Koudawo 2001). This study does not perform independent statistical corrections; instead, it provides a critical interpretation of existing UN data by contextualizing these figures within Guinea-Bissau's socio-political history, aiming to understand numerical trends as indicators of a complex post-conflict reality rather than absolute certainties.

These data allowed us to present and discuss the main indicators related to general demographic transition trends and their impacts on the age structure, covering the period from 1950 to 2050. Table 1 brings together the

selected indicators such as the Crude Birth Rate (CBR), the Crude Death Rate (CDR), population growth, and Infant Mortality Rate, which are essential for identifying the stage of the country's demographic transition. In addition, sex ratio and dependency ratio indicators were used to examine changes in the age composition of the Guinean population.

Finally, population pyramids — a classic resource for interpreting the age effects of demographic transition — were also analyzed and used to visually illustrate the changes in demographic trends over the period studied.

Table 1: Presentation, definition, and data source of the main indicators used to analyze the demographic dynamics of Guinea-Bissau

Indicator	Acronym	Concept	Formula
Crude Birth Rate	CBR	Number of births per 1000 inhabitants	$\text{Births} / \text{population} \times 1000$
Crude Death Rate	CDR	Number of deaths per 1000 inhabitants	$\text{Deaths} / \text{population} \times 1000$
Total Fertility Rate	TFR	Average number of births per woman	$\sum \text{age-specific fertility rates} \times 5$
Infant Mortality Rate	IMR	Number of infant deaths under age one per 1000	$\text{Infant deaths under age one} / \text{live births} \times 1000$
Sex Ratio	SR_t	Number of men per 100 women at time t	$\text{Men}_t / \text{Women}_t \times 100$
Total Dependency Ratio	TDR	Number of Young people (aged 0-14) and Elderly people (aged 65 and over) per 100 people of Working-age (aged 15-64)	$(\text{Young} + \text{Elderly}) / \text{Working-age} \times 100$
Youth Dependency Ratio	YDR	Number of Young people (aged 0-14) per 100 people of Working-age (aged 15-64)	$\text{Young} / \text{Working-age} \times 100$
Old-age dependency ratio	ODR	Number of Elderly people (aged 65 and over) per 100 people of Working-age (aged 15-64)	$\text{Elderly} / \text{Working-age} \times 100$
Aging Index	AI	Number of Elderly people (aged 65 and over) per 100 Young people (aged 0 to 14)	$\text{Elderly} / \text{Young} \times 100$

Source: Author's elaboration (2024), based on UNFPA/UN.

Demographic Transition in Guinea-Bissau, from 1950 to 2050

Figure 1 summarizes the demographic transition process in Guinea-Bissau over a century, showing the evolution of the Crude Birth Rate, Crude Death Rate, and population growth. It's notable that mortality was already declining in 1950, albeit very slowly: the CDR remained high, at around 28 deaths per thousand inhabitants. This decline accelerated in the 1980s, when mortality reached lower levels and continued to decline until stabilizing around 2020 at about 9 deaths per thousand inhabitants.

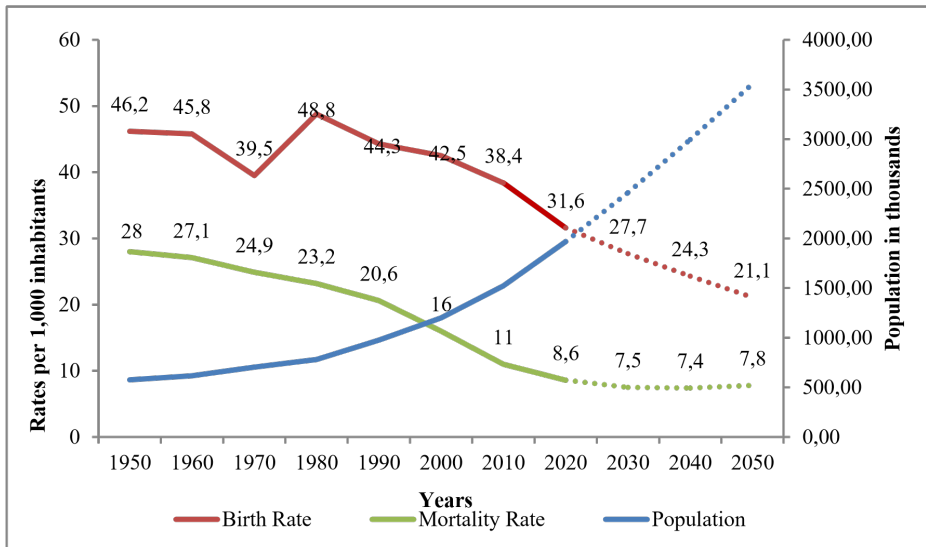
This pattern is consistent with what Omran (2001) calls the contemporary or delayed epidemiological transition model, characteristic of countries whose health modernization occurs externally and dependently. According to the author, "public health measures have been an important component, and the internationally imported and sponsored health system has played a decisive role in setting the stage for astronomical population growth in these economically deficient countries" (Omran 2001, n.p.). Thus, the health programs introduced in the country contributed decisively to reducing mortality, especially among women and children, even though infant mortality remains high and women of reproductive age continue to be exposed to higher risks than those observed among men of the same age group (Omran 2001).

While mortality declined, the CBR remained at high and relatively stable levels until the 2000s, only beginning to decline more clearly after that period. According to Figure 1, the CBR fell from values close to 40–45 per thousand inhabitants at the end of the 20th century to around 31.6 in 2020, indicating a downward trend, albeit still slow. The gap between the accelerated decline in mortality and the more gradual reduction in birth rates creates a wide gap between the curves, which in turn translates into strong population growth. This is evident in the significant increase in population, which reached around 1 million inhabitants in the 2000s and continues to expand rapidly.

The projection presented in the graph suggests that, by 2050, the CDR is expected to stabilize between 7 and 8 deaths per thousand inhabitants, while the CBR tends to continue its decline, approaching 20 per thousand. This persistent mismatch between birth and death rates results in robust population growth, with the country's population nearly doubling over the next three decades. This pattern is consistent with recent diagnoses of Guinea-Bissau's demographic future, which highlight the persistence of an extremely young age structure and the maintenance of high dependency

ratios, especially if access to contraceptive methods does not expand significantly (Institute for Security Studies 2023).

Figure 1: Data on the Demographic Transition in Guinea-Bissau from 1950 to 2050



Source: United Nations (2022); author's elaboration.

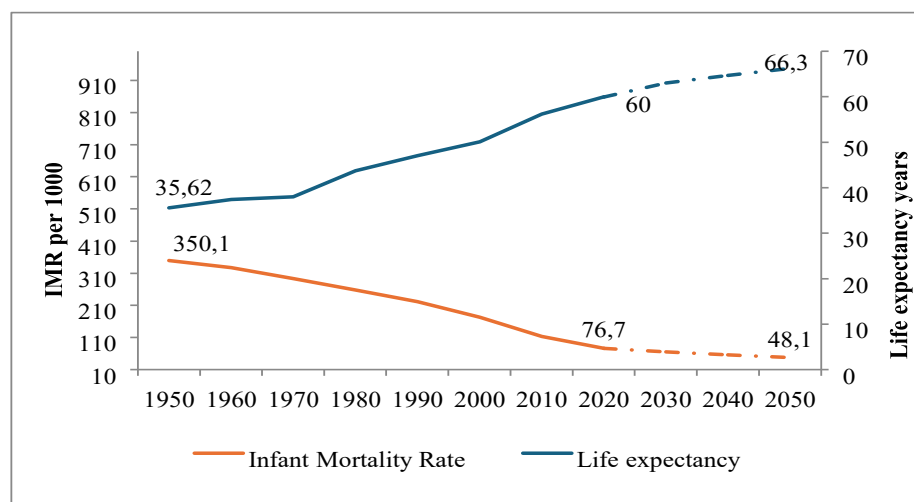
The changes observed in crude birth and death rates are directly reflected in other key indicators of demographic transition, such as life expectancy and infant mortality, as shown in Figure 2. In 1950, life expectancy in Guinea-Bissau was only 35.62 years, while infant mortality reached 350 deaths per thousand live births, levels typical of the initial epidemiological pattern, marked by infectious diseases, malnutrition, and structural limitations in health services — characteristics widely described by Omran (2001) in his epidemiological transition model.

Since the 1980s, there has been a progressive improvement in these indicators, partly associated with economic reforms, institutional reorganization, and the expansion of health services (Cardoso 1995; Guerreiro et al. 2019). In 2000, life expectancy reached 50.12 years, and this progress has continued: in 2020, it reached 60 years, with projections indicating 66.30 years in 2050.

This evolution follows trends observed in much of Sub-Saharan Africa, where the increase in life expectancy since the 1990s stems from the expansion of public health interventions, a progressive reduction in mortality from infectious diseases, and a gradual decline in infant mortality (United Nations 2022; Bongaarts 2008). Although slow, this improvement is consistent with the pattern of delayed demographic transition described for countries in the region.

Infant mortality follows a similar trajectory: its continuous reduction — reaching 77 deaths per thousand live births in 2020 — represents one of the most significant advances in Guinea-Bissau's demographic transition. Projections indicate a further decline, reaching 48 deaths per thousand in 2050. These results reflect both the process of declining fertility and gradual advances in maternal and child healthcare (Pontes et al. 2008; Guerreiro et al. 2019). In addition, regional studies show that persistently high levels of infant mortality, even when declining, are a common pattern among Sub-Saharan African countries with structural limitations such as those of Guinea-Bissau (Bloom, Canning, and Fink 2014; Sharrow et al. 2022).

Figure 2: Life Expectancy and Infant Mortality in Guinea-Bissau from 1950 to 2050



Source: United Nations (2022); author's elaboration.

Other key indicators for understanding the demographic transition are the total fertility rate, the number of women of reproductive age, and the annual total number of births, as shown in Table 2. With the progressive reduction in mortality over the last few decades, there has been a significant change in the age structure of the population, marked by an increase in the number of women between the ages of 15 and 49. This phenomenon increases the country's reproductive potential, even in a context of declining fertility — which fell from 5.9 to 4.1 children per woman between 1950 and 2020. As a direct result of this combination of a young age structure and a slow decline in fertility, the number of births increased from around 25,000 to almost 63,000 per year in the same period.

This scenario characterizes what demographers call demographic inertia, whereby population growth continues even with declining fertility and birth rates, driven by the existing age structure, in this case due to the high proportion of women of reproductive age. In Guinea-Bissau, this group accounted for 25% of the population in 2020 and is expected to reach about 30% in 2050. In addition, although fertility is expected to decline to 2.6 children per woman, it will remain above the replacement level (2.1), which explains why the country's population is expected to nearly triple over a 50-year period.

Table 2: Fertility Indicators in Guinea-Bissau, 1950-2050

Year	Population	Women Reproductive Age (in thousands)	Births per year	Total Fertility Rate
1950	543,414	137	25,147	5.9
1960	577,934	143	26,641	5.9
1970	591,663	134	23,336	6.0
1980	831,463	197	40,808	6.5
1990	973,551	215	43,465	6.5
2000	1,230,849	298	52,459	5.7
2010	1,567,221	380	60,273	5.1
2020	2,015,828	506	63,738	4.1
2030	2,484,863	655	68,811	3.4
2040	2,976,354	793	72,219	2.9
2050	3,044,529	925	72,601	2.6

Source: United Nations (2022); author's elaboration.

This behavior is in line with the pattern observed in Sub-Saharan Africa, where the fertility transition is occurring slowly compared to other regions of the world. Regional fertility fell from 6.5 children per woman in 1950–1955 to 5.4 in the mid-2000s (Canning, Raja, and Yazbeck 2015), a slower pace than that observed in regions of Asia and Latin America. Cleland and Machiyama (2017) emphasize that, due to the slowness of this process, the main demographic force in the region over the next 35 years will be the continued increase in births, driven by the growth of the adult contingent, which will outnumber the younger group.

Fertility stagnation in Sub-Saharan Africa reflects the interaction between structural constraints, reproductive preferences, and behavioral dynamics (such as education and women's autonomy); although there are no specific studies on the fertility transition in Guinea-Bissau, it is believed that this pattern follows the broader regional trends. For Garenne and Joseph (2002), this delay or stagnation in the decline in fertility is related to recurring economic crises and adverse historical conditions. Arnaldo (2013) shows that contraceptive use depends not only on women's preferences but also on access and availability, leading to higher fertility in regions with limited services. Ezeh, Mberu, and Emina (2009) highlight that changes in reproductive behavior — such as adolescent fertility, contraceptive use, and union patterns — affect fertility trends differently across contexts, explaining both stagnation (e.g., Kenya) and decline (e.g., Zimbabwe). Bongaarts (2020) further emphasizes that persistently high desired family size remains a key barrier to rapid fertility decline, even where contraceptive use has increased. Overall, fertility trends in the region are context-specific and shaped by the combined effects of access, preferences, and behavior.

Table 3 shows how this demographic transition process is taking place in Guinea-Bissau between 1950 and 2050, comparing it to Sub-Saharan Africa and the world. The evolution of national indicators closely follows the trends observed in countries in the region. In 1950, infant mortality reached 350 deaths per thousand live births. Low life expectancy (E_0)— only 35.6 years — reflected the combined impact of high infant mortality, maternal risks, and poor sanitary conditions. Fifty years later, improvements in social conditions contributed to an increase in life expectancy to around 50 years and to population growth, which reached 1,230,849 inhabitants in 2000.

Table 3: Data on the demographic transition in Guinea-Bissau compared, 1950–2050

Year	Region	CBR	CDR	TFR	E ₀	IMR
1950	Guinea-Bissau	46.2	28.0	5.9	35.6	350.0
	Sub-Saharan Africa	47.1	26.5	6.5	37.5	315.8
	World	36.8	19.5	4.9	46.5	224.0
1990	Guinea-Bissau	44.5	20.6	6.5	47.1	222.0
	Sub-Saharan Africa	44.4	16.3	6.3	49.2	181.1
	World	26.8	9.3	3.3	64.0	92.8
2000	Guinea-Bissau	42.5	16.0	5.7	50.1	173.6
	Sub-Saharan Africa	41.7	14.7	5.7	50.6	152.5
	World	21.8	8.5	2.7	66.5	75.6
2020	Guinea-Bissau	31.6	8.6	4.1	60.0	76.7
	Sub-Saharan Africa	35.0	8.9	4.7	60.3	73.9
	World	17.2	8.1	2.4	72.0	37.7
2050	Guinea-Bissau	21.1	7.8	2.6	66.3	48.0
	Sub-Saharan Africa	24.0	7.2	3.0	66.7	45.7
	World	14.0	9.4	2.2	77.3	24.1

Source: United Nations (2022); author's elaboration.

The persistence of the slow decline in fertility in the region is also discussed by Bongaarts (2017), who shows that although developing countries reduced their fertility by more than 50% between 1960 and 2010, Sub-Saharan Africa is an exception, with much slower rates, largely due to its low level of socioeconomic development. Studies such as those by Arnaldo and Cau (2013) reinforce this diagnosis, pointing out that cultural practices, such as early marriage and low contraceptive use, sustain higher fertility levels.

With regard to survival, Defo (2014) shows that global demographic and epidemiological changes between 1950 and 2010 resulted in significant gains in life expectancy, but with strong regional inequalities. While developed regions reached values above 77 years and Latin America reached 73 years, Sub-Saharan Africa remained the region with the lowest global average — about 53 years in the period 2005–2010. According to the author, these differences are related to the wars, political instability, and economic crises that

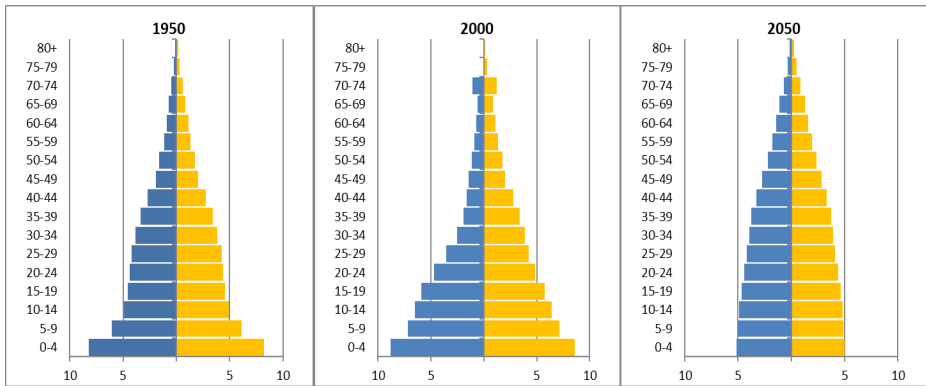
have marked the region's history over the last few decades, directly affecting the health and well-being of its populations.

These results place Guinea-Bissau in line with the regional pattern, in which advances in longevity occur slowly and discontinuously. Comparative studies show that countries such as Sierra Leone, Chad, and Mozambique have similar trajectories: life expectancy below 50 years until the early 2000s, strong influence of epidemics, civil conflicts, and fragile health systems, and only gradual advances after 2010 (Tabutin and Schoumaker 2004, 2021). These authors demonstrate that Sub-Saharan Africa as a whole has the world's latest transition in mortality, characterized by slow gains and persistent epidemiological vulnerabilities. Thus, the Guinean case is in line with the regional pattern, in which recent improvements coexist with long-standing structural challenges, resulting in a life expectancy that is increasing, but at a limited pace.

Recent changes in Guinea-Bissau's age structure clearly reflect the effects of demographic transition. Figure 3, with age pyramids for 1950, 2000, and 2050, illustrates this movement. In 1950, Guinea-Bissau's population structure was typically pre-transitional: an extremely broad base, with 16% of the population concentrated in the 0–4 age group, and a very narrow top, reflecting high mortality (28‰) and birth (46.2‰) rates. These levels are in line with the broader pattern in Sub-Saharan Africa during the same period, where colonial conflicts, poor sanitation, and epidemics kept life expectancy low (37.5 years) and infant mortality high (315‰) (United Nations 2022). In 2000, the pyramid retained its traditional shape, but with proportional increases in the youth and adult groups, indicating some progress in survival — especially among those over 60 — driven by a modest reduction in infant mortality (173‰). However, the maintenance of high fertility (5.7 children per woman) and the impacts of the 1998–1999 civil war limited more significant changes in the age structure, delaying the transition to a narrower base.

The projection for 2050 reveals a country in an advanced stage of transition: the base of the pyramid is narrowing, while the proportions of adults and older adults are increasing. The relative growth of the 5–9, 10–14, and 15–19 age groups constitutes a “youth bubble,” typical of contexts in which fertility declines but remains above the replacement level. This process marks the beginning of population aging, even in countries whose structure is still predominantly young.

Figure 3: Population Pyramids for Guinea-Bissau in 1950, 2000, and 2050



Source: United Nations (2022); author's elaboration.

The transformations observed in the age structure of Guinea-Bissau can be interpreted in light of demographic transition theory, particularly in its application to late-transition contexts. The pattern described is consistent with the shift from the pre-transitional phase to intermediate stages of the transition. In the case of Guinea-Bissau, the persistence of a wide base in the population pyramid up to 2000, even alongside gains in survival, suggests a mismatch between mortality and fertility — a central feature of late demographic transition — in which the decline in mortality has not yet been completed. Thus, the case illustrates a heterogeneous and prolonged process, shaped by institutional, cultural, and socioeconomic constraints, in which changes in the age structure reflect both improvements in survival and the persistence of high fertility levels.

These changes have a direct impact on the dependency ratio indicators (Table 4). Guinea-Bissau has historically experienced high child dependency: 66% in 1950, rising to 72.8% in 2000, despite the decline in mortality — a trend similar to that observed in several Sub-Saharan countries (Canning, Raja, and Yazbeck 2015). In 2020, the Total Dependency Ratio remained high (81.2%), reflecting a still very young population (median age of 18.8 years). Projections for 2050 indicate a reduction in total dependency (53.5%), driven by the continued decline in fertility and the expansion of the working-age population. In the case of the elderly, dependency remains low due to slow growth in life expectancy and historically high mortality rates. In 1950, the ODR was only 5.9%, increasing to 11.39% in 2000 — an increase that would have been greater had it not been for the effects of the civil war, which greatly

increased mortality, especially among men and children (Koudawo 2001; Guerreiro et al. 2019). By 2050, the ODR is projected to be 7.9%, still low but consistent with the onset of the aging process. The sex ratio (Table 4) also reflects the combined effects of mortality, fertility, and historical events. In 1950, it was 100%, possibly influenced by high maternal mortality resulting from poor sanitary conditions during the colonial period (Semedo 2021). In 2000, it fell to 94.4% due to the impact of the civil war, and is projected to rise again in 2050 (98.8%), in line with expected improvements in living and health conditions.

These changes in the age structure have direct implications for the country's potential demographic dividend. However, Sub-Saharan Africa, including Guinea-Bissau, faces major challenges in taking advantage of this opportunity: high fertility rates, slow decline in mortality, and persistent impacts of epidemics such as HIV/AIDS. In 2020, HIV prevalence was 3.8% among women and 2.2% among men, with 1,700 new cases reported and only 60% of people living with HIV were on ART (Sanca et al. 2023), factors that continue to limit mortality reduction.

Thus, although Guinea-Bissau is slowly moving toward the demographic dividend, its trajectory remains marked by a very young structure, high dependency, and a gradual — but consistent — process of fertility reduction and improved survival, similar to what is observed in several countries in Sub-Saharan Africa.

Table 4: Dependency Ratio in Guinea-Bissau (1950, 2000, 2050)

Year	TDR	YDR	ODR	SR _t	AI
1950	72.0	66.0	5.9	100.4	9.0
2000	84.2	72.8	11.4	94.4	15.7
2050	53.5	45.6	7.9	98.8	17.4

Source: United Nations (2022); author's elaboration.

The experience of several countries in Sub-Saharan Africa confirms that the demographic dividend is a real opportunity, but it requires coordinated policies to materialize it. Empirical studies show that the key determinants of this dividend include investments in maternal and child health, family planning, education, and the labor market, as well as strong economic institutions (Woldegiorgis 2023). For the author, although the demographic transition in Africa began later, there is significant potential for a first and a

second dividend as these policies are effectively implemented. Therefore, the case of Guinea-Bissau reflects this regional dilemma: there is a window of opportunity, but capturing its benefits depends on intense structural reforms before the population ages.

Conclusion

This study pioneered an analysis of the demographic transition in Guinea-Bissau, demonstrating how the historical, political, and institutional context uniquely shaped the pace of this process. Late independence in 1974 marked the beginning of transformations that resulted in a progressive reduction in mortality and an increase in life expectancy, driven by improvements in public health services. This movement translated into a consistent decline in infant mortality over recent decades and a gradual increase in longevity, although still at levels lower than those observed in other regions of the Global South. In contrast, fertility remains high, with slow and recent declines — a pattern that reflects African Demographic Exceptionalism (Bongaarts and Casterline 2013). This trajectory was profoundly impacted by critical events, such as the 1998–1999 civil war, which interrupted health advances and intensified mortality. Currently, Guinea-Bissau is in a late and stalled transition stage, defined not merely by poverty but by the persistence of state fragility that prevents a sustained and linear demographic decline.

This trajectory, however, must be read from a decolonial perspective, which recognizes that the Guinean demographic pace is not a “lag” relative to the European model, but a historical response to the ruptures imposed by colonialism and post-independence instability (Koudawo 2001; Semedo 2021). Unlike classical views of demographic transition that impose a universal linearity, Guinea-Bissau’s demography reflects a “demography of resistance”, where the maintenance of high fertility rates and mortality volatility are byproducts of a state whose institutions have been historically weakened.

The pioneering analysis of this study demonstrates that the demographic transition in the country is inseparable from its political sovereignty and is, ultimately, a “demography held hostage by politics”. In this scenario, demographic inertia and continuous population expansion occur within a framework of institutional instability. This observed “demographic inertia” is not merely a statistical phenomenon but a reflection of a people who, in the absence of solid state protection networks, resort to family survival strategies (Cardoso 1995). Therefore, capturing a future demographic dividend

(Bloom, Canning, and Fink 2014) will not come from external mechanisms, but from Guinea-Bissau's ability to decolonize its governance structures and strengthen its institutional resilience.

Furthermore, the case of Guinea-Bissau underscores the urgent need to develop theoretical frameworks within the emerging field of the "Demography of Conflict and Violence". As argued by Brunborg and Tabeau (2005), conflict should not be viewed as a mere temporary disruption of demographic trends, but as a central structural force that reshapes population dynamics through forced migration, altered fertility behaviors, and specific mortality patterns. By situating Guinea-Bissau within this field, we emphasize that demographic research in fragile states requires specialized methodologies that account for the profound impact of systemic violence on human reproduction and survival. Specifically, to overcome this stall stage, the country must strengthen its institutions and promote consistent policies that address the structural causes of high fertility and mortality volatility. This requires a decolonial lens that recognizes the agency of Guinean women and the need to transform deeply rooted gender norms that limit reproductive autonomy and female schooling. In this sense, the practical implications of this study suggest that capturing a future demographic dividend (Bloom, Canning, and Fink 2014) is intrinsically linked to the sovereignty of public health and education policies. Strengthening primary care must be accompanied by female empowerment, treating girls' education as a tool for emancipation that will naturally lead to a more organic and sustainable fertility transition. Furthermore, the integration of reproductive rights and family planning into the national health strategy is fundamental to overcoming the sociocultural barriers that keep fertility high. In summary, the consolidation of demographic transformations in Guinea-Bissau will require lasting political stability, capable of converting the potential of its youthful age structure into real development opportunities, overcoming historical cycles of fragility through resilient governance committed to the well-being of its people.

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ABSTRACT

This article analyzes the demographic transition process between 1950 and 2020, as well as future population trends of Guinea-Bissau. Specifically, it seeks to: present and discuss the country's historical, social, and political processes and their relationship with demographic transition; and estimate and understand the demographic transition model experienced by Guinea-Bissau and countries in the Sub-Saharan Africa region. Research of this nature in the Guinean context is highly relevant, as it is the first study of its kind, which aims to encourage new research and generate the knowledge necessary for the development of public policies directed toward various demographic phenomena in Guinea-Bissau. To this end, the main demographic indicators of the transition process were used, based on data obtained from the

UN Population Division. Among the main results, it is noteworthy that, in light of the theory of demographic transition, Guinea-Bissau is in a late transition process, with fertility rates of around 4.5 and mortality indicators that are still considered high. Despite this, the country appears to be following the downward trends of the indicators analyzed, similar to countries in the Sub-Saharan Africa region whose reality is similar.

KEYWORDS

Demographic transition. Population dynamics. Guinea-Bissau.

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