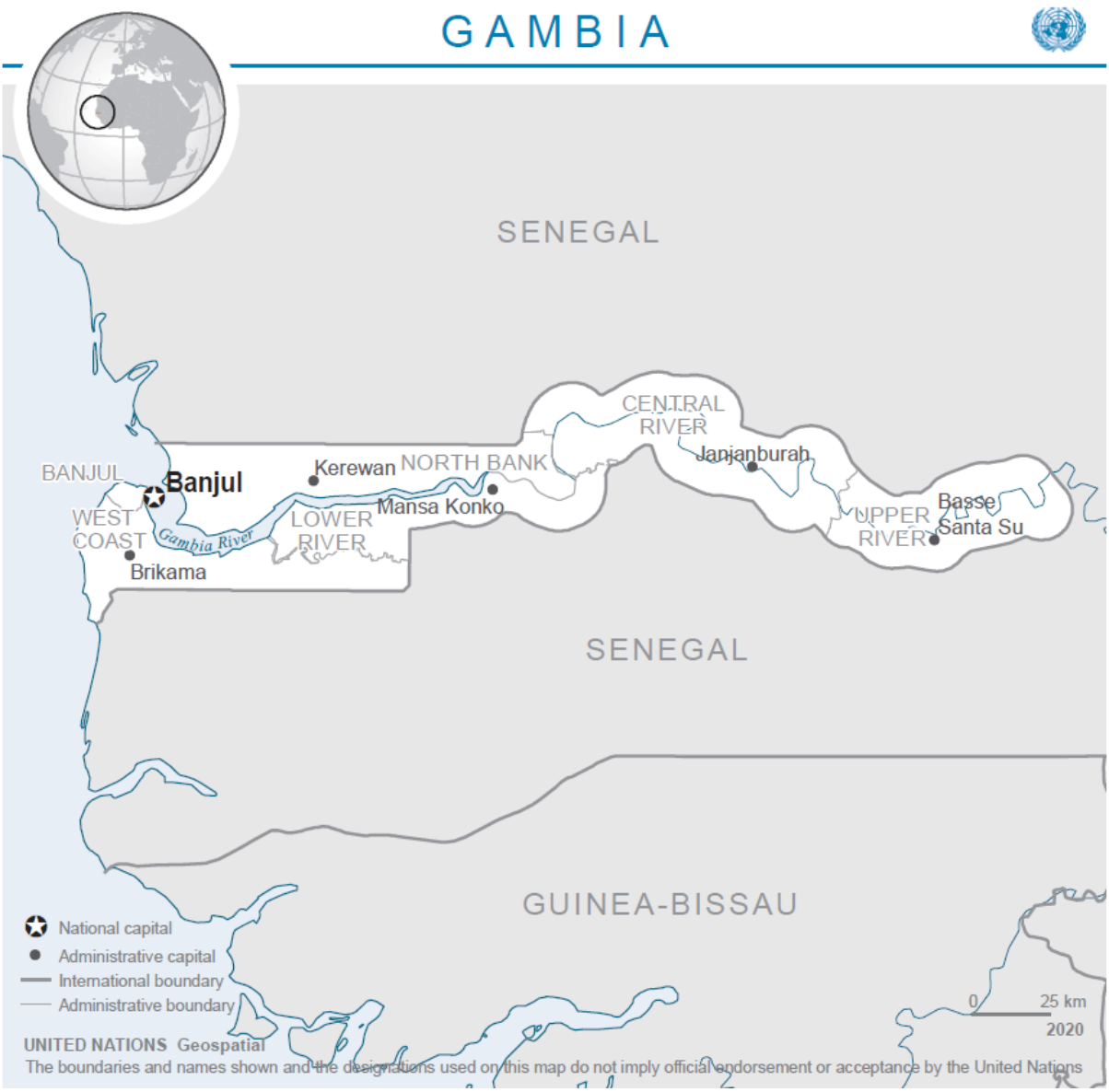
The Gambia Health System – MEDBOX Fact Sheet (Feb 2022)



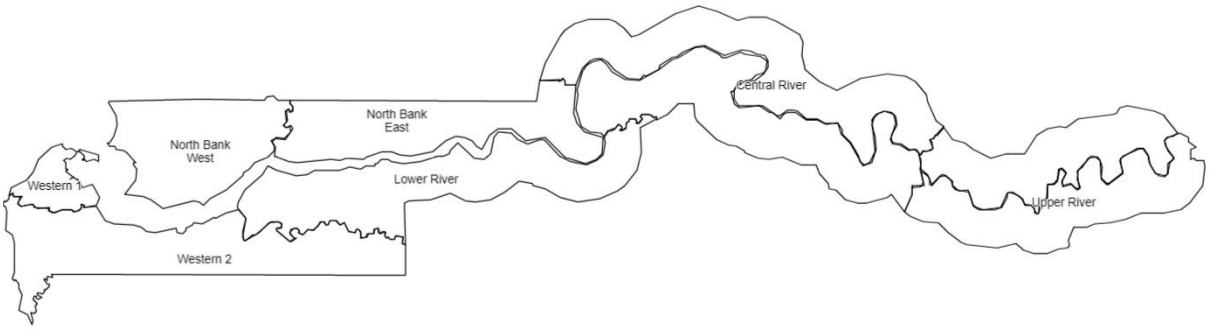
1. Context

With a population of roughly 2,3mio, The Gambia is one of Africa's most densely populated and poorest nations. The Human Development Index ranks Gambia at 0,496 (2020) in position 172 of 189 screened countries, slightly up from 0,456 (2010), but nonetheless in direct company with Sudan, Haiti, Afghanistan, or DRC.[1] The Gambia's economy has slipped over the years into poverty with almost 70% of the rural and nearly 40% of the urban population living in poverty with less than USD 1.25 daily. While tourism is dominant, farming and fishing

[1] UNDP 2020: Human Development Report, available at http://hdr.undp.org/en/countries/profiles/GMB

are mostly the source of rural economic livelihoods. Politically, The Gambia is at a transformative juncture following the 2016 change in leadership, recently consolidated in general elections held on 04 December 2021. The country is nonetheless still grappling with a myriad of development challenges, among them an insolvent economy, youth migration, high unemployment rates among the youth (40%), and negative impacts of climate change. The Gambia remains among the top 20 most vulnerable countries to climate change due to its low-lying topography, reliance on subsistence agriculture, and poor drainage systems. Rising sea levels have escalated coastal erosion, which continues to wear away the country's beaches, the main draw for tourism, contributing around 40% of the country's overall economy. However, the recent collapse of the British airliner Thomas Cook in November 2019, which was responsible for bringing in 45% of all tourists, had a substantial impact on revenues from tourism.[2] Since the COVID-19 pandemic began shortly thereafter, the thriving tourism sector has plummeted to almost zero, further contributing to economic hardship. Currently The Gambia experiences the third winter season with a sharp drop in tourism.

Picture 1: Map of The Gambia, regions.[3]



Regular droughts due to climate change combined with significant decade-long man-made forest decline leads to stretching the coping tactics of the rural population regularly.
Transparency international ranks The Gambia at 102 of 180 countries in their annual corruption index (2020), a stable position since 2016.[4]
Malnutrition in its clinically relevant forms of moderate acute malnutrition (MAM) and severe acute malnutrition (SAM) is, however, a rare sight, stunting is common with 18% of the under-5-population, down from 25% in 2013. WFP estimates that ca. 10% of the population are food insecure.[5]

[2] Reuters 2019: Gambia fears tourism crisis after Thomas Cook collapse, available at: https://african.business/2019/11/economy/thomas-cook-collapse-threatens-gambia-tourist-industry/
[3] Source: Directorate of Planning and Information, MoH, The Gambia, 2021
[4] https://news.cision.com/transparency-international/i/cpi2020-map-global-index,c2871667
[5] WFP Annual Country Report, The Gambia, 2019

1.1. The Gambia Health System

Gambia's health sector is guided by the *Gambia National Health Sector Strategic Plan* 2021-2024 (NHSSP) and more than a dozen other health policy documents, of which a significant number are going through a process of updating during 2021 and 2022.

According to the previous NHSSP 2014 - 2020, the long-term health sector objective is "the provision of adequate, effective and affordable health care for all Gambians." The overall objective for the previous plan 2014-20 was "to reduce inequalities in health care services and reverse the downward trend in health-related outcome indicators."[6]

An immediate objective for the NHSSP 2014-2020 was "to improve the administration and management of health services, provide better infrastructure for referral hospitals and health facilities and the revitalization and extension of Primary Health Care services to all communities and having a well-motivated and trained staff and establishment of efficient procurement arrangements in order to ensure effective and efficient health services for all." Activities of the old NHSSP are structured around seven service delivery outcomes and 21 systems investments.[7]

Around half of the funding for health in the Gambia stems from international donors. It is unclear if there are regular stakeholder / donor meetings.

1.1.1. Health Facilities

Gambia's Health system follows a three-tiered institutional set-up, supplemented by community-based non-stationary services. The health sector is administered through seven health regions (see picture 1). The decentralised health management of these regions is challenged by capacity and financial resource constraints. The service delivery structure is almost entirely owned and operated by the government of The Gambia, with a small private and NGO sector complementing government services. Geographic access to the service delivery infrastructure is deemed good, though there are concerns about the quality of services provided at the largely public-sector dominated facility network.

⇒ **Primary Level**

At the primary level, 634 primary healthcare village posts are clustered into circuits and services are delivered by village health workers and traditional birth attendants for settlements

[6] The Gambia National Health Sector Strategic Plan 2014-2020; https://www.moh.gov.gm/wp-content/uploads/2021/03/National-Health-Sector-Strategy-Plan-2014-2020.pdf

[7] One Health recognises the inherent linkages between the health of humans, animals and the environment, and advocates cross-sectoral collaboration to achieve a broad range of public health, food security and trade outcomes.

with 400 or more inhabitants. They are managed by village development committees. Community health nurses supervise these circuits. The village health worker (VHW) is responsible for maintaining the supply of essential medicines, providing outpatient care, making home visits and conducting outreach education. The traditional birth attendant (TBA) conducts deliveries, makes home visits and identifies and refers at-risk mothers. However, the exact number of active (and paid) personnel at the village health posts is not ascertainable.

⇒ Secondary Level – Major and Minor Health Centres

The secondary level is composed of major and minor health centres and is complemented by a limited number of private, for-profit and nongovernmental organization (NGO) outpatient facilities, the latter mostly concentrated in the greater Banjul area and West Coast regions. A complete overview of locations and services offered by the non-governmental sector is not available at MoH. Major health centres are staffed by doctors, state registered nurses, state enrolled nurses, public health officers, and other technical staff. The minor health centres have similar staff as major ones but without a doctor. According to the National Health Strategic Plan, the standard bed capacity for the major health centres ranges from 110-150 beds per 150,000 - 200,000 population; and between 20–40 beds per 15,000 population at minor health facilities.

⇒ Tertiary Level

In 2020, a total of twelve general, specialised and district hospitals are operating in the country, of which seven are located in the most densely populated coastal regions, and one district hospital lies in each of the upcountry regions (see picture 2). Of those twelve hospitals, three are private-run; one is an academic teaching hospital of the University of Gambia Medical School (Edward Francis Small Teaching Hospital, EFSTH). The private sector is still relatively small but apparently booming and seems to develop largely uncontrolled. The informal health sector (traditional medicine) is present, though no systematic information about that is available. It is safe to assume that the majority of the rural population first enters the informal / traditional health sector before approaching the institutionalised health services.

With the exception of mother and child health care all health services are user-fee based, with a graduated price for Gambians, non-residents and health insurance card holders. By and large the user fees are considered affordable for a large majority of the population.[8] User charges collected from the patients in health facilities are however not cost-covering; they don't even cover the cost of medicines, jeopardising the effects of the drug revolving fund

[8] Sine, J., P.P. Saint-Firmin, and T. Williamson. 2019. Assessment of the Health System in The Gambia: Overview, Medical Products, Health Financing, and Governance Components. Washington, DC: Palladium, Health Policy Plus

system. As the costs of essential medicines increase and as the initial donor subsidies to the Drug Revolving Fund (DRF) are phased out, the Ministry of Health is increasingly challenged to meet the actual medicine needs of the public sector.[9]

Of the nine government hospitals, only the university hospital (EFSTH) holds an intensive care unit with eight beds, translating to an estimated 0.4 ICU beds/100,000 population in the country.[10] In a comparative study of ICU beds across 54 countries in Africa, there was an average of 3.10 ICU beds per 100,000 people.[11] According to this study, the average number of ICU beds / 100.000 people in the low income group of African countries (n=24) lies at 0,53 beds, and in West Africa at an average of 1,10. During a study conducted 2018, most hospitals reported treating more than 50 critically ill patients in a month, with trauma, obstetric emergencies, hypertensive emergencies and stroke accounting for the leading causes of admission respectively.

Picture 2: Health facilities in The Gambia (incomplete overview), DoI, 2021

[9] WHO 2017: Country Cooperation Strategy Brief. available at: https://www.who.int/publications/i/item/WHO-CCU-18.02-The-Gambia

[10] Touray, Sunkaru, et al. An assessment of critical care capacity in the Gambia. Journal of critical care 47 (2018): 245-253;

[11] Craig, J., Kalanxhi, E., & Hauck, S. (2020). National estimates of critical care capacity in 54 African countries. medRxiv, available at: https://cddep.org/wp-content/uploads/2020/05/National-estimates-of-critical-care-capacity-in-54-African-countries..pdf

Picture 3: Current hospitals in the coastal region, 2021

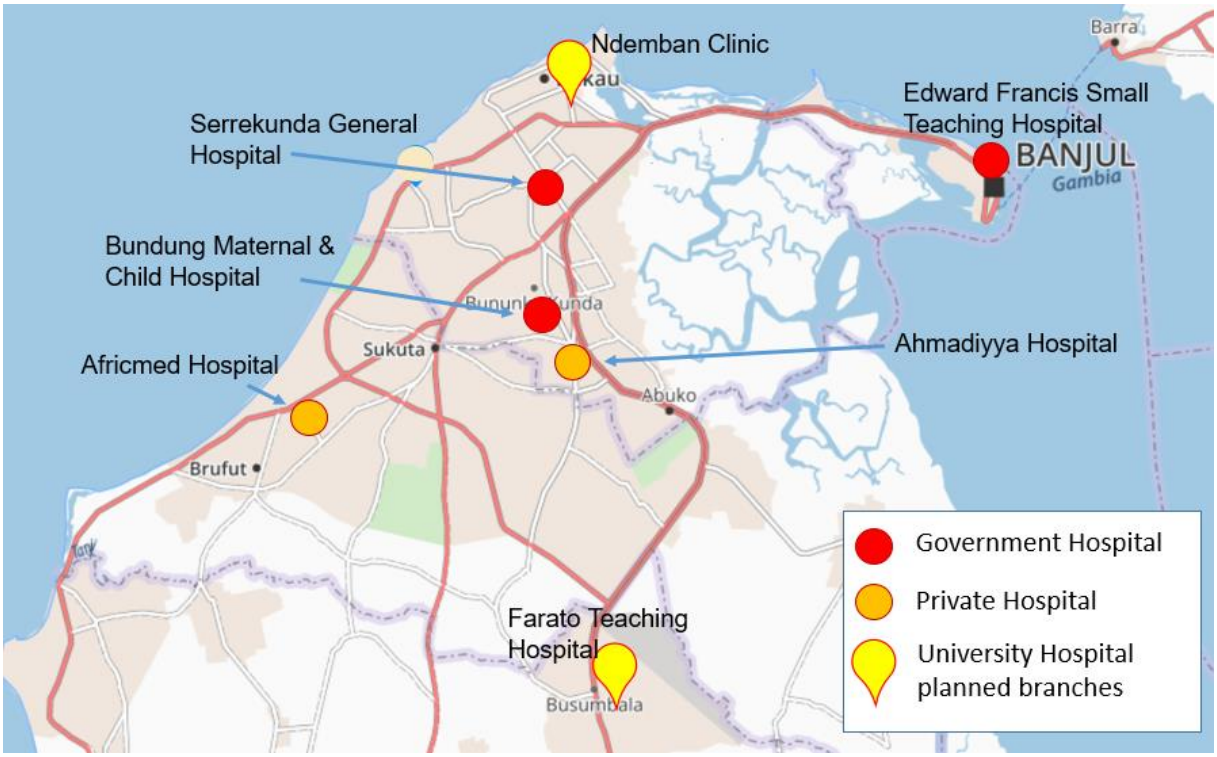


Table 1: Distribution of health facilities in The Gambia, 1997 and 2020, by region[12]

	Facility Type	1997	2020	
			Public	Private
Tertiary level	Teaching and specialty hospitals	-	2	
	General hospitals	1	2	3
	District hospitals	1	5	
Secondary level	Major health centre	7	4	36
	Minor health centre	12	49	
	Community clinic	20	60	
	Reproductive and child health centre	-	3	
Primary level	Primary healthcare village health posts	396	634	
Service clinics			11	

[12] Different sources in the The Gambia cite different figures for the number of health facilities, by type. Key informants from the MOH reported that figures from the national health management information system are not consistent with figures used by programs within MOH. This is one aspect of a broader challenge facing the MOH; discrepancies exist across many components of health information in the country.

⇒ **Public Health Services**

The MoH offers public health services around the country, attached to the decentralised primary and secondary health structures. There is no central level national public health institute

in the Gambia. However, many vertical public health programs do exist, such as the extended program for immunisation (EPI), malaria control, tuberculosis control, HIV prevention, veterinary programs, environmental health, or nutrition surveillance and food security, which are attached to MoH departments or other ministries.

1.1.2. Health Workforce

The health sector is still facing numerous challenges in terms of human resource availability in hospitals, health centres and village clinics. The WHO recommended density threshold for most health professional cadres is 2.25/1.000 population. However, none of the categories of health staff meet the required threshold value in the country. In the Gambia, the proportion of medical doctors per 10.000 population is currently at 1.04 (2011: 0,98), state registered midwives went down to 0.38/10.000 compared to 2011 with 0,85, registered nurses are at 1.58 (2011: 0,92), and community health nurse density is 0.49, down from 0,98 in 2011. The comparison of recent data from 2018 and 2021 show improvements in parts of the health professional fields (see table 2). The ratio of doctors per 100.000 population is stable since 2010 at 0,1.

Table 2: Development of health workforce in The Gambia, 2006, 2011, 2018[13] and 2021[14]

Year	Doctors	Midwives	Nurses	Pharmacy staff	Laboratory staff
2006	83	124	98	11	9
2011	175	353	565	55	140
2018	191	331	715	60	150
2021	246	420	774	106	154

In total, The Gambia has about 5.000 health personnel (WHO, 2017) of whom 84% work in the public sector. The health work force distribution has an urban bias, as 66% of personnel are located in the main urban region at the west coast. The distribution of health workers is hindered by poor infrastructure and insufficient availability of health technology for service delivery in the less well developed rural regions. Brain drain is a serious issue for the professional health care workforce.

[13] The Costed Implementation Plan for the Gambia (2019-2022), MoH, 2019

[14] Health Statistics 2021, Directorate of Planning and Information, Ministry of Health, available at: https://www.moh.gov.gm/service-statistics/

Table 3: The majority of the health workforce is located in the western coastal regions (data from 2018, selection of most common professions)

Health Region	Doctors	Midwives	Nurses	Pharmacy staff	Laboratory staff
WR1 – Western Region 1	173	115	302	24	91
WR2 – Western Region 2	7	64	85	12	17
LRR – Lower River Region	0	25	35	2	0
CRR – Central River Region	5	36	115	8	11
URR – Upper River Region	2	32	60	2	10
NBWR – North Bank Western River Region	1	29	55	1	4
NBER – North Bank Eastern Region	3	39	63	11	17
Grand Total	**191**	**331**	**715**	**60**	**150**

There is a high attrition rate of trained health staff in the country. More than 50% of those who qualified in the past ten years have left the country, including medical doctors, public health officers, state registered nurses and laboratory technicians. The Medical School produces between 30 and 40 medical doctors per year, currently with an attrition rate of 75%. It is hoped to increase retention with offering better working conditions in hospitals including advanced diagnostic facilities.

1.1.3. Key Health Indicators

Life expectancy at birth in The Gambia lies at 67,9 (females) and 63,8 (male) respectively, up from 62,5 and 57,8 in 1990. The fertility rate is at 4,1 children per woman (2017), down from 6,4 in 1990, and lies within the average of Sub-Saharan Africa. Latest data from the Gambia Demographic and Health Survey 2019/20 (DHS 2019/20) as well as data from The Lancet (2020) suggest that most key health indicators have been constantly improving (see table 4). The data were scientifically checked and proved reliable.[15] Constant investments in primary health care and curative hospital care over the past 25 years have largely improved health outcomes for the population, however, the data still remain at very high levels.

By 2015, The Gambia achieved the Millennium Development Goals for infant mortality rate, under-5 mortality rate, immunisation coverage, proportion of population using an improved drinking water source, primary schools enrolment and reduction in malaria disease burden. The maternal mortality ratio, however, remains high at 289/100.000 live births (GDHS 2019),

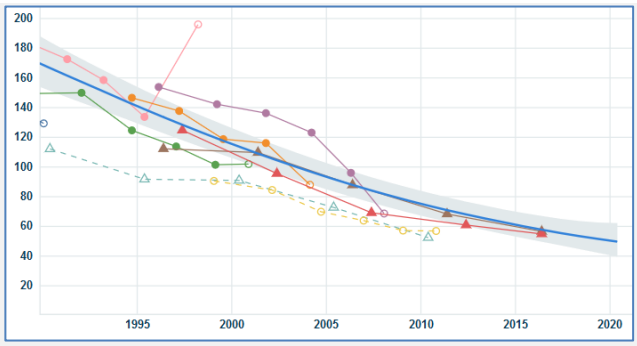
[15] Rerimoi, A. J., Jasseh, M., Agbla, S. C., Reniers, G., Roca, A., & Timæus, I. M. (2019). Under-five mortality in The Gambia: Comparison of the results of the first demographic and health survey with those from existing inquiries. *PloS one*, *14*(7), e0219919. Available at https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0219919

which still exceeds the 2015 MDG target (263/100.000) and it continues to be a major challenge for health service delivery. The neonatal mortality rate is presently at 29 deaths per 1,000 live births (2013: 54) and the perinatal mortality rate is 41 deaths per 1.000 pregnancies (GDHS 2019, as compared to 30 in 2013).

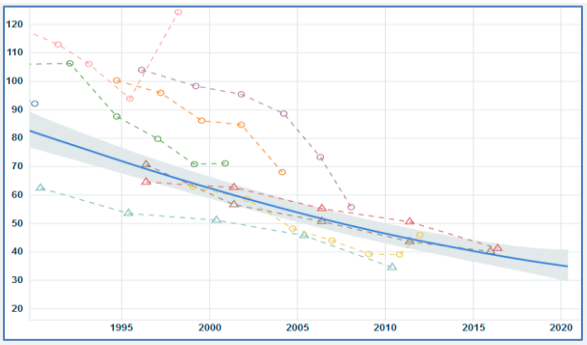
Table 4: Health statistics from The Gambia (selection from various sources)[16]

Description	Interim data		DHS 2013	MDG target	Interim data	DHS 2019/20[17]	SDG target[18]
Maternal mortality ratio (MMR) / 100.000 live births	730 (2001)		433	263	597 (2017)	289	>70
Neonatal mortality rate (NMR) / 1.000 live births			54	-	27 (2019)	29	12
Infant mortality rate (IMR) / 1.000 live births	98 (2000)	81 (2010)	34	42		42	
Under-five mortality rate (U5MR) / 1.000 live births	141 (2000)	109 (2010)	54	67,5	65 (2016)	56	25
Antenatal care coverage (ANC) (4+ visits)	97,8% (2005)		98,9%	100%		79%	
Births attended by **skilled health personnel**	56,8% (2006)		64%	63%		82,7%	
Percentage of children (12-23 months) with all essential vaccinations			76%	-		85%	
Total fertility rate (TFR)	5,35 (2003)		5,4		5,4 (2016)	4,4[19] rural: 5,9; urban: 3,9	

Graph 1: Under 5 Mortality / 1.000 live births



Graph 2: Neonatal Mortality / 1.000 live births[20]



The major causes of neonatal deaths are birth asphyxia and prematurity and the leading causes of inpatient deaths in children are pneumonia and malnutrition. To achieve the health

[16] Various sources: Gambia Demographic and Health Survey 2013 & 2019/20; UNICEF; OCHA; MICS 2010
[17] Gambia Bureau of Statistics (GBoS) and ICF, 2021. The Gambia Demographic and Health Survey 2019- 20. Banjul, The Gambia and Rockville, Maryland, USA. URL: https://dhsprogram.com/publications/publication-FR369-DHS-Final-Reports.cfm
[18] https://gambia.un.org/en/sdgs/3
[19] The TFR in The Gambia is 4.4 children per woman. Urban areas have a lower TFR (3.9) than rural areas (5.9). Source: GDHS 2019/20
[20] Source: UNICEF, https://childmortality.org/data/Gambia

related SGD by 2030, major efforts with respect to maternal and child health will have to be undertaken.

1.1.4. Epidemiology

The Gambia's epidemiological profile is in transition. Communicable diseases are still the most common cause of death, though non-communicable diseases are likely heavily under-diagnosed and underreported. Among official data, communicable diseases comprise 55% of all deaths in 2019 (2010: 60%). Tuberculosis incidence is notably declining (157/100.000 in 2020, down from 179/100.000 in 2010)[21]. Injuries increased from 6 percent to 11 percent of all deaths, an increase in the proportion of 83 percent.[22] According to WHO's estimates from 2017, NCDs and injuries account for 41% of all deaths registered in the Gambia. In adults, the leading causes of inpatient deaths are listed in table 7. Road traffic accidents and injuries rank on 11th place.

Table 7: Top causes of mortality in The Gambia (2019)[23]:

1	Ischaemic heart disease	6	Diarrhoeal diseases
2	Pneumonia / respiratory tract infections	7	Tuberculosis
3	Neonatal disorders	8	Malaria
4	HIV/AIDS	9	Lung disease
5	Stroke	10	Liver disease (cancer, cirrhosis)

1.1.5. COVID-19

Overall, the C-19 situation is difficult to assess in The Gambia due to limited data availability. The initial 2020 C-19 pandemic response by the MoH was labelled by key informants as swift and professional and numbers of infections remained comparatively low (see graph 3).[24] In terms of preparedness, awareness raising and sufficient caution within the population towards C-19 seems not to being either valued or a priority of communities, after the previous "waves" came and went comparatively unspectacular. The Gambia consists of a young population who do not have the same mortality risks of age and older person co-morbidities that C-19 brings in the West. However, C-19 variants have the potential to become more aggressive in unvaccinated populations and thrive, more than the existing variants, and pose a wider global risk. Vaccine equity and acceptance is therefore a big issue and developing new

[21] https://data.worldbank.org/indicator/SH.TBS.INCD?locations=GM

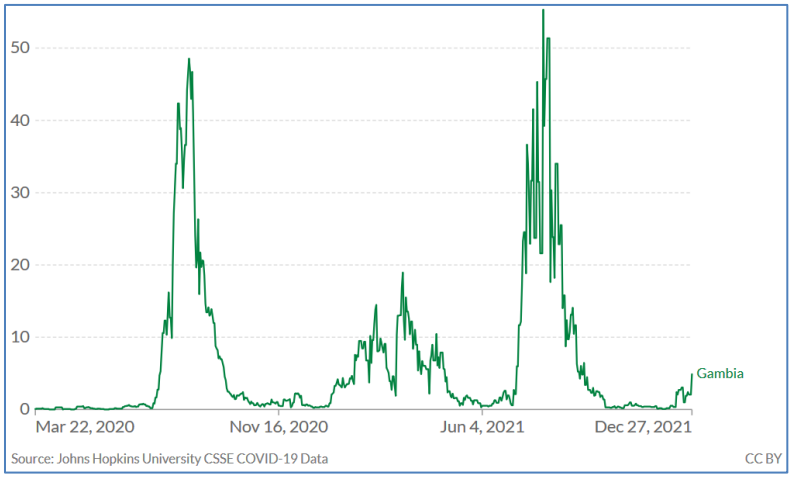
[22] Data from 2018

[23] Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet, 396, ISSUE 10258, P1204-1222, 2020. Available at: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30925-9/fulltext

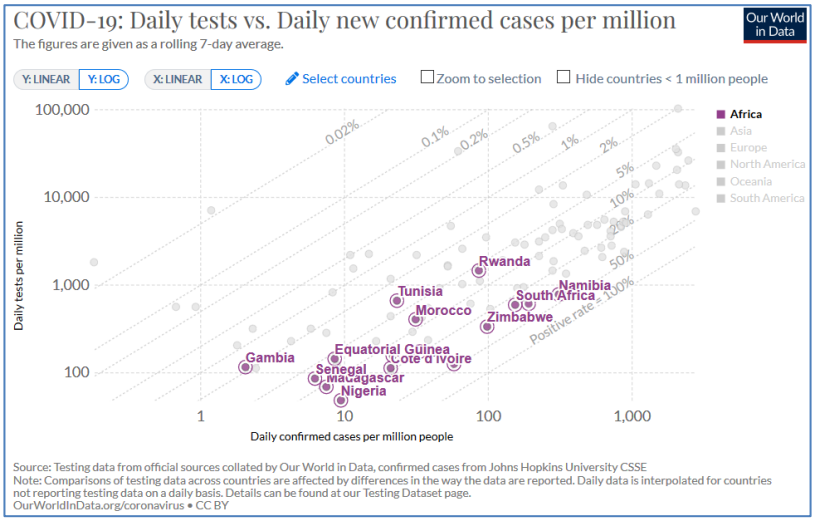
[24] Our World in Data, 27.12.2021, URL: https://ourworldindata.org/covid-cases

approaches to vaccine take up, such as door-to-door mobile vaccination campaigns and, meeting people where their understanding is and, not where we would like it to be. A strategy for C-19 isolation and treatment centres was set up at the pandemic start, but many centres especially upcountry seem hardly used. The data situation is by and large not strong to argue a link between government response and low incidence numbers.

Only few cases were detected in 2021 during the Alpha and Delta episodes, largely due to very limited test capacities (see graph 4).[25]



Graph 3: Incidence of C-19 in The Gambia (per 1.000.000 population)



Graph 4: Overview of tests/ million population, Africa

Quote as: MEDBOX (2022): The Gambia Fact Sheet. MEDBOX Original Publication. (add URL)

[25] Our World in Data, 31.12.2021, URL: https://ourworldindata.org/coronavirus-testing