



GOVERNO DA
GUINÉ-BISSAU

MINISTERIO DA DEFESA NACIONAL E DOS COMBATENTES DA LIBERDADE DA PÁTRIA
SECRETARIA DE ESTADO DOS COMBATENTES DA LIBERDADE DA PÁTRIA
CENTRO NACIONAL DE COORDENAÇÃO DA AÇÃO ANTI-MINAS (CAAMI)
GABINETE DO DIRETOR NACIONAL

Mr. Diretor
Of the Implementation Support Unit
the OTTAWA Convention

N/Refª ¹²¹-----/GND/CAAMI/2023.

Bissau, 26 April 2023

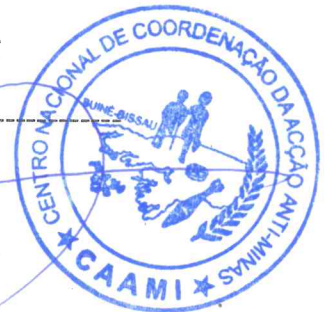
SUBJECT: Shipping note.

Excellency

The Office of the National Director of the Center for the Coordination of Mine Action (CAAMI), comes through this missive, transmitting in annex, to His Excellency, Director of the Unit to Support the Implementation of the Convention, the final version of the Article 7 Report 2022, to your knowledge.

The National Director

Nautan Mancabu



**The Convention on the Prohibition of the Use, Stockpiling,
Production and Transfer of Anti-Personnel Mines and on Their
Destruction**

Article 7 Transparency Measures

12 January 2023

State [Party]: **Republic of Guinea-Bissau**

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Updated information provided in accordance with article 7, paragraph 2 of the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction

Covering the period 1 January 2021 to 31 December 2021

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C. Anti-personnel mines retained or transferred for permitted purposes

Guinea Bissau retains nine anti-personnel mines for training purposes. These mines are retained by the Ministry of National Defense .

The details of the nine anti-personnel mines are as follows:

Type	Quantity retained	Lot numbers
PMN	6	
M409 MAP	1	
M969 MAP	2	
Total	9	

Guinea-Bissau is currently assessing the situation and verifying its inventories to report on the situation regarding retained mines.

D. Areas known or suspected to contain anti-personnel mines

In December 2012 Guinea-Bissau declared completion of mine clearance. In subsequent years, Guinea-Bissau discovered previously unknown mined areas.

Confirmed hazardous areas

Nº	Province	Community	Area (m ²)	Coordinates	Activity	Sector	Region
1	North	Encheia	600.000	Lat. 12° 39' 54,0" N Long. 014° 59' 08,5" W	Demining	Bissorã	Oio
2	North	Bricama	90.000	Lat. 12° 49' 27,8 N Long. 015° 15' 97,2" W	Demining	Farim	Oio
3	North	Cuntima	50.000	Lat. 12° 40' 12,6" N Long. 014° 58' 43,6" W	Demining	Farim	Oio
4	North	Demba Dabo	51.000	Lat. 12° 32' 09,8" N Long. 014° 08' 53,0" W	Demining	Farim	Oio
5	North	Djequemondo	15.000	Lat. 12° 22' 55,0" N Long. 16° 19' 18,2" W	Demining	S.Domin gos	Cacheu
6	North	Buruntuma	116.700	Lat. 12° 25' 39,7" N Long. 013° 38' 35,0W	Demining	Pitche	Gabú
7	South	Medjo	108.800	Lat. 11° 21' 46,3" N Long. 014° 55' 28,9" W	Demining	Quebo	Tombali
8	South	Imbai-Baila	60.000	Lat. 12° 26' 11,1" N Long. 014° 55' 11,1" W	Demining	Quebo	Tambali
9	South	Gubia	2.345	Lat. 11° 49' 30,6" N Long. 015° 35' 75,0" W	Demining	Empada	Quebo
TOTAL			1.093.840				

Suspected Hazardous Areas

Nº	Province	Community	Area (m ²)	Activity	Sector	Region
1	North	Nhane	Unkown	Survey	Bissorã	Oio
2	North	Yadur	Unkown	Survey	Bissorã	Oio
3	North	Biambe	Unkown	Survey	Bissorã	Oio
4	North	Cussaraba	Unkown	Survey	Mansaba	Oio
5	North	Gassanima	Unkown	Survey	Mansaba	Oio
6	North	Indjassane	Unkown	Survey	Mansaba	Oio
7	North	Candjambari	Unkown	Survey	Farim	Oio
8	North	Sara Mancama	Unkown	Survey	Farim	Oio
9	North	Sambuia	Unkown	Survey	Farim	Oio
10	North	Jopa	Unkown	Survey	Cacheu	Cacheu
11	North	Bipo	Unkown	Survey	Cacheu	Cacheu
12	North	Blom Antigo	Unkown	Survey	Cacheu	Cacheu
13	North	Bachil	Unkown	Survey	Cacheu	Cacheu
14	North	Banhinda	Unkown	Survey	Cacheu	Cacheu
15	North	Cobiana	Unkown	Survey	Cacheu	Cacheu
16	North	Burne Balanta	Unkown	Survey	Cacheu	Cacheu
17	North	Asselem Binhaque	Unkown	Survey	S.Domingos	Cacheu
18	North	Nhambalam	Unkown	Survey	S.Domingos	Cacheu
19	North	Djinhalcunda	Unkown	Survey	S.Domingos	Cacheu
20	North	Bigene	Unkown	Survey	Bigene	Cacheu
21	North	Matá	Unkown	Survey	Bula	Cacheu
22	East	Canbadju	Unkown	Survey	Contubuel	Bafatá
23	East	Dinguirai	Unkown	Survey	Boé	Gabú
24	East	Candjadude	Unkown	Survey	Pitche	Gabú
25	East	Sintchalale	Unkown	Survey	Pitche	Gabú
26	East	Cupe	Unkown	Survey	Pitche	Gabú
27	East	Cancalifa	Unkown	Survey	Pitche	Gabú
28	East	Benfica	Unkown	Survey	Pitche	Gabú
29	South	Barria	Unkown	Survey	Catio	Tombali
30	South	Candempa Nalu	Unkown	Survey	Cacine	Tombali
31	South	Gadamael Antiga	Unkown	Survey	Quebo	Tombali
32	South	Nhacoba	Unkown	Survey	Quebo	Tombali
33	South	Madina Curadje	Unkown	Survey	Quebo	Tombali
34	South	Cubucare de Baixo	Unkown	Survey	Bedanda	Tombali
35	South	Iemberem	Unkown	Survey	Bedanda	Tombali
36	South	Banta	Unkown	Survey	Empada	Quinará
37	South	Satecuta	Unkown	Survey	Empada	Quinará
38	South	Gã-Tande	Unkown	Survey	Empada	Quinará
39	South	Empada	Unkown	Survey	Empada	Quinará
40	South	Biangha	Unkown	Survey	Fulacunda	Quinará
41	South	Foiazinho	Unkown	Survey	Fulacunda	Quinará
42	South	Cobambol	Unkown	Survey	Fulacunda	Quinará
43	South	Bolanha Bodjol N'Casol	Unkown	Survey	Buba	Quinará

In spite of the information available, assessments of mined areas followed a systematic methodology. Available figures on contamination will therefore be adjusted in the future following the application of evidence based survey.

In addition, the analysis of hazardous areas in Guinea Bissau did not use survey techniques as recognised by IMAS. Thus, although the existence of the 9 Confirmed Hazardous Areas previously reported was confirmed through field visits, these hazardous areas demand to be resurveyed in compliance to international standards.

At present Guinea-Bissau is working on rebuilding its capacity in order to resume survey and clearance operations as soon as possible.

Information management

Although the information management -i.e., the recording, verification, analysis, visualization and archiving of structured and unstructured data- is an essential component of the Mine Action strategy, Guinea-Bissau does not have a proper information management system available and functional. However, the CAAMI sees the availability of a functional information system as a prerequisite to resume Mine Action activities, to document the land release process, to inform it based on evidence provided by historical data, as well as to monitor the progresses that will be achieved.

Guinea-Bissau is currently working on addressing this deficiency and expending resource to put in place a capacity for Information Management.

National Standards

Although the national Mine Action standards (NMAS) is another essential component of the Mine Action strategy, Guinea-Bissau does not have existing NMAS, and did not have them in place in the past. The CAAMI sees the establishment of NMAS in accordance with the international Mine Action standards (IMAS) as a second prerequisite to resume Mine Action activities, to ensure safety, quality and efficiency.

The CAAMI will name a focal point responsible for the development, application and revision of national standards in line with IMAS. A working group will be established to follow the development and review of the standards by a panel of national and international actors that would have been identified upstream. The first task of the working group will be to define the priority standards to develop in the national context and in view of IMAS, and then to plan and follow the writing, review and finalisation of the national standards for adoption by the operators.

Gender and Diversity

Guinea-Bissau will aim to promote at all stages of its programme gender and diversity inclusion.

The land release operations already will seek for enabling an environment favourable to the socio-economic development (agriculture, pasture, infrastructures) that will indirectly supporting conflict prevention and peace within the country. For that, the CAAMI will promote the integration of Mine Action issues within other development and humanitarian plans, as recommended in the Oslo Action Plan.

E. Mine Risk Education

At present, Mine Risk Education activities are not active in Guinea-Bissau. Guinea-Bissau aims to resume EORE as soon as possible in 2023 to reduce the vulnerability of the population. This is particularly important as the clearance capacity will only be available this year, in the best case. The EORE will target as priority areas the 9 communities in which the presence of hazards had been

confirmed by HUMAID, as well as in the 43 areas where there is suspicion of contamination. Community liaison activities that include EORE will also be conducted before, during and after non-technical survey, technical survey and clearance activities. Also, the EORE capacities could be increased based on the findings of the survey in locations where the contamination is confirmed or suspected.

The EORE activities will follow NMAS developed in line with the IMAS 12.10 on risk education. The CAAMI staff will receive a refresh training on that topic. EORE activities and tools will also be tailored taking into account gender and diversity aspects, as well as the at-risk groups. Data on the 1,518 recorded casualties from the independence war until 2012 indicate that victims are mostly males (without age distinction); the data on 24 victims for which the gender is known, out of the 73 recorded between 2012 and 2022, not only show that males are more affected but also that the majority are boys. For this reason, the CAAMI will undertake a study on knowledge, attitudes and practices with regards to the explosive threat to identify the at-risk groups and behaviours, the best ways to disseminate the messages in the national context. This study could also serve as a baseline to further monitor the outcomes of the EORE.

In terms of resources, the CAAMI will identify community activists from youth associations that are willing to enrol in relaying EORE messages at their community levels through door-to-door or public interventions. These activists will receive training or refresh training. First aid training will be planned as well in case an accident would happen in their vicinity. The CAAMI will take care of producing, testing, printing and disseminating the EORE IEC materials to raise awareness of the danger explosive ordnances, such as comics, school notebook, clothing, etc. The CAAMI will reactivate of a hotline which was formerly existing for the reporting of victims and explosive ordnances; this would be subject to the availability of an emergency clearance team to investigate such reports and promote further reporting by population.

H. Victim Assistance

The Government of Guinea-Bissau is committed to address the rights of mine victims in accordance with the Anti-Personnel Mine Ban Convention and the Oslo Action Plan. Following the declaration of mine clearance, however, efforts on Victim Assistance were reduced to minimal until 2019. In 2019 and in the following years, CAAMI and other relevant authorities have made efforts to make sure Guinea-Bissau will continue fulfilling its Victim Assistance obligations.

Guinea-Bissau has ratified the Convention on the Rights of Persons with Disabilities (CRPD) and has been taking steps to ensure a human-rights based approach on disabilities, that also includes mine survivors.

The COVID-19 pandemic delayed our efforts during the years 2020 and 2021, in spite of that, Guinea-Bissau carried on towards improving systems and mechanisms to make sure Victim Assistance will be provided to mine victims in the future. The following achievements and activities are reported according to the Victim Assistance commitments of the Oslo Action Plan:

a) Casualty data

Guinea-Bissau has recorded more than 1,500 casualties caused by explosive ordnance with the most recent incident recorded on 28 January 2021, when six boys were injured and two were killed in Buruntuma, in the Gabu region.

N°	Years	Women	Men	Girls	Boys	Unknown	Totals
01	06/08/2012	1	0	0	0	0	1
02	04/03/2013	0	1	0	1	0	2
03	26/04/2013	0	0	0	3	0	3
04	25/06/2013	0	1	0	5	0	6
05	12/03/2014	0	0	0	1	0	1
06	20/04/2014	0	1	0	0	0	1
07	01/05/2014	0	0	0	1	0	1
08	26/09/2014	0	0	0	1	40	40
09	20/10/2014	0	0	0	0	5	5
10	20/12/2014	0	1	0	0	1	2
11	2016	0	0	0	0	1	1
12	2021	0	0	0	0	2	2
13	28/01/2021	0	0	0	8	0	8
	Totals	1	4	0	20	49	73

The National Institute of Studies and Research (INEP) reported in 2009 that there are 13,590 persons with disabilities (0.94 percent of the population), of which 53.9 percent were identified to be men and 46.1 percent women. In spite of the information available, the prevalence of disability and the number of casualties caused by explosive ordnance in Guinea-Bissau are believed to be much higher.

b) Focal point and coordination

The National Mine Action Centre, *Centro Nacional de Coordenação de Ação Antiminas da Guiné-Bissau* (CAAMI) has a designated focal person on Victim Assistance. With the support of the focal person, CAAMI has been making effort to ensure the implementation of Victim Assistance over the past couple of years. CAAMI has been working together with relevant ministries such as the Ministry of Women, Family and Social Cohesion (MMFSS), the Ministry of Public Health (MOPH) and the Federation of Associations for the Defense and Promotion of the Rights of Persons with Disabilities of Guinea-Bissau (FADPD-GB) to integrate Victim Assistance into broader mainstream policies and programmes. Our plan is to an inter-agency coordination body – with participation relevant ministries and stakeholders to ensure systemic engagements on disabilities that is inclusive of victim assistance.

c) Implementation roadmap

Under the leadership of MMFSS Guinea-Bissau developed a five-year National Strategy for the Inclusion of Persons with Disabilities (ENPICD). The work on ENPICD had begun in 2018, and in 2021 the ENPICD was finalised.

In January 2022, CAAMI with the financial support of European Union and technical support of the Implementation Support Unit (ISU) of the AP Mine Ban Convention, and in coordination with MMFSS and MOPH organized a national dialogue that was entitled “*National Stakeholder Dialogue on Victim Assistance and Disability in Guinea-Bissau: Leaving No One Behind*” to strengthen implementation support mechanisms and tools on Victim Assistance and its integration into broader disability rights, health, education and development frameworks.

The Dialogue was attended by representatives of government, ministries, representative organisations of mine victims, persons with disabilities including men, women, boys, and girls from rural and remote areas, civil society organisations and other national and international stakeholders from the capital and provinces. One of the objectives of the Dialogue was to raise awareness on the

ENPICD, although not adopted at the time of the Dialogue but given that it is the first comprehensive national roadmap on implementation of the Convention on the Rights of Persons with Disabilities (CRPD) and integrates Victim Assistance, it was important to ensure Victim Assistance and Disability rights authorities and other partners are aware of it. The Dialogue suggested ideas for the implementation of the ENPICD.

The Dialogue also raised awareness on Victim Assistance in the context of the AP Mine Ban Convention and the Oslo Action Plan. Because of the gaps created after completion of mine clearance, it will be important to increase understandings on Victim Assistance obligations and to make sure all relevant ministries and agencies take part in enabling Guinea-Bissau to fulfil its Victim Assistance obligations and Oslo Action Plan commitments.

d) Healthcare

Guinea-Bissau's public hospitals around the country provide healthcare services to everyone including mine victims and persons with disabilities. The local and regional hospitals refer patients whose treatment are beyond their capacities, to the main hospital in the capital. There are no emergency medical care or first aid available in remote affected areas.

e) Rehabilitation

Physical rehabilitation services including prostheses, orthoses, mobility devices, physiotherapy and acupuncture are provided by the Physical Rehabilitation Centre (PRC) in Bissau. The PRC operates under the responsibility of the MOPH and until December 2021, it was directly supported by the International Committee of the Red Cross (ICRC). To ensure the interrupted continuation of the PRC, is a priority of the Government of Guinea-Bissau.

The PRC provided services persons with disabilities including mine victims in 2021. In addition, mine victims from Senegal also provided with rehabilitation services by the PRC.

The MOPH is working with WHO Guinea-Bissau to improve rehabilitation including to make sure the PRC will continue delivering services. In early 2022, at the request of MOPH, the WHO commissioned a national assessment to find out the needs, challenges, gaps and capacities and opportunities. The assessment is being completed and it is conducted by IAFO (and NGO active in Guinea-Bissau) that partners with WHO and MOPH. A national rehabilitation strategy will be developed after the completion of the assessment and the analysis of its findings.

f) Social inclusion, inclusive education

The Ministry of Education has been working, with support of NGOs such as the Humanity & Inclusion to provide inclusive education to persons with disabilities / mine survivors. The project includes capacity building of schools on inclusive education, provision of materials and awareness raising. The Ministry of Education also issued an instruction to schools to ensure persons with disabilities will be provided with free access to schools.

g) Inclusion and participation

CAAMI regularly consult the Federation of Associations for the Defense and Promotion of the Rights of Persons with Disabilities of Guinea-Bissau (FADPD-GB). FADPD-GB memberships include 17 national associations including those representing mine victims.

The national dialogue was well attended by members of FADPD-GB and other mine survivors and their family members from the capital and remote areas, including affected regions. Following the dialogue,

CAAMI has established a close contact with the participants to ensure their participation in relevant activities.

h) Challenges

The key challenges we face at CAAMI with regards to Victim Assistance implementation include:

- Limited capacity at CAAMI due to lack of financial means. We will need to boost our technical capacity to assist relevant ministries with integration of victim assistance, reporting and coordination.
- Mine action including Victim Assistance has not been a priority for the government of Guinea-Bissau after it has declared completion in 2012.
- With departure of direct assistance of the ICRC to PRC, rehabilitation services in Guinea-Bissau face a challenge. Guinea-Bissau would greatly benefit from long-term cooperation and assistance in this regard. In addition to this, the availability of services such as inclusive education, social and economic inclusion, and healthcare is scarce but information to measure the quality and extent of these services is lacking.
- Updating and verifying the data on mine victims. Until 2012 data was collected on mine victims but since then, data has been collected partially based on media reports and other accessible information. There is a need to conduct a survey in this regard.

I. Cooperation and assistance

Guinea-Bissau faces competing priorities and requires international cooperation and assistance to enable us to fulfil our mine clearance and victim assistance obligations and commitments under the Oslo Action Plan.

Guinea-Bissau still needs to secure international assistance. This is important as it will directly impact the further roll-out of activities planned for 2023 and 2024: any gap in the preparatory activities would prevent the implementation in a qualitative and efficient way. Also, the forecasted budget for 2024 is subject to adjustment in light of the results of the non-technical survey.

Budget in USD	2022	2023	2024	TOTAL 2023/24	TOTAL 2022/23/24
CAAMI general operation	142 000	412 000	228 000	640 000	782 000
Development of information management system	111 000	131 000	125 000	256 000	367 000
Development of national standards	56 000	56 000	0	56 000	112 000
National non-technical survey	185 000	800 000	185 000	985 000	1 170 000
Technical activities (NEDEX and marking)	392 000	538 000	441 000	979 000	1 371 000
Explosive ordnance risk education	82 000	227 000	205 000	432 000	514 000
Fundraising	9 000	13 000	13 000	26 000	35 000
Capacity building of CAAMI and operators	5 000	5 000	5 000	10 000	15 000
Development of a residual risk management strategy	0	5 000	5 000	10 000	10 000
SUBTOTAL	982 000	2 187 000	1 207 000	3 394 000	4 376 000
Overheads	294 000	656 000	362 000	1 018 000	1 312 000
TOTAL	1 276 000	2 843 000	1 569 000	4 412 000	5 688 000

Annex I – Key elements of Guinea-Bissau’s work plan

The CAAMI has started implementation of activities planned for 2022, subject to international financial and technical assistance.

1. Development of an information management system:

The first step will be the definition of the best system in terms of quality, efficiency, sustainability and national ownership. In addition, the CAAMI plans the development, at the early stage, of a monitoring and evaluation plan for the information system to respond to operational and strategic needs in terms of data and information. Then, the data collection forms will have to be reviewed and potentially digitalized and a database system will have to be established and further analysis and visualization tools to be developed. In addition, an effort will be carried to recover historical data as well as the verification and transfer of historical data to the new information system. The CAAMI’s and operators’ staff will be trained in using this new system.

The development of the new system will require the support of an information management international specialist, the coordination with relevant stakeholders, the supply of IT equipment, such as hardware, software, internet. The reinforcement of human resource capacities in geo-information management is sought at both CAAMI and operators’ levels. Although the development of such a system can be sequenced, it is expected that the development of a fully functional system covering all components of the Mine Action programme could take an initial 6 months. Afterwards, additional components could be added and maintenance done.

2. Development of national standards in line with IMAS:

The CAAMI will name a focal point responsible for the development, application and revision of national standards in line with IMAS. A working group will be established to follow the development and review of the standards by a panel of national and international actors that would have been identified upstream. The first task of the working group will be to define the priority standards to develop in the national context and in view of IMAS, and then to plan and follow the writing, review and finalisation of the national standards for adoption by the operators.

To undertake this work, the CAAMI will seek the support of an experienced international consultant which could provide methodological guidance and ensure a proper follow-up of the process, especially at the time period to do so is tight to produce an initial set of standards. As for information management, the development of national standards can be sequenced, starting with priority standards and furthermore enriched.

3. Preparation of the non-technical survey:

Guinea-Bissau will undertake a national survey to determine the extent and nature of the remaining contamination. This evidence-based survey will follow the NMAS developed in line with IMAS 08.10 on non-technical survey, and will include clear criteria for land cancellation. The CAAMI staff will receive a refresh training on that topic.

The process will start by an initial review relying mostly on historical data and information from key informants to get the overview of the past and current situation at the different administrative levels over the territory. Liaison will then be done with communities in an exhaustive way, and these

communities will then be visited by teams of two to three surveyors. As the teams will have direct contact with communities, EORE will be provided parallel to non-technical survey activities. Through its different stages and based on evidence, the non-technical survey will produce as outputs the list of communities not suspected of any contamination and the list of communities where the contamination is suspected or confirmed, along with the definition of Suspected Hazardous Areas (SHAs) and Confirmed Hazardous Areas (CHAs) in the IMAS. Attention will be paid to clearly documenting the survey process and evidence.

In terms of resources, the conduct of the non-technical survey will require field staff equipped with vehicles, GPS, smartphones, EORE materials and more. None of these resources are available to date; all should be supplied. The CAAMI estimates that a team of about 60 field surveyors plus their supervision staff would be required to allow the visit of the about 1,500 populated places¹ and the finalization of the national survey within one year, in 2023; this takes into account the fact that operations may be interrupted for up to 3 months during the rainy season. The CAAMI will assess the capacity of national partners in doing and supervising the non-technical survey, and would require international resources to implement the survey. An in-depth training will be provided to a community liaison team once identified.

In terms of operational deployment, the team could be subdivided into three sub-teams covering the three provinces North, South and East, although with the flexibility to work in other provinces based on priority needs.

4. Preparation for technical activities (technical survey, marking and clearance):

Guinea-Bissau will strengthen its marking and emergency clearance capacities parallel to the non-technical survey. This clearance capacity will allow demarcation and marking of the hazardous areas as a preventive measure for the safety of the population, as well as to carry out spot task clearance for an immediate removal of identified threats. Finally, if free from spot task clearance and marking, and following non-technical survey the clearance team could start the technical survey and demining activities in the nine hazardous areas confirmed by HUMAID assessments. The technical survey and clearance operations will follow the priority NMAS themselves developed in line with the IMAS 08.20 on technical survey and IMAS 09.10 on clearance. Ideally, there will be one spot task clearance team per province in support to non-technical team. The CAAMI staff will receive a refresh training on these topics.

In terms of resources, three clearance teams would be necessary, one in each of the three provinces North, South and East, in support to non-technical survey teams, and also with the flexibility to work in other provinces based on priority needs. The CAAMI will work with national operator HUMAID which has trained personnel. Some refresh training would however be necessary as they have not received refresher training in more than 10 years. Also, some additional staff will be hired and fully trained. The clearance team staff should be equipped with vehicles including ambulances, GPS, smartphones, protection / detection / marking / destruction materials, etc. If HUMAID has some equipment left from the 2000-2012 period for two clearance teams, this equipment could be obsolete and need maintenance. At its level, the CAAMI does not have this kind of technical equipment available and functional. An inventory will be conducted so as Guinea-Bissau to ensure the availability of adequate equipment.

5. Resuming EORE activities:

¹ Source : https://data.humdata.org/dataset/hotosm_gnb_populated_places

The resuming of EORE as soon as possible in 2023 is essential to reduce the vulnerability of the population. This is particularly important as the clearance capacity will only be available in 2023, in the best case. The EORE will target as priority areas the 9 communities in which the presence of hazards had been confirmed by HUMAID, as well as in the 43 areas where there is suspicion of contamination. Community liaison activities that include EORE will also be conducted before, during and after non-technical survey, technical survey and clearance activities. Also, the EORE capacities could be increased based on the findings of the survey in locations where the contamination is confirmed or suspected.

The EORE activities will follow NMAS developed in line with the IMAS 12.10 on risk education. The CAAMI staff will receive a refresh training on that topic. EORE activities and tools will also be tailored taking into account gender and diversity aspects, as well as the at-risk groups. Data on the 1,518 recorded casualties from the independence war until 2012 indicate that victims are mostly males (without age distinction); the data on 24 victims for which the gender is known, out of the 73 recorded between 2012 and 2022, not only show that males are more affected but also that the majority are boys. For this reason, the CAAMI will undertake a study on knowledge, attitudes and practices with regards to the explosive threat to identify the at-risk groups and behaviours, the best ways to disseminate the messages in the national context. This study could also serve as a baseline to further monitor the outcomes of the EORE.

In terms of resources, the CAAMI will identify community activists from youth associations that are willing to enrol in relaying EORE messages at their community levels through door-to-door or public interventions. These activists will receive training or refresh training. First aid training will be planned as well in case an accident would happen in their vicinity. The CAAMI will take care of producing, testing, printing and disseminating the EORE IEC materials to raise awareness of the danger explosive ordnances, such as comics, school notebook, clothing, etc. The CAAMI will reactivate of a hotline which was formerly existing for the reporting of victims and explosive ordnances; this would be subject to the availability of an emergency clearance team to investigate such reports and promote further reporting by population.

6. Fundraising for the period 2022/2024:

After the end of the activities in 2012 funding for Mine Action from international stakeholders ceased. In return, and although the government has since then contributed to the functioning of the CAAMI, the lack of funding for Mine Action and the nearly absence of mine action activities have negatively impacted awareness of the international communities concerning contamination issues facing Guinea-Bissau.

This situation has hampered fundraising for the implementation of intervention initially planned in the 2021 extension request. The CAAMI will undertake significant efforts to increase the government's contribution to the fulfilment of the Article 5 obligations and to attract external financing in support of its program. For that, the CAAMI has kept working with the national NGO HUMAID, has collaborated with the ISU, has requested support from INGOs, which has led to the Mine Advisory Group to initiate concrete actions in support to Guinea-Bissau through technical support and fundraising.

In line with the action #6 of the Oslo Action plan, partnership should be further developed, coordination reactivated and representation intensified in the coming months so as to raise again the attention and interest of the international community on Guinea-Bissau's mine issue. Efforts will be made to establish and strengthen standards, information management, quality management and evidence-based decisions with the aim of raising donors' confidence on the quality and efficiency of the planned intervention. In addition, the CAAMI, ISU and MAG consider leading a joint event at the

Anti-Personnel Mine Ban Convention Intersessional Meetings in June 2022 as well as at the International Meeting of Mine Action National Directors and United Nations Advisers (NDM-UN). At national level, as mentioned earlier, the CAAMI expects to reactivate the national council for humanitarian demining gathering ministries, international organisations, national and international NGOs.

Some resources are needed for Guinea-Bissau to perform its coordination and representation roles such as the development and printing of communication materials and travel-related costs within the region and internationally.

The following activities will be implemented in 2023, subject to funding 2022/2023.

7. *Implementation of the non-technical survey at national level:*
8. *Implementation of the emergency spot task clearance and marking:*
9. *Implementation of the EORE activities.*

The implementation of the Mine Action programme in 2023 is based on the assumption that partnerships are established, that all the preparatory activities planned in 2022 are funded and achieved, and that there is also funding for the planned activities in 2023.

The tasking of activities will be prioritized to reach the maximum efficiency in terms of risks, population's safety and operational efficiency. The activities should be framed by strong quality management, monitoring and evaluation, and information systems. The quality management system will rely on three main methods:

- 1) Accreditation: the CAAMI will define criteria that organizations should meet to ensure their structure, staff, systems, procedures will allow the implementation of activities in compliance with adopted NMAS.
- 2) Quality assurance: aiming at ensuring confidence that quality requirements will be fulfilled, it will consist in the inspection of the different operational components, such as procedures, equipment, qualifications, documentation, ... to confirm the compliance of organizations to the accreditation processes.
- 3) Quality control: aiming at ensuring that quality requirements have been fulfilled, it will consist notably of post-clearance inspections for demining activities.

As mentioned above, there will be three operational bases, one in each province considering the driving time between provinces and work in remote areas. The CAAMI will also require the operators to constitute their operational teams taking into consideration matters related to gender and diversity.

Until the completion of obligations under the article 5, Guinea-Bissau will report the hazardous areas and progress and challenges on land release in accordance with the article 7 obligations of the Convention.

10. Reinforcement of the capacities of the CAAMI and national operators:

Along with the training on technical aspects, the CAAMI will seek to building its capacities and those of its national partners with knowledge and skills on more transversal aspects, such as computer skills, gender and diversity, monitoring and evaluation, proposal writing, communication skills... These

training could be dispensed by international organizations and commercial companies, depending on the topic, availability, or cost of the training.

11. Definition of the residual risk management strategy:

As defined in IMAS 04.10, residual risk is “the risk remaining following the application of all reasonable effort to identify, define, and remove all presence and suspicion of explosive ordnance through non-technical survey, technical survey and/or clearance”, in the perspective of the land release process. As it is commonly agreed that all actions to reduce or mitigate the risk will rarely removes risk entirely, Guinea-Bissau will work on defining a national strategy for the residual risk management and on the strengthening of national capacities for its conduct. The reinforcement of the national capacities previously detailed will contribute to the implementation of this longer-term strategy.

The development of such a strategy would require the holding of workshop with national and international stakeholders. An action plan could be further developed based on the outputs of the workshops. The results of the national survey and subsequent clearance will also be critical to further ensure the establishment of an appropriate sustainable demining capacity to address any contamination identified following completion.

PROGRESS ACHIEVEMENTS

The activities we had planned for 2022 are being implemented thanks to the support of the ISU, MAG and GICHD, and the donors who support our programme. Guinea-Bissau held a meeting based on the individualized approach last June in Geneva, which made it possible to regenerate the interest of the international community in our country.

MAG has obtained a grant from the Ministry of Foreign Affairs of Norway and the Netherlands, and should be able to deploy its teams from the beginning of this year 2023; this support also includes strengthening CAAMI's institutional capacities and the individual capacities of its employees.

GICHD visited Guinea-Bissau in October 2022, which should lead to concrete support in the coming months.



**Ministry of Public Health
Guinea Bissau**

STARS

**Systematic Assessment of Rehabilitation Situation
and Assistive Technology**

Final Report

February 2023

Prepared for the Ministry of Public Health
with technical support from the World Health Organization and AIFO

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Acronyms

AP	Assistive Products
AT	Assistive Technology
ATA-C	Assistive Technology Capacity Assessment (WHO)
BMC	Cuban Medical Brigade in Guinea Bissau
CAAMI	National Mine Action Coordination Centre of Guinea-Bissau
CBR	Community Based Rehabilitation
CECOME	Essential Medication Purchase and Supply Centre (MOPH)
DHIS	District Health information System
FADPD-GB	Federation for Defence and Promotion of the Rights of Persons with Disabilities in GB
FMRDA	Faculty of Medicine Raul Dias Arguelles
HRG	Gabu Regional Hospital
INASA	National Institute of Public Health
INE	National Statistic Institute
MHC	National Mental Health Centre
MOPH	Ministry of Public Health
MWFSS	Ministry of Women, Family and Social Solidarity
NCD	Non-communicable diseases
NHSM	National Hospital Simao Mendes
OOP	Out-of-pocket (costs to health care)
PNDS	National Health Development Plan III (2018-2022)
PNS	National Health Policy (2017)
P&O	Prosthetics and Orthotics
PRC	National Physical Rehabilitation Centre
PT	Physical Therapy
RGA	Rehabilitation in Health Systems: Guide for Action (WHO)
RMM	Rehabilitation Maturity Model (WHO)
STARS	Systematic Assessment of Rehabilitation Situation (WHO)
TRIC	Template for Rehabilitation Information Collection (WHO)
TWG	Technical Working Group for Rehabilitation and Assistive Technology
UHC	Universal Health Coverage
UN CRPD	United Nation Convention on the Rights of Persons with Disabilities
WHO	World Health Organization
YLD	Years Lived with Disability

Executive summary

This report reflects the findings of the Systematic Assessment of the Rehabilitation Situation (STARS), conducted in the Republic of Guinea Bissau from January to June 2022, in order to increase understanding of rehabilitation in the country and to identify opportunities for actions. The Ministry of Public Health (MINSAP hereafter MOPH) led the assessment process with technical support by WHO and technical and financial assistance by the Italian Association Friends of Raoul Follereau (AIFO).

Key Findings: In Guinea Bissau, the *WHO Rehabilitation Need Estimator* finds that 350,000 people have health conditions that could benefit from rehabilitation, which means approximately 1 in 5 persons. The percentage increase in YLDs between 1990 and 2019 is 103.8% and the leading condition is low back pain with 81,000 estimated cases. Guinea Bissau's health condition categories with the most YLDs in 2019 are musculoskeletal disorders with 18k YLDs; followed by neurological disorders 7.8; sensory impairments 7.7 and mental disorders 5.4 YLDs. Health condition categories with highest prevalence cases in 2019 are musculoskeletal disorders with 200k cases, followed by sensory impairments 98k, mental disorders 44k, and neurological disorders around 37k cases. Rehabilitation sector in Guinea Bissau is under MOPH responsibility, while other ministries and relevant local and international development partners play a supportive role on specific areas. For example, an international partner NGO supports the area of early childhood developmental rehabilitation, while in Assistive Technology (AT) the Ministry of Women, Family and Social Solidarity (MWFSS) plays a leading role on policy and periodic Assistive Products (AP) distribution. Other Ministries such as Education, Public Function, and Defence, sporadically contribute along with local and international development partners to the distribution of selected AP through international donation or purchase. Though MOPH has been supporting rehabilitation for a long time, this sector in the country remained weak, particularly in terms of governance, workforce and service delivery. To some extent, rehabilitation and AT remains linked to international development partners' presence and support. However, international development support brings sustainability challenges linked to development partners' strategies, in terms of their continuity. As is the case of the ICRC that will transition out of Guinea Bissau in 2022, after having supported the national PRC in the past ten years. Since rehabilitation, along with promotion, prevention, treatment, and palliative care, is part of the essential PHC services for UHC, the MOPH is accountable for the full range of essential PHC services and is consequently accountable for rehabilitation. Indeed, the MOPH expressed clear interest in strengthening its capacities on rehabilitation and AT, with a formal request of technical support sent to WHO CO.

Priority areas of action: Governance, accountability and leadership for rehabilitation are still emerging and need further strengthening. Mechanisms for rehabilitation coordination are informal on voluntary basis and not formally established. Moreover, existing health financing mechanisms do not properly integrate rehabilitation and AP. The MOPH financing mechanism for rehabilitation is very limited, it includes only workforce salaries, no AP and, very few people are included and covered for the rehabilitation they need, contributing to high out of pocket of over 35%. There are major deficits in the rehabilitation workforce which no graduate and training courses available in the country. There is no integration of rehabilitation across other areas of health professional training. There are few rehabilitation infrastructure available at tertiary level and no rehabilitation public infrastructure at secondary and lower levels of healthcare.

There have been few population surveys on functioning and disability, standardized tools such as WHO's Model Disability Survey have not been used and information is not comprehensive. The newly adopted District Health Information System (DHIS2 platform) does not integrate data relevant to rehabilitation availability, utilization, outcome and quality. Data available at facility level are not utilized for rehab policy and programme planning and, there is no evidence on specific funding for research on rehabilitation. Services are concentrated in the Physical Rehabilitation Centre (PRC) with very few other facilities, their availability outside Bissau is limited and rehabilitation is not integrated in most secondary level hospitals nor in primary healthcare (PHC) centres. Rehabilitation is not integrated within the different medical and surgical care areas, and number and range of professional specialization across different areas is quite

limited. AP provision is mainly for mobility, a priority AP list is not available and the PRC is the only site to provide AP related services (fitting, user training etc.). While some quality standards are adopted at facility level, national clinical practice guidelines for rehabilitation are not available. Several population groups have very limited or no service coverage for their rehabilitation needs at all.

Recommendations: Based on the systematic assessment findings, the following recommendations are suggested. These represent the starting points to discuss in the next phase of strategic planning in order to strengthening rehabilitation and AT in Guinea Bissau.

1. To integrate rehabilitation into MOPH priorities and strengthening rehabilitation planning and coordination at national level.

Develop a rehabilitation strategic plan, establish a monitor evaluation and review framework, and proceed to the implementation phase using the WHO Rehabilitation in health Systems: Guide for Action. Consider establishing a Rehabilitation and Assistive Technology Unit at the MOPH with defined roles and responsibilities to strength governance, accountability, and leadership.

Establish coordination mechanisms for rehabilitation and AT and support the integration of rehabilitation across relevant health and social sector planning. Formalize the national Technical Working Group for Rehabilitation and AT to assist MOPH to identify priorities, provide input and feedback, and support all strategic planning and implementation phases.

2. Increase government investment on rehabilitation, integrating rehabilitation and AT within existing health financing mechanisms and, allocate specific budget to rehabilitation and AP.

Increase government financing for rehabilitation and AT sector, with particular focus on rehab workforce (e.g., support training and establish rehabilitation job posts), AP procurement and provision of services, and invest in rehabilitation infrastructure at different levels. Establish a budget for rehabilitation and AT integrated into wider national health financing plans and ensure definition of inclusive criteria for enrolment and services coverage by the National Institute Social Security.

3. Develop rehabilitation workforce for different rehabilitation areas and at different levels, training and retaining rehabilitation personnel, and training existing health workers on rehabilitation.

Develop a workforce plan for rehabilitation and AT based on country rehabilitation needs and geographic areas where population in need lives; and integrate the plan in wider health workforce planning.

Ensure a wider range of rehabilitation personnel is available in government tertiary facilities; include rehab personnel in government regional hospitals and, training existing health workers in rehabilitation for PHC level. Integrate rehabilitation and AT modules in the training curricula for medical doctors and nurses trained in the Faculty of Medicine “Raul Dias Arguelles”.

Develop training curricula for priority rehabilitation cadres at different levels using the WHO Rehabilitation Competency Framework; start courses for graduate and upgrading training involving Cuban brigade, the Faculty of Medicine and the INASA School of Public Health (ENS). Identify and adopt appropriate incentivizing mechanisms (social, fiscal, professional), to retain the workforce trained.

4. Integrate rehabilitation into existing health information system, strengthening collection and reporting mechanisms.

Integrate and adapt the WHO DHIS rehabilitation package into the District Health Information System - 2 (DHIS 2) platform, for managers and planners enter and follow up rehabilitation data regarding accessibility, availability, human resources, quality, and service outcome.

Establish a routine reporting procedure on rehabilitation and AP, generating an annual report, and making sure the MOPH and other line Ministries utilize the report for programme and policy planning.

Ensure funding, partnership, and international collaborations to support conduction of relevant research that can inform future rehabilitation service planning.

5. Sustain rehabilitation services at tertiary level, including development of the country priority AP list, and the related procurement system.

Expand financial support to sustain tertiary level rehab services, considering the lower support from international development partners expected for 2023. Increase number and range of rehabilitation professions according to rehab needs (stroke, CP...) and integrate rehabilitation within the different medical and surgical care areas at the National Hospital Simao Mendes (NHSM). Ensure adequate infrastructure, maintenances, equipment for rehabilitation and raw materials/components for AP production, provision and related services (NHSM RU and PRC).

Develop a national priority assistive product list for the different areas (mobility, vision, hearing etc.) based on the WHO Priority Assistive Product List. Integrate and coordinate AP funds through health and social financing schemes. Establish a central AP procurement system within MOPH (CECOME?). For PRC raw materials procurement, consider the technology shift from direct manufacture to assembling system.

6. Develop rehabilitation capacity at secondary level regional hospitals and in selected PHC centres.

Invest in rehabilitation services into regional hospitals, integrating rehabilitation in different areas/wards and training selected existing health workers in rehabilitation. Set up basic rehabilitation units for a priority set of conditions in the regional hospital, including new posts for rehab professionals (considering MSK most prevalent conditions, at least one PT/unit). Whereas professional are not available, at short term consider task sharing approaches with existing health personnel.

Introduce a set of basic rehabilitation interventions for priority conditions within existing essential service package provided in selected PHC centres. Utilize the WHO Basic Rehabilitation Package - Clinical Resource and consider task-sharing approaches with existing PHC personnel. Improve the referral system, adopting diversified procedures for users' referral pathways (H. centre to regional or national level and vice versa), according to the cases severity/complexity and to the acute/chronic health condition phase.

1. Background and methodology

This report reflects the findings of the Systematic Assessment of the Rehabilitation Situation (STARS) conducted in the Republic of Guinea Bissau from January to June 2022, in order to increase understanding of rehabilitation in the country and to identify opportunities for actions. The Ministry of Public Health (MINSAP hereafter MOPH) led the assessment process with technical support by WHO and technical and financial assistance by the Italian Association Friends of Raoul Follereau (AIFO).

Globally there is a substantial need for rehabilitation services due to the ageing population and growing prevalence of non-communicable diseases. According to the first study aimed to produce a global estimate of the need for rehabilitation, approximately one in three people (2.4 Billions), experience a health condition over the course of their life that would benefit from rehabilitation. Based on the Global Burden of Disease 2019, the systematic analysis estimated a **69.4%** increase in years lived with disability (YLD) between 1990 and 2019. Musculoskeletal disorders and sensory impairments represent globally the most prevalent conditions categories that would benefit from rehabilitation¹.

In the African region, according to the above-mentioned study, one in five people (210 Millions) would benefit from rehabilitation and between 1990 and 2019 there has been a **125.5%** increase in years lived with disability. Another study, a scoping review addressing needs and unmet needs for rehabilitation services, estimates that in some African countries, particularly LMIC, between **62.5%** and **82.5%** of people who require rehabilitation services do not receive them².

The main reasons for the unmet needs for rehabilitation were the absence of or unequal geographical distribution of services within a country, lack of transportation, and unaffordability of the services.

Although data at country level are limited, information available from administrative data and from online search, report an increase of some NCDs such as diabetes, musculoskeletal disorders and cerebrovascular accidents (stroke).

Strategic priority of the World Health Organization within the UN SDG Agenda 2030 is the achievement of Universal Health Coverage (UHC). UHC means, *“all people have access to the health services they need, when and where they need them and without being exposed to financial difficulties in paying for services”*. Rehabilitation, along with health promotion, prevention, treatment and palliative care, is part of the full range of essential quality health services included in the UHC.

As a result, and in response to the urgent need to strengthen rehabilitation worldwide, WHO launched the initiative *Rehabilitation 2030: a call for Action*³ on February 2017. Rehabilitation 2030 initiative recognises the significant unmet needs for rehabilitation and calls for Member States to strengthen rehabilitation in their health system towards universal health coverage.

Within the framework of Rehabilitation 2030 initiative and in collaboration with relevant stakeholders, WHO developed and is developing several strategic resources (Guidance and Tools) to support ministries of health in planning, financing and integrating rehabilitation interventions into their health systems. Just to mention some, main resources already elaborated or currently under development include, among the others: *Rehabilitation in Health Systems; Rehabilitation in Health Systems; Guide for Action; Package of Interventions for Rehabilitation; Rehabilitation Competency Framework*, and several others in course of development.

For the scope of the present assessment, *Rehabilitation in Health Systems; a Guide for Action*⁴ (RGA) represents the main WHO resource to guide Guinea Bissau MOPH in strengthening its health system with particular attention to rehabilitation. As showed in the figure 1 below, RGA consists of four phases, each one with a specific accompanying guidance and dedicated tools, elaborated by WHO to facilitate its implementation process. 1) Systematic Assessment of Rehabilitation Situation (STARS); 2) Guidance for Rehabilitation and Strategic Planning (GRASP); 3) Framework for Rehabilitation Monitoring and Evaluation (FRAME); 4) Action on Rehabilitation (ACTOR).

RGA facilitates leadership and planning for rehabilitation through situation assessment and strategic planning processes (phases 1 and 2); and it strengthens information on rehabilitation and stakeholder accountability through the development of monitoring, evaluation and review processes for rehabilitation (phase 3); while phase 4 concerns the implementation of the strategic plan, starting at the end of the previous processes. Phases 1 to 3 are carried out periodically (e.g., every 5 years) while phase 4, which includes an annual planning, implementation and evaluation cycle, is carried out constantly every year.



Fig. 1- Four-Phase Process and Accompanying Guidance (Source: WHO Rehab in HS Guide for Action)

1.1. Methodology

The Systematic Assessment of Rehabilitation Situation (STARS) in GB took place within the framework of WHO *Rehabilitation in Health System: A Guide for Action* (RGA), to which MOPH adhered with a formal request of technical support, sent to the WHO Country Office on July 2021. STARS has been the first phase of the RGA process and includes the assessment of 50 specific components of the six health system building blocksⁱ. STARS implementing steps followed its accompanying guidance and occurred by using the *Template for Rehabilitation Information Collection*⁵ (TRIC) and the *Rehabilitation Maturity Model*⁶ (RMM).

STARS implementing steps chronological order reported by WHO guidance is as follow: Step 1. Prepare for situation assessment; Step 2. Collect data and information; Step 3. Conduct assessment in the country; Step 4. Write, revise and finalize report, disseminate and communicate findings.

Step 1, to prepare for the assessment, took place through distance meetings and email exchange held between November and December 2021, involving significant coordination across agencies. In particular among the three levels of WHO country, regional and headquarters offices, between Rehab and AT, among WHO and AIFO head and country offices. Step 2, collect data and Information on TRIC started on January and completed on June 2022. Step 3, in-country assessment visit took place from 17th of January to 4th of Feb 2022. Step 4, writing report started on February after the in-country visit with data currently

ⁱ Leadership and Governance; Financing; Health Workforce; Service Delivery; Medicine and Technology; Health Information System.

available, but was finalised with the following completion of data collation on the WHO tools TRIC and ATA-C, on July 2022. Consultant sent the STARS draft report to WHO and MOPH for their inputs to incorporate in the final STARS report, and to disseminate the findings and proceed with the following phase of strategic planning.

During the preliminary meetings held by consultant with WHO before the in-country assessment (Step 1), the WHO Regional Office for Africa expressed specific interest on the Assistive Technology (AT) assessment in the country. Although the STARS includes also information related to AT (RMM components # 5, 6, 7, 31 and 32), the WHO tool *Assistive Technology Capacity Assessment* (ATA-C) was also used with the aim to collect more information and to have a better understanding on AT country capacity. Nevertheless, it should be noted that STARS ensures a systematic and standardized approach to assessment in order to provide information on strengths and weaknesses, priority areas for action and make recommendations for advancing rehabilitation, including Assistive Technology.

The consultant used methods indicated in STARS guidance to collect information for the assessment during the in-country visit. Such as online search and reviewing country policies, legislations and relevant reports; semi-structured interviews with key informants; focus groups discussions with representative of service providers and users. Moreover, site visits occurred in some health facilities with and without rehabilitation/AT services, at different levels of the health system, in urban and rural areas in the Autonomous Sector of Bissau and in the remote Gabu region.

The MOPH convened a Rehab/AT Technical Working Group (TWG), to support the whole RGA process, from the assessment to the following phases of strategic planning, elaboration of monitoring and evaluation framework and, implementation of the Strategic Plan. The TWG includes key stakeholders from relevant ministries, rehab /AT professionals, development partners, health service providers and users (TWG composition and role in Annex).

The first workshop with the TWG took place on the 1st of February 2022 in order to collate and enter available information in the WHO tools, TRIC and ATA-C. Sadly, the workshop had to be interrupted for safety reasons due to armed attack to government building, occurring in the same hours. Government and UNDSS safety measures did not allow finalizing the activity in the following days of the in-country visit. However, before leaving the country, the consultant proposed, consulted and agreed with WHO CO and MOPH an alternative option. Proposal was to complete data collection on TRIC and ATA-C through two working groups (same TWG members) supervised by two experts on health and statistic, from WHO and AIFO country offices respectively. Finally, data entry on TRIC and ATA-C completed and following validated with the whole TWG on June 2022 workshop. TRIC and ATA-C data were utilized to integrate information already available from in-country visit, in order to produce the present report.

Assessment phase challenges

For multiple reasons, the data and info on TRIC (STARS step 2), were not available before the in-country visit (STARS step 3), mainly due to language difficulties for a Portuguese speaking country, in entering data on the TRIC tool in English. Data collection for TRIC and ATA-C started during the in-country assessment visit and finalised on June 2022 with TWG support and final version of available data.

During the in-country assessment visit, the Implementation Support Unit of the Anti-Personnel Mine Ban Convention based in Geneva invited WHO CO, MOH, and AIFO as panellists in the three-days multi stakeholder dialogue, held in Bissau on 25-27 January 2022.

The above circumstances, along with the Covid-19 pandemic restrictions, the armed attack occurred the 1st of February 2022 have influenced assessment focus and timing during in-country visit and for the STARS phase in general.

2. Introduction to rehabilitation

Rehabilitation is a set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment⁷.

Health condition is an umbrella term referring to disease (acute or chronic), disorder, injury or trauma. A health condition may also include other circumstances such as pregnancy, ageing, stress, congenital anomaly, or genetic predisposition.

Rehabilitation address the needs of persons with a wide range of health conditions (acute or chronic) which may occur throughout the lifespan. Since rehabilitation addresses the needs of many persons with temporary (short or long-term) or permanent health conditions, it is relevant not only for persons with disabilities. Rehabilitation focuses on the functioning of an individual, not the disease, it is highly person-centred, since it considers characteristics, goals and preferences of the individual and includes education and empowerment of persons in managing their health condition.

Rehabilitation may consist of working with individual to improve their functioning (e.g., walking, seeing), and may include provision of Assistive Products (AP) such as stick, walker or spectacle, with related training to use them. Rehabilitation may also include making modifications or adaptations to person's environment to optimise their functioning, independence and participation (e.g. grab rails to move safely at home or ramps to access independently to work place). Rehabilitation aims to maximise persons functioning, and consequently their independence and participation, enabling persons to learn, work, and live at their highest potential, with considerable advantages in terms of health, social and economic conditions.

Sometime, relevant literature reports distinction between “habilitation” - which addresses the needs of those born with impairments or acquire them early in life (e.g., child with CP who never learned to walk) - and “rehabilitation” aimed to individuals who acquire impairments in the course of their life (e.g., adult with stroke who lost the walking function). It should be noted that for the purpose of the present report, the term rehabilitation refers to both circumstances.

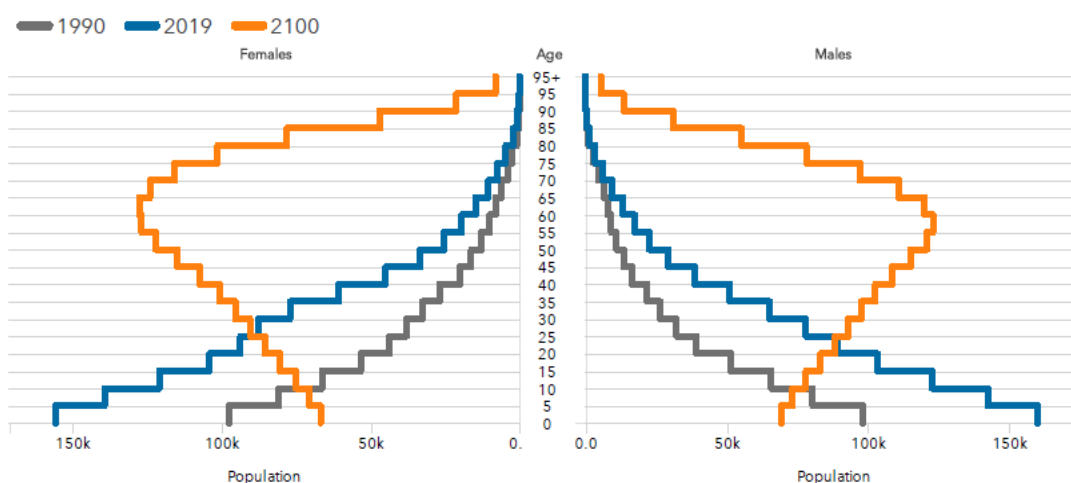
Strengthening the health system to provide rehabilitation requires availability and coordinated use of human, material and financial resources. This might represent a challenging and expensive assignment for ministries to undertake, however, benefits deriving from rehabilitation relate to both individuals and the whole society justifying such investments for several reasons. Rehabilitation helps to reduce the impact of acute or chronic health conditions, to prevent their primary and secondary complications and related hospitalization. At individual and society level, rehabilitation enables persons to contribute to their community, by accessing education and job opportunities, to be functionally and financially independent, and to reduce the need for financial and/or personal assistance support. At health system level, rehabilitation may help to avoid costly hospitalization, in terms of reduced length of stay, prevention of repeated admissions and therefore reduced cost for hospital health care. Rehabilitation is therefore essential across the different delivery platforms, from community, to health centres and hospitals, from primary to tertiary level delivery platforms.

As mentioned above, UHC means that every person receives essential, quality health services when and where they need it, without suffering financial hardship to pay such services. Since rehabilitation, along with health promotion, prevention, treatment and palliative care, is part of the full range of essential quality health services, it represents an integral part of the whole strategy to achieve the UHC and Sustainable Development Goal 3 – “Ensure healthy lives and promote well-being for all at all ages”.

3. Health trends and rehabilitation needs

Since rehabilitation is relevant to a wide range of health conditions, determining the country rehabilitation needs requires different type of data such as health conditions prevalence and trends, population age projections, etc. from different sources, online relevant estimates, country data, etc.

Guinea Bissau total population of 2.046.289ⁱ with its age structure from the Global Burden of Disease (GBD) country profile⁸ shows how many older versus younger people are in the population, and how will these patterns change (Fig. 2). The ageing population trend in the near future is expected to influence the country rehabilitation needs in terms of quantity and type of rehab services (e.g., for number of cases and kind of acute/chronic health conditions that are likely to affect the older population).



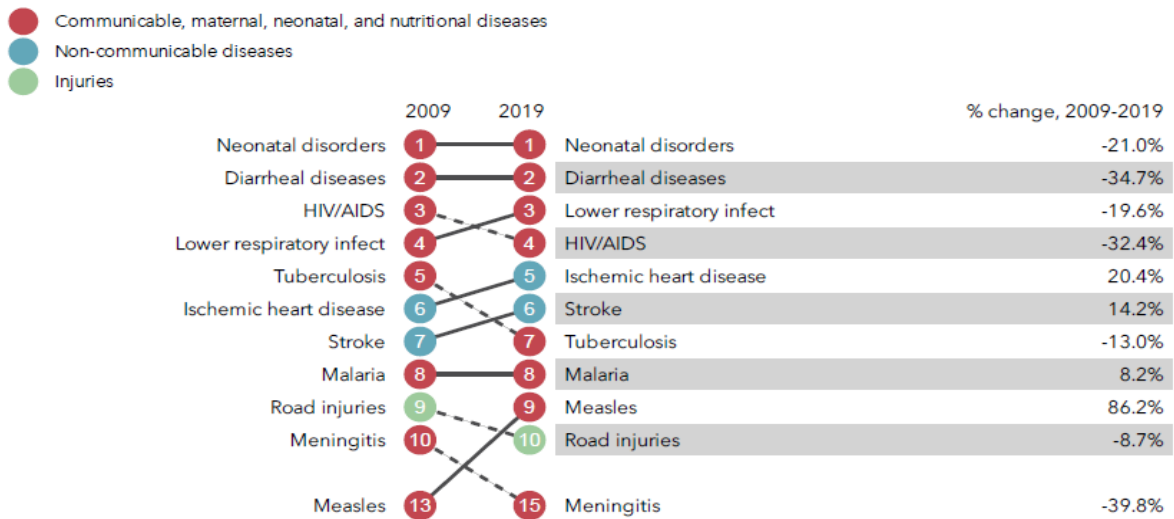
Population age structure for males and females in 1990, 2019 (reference scenario), and 2100 (reference scenario). Forecasted data based on Global Burden of Disease 2017 results.

See related publication: [https://doi.org/10.1016/S0140-6736\(20\)30677-2](https://doi.org/10.1016/S0140-6736(20)30677-2)

Fig. 2 - Population age structure and its trend (source: GBD Guinea Bissau profile)

Figure 3 shows the top 10 causes of total number of deaths in 2019 for all ages combined and their trend between 2009 and 2019 in Guinea Bissau. In ten years, it shows a considerable decrease of deaths for some communicable, maternal, neonatal, and nutritional diseases, such as for diarrhoeal diseases and HIV/AIDS, respectively -34.7% and -32.4%. However, it shows also a substantial increase of deaths for measles (+86.2%) and significant increase of some non-communicable diseases (NCDs) such as ischemic heart disease (+20.4%) and stroke (+14.2%). The last two conditions trend, IHD and stroke, is quite important and will contribute to the country's rehabilitation need estimation.

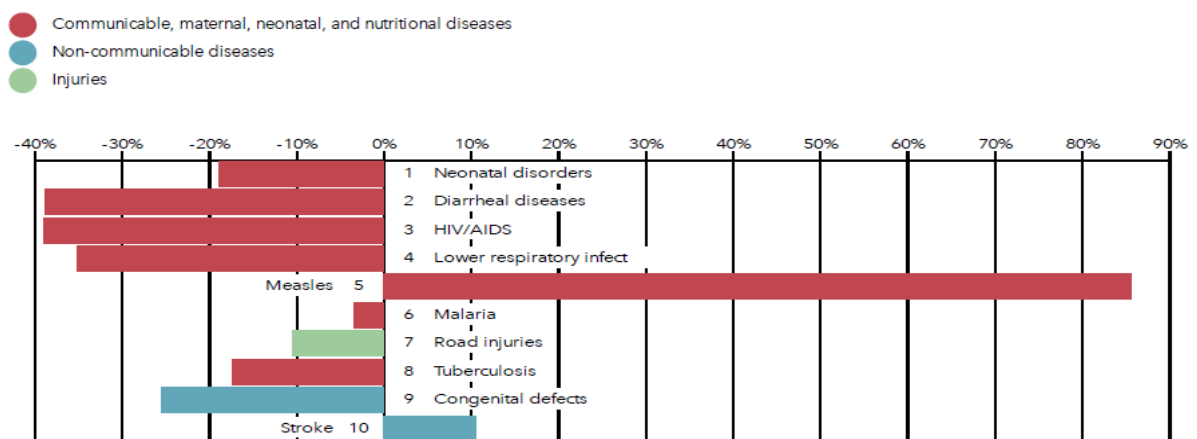
ⁱ Source: Guinea Bissau National Institute of Health (INASA), reported on the WHO TRIC (Section 1.1.1).



Top 10 causes of total number of deaths in 2019 and percent change 2009-2019, all ages combined

Fig. 3 - Top 10 causes of deaths in 2019 and percent change 2009-2019 (source:GBD Guinea Bissau profile).

Figure 4 shows the top 10 causes of death and disability (DALYsⁱ) in 2019 and percent change 2009–2019, all ages combined. Fig. 4 trend is in line with Fig. 3, where measles and stroke are in percentage increase, while diarrhoeal diseases, HIV/AIDS and lower respiratory infections are in decrease.



Top 10 causes of death and disability (DALYs) in 2019 and percent change 2009–2019, all ages combined

Fig. 4 - Top 10 causes of DALYs in 2019 and percent change 2009-2019 (source:GBD Guinea Bissau profile).

ⁱ Disability-Adjusted Life Years (DALYs) is the sum of years of life lost (YLLs) and years lived with disability (YLDs). One DALY equals one lost year of healthy life. It allows researchers and policymakers to compare very different populations and health conditions across time.

GBD Compare Data Visualization⁹ shows YLDsⁱ ranks of causes for two different years (2009 and 2019) and visualizes the change in ranking between those years with a connecting line (Fig. 5).

The trend shows a considerable upper shift for communicable maternal & neonatal diseases and for diabetes and kidney NCDs.

It should be noted that the top five causes out of 22, are responsible for about the 50% of total YLDs. The top six categories for year 2019 are also in line with the rehabilitation needs estimated for the African region main conditions categories showed in the following Fig. 6.

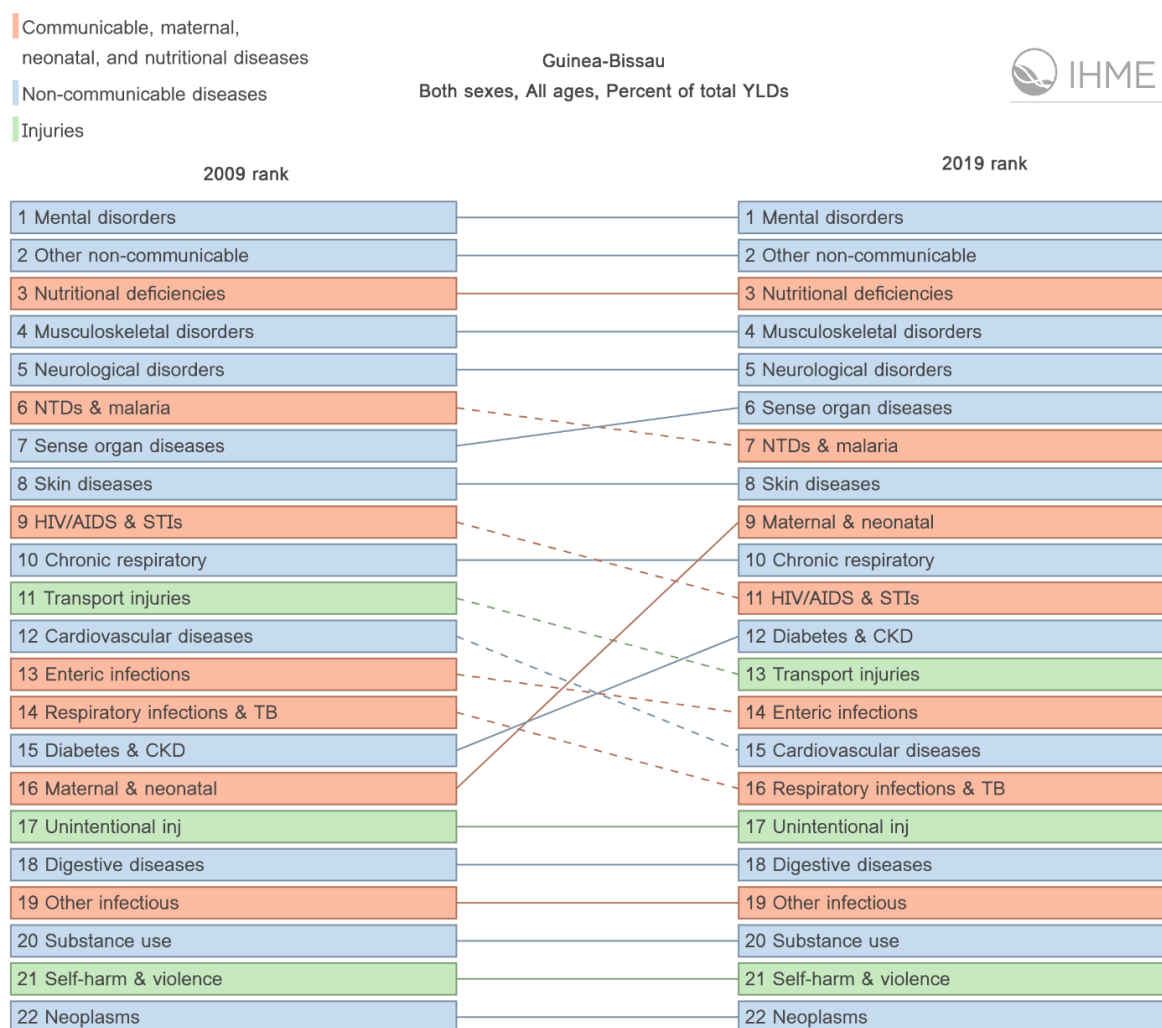


Fig. 5 - YLDs ranks of causes for years 2009 and 2019 (source: [IHME data Guinea Bissau](#)).

The WHO Rehabilitation Need Estimator¹⁰, for the Africa region, shows the musculoskeletal disorders as the top conditions category with the higher number of years lived with disability, 11 Millions. Followed by other conditions categories such as sensory impairments 4.7M, neurological disorders 4.2M, and mental disorders 3.1M of YLDs (Fig. 6).

ⁱ Years Lived with Disability, measured by taking the prevalence of the condition multiplied by the disability weight for that condition. Disability weights reflect the severity of different conditions.

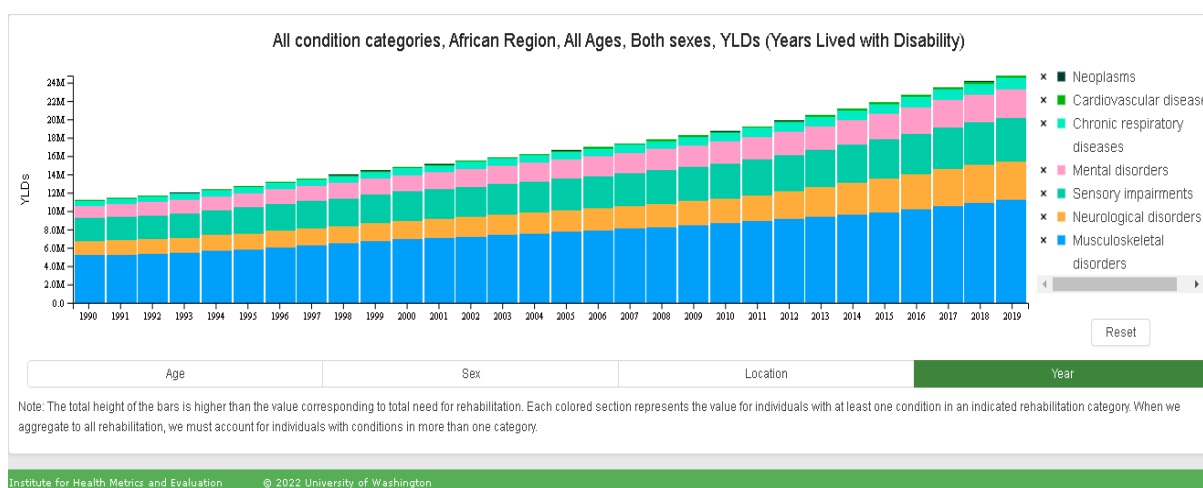


Fig. 6 - YLDs for health conditions categories in the African region, trend 1990-2019 (source: WHO Rehabilitation Need Estimator).

For Guinea Bissau, the WHO Rehabilitation Need Estimator key findings estimates that **350,000** people experienced conditions that could benefit from rehabilitation, which means approximately **1 in 5 persons**. The percentage increase in YLDs between 1990 and 2019 is **103.8%** and the leading condition is the low back pain with **81,000** estimated cases.

Guinea Bissau health condition categories with the most YLDs in 2019 are musculoskeletal disorders with 18k YLDs; followed by neurological disorders 7.8; sensory impairments 7.7 and mental disorders 5.4 YLDs (Fig.7). While health condition categories with highest prevalence cases in 2019 are musculoskeletal disorders with 200k cases; followed by sensory impairments 98k; mental disorders 44k; and neurological disorders 37k cases (Fig.8).

Among condition categories more represented in the country, further information on prevalence of specific health conditions that may benefit from rehabilitation, show that:

- Among musculoskeletal disorders, low back pain with 81k cases is the country most represented condition in 2019, followed by fractures with 45k cases;
- Within sensory impairments category, there are 61k prevalent cases for hearing loss, and 41k cases with visual loss.
- In mental disorders, main conditions are developmental intellectual disability with 34k cases, and autism spectrum disorders with 7.5k prevalent cases.
- Among neurological disorders, cerebral palsy is the more represented condition with a prevalence of 15k cases; followed by stroke with 11k cases; and traumatic brain injury with 5.2k casesⁱ.

ⁱ Source: WHO Rehabilitation Need Estimator: <https://vizhub.healthdata.org/rehabilitation/>

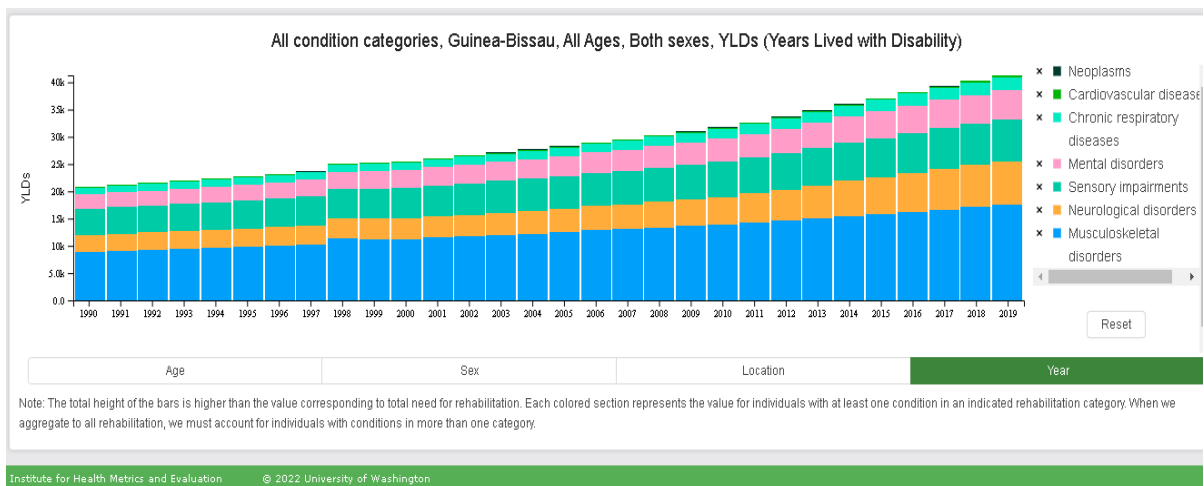


Fig. 7 - YLDs for health conditions categories in Guinea Bissau 1990-2019 (source: WHO Rehabilitation Need Estimator).

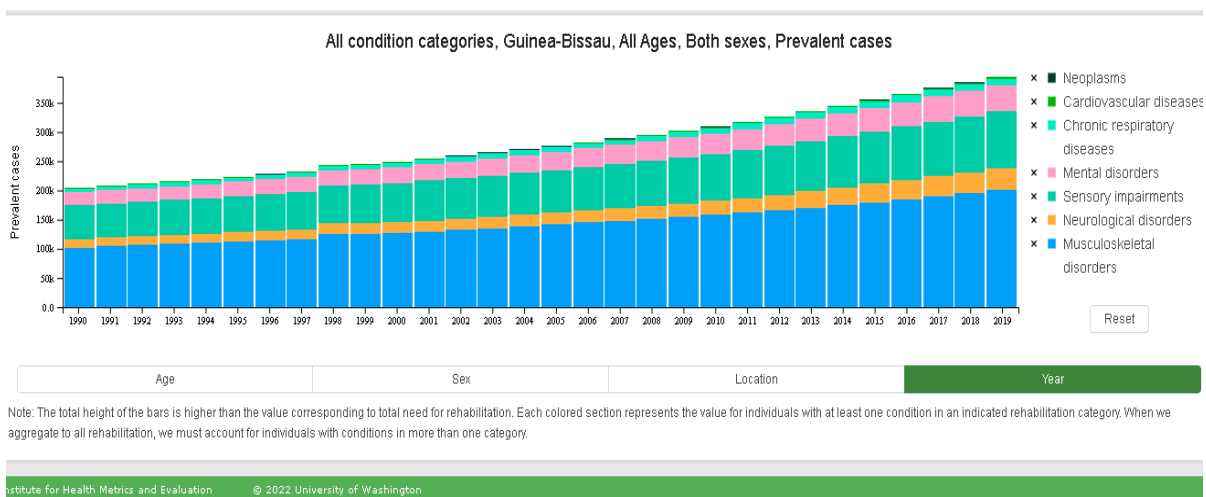


Fig. 8 - Prevalence cases for health conditions categories in Guinea Bissau 1990-2019 (source: WHO Rehabilitation Need Estimator).

Since bar charts represented above show YLDs and prevalence total numbers, not rates, it is worth to specify that increase trend for both YLDs and cases relate to population growth over the last thirty years. In any case, total numbers are higher and this is relevant in terms of increasing rehabilitation needs.

Health Information System currently adopted in Guinea Bissau (DHIS 2), collect and manage health data limited to high priority health conditions, such as HIV, TB, malaria, pneumonia. However, available data do not include many other relevant health conditions that would benefit from rehabilitation and so contributing to insights of country's rehabilitation needs.

Data from the WHO TRIC document shows among NCDs: cancer prevalence 0.005% of total population; among communicable diseases, HIV prevalence is estimated 3.8%; TB 2.5% (incidence 2020); malaria 0.075%; pneumonia 0.0047%; diarrhoea 0.0034%; onchocerciasis 5,7% in Bafata and Gabu regionsⁱ. Further health conditions relevant to inform rehabilitation need reported in TRIC include lower limb

ⁱ Source: National Programme to Fight NTDs, Program Coordinator, 2022.

amputation (26 cases in 2021); club foot (44 new cases in 2021); and among mental health disorders, psychosis (1400 consultations in 2019 at MHCⁱ), substance abuse (275 users in 2021), and depression (78 cases in 2019). A particular mention is for Noma (cancrum oris or gangrenous stomatitis) which according to the National Plan to fight Noma (PNLNⁱⁱ) it remains a public health problem In Guinea-Bissau. PNLN reports that 62.0% (155/250) of cases with Noma sequelae, benefited from reconstructive surgery between 2012 and 2020.

The Federation for Defence and Promotion of the Rights of Persons with Disabilities in Guinea Bissau (FADPD)ⁱⁱⁱ is committed to implement the UN CRPD ratified by the government on 2018. FADPD recently conducted a mapping on disability across its members associations (OPDs) on 2021.

ENTREVISTADOS						
REGIÃO	GLOBAL		GENERO			
	VALOR	%	MASCULINO	%	FEMININO	%
SAB	2 220	19%	1 192	19%	1 028	19%
OIO	2 172	19%	1 179	19%	993	18%
GABU	1 753	15%	970	16%	783	15%
BAFATA	1 485	13%	781	13%	704	13%
TOMBALI	1 084	9%	636	10%	448	8%
CACHEU	980	8%	505	8%	475	9%
BIOMBO	788	7%	395	6%	393	7%
QUINARA	610	5%	325	5%	285	5%
BOLAMA	492	4%	223	4%	269	5%
TOTAL	11 584		6 206	54%	5 378	46%

Total 11,584 PWDs (about 0.6% of GB total population) interviewed in the eight regions and the Autonomous Sector of Bissau.

FADPD data show unit and percentage value of PWDs interviewed per regions, gender disaggregated (Fig. 9).

Fig. 9 - PWDs distribution across regions by gender (source FADPD GB Mapping 2021).

Although data just refer to PWD, useful information for estimating rehabilitation and AP needs across regions is also PWDs distribution per disability domain across the regions, as percentage of total PWD interviewed (Fig.10). It shows a high value (35%) of speech (*Fala*) disability among persons with disabilities present in Bissau Autonomous Sector (SAB).

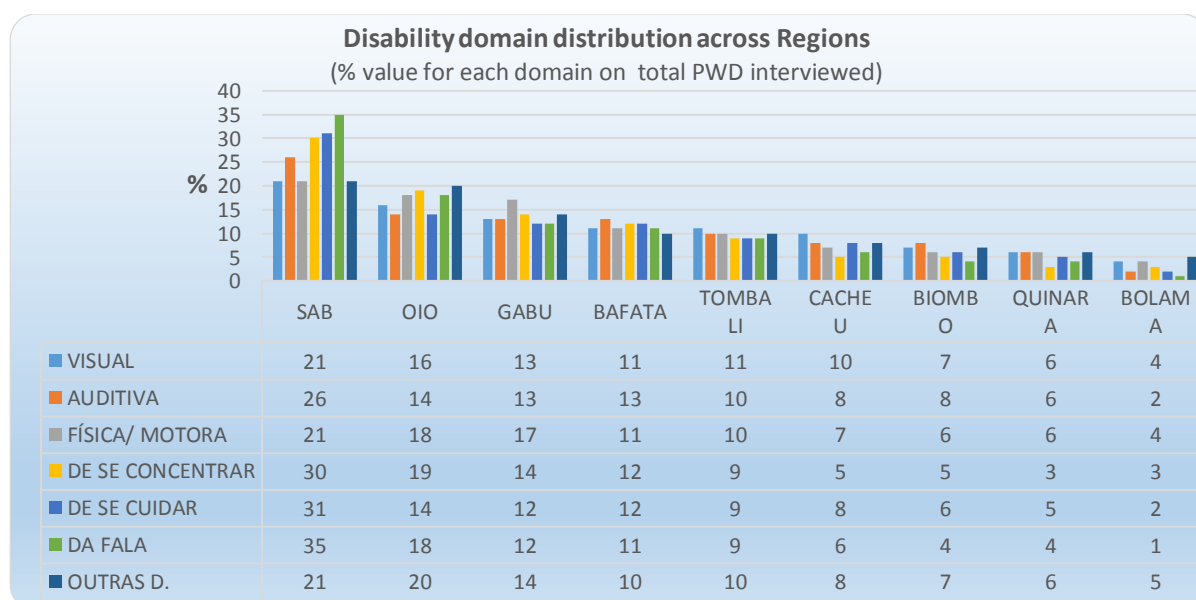


Fig. 10 - Disability domain distribution across Regions (source FADPD GB Mapping 2021).

ⁱ Mental Health Centre, records on consultations book.

ⁱⁱ National Plan against NOMA (Plano Nacional de luta contra a Noma - 2022- 2026).

ⁱⁱⁱ FADPD GB on the [web1](#) - [web2](#).

4. Overview to rehabilitation

Rehabilitation sector in Guinea Bissau is under MOPH responsibility; while other ministries and relevant local and international development partners play a supportive role on specific areas. For example, an international partner NGO support the area of early childhood developmental rehabilitation; while in the area of Assistive Technology (AT) the Ministry of Women, Family and Social Solidarity (MWFSS) plays a leading role on policy and periodic Assistive Products (AP) distribution. Other Ministries such as Education, Public Function, and Defence, sporadically contribute along with local and international development partners to the distribution of selected AP acquired through international donation or purchase.

Though MOPH has been supporting rehabilitation for long time, the rehabilitation sector in the country remains weak, particularly in terms of governance, workforce and service delivery. Rehabilitation workforce is not sufficient to address the country's rehabilitation needs, in terms of both numbers and range of professional profiles. Rehabilitation service delivery remains very limited to one national Physical Rehabilitation Centre (PRC); a Rehabilitation Unit in the tertiary level National Hospital Simao Mendes (NHSM); a national Mental Health centre; and very few other private options.

To some extent, rehabilitation and AT remained linked to international development partners' presence and support. The International Committee of the Red Cross (ICRC) supported for the last ten years the MOPH national PRC, which is the key provider of physical rehabilitation services including provision of AP in Guinea Bissau. The Spanish NGO AIDA in 2020 has built and currently manage the only rehabilitation centre for children with developmental difficulties and disabilities. The Kimon NGO CBR programme called Jedidiasⁱ, provide support and special education to children with learning difficulties, to more than 500 children with different type of disabilities in the regions of Quinara, Tombaly and Bolama. CBR Effataⁱⁱ, active in areas of Oio region, provides support in ensuring consultation and AP distribution to persons with physical, visual and hearing impairment, among other CBR activities.

However, international development support also brings sustainability challenges linked to development partners' strategies, in terms of their continuity. As is the case of the ICRC that will transition out of Guinea Bissau in 2022, after having supported the national PRC in the last ten years.

The PRC, built in 1988 in the neighbourhood of Quelele, in the Autonomous Sector of Bissau, carried out motor rehabilitation activities and has a workshop for making prostheses. It started service delivery depending on the government GDP and with the technical and financial support of the Dutch cooperation. However, it had limitations in the operationalization of its activities, especially in the acquisition of raw materials for the manufacture of prostheses and maintenance of the equipment. This reason conditioned the establishment of a cost recovery system at that time. It was in 1991 the first instance, at a national level, of an attempt to recover costs, on the initiative of the centre's administration. With the 1998 conflict, the centre was destroyed, with no plans for its recovery at that moment, until its reconstruction and the starting of ICRC support in 2011.

ⁱ <https://kimon.nl/velden/guinee-bissau-buba/>

ⁱⁱ <http://cbr-effata.org/guinee-bissau/?lang=en>

4.1 Overview to the health system

Basic information about the country

From an administrative point of view, Guinea Bissau is divided into eight regions and an Autonomous Sector of Bissau (SAB). Regions are divided into 36 sectors and the Autonomous Sector of Bissau, the political, economic and administrative capital of the Republic of Guinea Bissau. Population of Guinea-Bissau is approximately 1,723,910 inhabitants (INEⁱ) data probably more updated show 2,046,289 inhabitants (INASAⁱⁱ), with an annual growth rate of 2.2% (INE). Guinea Bissau population is very young with about 43% of them under 15 years old, 16% under five, and 27% 6-15 years old. Women represent 51% of the population, while about 55% of the total population lives in rural areas. Although Creole is largely spoken, the official language is Portuguese. Main ethnicity are Fula, Balanta, Mandinga, Manjaco e Papel, representing about 85% of population, other ethnic minorities represented by Mancanha, Beafada, Nalu, etc. Literacy rate as % of total population is 45.6%F e 87.6%M. Religion practice within population consist of about 45% Muslims, 22% Christians and 15% Animists.

Guinea Bissau Human Development Index (HDI) value increased from 0,403 to 0,480 between 2005 and 2019, an increase of 19.1% positioning Guinea Bissau at 175 out of 189 countries and territories. Between 2005 and 2019, life expectancy at birth in Guinea Bissau increased by 6.0 years, mean years of schooling increased by 1.3 years and expected years of schooling increased by 2.1 years. Guinea-Bissau's GNI per capita increased by about 21.4 % between 2005 and 2019ⁱⁱⁱ. Other significant sociocultural factors include the Independence war (1963-1973) and Civil war (1998-1999), following the last conflict, there has been a continuing political and institutional instability.

Health system basic structure

The National Health Service of Guinea-Bissau has three levels: local, regional and central, which correspond to the provision of services at primary, secondary and tertiary levels. For the primary health care at local level there is a national coverage of Community Health Agents (ASCs) trained on community health according to the National Strategic Plan for HR 2016-2020.

First contact facilities for the provision of PHC include 3 types of General Health Centres (HCs A, B and C type), and 4 types of first contact specialized outpatient centres for AIDS and TB National Programmes, Nutritional Rehabilitation centres, Maternal and Child (MC) centres and the Mental Health (MH) centre. General HCs are responsible for providing a PHC basic package and A, B and C types distinguishes them in terms of remoteness, intervention capacity and complexity (e.g., surgeries are performed in HC type A). Out of total 153 HCs (PNDS III 2017): there are 5 type A; 15 type B (ideally with a doctor) and; 133 are type C (there is no doctor, services provided by nurses).

The Health System at secondary level include 11 Regional Health Directorates, responsible for situation analysis, planning, evaluation and follow-up and the Regional Health Teams. The 5 Regional Hospitals in Bafatá, Catió, Canchungo, Gabú e Mansoa represent the first level of referral. At the secondary level are present also some mother-child health services supported by the non-profit private sector.

At the tertiary level there is the National Hospital Simão Mendes (NHSM) and two specialized centres of national reference: the Mental Health Centre and the Physical Rehabilitation Centre (PRC) “Dr. Ernesto

ⁱ National Statistics Institute(INE): <https://www.stat-guinebissau.com/estatistica.html>

ⁱⁱ National Institute of Public Health (INASA): <https://inasagb.org/index.php/en/> (website currently not available)

ⁱⁱⁱ Human Development Index: <https://hdr.undp.org/data-center/specific-country-data#/countries/GNB>

Moreira". Centrally there is the MINSAP (MOPH), and its administrative structure includes the Minister, Secretary of State, Secretary General, three Directorates General, and Directorates of National Services/Programsⁱ.

Key agencies engaged in rehabilitation

Main agencies involved in rehabilitation in GB is the MOPH; among development partners there are ICRC (until 2022), the Spanish NGO AIDA, and the two NGOs Jedidias and Effata.

MOPH manages three rehabilitation centres (PRC, MHC and the Rehab Unit at NHSM) under the direction of the General Directorate of Health Care Facilities (DGECS).

A specific Unit for rehabilitation and AT with dedicated human, material and financial resources is not available within the administrative structure of the MOPH. Therefore, operational processes of management and control (planning, supervision etc.) for the different areas of rehabilitation and AT (HR, procurement, service etc.) have limited implementation. Financing covers mainly personnel salaries and equipment with small maintenance.

Development partners' governance and financing for rehabilitation and AT services in the country are linked to their policies and reasonably efficient operational structure, to their fund-raising activities or donor's support. Although, their policies may change, leading to country exit strategies, as is the case for the ICRC, which increases the sustainability issue for the services they supported for a long time.

Hopefully other development partners consider sustainability, continuing their support to strength local technical capacity even if it's with lower levels of financial support.

A formal referral and counter-referral system for patients has not yet been defined and adopted, and health services do not operate on the basis of referral of other structures or other levels of care.

Reforms and developments in the health and social system

The reference documents for Health Sector reform and development available in GB are the National Health Policy (PNS 2017), the latest National Health Development Plan 2018-2022 (PNDS III) and its previous versions I and II. While a national Rehabilitation Strategic Plan has not yet been developed and integrated in the wider health sector planning.

The National Health Policy include rehabilitation in the area of medical technology as one of the factors influencing population health status (Section 1); in the provision of preventive, curative, rehabilitative and palliative health care that is accessible, safe and tends to be free of charge (Section 2). The National Health Development Plan 2018-2022 include the strengthening of Cumura's rehabilitation services for leprosy in the National Programme to fight NTDs, and plans for 1 therapeutic technician job post at the national PRC.

However, in both documents there is no reflection on Assistive technology, neither reference on the need for an Essential APs List. The Essential Medication Purchase and Supply Centre (CECOME) from MOPH does not include in its procurement and supply procedures any specific mention to APs; though general terms as medicines and other therapeutic agents are mentioned instead.

ⁱ MOH Guinea Bissau 2017. National Health Development Plan 2018-2022 (PNDS III).

In social and education sectors, the Ministry of Woman Family and Social Solidarity (MWFSS) has developed the National Strategy for the Inclusion of Persons with Disabilities, with specific reference to rehabilitation and APs. The Council of Ministers has recently approved such Strategy on the 7th of July 2022. While the National Strategy for the Implementation of Inclusive Education (with related National Plan for Inclusive Education, under development) is waiting for approval and adoption. The MWFSS is leading this process and also proposed a inter sectoral committee with the role to facilitate coordination among the relevant agencies and stakeholders.

Guinea Bissau ratified the United Nation Convention on the Rights of Persons with Disability (UN CRPD) on 24/09/2014, and its Optional Protocol on 22/10/2018. Art. 26 refers to Member States effective measures... by strengthening rehabilitation services in the health sector, among the others. MWFSS and FADPD GB engaged with international development partners in efforts to advocate and advance its implementation.

4.2 Outline of rehabilitation in country

Rehabilitation in GB is under MOPH responsibility, with focal point in the General Directorate of Health Care Facilities (DGECS). The three rehabilitation facilities under MOH are the national Physical Rehabilitation Centre “E. Moreira” (PRC); the Rehabilitation Unit (RU) included in the tertiary National Hospital Simao Mendes (NHSM); and the national Mental Health Centre “O. Vieira” (MHC).

The national PRC is the main referral centre, provides physical rehabilitation services and includes a workshop for the production, assembly, maintenance and delivery of APs for mobility. PRC rehabilitation staff include two physiotherapists (PT), two prosthetists & orthotists (P&O) and six nurses trained on physiotherapy and prosthetics. PRC received technical and financial support by the ICRC in the last ten years; with the ICRC support, it provided also outreach rehab and APs services on monthly basis across regional hospitals.

The Rehab Unit at the NHSM, staffed with two PT, provides inpatients physical rehab service to users admitted to the different wards of the NHSM. The centre also provides outpatient rehab services for subacute and long-term rehabilitation phases, providing patients with APs for mobility during their treatment period.

The MHC is staffed with psychologists, nurses, social workers, and one occupational therapy technician, it provides psychological rehabilitation and some occupational therapy to persons with different kind of MH conditions. As raised during FGD with service providers, most of the rehab treatments consist of prescription and provision of drugs to stabilize users with psychotic symptoms, while fewer treatments are based on psychological therapy and other rehabilitation. The MHC was completely reconstructed after the civil war, it was intended to provide also inpatient service, however understaff and not suitable living spaces do not allow to provide such service.

Among development partners, the Spanish NGO AIDA built and currently manages a Child Development Centre, classified as a service of the secondary level. Through a MOU with MOPH, the centre provides rehabilitation for children with cerebral palsy and other developmental delays. The centre, staffed with 1 Psychologist and 4 Nurses trained on rehabilitation of specific health conditions, provide also support to NHSM and is the main referral centre for this rehabilitation area. Other rehabilitation services and AP provision from development partners are included in CBR programmes by two NGOS. The CBR Effataⁱ,

ⁱ <http://cbr-effata.org/guinee-bissau/?lang=en>

active in areas of Oio region, providing support in ensuring consultation and assistive products distribution to persons with physical, visual and hearing impairment, among other CBR activities. Kimon NGO CBR programme called Jedidias, providing special education and other support to more than 500 children with learning difficulties in the regions of Quinara, Tombaly and Bolama.

Recent conflicts in the country, coups, and military unrest, represented significant factors influencing the country political and institutional stability, including the health sector capacity to respond to the country needs. Moreover, health emergencies due to Ebola outbreak in the neighbouring Guinea, and Covid-19 pandemic, along with shortage of health personnel, have significantly challenged the health sector.

WHO, other international agencies and development partners have responded to country needs, contributing to a reduction in the vulnerability and risks of the fragile public health system. WHO in particular has provided support for Ebola preparedness, strengthened local capacity on relevant areas such as testing, raised population awareness and deployed expert to remote areasⁱ. This emergency recently led government, with emergency funds mobilized by WHO, to opening the new centre for the treatment of infectious diseases at the Military Hospital on April 2022.

Focus Group Discussions and key informants' interviews held during the in-country visit, showed in some cases a limited understanding on importance and role of rehabilitation in the country. Rehabilitation and assistive products seemed not considered for the needs of the many persons with different temporary and permanent health conditions; instead, rehabilitation and AT were often referred to as a need specifically for persons with permanent disabilities.

From users' perspective, a study conducted in Guinea-Bissau in a disability-inclusive development context, identified cultural beliefs among individuals with epilepsy or physical impairment. Study findings reported some explanations where respondents with such conditions viewed it as caused by evil spirits, or as punishment for a wrong behaviour.

In this context, political instability, health sector vulnerability, higher priority health conditions trends and, other social cultural and economic factors, contributed to driving away stakeholder's focus from rehabilitation, leading to low awareness on population rehabilitation needs and to a lower priority for rehabilitation in the country.

Rehabilitation intersections with other agencies/sectors

A level of coordination recently started between MOPH, MWFSS, MOE, since representatives from the three ministries are members of the Rehabilitation and AT TWG created at the beginning of the STARS phase. Connections before were occasional, not yet formally structured and mainly related to inclusion of PWDs. In particular, previous coordination referred to rehabilitation and AP' components of the National Strategy for the Inclusion of Persons with Disabilities, recently approved on July 2022, and to the National Strategy for the Inclusive Education, not yet approved. AIFO supported the technical committee in the elaboration of the National Strategy for the Inclusion of Persons with Disabilities and, secondly, in the dissemination and monitoring of the same strategy.

Since the low level of coordination, some overlaps between ministries is present in the area of APs procurement and delivery. Ministries do their best with their own different donors (international agencies and other development partners) to procure and deliver a number of APs for the many requests.

ⁱ [WHO Ebola preparedness in Guinea-Bissau](#)

5. Rehabilitation governance

KEY INFORMATION	DETAILS
REHABILITATION LEGISLATION	There are no specific legislations for rehabilitation and AT.
REHABILITATION POLICY	No specific Rehabilitation and/or AP Policy. The National Health Policy (PNS 2017) includes rehabilitation giving limited direction in two areas: medical technology and provision of services.
REHABILITATION STRATEGIC PLAN	No specific Rehabilitation and/or AP strategic Plan. The National Health Development Plan (PNDS III) does not integrate rehabilitation in the different areas/programs. Although it mentions Cumura rehab for leprosy, and plan for 1 technician for the national Physical Rehab Centre.
REHABILITATION COORDINATION MECHANISMS	There is an informal coordination between MOPH and MWFSS for the health component of the Strategic plan for Inclusion of PWDs. A Technical Working Group for Rehabilitation and Assistive Technologies recently set up. Mechanisms and platforms for rehabilitation coordination do not formally exist.
REHABILITATION REGULATION AND ACCOUNTABILITY MECHANISMS	Public and private providers developed different rules, guidelines and standards to regulate rehabilitation service and APs provision at facility level. Accountability for rehabilitation is still emerging, at a low level and there is little clarity regarding what the government is obliged to do.

Rehabilitation leadership, planning and coordination

There are some rehabilitation management processes in place within the MOPH, however such processes are under the General Directorate of Health Care Facilities (DGECS); a Rehab and AT Unit with dedicated HRs and budget is not present within the MOPH and need to be established. Planning for rehabilitation and AT is limited and mainly reliant on development partners' support.

Leadership for rehabilitation includes the Ministry of Health, they provide limited direction for rehabilitation and exert a small influence that has resulted in limited levels of political and financial commitment. A Technical Working Group for Rehab and AT did not exist before the present assessment; it was established and started to operate during the current STARS phase.

There has been some coordination between the MWFSS and MOPH related to rehabilitation and assistive products components of the Strategic Plan for the Inclusion of PWDs. Collaboration among different stakeholders is very limited and needs to be strengthened. The recent government approval of the strategic plan for inclusion of PWDs (July 2022) may represent a lawful opportunity to strengthen coordination in the areas of rehabilitation and AT among relevant ministries and other stakeholders.

There is very limited inter-sectoral and/or inter-agency coordination for rehabilitation, official mechanisms and platforms do not exist and they are much needed.

Accountability, transparency and regulation for rehabilitation

Since rehabilitation, along with promotion, prevention, treatment and palliative care, is an essential health service and necessary for UHC, and that the MOPH is accountable for the healthcare, the MOPH is consequently accountable for rehabilitation. In fact, Guinea Bissau MOPH has expressed a desire to strengthen its capacities on rehabilitation and AT, with a formal request of technical support sent to WHO CO.

Accountability for rehabilitation is strongly supported by the MOPH having a rehabilitation strategic plan with priority areas for action, clearly identified objectives, and related indicators, and to measure progress in achieving the objectives with a defined monitoring framework. However, during the assessment phase and from administrative data available, there was no evidence of a national rehabilitation plan, or monitoring system and procedures to measure planned objectives level of achievement. Reporting on rehabilitation is still at a low level, is not regular nor comprehensive; information is collected at facility level but not aggregated and/or analysed for monitoring/evaluation purposes. Although many gaps exist, the status and performance of rehabilitation is somewhat clear at facility level, less at higher levels.

Accountability for rehabilitation is still emerging and there is little clarity regarding what the government is obliged to do. Roles and responsibilities are not always clear, few mechanisms exist by which rewards and sanctions are applied.

The national PRC has developed and adopted (with ICRC support), some rules, guidelines and standards to regulate the rehabilitation service and APs provided there. These apply specifically to the PRC, and are not adopted at country level and/or shared with the other rehabilitation providers.

While some private no-profit providers deliver rehabilitation services with their resources through an MOU signed with MOPH, there is no national regulation and laws in place to apply to private providers' facilities, services and workforce (licensing, accrediting, pricing, training, etc.).

Public information regarding what rehabilitation services are available exists at facilities level, however, there are no information at higher levels. Stakeholders, such as consumer groups are not aware and satisfied and report that decision-making processes are neither clear nor transparent.

Governance and procurement of assistive products

The National Health Policy (PNS 2017) mentions rehabilitation in the area of medical technology as one of the services impacting on population health status, and in the provision of preventive, curative, rehabilitative and palliative health care that is accessible, safe and tends to be free of charge.

The National Health Development Plan (PNDS III - 2018-2022) includes the strengthening of Cumura's rehabilitation services for leprosy in the National Programme to fight NTDs, and creation of 1 therapeutic technicians job post for the national PRC.

However, both PNS and PNDS provide very little or no governance and direction on AT, and as a result, limited planning, coordination and service delivery occurs.; AT is not integrated into wider health policies and health plans. The Essential Medication Purchase and Supply Centre (CECOME) created in 2002, under

the MOPH, is the main entity in charge to import medicines for the public and private sector. However, CECOME did not include APs in its procurement procedures and it seems in financial deficit since 2009. Moreover, a national priority list of assistive products, with related technical specifications and safety standards, are not available; neither is national regulation on AT to norm procurement procedures.

AP procurement takes place through international donations, international procurement by different development partners or, with user direct international purchasing. While CECOME is the entity in charge for international procurement of medicine and other therapeutic products, a central procurement system for APs is not available at the MOPH.

Data from the national PRC report a total number of 224 APs provided in 2021, while data from WHO ATA-C document, show a total number of 928 APs provided annually from no profit NGOs; most of them were lower limb orthoses, crutches and therapeutic footwear.

With the above data, it can be estimated that about 75% of APs procurement is reliant on international donations, or to specific components of partners' programmes. The PRC represent 25% of APs provided and produced, with raw materials procured with development partners' support. Both systems contribute to the availability of a limited range (mostly mobility) and number of APs in GB. These programmes look fragmented and insufficient, with weak structures, processes and financing mechanisms. There remain many unmet needs within the population.

The national PRC and ICRC developed guidelines, service standards and a National Quality Control Protocol for Assistive Products for the MOPH. However, from the WHO ATA-C and TRIC documents there is no evidence confirming their systematic adoption at national level.

Though MWFSS along with few other ministries, the FADPD and other development partners play a role in distribution of AP procured through donations, inter-sectoral coordination is under development, not yet institutionalized and occurs on a voluntary basis. There is little leadership for assistive technology and little direction or exertion of influence on decision makers.

Procurement of assistive products by health programmes is not in place. Procurement from development partners is occasional, not timely, efficient, or well-coordinated; it results in common delays and limited provision of appropriate products; many gaps require further attention.

Summary of Governance

- While government developed a National Health Policy (PNS 2017) mentioning rehabilitation in some areas, PNS provides limited direction to rehabilitation and APs and there is no national policy specific for rehabilitation and/or APs.
- The MOPH developed the National Health Development Plan (PNDSIII 2018-2022) and it includes rehabilitation. However, rehabilitation and AP are not integrated in the PNDS III different areas/programs. A national strategic plan for rehabilitation and AP is not available.
- There is a coordination between MOPH and MWFSS for the health and AP components related to the Strategic plan for Inclusion of PWDs. However, coordination is informal and on voluntary basis. Mechanisms and platforms for rehabilitation coordination do not formally exist.

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- A Technical Working Group for Rehabilitation and Assistive Technology has recently been set up. However, coalition among different stakeholders is very limited and needs to be expanded and strengthened
 - Public and private providers developed different rules, guidelines and standards to regulate rehabilitation delivery and AP provision services at facility level. However, accountability for rehabilitation is still emerging, it is at a low level, and there is little clarity regarding what the government is obliged to do.
 - The Essential Medication Purchase and Supply Centre (CECOME) under MOPH is the entity in charge to import medicines for the public and private sector. However, CECOME did not include AP in its procurement procedures and there are no other government agencies regulating this sector.
 - National PRC developed different standards for AP provision and related services. However, a national Priority Assistive Products List with related technical specifications is not available to provide guidance on planning, procurement, provision and AP related services procedures.

6. Rehabilitation financing

KEY INFORMATION	DETAILS
REHABILITATION EXPENDITURE	Annual total health expenditure is 7.5% of GDP in 2022. Rehabilitation and AT are not integrated into existing health financing mechanisms. A specific budget allocated to rehabilitation and AT is not available at the MOPH.
REHABILITATION EXPENDITURE AS PROPORTION OF TOTAL HEALTH EXPENDITURE	Not available
ASSISTIVE PRODUCT EXPENDITURE	Not available
OUT-OF-POCKET COSTS FOR HEALTH AND CATASTROPHIC HEALTH EXPENDITURE LEVELS	Data not available, but at the national PRC, an average of 37% of running costs are OOP patient contributions for the services they receive.
MECHANISMS FOR REHABILITATION FINANCING	MOPH rehabilitation financing include rehabilitation personnel salaries. Other financing for rehabilitation and AT are from development partners and donations. Rehabilitation financing mechanisms are very limited, very few people are included in arrangements and appropriately covered for the rehabilitation they need.

Financing mechanisms for rehabilitation

The major financing mechanisms for rehabilitation and AT are from MOPH and development partners (mainly ICRC and few others). However, rehabilitation and AT are not integrated into existing health financing mechanisms. MOPH does not have a specific budget allocated to rehabilitation and AT, and provides only the payment of the salaries for the personnel assigned to the rehab and AT services (PRC, NHSM Rehab Unit, MHC).

PRC total budget for 2021 was 42,408,032 CFA F. (below 65,000 €), ICRC and other development partners contributed at the PRC with 26,798,532 (63%), while direct contribution from patients was 15,609,500 (37%).

MOPH budget for rehab and AT is not available; however, considering it relates to the 28 rehabilitation professional staff employed at the public facilities (PRC, NHSM RU, and MHC) and average salaries for professionals' levels, MOPH budget for rehabilitation personnel could be estimated for at least 5,100,000 CFA F, that is about 7.800€. (MD and Psychologists 6 staff x average 300,000 = 1,800,000; plus 22 other rehab professional technicians per average 150,000 = 3,300,000 + 1,800,000 = 5,100,000 CFA F).

There are no other contracted agencies neither government licensing mechanisms for agencies to deliver rehabilitation or AT services. Some NGOs have MOU with MOPH and provide rehab services with their fund-raising initiatives and/or donors' support.

The rehabilitation financing mechanisms and available expenditure for rehabilitation is very limited, and very few people are included in arrangements and appropriately covered for the rehabilitation they need.

Out-of-pocket payments and financial protection of rehabilitation

OOP percentage for rehab and AT was estimated by the only data available from the national PRC; it was about 37% for 2021ⁱ. At the NHSM Rehab Unit and other rehabilitation centres, OOP was not available, however cost for physical rehab service at NHSM RU are 20,000 CFA F per 10 sessions for adults, and 15,000 per 15 sessions for children. AIDA NGO is contributing with 50% amount for patients in need admitted to the NHSM.

According to information available from TRIC document, the national social security institute did not show willingness to share information about their criteria for user enrolment and level of coverage for rehabilitation and AP services.

Summary of financing

- Government annual total health expenditure is 7.5% of GDP in 2022. It includes the salaries of government rehabilitation personnel. However, existing health financing mechanisms do not integrate rehabilitation and AP.
- There is no specific budget allocated to rehabilitation and AP at the MOPH.
- At the national PRC, 37% of operating costs were from OOP payments for the rehab and AT services. Assistive products total expenditure is not available.
- MOPH rehabilitation financing includes rehab personnel salaries. Other financing for rehabilitation and AP is from development partners and donations. However, rehabilitation expenditure as proportion of total health expenditure is not available.
- The rehabilitation financing mechanisms and available expenditure for rehabilitation are very limited, and very few people are included in arrangements and appropriately covered for the rehabilitation they need.

ⁱ Source: WHO TRIC (Sections 2.2.2 and 2.2.3).

7. Rehabilitation human resources and infrastructure Errore. Il segnalibro non è definito.

KEY INFORMATION	DETAILS
TOTAL NUMBER OF REHABILITATION PERSONNEL	There are 35 rehabilitation professionals in the country. Most of them employed in urban areas at tertiary or national level facilities.
NUMBER OF REHABILITATION PERSONNEL PER 10 000 POPULATION	There are 0.175 rehabilitation professionals per 10,000 people, considering 2 Millions country population.
TOTAL NUMBER OF EACH REHABILITATION PROFESSIONS AVAILABLE	Out of the 35 rehabilitation professionals, there are 7 PTs; 2 P&Os; 6 Psychologists; 7 Optometrists; 1 Ophthalmologist; 12 Nurses trained on rehabilitation.
DISTRIBUTION OF REHABILITATION PERSONNEL ACROSS GEOGRAPHIC AREAS	Most of rehab professionals, 28 (80%) are deployed in tertiary or national level facilities of the capital city Bissau; 5 (14%) of them at secondary level; No rehab personnel at primary level; 2 (6%) at community level.
NUMBER OF REHABILITATION COURSE GRADUATE'S PREVIOUS YEAR	None. Graduation and training courses for rehabilitation professionals are not available in the country.

Rehabilitation personnel availability

There are very few rehabilitation professionals in the country (35), they are graduated overseas (mainly Cuba, China, etc.) and most of them (80%) work in tertiary/national level facilities. Very few (14%) of them are deployed at secondary level and, aside from few nurses trained on rehabilitation providing assistive products in a CBR programmes, at primary and community levels rehabilitation personnel is unavailable (Table 1).

On the other hand, there are a few other cadres working in the area of inclusive education, such as Inclusive teachers (57), Mobility instructors (2), Braille teachers (5) and Social workers (4), who provide invaluable training and support mainly to children with disabilities.

Inclusive teachers are primarily in the hearing-impaired Association (AS-GB) school (54) and are under the Ministry of Education. Out of the 54 who teach at the school, 7 trained abroad and the rest at local level, both with professional technical diplomas.

However, there are major deficits in the rehabilitation workforce; there are too few trained to meet basic population needs and quite a few of the key rehabilitation professions are severely understaffed (Fig. 11). There are many challenges in training, recruiting and retaining a full range of rehabilitation personnel, with ongoing shortages in professions, specialties and across geographic areas.

Service level	Facilities	PT	P&O	Psychol.	Optom.	Ophthal.	Nurses on Rehab	N. lev. x	% lev. x
Tertiary	NHSM	2	-	1	7	1	-	28	80,0%
	National PRC	4	2	-	-	-	6		
	Nation. MHC	-	-	3	-	-	-		
	Milit. Hosp	1	-	1	-	-	-		
Secondary.	Regional Hospitals	-	-	-	-	-	-	5	14,3%
	Child Devel. Centre	-	-	1	-	-	4		
Primary	H. Centres	-	-	-	-	-	-	-	0,0%
Community	CBR program	-	-	-	-	-	2	2	5,7%
		7	2	6	7	1	12	35	100%

Table 1 - Rehabilitation professionals per service level and facilities (source: TRIC and ATA-C)

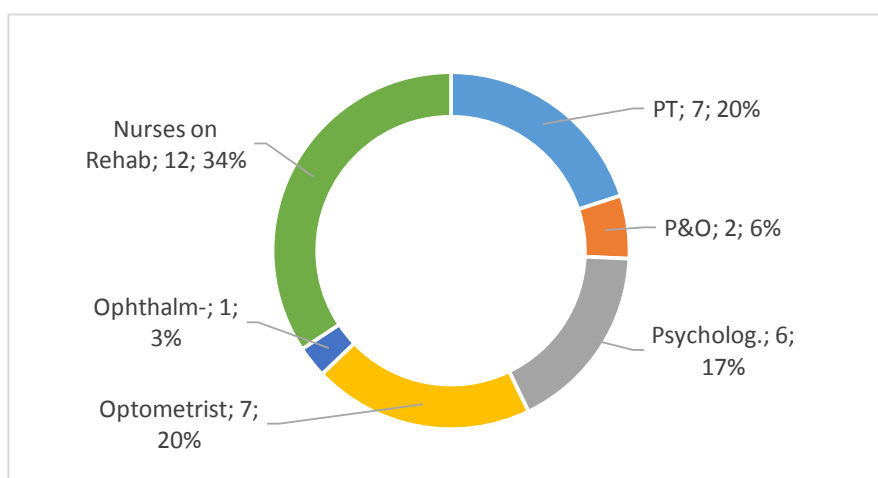


Fig. 11 – Country rehabilitation personnel per specialization area (# and %)

Rehabilitation personnel training and skills

The Faculty of Medicine "Raul Dias Arguelles" (FMRDA) provide degree courses for general MD and nurses with the Cuban Medical Brigade through a cooperation agreement established in 1986. However, degree or courses for rehabilitation professionals are not available; nor post degree specialization schools for general MD relevant to rehabilitation.

INASA, officially established in 2009 is a public institution with technical, administrative, financial and patrimonial autonomy under the guidance of the country's MOPH. Its mission is to contribute to the improvement of the quality of life of the population through the generation, absorption and dissemination

of scientific and technological knowledge in the health sector.

The national School of Public Health (ENS) under the National Institute of Public Health (INASA) and the authority of MOPH is in charge of training and upgrading nurses and health technicians. ENS mission includes among others: propose and organize the realization of post-graduate research Masters and Doctorates in the fields of specialization; promote training, internship and specialization courses with due scientific supervision; guarantee scientific and pedagogical training with a view to obtaining bachelor's, master's and doctorate degrees.

However, there is no documented evidence of specific training and upgrading courses for rehabilitation personnel provided in above institutions.

Although national PRC rehab staff received good quality training from ICRC, rehab/AP workforce learned their professions abroad and/or with on-job training courses as component of development partners supported programmes. Graduate and training courses are not available in the country. Curricula and profiles for specific rehabilitation professionals are not developed.

Rehabilitation personnel planning, management and motivation

While the last National Health Plan (PNDS III) includes workforce planning among the actions, for rehabilitation it refers to only one technician planned for the national PRC and there is no integration of rehabilitation across other areas of health professionals training.

There is limited or no coordination between training institutions and MOPH to plan rehabilitation workforce country needs. Very little to no integration of rehabilitation has occurred in wider health workforce planning. Rehabilitation workforce planning practices are extremely limited and almost non-existent.

While the presence of international development partners provides rehabilitation personnel with qualified training and supervision, there is no continuing education and updating system in place to ensure the required level of competence at different levels. The lack of systematic supervision procedures to monitor and support the rehab staff, along with no professional association initiatives to raise profiles and importance of rehabilitation are further limiting factors for professional growth. Rehabilitation personnel have limited access to support and supervision they need, and to mentoring and coaching opportunities.

The rehabilitation workforce has a moderate to low level and/or variable levels of motivation and demonstrates variable efforts to achieve organizational/client goals. Limited remuneration or other disincentives may influence their motivation. The professions are somewhat attractive but not always affordable since it implies to go abroad for specializations. There are a few professional associations with limitations to what they offer and to professional development opportunities. International mobility of rehabilitation personnel may be an issue and has a clear adverse effect on the strength of the workforce.

Some of the necessary rehabilitation infrastructure for rehabilitation is available at tertiary level facilities, although there are many gaps in terms of availability, technology and maintenance across facilities. AP production technology is old-style and basic, the modular technology is not used in particular to assemble prosthetic components.

There is no rehabilitation infrastructure availability within public health care at secondary and lower levels, and this impact on services efficiency, accessibility and affordability.

Summary of human resource and infrastructure

- There are 35 rehabilitation professionals in the country (0.175 per10k P). Most of them employed in urban areas at tertiary or national level facilities.
- There are major deficits in the rehabilitation workforce; there are too few trained to meet basic population needs and quite a few key rehabilitation professions are severely understaffed.
- Graduate and training courses are not available in the country for rehab and AP personnel. There is no integration of rehabilitation across other areas of health professionals training.
- There are very many challenges in training, recruiting and retaining a full range of rehabilitation personnel, with ongoing shortages in professions, specialties and across geographic areas.
- There are no rehabilitation workforce plans and little to no integration of rehabilitation in wider health workforce planning. Rehabilitation workforce planning practices are extremely limited and almost non-existent.
- Some of the necessary infrastructures for rehabilitation are available at tertiary level facilities. However, there are many gaps in terms of availability, technology and maintenance across facilities.
- There is no rehabilitation infrastructure availability within public health care at secondary and lower levels.

8. Rehabilitation information

KEY INFORMATION	DETAILS
DATA ON DISABILITY, FUNCTIONING AND REHABILITATION NEEDS	Disability: FADPD Disability mapping 2021 on 11,584 PWDs; Functioning: Multiple Indicator Cluster Survey 2018-2019; Rehab needs: WHO Rehabilitation Need Estimator, estimate 350,000 persons with conditions that may benefit from rehabilitation. There are no other information sources such as from WHO MDS, nor other data on functioning and disability available at country level.
DATA ON AVAILABILITY OF REHABILITATION	Tertiary and secondary level rehabilitation facilities (PRC and AIDA) produce good information on type of rehabilitation services available in their facilities. At central level, there is no comprehensive information on rehabilitation availability across health services
DATA ON UPTAKE OF REHABILITATION	Rehabilitation facilities collect information on services they deliver, including utilization, AP provision, users' composition and satisfaction. However, data produced at facility level is not aggregated nationally.
DATA ON OUTCOMES OF REHABILITATION	Rehabilitation facilities use different quantitative and qualitative assessment tools to produce information on their users' rehabilitation outcomes. Information is not consistent and not entered in the DHIS and reported to produce rehabilitation reports across services and at population level.
GOVERNMENT FUNDING FOR REHABILITATION RESEARCH	A budget allocated to rehabilitation is not available at the MOPH, and there is no documented evidence on specific government funding for research in the area of rehabilitation.

Rehabilitation information Generation

Rehabilitation at facilities level, such as the national PRC produce some information on services provided: access, rehabilitation sessions per health conditions and type of assistive products provided, on annual basis. However, since there is no system in place at central level for rehab information collection and management, data from different facilities are heterogeneous, not standardised, and therefore not systematically aggregated and analysed at central level.

At central level, the National Health Information System (SNIS) was formerly organized and managed by a department within the Ministry of Public Health. In 2008, the country decided to create a separate structure, in any case under the MOPH, to manage health information: the National Institute of Public Health (INASA).

At country level, there have been several challenges related to the SNIS reform implementation, as reported in the National Health Development Plan 2017 (PNDS III). Just to mention one of the more relevant: *“there is no strategic plan for the SNIS in use, covering all the main sources of data (censuses, civil registration, population surveys, health and disease registries, etc.), as well as the elaboration of*

*manual procedures to operationalize the information system*ⁱ.

The new Health Information System in Guinea Bissau (DHIS-2), still in course of reforming, currently manage information on high priority main health conditions, (HIV, TB, malaria, etc.); while the Statistic Office at the NHSM collects data from its Rehabilitation Unit. However, the DHIS-2 does not yet include and manage data on disability, rehabilitation and functioning. The rehabilitation service information collected at the statistic office of NHSM is not routinely requested and gathered centrally, therefore not comprehensive.

The Federation for Defence and Promotion of the Rights of Persons with Disabilities (FADPD) collects disability information and during 2021, FADPD conducted a national level disability mapping across its members associations, interviewing 11,584 PWDs in all the regions.

Rehabilitation information used to inform policy and programme decision-making

At international level, there are some sources of information on disability, functioning and health to estimate country rehabilitation need. These are available online, such as from IHMEⁱⁱ Global Burden of Disease (GBD): a critical resource for informed policymaking. It provides a tool to quantify health loss from hundreds of diseases, injuries, and risk factors and can be used at global, national, and local levels to understand health trends.

The *WHO Rehabilitation Need Estimator*ⁱⁱⁱ is based on IHME GBD data, it is the first tool to produce a global estimate of the need for rehabilitation services. The visualization tool shows maps, line plots, bar graphs to explore global, regional, and country data, for different health conditions and conditions categories, including trends from 2009 to 2019. Key findings for Guinea Bissau, estimates that 350,000 people (nearly 1 in 5 persons) experienced conditions that may benefit from rehabilitation.

The most recent information about population functioning in Guinea Bissau is from the Multiple Indicator Cluster Survey 2018-2019¹¹ (MICS). The MICS survey included information on functioning of adults (18-49 years) and children (2-17 years); with additional information, for the children group, on the use of assistive products in the functional areas of vision, hearing and walking.

Tertiary and secondary level rehabilitation facilities, (PRC, NHSM and AIDA) use a number of quality rehab procedures and tools, such as guidelines, individual treatment plans, standardized assessment scales on functioning, users' empowerment approach and, users satisfaction forms on service delivered.

Summary of rehabilitation information

- Information on disability are available from the FADPD mapping implemented in 2021; Data on population functioning available from the Multiple Indicator Cluster Survey 2018-2019; Rehab needs estimations are available from online sources. No other data was available.

ⁱ PNDS III 2017: Box 4: Challenges in implementing SNIS reforms.

ⁱⁱ The Institute for Health Metrics and Evaluation (IHME): <https://www.healthdata.org/about>

ⁱⁱⁱ WHO Rehabilitation Need Estimator: <https://vizhub.healthdata.org/rehabilitation/>

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- The new District Health Information System (DHIS) currently manages information on high priority main health conditions, (HIV, TB, malaria, etc.); however, the new DHIS does not yet include disability and rehabilitation information.
 - Tertiary and secondary level rehabilitation facilities produce good information on type of rehabilitation services available in their facilities; but at central level there is no comprehensive information on rehabilitation availability across health services.
 - Rehabilitation facilities collect information on services they deliver, including users' utilization, AP provision, users' composition and satisfaction.
 - Rehabilitation facilities use different quantitative and qualitative assessment tools to produce information on their users' rehabilitation outcomes.
 - There is no documented evidence on government funding for research in the area of rehabilitation.

9. Rehabilitation accessibility and quality

KEY INFORMATION	DETAILS
PERCENTAGE OF TERTIARY HOSPITALS WITH REHABILITATION SERVICES	<p>At tertiary /national level, rehabilitation services are available in 5 out of 15 (33%) health facilities. In particular:</p> <ul style="list-style-type: none"> – Rehab Unit of NHSM (PT); – National PRC “E. Moreira” (PT and the only providing APs and related service); – National Mental Health centre “O. Vieira” (MH Rehab); – Military Hospital Sino Guineans (PT) – Cumura hospital (Nursing Rehab) <p>3 out of the 5 facilities delivering rehabilitation are for inpatient while 2 are outpatient services.</p>
PERCENTAGE OF SECONDARY HOSPITALS WITH REHABILITATION	<p>At secondary level, rehabilitation is available on daily basis only in the AIDA early development centre (17% of the 6 secondary level facilities).</p> <p>In the 5 regional hospitals, rehabilitation and APs services are available on monthly basis through outreach service; however, services are not regular, were supported by international partners, and there is no certainty on their continuation.</p> <p>At secondary level, there are no rehabilitation public facilities and there is no rehabilitation integrated in the regional hospitals.</p>
PERCENTAGE OF PRIMARY CARE WITH REHABILITATION	<p>Some health centres categorized as first contact specialized centres, provide nutritional rehabilitation service under the national service/programme.</p> <p>However, rehabilitation and APs services are not integrated at PHC level.</p>
PERCENTAGE OF DISTRICTS/COMMUNITIES COVERED BY REHABILITATION SERVICES	<p>The national PRC used to provide physical rehab and APs with outreach and mobile services on monthly basis; while among CBR programmes activities, some rehabilitation interventions and provision of APs are present in three regions. However, available data do not allow quantifying percentage of coverage.</p>
NUMBER OF SPECIALIST REHABILITATION FACILITIES/UNITS	<p>The Quinamel centre is specialized to provide psycho-occupational therapy to detox users from drug, alcohol and other substances.</p>
NUMBER OF REHABILITATION BEDS, AND RATE PER 10,000 POPULATION	Not available

Accessibility of rehabilitation

Availability of specialist rehabilitation, with longer-stay, high intensity more specialized capacity

According to data from the TRIC document and Focus Group Discussions held with service providers, there

is only one private centre with longer stay, specialized in-patient rehabilitation, however this is not for physical rehabilitation but for substance abuse rehabilitation. The Quinamel centre founded and managed by the pastor Domingo TE from evangelic church, with four volunteers provide a sort of psycho-occupational therapy to detox users from drug, alcohol and other substance. The centre has 100 beds max capacity, there were 67 currently admitted and 275 consultations held in 2021. Patient fee is around \$2.50 per day, which covers food, accommodation and hospital trips if needed.

Availability of rehabilitation in tertiary health care

At tertiary level, rehabilitation is available at the Rehab Unit of main National Hospital Simao Mendes (NHSM). Rehab Unit with two rooms and two physiotherapists provide both outpatient and inpatient physical therapy and acupuncture for patients admitted in the hospital wards. PTs provide treatments in the Unit rooms and, if requested on the wards, however there are no dedicated inpatient rehabilitation beds. The most frequent cases are stroke; however, the lack of other rehabilitation specialists (physiatrist, occupational therapist, speech and language, etc.) makes it difficult to manage patients' rehabilitation needs and their recovery.

At tertiary/national level, there is the national PRC, which is the main referral centre and provides physical rehabilitation and assistive products outpatient services. It provides physical rehabilitation through physiotherapy, acupuncture, therapeutic gym and electrotherapy services. The centre is a reference centre for the treatment of clubfoot, and stroke is one of the main conditions treated annually. Most of the users accessing services at the PRC are referred from health centres and hospitals from the whole country. PRC is also the only centre in the country for local manufacture and assemble of APs for mobility, such as prosthesis and orthosis. ICRC cover raw materials cost for APs (until 2002) and the main raw materials provider is Swiss limbs. The centre covers some expenses for patients who are unable to pay for their treatments, though criteria for selection were not available. Data are collected locally although they are not integrated into the country's Health Information System (DHIS 2). The centre is in need of rehabilitation workforce, equipment and greater support from the government, since so far the MOPH pays only employees' salaries.

The MHC "Osvaldo Vieira" is the main national public centre for outpatient treatment of MH conditions. Six medical doctors are in charge of psychologic and psychiatric treatments in terms of 10% and 90% respectively. They have about 2,000 contacts per year with about 1,000 consultations, and follow up on monthly basis. The MHC is considering the possibility to provide inpatients service for the existing 36 beds capacity; however, the centre is not equipped with appropriate staff, nor has suitable spaces to manage aggressive episodes in clients, nor other service spaces to provide inpatients services.

Cumura is the reference hospital for the diagnosis and treatment of leprosy cases at national level. Managed by Caritas, doctors and nurses are paid by MOPH through an MOU, while the administrative staff and some technicians are paid by Caritas. The hospital does not have a rehabilitation centre, but carries out basic nursing rehabilitation procedures for patients with leprosy related wounds, while referring more complex cases to the national PRC in Quelele. A basic workshop is available and a technician trained in the production of orthopaedic shoes and maintenance of prostheses for patients with leprosy. Source of funding are through development partners and the services provided to the population are charged at a reasonable price.

The Noma Centre, inaugurated on 2012, provides comprehensive care for Noma patients, including among the others, nutritional and aesthetic cares with often-complicated reconstructive surgeries due to

the facial deformities. However, post-surgery rehabilitation interventions for the different maxillofacial functions (mastication, deglutition, speech, etc.) are not available in the centre or in other facilities.

	Health facility	Rehabilitation available
1	National Hospital Simão Mendes (NHSM)	Physiotherapy and acupuncture (In and outpatient). Provision of AP during rehab treatment
2	Military Hospital Sino Guineans	Physiotherapy and acupuncture (In and outpatient)
3	Hospital Raul Follereau	N.A.
4	Hospital Paediatric "S. José de Bor" de BOR	N.A.
5	Hospital of Cumura	Surgery for leprosy related injuries, for cataract and trachoma. Therapeutic footwear maintenance. (In and outpatient)
6	Association Casa Emanuel	N.A.
7	Clinic Korle- Bu	N.A.
8	Centre Medico and Diagnostic "D. Settimio Arturo Ferrazzetta"	N.A.
9	Centre Foundation Renato Grandy	N.A.
10	Clinic Ambrosio	N.A.
11	Clinic Yankuanke	N.A.
12	Clinic Ganafa	N.A.
13	Noma Centre	N.A.
14	National Mental Health Centre	Mental health conditions rehabilitation. (Outpatient service)
15	National Physical Rehabilitation Centre "E. Moreira"	Physiotherapy, acupuncture, AP for mobility manufacturing, assembling, provision and related services. (Outpatient and outreach services)

Table 2 - Rehabilitation available in health facilities at tertiary or national level (*public and private*).

Although some health facilities are categorized as specialized centres (Cumura Hosp., NMH, Noma C. and PRC) and some are outpatient (NMH, and PRC) they are in any case national level referrals for specific conditions. Therefore, they have been included in calculating the percentage of tertiary or national level health facilities providing rehabilitation/AT services. As showed above, considering all the tertiary or national level health facilities, rehabilitation is available in 5 out of 15 (33%) tertiary/national level facilities (Table 2).

Availability of rehabilitation in secondary health care

Rehabilitation at secondary level is very limited; there are no rehabilitation units integrated within the five regional hospitals. While health staff from regional hospitals identifies some cases for rehabilitation and APs, such services are provided on monthly basis with outreach activities organized by the national PRC with ICRC funds. There is no certainty on the continuation of rehab and APs outreach services within

regional hospitals, in particular with the end of ICRC support by 2022.

The Gabu Regional Hospital visit highlighted, among other health services, an operating theatre (set up and operated by the Dutch NGO HAMMER) performing intervention on clubfoot and other orthopaedic surgeries. However, they have no rehabilitation and APs dedicated services nor equipped spaces, nor trained rehab personnel for post-surgery rehabilitation and APs provision, so that cases have to be referred to the main PRC in Bissau, at about 5 hours distance by car.

The secondary level early childhood centre built and managed by the Spanish NGO AIDA since 2020, is the only rehabilitation centre specialised for children with developmental delay and disabilities. AIDA signed a MOU with the MOPH and provide outpatient rehabilitation services with 1 psychologist and 4 nurses trained on specific conditions rehab. Services include physical therapy, cognitive and linguistic stimulation for children with different conditions (cerebral palsy, epilepsy, Down syndrome and other developmental disorders); and classes to empower and educate mothers in managing their children's rehabilitation needs. Regarding inclusive education, they also provide schoolteachers and classmates training on how to manage and support children with developmental delays and disabilities into their classrooms.

Thus, at secondary level, rehabilitation is available on daily basis only in the AIDA early development centre; while at the 5 regional hospitals, it is available on monthly basis through outreach services.

Availability of rehabilitation in primary health care

As outlined in section 4.1, first contact health facilities for the provision of PHC include 3 types of general Health Centres (A, B and C) and 4 types of first contact specialized centres. Among the specialized centres available across the regions, there are several in and outpatient centres (respectively *CRENI* and *CRENAG*ⁱ) for severe malnutrition. They provide nutritional rehabilitation services, according to the National Protocol for the Integrated Management of Acute Malnutrition (2013).

While a package of essential PHC is available for the different types of HCs, apart from nutritional rehabilitation, there are no other rehabilitation and APs services integrated in the package of essential services provided at PHC centres.

A visit to Mafanco HC "type C" in Gabu region, highlighted that largest number of cases seen monthly refer to respiratory diseases, malaria and trauma from vehicle accidents. Cases with rehabilitation needs are referred to the regional hospital in Gabu or to national level facilities. In cases of trauma with fracture, a traditional immobilization with cardboard or wood-boards is applied and patients referred to regional hospital, which then refer cases to the NHSM or to the national PRC according to the case severity and complexity.

Availability of rehabilitation delivered in the community

While the Health Community Agents have a role in supporting PHC centres to deliver health intervention included in the basic package, rehabilitation delivery or AP services are not integrated in the basic package and not available.

AIDA NGO makes rehabilitation available in the surrounding community with the dedicated early childhood development centre. The related rehabilitation programme, empower parents and caregivers and entails also inclusive education component, providing training to teachers and classmates on how to

ⁱ Annex 6 of PNDS III

manage and support children with developmental difficulties in their classroom learning activities.

The national PRC used to provide outreach physical rehab and APs services in the five regional hospitals and their surrounding communities, on monthly basis. However, PRC delivered services with financial support from ICRC until end of 2022. Consequently, availability of such rehabilitation service is unsure in the future.

Among CBR programmes activities, NGOs provide support for health and rehabilitation interventions and provision of some APs for mobility and communication in three regions. However, these programmes are reliant on development partners' support, availability of donors' funds and distribution of APs procured by donations.

Availability of rehabilitation across all phases of acute, sub-acute and long-term care.

Rehabilitation interventions for patients in acute phase are available mainly at the Rehabilitation Unit included in the tertiary level NHSM. The Rehabilitation Unit provides rehabilitation care also in sub-acute and long-term phases through outpatient service. Other centres providing rehabilitation care in acute phase are the MHC for mental disorders, and the Military Hospital for physical rehabilitation.

While the national PRC and AIDA centre provide rehabilitation intervention in subacute and long-term phases. As outpatient centres, both PRC and AIDA may provide rehabilitation interventions also in acute phases, however only for patients with conditions that do not require admission and more complex cares.

Availability of rehabilitation for children with developmental difficulties and disabilities

Rehabilitation for children with developmental difficulties and disabilities is available at the early childhood centre run by AIDA NGO. AIDA manage the secondary level centre through an MOU with the MOPH and provide psychologic support service at the tertiary level NHSM in the same rehabilitation area.

The national level PRC deliver early childhood physical rehabilitation service, included provision of specific APs, for mobility, and is the main referral centre for rehabilitation of children with cerebral palsy and clubfoot.

However, both rehabilitation centres have a quite limited coverage, delivering services mainly for the population living in the surrounding Bissau area. Children with developmental disorders living in other regions and remote areas do not have rehabilitation available where they live, apart from the PRC monthly outreach service, not yet ensured after 2022. Further, they have very limited possibilities to access rehabilitation services at national level due to the heavy burden represented by the direct and indirect costs of the service (OOP, transport, accommodation, etc.).

Availability of rehabilitation for target population groups

People with complex and multi-disciplinary rehabilitation needs requiring longer stay have very limited to no rehabilitation availability. The tertiary level NHSM Rehabilitation Unit provides inpatients rehabilitation in acute phase, the NHSM wards do not have dedicated beds for longer rehabilitation stay, and specialized rehabilitation areas available are limited.

The rehabilitation need estimation for sensory functions showed prevalence of 61,000 cases of hearing loss and 41,000 cases of vision loss. Such population groups, have limited or no availability of rehabilitation.

As result of armed conflicts dating back to 1963, Guinea-Bissau is contaminated by mines (both

antipersonnel and antivehicle) and explosive remnants of war (ERW). The Guinea-Bissau mine action centre (CAAMI) on April 2022, reported more than 1,500 victims of mines and ERW, for the period of 2012 – 2021ⁱ. Guinea Bissau mine survivors, along with those from Senegal, have rehabilitation and APs services available at the PRC in Bissau. However, absence of specific government financing schemes, and development partner (ICRC) ending support to PRC represent a risk for rehabilitation availability to this population group.

People with mental health conditions, children with developmental disorders and disabilities, and people with restricted mobility are other population groups with high rehabilitation needs. Rehabilitation availability for these people represent a significant challenge, considering the limited number and range of services available in the country.

Provision of assistive products

Provision of APs is available at the national PRC under the MOPH; the PRC adopted a set of products specifications and standards developed with technical and financial support by the ICRC over the last ten years. Provision of APs include also the related services such as assessment, fitting, user training, follow-up, maintenance and repairs.

The total number of APs provided by PRC in 2021 was 224, including crutches, prosthesis, orthosis and wheelchairs (Fig. 12). Almost one third of the APs provided are prosthesis, mainly for victims of landmine amputations, manufactured in the PRC workshop by P&O and bench-workers technicians trained by ICRC.

However, a meeting held with Swiss limbs, following their PRC visit in December 2021, highlighted that at PRC' prosthetic and orthotic workshop equipment is obsolete and personnel do not use modular technology. This technology is based on the assembling of AP components instead of their complete manufacturing. According to Swiss limbs this technology is cheaper compared to the currently used, in terms of both, production and components costs.

The PRC provided also periodic APs outreach and mobile clinic services for cases identified by health staff in the five regional hospitals and their surrounding communities. Such service organized by PRC with activities carried out with ICRC financial support.

However, APs provided at the PRC are for mobility, APs for other functional areas are not covered and a national Priority APs List including the WHO essential APs list is not available; APs costs are covered by development partners' support and/or by users OOP.

Moreover, with no other AP services available at regional levels, the AP provision and service delivered by PRC with periodic outreach activities, becomes critical. This represents a future challenge for AP provision and related services availability at peripheral level. With the end of ICRC financial support for PRC outreach activities, government must bear responsibility to ensure AP provision and service also for population groups living in remote areas.

ⁱ CAAMI Report to Implementation Support Unit of the Anti-Personnel Mine Ban Convention. Available [here](#).

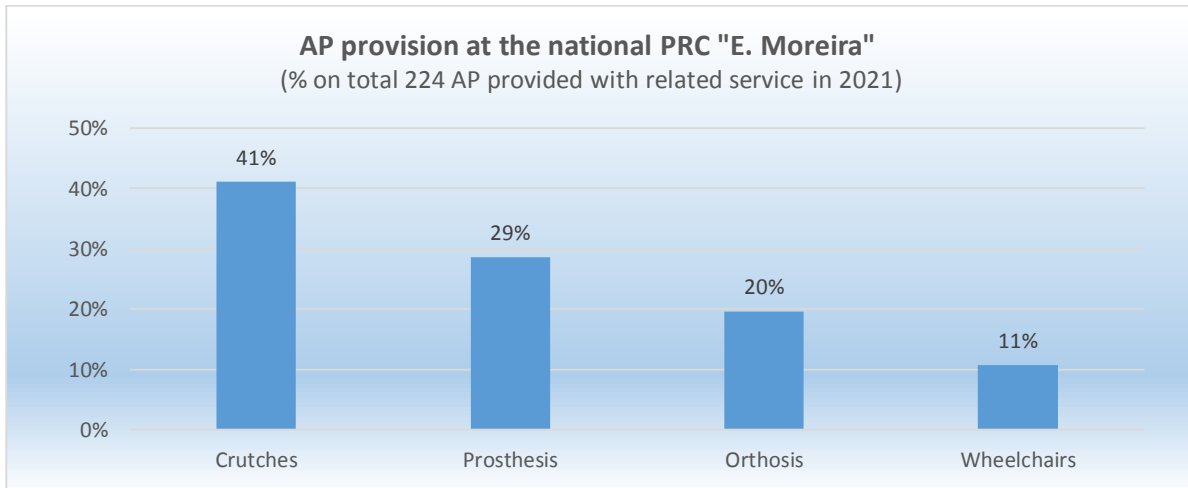


Fig. 12 - AP provision at the national PRC "E. Moreira" (source PRC data)

The MWFSS is playing an important role on policymaking and distribution of APs generally procured with donations. Other ministries such as MOE, Ministry of Defence, and Ministry of Public Function represent other government stakeholders on APs, though their actual role is quite limited, and not clear during the assessment, nor in the WHO ATA-C form. For further information, refer to *Governance and procurement of assistive products* in the Section 5 of the present report.

The private no-profit NGOs sector plays a significant role on provision of different types of AP; they procure APs through occasional donation or procurement by international development partners. The FADPD, with its affiliated OPDs present in all regions, plays a key role on a punctual APs provision to PWDs.

Nevertheless, most of AP provision is for the area of mobility, with lower limb orthosis and crutches representing above the 50% of APs provided by this sector (Fig. 13). There is also limited AP provision in the area of vision and hearing, while there is no evidence on provision of APs in the areas of cognition and communication.

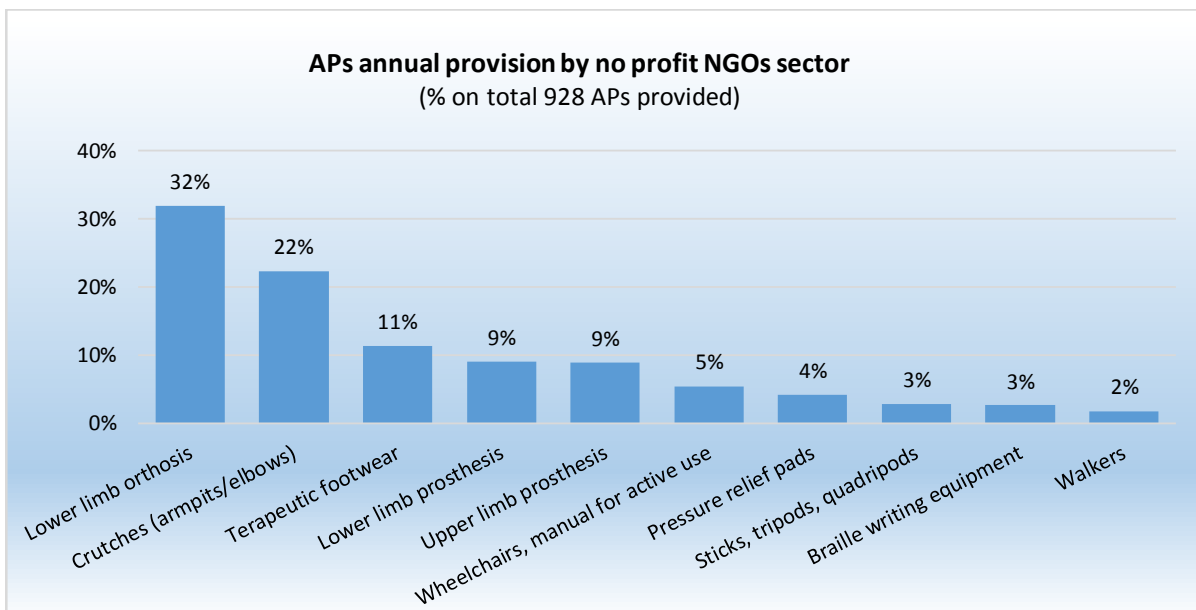


Fig. 13 - APs provision by no profit NGOs sector (source ATA-C)

While other ministries, no-profit NGOs sector and development partners provide a high number of APs compared to the national PRC; in most of these cases the AP provision is without the related services of assessment, fitting, user training, etc.

Affordability of rehabilitation

Assessing the affordability of rehabilitation refers to people's ability to pay for rehabilitation without being exposed to financial hardship. Affordability requires consideration of the direct and indirect costs to access rehabilitation services. Direct and indirect cost include fee for rehabilitation services and AP provision, transportation, accommodation and food for the user and usually accompanying person, work income lost etc.

The typical cost for a rehabilitation treatment session at the government facilities is 2,000 CFA F.

However, about 55% of the total population of Guinea Bissau lives in rural and remote areas, where rehabilitation services are not available. Most of this population, living with very low income and economic difficulties, have to travel for long distance to reach rehabilitation services they need. Moreover, rehabilitation to be effective require an appropriate dose, which implies multiple and recurrent treatment sessions, and even more for long term or chronic conditions. This means recurring rehabilitation treatments fee, frequent travels and related additional costs, results in very high expenditures, making rehabilitation not affordable for people living in remote areas. Additionally, during FGDs with users, affordability represented a major concern also for people living in Bissau surrounding areas and closer to rehabilitation services, in particular people with long-term rehabilitation needs and requiring recurrent treatment sessions.

Acceptability of rehabilitation

The context described above, also influence acceptability and people's willingness to seek rehabilitation, people are discouraged from seeking services by factors such as cost and geographical inaccessibility.

FGDs with users reported national rehabilitation services, PRC in particular, to be useful and satisfactory; however, the lack of rehabilitation services at lower levels of care, along with difficulty on travelling makes rehabilitation service at national level inconvenient to reach, unless severe rehabilitation needs.

Quality of rehabilitation

Effectiveness of rehabilitation

This component of assessment focuses on utilization of evidence-based interventions, with required standard and sufficient dosage to obtain the best rehabilitation expected results. Evidence-based rehabilitation interventions are those that have been peer-reviewed, documented, and show empirical evidence of effectiveness.

Visits to public and private rehabilitation facilities, in particular PRC and AIDA C., and staff interview reported their use of some evidenced-based rehabilitation interventions, introduced through development partner support.

PRC, RU at NHSM and AIDA rehabilitation personnel adopt assessment pre and post treatment and set outcome objectives in individualized rehabilitation plans. AIDA uses some quality tools, such as

standardized scales for functional assessment.

It is likely that the limited number and range of rehabilitation professionals and their professional associations inhibits the professional growth and adoption of standards, protocols and other guidance to improve effectiveness of rehabilitation interventions delivered.

Timeliness and delivery of rehabilitation along the continuum of care

For in-patients in tertiary level NHSM rehabilitation occurs on request from MD in charge of the single wards and the Rehabilitation Unit (RU) take patients in charge. However, even in this setting, there are delayed referral from medical staff with limited understanding of rehabilitation and patients are referred to RU only once complications have arisen.

In the secondary and primary care settings, delays or lack of access to rehabilitation were reported as common. Some of the situations reported included:

- children with cerebral palsy or other developmental delays; often not timely referral to secondary or national level centres, it occurs once they show clear signs of their condition and disability.
- People with pain syndrome, e.g., low back pain; often not timely referral until the problem is chronic and pain relief medicines or other traditional approaches have failed.
- People that live far away from rehabilitation services, which is most people outside Bissau urban area; often have delayed referral and/or avoid rehabilitation because of travel cost and inconvenience.

Person-centred rehabilitation care that engages users, family, carers

In rehabilitation facilities there is good engagement of users in their rehabilitation process, this is achieved through joint goal setting for individual treatment planning, and education of user and their relatives or parents in case of children. These processes were reported and observed in particular at the national PRC and AIDA Centre.

However, engagement of patients and their family in rehab care may rely on standards and approach adopted by public or private providers, on rehab staff personal attitude, or on the specific service delivery platform.

In fact, at tertiary level NHSM, rehabilitation personnel have very limited time to engage family and carers. The patient length of stay is shorter, with few rehab staff and the many patients to follow. At this level some improvements are needed, especially for patients with significant conditions such as stroke, reported to be one of the main conditions admitted for rehabilitation.

Safety of rehabilitation

Safety of health services, including rehabilitation is important, it aims to prevent and reduce risks, errors and harm that occur to patients during provision of health care. In 2019 the WHO declared September 17th as Patient Safety Day, to raise awareness of patient safety as a global priority.

Visits to public and private rehabilitation providers' facilities (PRC and AIDA C. in particular) showed they adopt several tools for quality service. However, most of the electric equipment in PRC, electrotherapy in particular, is out of date, lack of proper maintenance and may represent significant risks for patients'

safety.

While there are some internal standards for service delivery and provision of APs at facility level, there is no documented evidence of national guidelines and standards for prevention and management of health care risk and for the monitoring of injuries. Neither a legal framework regulating, among the others, health personnel liability or a mandating insurance coverage for public and private health care providers and professionals.

Summary of services delivering rehabilitation

- Rehabilitation services are available in 5 (35%) out of 14 tertiary/national level government and private health facilities. They deliver physical therapy, provision of AP and related services, mental health rehabilitation and, nursing rehabilitation. However, rehabilitation is not integrated within the different medical and surgical care areas, and range of professional specialization across different areas is quite limited.
- Rehabilitation at secondary level include one private provider and some government outreach activities in the regions supported by international partners. At this level, rehabilitation is very limited, there are no rehabilitation public facilities and there are no rehabilitation units integrated in the government regional hospitals.
- At primary level, health centres categorized as first contact specialized centres, provide nutritional rehabilitation services under MOPH national service/programme for severe malnutrition. However, there are no other rehabilitation and APs provision and services integrated in the package of essential services provided at PHC level.
- The national PRC used to provide physical rehab and APs with outreach and mobile services on monthly basis; while among CBR programmes activities, some rehabilitation interventions and provision of APs are present in three regions. However, available data do not allow quantifying percentage of coverage.
- There is one only rehabilitation centre specialised for children with developmental delay and disabilities, and one specialized centre providing long-term rehabilitation for substance abuse with 100 beds capacity. However, both of them are private centres supported by international partners, local support and OOP by users.
- Several government agencies and other stakeholders contribute to provision of AP procured through different channels. However, PRC is the only centre to provide related services with a set of products specifications and standards; range of APs provision in the country are mainly for mobility, other areas such as vision, hearing, cognition and communication are very limited or not available.
- Low and uneven availability of rehabilitation and AP services across country areas imply long travelling and related additional costs. In addition, limited government financing,

and OOP costs make rehabilitation little or no affordable, in particular for low-income population groups living in remote areas.

- Users consider national rehabilitation services useful and satisfactory, however people often do not seek services due to factors such as financial and geographical inaccessibility.
- At facilities level different rehabilitation guidelines, protocols and standards have been developed and introduced through development partner support. However, national clinical practice guidelines for rehabilitation supporting utilization of evidence-based rehabilitation interventions are not available.

10. Outcomes and system attributes

Outcomes

Coverage of rehabilitation in the groups who need it

Population living in the Autonomous Sector of Bissau and surrounding areas, have access to some moderate quality rehabilitation interventions, mostly physical rehab and provision of a limited range of APs, mainly for mobility.

However, some groups have limited coverage due to the small number of facilities providing rehabilitation, for the limited range of rehabilitation professionals and for affordability issues considering the OOP cost. As a result, the following groups have very limited or no service coverage for their rehabilitation needs:

- *Population groups with complex and specialized rehabilitation needs:* are not covered from rehabilitation. There are no specialized facilities with dedicated beds for longer stay services, even in tertiary level hospitals; and there is limited range of rehabilitation specialization within professions.
- *People with rehabilitation needs other than physical rehabilitation:* this group include people with hearing, visual and speech impairments. They have very limited or no coverage for their rehabilitation needs, including provision of APs other than for mobility. Reasons are the very limited number or lack of specialized professionals for their rehabilitation areas, such as optometrists, audiologists, speech and language pathologists etc.
- *People in national and regional hospitals receiving a range of medical and surgical care:* have little or no coverage for rehabilitation. Except for the tertiary level NHSM and Military Hospital, other tertiary and secondary level hospitals do not have rehabilitation integrated in their services, nor dedicated space, and trained staff to deliver rehabilitation; and limited rehabilitation knowledge.
- *Adults with intermittent and longer-term rehabilitation needs living in the community:* have very limited or no coverage, because there is no rehabilitation task shift, rehabilitation is not included within essential interventions package delivered in PHC centres; there is limited coverage of other development partners' programmes within the community.
- *Children with developmental difficulties and disabilities:* are not early detected and adequately covered by rehabilitation interventions. Although previous monthly outreach services and some cases referred by regional hospitals, rehabilitation services for early childhood development are available only in two government tertiary level and in one secondary level facilities NGO in Bissau area.
- *People with rehabilitation and AP needs living in rural or remote areas:* most of them do not have services coverage for a number of reasons. While there are nurses trained on rehabilitation delivering some rehabilitation in CBR programmes, activities cover only three regions; there is no other rehabilitation personnel or task shift outside Bissau urban and surrounding area. The high additional travel costs from remote areas to reach services in Bissau; the low level of health providers awareness of rehabilitation with correspondingly low referrals; and the many areas with difficult geographic environment and poor physical infrastructure which prevents people traveling the distances required to reach rehabilitation.

Functioning outcomes of rehabilitation in the groups who receive it, including population functioning

The health facilities providing rehabilitation or APs use different tools and scales for functional assessment; users receiving rehabilitation treatments or AP are usually assessed pre and post their rehabilitation interventions. However, at facility level they do not aggregate data to measure functioning gain of selected groups of users receiving rehabilitation.

At central level, there is no system adopted, nor human resources assigned at this function. Therefore, information produced at facility level are not properly collated and analysed to measure outcomes of rehabilitation interventions provided; nor for comparing rehab outcomes among different facilities; nor to measure rehabilitation outcome at population level.

Besides, the limited number and range of rehabilitation professional available in the country is not yet significant to have professional associations able to stimulate interest in research on rehabilitation outcomes.

It should also be noted, in Guinea Bissau context, along with adoption of procedures for functioning gain assessment, there are some other factors that may influence functioning outcomes of rehabilitation. Population groups with economic difficulties and/or living in remote areas have limited and no constant access to rehab services. Such constraints affect continuity of care, adhesion to treatment protocols and adequacy of rehabilitation dose, resulting in lower functioning gain for rehabilitation delivered.

System Attributes

Equity

Equity is considered in terms of the rehabilitation coverage of disadvantaged groups that exist in the population. Such groups are identified by means of social, economic, demographic, geographic or other stratification such as ethnic and gender based. The following context contribute to inequities on rehabilitation coverage among different population groups in Guinea Bissau.

While most of rehab personnel and services are available at tertiary/national level facilities, regional hospitals do not have equipped unit and personnel trained to deliver rehabilitation services. Moreover, rehabilitation interventions are not integrated within essential care package provided by PHC centres. These aspects raise equity issues on both, economic and geographic basis for population living in peripheral, rural and remote areas, not covered by the outreach rehabilitation services.

People with rehabilitation needs other than physical rehabilitation experience inequity on the basis of their specific health condition/disability. Inequity is due to the shortage of rehabilitation personnel specialized in their rehabilitation areas and to the very limited or no coverage for their specific rehabilitation needs.

An economic equity issue relates also to informal payments in the health sector quite common in many low- and middle-income countries. While they were not formally reported, some clues during assessment found that it is practiced also in Guinea Bissau. Doubts were confirmed by research published on 2019ⁱ. It was found that the additional financial burden for patients and their carers creates a barrier to healthcare that is not distributed evenly across society. They also impact negatively on equity and introduce distortions affecting efficiency and quality.

ⁱ Informal payments in the public health sector in Guinea-Bissau. Available [here](#).

Efficiency

While at facility level some data on rehabilitation service delivery and outcome are available, they are not properly aggregated to be analysed; though the system could be improved to measure the so-called "technical efficiency" at facility level. Considering available information on the overall structure, organization and above all, distribution of rehabilitation services within the country health system, the "allocative efficiency" result is likely low for the following reasons.

- Most of the rehabilitation services and professionals are located at national level facilities in Bissau and surrounding areas, resulting in strong unbalance between service availability and population needs in other country areas. The country rehabilitation overall structure is not optimally distributed to meet population needs and achieve efficiency.
- The essential intervention package delivered in PHC centres in Guinea Bissau does not include rehabilitation interventions nor provision of APs. The WHO Basic Rehabilitation Package can assist MOPH to plan, budget and include a limited set of prioritised interventions for rehabilitation that can be delivered in PHC. The Package includes description of the associated resources such as equipment, APs and consumables that are required to deliver these interventions. This strategy can contribute to make services closer to people's homes, making services more accessible and affordable. In turn, it will increase both the coverage of rehabilitation interventions and the system efficiency.

Accountability

Accountability and transparency for rehabilitation is still emerging and there is little clarity regarding what the government is obliged to do. Roles and responsibilities are not always clear, few mechanisms exist by which rewards and sanctions are applied and no routine reporting on the status of rehabilitation occurs.

Sustainability

Sustainability of rehabilitation requires strong political will, governance structures for rehabilitation, and sound investments to develop the sector as needs grow. The increasing attention to rehabilitation demonstrated by this assessment process for developing a national rehabilitation strategic plan, is an encouraging sign for the sustainability of rehabilitation in the country. However, the following current aspects contribute to low rehabilitation sustainability:

- *Current rehabilitation sustainability is quite limited and highly reliant on development partner support.* Government should give more priority to rehabilitation, integrating rehabilitation into already existing health financing mechanisms; and identifying/developing further financing schemes and mechanisms to ensure its sustainability.
- *Human capital for rehabilitation is lacking in number and range of competencies at different levels of the system.* To ensure institutional sustainability, MOPH should develop new competencies and support training and development of the rehabilitation workforce to meet current and future needs.
- *Sustainability of APs current provision is not certain, especially with the end of ICRC support.* Government has to take urgent actions to ensure continuity of APs current provision from the national PRC, including the development of a national priority APs list.
- *The financial sustainability of outreach rehabilitation and APs services, delivered by the national PRC represents a serious risk.* Continuation of such services will be an important challenge for MOPH without ICRC support. While delivered on monthly basis, outreach and mobile clinics are critical to ensure basic periodic rehab and APs services at the secondary level regional hospitals and in their surrounding

communities, where the most of population live.

The current government low financial investment for rehabilitation it is expected to be auspiciously overcome; with higher investments made available during strategic planning phase, budget allocated to different areas for improvement and, a monitoring and evaluation framework established to monitor the ways forward.

Summary of outcomes and system attributes

- Population living in the Autonomous Sector of Bissau and surrounding areas are covered by some moderate quality rehabilitation interventions, mainly physical rehabilitation. However, for a number of reasons, several groups have very limited or no service coverage for their rehabilitation needs.

They include: - *Groups with complex and specialized rehabilitation needs;* - *People with rehabilitation needs other than physical rehabilitation;* - *Adults with intermittent and longer term rehabilitation needs living in the community;* - *Children with developmental difficulties and disabilities;* - *People living in rural or remote areas.*

- Some public and private health facilities delivering rehabilitation and providing AP adopted different tools and scales for functional assessment of their users. However, at facility level they do not aggregate data to measure functioning gain of selected groups receiving rehabilitation. At central level, there is no system in place to properly collate and, analyse information available at facility level and to measure rehabilitation interventions functioning outcomes at population level.
- The PRC outreach services and development partners presence do their best to deliver some rehabilitation in the peripheral regions. However, equity concerns exist on economic and geographic basis. These are mainly focused on people with fewer financial resources and those that have to travel long distances to access rehabilitation in Bissau. High direct and indirect cost for both travelling and access services represent barriers for most of people living outside the autonomous sector of Bissau where there is almost no rehabilitation coverage.
- While at facility level some data on rehabilitation service delivery and outcome are available, these are not collated and used. At national level, data on facilities rehabilitation outcomes and population functioning are not monitored and managed. There is no system adopted to measure the technical efficiency at facility and system levels.
- Public information regarding rehabilitation service is somewhat available at facilities level. Accountability and transparency for rehabilitation is still emerging and there is little clarity regarding what the government is obliged to do.

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- The MOPH request of technical support demonstrates an increasing attention and interest on advancing rehabilitation in the country. However, current low rehabilitation prioritization and investments, limited human capital for rehabilitation, high reliance on external support are crucial aspects contributing to low financial and institutional rehabilitation sustainability.

11. Results of the WHO Rehabilitation Maturity Model

The *Rehabilitation Maturity Model* (RMM) is a component of the WHO *Systematic Assessment of Rehabilitation Situation* (STARS) guidance, part of the WHO *Rehabilitation in Health System: Guide for Action*. The RMM is an excel document which define, describe and assess the 50 components, part of the Health System Building Blocks, across four levels of maturity. The 50 components are also informed according to the logic of the Rehabilitation Results Chain in terms of input, output, outcome and impact.

Each of the 50 components is scored according to the level of maturity, with levels: 4. Needs no immediate action; 3. Needs minor strengthening; 2. Needs major strengthening; and 1. Need establishing (Fig. 14) .

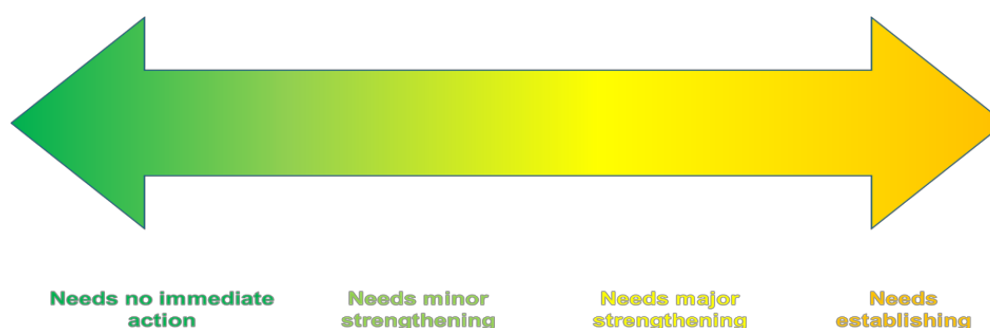


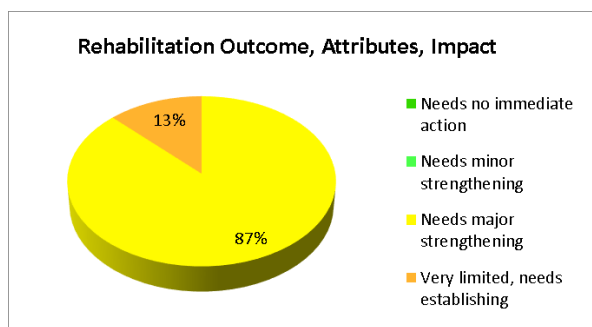
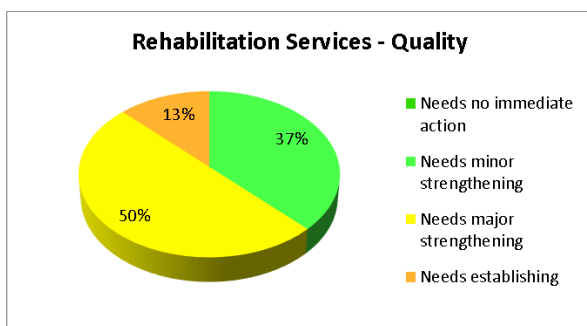
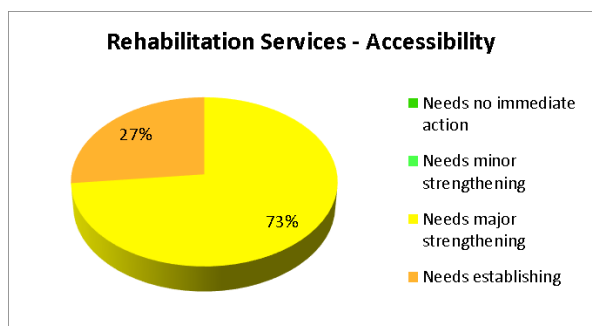
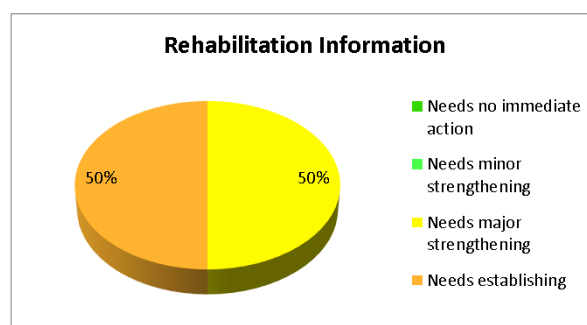
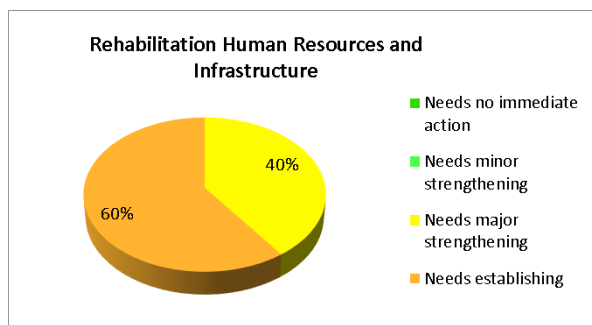
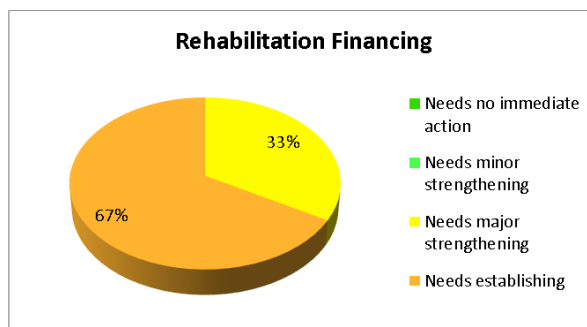
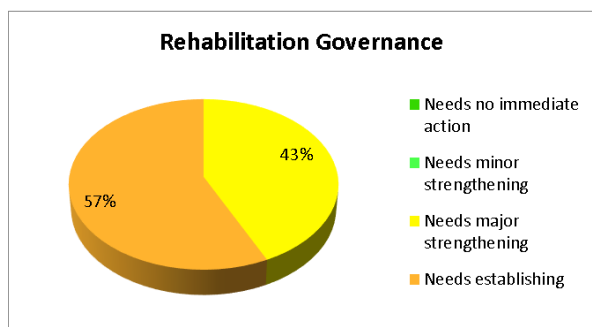
Fig. 14 - Levels of maturity of the Rehabilitation Maturity Model components.

The RMM has been used during in-country assessment (step 3 of STARS), and was referred to during report writing in STARS step 4. The rating occurred at the end of the in-country assessment period was shared with the MOPH focal point and with the TWG. However, since the two WHO tools TRIC and ATA-C were completed after the in-country assessment, the rating of few components was updated with data available from above mentioned tools.

The Guinea Bissau RMM ratings for the 50 components is grouped in the following seven headings:

- Rehabilitation Governance;
- Rehabilitation Financing;
- Rehabilitation Human Resources and Infrastructure;
- Rehabilitation Information;
- Rehabilitation Services Accessibility;
- Rehabilitation Services Quality;
- Rehabilitation Outcomes, Attributes and Impact.

The RMM includes a summary score page and charts, to provide a visual overview of results on the following seven headings.



12. Conclusions and recommendations

Strengths of rehabilitation

- MOPH is showing an increasing interest in advancing rehabilitation in the country and made formal request for technical support to the WHO CO.

This assessment is a good opportunity to have a better understanding on rehabilitation strengths, weaknesses and opportunities to advance rehabilitation.

- Rehabilitation is mentioned in the national health policy (PNS 2017) and in national health development plan (PNDS 2018-22); some standards on service delivery and AP provision are developed; a level of coordination among different agencies is emerging and a Technical Working Group for rehabilitation and AT recently set up.

The newly formed TWG and the recent approval of the strategy for the inclusion of PWD represent opportunities to improve interagency coordination, and leadership and planning for rehabilitation.

- Government annual total health expenditure in 2022 is 7.5% of GDP, it include salaries for government rehabilitation personnel; and ensured further financing for rehabilitation and AP from international development partners.

ICRC transitioning out of the country represent a challenge for the lower support available and, at the same time an opportunity for MOPH to take more responsibility and to increase financial commitment.

- Rehabilitation workforce trained abroad, and/or in country on the job by rehabilitation professionals from relevant international development partners. Some national rehabilitation infrastructures are well organized with different sections to deliver rehabilitation and the national PRC with a P&O workshop equipped to produce and deliver assistive products.

The Faculty of Medicine and INASA have the potential to play a significant role in rehabilitation workforce education and training.

- There is a number of sources for information on country disability, functioning and rehabilitation needs at national and international level; information on rehabilitation availability and utilization are available at facility level.

The establishment of the country's DHIS represent a good opportunity to expand availability of rehabilitation information at services level, for rehab policy and programme planning.

- Rehabilitation services are available in 5 tertiary/national level health facilities, in one secondary level facility and through periodic outreach in 5 regional hospitals; at primary level nutritional rehabilitation for severe malnutrition are available. National PRC

ensured rehabilitation and AP provision and services through periodic outreach in the regions, while government agencies and other stakeholders contribute to provision of AP procured through different channels. At facilities level, some tools are used to provide quality and safe rehabilitation (guidelines, protocols, standards etc.).

To expand services at secondary level / regional hospitals with rehabilitation workers and/or training of existing health workers in rehabilitation is critical.

- Population living in the Autonomous Sector of Bissau and surrounding areas are covered by some rehabilitation interventions; while PRC outreach services and development partners' programmes do their best to deliver some rehabilitation and provide AP in the peripheral regions. Public and private rehabilitation facilities adopted different tools and scales for functional assessment of their users.

Key challenges and priority areas for action

- Existing national health policy and the national health plan do not integrate rehabilitation and AT, and there are no specific national legislation, policies and plans for rehabilitation and AT. Governance, accountability and leadership for rehabilitation are still emerging and need further strength; mechanisms for rehabilitation coordination are informal on voluntary basis and do not formally exist.
- Existing health financing mechanisms do not properly integrate rehabilitation and AP, there are no specific budget plans for rehabilitation and AP and their specific expenditures are not available. MOPH financing mechanism for rehabilitation is very limited, it includes only workforce salaries, no AP and, very few people are included and covered for the rehabilitation they need.
- There are major deficits in the rehabilitation workforce; there are too few trained to meet basic population needs and quite a few key rehabilitation professions are severely understaffed. Graduate and training courses are not available in the country and there is no integration of rehabilitation across other areas of health professionals training. There are no rehabilitation workforce plans and little to no integration of rehabilitation in wider health workforce planning. There is limited rehabilitation infrastructure available at tertiary level and no rehabilitation public infrastructure at secondary and lower levels.
- There have been few population surveys on functioning and disability, standardized tools such as Model Disability Survey not used and information is not comprehensive. The newly adopted DHIS does not integrate data relevant to estimate rehab needs; nor reports data on rehabilitation availability, utilization, outcome and quality. Data available at facility level are not utilized for rehabilitation policy and programme planning and, there is no evidence on specific funding for research on rehabilitation.
- Services are concentrated in PRC and in very few other facilities, their availability outside Bissau is limited and rehabilitation not integrated in most secondary level hospitals nor in PHC centres. Rehabilitation is not integrated within the different medical and surgical care areas, and number and range of professional specialization across different areas is quite limited. AP provision is mainly for mobility area, a priority AP list is not available for the different areas and, PRC is the only to provide AP related services (fitting, user training etc.). While some quality standards are adopted at facility level, national clinical practice guidelines for rehabilitation are not available.
- Several population groups have limited, very limited or no service coverage for their rehabilitation needs. Information on functioning gain for groups receiving rehabilitation are not collated and centralised to measure rehabilitation outcomes at population level.

Recommendations for strengthening rehabilitation

Based on the systematic assessment findings, the following recommendations are suggested. These represent the starting points to discuss in the next phase of strategic planning in order to strengthening rehabilitation and AT in Guinea Bissau.

- 1. To integrate rehabilitation into MOPH priorities and strengthening rehabilitation planning and coordination at national level.**
 - 1.1. Develop a rehabilitation strategic plan, establish a monitor evaluation and review framework and proceed to the implementation phase using the WHO guidance GRASP, FRAME and ACTOR.
 - 1.2. Consider to establish a Rehabilitation and Assistive Technology Unit at the MOPH with defined roles and responsibilities to strength governance, accountability and leadership.
 - 1.3. Establish coordination mechanisms for rehabilitation and AT and support the integration of rehabilitation across relevant health and social sector planning
 - 1.4. Formalize the national Technical Working Group for Rehabilitation and AT to assist MOPH to identify priorities, provide input and feedback, and support all strategic planning and implementation phases.
- 2. Increase government investment on rehabilitation, integrating rehabilitation and AT within existing health financing mechanisms and, allocate specific budget to rehabilitation and AP.**
 - 2.1. Increase government financing for rehabilitation and AT sector, with particular focus on rehab workforce, AP procurement and provisions services, and infrastructures at different levels.
 - 2.2. Establish a budget for rehabilitation and AT integrated into wider national health financing plans and ensure definition of inclusive criteria for enrolment and services coverage by the National Institute Social Security.
- 3. Develop rehabilitation workforce for different rehabilitation areas and at different levels, training and retaining rehabilitation personnel, and training existing health workers on rehabilitation.**
 - 3.1. Develop a workforce plan for rehabilitation and AT based on country rehabilitation needs and geographic areas where population in need lives; and integrate the plan in wider health workforce planning.
 - 3.2. Ensure a wider range of rehabilitation personnel is available in government tertiary facilities; include rehab personnel in government regional hospitals and, training existing health workers in rehabilitation for PHC level.
 - 3.3. Integrate rehabilitation and AT modules in the training curricula for medical doctors and nurses trained in the Faculty of Medicine “Raul Dias Arguelles”.
 - 3.4. Develop a plan for the establishment of physical therapy education. Identify international partners to work collaboratively with national partners to develop physical therapy training in the country. Consider courses for graduate and upgrading training involving Cuban brigade, the Faculty of Medicine and the INASA School of Public Health (ENS).
 - 3.5. Identify and adopt appropriate incentivizing mechanisms (social, fiscal, professional), to retain the workforce trained.

4. Integrate rehabilitation into existing health information system, strengthening collection and reporting mechanisms.

- 4.1. Integrate and adapt DHIS rehabilitation package into the District Health Information System - 2 (DHIS 2) platform, for managers and planners enter and follow up rehabilitation data regarding accessibility, availability, human resources, quality, and service outcome.
- 4.2. Establish a routine reporting procedure on rehabilitation and AP, generating an annual report, and making sure the MOPH and other line Ministries utilize the report for programme and policy planning.
- 4.3. Ensure funding, partnership and international collaborations to support conduction of relevant research that can inform future rehabilitation service planning.

5. Stabilize rehabilitation services at tertiary level, including development of the country priority AP list, and the related procurement system.

- 5.1. Expand financial support to stabilize tertiary level rehab services, considering the lower support from international development partners expected for 2023.
- 5.2. increase number and range of rehabilitation professions according to rehab needs (stroke, CP...) and integrate rehabilitation within the different medical and surgical care areas at NHSM
- 5.3. Ensure adequate infrastructure, maintenances, equipment for rehabilitation and raw materials/components for AP production, provision and related services (NHSM RU and PRC).
- 5.4. Develop a national priority assistive product list for the different areas (mobility, vision, hearing etc.) based on the WHO Priority Assistive Product List. Integrate and coordinate AP funds through health and social financing schemes.
- 5.5. Establish a central AP procurement system within MOPH (CECOME?). For PRC raw materials procurement, consider the technology shift from direct manufacture to assembling system.

6. Develop rehabilitation capacity at secondary level regional hospitals and in selected PHC centres.

- 6.1. Invest in rehabilitation services into regional hospitals, integrating rehabilitation in different areas/wards and training selected existing health workers in rehabilitation;
- 6.2. Set up basic rehabilitation units for a priority set of conditions in the regional hospital, including new posts for rehab professionals (considering MSK most prevalent conditions, at least one PT/unit). Whereas professional are not available, at short term consider task sharing approaches with existing health personnel.
- 6.3. Introduce a set of basic rehabilitation interventions for priority conditions within existing essential service package provided in selected PHC centres. Utilize the WHO Basic Rehabilitation Package - Clinical Resource and consider task-sharing approaches with existing PHC personnel.
- 6.4. Improve the referral system, adopting diversified procedures for users' referral pathways (H. centre to regional or national level and vice versa), according to the cases severity/complexity and to the acute/chronic health condition phase.

Annexes

The following documents guided MOPH in collection of data to generate information for the assessment of the situation in Guinea Bissau. The first two (TRIC and ATA-C) were finalized by the TWG for rehabilitation and AT on July 2022 and are attached to this STARS report for further use.

- WHO Template for Rehabilitation Information Collection (TRIC)
- WHO Assistive Technology Capacity Assessment (ATA-C)
- WHO Rehabilitation Maturity Model (RMM)
- Technical Working Group for Rehabilitation and Assistive Technology (TWG)

Reference:

- ¹ Cieza A, Causey K, Kamenov K, et al. (2020). [Global estimates of the need for rehabilitation based on the Global Burden of Disease study 2019: a systematic analysis for the Global Burden of Disease Study 2019.](#)
- ² Kamenov K, Mills JA, Chatterji S, Cieza A. [Needs and unmet needs for rehabilitation services: a scoping review.](#) Disability Rehabilitation 2019 May;41(10):1227-1237. doi: 10.1080/09638288.2017.1422036. Epub 2018 Jan 5. PMID: 29303004.
- ³ WHO [Rehabilitation 2030 initiative](#) web page, with related relevant WHO resources, guidance and tools.
- ⁴ [Rehabilitation in health systems: guide for action.](#) Geneva: World Health Organization; 2019. Licence: CC BY-NC-SA 3.0 IGO.
- ⁵ [Template for rehabilitation information collection](#) (TRIC): a tool accompanying the Systematic Assessment of Rehabilitation Situation (STARS). Geneva: World Health Organization; 2019. Licence: CC BY-NC-SA 3.0 IGO.
- ⁶ The Rehabilitation Maturity Model (RMM) is a component of the WHO Systematic Assessment of Rehabilitation Situation (STARS) guidance, which forms part of the WHO Rehabilitation in Health System: Guide for Action.
- ⁷ [Rehabilitation in health systems.](#) Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO.
- ⁸ Institute for Health Metrics and Evaluation (IHME). Guinea Bissau profile. Seattle, WA: IHME, University of Washington, 2021. Available from <http://www.healthdata.org/guinea-bissau> . (Access: April 2022).
- ⁹ Institute for Health Metrics and Evaluation (IHME). GBD Compare Data Visualization. Seattle, WA: IHME, University of Washington, 2020. Available from <http://vizhub.healthdata.org/gbd-compare> . (Access: April 2022).
- ¹⁰ Institute for Health Metrics and Evaluation (IHME). WHO Rehabilitation Need Estimator. Seattle, WA: IHME, University of Washington, 2021. Available from <https://vizhub.healthdata.org/rehabilitation/> . (Access: April 2022).
- ¹¹ Ministry of Economy and Finance, General Directorate of Planning/National Statistics Institute (INE) 2020. Multiple Indicator Survey (MICS6) 2018-2019, Final Report. Bissau, Guinea-Bissau: Ministry of Economy and Finance and General Directorate of Planning / National Statistics Institute (INE). [Available in Portuguese here.](#)