STARS Situation Assessment of Rehabilitation in Aruba

Supported by the Pan American Health Organization/World Health Organization

June 30, 2023

DVG
DIRECTIE VOLKSGEZONDHEID

Pan American Health Organization

World Health Organization
Regional Office for the Americas

Acknowledgements

This Situation Assessment of Rehabilitation in Aruba was conducted as a joint effort of the Aruba Ministry of Health and Tourism (MoHT), The Aruba Department of Public Health (DPH), and the Pan American Health Organization (PAHO). The report was prepared by Monika Mann, PT, MPH, independent rehabilitation consultant and public health faculty member at the University of San Francisco. It was guided by the World Health Organization (WHO) Systematic Assessment of Rehabilitation Situation (STARS) Tool, which is an integral component of strengthening the rehabilitation sector in health systems outlined in WHO's *Rehabilitation in health systems: guide for action*.

The assessment process occurred in close collaboration with Uginia Poulina-Thomson, Policy Advisor and focal point for rehabilitation at the DPH with assistance of Anselmo Mathew, Policy Advisor at the DPH and Dr. Wilmer Salazar, Medical Advisor at the DPH. The MoHT provides governance over the rehabilitation sector though the DPH.

Special thanks are extended to all the people who took the time to share information on their work and experiences in the field of rehabilitation in Aruba. Thank you to those who provided logistical support, technical feedback, and other valuable inputs during the assessment and report writing process. The situation assessment could have not been realized without those who took the time to share information on their experience in the field of rehabilitation in Aruba.

Acronyms

AP	Assistive Products
AZV	National Health Insurance
CPD	Continued Professional Development
DoE	Department of Education
DPH	Department of Public Health
FOM	Functional Outcome Measure
HOH	Dr. Horacio Oduber Hospital
MoHT	Ministry of Health and Tourism
M&E	Monitoring and Evaluation
NCD	Non-communicable disease
OOP	Out-of-pocket (costs to health care)
OT	Occupational Therapist
PAHO	Pan American Health Organization
PM&R	Physical Medicine and Rehabilitation
PT	Physiotherapist
PWD	People with Disabilities
QIH	Quality Institute of Healthcare
RMM	Rehabilitation Maturity Model
SABA	Stichting Algemene Bejaardenzorg Aruba
SDGs	Sustainable Development Goals
SLT	Speech and Language Therapist
STARS	Systematic Assessment of Rehabilitation Situation (WHO Tool)
SVb	Social Insurance Bank
THE	Total Health Expenditure
TRIC	Template for Rehabilitation Information Collection (WHO Tool)
TWG	Technical Working Group
WHO	World Health Organization

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Executive Summary

The Aruba Ministry of Health and Tourism (MoHT) provides governance over the rehabilitation sector though the Department of Public Health (DPH). Undertaking the STARS Situation Assessment reflects an increasing focus on rehabilitation by the MoHT and the DPH.

The Situation Assessment of rehabilitation in Aruba took place on April 6 through June 30, 2023 with technical support from the Pan American Health Organization and the World Health Organization (WHO). The Assessment utilized the WHO Systematic Assessment of Rehabilitation Situation (STARS) tool to evaluate 50 components of rehabilitation. The Assessment is the first phase of the WHO *Rehabilitation in Health Systems: Guide for Action* designed to strengthen rehabilitation in health systems. The results provide an opportunity to evaluate the current status of the sector and guide next steps, in particular the development of the first National Rehabilitation Strategic Plan. The timing of the assessment is opportune given the growing need for rehabilitation in the country and upcoming opportunities to close gaps in the sector.

Rehabilitation is relevant for all the population throughout the life course, not just people with disabilities (PWD) as defined by the United Nations Convention on the Rights of Persons with Disabilities. People with short-term health conditions benefit from rehabilitation and it is often a key health intervention used successfully in the treatment of common impairments such as lower back pain, fractures, headaches, road traffic injuries, sciatica, peripheral nerve injuries, sprains, and strains. It also is an essential component in optimizing surgical outcomes, decreasing the length of hospital stays, averting complications from health conditions, and decreasing re-admissions.

Rehabilitation is primarily focused on improving functioning so that people can perform to their maximum capacity, allowing increased inclusion and participation in society. This benefits not only the individual, but society as a whole. It is an integral part of the health system and an essential component of Universal Health Coverage. Rehabilitation is of increasing importance in the primary, secondary and tertiary prevention of non-communicable diseases (NCDs), offering appropriate therapeutic exercise and activity programs as well as education on healthy lifestyles. By virtue of improving people's everyday functioning and increasing their participation in society, rehabilitation is a valuable investment in human capital.

Key Findings

Data reviewed of recent health and demographic trends in Aruba indicate a growing need for rehabilitation. The prevalence of NCDs is increasing and the population is aging.

Concurrently, people continue to experience occupational and road traffic injuries as well as typical orthopedic problems such as sprains, strains, fractures, and lower back pain that benefit from rehabilitation interventions.

A strength in **governance and leadership** is the DPH Focal Point for Rehabilitation who is a strong and motivated supporter of the sector. A limitation in governance is the **lack of a Rehabilitation Strategic Plan** to guide the sector through specific objective and obtainable goals in order that it better serve population needs. There are opportunities to improve governance in the clinical setting. **Data informed decision-making** and planning is hindered by a lack of robust processes and frameworks for reporting on workforce availability, population needs, and uptake of services.

While Aruba benefits from a **highly skilled rehabilitation workforce** secondary to receiving an excellent education in the Netherlands, there are **no quality improvement** programs in place. There is an absence of service audits, user satisfaction surveys, and periodic performance reviews. Objective measures of quality and efficiency are necessary to establish baselines and goals to strengthen the sector. A potential positive development is the new Quality Institute of Healthcare (QIH), which will focus on national healthcare norms, efficiency, and quality throughout the healthcare system.

Dr. Horacio Oduber Hospital (HOH) offers acute rehabilitation for hospitalized patients as well as out-patient appointments. A major shortcoming is the **lack of dedicated rehabilitation beds or a sub-acute rehabilitation ward.** This leads to patients who are medically stable but with continued rehabilitation needs either being kept in expensive hospital units longer than necessary or being discharged before they have completed the necessary therapy to reach optimal functioning.

The National Health Insurance Plan, AZV fully covers rehabilitation services during hospitalizations and provides most essential assistive products (AP). Physiotherapy is considered an essential component of the Plan, meaning that a prescribed number of out-patient sessions are funded as well. Occupational therapy and Speech/Language Therapy are only covered by the AZV for in-patient interventions. In order to reach the overall goal of the ***National Strategic Framework of the Health Sector***, which is to 'ensure the sustainable provision of quality (high standard) healthcare that promotes healthy lifestyles in a resilient manner'[1], all rehabilitation disciplines should be considered essential components of AZV and accessible through all levels of the healthcare continuum. Speech and language therapy and occupational therapy help assure that both adults and children reach their maximum level of functioning and are able to participate in school, work, and recreational activities.

Foundations attend to people with long-term needs. Some of them offer rehabilitation services but this is usually very limited and not sufficient to meet the need of those

requiring it. Funding for rehabilitation at foundations is often through donations so it is not secure from one year to the next.

There is a **shortage of rehabilitation workforce** across all professions including the lack of a permanent physical medicine and rehabilitation (PM&R) doctor (also known as a physiatrist) at HOH. Therapists at HOH cannot always fully attend to all of the patients who need rehabilitation services, and there are often long waits to secure an out-patient appointment with a rehabilitation professional.

There is a committed workforce that has indicated a high level of interest in strengthening rehabilitation in the country.

Key Recommendations based on the STARS Assessment

1. Strengthen leadership and planning for rehabilitation

- Draft a National Rehabilitation Strategic Plan to guide the sector through measurable and achievable objectives.
- Establish a monitoring, evaluation, and review framework for the Strategic Plan.
- Develop opportunities for rehabilitation professionals to contribute to discussions of planning, quality, efficiency and other leadership topics.
- Offer training in the collection and use of key indicators to inform decision-making, strategic planning, and management.

2. Expand delivery of rehabilitation

- Work with the AZV and specialist doctors to determine the best location for dedicated rehabilitation beds, preferably in a rehabilitation ward so that patients with complex rehabilitation needs can obtain the services that they need to reach their maximum function. Emphasize the personal, economic, and societal benefits to this plan.
- Establish a system of data collection, collation and analysis on workforce indicators, population needs, and usage of rehabilitation services in order to allow data-driven workforce planning.

- Expand the provision of home visits to increase accessibility for vulnerable populations who have difficulty leaving their homes, such as people with mobility or sensory impairments.

- Advocate for inclusion of speech and language therapy as well as occupational therapy as essential services in the health system.

- Increase financing for rehabilitation at foundations. Earmark a portion of allotments to foundations to only be used for rehabilitation.

- Cover transportation costs to rehabilitation appointments for PWD who are unable to drive or use public transportation.

- Mount a campaign to increase the awareness of the scope and benefits of rehabilitation among medical professionals and the general public.

3. Improve Quality and Efficiency of Rehabilitation

- Establish frameworks and processes to collect, aggregate, analyze and share data on quality, efficiency, patient satisfaction, workforce availability, and population needs. Train leadership in how to utilize collected data to improve quality, efficiency, and user satisfaction.

- Initiate a collaborative working group with the DPH, AZV, QIH, the Central Bureau of Statistics, the Ministry of Justice, and professional rehabilitation associations to determine strategies and standards for data collection, analysis, and cross-institution sharing.

- Design a framework for monitoring quality and initiate annual reviews that are based on expected benchmarks for specific indicators. Set improvement goals with staff based on the review process.

- Institute a regular program of client satisfaction surveys in all rehabilitation facilities. Train leadership in how to use results to improve satisfaction and improve performance of services.

- Set clear documentation guidelines including use of Functional Outcome Measures.

I. Overview of Rehabilitation

Rehabilitation is an essential health service for population health throughout the lifespan. It helps children, adults, and older people to live as independently as possible and to participate in education, work, family, and recreational activities[2]. By improving people's everyday functioning and increasing their inclusion and participation in society, rehabilitation is a valuable investment in human capital. Rehabilitation is relevant for all the population, not just people with long-term disabilities. It is often a vital health intervention after surgery, injury or decreased functioning due to neurological conditions or aging[2]. Rehabilitation is for all of the population including PWD as defined by the United Nations Convention of the Rights of Persons with Disabilities[3].

Equitable access to quality rehabilitation is key to fully realizing the United Nations Sustainable Development Goal (SDG) #3: *Ensure healthy lives and promote well-being for all at all ages*. (figure 1)

Figure 1. Sustainable Development Goals

Despite its far-reaching health, economic and social benefits, there is a substantial unmet need for rehabilitation worldwide[4]. As of 2019, about 2.4 billion people globally experience conditions that could benefit from rehabilitation[5].

There are often misunderstandings and a decreased awareness about rehabilitation among both healthcare professionals and the general public. This has contributed to lack of prioritization of the sector, resulting in a dearth of needed professionals and services.

Rehabilitation is a multi-faceted health strategy that includes promotion, prevention, curative, and palliative care. It is often delivered in a multi-disciplinary team approach including physiotherapists (PTs), occupational therapists (OTs), speech and language therapists (SLTs), prosthetics and orthotics workforce, psychologists, PM&R doctors, social workers, and rehabilitation nurses. Basic components of rehabilitation can also be delivered through appropriately trained community-based rehabilitation personnel and other primary care health personnel.

The roles of PTs, OTs, and SLTs are sometimes confused. PTs are movement experts who improve functioning and quality of life through interventions such as therapeutic exercise, hands-on care, mobility training, and patient education. OTs therapeutically utilize pertinent activities of daily living to treat physical, mental, developmental, and emotional ailments that impact a person's ability to perform daily tasks[6]. SLTs treat children and adults who have speech, language, cognitive, and swallowing disorders[7].

Rehabilitation is a highly integrated form of healthcare and it is often delivered within the context of other health programs, such as orthopedics, neurology, cardiology, mental health and pediatrics. It should be available at all levels of healthcare, from specialist referral centers to primary and community settings. Rehabilitation interventions are delivered in health facilities as well as in community settings such as homes, schools, and workplaces. Rehabilitation is also of increasing importance in the primary, secondary and tertiary prevention of NCDs, offering appropriate exercise and activity programs as well as education on healthy lifestyles.

Rehabilitation is a person-centered form of healthcare and is individually tailored in order to focus on functional goals pertinent to each individual. Teaching and motivating users to independently improve and maintain their health and functioning is an important component of services offered. In this report, as with other WHO and Pan American Health Organization (PAHO) documents, the word rehabilitation also includes habilitation which deals more with maintaining rather than improving function.

Along with its application to the general population, PWD often benefit from rehabilitation interventions to maintain and/or improve their level of functioning. On the other hand, programs for PWD that support social inclusion, participation in education, attainment of a livelihood or access to justice are *not* part of rehabilitation. These are important disability rights programs that should be delivered through non-health ministries and align to the mandate of that ministry.

In February 2017, the WHO launched the *Rehabilitation2030* initiative and a 'Call for Action' was raised. (figure 2) It identified ten areas for united and concerted action to reduce unmet needs for rehabilitation and strengthen its role in health systems. WHO also released the *Rehabilitation in health systems guidelines*[8] in 2017. A key tenet of these guidelines is that rehabilitation is a health service for all the population to be made available at all levels of

healthcare. In order to strengthen rehabilitation it is necessary that leadership from Ministries of Health develop strategic plans, establish monitoring and evaluation (M&E) frameworks, and implement agreed-upon recommendations[8]. The guidelines provide evidence-based, expert-informed recommendations to support Ministries of Health and stakeholders to strengthen and extend quality rehabilitation in order to strategically and systematically respond to the needs of the population.

Figure 2. Rehabilitation 2030 - A call for action

II. Background and Methodology

WHO Rehabilitation Guide for Action

To assist countries in strengthening rehabilitation, WHO developed the *Rehabilitation in Health Systems: Guide for Action*[4]. It facilitates leadership and planning for rehabilitation through a situation assessment and strategic planning process, and strengthens rehabilitation information and accountability through the development of systems that support rehabilitation M&E. The strategy is divided into four key phases, each with an accompanying methodological tool. (figure 3) This report is based on qualitative and quantitative data gathered in Phase One, the Situation Assessment.

Figure 3. The Four Phases of WHO Rehabilitation Strengthening and Accompanying Tools

FOUR-PHASE PROCESS	GUIDANCE
1. Determine the situation	Systematic Assessment of Rehabilitation Situation (STARS)
2. Develop a rehabilitation strategic plan	Guidance for Rehabilitation Strategic Planning (GRASP)
3. Establish a rehabilitation monitoring framework, and evaluation and review processes	Framework for Rehabilitation Monitoring and Evaluation (FRAME)
4. Implement the strategic plan	Action on Rehabilitation (ACTOR)

The STARS tool is based on:

- a logic model for rehabilitation assessment (figure 4),
- the WHO six health system building blocks (table 1),
- the rehabilitation in healthcare model (figure 5).

Figure 4. Rehabilitation Results Chain

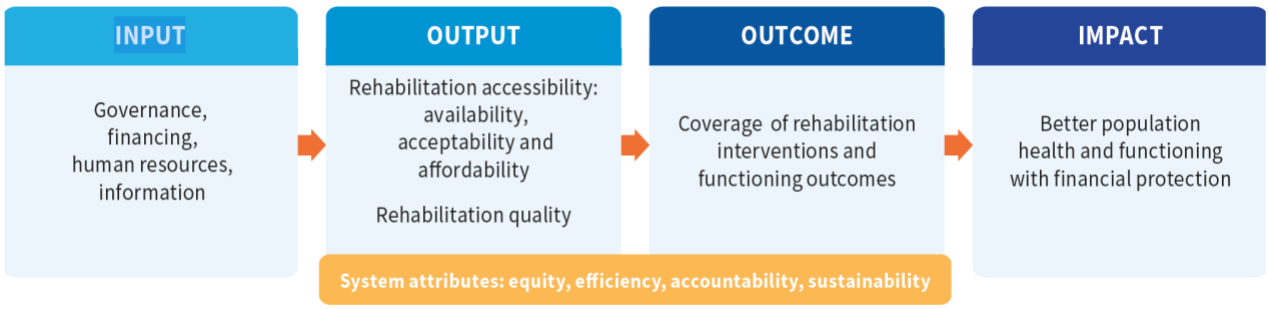
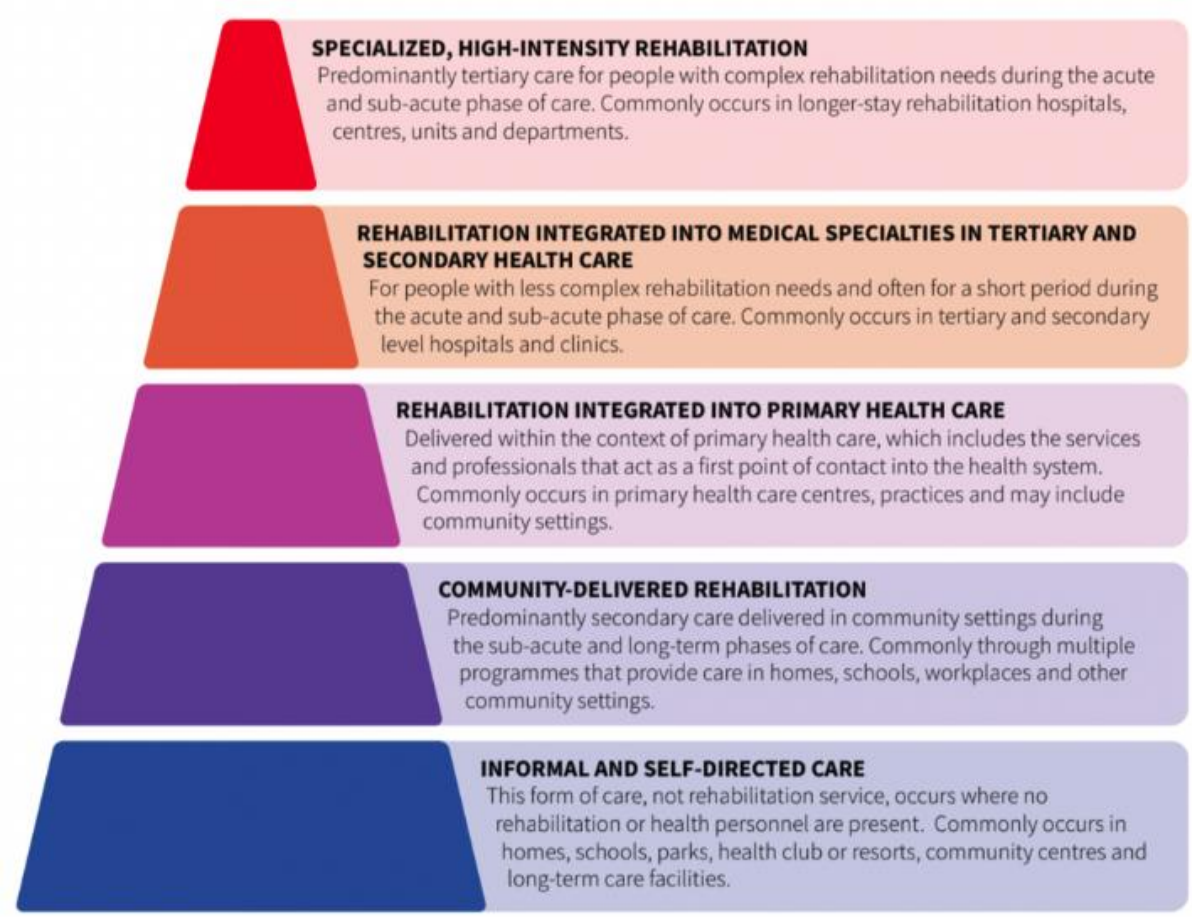


Table 1. Health System Building Blocks and Rehabilitation

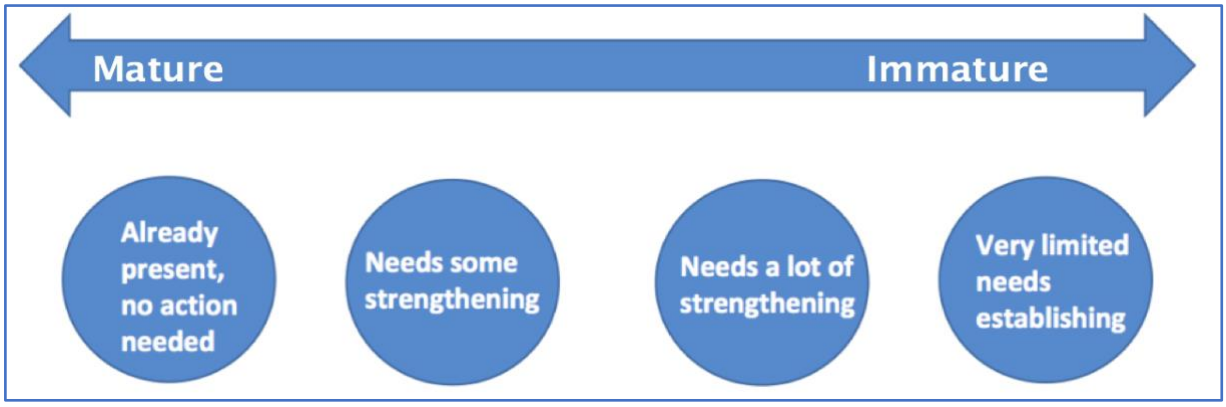
THE SIX BUILDING BLOCKS OF THE HEALTH SYSTEM	REHABILITATION COMPONENT
LEADERSHIP AND GOVERNANCE	• Laws, policies, plans and strategies that address rehabilitation. • Governance structures, regulatory mechanisms and accountability processes that address rehabilitation. • Planning, collaboration and coordination processes for rehabilitation.
FINANCING	• Health expenditure for rehabilitation. • Health financing and payment structures that include rehabilitation.
HEALTH WORKFORCE	• Health workforce that can deliver rehabilitation interventions – including rehabilitation medicine, rehabilitation-therapy personnel, and rehabilitation nursing.
SERVICE DELIVERY	• Health services that deliver rehabilitation interventions, including in specialized rehabilitation hospitals, centres, wards and units; in tertiary and secondary hospitals and clinics; in primary health care facilities and in community settings.
MEDICINES AND TECHNOLOGY	• Medicines and technology commonly used by people accessing rehabilitation, particularly assistive products.
HEALTH INFORMATION SYSTEMS	• Data relevant to rehabilitation in the health information systems, such as population functioning data, rehabilitation availability and use data, and rehabilitation outcomes data. • Research relevant to rehabilitation policy and programmes.

Figure 5. WHO Rehabilitation Healthcare Framework



Fifty components of rehabilitation that are fully functioning in a mature health system are derived from these three frameworks and outlined in the Rehabilitation Maturity Model (RMM). All of these components are methodically considered during the assessment and rated across four levels of maturity. (figure 6)

Figure 6. Rehabilitation Maturity Model Rating Continuum



The 50 components are grouped under six domains, which are based on the WHO Health Systems building blocks and take into account the Rehabilitation Results Chain. Six domains form the overall structure of this report: governance; financing; human resources & infrastructure; information; service accessibility; service quality; and attributes & outcomes.

The purpose of rating the components utilizing the RMM is to provide a detailed overview of the maturity and performance of the rehabilitation sector. This overview enables comparison across components and domains that can then assist in the identification of priorities and recommendations. It is anticipated that the results can be compared over time to inform progress within a country.

Stages of the STARS Situation Assessment

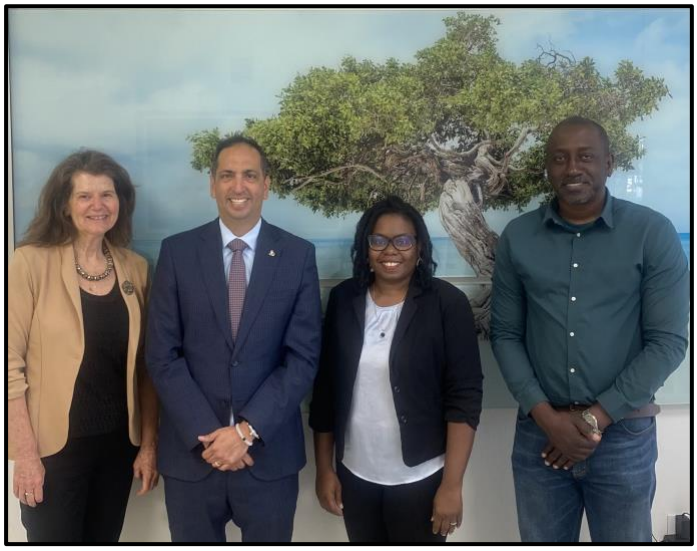
The Situation Assessment in Aruba occurred in four stages. During **Stage One, a** Technical Working Group (TWG) was formed and logistical plans were made for independent rehabilitation consultant, Monika Mann, PT, MPH to visit the country. The roles of the TWG are to offer contextual input and feedback to the consultant regarding findings of the Assessment. Members of the TWG, MoHT leadership, and other stakeholders completed a comprehensive Template for Rehabilitation Information Collection (TRIC), which was then sent to the consultant to read before the in-country assessment. The consultant also reviewed pertinent documents related to rehabilitation and the health system in Aruba. These included:

- *The National Strategic Plan, 2020-2022*
- *The National Strategic Framework for the Health Sector, 2021 – 2030*
- *The National NCDMap Report*
- *Strong and Resilient National Public Health System: Auditing Implementation of Sustainable Development Goals, March 2023*
- *The Situation Analysis of People with Disabilities and the Assessment for the Advancement of Community Based Rehabilitation*
- *The Aruba Census2020 Results*
- *Health in the Americas 2022*
- *STEPS Aruba 2006: Risky Living*

Stage Two consisted of an in-country assessment on April 17 – April 26 in which the consultant collected qualitative and quantitative information about the practice of rehabilitation in Aruba. Input was informed by 52 key informant interviews and 1 focus group discussion of 20 people. (Appendix A). Additionally, numerous site visits were conducted to health and rehabilitation facilities. The consultant had the opportunity to meet with the Minister of Health and Tourism (Figure 7), representatives from various other ministries, rehabilitation professionals, physician groups, government departments, foundations, Disabled Person's Groups, and rehabilitation users. Information from interviews was simultaneously recorded on a laptop computer or via written notes. The

consultant conferred regularly with Uginia Poulina-Thomson, Rehabilitation Focal Point for the DPH. The Assessment was informed by collaborating with the TWG, made up of key stakeholders in the fields of Rehabilitation.

Figure 7: Meeting with the Minister of Health and Policy Advisors from the DPH



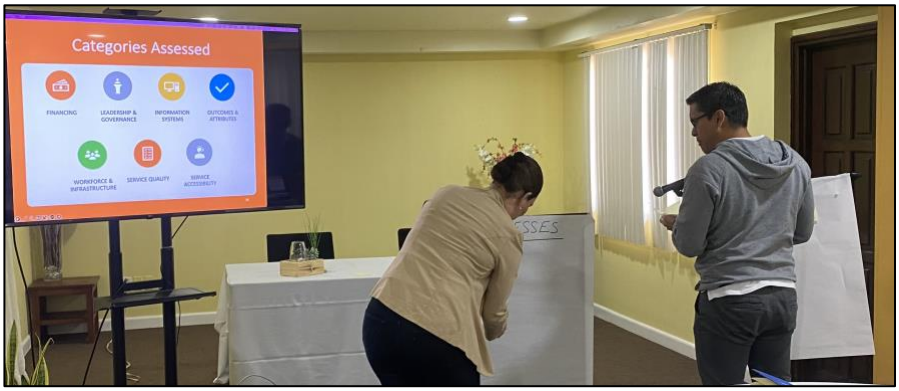
In **Stage Three,** preliminary analysis commenced. Data and information gathered was analysed against the 50 components of the RMM tool. A full day participatory workshop for members of the TWG and other stakeholders took place on April 25, 2023. (Figures 8 – 10) The presentation included an introduction to the *Rehabilitation 2030 Plan for Action*, an overview of the findings from the STARS Situation Assessment, and a preview of next steps in order to strengthen rehabilitation in Aruba. Feedback from the stakeholders was encouraged throughout the day and noted by the consultant. Attendees worked together on the following activities:

- developing a SWOT Analysis (See Appendix B),
- forming problem statements about gaps in rehabilitation that include who, what, where, when, why, & impact,
- creating SMART goals, and
- practicing 'elevator speeches' for rehabilitation advocacy.

Figure 8. Stakeholder's Workshop

Figure 9. Stakeholder's Workshop Presentation

Figure 10. Stakeholder's Workshop



Stage Four of the Situation Assessment is the drafting of the Report. A draft report was completed on May 10 and shared with partners at the DPH for feedback. Appropriate editorial changes were made before the Final Report was submitted on June 30, 2023.

The content of the Final Report will form the basis for moving forward with the next phases of the *Rehabilitation Guide for Action* in order to strengthen rehabilitation and fully integrate quality, accessible services into all levels of the health system. Future phases of the Guide for Action include establishing a strategic plan, developing an M&E framework, and implementing action steps. A WHO consultant will be able to return to Aruba to work with rehabilitation leadership and the TWG on these elements. Using the Final Report and RMM as a guide, areas that have been identified as needing improvement can be prioritized and highlighted in the strategic plan. Specific, measurable action steps will form a roadmap for future improvement and an M&E framework will be developed to regularly evaluate progress toward measurable goals.

III. Aruba: Background, Health System, and Rehabilitation Needs

Background

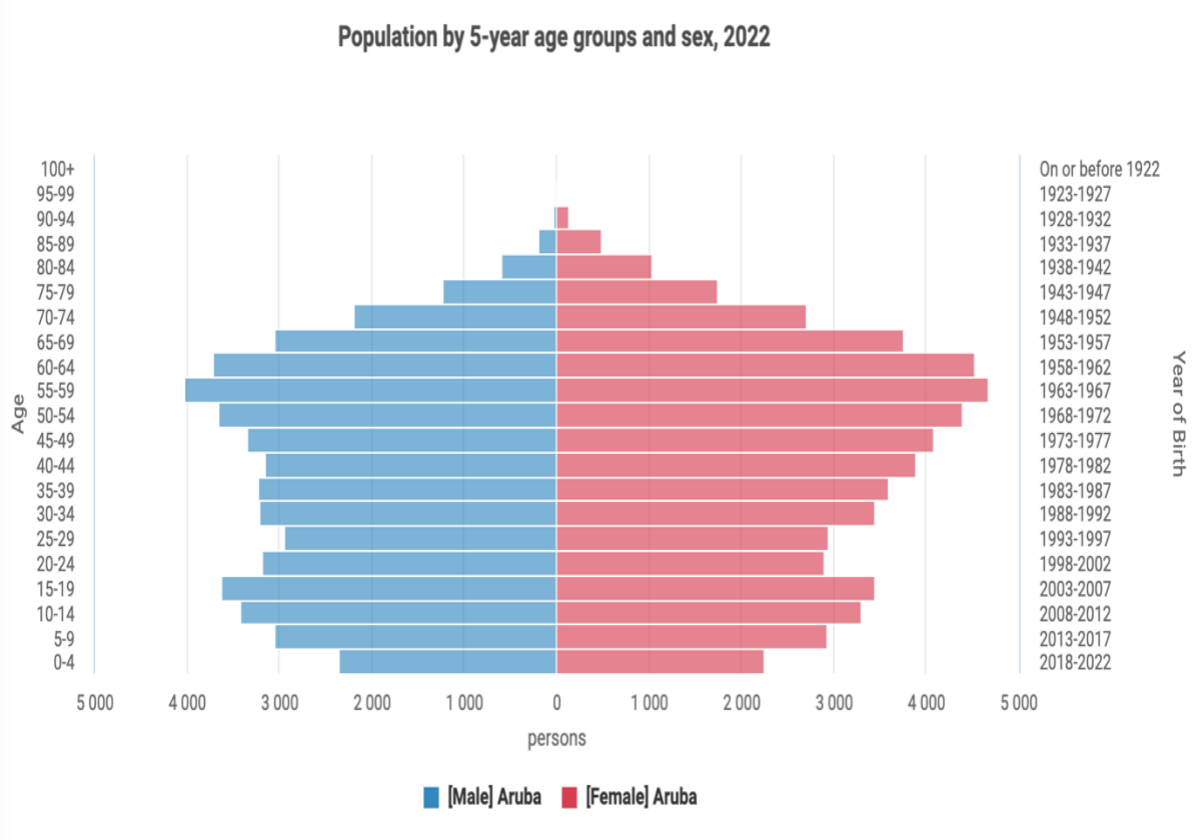
Aruba is located about 25 km off the coast of Venezuela in the Caribbean Sea. The island is 32 km long and 9.5 km wide at its widest point. Until 1986, Aruba was part of the Netherlands Antilles. It then became an independent country, while remaining a member of the Kingdom of the Netherlands. Aruba is autonomous in internal affairs such as administration and management of public policies. The Dutch government is responsible for defense and foreign affairs.

The World Bank categorizes Aruba as a high income country[9]. It currently has a significant public debt[10]. Its economy is highly tourism-dependent and suffered a significant negative impact due to the COVID-19 pandemic. Current economic projections are positive. The National Multi-Sectional Action Plan for Non-Communicable Diseases states that approximately 61% of the government's budget was allocated to social services including health, social security, and education between 1999 and 2019[11].

The population in 2023 is estimated to be 123,702[10], of which about 44% live in urban regions. According to information gathered from the TRIC tool, there are also many undocumented people in the country, especially refugees from Venezuela. The 2020 Census found that the median age is 42[12]. The country is multi-ethnic and multi-lingual with about 79% of the population being made up of Dutch nationals, 12% from nearby Latin American countries, and 4% from other Caribbean islands[10]. Life expectancy at birth was 76.6 years in

2021[13]. The population pyramid for Aruba illustrates a country with a decreasing birth rate and aging population[14].(Figure 11) The population growth rate in 2023 is estimated at a low 1.11 percent[10].

Figure 11. Aruba Population Pyramid, 2022



Aruba has a moderately old and aging population structure with 23% of the population being over 59 years of age in 2021[15]. It is expected that Aruba's population will continue to age with the over 65 population rising to 22.3% by 2040, and to 26.1% by 2060[13]. This has general public health and specific rehabilitation implications as older adults tend to have more health and rehabilitation needs in order to maintain or improve their functioning. It also presages the importance of 'prehabilitation' and the use of rehabilitation to help prevent falls and minimize the effects of NCDs in order to keep older adults from having more serious health needs. This not only benefits older adults but has a positive effect on the health system and society by reducing the need for more expensive interventions and long-term care. As of 2019, 44% of households included at least one person 60 years or older[15]. Figures 12 – 14 are taken from the 2019 Pilot Census conducted by the Aruba Central Bureau of Statistics[15] and illustrate health conditions of the persons 60 and older that can benefit from rehabilitation.

Figure 12: Disability and Chronic health Conditions in Persons 60 years and older

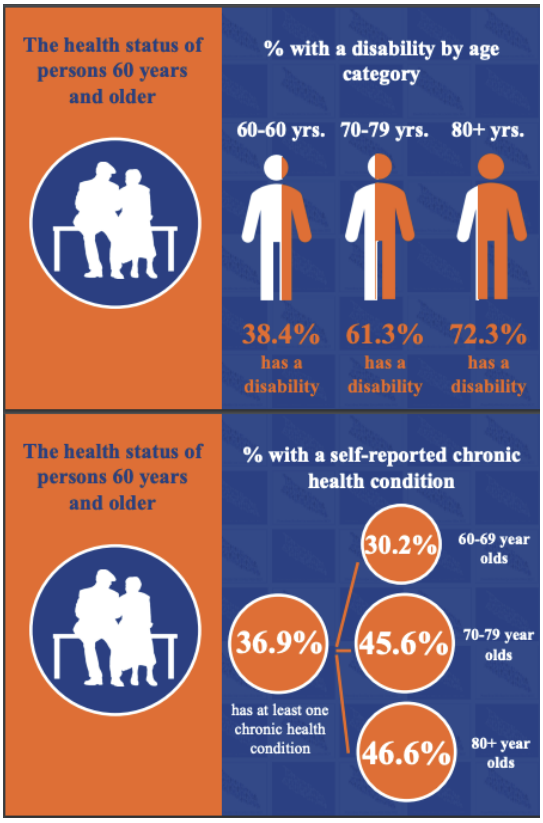


Figure 13. Functioning of People 60 and older

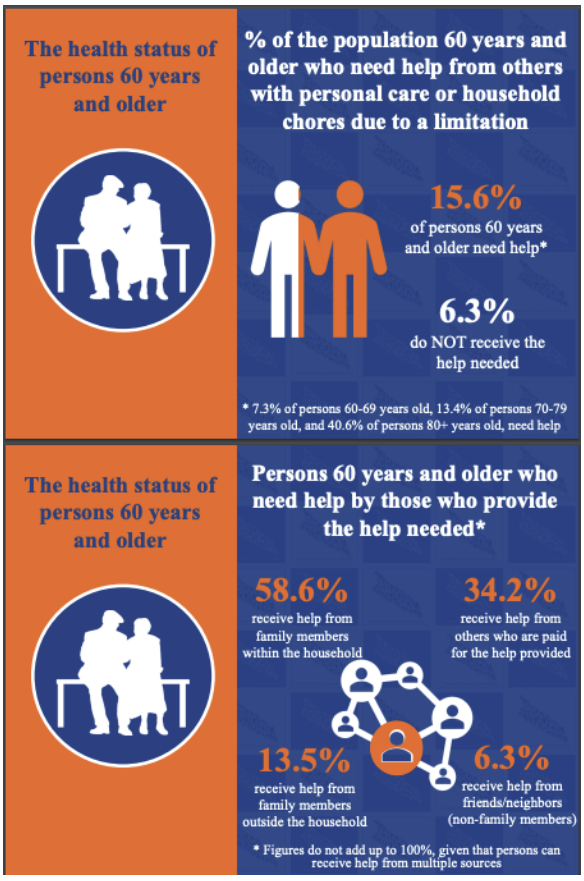
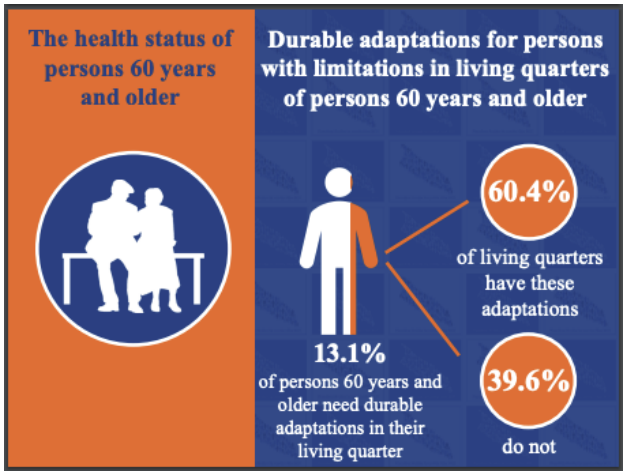


Figure 14. Adaptations of living quarters needed to persons 60 and older



Health System

The health system in Aruba is largely based on the Dutch model. The Department of Public Health (DPH) is responsible for surveillance, M&E within the health system[11]. No organizational chart of the MoHT could be located. The DPH is a part of the MoHT and the focal point for rehabilitation is within the DPH.

The National Health Insurance Agency (AZV) offers a system of universal coverage that is available to all citizens. The Agency emphasizes that it covers 'cure, not care'. Practices that are deemed to be more in the category of 'care' are usually administered by foundations that are partially funded by the Ministry of Social Affairs for basic operating costs, and also seek donations for programming and other expenses. In 2015, the total costs of healthcare were approximately US$268 million or US$2343 per capita. This comes to about 10% of the gross domestic product (GDP). (In comparison, the Netherlands spends about 11.2% of its GDP on healthcare[16].) In Aruba, healthcare financing was broken down as follows: 75.8% AZV; 20.3% Government budget; 3.5% out of pocket (OOP) payments[11]. The AZV is funded through taxes. It covers all in-patient rehabilitation interventions. A prescribed number of physiotherapy sessions are covered on an out-patient basis, but this is not the case for occupational therapy and speech and language therapy. (See details in the Rehabilitation Financing Section)

There is one 288 bed secondary/partial tertiary hospital in the country. It does not have a dedicated rehabilitation ward or any dedicated rehabilitation beds. There are both government-supported and private long-term care facilities on the island that offer limited rehabilitation services.

The Minister of Health hopes to increase the emphasis on prevention in the health system. A Prevention Plan was launched in 2020 in which a $15 tax is charged to every visitor to the

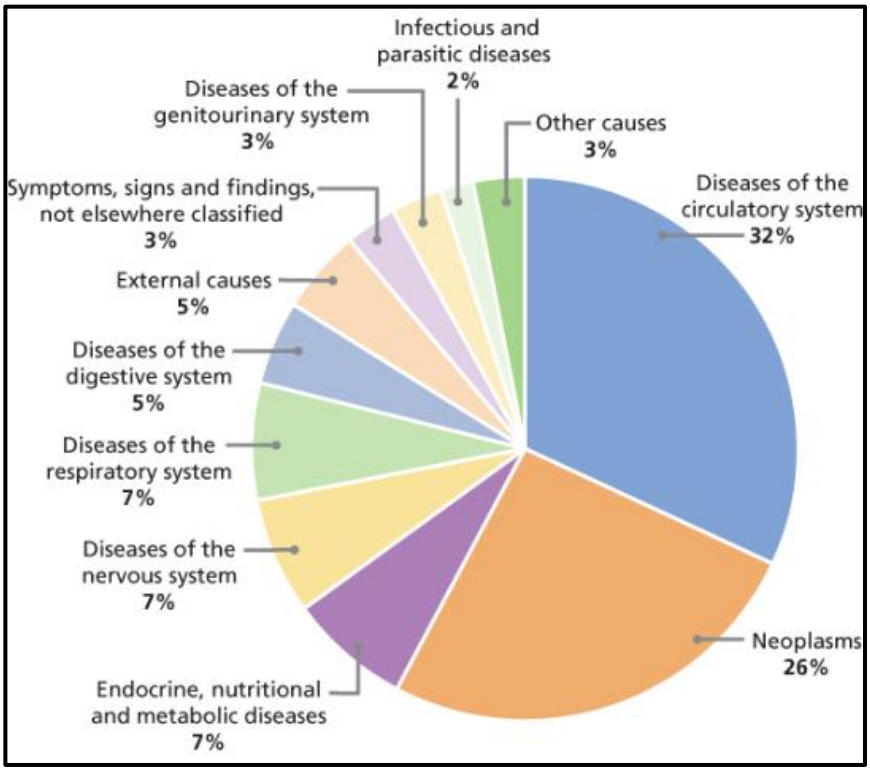
island. According to the Minister, a percentage of these funds is allocated toward prevention planning and activities.

There are no national medical schools or universities that graduate rehabilitation professionals on the island. There are three international, off-shore medical schools but graduates of these facilities are currently not able to be licenced to practice on the island. Most health care professionals are trained in the Netherlands with a minority being recruited from other countries in the Americas.

Health Trends and Rehabilitation Needs

Very little direct data on rehabilitation needs in Aruba exist. However, because rehabilitation is relevant to a wide range of health conditions, data on the rehabilitation needs of the population can be partially extrapolated from information on other related health conditions and trends. As noted, population data, including distribution by age and urbanization, highlight the need for rehabilitation. As populations age the number of people living with chronic diseases increases and this results in an increase in rehabilitation needs. The top four causes of death in Aruba between 1999 and 2017 were all due to NCDs: cardiovascular diseases, cancers, diabetes, and chronic respiratory diseases[13]. The Central Bureau of Statists notes that 29% of deaths were due to neoplasms and 27% were due to diseases of the circulatory systems in 2021[17]. Below is a pie chart illustrating causes of mortality in Aruba in 2014[18]. (figure 15)

Figure 15: Pie Chart of causes of mortality in Aruba, 2014

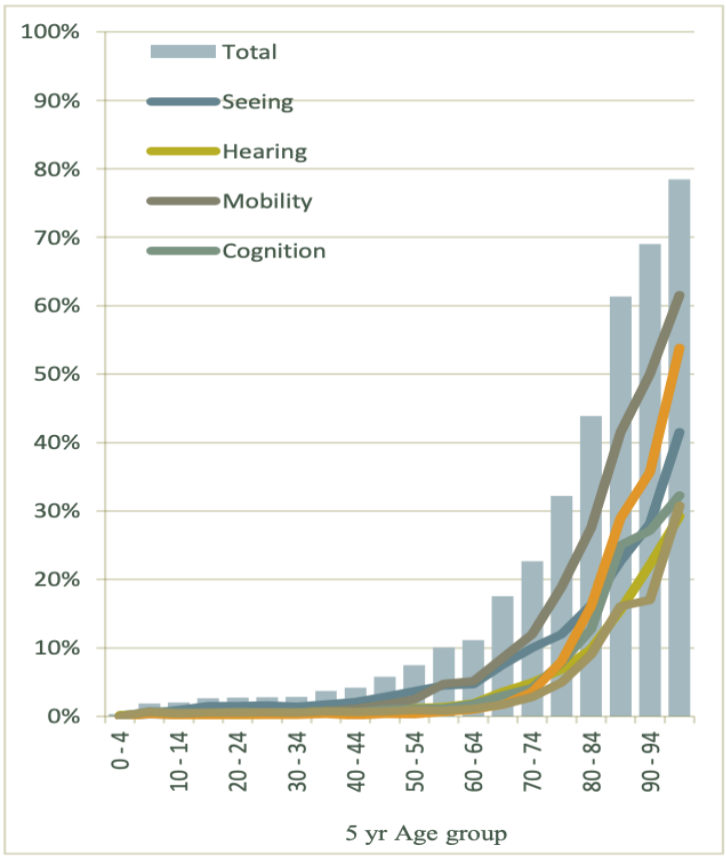


According to the 2010 census about 32% of the population reported having one chronic health condition. That increased to about 50% of people over the age of 65 reporting a chronic health condition. In 2018, 19% of the population self-reported to DPH as having high blood pressure.
The National Strategic Plan 2022 states:

> There is an urgent need to tackle the burden of NCDs in Aruba and the resulting social, health, and economic impact on the population[19].

In the 2010 Aruba Census, 6,955 people reported having a disability on at least one domain of functioning[20]. This represents 6.9% of the population. It should be noted that this is much lower than the global estimate of 15% of the world's population as reported by the WHO in 2023[21]. The two most common disabilities reported in Aruba were in the visual and mobility domains. As people age, there is an increase in mobility and self-care disabilities. (Figure 13) The 2010 census found that 26.9% of PWD in Aruba needed help with personal care and/or household chores[20]. While this is not the work of rehabilitation professionals, it might be worth investigating deeper as to if these people received the full extent of rehabilitation needed.

Figure 16: Prevalence of disability in Aruba by domain of functioning and age[20]



Between January 2020 and April 6, 2023 there were 44,114 confirmed cases of Covid-19 and 287 Covid-related deaths[22]. As of 31 March 2023, a total of 216,781 vaccine doses have been administered[23]. No statistics were found on long Covid, which often affects mobility, functioning, and participation in society.

No statistics on Disability Adjusted Life Years (DALYs) specific to Aruba were readily available. Table 2, which outlines the top 20 causes of DALYs in Central American, Mexico, and Latin Caribbean[24,25] can be used as a proxy in lieu of other, more country-specific data. Many of the top causes of DALYs are associated with aging and NCDs. Additionally, Table 3 lists the top 20 causes of Years Lived with Disability (YLD) in the region[24,25]. This data is useful in determining rehabilitation workforce needs.

Table 2. Top 20 causes of DALYs in Central American, Mexico, and Latin Caribbean

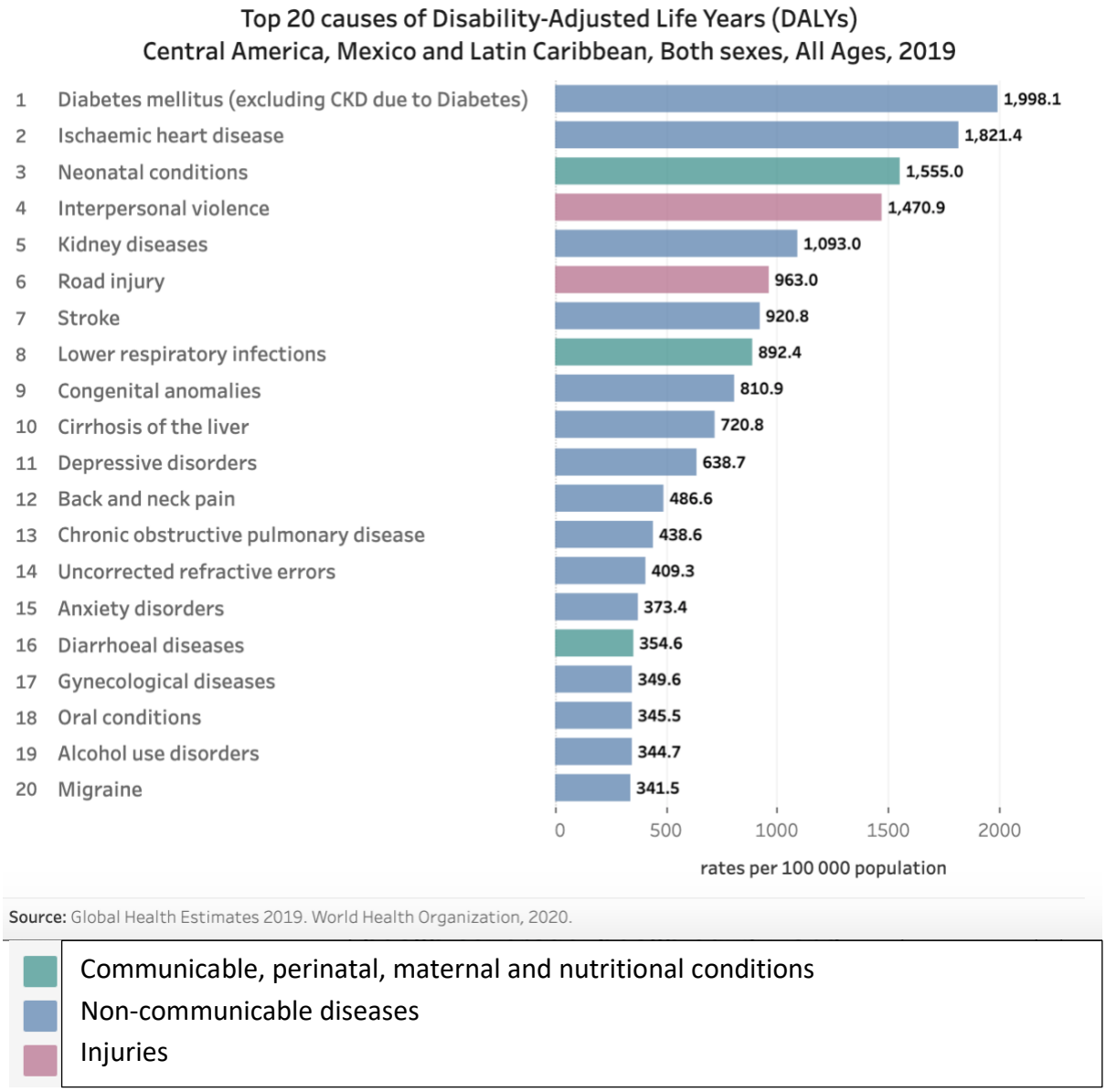
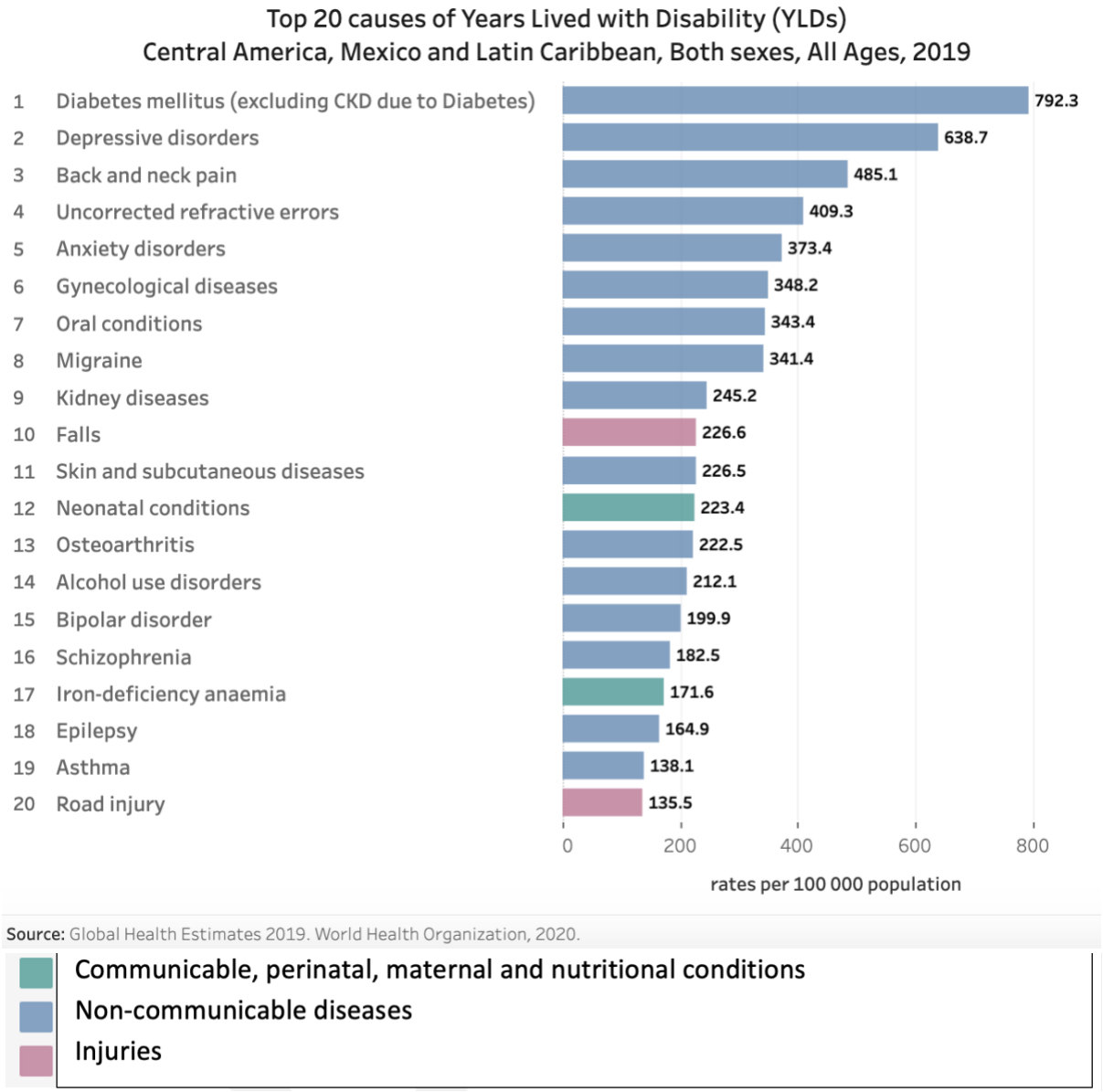


Table 3. Top 20 causes of Years Lived with Disability (YLDs) Central America, Mexico and Latin Caribbean, Both sexes, All Ages 2019



According to the DPH much of the population is overweight or obese, which is a risk factor for NCDs. TRIC respondents estimated that there are about 320 road traffic injuries annually. The WG of Disability Statistics reports that 1.8% of the population have disabling vision loss and the prevalence of disabling hearing loss is 1%. According to a TRIC response, there is no readily available data on the prevalence of developmental or congenital conditions in children or neurological conditions throughout the life course.

IV. Rehabilitation Governance

Rehabilitation Governance	Status
Rehabilitation included in *National Strategic Framework of the Health Sector*	Minimal
Rehabilitation included in *Strong and Resilient National Public Health System: Auditing Implementation of Sustainable Development Goals*	No
Rehabilitation included in National Multi-Sectoral Action Plan for Non-Communicable Diseases	Yes
Is there a National Rehabilitation Strategic Plan	No
Rehabilitation represented in the DPH	Yes; Focal point for Rehabilitation
National Rehabilitation Task Force/Steering group/Committee	no
Comprehensive Performance/ Status Reporting for Rehabilitation	No
National Rehabilitation Guidelines	No
Rehabilitation Practice Acts	No

There are many opportunities for strengthening leadership in the rehabilitation sector. There is currently no permanent PM&R doctor. The manager of the rehabilitation department at HOH is a nurse who is not a rehabilitation specialist. She also manages endoscopy, echocardiograms and other radiological testing. She indicated that the rehabilitation staff self-manages issues of workforce performance. Additionally, private practitioners contract independently with the AZV, which doesn't regularly collect data on quality indicators. The Aruba Association of Physiotherapists has 32 members who are primarily private practitioners. Until a TWG was assembled for the STARS Situation Assessment, there was no regularly functioning mechanism for leaders in rehabilitation to convene, coordinate, and collaborate.

The Focal Point for Rehabilitation is a strong supporter of the sector. DPH Leadership has demonstrated renewed interest in strengthening the rehabilitation sector as evidenced by requesting a STARS Situation Assessment to be carried out and committing time and effort to the process. It is expected that there will be resultant advancements in the domain of governance for rehabilitation.

A. Rehabilitation Legislation and Policy

The Health System in Aruba has demonstrated its support of rehabilitation by including it in the AZV. Currently, only physiotherapy is considered an essential service with full coverage but there is ongoing advocacy to include speech and language as well. Hopefully, occupational therapy can also be considered an essential service in the future.

1. National Strategic Framework of the Health Sector 2021 – 2030

The National Strategic Framework was published in March of 2021. The overall goal of the framework reads as follows:

> By 2030, ensure the sustainable provision of quality (high standard) healthcare that promotes healthy lifestyles in a resilient manner[1].

Although rehabilitation is an important health system strategy to ensure reaching this goal, it is only mentioned briefly on one occasion in relationship to Strategic Priority # 2 below, and is not indicated as a key discipline in the Framework. There appears to be a lack of awareness of benefits of rehabilitation in optimising functioning and preventing co-morbidities and disability.

The plan outlines four strategic priorities listed below.[1]

1. Strengthen Leadership and Governance, including, among other points:
    a. Clarifying roles and responsibilities to strengthen health system sectors and establish a more coordinated approach.
    b. Strengthen information systems in order to utilize data for evidence-based decision making, and M&E.
    c. Strengthen M&E frameworks in order to assess progress toward reaching stated goals.

2. Streamline the health system and services to assure access to quality person-centered care taking into account the context of the community, including among other points:
    a. Intensify health Promotion and Disease Prevention efforts at the primary and secondary levels.
    b. Strengthen planning and policy development to meet the growing and changing healthcare needs of key populations including older adults, PWD, children, and people with mental illnesses.
    c. Improve system-wide quality assurance efforts.

3. Continue to ensure the competence of the health workforce to enable

the provision of quality services, including among other points:

a. Put into practice professional and technical standards in activities such as training, retraining, credentialing, and accreditation as well as implement practice standards and protocols.

4. Restructure financing and funding mechanisms to ensure the provision of quality services in an equitable manner, including among other points:
   a. Investigate strategies that prioritize affordable care to optimize the value of the service.
   b. Offer incentives for Health Promotion and Disease Prevention

2. Audit of the National Public Health System

The report entitled *Strong and Resilient National Public Health System: Auditing Implementation of Sustainable Development Goals* was published in March, 2023[26]. The audit took place between October 2021 and November 2022. The goal was to determine the resiliency of the health system and offer recommendations to improve resiliency, per SDG #3 d. which reads as follows[27]

> **SDG #3d: Emergency Preparedness**
> Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.

The results are to be used to develop priority objectives for the next three to five years with an emphasis on increasing equitable access to the health system and prioritizing vulnerable groups such as "women, people with disabilities or other disadvantages, the poor and people at risk"[26]. Recommendations included:

- Defining specific SDG 3 targets and indicators,
- Finalizing and enforcing a new Ordinance for Public Health including provisions for health protection and promotion for the population,
- Identifying and seeking input from vulnerable populations,
- Ensuring an effective strategy for assessing, monitoring, evaluating, and reporting on ability to forecast, prevent, and prepare for public health risks,
- Addressing identified gaps, leaving no vulnerable groups of the population behind.

Rehabilitation is not mentioned in the body of the report although a goal is to prioritize equitable access to the health system of vulnerable groups such as PWD who often have rehabilitation needs.

3. National Multi-Sectoral Action Plan for Non-Communicable Diseases

The government of Aruba developed a National Multi-Sectoral Action Plan for Non-Communicable Diseases, 2020 – 2030, which outlines a strategic plan for the prevention and control of NCDs between 2020 and 2030[11]. The plan focuses on the four leading NCDs in Aruba: cardiovascular diseases, cancers, diabetes, and chronic respiratory diseases. It developed action plans and goals to control the five preventable risk factors for these diseases: 'unhealthy diet, tobacco use, harmful use of alcohol, physical inactivity, and air polution'[11]. One of the guiding principles of the Plan is focusing on Prevention. The NCD MAP report states that:

> … ongoing consideration will be given to ensuring cost-effective, evidence-based treatment, care, rehabilitation, and support for persons diagnosed with NCDs[11].

Four strategic action areas have been identified:

- Establishing effective leadership and governance for implementation of NCD MAP,
- Strengthening NCD surveillance, M&E, reporting and decision-making as part of the national information systems for health,
- Reducing NCD risk factors, promoting protective factors, and addressing social determinants of health, and
- Strengthening the integration of preventative and curative services for the effective management of NCDs, including self-management[11].

Rehabilitation is a key strategy in preventing and managing NCDs. Its role and benefits as a vital player in these efforts is not emphasized or fully elaborated on in the NCD MAP document.

4. A Situation Analysis of People with Disabilities in Aruba and an Assessment for the Advancement of Community Based Rehabilitation

A Situation Analysis of People with Disabilities in Aruba and an Assessment for the Advancement of Community Based Rehabilitation was carried out in 2021.
Some key Recommendations of the Assessment are as follows:[28]

Health:

- Build capacity of DPH staff
- Create awareness of healthcare staff

Education:

- Reinforce early detection and diagnosing
- Build relationships with educational organizations abroad that can offer online courses

Livelihood

- Address issues of employment for PWD

Social:

- Create a disability registry
- Offer case management to families of PWD

Empowerment

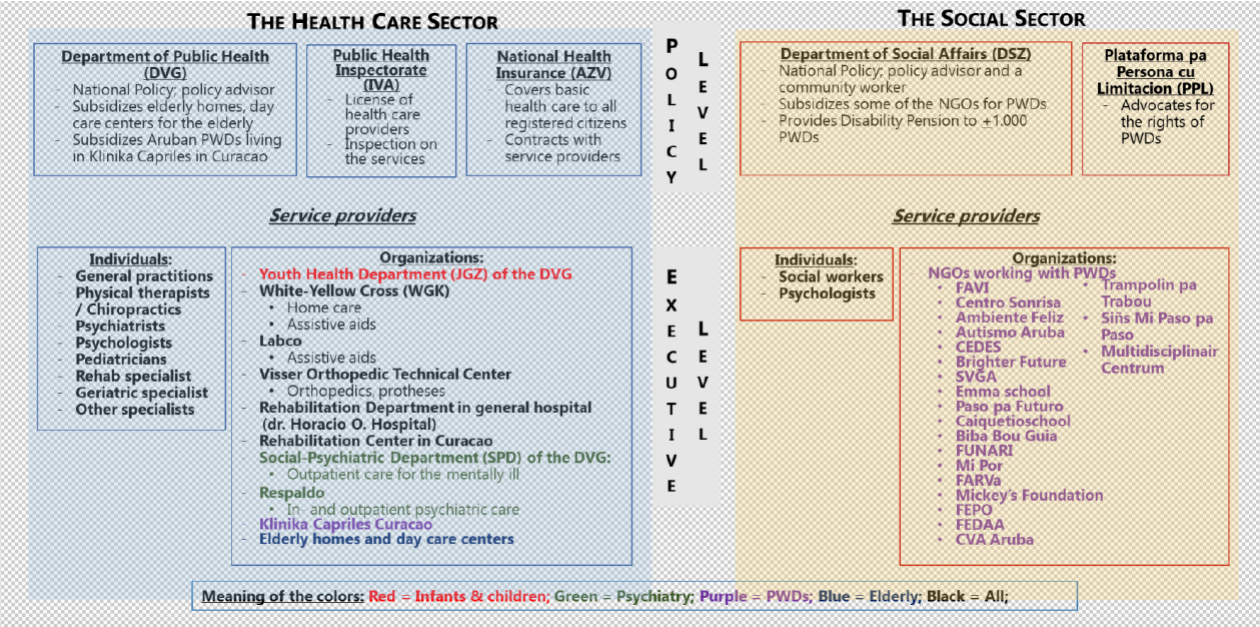
- Strengthen Platform for PWD

Mental Health

- Establish mental health and psychological support services
- Facilitate access to mental health at the primary care level
- Build capacity of healthcare workers

Stakeholder mapping indicates that the healthcare sector and the social sector are the primary areas of the government involved with PWD[28]. (Figure 14)

Figure 17: Stakeholder Mapping of Sectors Providing services for PWD



B. Rehabilitation Reporting, Accountability, and Transparency

This refers to accountability at the levels of rehabilitation leadership, service providers, and governing agencies. Accountability and transparency occur when roles and responsibilities are clear and there is acceptance of the consequences of actions for which people assume

responsibility. Accountability requires setting measurable indicators and attaining information to track progress. Currently, there are almost no such mechanisms or reporting processes in place. No data regarding overall quality, efficiency, patient satisfaction, and performance is recorded and analyzed.

Additionally, evidence-based workforce planning is hindered because there is a minimal reporting on service availability, population needs, and uptake. A data sharing structure should be developed between the DPH and the AZV regarding rehabilitation. DPH needs timely access to data to enable evidence -driven policy and monitor workforce availability. A lack of access to data hinders planning that would benefit the Aruban population.
The DPH also only has limited access to data on rehabilitation needs in the criminal justice system and difficulty accessing information on road traffic injuries.

It appears that most rehabilitation professionals work semi-autonomously without much oversight, mentoring, or leadership. This is true throughout the health system.

Transparency in leadership entails a wide audience knowing how and why decisions are made, particularly regarding resource allocation. There was a lack of clear understanding among stakeholders interviewed on how decisions are made, and this seemed to be partially due to (1) a lack of a framework for making decisions, and (2) a lack of communication between the AZV and rehabilitation professionals. An exception was found in occupational medicine in which there were clear guidelines that were followed.

C. Governance and Procurement of Assistive Products

There is a list of essential AP that are covered by AZV but it is not readily available. This list could not be reviewed in the assessment as it was not available or published on the AZV website and the rehabilitation facilities visited. The AZV also relates that it follows safety standards of the product manufacturers, and only procures products from reputable sources. Donations of used AP are not allowed. (see section on Availability and Provision of Assistive Products for more details)

Summary of Rehabilitation Governance

- There is a motivated Focal Point for Rehabilitation in the DPH and deeper understanding of how rehabilitation can be utilized to increase the functioning of the population since completing the STARS Assessment.
- There is a need for leadership development in rehabilitation.
- There is no Rehabilitation Strategic Plan.
- Although the overall goal of the ***National Strategic Framework of the Health Sector*** is to 'ensure the sustainable provision of quality (high standard) healthcare that promotes healthy lifestyles in a resilient manner'[1], rehabilitation is not identified as a key discipline in the Framework and essentially overlooked in the document.
- The Health System has demonstrated its support of rehabilitation by integrating it into the National Health Insurance Plan.
- Rehabilitation is mentioned in National Multi-Sectoral Action Plan for Non-Communicable Diseases, although its benefits as a means to help prevent and manage NCDs is not emphasized.
- There is a lack of a framework for tracking accountability. No data regarding overall quality, efficiency, patient satisfaction, and performance is recorded and analysed.
- Evidence-based workforce planning is hindered because there is a lack of reporting on workforce availability, population needs, and uptake.
- There is room for improvement in transparency regarding how decisions are made affecting the sector.
- The list of AP covered by AZV is not accessible.

VI. Rehabilitation Financing

Overview of Rehabilitation Financing

Payment Strategy	Availability
National Health Insurance: AZV	○ Available to all citizens of Aruba for curative interventions. Covers most essential AP.
Occupational Health: SVb and MedWork	○ Available to all private and public sector employees.
Foundations	○ For long-term or specialized care. Funded through the Ministry of Social Affairs and Justice; The Ministry of Transport, Integrity, Nature and Elderly affairs; and donations.
Out-of-Pocket Payments	

A source from the MoHT related the following figures:

> 2023 Total Health Expenditure (THE) is approximately US$266,444,000.
> Approximately 1.2% of the THE is allocated to physiotherapy.
> Approximately 3% of the THE is allocated to occupational therapy and AP combined
> Approximately 3.35% of the THE is allotted to mental health.

No numbers were available for speech and language pathology.

National Health Insurance

Aruban citizens are all enrolled in their National Health Insurance Plan known as the AZV. The system emphasizes that it covers “cure” not “care”. Rehabilitation is included as a benefit in the country’s health insurance scheme to different degrees. Physiotherapy is considered an essential service in AZV, meaning that it is covered for in-patient and out-patient interventions. For an uncomplicated orthopedic problem, users are allotted 9 out-patient physiotherapy sessions. If a progress note indicates that more therapy is needed, then 9 more sessions are usually granted. Beyond 18 sessions, users must pay OOP. Clients with severe neurological diagnosis are allotted more treatment sessions. For example, it is typical for a person with a serious neurological diagnosis such as post-stroke, Parkinson’s Disease, or multiple sclerosis to receive 52 physiotherapy sessions the first year after discharge from the hospital. Post-orthopedic surgery patients often receive 30 sessions.

Neither occupational therapy nor speech and language therapy are covered as essential services by the AZV and are therefore, not covered for out-patient interventions. There is currently an effort moving through the government to include Speech and language therapy as an essential service.

Most essential AP are covered by the AZV. Some more expensive AP, such as hospital beds are not covered and are only available to rent through foundations. Some AP such as eyeglasses and hearing aids are covered up to a specified dollar amount.

Because Aruba's economy is largely based on tourism, it was severely impacted during the pandemic. This resulted in the government taking large loans from the Netherlands that now need to be repaid. Part of the ramifications of this debt is that the National Health Insurance Plan must reduce its budget by 15%. To work toward meeting this goal, salaries for all healthcare workers have been decreased by 5.5% and there have been cuts in benefits offered through the AZV. Every quarter, the MoHT must send a report to the Dutch government detailing progress on cuts and resultant savings in the health sector.

Occupational Health: SVb and MedWork

The Social Insurance Bank (SVb) pays for sick/disability days off from work, old age pension, widow's pension, and orphan's pension. There are 43,000 people enrolled in the program, which includes workers from the private and public sector. Those earning more than 5850 florins/month (US$3250) gross income in the private sector are not eligible and are instead covered by a different entity known as MedWork (see below). The SVb employs ten occupational health physicians who are specialized in insurance medicine and four general medicine physicians. They also have on staff two 'reintegration workers' who concentrate on risk assessment and ergonomic modifications that may need to be implemented in order to allow the employee to safely return to work. Doctors who work for the SVb do not prescribe medicine or offer medical treatment. They evaluate people to determine if they can work or not, and, if needed, the doctors advise workers to contact their primary care doctor. SVb doctors do not directly refer workers to specialists or rehabilitation services.

Workers in the private sector who are sick or injured must notify SVb the morning of the first day that they call in sick from work. If workers are unable to return to work after two days, then they are required to make an appointment with an SVb physician. From day 4 to 6 weeks of being on sick leave, SVb will pay 80% of the sick person's salary and the employer must pay 20%. After 6 weeks and up to 2 years, the worker only receives the 80% from SVb without the 20% from the employer. If a person still cannot return to work after 2 years, then they must apply for a disability allowance. Payments are made by the Department of Social Affairs. Currently the payment is 975 florins/month (US$541) if the person is considered 100% disabled. If people are deemed just partially disabled, then the payment goes down proportionally.

Coverage is slightly different for employees in the public sector. Those in the public sector must call in the first day they are sick and have an appointment with an SVb doctor on the second day that they are unable to return to work. They receive 100% of their salary for 2

years and that decreases by 10% on year 3 and again on year 4. On year 4 it is determined if the worker is permanently disabled.

Throughout the process, the SVb physician decides how long the worker needs to stay home and if they can perform modified duties. It was stated that 'locomotive problems' are the second most common types of problems that workers call in sick with. The most common calls are due to mild infectious illnesses such as a cold or the flu.

Over 200 companies in Aruba contract with the occupational medical group, MedWork to cover their employees that are not covered by SVb. MedWork is a private occupational health and insurance medicine company. Occupational medicine physicians are utilized to evaluate people who are on sick leave and work on a re-integration plan back to work when possible. MedWork also employs occupational specialists to inspect and help modify the workplace when needed. They do not refer to other MDs and are not covered by the AZV.

Aruba has not yet signed the Convention on the Rights of Persons with Disabilities and disability rights are not covered in the constitution. An employer cannot fire a person due to a disability, but they can decide not to hire a PWD based on the disability.

Foundations

Foundations are utilized to cover long-term and specialized care. Salaries and basic operating costs are covered by subsidies through the Ministry of the Ministry of Social Affairs and Justice as well as the Ministry of Transport, Integrity, Nature and Elderly Affairs. Other activities are financed through donations. It was calculated that the Ministry's allocation to the foundations was approximately US$ 4 million last year. Foundations must submit annual reports of their output and budget. Examples of foundations are those that offer services for people with autism spectrum disorder, intellectual disabilities, long-term physical disabilities, and sensory impairments. Some foundations offer rehabilitation services. Unfortunately, the amount of rehabilitation available at these facilities tends to be much less than the need of the clients. Some people who could benefit from rehabilitation are not seen at all and others are under-dosed with decreased frequency or duration of interventions.

Out-of-Pocket Payments

OOP payments are often used under three circumstances:

1. To cover services beyond the maximum benefits allowed by the AZV.
2. To cover services not covered by the AZV.

3. To supplement or not use the AZV benefits. This may be because of the long wait time for appointments or other reasons. In these cases, some people seek care out of the country, such as in nearby Colombia.

Summary of Financing

- Rehabilitation is included in the AZV although currently only PT is considered an essential component of the Plan with the AZV covering both in-patient and out-patient visits.
- Most essential AP are covered by the AZV with no cost to the user. Large products such as hospital beds are not covered. They can be rented through foundations.
- Rehabilitation is usually offered at Foundations that cover long-term care to children or adults with conditions including congenital or acquired neurological conditions, frailty or dementia. Unfortunately, the amount of rehabilitation available at these facilities often doesn't meet the needs of clients.

VII. Rehabilitation Human Resources and Infrastructure

Table 4: Rehabilitation Workforce in the Health System

Profession	Total Number	Primary Healthcare	Secondary/Tertiary Healthcare
Physiotherapists	31 – 40*	X	X
Occupational Therapists	2	X	X
Speech & Language Therapists	12	X	X
Audiologists	<5	X	X
Prosthetists & Orthotists	<5	X	X
Physical medicine and rehabiliation doctors	locum tenens		X - sometimes
Rehabilitation Psychologists	0		X
Chiropractors	<5	X	
Social Workers	<5		X
Rehabilitation Nurses	0		

* There was unclarity on the number of physiotherapists working in the country.

Rehabilitation personnel availability

The rehabilitation workforce is almost exclusively made up of PTs as can be seen in Table 4. There is no permanent PM&R doctor, no rehabilitation nurses and no rehabilitation psychologists on the island. There are few OTs, SLTs, or chiropractors available.

The absence of a PM&R doctor contributes to a lack of oversight, leadership, and management of rehabilitation teams on complex cases such as spinal cord injuries, head injuries, and cerebral vascular accidents. The lack of OTs and SLTs results in gaps in treatment for important deficits such as in speech, cognition, fine motor skills, and activities of daily living.

There are no rehabilitation psychologists. In a Focus Group Discussion with 20 PWD, participants discussed the difficulty of adjusting to a new disability and how helpful it would have been to have had guidance from a rehabilitation psychologist.

Many health professionals are recruited from other countries especially the Netherlands, followed by Colombia, Canada, and other countries in the Americas. Professionals from the Netherlands are offered incentives such as housing to work in Aruba. HOH is recruiting for a permanent, full-time PM&R doctor. The country currently depends on locum tenens doctors who come for short stays from the Netherlands.

There are five PTs who work at HOH, two of whom are full-time. There is one full-time SLP. Currently, there is one full-time OT, but she was in her last weeks at the position in April, 2023. The hospital is in the process of trying to hire two OTs to take her place. There is one full-time physiotherapy technician and the hospital employs two medical social workers. The AZV does not hire rehabilitation professionals to work at HOH. Instead, HOH allocates a lump sum to the hospital and the administration there determines staffing needs.

Twenty eight PTs contract with AZV to offer out-patient services. The AZV determines how many PTs can work in private practice and sets up contracts with each of them. There is a waiting list of PTs who would like to contract with AZV but because of budget cuts in the health sector, there is now a general moratorium on employing more rehabilitation professionals. Two exceptions are PTs with specialization in geriatrics and the pelvic floor. AZV is recruiting for one or two female PTs who specialize in the pelvic floor. A representative from AZV related that usually the determination of how many PTs are allowed to register as out-patient practitioners is based on the volume of patients seen in physiotherapy practices. She said that for the last few years, there is an increasing population need for PT services with waiting lists of up to 6 – 8 weeks to be seen in an out-patient physiotherapy practice. It was added that the aim is not to have a waitlist longer than 2 weeks.
PTs who work in out-patient practices see clients at both the primary and secondary care levels. It is legal for PTs to practice autonomously, seeing clients without referrals. However, the AZV only covers physiotherapy for clients who have a referral from a physician. Those without referrals must pay OOP for PT services. Additionally, clients sometimes pay OOP when they have reached the limit of the number of physiotherapy sessions that the AZV covers. Each independent PT working in an outpatient setting is allowed to bill for 3210 treatment sessions per year. Once that number of sessions has been reached, the AZV will not cover more treatments rendered by that therapist until the following year. So, clinicians must manage the number of sessions that they are rendering in order to serve clients throughout the year. Several clinicians recounted running out of covered treatment sessions by October meaning clients had to wait until the following year to complete their treatment or try to switch to another therapist. But only 10 of 26 private practitioners reached the limit of allotted treatments last year. One private practitioner practitioner interviewed said he has an 8 – 19 week waitlist. He felt that there are not enough PTs to serve the population needs.

Additionally, there are 5 SLTs who work in private practice and/or the Department of Education (DoE). They do not contract with the AZV.

As noted previously, in Aruba, there is not abundant data on population need for rehabilitation, so evidence-based decisions on increasing the size of the workforce are hindered.

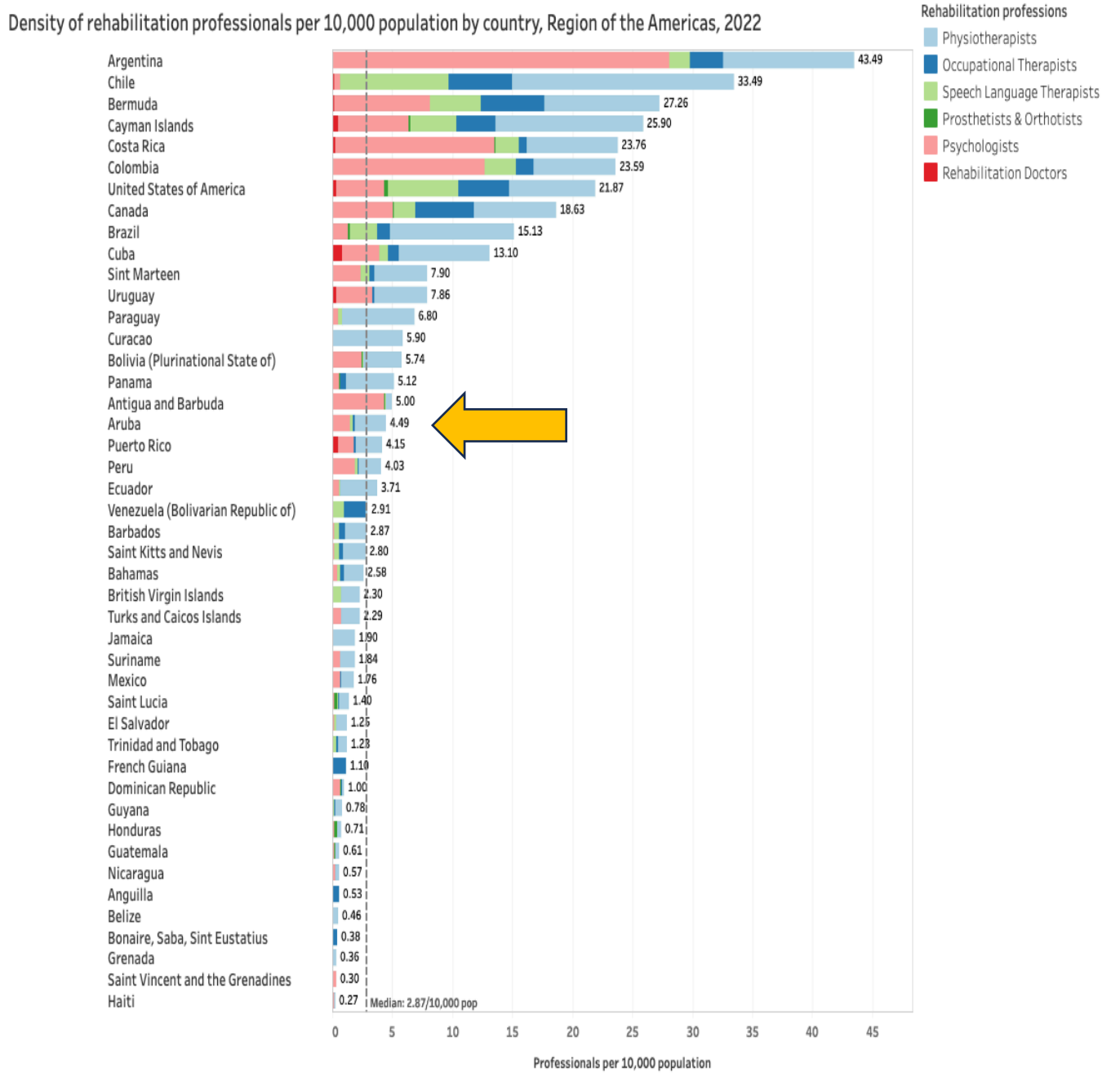
In the region of the Americas, the average (mean) number of rehabilitation professionals per 10,000 population is 8.6. (median = 2.87)[29]. As can be seen in Figure 18, there is a large variation in workforce density between countries from a low of 0.27 professionals per 10,000 population in Haiti to 43.49 professionals per 10,000 population in Argentina[29].

The English, French, and Dutch-speaking Caribbean, specifically the group of PAHO/WHO Member States countries, has the lowest level of rehabilitation workforce density in the range of 0.27 to 5.0 per 10,000 population[29].

The highest density is in physiotherapy, followed by psychology. *It should be noted, however, that not all psychologists work in rehabilitation settings. Therefore, caution should be exercised when including psychologist numbers in the rehabilitation workforce*[24]*.*

Figure 18 illustrates that Aruba has a lower density of rehabilitation professionals than its neighboring Caribbean countries of Bermuda; the Cayman Islands; Sint Maartin; Cuba; Curacao; and Antigua and Barbuda.

Figure 18: Density of rehabilitation professionals per 10,000 population

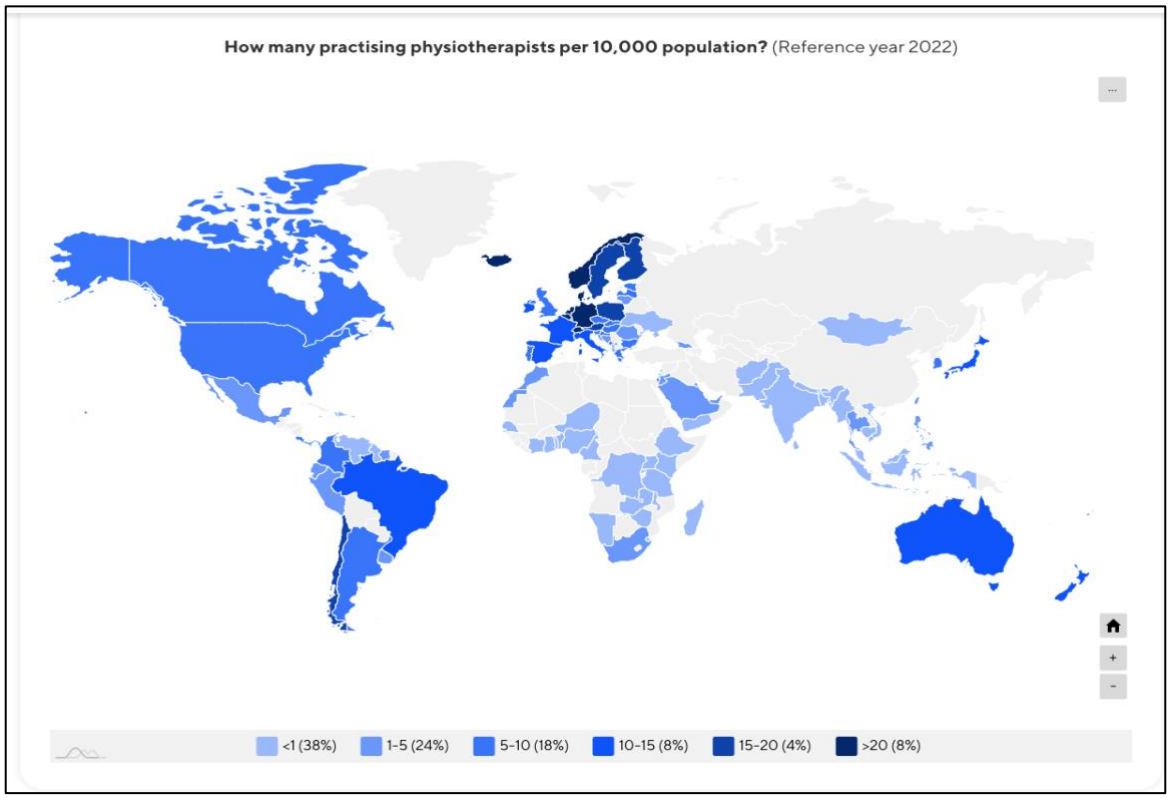


Source: Data collected by the Disability and Rehabilitation regional program, Mental Health Unit, Department of Noncommunicable Diseases and Mental Health, Pan American Health Organization

Additionally, the map below[30] (figure 19) shows the density of PTs per 10,000 by country. Using an estimated population of Aruba of 120,000 and the number of PTs as 40, the density of PTs on the island would be 3.3 per 10,000 people. The Netherlands has 22 PT per 10,000 residents[30]. Aruba is classified as a high income country by The World Bank[9]. It can be seen from the map that most high income countries have a density between 10 and 20+ PTs per 10,000 residents. This would indicate that Aruba most likely does not have a sufficient PT workforce to meet its population needs. In order for Aruba to have 10 PTs per 10,000 residents, there would need to be 120 PTs working on the island. In other words,

Aruba is short 80 PTs to meet the minimum amount of PTs that is typical in most high income countries.

Figure 19: Density of physiotherapists per 10,000 population



It was reported from various sources that people often must wait for weeks to months to receive rehabilitation services. Every facility visited had waitlists for rehabilitation.

Rehabilitation workforce training

All medical and health personnel working within the AZV must have a degree from an accredited university. There are no education programs for rehabilitation professionals in Aruba. It was reported that there is a 2-year Associate level nursing program based on a curriculum from the United States and that another college offers a 3-year caregiver training program and 4-year nursing program based on Dutch curriculum.

The government often offers student loans to study in the Netherlands, but it was reported that some do not return to the island after they have received their degree. One informant stated that this could b due to graduates from Aruba not being offered the same incentives to return to the island as Dutch graduates.

Most rehabilitation providers are trained in the Netherlands, with some receiving training in other nearby countries. Dutch therapists must regularly seek re-certification with required continued professional development (CPD) courses. There are plans to mandate recertification with CPD required for all therapists next year. Currently, the focus is on registering all PTs, which is required by the AZV. SLTs and OTs are not obligated to register since they are not included as essential services under the National Health Insurance plan. There is currently a lack of rehabilitation professionals who are specialized leading to a dearth of mentorship opportunities. This is slowly changing and should be facilitated by the availability and requirement of CPD offerings.

Professional Associations

The Aruba Association of Physiotherapists (AVFA) is made up of 32 members, primarily private practitioners. It works to negotiate contracts with the AZV, organize CPD offerings and promote specialization in physiotherapy.

Last year, SLTs started an informal WhatsApp group that is used to share information and discuss clinical issues.

Rehabilitation Workforce Planning, Management and Motivation

It was related that the DPH does not receive annual reports from health facilities, which stymies the development of workforce planning based on need. Additionally, there are rehabilitation professionals who work outside of the MoHT. Workforce planning should include input from the Ministry of Education, Ministry of Social Affairs and Labor, Ministry of Justice, and specific foundations. The newly forming QIH hopes to have the capability to make data-based decisions for workforce planning by the end of 2024.

Salaries of all healthcare workers has been cut by 5.5% within the past year in an effort to decrease the Total Health Expenditure and pay down the debt accrued to the Netherlands during the pandemic. This has led to decreased satisfaction among some of the healthcare workforce. There was frustration expressed by the low number of referrals to OTs and SLTs. This was thought to be due to a lack of understanding of the professions.

Because there is little oversight and leadership in the sector, most clinicians work semi-autonomously. At HOH there are weekly inter-disciplinary team meeting regarding patients' progress and treatment plans.

Rehabilitation Facilities: Infrastructure and Equipment

The presence of dedicated rehabilitation beds in rehabilitation centers or wards is crucial for maximizing optimal functional outcomes of people with complex rehabilitation needs. Additionally, rehabilitation beds are necessary for people with continued intense in-patient rehabilitation needs after they are medically stabilized and no longer require all of the services of acute hospitalization. A representative from the AZV stated that the current lack of dedicated rehabilitation beds is related to the lack of a PM&R doctor to oversee them.

Besides the absence of a permanent PM&R physician, there are currently no dedicated rehabilitation beds, centers, or wards within the country.
This often results in one of the following scenarios:

1. Patients are flown to Colombia, the Netherlands, or another country for treatment.
2. Patients stay in the acute care hospital longer than necessary.
3. Patients are discharged from the hospital without receiving all of the rehabilitation services that they need.

Each of the above scenarios is likely to cost more money to the system than if there were an adequate number of rehabilitation beds for patients who need them. The first two scenarios result in a direct negative fiscal impact to the AZV. The third scenario can result in a cost to society if the patient has not received the proper amount of rehabilitation to reach optimal functioning and return to participation in work, school, or family. The Minister of Health estimates that sending patients abroad to receive rehabilitation services costs the health system $20 – 30 million/year. He would like to see a large investment to accommodate those patients rather than sending them abroad. This would include investing in rehabilitation personnel and infrastructure.

HOH has a total of 288 beds and employs PTs, OTs, SLTs, and social workers.
The rehabilitation department has private treatment rooms and two therapy gyms with parallel bars, weights, stationary bikes, treadmills, and other equipment. There are also separate treatment areas for occupational therapy and speech and language therapy. The occupational therapy area has a mock kitchen as well equipment to work on fine motor skills and activities of daily living. It also is equipped with tools to make splints.

The following rehabilitation-related medications are available through the AZV: Botulinum toxin A, Baclofen, Corticosteroids, and non-steroidal anti-inflammatory medications (NSAIDS).

The private practice visited also had private treatment rooms, and therapy gym and modern equipment.

Emergency Preparedness and Resilience

A priority of the Aruba Public Health Strategic Plan is to establish a Public Health Ordinance to strengthen the healthcare systems in order to have the ability to forecast, prevent and prepare for public health risks and ensure that needed resources are available to maintain health security and universal health coverage during an emergency[26]. Currently, rehabilitation is not integrated into this plan and there is no plan to manage a potential surge of rehabilitation needs in the event of a disaster.

The resilience of rehabilitation to crisis and disaster refers to the sector's ability to respond, adapt and recover from hazards, shocks or stresses without compromising long-term prospects for the sector's development. There is a low level of resilience of rehabilitation because services and the workforce are not extensive enough that they can absorb shocks and meet most of the needs that could occur from a disaster in high-risk areas.

Summary of Human Resources and Infrastructure

- A major shortcoming is the lack of dedicated rehabilitation beds or a rehabilitation ward. This leads to patients who are medically stable but with continued rehabilitation needs either being kept in expensive hospital units longer than necessary or being discharged before they have completed the necessary therapy to reach optimal functioning.
- Most rehabilitation providers are trained in the Netherlands with a high level of knowledge and proficient clinical skills.
- There is currently a lack of rehabilitation professionals who are specialized leading to few mentorship opportunities. This is slowly changing and plans to require CPD hours for recertification should expediate this process.
- There is a shortage of rehabilitation workforce across the array of professions. This leads to a high workload and decreased access to rehabilitation. A needs based, evidence informed approach to workforce planning is lacking. There is usually a long wait time to get an appointment with a rehabilitation professional.
- The DPH does not receive annual reports from health facilities, which stymies the development of workforce planning based on need.
- There was frustration expressed by the lack of understanding of the professions and low referral to OTs and SLTs.
- Rehabilitation departments are well-equipped with up-to-date and safe equipment as well as rehabilitation gyms and treatment rooms.
- Rehabilitation is not integrated into Emergency Preparedness planning and there is no plan to manage a potential surge of rehabilitation needs in the event of a disaster.

VIII. Rehabilitation Information

Rehabilitation Information	Availability
Data reflecting utilization	○ minimal
Data reflecting availability	○ minimal
Data reflecting quality	○ none
Data reflecting rehabilitation needs of the population	○ Data lacking on needs of all of the population and people without long-term disabilities. ○ Data on disability collected during the Census every 10 years and through surveys by the CBS. ○ A Situation Analysis of People with Disabilities in Aruba and an Assessment for the Advancement of Community Based Rehabilitation 2021

Availability of Rehabilitation Information

Accurate and robust data specific to rehabilitation is essential to strengthening rehabilitation. Not only does it need to be systematically and regularly collected but it also should be centrally aggregated and analysed. In this manner it can be used to determine strengths and gaps; set goals based on objective baselines and benchmarks; and assure that there is accessibility to a sufficient number of quality rehabilitation professionals to meet population needs throughout the island.

Data Reflecting Utilization and Availability of Rehabilitation Services

There are minimal data collected, aggregated, or analysed on the utilization of rehabilitation services. The only data that the manager of the rehabilitation department at HOH was able to locate on rehabilitation utilization enumerated monthly patient visits per discipline. No data on diagnosis of rehabilitation patients were available. The majority of the data are collected via electronic medical records. Some physicians still use paper-based referrals, and it was unclear if those are entered into the electronic database. It was reported that the data collected are sometimes used to justify the need for increased staffing at the hospital.

Data Reflecting Availability of Rehabilitation Services

There is minimal data on service availability such as full-time equivalent positions of each discipline in the rehabilitation workforce per region or per facility. It was related that the DPH does not receive annual reports from health facilities, which stymies the development of policies based on population need. Many rehabilitation professionals were unclear as to how many other members of their profession practice in Aruba. The AZV limits the number

of PTs who work in private practice and they can bill for 3210 treatment sessions annually. There are no records of OOP payments for physiotherapy.

Data reflecting quality and efficiency

There are no rehabilitation monitoring frameworks and no mechanisms in place to record, aggregate, and analyse data on quality or efficiency. Outcome measures are sometimes utilized during an Initial Examination, but this reviewer did not see them used at discharge to objectively measure changes in function. No data is kept on patient satisfaction such as through satisfaction surveys. It was related that about eight years ago the AZV audited private practices including chart reviews. Those who didn't pass the audit had their reimbursement lowered for six months. But there has been no evidence of such audits occurring since then.

The measurement of rehabilitation efficiency requires comparative data on indicators such as outcomes, dosage, and performance targets. There are significant opportunities to improve efficiency through developing frameworks of targets, benchmarks, and data management.

A private practitioner stated that information must be submitted to the Department of Health inspection annually that includes information on quality, vision, mission, how many clients are seen, ages, and diagnoses. But it is unclear as to what happens with that information.

The sector would greatly benefit from training in the use of tools to measure and record efficiencies and quality in rehabilitation. These could be used to improve quality and efficiency across facilities/services.

Data reflecting rehabilitation needs, disability, and population functioning

There is a lack of data on rehabilitation needs within the population, without which it is difficult to make data-driven decisions about growth, distribution of workforce, and needs of specific target populations. This can contribute to allocative inefficiency.

As outlined earlier in this report, rehabilitation needs are closely correlated with demographic and health trends. Data on disability and older adults is collected during the Census every 10 years and through surveys by the CBS. It is shared on their website. The CBS is also launching a new project called the National Statistical System, which will collect and analyze medical and health data. Also, a Situation Analysis of People with Disabilities in Aruba and an Assessment for the Advancement of Community Based Rehabilitation was conducted in 2021. While the data sources above are helpful, they don't take into account

the complete population needs for rehabilitation including needs due to common orthopedic conditions such as lower back pain, sprains, strains, and fractures.

Utilization of rehabilitation evidence and information to inform decision-making

Because there is not a system in place to collect, aggregate, analyze and share rehabilitation data, data-driven and evidence-based decision-making is hindered. Additionally, the lack of performance indicators or targets within the rehabilitation sector and a dearth of monitoring frameworks does not allow for frameworks of quality improvement.

Summary of Rehabilitation Information

- There is minimal data collected, aggregated, or analysed on workforce availability, quality, efficiency, or utilization of rehabilitation. This is significant because it doesn't allow for evidence-based workforce planning or quality improvement measures.
- There is data regularly collected on demographics and health trends that are related to conditions that benefit from rehabilitation.
- Data on disability and older adults is collected during the Census every 10 years and through surveys by the Central Bureau of Statistics.
- The Central Bureau of Statistics is initiating a National Statistical System. It is planned that health and medical data will be collected and analysed through this system.
- There is a lack of data on rehabilitation quality and efficiency. The sector would benefit from training on collecting and using such data to strengthen the sector.

IX. Rehabilitation Quality

While there is not a system by which rehabilitation is regularly monitored for quality, standard of treatment tends to be good due to the excellent education that most therapists have received in the Netherlands. However, because there are no quality improvement programs, service audits, or regular service user satisfaction surveys, attributes such as person-centered treatment, goal setting, measurement of functioning outcomes tends to vary from one practitioner to another.

The QIH plans to focus on national standards of efficiency and quality within the healthcare system. It is expected that the Institute will include rehabilitation in its monitoring. The goal is to use the standards of the Netherlands as a framework. This is deemed especially important since some healthcare workers receive training in countries whose standards of education are not in alignment with the Netherlands. There are no licensing examinations required of rehabilitation professionals to guarantee a standard knowledge base before being able to practice.

CPD opportunities are somewhat limited. This is partially due to Aruba being a small island. There are more on-line educational offerings that professionals are taking advantage of and there seems to be a movement toward seeking out specialization. While I was carrying out the Situation Assessment, one PT was working on specialty training in pediatrics, and another had just returned from a training program on lymphedema. PTs with degrees from Holland must complete 25 hours of CPD every two years. Currently CPD is not required of other rehabilitation professionals, but that is due to change next year.

It is important to assure that treatment is delivered in a safe manner and that the treatment environment and equipment is safe. At site visits, both the environment and equipment appeared to be in good and safe condition. Electrical modalities are not always checked for calibration, functioning, and safety.

Quality Service Monitoring and Review

It was relayed that quality standards are not regularly measured throughout the health system. Performance reviews of rehabilitation staff are not regularly carried out and there is minimal monitoring of quality. Documentation is not reviewed for quality. There are no formal procedures in place to deal with problems in the performance of work duties. There is a lack of data on efficiency and dosage of rehabilitation making it difficult to assess over- or under-utilization. A representative from the AZV stated that an obstacle to conducting quality audits is the cost. The typical procedure is to contract with professionals from the Netherlands to conduct the audits and analyze them.

Effective rehabilitation practices such as multi-disciplinary teamwork and case coordination occurs at weekly team meetings at HOH.

There is a framework for patients to complain about poor treatment practices among health professionals as follows:

1. Since 2021 it has been required that every healthcare facility have a procedure by which a patient can file a complaint. There are complaint committees that must evaluate the complaint and make a recommendation within 6 wks.
2. A patient also has the option to go through a medical disciplinary tribunal in a court of justice. It was relayed that it is difficult to take this step and/or win a case.
3. A patient has a right to file suit against a healthcare practitioner. This rarely occurs.

It was noted that the small population of Aruba is a disincentive for filing complaints since so many people know each other and there can be negative ramifications to reporting perceived problems.

Every medical facility is to annually file a report to the MoHT that includes any complaints lodged and steps that were taken to remediate the situation. It was noted that this is not always carried out.

It was relayed that safety records or incident reports are collected by the Health Inspectorate Aruba (IVA) and that this information is not easily accessible to the DPH. This information is instrumental to allow DPH to develop policies that are responsive to safety issues within the health system.

C. Rehabilitation Documentation

Documentation of initial examinations were not always complete and there were gaps seen in subjective and objective measures. Treatment notes did not include details of interventions such as sets, repetitions, weights used with exercises, distance walked, level of assistance needed, etc. The lack of documentation was especially troubling at HOH since patients are not seen by the same therapist at each session. This gap would have a direct impact on quality and efficiency of treatment. When reviewing charts, I did not always see evidence of complete re-assessments, discharge reports, or quantitative documentation of progression toward functional goals. I received two complaints from physicians that they do not receive reports from rehabilitation professionals.

Documentation of Functioning Outcomes

The outcome of rehabilitation is the ability to function at one's maximal capacity, which includes functional gains, maintenance, or slowing of functioning loss. Functioning outcomes reflect the effectiveness of rehabilitation, which takes into account the quality and adequacy of rehabilitation dose. Functioning outcomes must be considered in terms of 'expected functioning gains', which take into account the individual, their health condition, their support system, and immediate environment. Functional Outcome Measures (FOMs) are standardized instruments used to measure functioning. When FOMs are not incorporated into assessments it is difficult to objectively measure changes in functioning or the success of the rehabilitation provided.

Documentation templates at HOH and some private practices had sections to fill in FOMs, but they were not always completed. Sometimes they were filled out at the initial visit only, not allowing for measurement of functional changes.

Summary of Rehabilitation Quality

- Most therapists have a high knowledge and skill base secondary to receiving an excellent education in the Netherlands.
- There are no quality improvement programs, service audits, or regular service user satisfaction surveys. Performance reviews of rehabilitation staff are not regularly carried out and there is minimal monitoring of quality. Documentation is not reviewed for quality. There are no formal procedures in place to deal with problems in the performance of work duties. These factors are significant barriers to strengthening rehabilitation.
- The Quality Institute of Healthcare is being developed within the MoHT. It will focus on national norms, efficiency and quality within the healthcare system, and it is expected to include rehabilitation.
- Effective rehabilitation practices such as multi-disciplinary teamwork and case coordination occurs at weekly team meetings at HOH.
- There are gaps in documentation such as lack of objective measurements of progress toward functional goals.
- It is not standard procedure to send progress notes and discharge evaluations to physicians. This can erode respect and confidence in the profession.
- Measures of function are not routinely used.

X. Rehabilitation Accessibility

KEY INFORMATION	RESULTS
Secondary/Tertiary hospital has dedicated rehabilitation ward or beds.	No
Foundations offer rehabilitation.	Sometimes, but may be insufficient.
Rehabilitation in long-term care facilities	Minimal
Private practices available	PT and SLT (SLT not covered by insurance)
Rehabilitation offered in the school system	Yes, SLT only
Percentage of primary care facilities with rehabilitation/physiotherapy	There are numerous foundations that offer rehabilitation at the primary care level for specific populations

In order for rehabilitation to be accessible, it must be affordable, available, and acceptable. A core outcome of the health system is that the populations who need rehabilitation receive it. This is assessed through understanding if rehabilitation is fully affordable, available and acceptable to all user groups.

Affordability of Rehabilitation

It is an attribute of the health system in Aruba that rehabilitation is included in the AZV. As noted previously, physiotherapy is considered an essential component of the Plan so is funded both for in-patient and out-patient sessions. Unfortunately, occupational therapy and speech and language therapy are only funded for in-patient interventions.

Availability of Rehabilitation in Tertiary, Secondary, and Primary Care

Rehabilitation is pertinent at all levels of healthcare and it is important that rehabilitation personnel interface directly with the range of other medical specialists. This can help increase the understanding of the role of rehabilitation in the health system, increase respect of the rehabilitation workforce and improve outcomes. As noted previously, a gap in Aruba is the lack of dedicated rehabilitation beds that are vital to ensuring that patients receive adequate in-patient rehabilitation in order to progress as much as possible toward their functional goals before discharge.

Although HOH offers in-patient and out-patient rehabilitation, which is covered by the AZV and thereby affordable, it isn't always accessible because of lack of availability of rehabilitation staff to work with all patients who could benefit from their services. The

rehabilitation staff offers both individualized interventions and group classes. Group classes are usually held twice a week and can serve as a de facto support group for certain populations such as people who have recently had a stroke or amputation. The OT states that she is unable to cover all of the patients in the hospital who need her attention, so she prioritizes clients who have neurological diagnoses, amputations, hand surgery, and some pediatric cases. The hospital does not have any PTs or OTs who specialize in pediatrics. Out-patient appointments are only available to clients who were formerly admitted to the hospital.

The mechanism for referral from one level of care to the other is weak, leading to decreased provision of services. Upon discharge, appropriate referrals for rehabilitative care are not always made. Additionally, even when referrals are made, there are often long wait times to be seen in an out-patient setting. Under-referral, late referrals and gaps in the continuum of care were reported to be a concern. It was reported that post-surgical patients sometimes must wait up to 3 weeks for an out-patient physiotherapy appointment.

There are numerous foundations that offer rehabilitation at the primary care level for specific populations such as older adults in long-term care, children, and people with hearing and vision loss. Foundations are funded through a combination of government allocations and private donations.

Mickey's Foundation offer physiotherapy, occupational therapy, and speech and language therapy for clients aged birth -21 with congenital and acquired neurological conditions. All of their services are free and offered in the client's home. Their therapists are volunteers from the Netherlands or Belgium and come to Aruba to work with Mickey's Foundation for 3-month periods. The average client at the Foundation receives 40 hours of therapy annually. There is currently a PT working toward her master's degree specializing in pediatric physiotherapy. She will return to Aruba in January of 2024 and take over the physiotherapy caseload. Mickey's has negotiated with the AZV to award her a contract to pay for her sessions.

The Foundation for Hearing and Speech Impaired (FEPOH) serves children from birth to age 18. It employs one SLT and one audiologist. The SLT sometimes makes home or school visits, but usually children come to her office for appointments. Transportation logistics and costs can sometimes be an obstacle to receiving needed sessions. For children with hearing impairments in Aruba, learning to communicate can be especially difficult since three languages are used. Dutch and Papiamento are the official languages. Kindergarten is usually taught in English followed by grade 1 – 12 being taught in Dutch. Families usually speak Papiamento in the home. The foundation is trying to hire another SLT in order to serve the needs of children on their waitlist. They are also in the process of hiring a special education teacher and sign language instructor. Their SLT related that about 3 children a

year need hearing aids and that 50 children between the ages of 1 and 18 currently use hearing aids. Ten children have cochlear implants, which are covered by the AZV. The full cost of hearing aids is not covered by the AZV and FEPOH pays for the remainder.

The Fundacion Arubano di esnan Visualmente Incapacita (FAVI) is the only organization on the island that work exclusively to offer assistance and guidance to visually impaired and blind people. It receives 75% of its budget from the government and fundraises for the remainder. Visual testing is provided as well as orientation and mobility training. They also sell items such as magnifying glasses, large print books, audible books, computer adaptations, and other items adapted for people with visual impairment. FAVI also modifies school materials and has a social group that meets twice a week. The foundation currently serves 425 clients, 47 of whom are children. The AZV pays for white canes and vision surgery.

The foundation employs a social worker, activity director, teacher, job coach, and 'rehabilitation' therapist. The teacher was trained in Holland to work with school administrators, educators and clients. The rehabilitation therapist is a nurse who also trained in Holland to do mobility and orientation training including working with clients in their homes.

Availability of Rehabilitation in Long-Term Care

There are both public and private long term care facilities. Stichting Algemene Bejaardenzorg Aruba (SABA) is a foundation that offers long-term residential care for adults. It consists of three facilities with a total of 200 beds. The AZV pays for three geriatrician MDs to attend to SABA patients. The rest of the funding comes from government subsidies through the Ministry of Elderly Care. The majority of the people who live at SABA are low income and have dementia. The government determines who is eligible to live at SABA based on four factors: finances, mental health, physical health, and social situation. Accessibility is limited because there is usually a wait list of about two years. It was related that here are currently about 200 people on the wait list.

There is one SLT who works a total of 4 hours a week covering all three facilities. She primarily sees clients with swallowing problems, early dementia, and aphasia. There are two PTs who work full-time at the three facilities. The PTs offer both individual and group activities.

Ambiente Feliz is a residential and day facility for people with IQs of 60 or below. There are two locations with a capacity for 38 people. The facilities receive about 90% of their funding from the government and 10% from other sources. The AZV will cover up to 12 physiotherapy sessions annually for the residents, but the facility does not have access to a

vehicle that can transport wheelchairs, so access is limited. The manager also stated that it is not uncommon to have to wait 1 – 2 months to secure a physiotherapy appointment. The location that has children receives rehabilitation interventions three mornings a week through two sources. The Foundation for People with Intellectual Disability in Aruba (Stichting Verstandelijke Gehandicapten) provides a physiotherapist who works with the residents two mornings a week. This is funded through donations from a local hotel and the funding source is not secure from one year to the next. Mickey's Foundation offers physiotherapy, occupational therapy, and speech and language therapy one other morning a week. Residents of the Ambiente Feliz location that only houses adults receive no rehabilitation.

Availability of Rehabilitation in the Community

Rehabilitation delivered in community settings can be a crucial link ensuring that people are able to function and participate to their maximal capacity within their homes and communities. Such interventions often benefit people with restricted mobility, those recently discharged from health facilities, those requiring intense rehabilitation after illness or injury, and those with significant mental health conditions. Rehabilitation interventions may be delivered in homes or in a local community setting. Children with developmental difficulties and disabilities also frequently need rehabilitation delivered in the home or school setting.

As noted in the previous section, some foundations offer rehabilitation in the community. Additionally, the DoE offers speech and language therapy to children with speech difficulties. The wait list for a new client is now nine months. In the mornings interventions are offered in schools. In the afternoons children are seen at the DoE's Bureau of Multidisciplinary Center, which employs SLTs, clinical psycho-educators, and remedial teachers. Transportation to the Center can be an obstacle for some families in which both parents work or in which there are limited funds for transportation.

During a FGD with PWD it was noted that that lack of affordable and available transportation – especially for wheelchair users – hinders access to needed rehabilitation appointments. Home visits from therapists are rare and families receive minimal to no training according to the group.

The Youth Care Section of the DPH, in conjunction with the White Yellow Cross, screens and monitors development in the first 4 years of life. The White Yellow Cross charges about the equivalent of USD$14 for consultations unless families don't have a means to pay. Screening of children 6 – 13 years old occurs at public schools.

Availability and Provision of Assistive Products

The availability of affordable, appropriate, high-quality AP, coupled with training in its correct usage, is often necessary for people to function at their highest capacity. AP includes:

- Mobility products,
- Vision products,
- Hearing products, and
- Products to support communication and cognition.

The AZV maintains an essential list of AP that it covers. The list was not available to review for this Assessment, but t was reported that most standard mobility products are covered with a referral from a physician. Eyeglasses are only fully covered for government employees and there is a monetary limit to coverage of hearing aids. Information was not available on products to support communication and cognition. Orthotics are not covered by the AZV. Most prosthetics and orthotics are made and maintained on the island. (See figures 20 & 21)

Figures 20 & 21: JP Visser Orthopedic Technical Center

Acceptability of Rehabilitation

There is a reported lack of understanding and decreased awareness of rehabilitation by both the general population and other medical professionals. This contributes to lack of prioritization and utilization of the sector.

Summary of Rehabilitation Accessibility

- Rehabilitation is included in the AZV. All rehabilitation disciplines are fully covered during hospitalizations. Only PT is covered for specified quanitites of out-patient treatments after discharge.
- Most essential AP are accessible to those who need it through coverage by the AZV.
- Accessibility to all rehabilitation disciplines throughout the healthcare system is hindered by lack of availability and long wait lists.
- Gaps in the continuum of care upon discharge from HOH can be significant with some clients needing to wait for weeks for out-patient appointments.
- Foundations are utilized to offer long-term and specialized care. Although some of them do offer rehabilitation services all of them are lacking with insufficient coverage either because of a shortage of workforce or a shortage of funding.
- A lack of awareness and understanding of the scope and merits of rehabilitation among the general public and other medical professions contributes to its under-utilization.

XI. Outcome and Attributes: Equity and Sustainability

Equity

Equity means that all people are equally able to access and afford quality rehabilitation. Although rehabilitation is included as part of the AZV, there are gaps in the accessibility, availability, and affordability of rehabilitation for vulnerable populations.

- HOH does not offer comprehensive pediatric rehabilitation.
- There is a shortage of SLTs in the school system.
- There is a shortage of therapists who work in long-term care facilities and for those who receive therapy in these environments, it is not uncommon to only receive therapy for ½ hour once a week.
- The island does not have a transitional rehabilitation care ward meaning that people who need continued rehabilitation interventions after they are medically stabilized are either sent home too soon or continue occupying a hospital bed which costs the health system unnecessary funds.
- A system of home visits for those who cannot leave the home has not been well developed.
- It was reported that there is a lack of therapists serving the prison population.

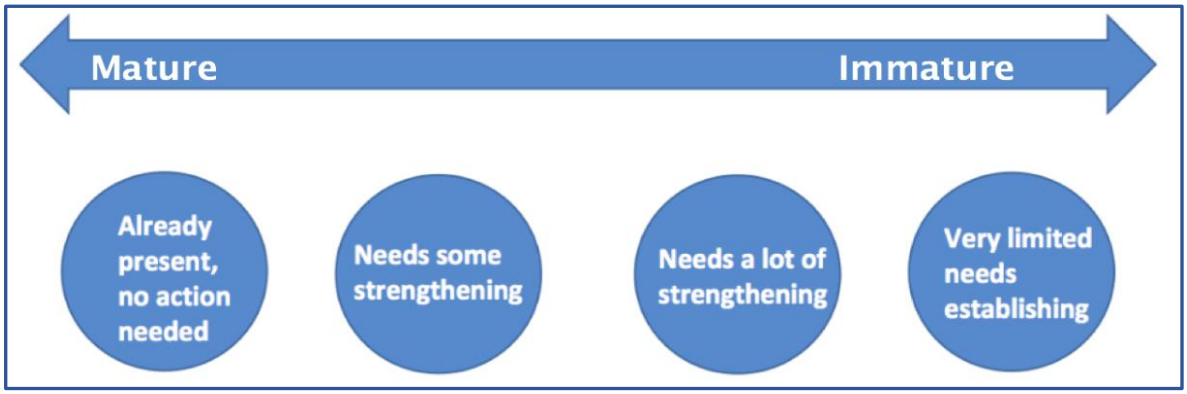
Sustainability

The financial sustainability of rehabilitation refers to the finances that will be available and in line with future needs. Institutional sustainability refers to the human capital, including rehabilitation personnel numbers and competencies, that will be available and in line with future needs. The AZV has been the primary funder of rehabilitation and that contributes to its sustainability. There are some concerns as to whether there will be further cuts that may affect rehabilitation as the health system works to repay loans made with the Netherlands during the pandemic. Institutional capital is a work in progress with a shortage of rehabilitation personnel. Part of this is due to Aruba being a small island necessitating that it recruits professionals from other countries.

XII. Summary Results of the WHO STARS Rehabilitation Maturity Model

As described in an earlier section on The WHO *Rehabilitation in Health Systems - Guide for Action,* the STARS tool of the Situation Assessment utilizes a Rehabilitation Maturity Model (RMM) to assess 50 components of rehabilitation across four levels of maturity, as illustrated in figure 22.

Figure 22. RMM Assessment Scale



The RMM is a structured and comprehensive instrument that offers a snapshot of the current situation in the rehabilitation sector. It assesses the following seven domains of rehabilitation:

1. Governance
2. Financing
3. Human Resources and Infrastructure
4. Health Information Systems
5. Service Accessibility
6. Service Quality
7. Attributes and Outcomes

Fifty components are grouped under these seven domains, that are based on the WHO Conceptual Model for Rehabilitation Assessment. Each of the 50 components is rated across four levels of maturity on a scale of one to four. The 50 components and maturity ratings are provided in Appendix C. The components are informed by the WHO Health System Building Blocks and structured by the Rehabilitation Results Chain according to input, output, outcome and impact. The ratings are based on:

- Observations, focus group discussions, and interviews undertaken in the Situation Assessment,
- Information from background documents,

- Data from the TRIC,
- SWOT analysis developed by key stakeholders, and
- Conversations with key stakeholders regarding specific components of the RMM.

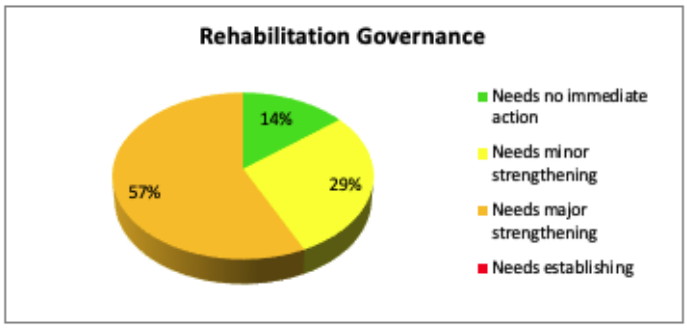
The rating process provides an overview to the maturity of different rehabilitation components. This enables comparison across components and domains that assist in the identification of strengths, gaps, and challenges. Recommendations are offered to improve any component with a rating less than 4. Additionally, results can be compared over time to inform progress toward strengthening the rehabilitation sector. The RMM includes a detailed Excel document that describes each component, and also gives guidance and justification regarding the rating each component.

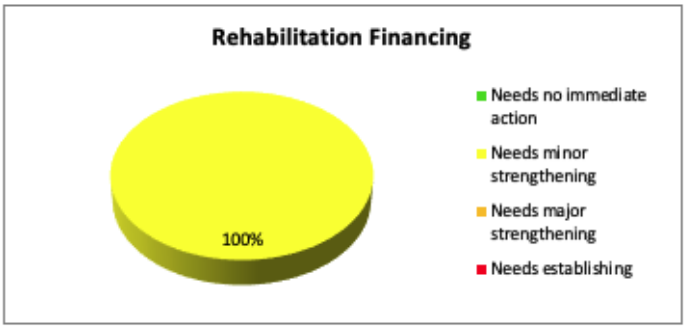
The purpose of the maturity rating exercise is to:

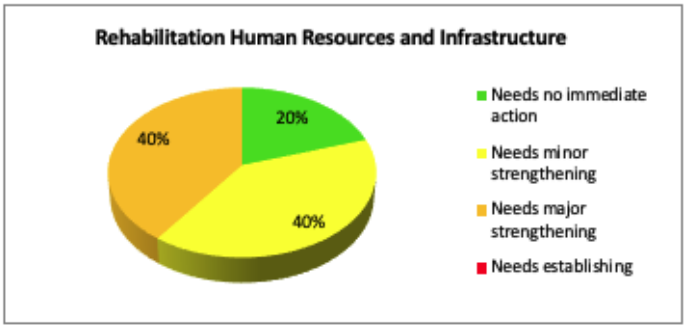
- Support assessment of both the maturity and performance of rehabilitation within a health system,
- Engage stakeholders in assessing the maturity of the sector,
- Provide direction for future steps, such as prioritizing areas for improvement, development of a strategic plan, and implementing mechanisms to evaluate and measure progress toward achieving goals, and
- Provide a summative, visual overview to the assessment findings.

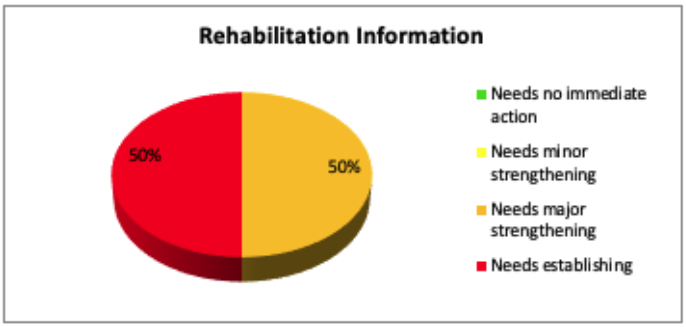
The maturity rating has not been designed for comparison between countries, but it is anticipated that the results may be comparable over time within a country. The summary of the Aruba results is presented below.(figure 23)

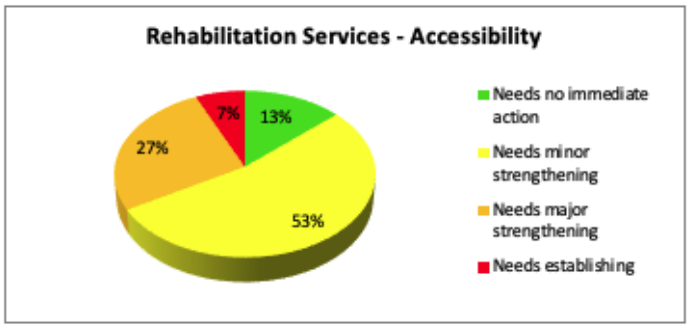
Figure 23: Data visualizations of Summary Results of STARS Assessment

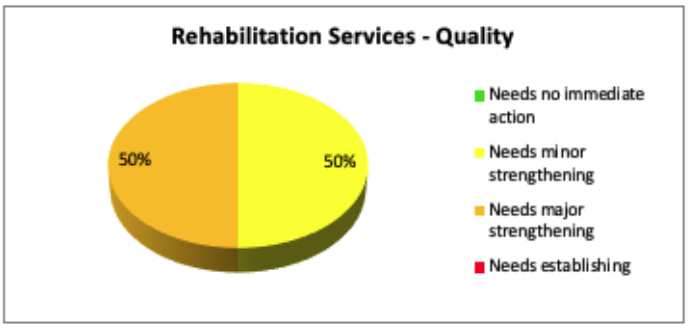

Rehabilitation Governance
14%
29%
57%
Needs no immediate action
Needs minor strengthening
Needs major strengthening
Needs establishing

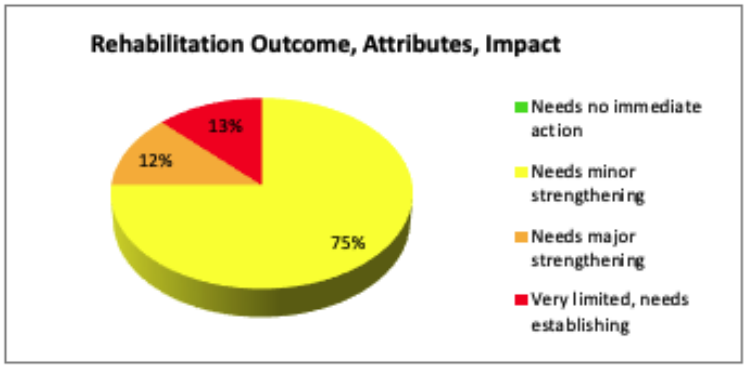

Rehabilitation Financing
100%
Needs no immediate action
Needs minor strengthening
Needs major strengthening
Needs establishing


Rehabilitation Human Resources and Infrastructure
20%
40%
40%
Needs no immediate action
Needs minor strengthening
Needs major strengthening
Needs establishing


Rehabilitation Information
50%
50%
Needs no immediate action
Needs minor strengthening
Needs major strengthening
Needs establishing


Rehabilitation Services - Accessibility
7%
13%
27%
53%
Needs no immediate action
Needs minor strengthening
Needs major strengthening
Needs establishing


Rehabilitation Services - Quality
50%
50%
Needs no immediate action
Needs minor strengthening
Needs major strengthening
Needs establishing


Rehabilitation Outcome, Attributes, Impact
13%
12%
75%
Needs no immediate action
Needs minor strengthening
Needs major strengthening
Very limited, needs establishing

XII. Conclusions and Key Recommendations

Aruba benefits from a capable rehabilitation workforce and a National Health Insurance Plan that covers all rehabilitation disciplines during hospitalizations and physiotherapy on an out-patient basis. While this offers an excellent starting point in the domains of accessibility to quality rehabilitation, there are various measures that can strengthen the sector which are recommended below.

Governance and Leadership

The DPH Focal Point for Rehabilitation is a strong supporter of the sector. DPH Leadership has demonstrated renewed interest in strengthening rehabilitation as evidenced by requesting a STARS Situation Assessment to be carried out, and committing time and effort to the process. It is expected that there will be resultant advancements in the domain of governance for rehabilitation.

1. There is currently not a strong system of governance in the rehabilitation sector and there are many opportunities for strengthening leadership. The sector suffers from the absence of a permanent PM&R doctor. There is also a lack of cohesion among rehabilitation professionals with few leadership opportunities. It appears that most rehabilitation professionals work semi-autonomously without much oversight, mentoring, or leadership. This is true both in all rehabilitation settings.

RECOMMENDATION:

Develop opportunities for rehabilitation professionals to contribute to discussions of planning, quality, efficiency and other leadership topics. As part of this STARS Assessment, a Technical Working Group was formed. It could function as part of this initiative.

2. There is no Rehabilitation Strategic Plan to guide the sector through specific objective and obtainable goals so that rehabilitation can better serve population needs now and in the future.

RECOMMENDATION:

Work with PAHO, the Rehabilitation Focal Point in the DPH, and the newly formed TWG to utilize the WHO's *Rehabilitation in Health Systems: Guide for Action* to:

- develop a strategic plan,
- establish an M&E and review framework, and
- implement the plan.

Rehabilitation Financing

1. The AZV only includes physiotherapy as an essential component of the Health Insurance Plan, meaning that both in-patient and a prescribed number of out-patient sessions are funded.

Occupational therapy and speech and language therapy are only covered by the AZV during hospitalizations. Speech and language therapy and occupational therapy are important components in assuring that both adults and children reach their maximum level of functioning and are able to participate in school, work, and recreational activities. In order to reach the overall goal of the ***National Strategic Framework of the Health Sector***, which is to 'ensure the sustainable provision of quality (high standard) healthcare that promotes healthy lifestyles in a resilient manner'[1], all rehabilitation disciplines should be considered essential components of AZV and accessible through all levels of the healthcare continuum.

RECOMMENDATIONS:

(a) In the short term, there is currently an effort moving forward to include speech and language therapy as an essential service in the health system. It is recommended that the DPH supports this initiative and contributes its expertise on the importance of speech and language therapy.

(b) In the medium term, DPH can advocate for occupational therapy to also be included as an essential health service.

2. Rehabilitation is usually offered at Foundations that cover long-term care to children and/or adults with long-term conditions including congenital or acquired neurological conditions, frailty or dementia. Unfortunately, the amount of rehabilitation available at these facilities tends to be much less than the needs of the client's merit. Because of this, some people who could benefit from rehabilitation are not seen at all and others are under-dosed with decreased frequency or duration of interventions. Also, funding for rehabilitation at some foundations is based on donations and therefore, not secure from one year to the next. It is well-known that both quality and length of life is related to mobility. There are people at some residents at foundations who do not have the opportunity to practice walking or participate in other physical activities if they do not have a session with a PT. And for others it is crucial that they have access to speech and language therapy services for cognition, swallowing and speech.

RECOMMENDATIONS:

(a) Increase financing for rehabilitation at foundations. Earmark a portion of allotments to foundations to only be used for rehabilitation.

(b) Incorporate some basic physiotherapy mobility interventions into the training of nurse's aides on the island and create opportunities for them to perform rudimentary mobility tasks. Include mentorship/supervision from PTs.

3. It is commendable that the health system that the AZV finances or subsidizes most essential AP. There is a high-quality orthotics and prosthetics lab on the island with prosthetics covered by the AZV. Unfortunately, the list of covered products is not readily available to the consumer. It is important that there is transparency regarding the benefits of the health plan so consumers can be aware of possible OOP costs.

RECOMMENDATIONS:

(a) Publish a list of essential AP prominently on the AZV website. Include information on where products can be procured and the amount of any co-pay required.

(b) Make list available to rehabilitation professionals.

Human Resources and Infrastructure

Aruba benefits from a well-trained and capable rehabilitation workforce as well as the presence of well-equipped facilities with up-to-date and safe equipment. The demand for rehabilitation services will continue to increase in light of Aruba's health and demographic trends, including population aging and the increasing prevalence of NCDs.

1. A major shortcoming is the lack of dedicated rehabilitation beds or a rehabilitation ward. This leads to patients who are medically stable but with continued rehabilitation needs either being kept in expensive hospital units longer than necessary or being discharged before they have completed the therapy required to reach optimal functioning.

RECOMMENDATIONS:

Work with the AZV, specialist doctors, and MoHT to advocate for dedicated rehabilitation beds, preferably in a rehabilitation unit. This will allow patients with complex rehabilitation needs to obtain the services that they need in order to reach their optimal level of functioning. Emphasize the personal, economic, and societal benefits to this plan.

2. There is a mismatch between the number of rehabilitation personnel available and population needs. There is a shortage of rehabilitation workforce across all professions. This leads to a high workload and decreased access to rehabilitation. Some rehabilitation professionals work outside of the MoHT, so workforce planning should include input from the Ministry of Education, Ministry of Social Affairs and Labor, Ministry of Justice, and specific foundations. This decrease in availability of rehabilitation professionals often leads to long wait times to secure appointments and increased likelihood of poor functional outcomes. In addition, decreased equity in the provision of rehabilitation services can easily result since people who have the financial resources sometimes pay OOP to be seen in a timely manner.

RECOMMENDATIONS

(a) Initiate a needs-based, evidence-informed approach to workforce planning using data to determine population needs and projections.

(b) Ensure that the DPH receives annual reports from health facilities that include information on uptake, wait times, and availability of workforce.

(c) Convene a task force that includes all entities that employ rehabilitation professionals in order to determine and plan for population needs across all settings.

3. There is a scarcity of rehabilitation professionals who are specialized, leading to lack of mentorship in areas such as pediatrics, oncology, and neurology. This is slowly changing and plans to mandate CPD hours for professional recertification should help improve the situation.

RECOMMENDATION

Support workforce to attend trainings to specialize with the expectation that they serve as mentors to colleagues.

Rehabilitation Information

As can be seen in the pie chart from the previous section, rehabilitation information is the domain that is least developed in Aruba. Without reliable data collected at regular intervals on significant indicators, it is impossible to successfully implement programs of evidence-based work force planning and quality improvement. Existing strengths include regularly collected data on:

- Demographics,
- Some of the health trends that are related to conditions that benefit from rehabilitation,
- Disability, and
- Older Adults

The data on disability and older adults is collected during the Census every 10 years and through surveys by the Central Bureau of Statistics (CBS). Additionally, the CBS is initiating a National Statistical System to collect and analyze health system data. Hopefully, the results will be shared with the DPH.

1. Processes and frameworks for tracking quality, efficiency, and patient satisfaction are not in place. Without benchmarks and goals, quality suffers. Additionally, there is a lack of reporting on workforce availability, population needs, and uptake, which hinders evidence-based workforce planning.

RECOMMENDATIONS:

(a) Establish frameworks and processes to collect, aggregate, analyze and share data on quality, efficiency, patient satisfaction, workforce availability, and population needs.

(b) Train leadership in how to collect, analyze, and utilize data to improve quality, efficiency, and workforce planning.

2. The DPH does not always have access to data pertinent to rehabilitation that is collected by other agencies and ministries such as the AZV, the Health Inspectorate Aruba, the Department of Social Affairs, and the Ministry of Justice.

RECOMMENDATION

(a) Work system-wide to promote a culture of data-sharing.

(b) Develop a collaborative working group with DPH, AZV, CBS, QIH, The Ministry of Justice, the Health Inspectorate Aruba, and professional rehabilitation associations to determine strategies and standards for data collection, analysis, and cross-institution sharing.

Rehabilitation Accessibility

In order for rehabilitation to be accessible, it must be affordable, available, and acceptable. A core outcome of the health system is that populations who need rehabilitation receive it. This is assessed through understanding if rehabilitation is fully affordable, available and acceptable to all user groups. A strength is that most essential AP is accessible and covered by AZV.

Workforce shortages have been discussed in previous sections with recommendations to improve accessibility. While it is commendable that physiotherapy is considered an essential service and therefore covered for in-patient and out-patient, accessibility at all health system levels is still limited due to lack of sufficient workforce. It was also noted that there is not sufficient accessibility to rehabilitation services in foundations. Recommendations were offered in the Workforce and Financing Sections.

Other challenges in accessibility follow.

1. Gaps in the continuum of care upon discharge from HOH can be significant with some clients needing to wait for weeks for out-patient appointments.

RECOMMENDATION

Strengthen discharge planning to ensure that people who need continued rehabilitation do not experience unnecessary delays.

2. A lack of awareness and understanding of the scope and merits of rehabilitation among the general public and other medical professions contributes to its under-utilization.

RECOMMENNDATIONS

(a) Increase interdisciplinary interactions especially via progress and discharge reports sent to MDs, so they can see the objective merits of rehabilitation.

(b) Launch a publicity campaign to promote the benefits of rehabilitation for optimizing functioning for daily life.

(c) Participate in prevention campaigns for NCDs.

Rehabilitation Quality

Aruba has the benefit that most therapists have a high knowledge and skill level secondary to receiving an excellent education in the Netherlands. This is an advantageous baseline from which to commence quality improvement. The new QIH will focus on national norms, efficiency and quality within the healthcare system, and it is expected to include rehabilitation. This will be an excellent step forward toward tracking and improving quality throughout the health system.

1. Performance reviews of rehabilitation staff are not regularly carried out and there is minimal monitoring of quality. There are no quality improvement programs, service audits, or regular service user satisfaction surveys. Documentation is not reviewed for quality. There are no formal procedures in place to deal with problems in the performance of work duties. These factors are significant barriers to strengthening rehabilitation.

RECOMMENDATIONS:

(a) Institute a regular program of client satisfaction surveys at all rehabilitation facilities. Train leadership in how to use results to improve satisfaction and improve performance of services.

(b) Design a framework for monitoring quality. Initiate annual reviews that are based on expected benchmark for specific indicators. Set improvement goals with staff based on the review process. Train leadership in design and use of employee reviews for quality improvement.

2. There are gaps in documentation such as lack of consistent use of Functional Outcome Measures to objectively determine progress toward functional goals. Daily notes on interventions don't always include specifics such as weights used during therapeutic exercises, sets, repetitions, distance walked, assist needed etc. This is especially problematic at HOH where patients don't see the same therapist daily.
Additionally, neither progress notes nor discharge summaries are regularly sent to physicians.

RECOMMENDATIONS:

(a) Establish clear documentation guidelines.

(b) Regularly monitor documentation to determine if it meets the guideline goals.

Outcome and Attributes: Equity and Sustainability

Equity means that all people are equally able to access and afford quality rehabilitation. Although rehabilitation is included as part of the AZV, there are still gaps in the accessibility, availability, and affordability of rehabilitation for vulnerable populations. Many of these issues have been covered in the preceding sections with recommendation offered to improve accessibility and thereby, equity. Below is a review of those issues:

- HOH does not offer comprehensive pediatric rehabilitation.
- There is a shortage of SLTs in the school system.
- There is a shortage of therapists who work in long-term care facilities and for those who receive therapy in these environments, it is not uncommon to only receive therapy for ½ hour once a week.
- The island does not have a transitional rehabilitation care ward or a dedicated rehabilitation unit meaning that people who need continued rehabilitation interventions after they are medically stabilized are either sent home too soon or continue occupying a hospital bed which costs the health system unnecessary money. This also affects equity since people discharged too soon often require continued intense therapy and may not have the means to attend sessions regularly or the household help that they need.
- A system of home visits for those who cannot leave the home has not been well developed.
- It was reported that there is a lack of therapists serving the prison population.
- There is no subsidized transportation to reach rehabilitation appointments.

Sustainability

Financial sustainability of rehabilitation refers to the finances that will be available and in line with future needs. The AZV has been the primary funder of rehabilitation and that contributes to its sustainability. As detailed in previous sections with recommendations, sustainability of rehabilitation at Foundations is less secure since it depends, at least partially, on donations.

Institutional sustainability refers to the human capital, including rehabilitation personnel numbers and competencies, that will be available and in line with future needs. Institutional capital is a work in progress with a shortage of rehabilitation personnel. As discussed in the Human Resources section, an evidence-based approach is recommended for human resources planning to assure that there are sufficient numbers of rehabilitation professionals to meet population needs. Due to Aruba being a small island, continued efforts must be exerted to maintain institutional sustainability through recruiting professionals from other countries.

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Appendix A

List of people consulted during Assessment

	Title/First Name	Family Name	Organization	Role/Position
1 - 20	20 people with disabilities		Focus Group of PWD - FUNARI	
21	Gijs	De Rooi	Mickey's Foundation	Founder
22	Magaly	Tobel	AZV	Team Leader,Management of Information Provision
23	Cetty	Baarh, RN	FAVI	Director of FAVI
24	Eromil	Bakmeyer	SABA	Division Manager and Nursing
25	Francine	Barduja	Martijn Trading	OT
26	Judelca	Briceño	Aruba DVG	Chief of Staff, Minister of Health
27	Dr. Yuri	Casseres	ASHA	Surgeon
28	Clayton	Croes	DPH	Policy Advisor
29	Frank	Croes	FEPOH	Board Chairperson
30	Sukail	Croes	Ambiente Feliz, San Nicolas	Location Manager
31	Lukee	Croes	Ambiente Feliz, San Nicolas	Quality Officer
32	Dr. Jayburtt	Dijkhof	Aruba Department of Public Health	Director, Quality Institute of Healthcare
33	Benjamin	Dirks	Dept of Labor	
34	Swinda	Dumfries	Aruba Department of Public Health	Specialist, Youth Health Services
35	Leslie	Escobar	Aruba Department of Public Health	Policy and Legal Advisor
36	Janice	Essers-Hooft	DPH / Youth Health Dept.	Acting Head, Youth Health Dept.
37	Dr. David	Geelkens	MedWork	Occupational health physician
38	Chris	Goedhart	AZV	Account Manager
39	Dr. Myron	Genser	SVb	Occupational Health
40	Dr. Michelle	Harris	PAHO	Advisor, NCDs and Mental Health
41	Francesca	Heinze	ATHA	
42	Sigmund	Jandroep	Department of Education	SLT
43	Ronneke	Kats, RN	Horocio Oduber Hospital	Manager, Neurology Floor
44	Jamine	Kelly	Ambiente Nobo	President of platform, President of Ambiento Nobo
45	Remo	Kock	SABA	Director
46	Denise	Koolmann	HOH	MSW
47	Monique	Larmonie	SABA	Location Manager

48	Dr. Randall	Leong	ASHA	Urologist
49	Brenda	Maduro	FUNARI	Activity Coordinator
50	Adrienne	Maduro	J.P. Visser	employee
51	Eugene	Maduro	DPH, Epidemiology Unit	
52	Marianela	Maduro	AZV	Account Manager
53	Wilbert	Marchena	Dept of Social Affairs	Policy Advisor
54	Anselmo	Mathew	Aruba DVG	Policy Officer, laboratory biosafety
55	Dr. Marcel	Meelis	HOH	neurologist
56	Econ. Dangui	Oduber	Aruba DVG	Minister of Health
57	Maritza	Ordoñez	DPH	Medical Advisor
58	Alison	Perez	Fundacion Cas mi Chepa	
59	Javier	Perregil de Oliveira	HOH	PT
60	Barbara	Poelmann	HOH	OT
61	Maritza B.	Rasmijn	Maduro	FUNARI
62	John	Res	HOH	Rehab Assistant
63	Dr. Wilmer	Salazar	DPH	Medical Advisor
64	Michella	Steenvoorde-Lacle	Ministry of Justice and Social Affairs	
65	Nicola	Taylor	PAHO	Programme Management Specialist for Aruba, Curacao, Sint Maarten Bonaire, Sint Eustatius and Saba
66	Albert	Thielman	MoHT	
67	Marlon	Thode	Private Practice	PT, President of Aruba Association of Physiotherapists (AVFA)
68	Uginia Poulina	Thomson	Aruba DVG	Policy Advisor
	Magaly	Tobel	AZV	Team Leader, Management of Information Provision
69	Miranda	Trimon-Pilage	Fundacion HOPE (Helping our Precious Elderly)	
70	Alexander	Tromp	Advance Fisio and Ambiente Feliz	PT
71	Kristel	van Nes	FEPOH	SLP
72	Joaquin	van Trigt	HAVA	Chair of the Association of General Physicians
73	Jean-Pierre	Visser	J.P.Visser	Owner
74	Caroline	, RN	HoH	Manager of Rehabilitation Department
75	unknown		SABA	Physiotherapist

Appendix B

Stakeholder's Group SWOT Analysis Results

Strengths	○ Already short-term and outpatient PT care in place ○ Recruiting for a Rehab physician. ○ Quality of available personnel is very good ○ Sufficient fruits and vegetables available in Aruba ○ Lots of willingness of professionals to learn ○ Covered by AZV $1^{0}$and $2^{0.}$
Weaknesses	○ Not enough capacity ○ Not sufficient funding - everything Rehab ○ Universal Health Coverage that does not include logo, ergo, dietitians. ○ Not enough workers ○ Lack of Rehab Specialists (pediatrics, etc) ○ Lack of awareness of the need for rehabilitation on the part of the policy makers and the population ○ No visible advocate from the field of FT ○ Limited Quality Control / Monitoring ○ Lack on rehab beds ○ Lacking in multiple disciplines, e.g. speech therapists ○ No financing for prehab and maintenance. ○ Long waiting lists for rehab appointments
Opportunities	○ Better salary to attract personnel. ○ Job opportunity. ○ Convince to invest more in Childhood Rehabilitation ○ Rehab Center ○ Invest more in education/capacity of health care workers. ○ Universal Health Coverage to include logo and ergo therapies etc. is being considered. ○ Quality Institute in Healthcare project to monitor quality in rehabilitation
Threats	○ Scaling: the low number of people on the island makes it difficult to justify maintain certain rehab services ○ Lack of funding ○ Lack of vision at all levels-> lack of support ○ Lack of governance and leadership ○ Aging immigrant population ○ Mismanagement – lack of enforcement

APPENDIX C

RMM Components and Ratings

Summary scores and results

Key to scores:

- Needs no immediate action
- Needs minor strengthening
- Needs major strengthening
- Needs establishing

		SCORE
REHABILITATION GOVERNANCE		
1	Rehabilitation legislation, policies and plans	2
2	Leadership, coordination and coalition building for rehabilitation	2
3	Capacity and levers for rehabilitation plan implementation are in	3
4	Accountability, reporting and transparency for rehabilitation	2
5	Regulation of rehabilitation and assistive technology	3
6	Assistive technology policies, plans and leadership	2
7	Assistive technology programmes and procurement	4
REHABILITATION FINANCING		
8	Rehabilitation financing and coverage of the population	3
9	Scope of rehabilitation included in financing	3
10	Financing of rehabilitation and out-of-pocket costs	3
REHABILITATION HUMAN RESOURCES AND INFRASTRUCTURE		
11	Rehabilitation workforce availability	2
12	Rehabilitation workforce training and competencies	3
13	Rehabilitation workforce planning and management	2
14	Rehabilitation workforce mobility, motivation and support	3
15	Rehabilitation infrastructure and equipment	4

REHABILITATION INFORMATION		
16	Information about rehabilitation needs, including population functioning and disability	2
17	Information about rehabilitation availability and utilization	2
18	Information on rehabilitation outcomes and quality	1
19	Rehabilitation information used during decision-making	1
REHABILITATION SERVICES - ACCESSIBILITY		
20	Availability of specialized, high-intensity rehabilitation	1
21	Availability of community-delivered rehabilitation	2
22	Availability of rehabilitation integrated into tertiary care	3
23	Rehabilitation integrated into secondary care	3
24	Rehabilitation integrated into primary care	3
25	Occurrence of informal, self-directed rehabilitation	2
26	Availability of rehabilitation available across acute, sub-acute and long-term phases of care	2
27	Availability of rehabilitation across mental health, vision and hearing programmes	3
28	Availability of rehabilitation for target population groups based on country need	3
29	Early identification and referral to appropriate health and rehabilitation programmes for children with developmental difficulties and disabilities	3
30	Availability of rehabilitation in hospital, clinical settings and the community for children with developmental difficulties and disabilities	2
31	Availability of assistive products, including those for mobility, environment, vision, hearing, communication and cognition	4
32	Availability of assistive products and their service delivery	4
33	Affordability of rehabilitation	3
34	Acceptability of rehabilitation	3

REHABILITATION SERVICES - QUALITY		
35	Extent to which evidence-based rehabilitation interventions are utilized	2
36	Extent to which rehabilitation interventions are of sufficient specialization and intensity to meet needs	2
37	Extent to which rehabilitation interventions empower, educate and motivate people	3
38	Extent to which rehabilitation interventions are underpinned by appropriate assessment, treatment planning, outcome measurement and note-taking practices	2
39	Extent to which rehabilitation is timely and delivered along a continuum, with effective referral practices	2
40	Extent to which rehabilitation is person-centred, flexible, and engages users, family, and carers in decision-making	3
41	Extent to which health personnel and community members are aware, knowledgeable and seek rehabilitation	3
42	Extent to which rehabilitation is safe	3
OUTCOME, ATTRIBUTES AND IMPACT OF REHABILITATION		
43	Coverage of rehabilitation interventions for population groups that need rehabilitation	3
44	Functioning outcomes of rehabilitation for those who receive rehabilitation	3
45	Equity of rehabilitation coverage across disadvantaged population groups	3
46	Allocative and technical efficiency of rehabilitation	3
47	Multi-level accountability for rehabilitation performance	2
48	Financial and institutional sustainability of rehabilitation	3
49	Resilience of rehabilitation for crisis and disaster	3
50	The functioning of the population	1