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Assistive technology capacity assessment (ATA-C)

Instruction Manual

Global Disability Innovation Hub

World Health Organization

CLINTON HEALTH ACCESS INITIATIVE

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Cover page photo: A man shares information with a health worker in his family house during an assistive technology survey in the outskirts of Islamabad.

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This tool was prepared by WHO’s Division of Medicines and Health Products. It is a living document and will continue to be refined as it is implemented in more countries.

Eka and Vindi from Indonesian NGOs Kaki Kota and Kota Kita doing fieldwork for the "Country Capacity Assessment for Assistive Technology: Informal Markets Study" in Banjarmasin, Indonesia. Photo credit: Angus Stewart.

Introduction

Background

Worldwide over one billion people are in need of assistive technology (AT), a number predicted to rise to two billion by 2050 due to population ageing and an increase in noncommunicable diseases *(1)*. Yet only one in every 10 people who needs AT has access to it, and this gap is even more prominent in low- and middle-income countries *(1)*.

The AT sector faces multiple barriers, both in the **supply** of appropriate, affordable, quality products and in the unmet **demand** for these products from users, service providers and national health systems.

Appropriate AT refers to assistive products and services that meet the user's needs and local environmental conditions, are properly fitted, safe and durable. Appropriate AT can be obtained, maintained and repaired with services provided in-country at an affordable cost. A well-functioning health system that has the capacity to provide appropriate assistive products and services at an affordable price, and in a timely manner, is crucial to ensuring more widespread and equitable access to AT.

Definitions

Assistive technology is an umbrella term covering assistive products and the systems and services related to their delivery *(1)*.

Assistive products maintain or improve an individual's functioning and independence, thereby promoting their well-being. Examples include hearing aids, wheelchairs, spectacles, pill organizers, incontinence products and augmentative communication devices *(1)*.

The World Health Organization (WHO) supports countries to improve access to AT through strengthening five interlinked areas (the 5P): people-centred, policy, products, provision and personnel (Fig. 1). The 5P make up the essential components of a well-functioning AT system.

The AT sector is diverse and fragmented, consisting of stakeholders that cover a wide range of health conditions and functional limitations. To help AT stakeholders plan and deliver services effectively, there is a great need for more information about what is happening in countries.

The ATA-C tool and what it can do

The Assistive Technology Capacity Assessment (ATA-C) tool has been developed to help understand the AT sector at national and subnational level using the 5P framework. The aim is to assist local stakeholders in collecting information to build up a comprehensive understanding of a country's capacity to regulate, finance, procure and provide AT to meet national needs appropriately. This in turn can inform decision-making, strengthen the AT sector and improve access to AT.

The ATA-C has evolved in consultation with WHO personnel at headquarters, regional and country offices, and external implementing partners; it has been field tested in 14 countries and will continue to be refined as we learn more. It is made up of two core materials to be used together: this instruction manual and a model data consolidation spreadsheet.

Fig. 1. The five interlinked areas of assistive technology (5P).

The ATA-C is designed to take a wide perspective across the entire AT system and is not for detailed planning or analysis of a specific assistive product. The assessment can serve three purposes:

1. **Awareness raising:** To provide initial information at national or subnational level about the current AT situation (using a brief version).

2. **Policy and programme design:** To identify key gaps and opportunities in the AT sector to inform decision-making when designing policies, strategic action plans and programmes (using the full assessment).

3. **Ongoing monitoring and evaluation (M&E**): To monitor and evaluate the AT situation in a country over time.

Although the ATA-C can act as a stand-alone tool, it can also be complemented by a household survey on population need for AT*. The combined information about need and the existing capacity to meet that need, leads to better policy and programme design, particularly for procurement and service provision requirements.

*The WHO rATA is a rapid assistive technology tool designed to survey AT need, demand, supply and user satisfaction. It is available on request.

Positive outcomes

The ATA-C has the potential to stimulate significant developments across the 5P areas. Table 1 presents some positive outcomes from countries that implemented the ATA-C as part of the development process.

Table 1. Positive outcomes across the 5P

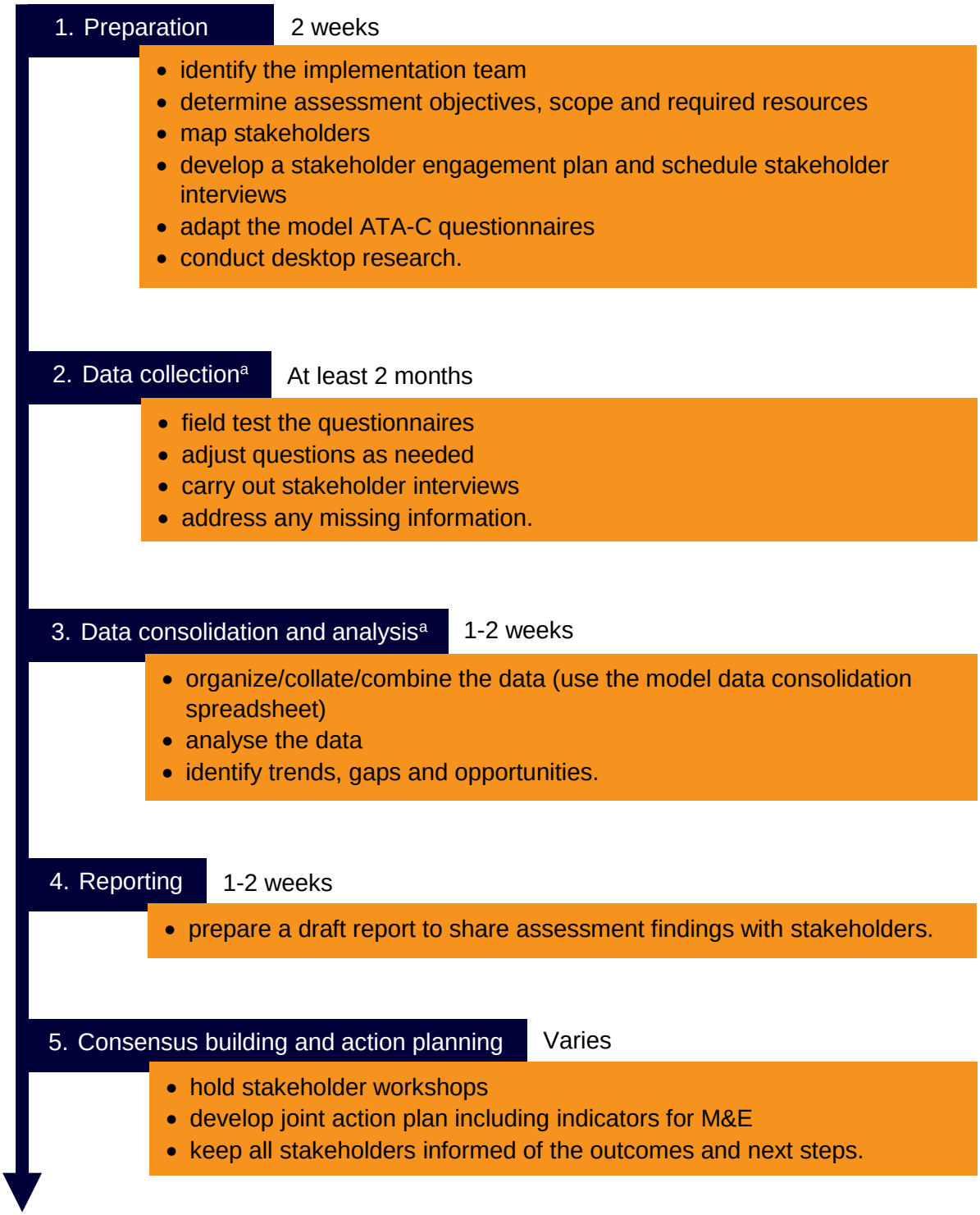
5P	Positive outcomes
People-centred	Government stakeholders realized they needed a better understanding of AT need before making any policy decisions. They decided to collect new population data on this.
Policy	The ATA-C helped identify the importance of creating a national AT committee to coordinate efforts to strengthen the AT sector, and prioritize AT inclusion within national universal health coverage reform efforts.
Products	The AT capacity assessment findings informed the development of a national priority assistive products list *(2)*.
Provision	ATA-C findings helped reveal the unequal distribution of AT provision capacity between urban and rural communities, prompting plans for AT provision to be decentralized and for referral mechanisms to be strengthened.
Personnel	ATA-C findings sparked interest in developing human resource capacity to provide AT (for instance developing formal curricula, training packages, a mentorship programme and sharing knowledge/experiences).

How to use the ATA-C

The ATA-C is a practical tool to guide countries through the process of assessing AT capacity at the national or subnational level. An implementation team coordinates the assessment, identifying and interviewing AT stakeholders using the **model ATA-C questionnaires in Annex A**.

The collected information, together with materials from desktop research, is processed using the **model data consolidation spreadsheet** and summarized in a comprehensive report. Key findings are presented back to stakeholders and a joint action plan is then developed together as a result. This **instruction manual** explains each step (Fig. 2).

Fig. 2. How to implement the ATA-C



[a] Steps 2 and 3 can be completed in parallel.

The next section is about how to begin. It looks at setting up the core implementation team and what needs to be done to prepare for stakeholder interviews and conduct desktop research to gather information.

Step 1. Preparation

Credit: WHO/SEARO/Vismita Gupta-Smith

The preparation stage of the ATA-C involves important groundwork that will give the assessment a solid base. Time invested at this stage will positively influence the outcomes.

1.1 Identify the implementation team

The main priority is to set up a core implementation team to be responsible for conducting and coordinating the assessment as set out in Fig. 2. Typically, roles and responsibilities are divided into:

- coordination (overseeing the full implementation);
- stakeholder engagement (interviewing, consensus building and action planning);
- data analysis (consolidating, analysing information and reporting).

The following key characteristics are needed in the team:

- an in-depth understanding of the local AT context;
- extensive knowledge and/or experience of assistive technology/disability/rehabilitation/ health products;
- an ability to build strong rapport with diverse stakeholders of varying levels of seniority;
- a strong understanding/experience in conducting semi-structured interviews and qualitative research methods.

Team members with an in-depth knowledge of the local context, and excellent interpersonal skills, will lead stakeholder engagements and workshops. Team members with strong public health and qualitative research skills will run the data analysis.

It is important for the team to have a **focal person** who will lead and coordinate the assessment. They will need to have extensive knowledge and experience of assistive technology.

1.2 Determine assessment objectives, scope and resources

Before detailed planning can begin, it is important to determine:

- the aim of the assessment and its expected outcomes (see the three key purposes in the Introduction);
- the scope of the assessment (for instance, will it be at national or subnational level, will it compliment a previous survey);
- the timeline;
- the resources required to complete the assessment (for instance, renumeration for the implementation team, transport costs and costs to hold stakeholder workshops).

Important note

The ATA-C should be carried out in collaboration with the ministry of health and/or other relevant government ministries. Many sections of government will have a key role to play in strengthening the AT system within the country and their involvement from the beginning will be important to ensure government ownership.

The implementation team should agree terms for data ownership and usage with key ministry stakeholders in line with national requirements.

1.3 Mapping stakeholders

Most of the information needed for the ATA-C will come from stakeholder interviews at national or subnational level. So the next step is for the implementation team to work together on a mapping exercise, pooling knowledge to **identify all relevant stakeholders** and their roles in the AT sector.

Box 1 gives examples of stakeholders to help you get started. Some of them may not be relevant to your situation and there may be others that are not listed here.

It helps to group stakeholders with similar **roles** together (policy-makers/programme managers; distributors, sellers and service providers; AT users) as this aligns with questionnaires 2–4 in **Annex A**.

You may face resource constraints in interviewing all identified stakeholders. If so, it is important to prioritize in a way that ensures comprehensive representation from all stakeholder **types** (see question 1 of questionnaire 1 in **Annex A**); all stakeholder **roles** (as listed above); and the six functional domains related to AT (Box 2).

AT users and user groups are important stakeholders uniquely positioned to explain how AT policy, procurement and provision practices are affecting them. They can identify gaps and barriers in the system that prevent appropriate, affordable, timely access to AT. Box 2 lists key considerations to keep in mind when selecting AT users to interview.

Amadu from the Federation of the Urban and Rural Poor Sierra Leone, facilitating a group discussion as part of the research "Community-led solutions: Assistive Technology in informal settlements", in Freetown, Sierra Leone. Photo credit: Angus Stewart.

Box 1. Example stakeholders

1. Ministry of health/department responsible for disability, ageing, noncommunicable diseases and chronic conditions.
2. Ministry of health/department or government agency responsible for procurement of medical devices or assistive products.
3. Ministry of health or ministry of education/department responsible for health workforce/human resources/AT training.
4. Ministry of social welfare, veteran affairs, labour or equivalent (if involved in assistive technology financing, procurement and provision); particularly departments/individuals responsible for ageing/disabilities or financing, procurement and/or provision of assistive products.
5. Ministry of finance, particularly departments/individuals responsible for allocating government funds for health care and public health.
6. National statistics office/bureau.
7. National insurance authorities and/or private health insurance companies.
8. National rehabilitation hospital(s).
9. Non-profit national and international nongovernmental organizations (NGOs) and faith-based organizations that procure and/or provide assistive products.
10. Local manufacturers of assistive products (formal and informal) and/or enterprises that assemble/repair/maintain/customize assistive products.
11. For-profit provider and/or distributor of assistive products.
12. Professional associations.
13. Academics working on disability, rehabilitation or AT issues.
14. AT users and AT user groups such as older people's associations, disabled people's organizations, caregiver associations.
15. Local leaders, opinion formers or champions of AT.
16. United Nations (UN) agencies.

Box 2. Key considerations for selecting AT user stakeholders

Ensure representation of diverse experiences by:

- interviewing AT users across all **six functional domains**: mobility, hearing, vision, cognition, communication and self-care;
- interviewing AT users across the life course. This includes parents of young children, adolescents (with consent from parents), adults and older people;
- interviewing AT users who may have different perspectives (for example, those who are members of AT user-group associations; or members of community groups);
- checking there is a gender balance.

Important note

Be open and transparent about how AT users are sampled. The aim of the ATA-C is not to obtain a representative sample of *all* AT user experiences within a country, but to capture *some* of the lived experiences and challenges that are faced.

1.4 Develop a stakeholder engagement plan

A stakeholder engagement plan is a detailed document that lists all relevant stakeholders, the method of engagement (for example, in person or by telephone), time of engagement, frequency of engagement (for example, assessment briefing, interview, workshops and follow up), and any key considerations for each stakeholder that may facilitate and/or impede efforts (such as accessibility needs/competing priorities of different stakeholders).

Effective stakeholder engagement from the beginning of the assessment is key to its success. It increases a sense of joint ownership and acceptance of the assessment findings; it also means that efforts to strengthen the AT sector as the joint recommendations are implemented are more likely to be sustained.

Once you have a list of stakeholders, here are some suggestions for developing the rest of your plan. These are not exhaustive and should be used to suit your own context as you will know your stakeholders best.

- Decide whether to hold individual meetings with each stakeholder to introduce the assessment or whether to organize an orientation workshop with everyone.
- Using the **model introduction sheet in Annex B**, get in touch to ask each stakeholder if they would like to take part in the assessment. The introduction sheet should be adapted to your circumstances and translated into the local language(s) if required.
- Decide how to carry out the interviews:
  - Is formal or informal communication better?
  - Is it more effective to meet in person or to conduct the interview remotely?
  - Be sure to take account of stakeholders with accessibility needs and to plan accordingly.
- Discuss permission for **data ownership and use** with relevant stakeholders; this is particularly important in the case of key ministries that may have a lot of information useful to the assessment. Implementation teams should follow national requirements for obtaining consent for interviews, data usage/data ownership.
- Schedule stakeholder interviews and any follow-up interviews that may be needed.
- Keep in contact with stakeholders as the assessment proceeds and involve them as appropriate at the reporting and action planning stages.

Once a stakeholder engagement plan is in place, the next step is to develop questionnaires for your stakeholder interviews.

Important note

Interview AT users and user group associations near the end of the process to help corroborate the initial findings. AT users are also well-placed to highlight important barriers in the system that block access. For example, a policy-maker may describe a well-functioning reimbursement scheme for priority assistive products but none of the AT users interviewed have been able to claim eligibility to access them.

1.5 How to use the model ATA-C questionnaires

The model ATA-C questionnaires in **Annex A** are provided as a basis for interviewing. If your assessment purpose is to raise awareness, only use the questions highlighted in **green** (the shorter rapid version). If the objective is wider, to inform policy and programme design, then use all questions.

There are four model ATA-C questionnaires. The first one is for use with all stakeholders to gather information about their organization and its role in AT; questionnaires 2–4 are for use with different types of stakeholders, which are listed in the 'target audience' section of each one:

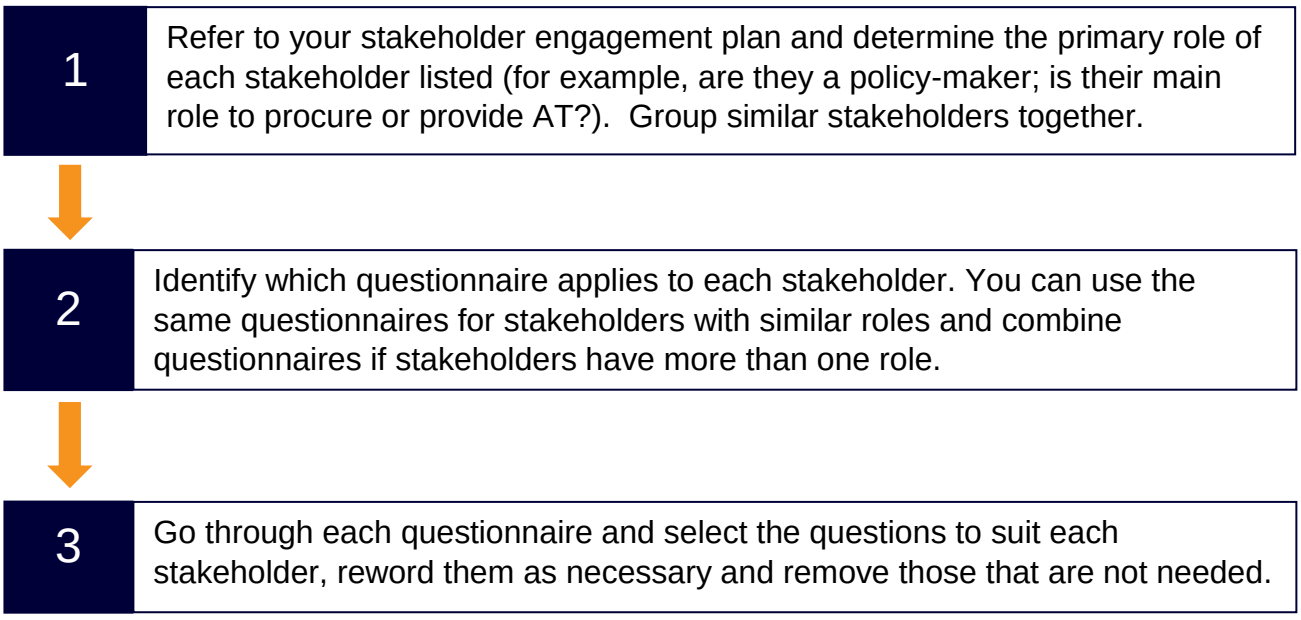
- questionnaire 1 is for all stakeholders;
- questionnaire 2 is for government ministries, NGOs and international organizations involved in AT policy-making, programme management, financing and procurement;
- questionnaire 3 is for nongovernmental organizations (non-profit and for-profit) distributing, selling and providing AT;
- questionnaire 4 is for AT users and user group associations.

The questionnaires are 'models' because they are meant to be adapted to your situation. This is because there is so much variation in stakeholder roles within each context that some questions may not be relevant or may need rewording. The easier it is for stakeholders to understand the questions when being interviewed, the better the quality of information you will get.

Questionnaires 2–4 are organized into 5P areas that correspond to the key roles of the stakeholders identified in the mapping exercise 1.3. Please modify the questions so that they are appropriate to your stakeholders; this means selecting the most relevant questions and, if needed, changing the wording.

To help you decide which questionnaire/s to select and how to modify the questions, see the flow diagram in Fig. 3.

Fig. 3. How to develop the ATA-C questionnaires



When making modifications, it is important that the meaning of each question is not changed. To help with this, check against **Annex C** which explains the purpose of each question as well as the types of stakeholders it could be relevant for (using icons). Annex C is also organized by the 5P areas for ease of reference.

If making changes to the product categories and AT workforces, please check against the lists in **Annex D** to confirm you have included all relevant information. Also see the **Glossary** at the end of this manual for definitions of the terms used.
The final questionnaires may need to be **translated** into the local language(s). If so, please check the following:

- Is the meaning of a question still the same after it has been translated?
- Do the definitions of commonly used terms (such as assistive technology and functional limitation) have the same meaning after translation?
- Are there any translated questions that may be culturally/politically insensitive?
- When translating the product list, please refer to the WHO Assistive Products List *(3)* which is translated into seven languages: Arabic, Chinese, English, French, Portuguese, Russian and Spanish.

1.6 Desktop research

While most of the information for the assessment will come from interviewing stakeholders, some desktop research will be needed to provide a national context and to answer selected ATA-C questions. Box 3 suggests topics for desktop research but there are likely to be more.

Box 3. ATA-C questions for desktop research

- Ratification or accepted accession of the Convention on the Rights of Persons with Disabilities (CRPD) and the Optional Protocol *(4)*. Check the webpage of the Committee on the Rights of Persons with Disabilities.
- Mention of AT in any national and/or subnational legal framework/legislation.
- Assistive products included in the national list of approved medical devices/assistive products/or similar.
- Total population of the country/subnational area.
- Prevalence of functional limitations that commonly require AT:
  - mobility impairments
  - hearing impairments
  - vision impairments
  - cognitive impairments
  - communication impairments
  - self-care.
- Prevalence of health conditions that commonly require AT (See the Global Burden of Disease Results Tool for more information *(5)*).
  - noncommunicable diseases: diabetes, stroke;
  - eye conditions: refractive error, presbyopia;
  - developmental conditions in children: intellectual disability, cerebral palsy, spina bifida;
  - congenital anomalies: club foot;
  - neurological conditions: multiple sclerosis, spinal cord injury, traumatic brain injury, Alzheimer disease and other dementia, Parkinson disease;
  - musculoskeletal conditions: fractures, lower limb amputations, arthritis (osteo and rheumatoid), sarcopenia, post-polio paralysis, low-back pain.
- National educational institutions offering degrees, diplomas and other courses to train the relevant AT workforce (**Annex D**); the minimum duration of the course and average number of people graduating each year.

Step 2. Data collection

Nina and Yanti from Indonesian NGOs Kota Kita and Kaki Kota doing fieldwork for the "Country Capacity Assessment for Assistive Technology: Informal Markets Study" in Banjarmasin, Indonesia. Photo credit: Angus Stewart.

At least two months may be needed for data collection to give enough time for interviews and follow-up with all relevant stakeholders. The data collection schedule should be flexible with built-in buffer time for delays.

2.1 Checklist

Before starting this stage, check that all preparations are complete and the team is on track to proceed.

- ☐ Clear assessment objectives and scope set; required resources identified and allocated.
- ☐ Mapping of all relevant stakeholders complete and stakeholders with similar **roles** grouped together.
- ☐ Stakeholder engagement plan developed, model introduction sheet adapted and translated, stakeholders contacted and interviews scheduled.
- ☐ Model questionnaires adapted for each stakeholder, modified questions checked against **Annex C** to ensure meaning not changed.

2.2 Interviewing stakeholders

We recommend face-to-face semi-structured interviews with each stakeholder as the primary data collection method. This encourages more detailed answers while also enabling the interviewer to ask follow-up questions and clarify responses. If face-to-face interviews are not feasible, video or telephone calls can be used instead.

It is likely that you will use a combination of individual interviews and focus groups. For some stakeholder types, such as AT distributors and AT users, a focus group may be more efficient and effective. Consider the following when deciding which format to use.

- Focus group interviews allow participants to build on each other's responses and compare experiences; the implementation team can collect data more efficiently because multiple perspectives can be gathered in one interview session.
- One-on-one interviews enable interviewees to give more detailed responses, some of which might not be shared in a focus group.

How a stakeholder is interviewed can significantly influence data quality and assessment outcomes, so it is important that the interviewer takes time to review good practices and qualitative research methods. Box 4 shares some key principles.

Important note

When interviewing stakeholders, remember to ask them for the key documents listed in the model questionnaires! These will help to confirm the interview findings and give you more detail, which will assist with reporting and action planning.

Box 4. Key principles for effective interviewing

Before an interview takes place

- Decide on the most appropriate interviewing format.
- Confirm the meeting date, time and place.
- Discuss informed consent, data usage and ownership with each stakeholder.
- If appropriate, share the questionnaire before the interview so the stakeholder is prepared and has any documents ready for you.

During an interview

- Build rapport with stakeholders from the very beginning.
- Make sure your body language is approachable and neutral (for instance, occasionally nod your head; refrain from looking surprised at an answer as it might influence how much more is said).
- Ask open-ended questions. Questions that lead the stakeholder to an answer (for example, would you agree that…?) can bias the assessment outcomes.
- Listen more, talk less. Rephrase answers out loud to ensure that you have completely understood the stakeholder's response.
- Ask one question at a time.
- Stay focused but be flexible. If the conversation is straying to another topic, calmly redirect it back to the question. Ask follow-up questions – you might discover some interesting issues.
- Probe when appropriate, for instance for evidence when claims are made. Ask for written documents where possible.
- Take comprehensive notes. It can help to involve two people so that one can focus on interviewing and the other on taking notes.

Immediately after an interview

- Review the stakeholder's responses to make sure that all questions are appropriately answered. Follow up with the stakeholder if anything is missing or unclear.
- Verify/confirm with the stakeholder that the information collected accurately represents their point of view.
- Analyze the stakeholder's responses and begin filling out the model data consolidation spreadsheet (Step 3) as soon as possible so that you don't forget interview details.

Adapted from: Methods of data collection in qualitative research: interviews and focus groups by P. Gill et al. (6), WHO nutrition landscape analysis (7) and Twelve tips for conducting qualitative research interviews by C. McGrath et al (8).

2.3 Adjustments

Start by 'field testing' your questionnaires with a few stakeholders who are well known to the team, so that improvements can be made before starting the full data collection exercise. For

example, the team may find that phrasing a question differently results in more comprehensive responses or that certain stakeholders are unable to answer particular questions. If you make big changes to your questions before the full data collection process begins, you may need to go back to the first stakeholders again to confirm their answers.

The stakeholder engagement plan may need to be adjusted to cope with the unexpected. For instance, to fit in new stakeholders who were not known; if the team can't contact someone already identified; if answers are missing or unclear and need clarifying; if stakeholders can't answer certain questions and suggest other contacts to interview.

2.4 Missing information

If substantial efforts have been made to find missing information, but with no success, this can be a finding in itself and an indication of an AT gap that should be strengthened.

When information is limited at the national or subnational level, broaden the search to the regional and global level to make rough estimates or to use examples from elsewhere. For instance, the prevalence of certain health conditions can be estimated based on regional data; and understanding AT procurement practices at regional level can help to identify opportunities for improvement at national level.

It is critical to understand the limitations of this approach, as regional and global data may not accurately represent national and subnational situations. However, it can be a starting point for identifying and prioritizing areas where data collection needs to be strengthened.

Step 3. Data consolidation and analysis

Credit: Carel du Toit Centre

All information gathered from interviews, desktop research and any other sources should be consolidated in one place.

3.1 The model data consolidation spreadsheet

This spreadsheet has been developed to consolidate all data collected from the interviews and desktop research. It is organized under 'tabs' that correspond to the 5P (policy, products, personnel, provision and people) for ease of cross-reference; it also includes a 'stakeholder tab' for information gathered in questionnaire 1 and a 'data sources tab' to document where information is collected from (for example, interviews, desktop research and additional documents provided by stakeholder).

The spreadsheet is a model for you to adapt to your context. It is a good idea to start doing this during data collection to save time later. For instance, input stakeholder names and basic information (tab 1); make changes to reflect how you have adapted the model questionnaires; or make changes to reflect the data you are collecting (for example, expand the donation section of 'tab 3. product' because you found that the majority of products in-country are donated by a few major donors and it would be better to list by donor name than by assistive product).

3.2 Analyse the data

The 5P areas provide a useful framework for organizing and analysing the data. Table 2 sets out the questions the assessment is seeking to answer in these five interlinked areas. Keep these in mind as you start looking at the data. It is also important to assess how much coordination there is within and across different stakeholder types and the 5P areas.

Table 2. Using the 5P to analyse data

5P	Key questions
People-centred	How much information is there on health conditions, functional limitations, user satisfaction, user engagement in service provision (for instance peer-to-peer support or follow up), and user experiences when accessing AT?
Policy	To what extent do regulations, guidelines, standards and financing mechanisms ensure access to appropriate, affordable, quality AT?
Products	What are the existing assistive product procurement and supply processes?
Provision	What is the extent of assistive product service provision?
Personnel	What is the health workforce capacity to provide AT appropriately?

Mixed methods analysis can be helpful in identifying key trends (for instance, ratio of number of products provided annually to number of people estimated to need AT, or challenges reported by stakeholders that suggest a pattern).

3.3 Identify trends, gaps and opportunities

As all the information is consolidated and you begin to build up a picture of existing AT capacity, critical gaps and key trends will emerge. Here are some questions to consider in the analysis.

- Are there differences in product and service availability and quality, across different regions and demographic groups in the country? For example: is AT provision concentrated in national hospitals with little reach to rural communities? Are there disparities in the gender and age of those accessing AT services?
- To what extent does the AT sector fulfil population need for AT? For instance, how many trained personnel are there to provide AT, what is the AT provision capacity within services, what product availability is there, what is the quality of assistive products?
- What is the extent of coverage for assistive products and related services? For instance, financial coverage and eligibility criteria.
- What are the significant gaps in the AT sector that prevent access? For instance, limited AT procurement capacity in the public sector.
- What are the key bottlenecks in the AT system that prevent effective access? For instance, a registration process for people with disabilities to access a social welfare fund that results in significant delays.

Important note

These are **examples** and do not constitute an exhaustive list. Please use the team's knowledge and experience across the AT sector to thoroughly evaluate the assessment findings and identify key gaps and opportunities.

Step 4. Reporting

Two ATA-C implementation team members reflecting on the interviews conducted that day and consolidating information in their office. Photo credit: WHO/EMRO.

4.1 Draft the report

Once the team has completed the analysis and identified existing capacity, key gaps and opportunities in the AT sector, it is important to share this information with all stakeholders. Put together a draft report that highlights your findings and recommends strategic objectives and actions to implement them.

The implications of the ATA-C findings on the AT sector and health system at large should be discussed in the report. These could be the potential impacts of inaction if gaps remain unaddressed, and the potential social, economic and health benefits of improving the current situation.

This leads on to the report's recommendations for action to strengthen the AT sector and improve access. Each action needs to be supported by evidence and sound analysis. They will be presented at the stakeholder workshops for discussion, refinement and agreement.

Box 5 gives an example report outline.

The 'assessment limitations' section is important to acknowledge any data constraints or other limitations that occurred in the assessment (for instance, a lack of quality population data, or any key stakeholders not interviewed).

The report can be used as the main background document for stakeholder workshops to build consensus and plan how to move forward. The recommended strategic objectives and actions can be discussed and refined during this process. We will look at this next in Step 5.

Box 5. Example ATA-C report outline

Preliminary sections: Acknowledgements, table of contents, list of acronyms (if needed).

Executive summary

- background and purpose of the ATA-C
- key findings
- summary of recommendations to improve access to AT.

Introduction

- on AT and the importance of access to AT (see this report's Introduction)
- background on your country context and AT system
- background on any previous related assessments in your country (if applicable)
- brief explanation of the ATA-C scope and purpose
- methodology used to implement the ATA-C and develop recommendations to improve access.

ATA-C findings

Key findings (gaps and opportunities) and implications for the AT sector and health systems on:

- **people**: prevalence of AT need and information systems relevant for AT stakeholder landscape
- **policy**: extent of regulation, policy development and financing
- **products**: product availability and procurement practices
- **provision**: assistive product provision capacity and coverage
- **personnel**: training availability and human resource capacity.

+ Feature AT user experiences throughout this section.

Recommendations for action

Strategic objective X					
Actions to implement objective	Rationale	Roles and responsibilities		Timeline	Indicators of success
		Main	Contributing		

Assessment limitations

- challenges faced during assessment process
- implications of challenges on assessment results.

References

Annexes

Step 5. Consensus building and action planning

Credit: WHO/Emma Tebbutt

5.1 Stakeholder workshops

We recommend that you hold two stakeholder workshops: for consensus building and then action planning.

The first workshop is to discuss, validate and adjust the capacity assessment findings with all stakeholders who participated in the data collection process. It is also an opportunity to gather rapid feedback on draft strategic objectives and actions. After this workshop, finalize the report findings to reflect the group consensus and develop the draft strategic objectives and actions further into a draft action plan, for finalization during the second workshop. There may be extra steps to complete before this can be done (for example collecting more –or missing – information; or giving time for stakeholders to consider the implications of assessment findings and consult others).

The second workshop is to facilitate a discussion among stakeholders about strategic objectives and actions to improve access to AT in the country. Use the draft action plan to start a dialogue and, once you have an agreed list, run a prioritization exercise to identify which actions to implement first. Discuss how each action should be implemented and allocate roles and responsibilities. Please widen the invitation to this workshop to include all stakeholders who have a contribution to make, whether interviewed or not.

Important note

Share the draft report (and draft action plan) in advance of stakeholder workshops so that participants have time to review and prepare. This will make things more efficient on the day and help achieve workshop objectives.

5.2 Example workshop agendas

The time required to deliver both workshops is flexible. It is important to ensure that enough time is allocated, so that an agreement by all stakeholders on all aspects of assessment findings and action plans is achieved.

Consensus building example workshop agenda:
Welcome and introduction of meeting objectives.
Presentation on assessment methodology and findings. Question and answer session.
Break into small groups to discuss the ATA-C findings in more detail. These can be run simultaneously or sequentially, depending on the number of stakeholders and their roles across the 5P.
People
To review data on prevalence of functional limitations, health conditions and other AT-related data from information systems; discuss discrepancies and suggest modifications if required.
Policy
To review policy and financing findings and AT user experiences; discuss discrepancies and suggest modifications if required.
Products
To review product and procurement findings and AT user experiences; discuss discrepancies and suggest modifications if required.
Personnel
To review personnel findings and AT user experiences; discuss discrepancies and suggest modifications if required.
Provision
To review provision findings and AT user experiences; discuss discrepancies and suggest modifications if required.
Report back
All groups report back to plenary, validate findings and achieve consensus on any modifications. Rapid review and feedback on the draft strategic objectives and actions for further discussion in the action planning workshop.
Conclusion
Summarize key discussions, outcomes and next steps.

Note: The workshop methodology draws on Schalk-Zaitsev S. Engaging stakeholders in health systems assessments: a guide for HAS teams. Bethesda MD: Health Systems 20/20 project, Abt Associates Inc. 2011 *(9).*

Day
01

Action planning example workshop agenda:
Welcome, introduction of meeting objectives.
Presentation of validated findings and draft action plan. Question and answer session.
Break into small groups to review proposed actions to improve population data and AT user experiences (**people**): • discuss and agree on proposed actions • prioritize proposed actions • define timeline, roles and responsibilities to complete actions • identify 3–5 facilitating factors that could support/accelerate actions • identify three obstacles that could interfere with efforts • identify indicators to monitor and evaluate progress.
All groups report back to plenary, present discussions and agree on actions for population data and AT user experience.
Break into small groups to review proposed actions to improve **policy**: • discuss and agree on proposed actions • prioritize proposed actions • define timeline, roles and responsibilities to complete actions • identify 3–5 facilitating factors that could support/accelerate actions • identify three obstacles that could interfere with efforts • identify indicators to monitor and evaluate progress.
Groups report back to plenary, present discussions and agree on actions for policy.
Summary of key discussions and outcomes from Day 1.

Day

02

Action planning example workshop agenda:
Welcome, recap of Day 1 discussions and setting the agenda for Day 2.
Break into small groups to review proposed actions to improve assistive **products**: • discuss and agree on proposed actions • prioritize proposed actions • define timeline, roles and responsibilities to complete actions • identify 3–5 facilitating factors that could support/accelerate actions • identify three obstacles that could interfere with efforts • identify indicators to monitor and evaluate progress.
All groups report back to plenary, present discussions and agree on actions for products.
Break into small groups to review proposed actions to improve **provision**: • discuss and agree on proposed actions • prioritize proposed actions • define timeline, roles and responsibilities to complete actions • identify 3–5 facilitating factors that could support/accelerate actions • identify three obstacles that could interfere with efforts • identify indicators to monitor and evaluate progress.
All groups report back to plenary, present discussions and agree on actions for provision.
Break into small groups to review proposed actions to improve **personnel**: • discuss and agree on proposed actions • prioritize proposed actions • define timeline, roles and responsibilities to complete actions • identify 3–5 facilitating factors that could support/accelerate actions • identify three obstacles that could interfere with efforts • identify indicators to monitor and evaluate progress.
All groups report back to plenary, present discussions and agree on actions for personnel.
Review all prioritized actions, summarize discussions and next steps.

5.3 Key considerations for your action plan

The action planning process is a collaborative effort by stakeholders that requires coordination and political will to improve access to AT in the country. Based on the outcome of the two workshops, write up a final plan with clear objectives and specific actions. It is important to also develop measurable indicators to monitor and evaluate progress.

Here are some considerations for the final ATA-C action plan:

For strategic objectives:

- Do they build on the assessment findings and align with the 5P: people-centred, policy, products, provision and personnel?
- Do they align with other action plans in the country (if appropriate)?

For specific actions to accelerate AT access:

- Is there a clear rationale for each action that aligns with the strategic objectives and is informed by the assessment findings?
- Are they SMART (specific, measurable, achievable, realistic and timely)? Is there a clear time frame to complete each action?
- Are there clear implementation steps to achieve each action?
- Are roles and responsibilities clearly defined for each implementation step?
- Are adequate resources available (funding, human resources, time)? If not, how can they be mobilized?
- Is there political support?
- Can the actions build on any previous work done in the country?
- Do the actions strengthen the entire AT sector (mobility, hearing, vision, cognition, communication and self-care)?

For indicators:

- Are they measurable, easy to collect and comparable with other health system indicators?
- Do they align accurately with the strategic objectives?
- Do they accurately measure the outcomes of implementing each action?

For the monitoring and evaluation (M&E) plan:

- Does the M&E plan reach all administrative levels within the country?
- Does the M&E plan consider all aspects influencing implementation and progress?
- Is monitoring ongoing? Does evaluation happen frequently enough? Does the time allotted between evaluations give enough time for meaningful implementation?

Important note

WHO has developed progress indicators for the upcoming *WHO Global Report on Assistive Technology* to be published in 2022. These are available on request and can be used as the foundation for developing a more detailed set of national indicators.

5.4 Maintaining momentum

Make sure to circulate the final agreed ATA-C report, including the action plan, to all stakeholders and keep everyone informed of any outcomes.

With effective stakeholder engagement from the very beginning, the ATA-C can be a powerful tool to bring about positive change in the AT sector. The assessment process provides foundational information about the current capacity and identifies key actions that can significantly improve access to AT.

We hope you have found this ATA-C tool helpful and that it has brought together key stakeholders in your country. We are continually improving this material and are grateful for any feedback you might like to give.

Credit: AbleNet

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Annexes

Credit: Swedish Institute of Assistive Technology

Annex A. Model ATA-C questionnaires
Annex B. Model introduction sheet for stakeholders
Annex C. ATA-C questions explained

These Annexes are available on request through the ATA-C portal :

https://mednet-communities.net/gate/ata-c

Annex D. Assistive product categories and relevant workforce

Assistive product categories
Canes/sticks (including tripods and quadripods)
Crutches (axillary/elbow)
Walking frames
Lower limb orthoses
Lower limb prostheses
Therapeutic footwear; diabetic, neuropathic, orthopaedic
Pressure relief cushions
Wheelchairs, manual for active use
Magnifiers, optical (including telescopes)
Reading glasses
Prescription spectacles (near/far vision)
White canes
Braille slate/frame writing equipment and braille paper
Pre-programmed hearing aids (digital) and batteries
Custom hearing aids (digital) and batteries
Communication boards/books/cards
Chairs for shower/bath/toilet
Absorbent incontinence products, washable
Medication (pill) organizers
Upper limb orthoses
Spinal orthoses
Upper limb prostheses
Rollators
Wheelchairs, manual assistant-controlled
Wheelchairs, manual with postural support
Wheelchairs, electric
Club foot braces
Ramps, portable
Handrails/grab bars
Audio players with DAISY capability
Screen readers
Watches, talking/touching
Alarm signallers with light/sound/vibration
Absorbent incontinence products, single use
Fall detectors

Important note

The products highlighted in green are priority assistive products. Use the green highlighted products for rapid assessment and all products for a full assessment. If the products exist by their components, please combine all relevant components into one product category. Please add to the list based on the country context if needed.

List of relevant workforce

Allied health workforce
Audiologists
Audiometric technicians
Hearing aid technicians
Speech and language therapists
Braille teachers
Mobility orientation trainers
Opticians and optometrists
Occupational therapists
Occupational therapy assistants
Physiotherapists
Physiotherapy assistants
Prosthetists and orthotists
Prosthetic and orthotic technicians
Community based rehabilitation workers
Inclusive teachers
Biomedical engineers
Wheelchair technicians
Others (specify):

Doctors specializing in:
Ear, nose, throat
Geriatrics
Ophthalmology
Orthopaedics
Diabetes
Rehabilitation
Paediatrics
Others (specify):

Important note

Add any other workforce under 'others'. If more space is needed, please insert additional rows. Use the green highlighted text for a rapid assessment, and all text for a full assessment.

Glossary

Advocacy
Activities aimed at influencing decision-makers through media campaigns, public speaking, grass roots movements, research publications, direct lobbying etc. Advocacy can be used, for example, to improve equitable access to AT, ensure full rights for people with disabilities, and promote meaningful inclusion of older people.

Approved medical devices/assistive products
A list of approved health products that must meet national quality standards before being placed on the market.

Assistive product
A product that is external to the body and has the primary purpose of maintaining or improving an individual's function and independence. It is also used to prevent further impairments and secondary health conditions.

Assistive technology (AT)
Assistive products, and the systems and services related to their delivery, that maintain or improve a person's function and independence; for instance spectacles, hearing aids, wheelchairs, pill organizers, augmentative communication devices and incontinence products.

Assistive technology user
A person who uses assistive products and services, or a person who may benefit from assistive products and services but does not currently use or have access to them.

Bulk purchasing [of AT]
Procurement method where the total demand for assistive products is pooled across populations into a centralized purchase request to suppliers.

Competitive negotiations [of AT]
A process where procurers approach a selected group of suppliers and request quotations for a specific product(s).

Direct procurement [of AT]
A process where procurers approach a single manufacturer or supplier, asking them to supply a certain number of product(s) at a quoted or negotiated price. This often occurs for an individual purchase based on need (see below).

Distribution [of AT]
The coordinated delivery of assistive products to service providers and/or end-users without service provision (see service provision steps below). For example, annual mass distribution of wheelchairs without physical measurement and fitting.

Financing [of AT]
To provide funding by allocating a budget specifically earmarked for AT, or one that can be used for AT while not earmarked as such. For example, the ministry of health may allocate a budget for the procurement and/or provision of prosthetics; the ministry of social welfare may allocate a budget for social services that can be applied to AT; or, a local foundation may allocate a budget for hearing aids. Nongovernmental, donor and private sector organizations (including the informal sector), may fund assistive product procurement and/or service provision.

Good working order
Means the assistive product is operating properly to the appropriate quality and safety standards and is comfortable to use. Regular maintenance, repair and servicing is often required to ensure good working order throughout a product's lifespan.

Government stakeholder
Parts of government that have or can have an important role in AT. For instance, ministries of health, social welfare, labour or finance; departments within specific ministries; provincial/state/district government offices; agencies or public bodies set up by government; government insurance authorities.

Individual purchase based on need
Purchase requests are made to suppliers on an ad hoc basis, based on individual demands from facilities, providers or end-users.

Informal economic actors
Enterprises or self-employed workers who are not regulated or recognized by state authorities. For instance, unregistered health-care providers such as traditional healers, petty traders involved in the sale of AT, or unregulated repair businesses.

International manufacturer of product parts, with local assembly
Manufacturer who makes assistive product parts outside the country, imports the parts and assembles the assistive product(s) within the country.

International manufacturer of whole product, with local distributor or authorized representative
Manufacturer who makes the complete assistive product(s) outside the country and has local distributor(s), or authorized representative(s), within the country who will import and deliver.

International manufacturer of whole product, with no distributor or authorized representative
Manufacturer who makes the complete assistive product(s) outside the country and imports directly without any regional or in-country distributor(s) or authorized representative(s).

International manufacturer of whole product, with regional distributor or authorized representative
Manufacturer who makes the complete assistive product(s) outside the country and has distributor(s), or authorized representative(s), within the region who will import and deliver.

Local leader/opinion former on AT
Individual who influences community views about AT. These individuals are well known locally and can be very effective in advancing an agenda.

Local manufacturer
Manufacturer who makes and assembles product(s) within the country.

Nongovernmental for-profit organization
An independent business or organization that uses its income to achieve its goals and earn net profit. This includes informal economic actors (see above). Examples include private insurance companies, assistive product manufacturers, suppliers, distributors, AT providers, large employers of people who use AT, or other private sector champions of disability, ageing or AT.

Nongovernmental non-profit organization
An independent organization that uses its income to achieve its goals rather than distributing it as profit. For instance, national and international nongovernmental organizations (NGOs), faith-based

organizations, disabled people's organizations, professional associations and AT-related civil society organizations.

Open tenders
A procurement process where manufacturers or suppliers submit a bid to fulfil product supply requests. Such requests are open to all (existing and new manufacturers/suppliers), which encourages competition.

Policy-making
The formulation and revision of policies, (i.e. strategies or legislation), related to AT/disability/noncommunicable diseases/ageing at the national and subnational levels. For example, the formulation of national legislation on the rights of people with disabilities.

Prescribe [AT]
Assessment of an individual to determine if an assistive product(s) can benefit them, and what type of product this would be. When the product has been agreed, a general or detailed prescription is made so that it can be obtained. Prescribing does not include fitting/adjustment, training to use, or follow-up/maintenance of an assistive product.

Primary level
The level of health care that is usually the first point of contact, such as community health centres or primary care clinics. They are located in the community and should include health promotion, illness and injury prevention, treatment, rehabilitation and palliative care throughout the life course.

Procurement [of AT]
The process of obtaining goods or services related to supplying assistive products. For example, preparing, releasing and managing tenders, contracting suppliers, shipping and warehousing.

Provide [AT]
Assessment/measurement of specific conditions related to assistive product need (for instance, body measurement and position for a wheelchair; level of hearing loss for hearing aids). This includes fitting and adjusting the product to the user; training the user on how to use and maintain the product and/or providing follow-up service throughout the use of the product (i.e. readjustment, maintenance and repair).

Regulatory
Oversees implementation of AT-related policies enacted by policy-makers through formulation, enforcement and oversight of regulations, standards or guidelines. For instance, human rights legislation on rights to access AT; the formulation and oversight of assistive product technical specifications for government tenders; registration of assistive products; setting standards for AT service delivery; or setting guidelines for AT procurement.

Restricted tenders
A procurement process where manufacturers or suppliers who have been prequalified (i.e. screened to ensure compliance with international/regional/national standards) submit a bid to fulfil product supply requests. A prequalified manufacturer or supplier can be a local agent or wholesaler.

Secondary level
Second level of health-care facilities, between primary and tertiary, that provide treatment for and management of health conditions which need specialized provision. Typically, a referral from a primary care provider is required before accessing secondary care facilities; these include hospitals, specialist and rehabilitation clinics.

Service provision [of AT]
Provision of assistive products to end-users with the inclusion of at least one service provision step (see below). For example, an organization that assesses need for communication devices in children with disabilities tailors the software to a specific child's needs, trains the child and their caregivers on appropriate use, and provides maintenance and repair services when needed.

Service provision steps
Chronological stages of service that ensure appropriate provision of assistive products for end-users. The steps include assessment and prescription, fitting, user training and/or follow-up, maintenance and repairs.

Tertiary level
The highest level of health-care facilities that provide specialized, subspecialized and advanced investigations and treatments. Examples of tertiary level facilities include national/regional hospitals and subspecialist clinics. Typically, a referral is required before accessing tertiary care.

World Health Organization

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