AT2030
Innovation Insights

Lessons learned from assistive technology country capacity assessments, 2019-2020

AT2030

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Executive summary

The Global Disability Innovation Hub (GDI Hub), World Health Organization (WHO), and Clinton Health Access Initiative (CHAI) have been working since early 2019 to create and pilot a new tool for evaluating a country's capacity to deliver appropriate assistive technology (AT), at scale, to people in need. The tool, called the Assistive Technology Capacity Assessment (ATA-C), has now been used to complete 11 country capacity assessments (CCAs), and five more are underway. The purpose of the CCAs is to "capture a high-level understanding of the often-fragmented AT sector in a country or region," helping raise awareness about AT gaps and opportunities and contributing to advocacy and policy and program development. One year after the first CCAs began, GDI Hub commissioned research into lessons learned so far and recommendations for how the tool and process might be improved in the future.

The ATA-C has had several key successes across the board, including:

- It raised awareness about AT issues in every country where it has been implemented.
- The CCA process led directly to a greater degree of coordination among AT actors in each country. In most cases, it led to the creation of new working groups that collaborate and share information across different government ministries and nongovernmental partners.
- In some countries, findings from the ATA-C have already helped form the basis for new policies and, in some countries, budget allocations. In others, the findings are informing ongoing policy development.

At the same time, implementing the ATA-C was not without challenges; for example:

- The tool's wide scope and design mean that not all pieces will be relevant in all contexts, which has led to frustration in some countries. It would be helpful to update the guidelines to include more explicit instruction on how to adapt the tool to a given context.

- The data-entry component of the tool, which is Excel-based, was difficult for some implementing partners to use. Translating the tool into research software would improve usability.
- The tool does not capture well the experiences of AT users, or the contributions and shortcomings of informal AT product and service providers. Incorporating these perspectives would add substantially to the tool's usefulness for policy and program development, as well as advocacy.
- In some countries, stakeholders were not sure how to translate the findings into a prioritized action plan and would have appreciated more guidance. Making financial resources available for immediate follow-up actions would help maintain the momentum the CCA process generated.

Overall, the ATA-C met or exceeded expectations for its impact and usefulness in the countries where it has been implemented so far. The AT2030 core team of GDI Hub, WHO, and CHAI has already made adjustments to the tool based on lessons learned and will continue to adapt and upgrade the tool so that it makes the greatest contribution possible toward expanding access to AT.

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Introduction

Beginning in early 2019, the Global Disability Innovation Hub (GDI Hub), World Health Organization (WHO), and Clinton Health Access Initiative (CHAI) embarked on an effort to assess country-level capacity to deliver appropriate assistive technology (AT) to people who need it. This effort came under the auspices of AT 2030, a consortium of more than 20 partners from around the world who are testing "'what works' to improve access to life-changing Assistive Technology (AT) for all… [It] brings together partners who haven't traditionally focused on AT with experts, innovators and AT users to experiment with new ideas and thinking … across three domains: community-led, systems-focused and market-driven interventions" (Global Disability Innovation Hub, 2020). AT2030 is funded by a £20 million grant from UK Aid.

Recognizing a huge deficit in the available knowledge about AT use worldwide, WHO, CHAI, and GDI Hub are working with national governments and other stakeholders in Asia, Africa, the Middle East, Europe, and Latin America to complete studies using the Assistive Technology Capacity Assessment tool (ATA-C). The process of using the ATA-C is referred to as a country capacity assessment (CCA). At the time of this writing, in September 2020, CCAs have been completed in 11 countries and are underway in five more. Representatives from the global teams of these three organizations, along with a faculty member of University College London, where GDI Hub is based, are referred to here as the "AT 2030 core team."

The countries vary widely by population, income level, geographic size, and other factors.

ATA-C

The ATA-C is based on an earlier tool developed by WHO to assess AT capacity (World Health Organization, 2019), piloted in Tajikistan in 2016, as well as a much shorter one developed by WHO's Regional Office for the Eastern Mediterranean

(World Health Organization, 2020). CHAI had begun working independently in late 2018 and early 2019 to answer questions about AT markets in low- and middle-income countries as part of their work under the AT2030 program. They recognized the need for a tool to help assess and better understand capacity in a way that was more structured and systematic than was possible before. Once funding for the CCAs was secured, in March 2019, CHAI and WHO began working together to update and adapt the existing WHO tools into an efficient but still comprehensive tool.

Table 1 – CCA participating countries as of September 2020

Region	Country	Status
Asia	Indonesia	Complete
	Mongolia	Complete
	Vietnam	Underway
Africa	Liberia	Complete
	Uganda	Complete
	Sierra Leone	Complete
	Malawi	Complete
	Ethiopia	Complete
	Nigeria	Complete
	Rwanda	Complete
Middle East	Bahrain	Complete
	Iraq	Complete
Latin America	Bolivia	Underway
	Dominican Republic	Underway
Europe	Ukraine	Underway
	Georgia	Underway

In September 2019, at a two-day workshop in Kigali, Rwanda, staff members from WHO and CHAI who had been working on the ATA-C introduced it to colleagues from several African countries who were preparing to conduct CCAs. In addition to a detailed introduction to the tool, the workshop included a session on AT users' experiences in Rwanda and presentations on the AT landscapes in South Africa and Kenya.

In November 2019, WHO, UNICEF, and CHAI organized a procurement workshop in Johannesburg, South Africa, that was attended by members of their global and
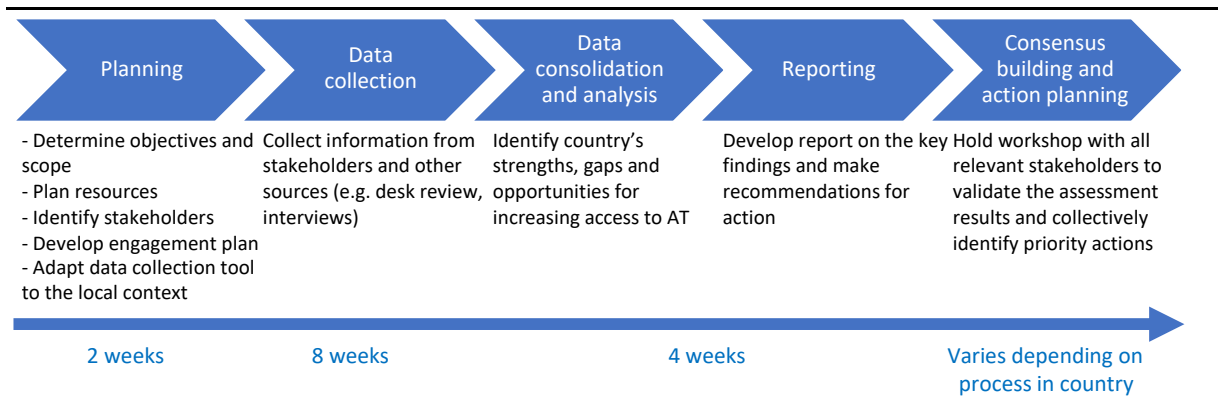
country teams as well as ministry colleagues from many African countries. At a one-day side event, participants discussed the initial findings and lessons learned from countries that were conducting a CCA and addressed action planning. The ATA-C is a living document and has gone through four versions over the past year, with revisions based on real-time lessons learned from implementing partners and counterparts in government ministries and civil society organizations, as well as input from GDI Hub, faculty at University College London, and others. The version referred to most frequently in this report is version 3.0, which was used to conduct most of the CCAs analysed here.

The stated purpose of the ATA-C is to "capture a high-level understanding of the often-fragmented AT sector in a country or region. It evaluates and monitors a country/region's capacity to finance, procure and provide AT that appropriately meet population needs" (World Health Organization, 2020). This raises awareness among key stakeholders about issues and opportunities in the AT sector; informs the development and implementation of policies and programs that promote wider provision of appropriate AT; and serves as the basis for ongoing monitoring and evaluation of the AT sector (World Health Organization, 2020). Ultimately, the ATA-C is meant to contribute to the strengthening of AT provision so that everyone, everywhere can have access to appropriate AT.

Version 3.0 of the ATA-C had two parts: an Excel workbook for data entry and a Word document ("manual") containing key background information, guidelines and recommendations, and detailed instructions for how to complete the Excel sheets. There are six domains for data entry: stakeholders, policy and financing, product and procurement, human resources, provision, and population data. The manual describes the purpose of each item in the workbook, gives detailed instructions for how to collect data, and offers notes or tips to address possible questions or challenges that may arise during implementation. The manual also recommends that a workshop be organized after completion of the CCA to share findings with key

stakeholders and help begin planning actions (Figure 1). (Version 4.0 of the manual contains a more in-depth section on action planning than previous versions.)

Figure 1 – Phases to implement at CCA (CHAI 2020)

Planning	Data collection	Data consolidation and analysis	Reporting	Consensus building and action planning
- Determine objectives and scope - Plan resources - Identify stakeholders - Develop engagement plan - Adapt data collection tool to the local context	Collect information from stakeholders and other sources (e.g. desk review, interviews)	Identify country's strengths, gaps and opportunities for increasing access to AT	Develop report on the key findings and make recommendations for action	Hold workshop with all relevant stakeholders to validate the assessment results and collectively identify priority actions
2 weeks	8 weeks	4 weeks		Varies depending on process in country

This research was commissioned to draw out any lessons learned from the settings where the tool has been used so far that can support future CCAs in better fulfilling their purpose. The question guiding this research is: How best can the CCA process support the provision of AT to people in low-resource settings?

This paper will not analyse or comment on the findings of the CCAs. It looks only at the process of conducting the CCAs and the tools used to do so.

Methodology

Document review

The researcher first reviewed the ATA-C tool itself and the associated guidelines, as well as a range of other background documents. The researcher then reviewed nine of the 11 reports completed to date; two had yet to be approved for external sharing by the respective host governments. Two complementary studies of informal markets related to AT, one each in Sierra Leone and Indonesia, completed under the auspices of the AT2030 program, were also reviewed because they offer a different perspective on AT systems. In addition, members of the AT2030 core team shared

with the researcher lessons-learned themes they have been recording in a Google Sheet.

Interviews

After reviewing the documents described above and speaking with members of the AT2030 core team, the researcher prepared an interview guide, which was revised and approved by GDI Hub (Annex 1). A consent form was created following a template used by University College London. The form was shared with all informants before their interview, and consent was obtained in all cases for data from their interview to be used anonymously in this report.

Table 2 – Interviewee breakdown

Affiliation	Number
CHAI	7
WHO	4
GDI Hub	1
Government	4
Independent consultant	1
Civil society	2
University College London	1
TOTAL	**20**

Limitations

Time and resources limited the number of interviewees who could be reached. Also, the main body of primary research was conducted in August, when a number of key contacts were on vacation for all or part of the month. This made coordination slightly more challenging than it might have been at another time of year. However, for the most part, participants were available and very responsive and willing to contribute. The analysis would have been strengthened by input from more country-level sources outside the core CCA partners – especially from relevant government departments and disabled people's organizations (DPOs). The researcher was unable to speak to any country-level DPOs, although this is in a way reflective of the CCA process so far, which has been primarily government-oriented.

The researcher's working languages are English and Spanish, which was a barrier in communicating directly with potential informants in several countries. It also prevented the review of translated versions of the ATA-C, which might have shed some light on how the tool was adapted for use in different contexts. However, informants were able to describe these issues during interviews, so they have been captured to some extent. Finally, the researcher was unable to draw on the two CCA reports that had not yet been approved by the respective host governments in time to be included here.

Findings

Successes

Interviewees attributed the CCAs' successes to a couple of factors. First and most crucial was the quality and level of engagement with government counterparts not just throughout the process but *before*; that is, most interviewees emphasized the importance of having a strong network among relevant actors before trying to start using the ATA-C. Each country followed a different approach to rolling out the tool. In Malawi, CHAI first went to a range of actors to "pitch" the CCA and explain what it was about so that when they came back to complete the tool, they were not introducing it from scratch. In Ethiopia, a short workshop was held with the Ministry of Health, after which the ministry created a technical working group to oversee the CCA. This helped secure buy-in from the government. No one technique emerged as clearly more beneficial than any other in terms of getting engagement, but knowledge of the local context is clearly essential, as is ownership by relevant government stakeholders at an early stage. One member of the AT 2030 core team pointed out that government points of contact were mostly civil servants rather than political appointees, which helped with both the level and continuity of engagement between implementation teams and host governments.

Second was the flexibility of the tool itself, as indeed reflected in the very range of tactics used to implement it. This presented some challenges as well, discussed in the next section. But overall, interviewees said that because the tool is well-organized and covers a lot of ground, they were able to use it in ways that made most sense in their specific context.

Finally, all interviewees who were able to participate in the CHAI-organized workshop in Rwanda, which WHO also attended, said it was critical to their ability to implement the CCA well. Because the two Middle Eastern CCAs were already underway, the WHO representative at the workshop was able to convey real-time lessons learned and talk about how the tool was being adapted.

The workshop prompted the country-level implementation teams to be in touch with one another as they implemented the tool in their own countries. For example, the CHAI teams that attended the workshop formed a WhatsApp group to "update each other on progress and challenges," which remained active during the implementation of the ATA-C. Other countries outside Africa also formed smaller WhatsApp groups to help ease coordination and troubleshooting with regional and global CHAI and WHO teams. However, these tended to be less active than those created as a result of the workshop. The CHAI global team also organized regular calls with all seven African countries that were conducting CCAs concurrently.

Key takeaways:
- Prior engagement with and knowledge of key government and nongovernment actors in the AT sector is critical to conducting a successful CCA.
- The tool's flexibility helped implementation teams adapt it to local contexts.
- Coordination and mutual learning among implementation teams can be very helpful.

From fragmentation to coordination

Nearly everyone interviewed at the country level described the CCA as making a major contribution toward better coordination of AT-related work in their country. One of the most common words used by interviewees to describe the AT status quo was "fragmentation." Even in places where good work was being done, different parts of the government often did not know what others were doing and there was little dialogue between governmental and nongovernmental actors. According to one informant in Ethiopia, the ATA-C created an opportunity for dialogue "between the different actors including professional associations, DPOs …. Because of the tool, there was a lot of conversation horizontally as well as in groups. So definitely, I think we can credit the development of the tool for allowing that conversation." In Mongolia, people engaged in disability programs and from different ministries were "surprised to see how different pieces of information were there, and they had no idea."

The realization of this fragmentation has led to action in most countries so far. For example, after completing the CCA in Ethiopia, "the [Ministry of Health] established a unit to oversee the national assistive technology work, including by allocating some government resources. And so, beyond advocacy, beyond communication, this also helped to get real commitment from the government in terms of planning and allocation of resources." An interviewee from another country backed this up, saying that the CCA helped the government realize it was already doing a fair amount, just perhaps not in the most coordinated or efficient way. CCAs have helped create "the momentum to build larger disability working groups or build AT into the already existing disability structure" across several countries.

People engaged in disability programs and from different ministries were "surprised to see how different pieces of information were there, and they had no idea."

One government interviewee also mentioned that the CCAs have helped improve coordination at the international level as well, thanks in part to the 2019 AT procurement workshop WHO, UNICEF, and CHAI organized in Johannesburg. The workshop was attended by people who had been involved with CCAs in several countries. The interviewee and his colleagues appreciated the opportunity to build connections with counterparts who are working to improve AT systems in other countries.

As more government actors became aware of AT issues and associated coordination challenges, tension arose in some countries where it was not clear which ministry or department should lead. CHAI and WHO both work most closely with ministries of health, so government focal points for the CCAs have generally been MOH officials. In one country, officials at the ministry of social affairs felt that they had oversight of AT and were discouraged that colleagues in MOH took the lead in the CCA. The health focus also means that there was some variability in how much engagement implementers were able to get from other relevant ministries, such as education, defence, and labour. (Ministries have different names in different countries, but responsibilities tend to be broadly similar. The generic terms used here are not meant to refer to a specific country's institutions.)

The CCA global partners knew going into development of the tool that data in the AT sector were likely to be fragmented, but they clearly recognized the centrality of the issue as they went along: version 4.0 of the ATA-C adds the word "fragmentation" to the language around the tool's purpose. Previously, it had just referred to "collect[ing] key pieces of information" (World Health Organization, 2019).

Key takeaways
- In every country so far, the CCA has prompted a greater degree of coordination among key AT stakeholders than existed before.

- Health ministries are often the key focal point for CCA implementation, but not always.

Raising awareness

One of the stated purposes of the ATA-C is to "raise awareness" at the country level about the AT landscape. Interviewees agreed it was successful in that regard. One informant even described a "wow moment," when they sat with ministry counterparts to look at data about the lack of AT human resources capacity in their country. Another pointed out that in many countries AT has long been seen as something that civil society organizations and religious organizations take care of, but that "having the CCA really brought to [government officials'] attention that there's actually a massive need in the country and that there's actually things that they can do to really fulfil those needs."

Many interviewees talked about the importance of the ATA-C as a data source in a sector where data are generally scarce and what data exist are scattered. As one put it, "data or lack of reliable data is actually also … a data point. If they don't have that, that means the capacity for AT provision is very low." The simple gathering together of facts on the ground enables policy engagement that is otherwise very difficult, especially with respect to financial decision-making. One interviewee referred to the tool as a "weapon to inform policy." Even in places where the government cannot afford to take on widespread AT provision itself, the CCA can still inform policies that promote quality standards and regulations.

One government respondent said the tool's comprehensiveness helped raise awareness among officials and practitioners about different types of disabilities and AT that were not previously on their radar. For example, health ministry officials whose technical background is in rehabilitation for people with mobility challenges may not be aware of the need for sign language interpretation to communicate public health messages to people with hearing impairments. Interviewees generally agreed that the ATA-C does a good job showing where gaps are in formal AT provision.

Several countries have already begun to take action based on CCA findings. For example, in Ethiopia, the MOH set aside funds "to implement foundational AT work in Q1 2020 (including the development of APL and specifications, product regulatory standards, and service delivery guideline)," and in Sierra Leone, a task force established in early 2020 is developing a "long-term costed national strategic plan for AT" (Clinton Health Access Initiative, 2020).

Key takeaways

- The ATA-C has been successful in raising awareness of AT issues in the countries where it has been implemented so far.
- The ATA-C fills a large and important data gap, even when not enough data exist in a country to fully complete the tool.
- Data from the CCA are already beginning to inform policy in some countries.

ATA-C as a foundation

Several respondents at both the country and global levels talked about how helpful it is to have a tool with the weight of WHO's recognized expertise behind it. As one put it: "It then gives everyone that's having these conversations, that light bulb's going off of saying, 'Okay, well, then they're asking this because it's important,' and that's where we need to think about that development long-term.… [For example,] when we think about procurement, it's having an [assistive products list], it's having good specifications to ensure quality is set, these things are written into guidelines.… [You] at least have guideposts of where you need to be in one year, three years, five years, that that country could lay out as part of their action planning or strategic process."

"That lightbulb's going off … [You] at least have guideposts of where you need to be."

One interviewee said that having the tool means people in his country who are interested in following up on the CCA at any level no longer "need to waste their time looking for tools or developing tools." Rather, they can use the ATA-C as a framework and sourcebook for more tailored assessments or for future "routine" data collection. That last point is also reflected in ATA-C version 4.0, to which "monitoring and evaluation" was added as one of the central purposes. Multiple countries are already incorporating aspects of the ATA-C into other data efforts, such as the ongoing census in Liberia and the government's health dashboard in Ethiopia.

Key takeaway

- The existence of a vetted, well-thought-through, and comprehensive tool from a credible source like the WHO provides confidence for policymakers and providers who are interested not just in the CCA but in future learning about the AT sector.

Challenges

Relevance and applicability

There were two main types of comment about the relevance and applicability of the tools. First, several respondents talked about how many of their interlocutors found many aspects of the tool irrelevant. This is the flipside of the tool's flexibility: It is large and encompasses many areas, and it can be frustrating for informants to go through many questions to which they do not have answers before getting to a few to which they do. Interviewees had mixed views on the tool's organization, with some saying they found it very clear and easy to follow, and others expressing some frustration with the way the Excel tool is structured to include questions that may not be applicable in all contexts. One interviewee suggested that the guidelines be updated to make more explicit that the tool can and should be adapted to the local context. This would help get around the issue of asking questions to which there is unlikely to be any answer at the time of the assessment.

Different countries dealt with this problem in different ways. For example, in Ethiopia, CHAI worked directly with the MOH to go through the tool question by question and

identify which sections to use with which source. In Mongolia, the implementation team went through the whole tool with every source, leaving irrelevant sections blank as they went. Those interviewed in both countries for this paper believed they had gotten quality information but were not sure they had been as efficient as possible.

Also, it was not always clear to implementing partners and their government and civil society counterparts what actions to take as a result of the CCA findings. This is another issue the AT 2030 core team has already recognized. Version 4.0 contains more guidance about action planning than previous versions of the tool, and the AT 2030 core team is working on an action-planning template to incorporate into future CCAs. However, especially in the lowest-resource settings, it is difficult sometimes to maintain the momentum generated by the CCA when there is no funding for further activities. The costs of actions can vary widely, of course. For example, the creation of a national priority assistive products list (APL) was mentioned in most of the CCA reports. Creating an APL can be an involved process, but is not as costly as, say, building and equipping a prosthetics and orthotics workshop and training the necessary personnel to staff it. Nevertheless, several respondents talked about being worried that a lack of clear guidance and resources for how to follow up would allow the CCAs' successes to fizzle.

In three countries, implementation teams struggled to engage the private and/or philanthropic sectors because of difficulty communicating what was "in it for them" to participate.

Key takeaways
- The CCA's comprehensiveness makes it hard to parse out which aspects are relevant to which stakeholder. This can lead to frustration on the part of respondents and implementers.
- More structured guidance on how to translate findings into actions would be helpful.

Usability

A couple of interviewees said filling out the Excel workbook presented challenges. For example, in one country the implementation team had "some difficulty on capturing with the quantitative information," so they ended up "dumping a lot of information" in the Excel spreadsheet's "Additional comments" section, which comes at the bottom of each tab. Usability issues were recognized early on at the global level, and in fact the original version of the tool included only the Excel spreadsheet. Even with the modifications made since version 1.0, the tool is still fairly demanding to use, and one interviewee suggested that by making "the interface a little bit more friendly," it would be possible to spread it more quickly to users who may not have access to the full-service training the CHAI and WHO have been able to offer so far at the national level. One interviewee also pointed out the need to identify, in advance, an information management system the implementation team could use consistently to share documents with key stakeholders. On the plus side, as noted above, multiple interviewees praised the clarity of the tool's organization, and the questionnaire included as an annex to the guidelines was widely regarded as very helpful.

Key takeaways

- Continuing to improve the design of the tools as they exist, in order to make sure they are as usable as possible, is important.
- It may be worth considering transferring the tools onto a purpose-built platform that would more smoothly integrate inputs and outputs.

Language

Several respondents talked about the technical nature of the language used in the tool as a barrier to engaging people not already experienced with AT. This was particularly challenging in countries where the main working language is not English, such as Mongolia. One informant said it was difficult to fully and clearly present the tool and process to government counterparts while it was still being translated. She

and her team had started engagement with the government before the translation was complete because of worries about the timeline.

<u>Key takeaway</u>

- Where necessary, implementers should translate of the ATA-C into a locally appropriate language before beginning engagement with stakeholders.

Incorporating the views of AT users

Interviewees generally agreed that the ATA-C does not do very much to capture the views of AT users themselves, although they had mixed views on how important it is to do that more in future CCAs. The tool is focused on policy makers and providers of AT, and while AT users are included as stakeholders (all the CCAs completed so far have included AT users as informants), it may be that the tool does not fully capture the gap between AT products and services that exist on paper and the lived experience of AT users in a country. One interviewee extended the point by saying that a weakness of the ATA-C was that it did not do enough to prompt engagement with AT users who are not people with disabilities — for example, older people and those with noncommunicable diseases. The types of functioning difficulties and AT highlighted by the CCA are also influenced by the particular expertise of the people carrying it out, so, for example, cognitive and self-care difficulties may be neglected if most of the interlocutors are professionally focused on mobility and communication difficulties.

A consequence of this is that while the tool does an excellent job helping gather data about what is available in principle, "it still doesn't really tell you anything about the quality and appropriateness of the products and the services and the workforce." Another interviewee said, more specifically, that it would be helpful if the tool indicated where it would be most beneficial to incorporate the views of AT users: "Once you have that two-sided view of every assistive product, it's very easy to

understand where things are not going well. Because on paper, everything seemed okay." This is especially true when you get into specifics about how AT are used in different contexts; for example, the kind of mobility assistance an urban dweller needs may be very different from the kind someone living in a nomadic community needs.

Gathering the views of individual AT users is time- and resource-intensive. It is critical to balance breadth and depth. Because the CCA is already a demanding process, any additional scope needs to be weighed against the time and resources available. Some changes have already been made to the Excel sheet and the guidelines to open them up to gathering data about the informal sector. In addition, version 4.0 of the ATA-C includes a new, separate questionnaire focused on AT users and emphasizes the importance of ensuring diverse representation of different functional limitations. It is too early to evaluate these additions, given that version 4.0 is just now beginning to be used.

At the organizational level, it was not always clear how inclusive the CCA process was of DPOs. In one country, external partners who came to the stakeholder workshop where the outcome of the CCA was presented "were very disappointed that they felt that that was not kind of a participatory consensus-building process" to review and agree upon the findings. This was not true of all countries, however. In some, DPOs were actively engaged and able to provide substantial information about their members' experiences, although this was done outside the core ATA-C tool, especially at stakeholder workshops at which CCA findings were shared. DPOs are a critical stakeholder, and it is worth considering how to engage them more actively throughout implementation of a CCA.

Key takeaways

- The ATA-C could and perhaps should do more to incorporate the views of AT users on different aspects of the AT system, to help ensure the findings do not just reflect what exists "on paper."

- Given the resources involved in conducting widespread research with AT users, including DPOs and other AT user groups, such as associations for older people, in the CCA is critical.

Capturing informal AT systems

The ATA-C is heavily focused on formal systems of AT provision, that is, those of the government, the formal businesses, and registered civil society organizations and religious organizations. Under the aegis of the AT 2030 program, researchers from UCL partnered with civil society organizations in Indonesia and Sierra Leone to carry out studies of the informal markets for AT in those countries. These confirmed what several interviewees said: Most users from low-income urban settlements in the target countries access assistive products and services through informal actors such as small workshops, peddlers, unregistered service providers such as unlicensed opticians, and second-hand traders. While informal providers have a "range of disadvantages" for AT users, they also have advantages.

The studies also made the argument that the formal-informal dichotomy does not hold up in practice. In fact, many "informal" providers are linked to the "formal" sector — for example, by paying taxes — while many "formal" providers use "informal" practices, such as mass distributions of wheelchairs by church groups to people with mobility impairments. In addition, in both Indonesia and Sierra Leone, some formal (even government) actors use assistive products produced by informal settlements. According to the studies, neither informal nor formal AT provision is inherently "better" from an AT user's perspective.

Key takeaway

- The informal sector is not well-captured by the ATA-C as it was used in the assessments studied, although it may be a critical part of AT provision.

Balancing time and resources

Several country-level respondents pointed to the short time frame as a challenge to completing the CCA. This was exacerbated in several cases by other issues that drew attention away from the CCA, whether that be political uncertainty at the national level due to elections, other disability-related events taking place during the CCA window, or, lately, the COVID-19 pandemic. Interviewees acknowledged that such conflicts are an inevitable risk and felt they were able to work around them fairly well. A related challenge in several countries was geographic size: Ethiopia, Mongolia, and Indonesia in particular are very large, and interviewees there pointed to difficulties in reaching areas far from the national capital. More time might have enabled greater outreach in secondary cities and rural areas.

Two interviewees who mentioned time limitations as a challenge said they did not think additional time would have led to a dramatically better report. They still felt they managed to fully complete the CCA and get quality data. Additional time would simply have made the process less stressful for those involved. One suggested having bigger implementation teams, with people designated to carry out work at the subnational level, although this would obviously increase the cost of conducting the CCA. The CCAs so far have cost £25,000-45,000 to implement, depending on the size of the country. Any additions must be weighed against raising the cost of what is already a somewhat expensive endeavour; this is especially true if the tool is eventually meant to be used outside the context of bilateral donor-funded programs.

Finally, risks such as political uncertainty, health emergencies such as the ongoing COVID-19 pandemic, or disasters are inevitable and should be considered when planning an assessment. Evidence from the CCAs completed so far indicates that teams have generally done a good job accommodating and adapting to such contingencies: Despite delays in some cases, all CCAs were completed relatively close to the expected timeframe and yielded the expected amount of data.

Key takeaway:

- Conducting a CCA is a time- and resource-intensive process and may be stressful for implementation teams. However, the time and resources allowed have been enough to fully complete the ATA-C, and return on investment in terms of data and momentum generated is high.

Recommendations

The CCA process has clearly had the intended effects in the countries where it has been implemented so far: Interviewees were unanimous in the power of the tool and the CCA process to fill in crucial data gaps about AT products and services; to inform policymaking; and to bring a level of coordination to what is typically a fragmented and little-understood system. Tangible follow-up is visible in most, if not all, of the assessed countries so far. That being said, the findings of this report suggest several areas where the process might be improved.

Because the ATA-C is a living document, with an active and dedicated group working on it at the global level, several of these recommendations have already been anticipated and have been included in version 4.0.

Remote training

A workshop like the one CHAI organized in Rwanda will probably not always be practical for future implementation of the CCA. When considering how to introduce the ATA-C in new countries, it might be helpful to consider which previous or concurrent implementers could offer guidance or mutual support as the new CCA is carried out. An FAQ document that highlights some key points that previous implementers raised might also be helpful. For example, it could include making it clear that implementers should reassure informants that it is okay not to have answers to every question. Adding comments to the Excel sheet that spell out possible adaptations was another suggestion. It is worth considering how – or whether – the tool could be adapted and used without direct involvement from the AT

2030 global partners. Adapting the curriculum of the Rwanda workshop into an online toolkit is one possibility. Another suggestion is to mainstream CHAI Liberia's preparation of a one-pager to share with informants at the start of engagement (see Annex 2), which might also be helpful in generating more participation from private-sector and charity actors.

Relevance

While version 4.0 of the ATA-C guidelines does provide some suggestions about how to make sure interviews with each stakeholder are relevant, it may be helpful to instruct users explicitly about the need to adapt the tool for different stakeholders. For example, language could be added in the first paragraph of the "Developing a stakeholder engagement plan" section to the effect of, "Please note that not all questions will be relevant to all stakeholders. Tailoring the questionnaire by deciding in advance which questions to ask and which to ignore is very important." This is likely to be especially helpful in places where in-person introduction to and training on the tool by the global partners is not possible.

At a higher level, language could be added to make it clearer that the tool is meant to be used in any country and that not all sections or items may be relevant to any given country.

Action-planning guidance

While some countries have had more active follow-up than others, it is hard to draw conclusions about why that may be with respect to the tool itself: Political will for investment in AT is contingent on many factors, and the COVID-19 crisis has been a major distraction for ministries of health all over the world. However, this study's findings strongly support the addition of an action plan template or guidance to the tool, above and beyond the somewhat prescriptive red-amber-green recommendations template introduced by CHAI or the "Key considerations" section of ATA-C version 4.0. The AT 2030 core team is already working on this.

As the tool becomes more clearly and explicitly linked to action planning, the views of DPOs and AT users become more important, because they stand to benefit (or not) most from changes to policy and new funding allocations. One interviewee suggested that the WHO's practice in emergency care assessments of holding a prioritization and consensus-building workshop with DPOs and AT users *before* the development of an action plan can be a way to both reality-check the CCA findings and to prompt important conversations between policymakers, providers, and users. A suggested structure and agenda for this kind of pre-action-plan workshop could be adapted and included in the new ATA-C guidance about action planning.

Usability

Technology platforms like KoBo Toolbox and SurveyCTO could help address some of the difficulties in using the Word-based questionnaire and Excel-based data-entry form. KoBo Toolbox may be the better choice because it is free and secure to use.

AT-user views

While the tool is by design high-level and focused on systems rather than individual experiences, it does seem that a greater degree of outreach to individual AT users would strengthen the assessments' findings and help suggest policy and programming actions that would not be revealed without their input. One way this might be done is by conducting a rapid survey of AT users as part of the CCA. The sample size would not necessarily need to be very large to get actionable information about, for example, informally made motorized mobility devices, and to point to areas where a deeper look is needed. WHO's rapid Assistive Technology Assessment (rATA) tool (Pryor, et al., 2018) could be used as the basis for this, although it could be worth including user feedback specifically on engagement with formal systems, where relevant.

Informal market systems

Many AT users in low-income urban communities obtain assistive products outside formal systems. While governments may be reluctant to engage directly with the informal sector, not doing so paints an incomplete picture of the overall landscape of AT provision. Not doing so might also miss capturing strategies that support innovation and reach, although those strategies may lack quality standards. One suggestion for capturing the informal sector more completely without investing major additional resources is to update the Provision tab on the ATA-C Excel sheet and guidelines to include the informal sector as a provider category (e.g., as Item 5.8). Completing this column could be done via a very pared-down version of the rATA. Another suggestion is to do more "marketing" for government counterparts, as one interviewee put it, of the need to understand the informal sector to make sure it is serving people well. Where appropriate, implementation teams could argue that understanding the informal sector is a prerequisite for regulating it in terms of standards and quality control. They could also encourage support for the informal sector where it can be shown to be a source of innovation and low-cost access at scale.

Conclusion

The CCAs conducted so far have all been successful in meeting their stated goals of raising awareness of gaps and opportunities in AT provision and in providing evidence that informs policies and programs related to AT. It is too early to tell what kind of impact they may have on monitoring and evaluation practices, but early indications are positive. There is room for improvement in the ATA-C tool, particularly with respect to getting the views of AT users, capturing the informal sector's role in AT provision, and giving guidance on how to translate findings into an action plan. Overall, the ATA-C fills a clear need and is already having an impact on the way countries deal with AT.

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Annex 1 – Interview guide

Interview guide

AT2030 Country Capacity Assessments tools — lessons learned
Conducted by Luke Bostian on behalf of GDI Hub

Name	
Country	
Organization/affiliation	
Role in CCA	
Contact information	
Date of interview	
Interviewer/Translator/Transcription	

Introduction

Do I have your consent to being interviewed today? (Y/N)

Following the Country Capacity Assessments conducted in 2019/2020 as part of the AT2030 program, the Global Disability Innovation Hub commissioned research to answer the following question: How best can Country Capacity Assessment tools support the provision of assistive technologies for people in low resource settings? The purpose of this interview is to get your views on several key topics:

- Participants' perceptions of the usefulness of the tools used in the CCA process for widening access to AT, and any challenges in their use
- Lessons learned during the CCA process
- Recommendations for future modifications to and use of the tools
- Additional recommendations for actors seeking to undertake country-based investment in AT

The interview should take about an hour.

Questions

1. Can you briefly describe the timeline of your involvement with the CCA process?
2. What went particularly well with the CCA process you were involved in? What enabled that?
3. What difficulties did you encounter in conducting the CCA? How were they overcome (if they were)?
4. Which tools in the CCA suite (e.g. stakeholder mapping, policy review, procurement system/process mapping) were most helpful in generating engagement and/or support from

relevant ministries and other actors? Which ministries engaged actively and which did not that might have been helpful?

5. How much did the CCA change as it was adapted for use in your country?
6. How useful were the tools in identifying gaps in the AT provision in the country/countries you work/ed in?
7. How useful were the tools in identifying opportunities to improve AT provision in the country/countries you work/ed in?
8. How do you think conducting a CCA can help widen access to AT?
9. Has the CCA process facilitated any next steps or follow-up action (especially about raising awareness)?
10. How well did the tools facilitate interaction between partners and between lead implementers and individual AT users and people with disabilities?
11. How well did the tools capture the gaps and opportunities present in the informal sector for AT provision, and do you think this matters? Do you think there is anything else that was hard to capture in the tool?
12. What role do you think the CCA findings will play in future planning to address AT gaps and opportunities?
13. Would you recommend the tool be changed for use in future assessments? How?
14. Is there anything else you would like to say about the CCA process or tools?

Annex 2 – CHAI Liberia one-pager

Assistive Technology (AT) Assessment in Liberia

The Global Disability Innovation Hub (GDI) has contracted the Clinton Health Access Initiative (CHAI) to scope the potential for global market-based interventions related to **assistive technology (AT)** (https://www.who.int/disabilities/technology/en/). The AT sector in low and middle-income countries such as Liberia faces multiple barriers both in supply of appropriate, affordable, and quality products and in demand for these products by users, service providers, and national health systems. As a first step, understanding (un)met need and current delivery systems will allow government to better plan for provision of AT and increase access to AT in the public sector.

In line with the above, CHAI Liberia will support a scoping exercise and assessment to understand Liberia's need for AT; existing legislation, policies; products and services provided through different systems, including public, private and non-governmental organizations. The AT assessment in Liberia will be conducted using the WHO's Assistive Technology Assessment-Capacity (ATA-C) Tool as guidance. The ATA-C tool has been developed by the WHO to evaluate the country's capacity for AT provision.

The assessment will cover the following topics with regard to AT provision in Liberia:

☑ Stakeholder – Identify stakeholders in the AT sector in the country or region, both on the Government and non-governmental side; understand their roles and programs related to AT.

☑ Policy and Financing – Capture existing policies related to AT, existing schemes or programs providing access to AT, and schemes that could potentially be used for future AT financing.

☑ Product and Procurement – Map the availability of assistive products in the country or region, how quality is assured, and assistive product procurement and supply processes

☑ Provision – Map the service delivery system/s in which assistive devices are provided to users, which include policies or guidelines for prescribers and providers, entities and facilities where service delivery occurs, and how connected the service delivery system/s are through a referral mechanism.

☑ Human Resource – Understand the availability and distribution of general and AT-related health workforce, the existence of institution providing formal training program for the corresponding workforce, as well as the existence of AT related training in the country.

☑ Population Data – Identify what information systems exist that collects information related to AT, the prevalence of functional limitations and health conditions where AT is commonly needed.

The findings may be used for the following:

➢ Awareness raising – improve Liberia's knowledge and understanding of the current landscape of AT as well as their capacity for AT financing, procurement and service provision.

➢ Policy and program design – support AT policy/program design and implementation, ultimately enabling Liberia to meet population needs and ensuring that appropriate quality AT is available and affordable to all.