

Access to age-assistive technology: A resilience building measure for older people



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The primary research was conducted in Bangladesh, Nepal, Pakistan, Myanmar and Indonesia, where HelpAge has worked to provide age-assistive products in both pre- and post-disaster situations. The initial data collection and analysis was done by Kaizen International from Pakistan; and the secondary analysis and final report is compiled by Lucie Pannell.

Abbreviations

APL	Priority assistive product list
AP	Assistive product
AT	Assistive technology
DFID	UK Department for International Development
DPO	Disabled persons' organisation
DRR	Disaster risk reduction
GATE	Global Cooperation on Assistive Technology
IASC	Inter-Agency Standing Committee
NGO	Non-governmental organisation
RNA	Rapid needs assessment
SDGs	Sustainable Development Goals
UN	United Nations
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
WGQs	Washington Group short set of questions
WHO	World Health Organization

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Executive summary

In a humanitarian crisis, older people and older people with disabilities risk:

- Difficulty in evacuating
- Difficulty obtaining appropriate information about emergency procedures
- Difficulty obtaining information about available services and facilities
- Physical barriers and accessibility issues

An assistive product could reduce the risk.

According to the World Health Organization (WHO), 46 per cent of the world's population aged 60 years or older have a moderate to severe disability. Older people are likely to require two or more assistive products as they age. However, WHO states that only 10 per cent of people requiring an assistive product have access to one, a proportion that is likely to be significantly lower in emergency settings where multiple factors are at play to deny them access to the relevant assistive products. Research in this area is essential at a time when global population estimates predict the number of older people and people requiring assistive technology (AT) to increase significantly, with people requiring AT estimated to reach 2000 million by 2050. This report explores the intersection between age, gender and disability and the use of AT by older people, in emergency response and as a tool for disaster risk reduction (DRR). The report shows that AT can have a positive impact on independence, vulnerability reduction and resilience building for older women and men in humanitarian crises. This report urges for sensitization and capacity building of humanitarian organizations for the inclusion and promotion of assistive product (AP) provision in humanitarian response and offers insight into key areas to enable AT provision to successfully meet the needs of older people.

Methodology

The study employed primary research methods to gather both quantitative and qualitative information through a semi-structured survey with HelpAge programme beneficiaries in five countries: Bangladesh, Indonesia, Myanmar, Nepal and Pakistan. The survey incorporated the Washington Group short set of questions (WGQs), designed to identify people with functional difficulties in six core functional domains: mobility, vision, hearing, cognition, self-care and communication (Washington Group on Disability Statistics, 2016). The report also summarises secondary research including a literature review, information from rapid needs assessments carried out by HelpAge, and maps out relevant policy changes which have led to better recognition of the intersectionality and importance of AT for older men and women.

Key findings

Key findings from both secondary and primary research are summarised below:

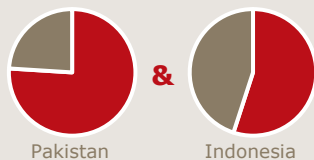
1. Lack of appropriate APs compounds both people with disabilities and older people's vulnerability before, during and after the disaster. It also increases dependency, and increases threat of insecurity, abuse and violence.
2. During a humanitarian response, older people and people with disabilities are often out of sight; out of reach; left out of the loop; or deemed to be out of the scope of the humanitarian sector, mainly because of their inability to reach and register their needs.
3. The functional difficulties most cited by older people are mobility, vision and self-care.

4. Older people experience multiple functional difficulties: 71 per cent of respondents experience functional difficulties in two or more areas. The number of functional difficulties experienced by older people increases with age. This suggests the need for AT increases with age and older people frequently have multiple challenges and complex needs, which require access to a package of support, rather than a single assistive device.
5. Few respondents report owning/using more than one AP, despite experiencing multiple functional difficulties: 61 per cent of respondents only had one AP but experienced two or more areas of functional difficulty.
6. There is little mention of people receiving AT relating to self-care: only 6 per cent received toilet commodes and there was no mention of other APs such as continence management products. There is also no reference to cognition.
7. There is a gap in provision of APs in DRR situations: 55 per cent of respondents needed an AP prior to the emergency but did not have one.
8. More older people need assistive products after an emergency. Thirty per cent reported they did not need assistive products before the emergency but required one after an emergency. Similarly, 25 per cent of people, who used assistive product, lost their product during an emergency.
9. A high proportion of respondents to this survey reported positive experiences in receiving and using the product itself. However, as noted in point 4 above, 61 per cent of respondents only had one AP but had two or more areas of functional difficulty where AP would be useful. This raises the question of how aware are older people of the range of AT that could improve the quality of their lives?
10. A low percentage of APs were prescribed by a doctor or physiotherapist: only 30 per cent of APs were reported to have been provided by a doctor or physiotherapist (in HelpAge Emergency Responses).
11. There is little wider support to meet older people's AT needs beyond APs and there is a limited referral network to the relevant services: only 33 per cent of respondents reported a referral mechanism for support and only 19 per cent reported receiving other forms of support (predominantly in the form of physical modifications to their home environment).
12. AT can have a positive impact on reducing older people's dependence on others, with the potential to reduce their vulnerability and build their resilience: 79 per cent of respondents report that the AP had a positive impact on their independence.

Factors that exacerbate the vulnerability of older people with disabilities post disaster (findings from rapid needs assessments).



38% of older people surveyed by HelpAge in the Philippines had lost their assistive product.



76% of older people surveyed in Pakistan and **55%** in Indonesia were dependent on family members.



56% of older people surveyed in Pakistan were not able to reach aid distribution sites independently.



42% of older people with disabilities reported not feeling safe at home or accessing health facilities and community services in Philippines.

Age assistive product can be helpful.

Conclusions and recommendations

The overriding conclusion from this study is that AT can be a powerful tool for the reduction of dependence and vulnerability, and increase protection and resilience building in humanitarian response and DRR.

The key recommendation arising from this study is to ensure the provision of AT is embedded in both DRR and emergency response programmes and integrated into mainstream development programming. To enable the effective provision of AT the following recommendations are also made:

- The collection of disaggregated data on sex, age and disability and the use of tools such as collecting age data in 10 year cohorts and the Washington Group short set of questions. This will help ensure that older people's AT needs are met, including the need for multiple APs and a multi-disciplinary package of support.
- The inclusion of older people in humanitarian response planning for DRR measures and identification of key APs that would support older people. This can be facilitated by awareness raising of the issues surrounding older people requiring AT amongst users themselves, caregivers and service providers in both DRR and emergency response.
- With little information globally on the need for AT relating to self-care, there is need for exploration of the use of low-cost AT in emergency contexts and increase access to such basic products to help them. Similarly, there is also a need to understand simple necessities such as torches, umbrellas, toilet seats, which can provide assistance to older people.
- HelpAge and other humanitarian actors should promote the WHO 'four steps' of AT service provision (proper assessment, fitting, user training, and follow-up) within wider humanitarian response amongst other stakeholders to ensure that the AT needs of older people are integrated into wider health systems. This includes strengthening referral networks and coordination. It also means multi-disciplinary support, linking with rehabilitation and other professionals for guidance, recognising that people have multiple AP needs and AT is part of a process of working towards independence and inclusion that also looks at the improving accessibility in their environment and wider needs.
- Within the constraints of an emergency setting there may be scope to explore APs that could support older people but without being provided through professional teams such as physiotherapists and occupational therapists. Formalising this through a process of basic screening at community level and triage could help ensure that those who need simple products can access them quickly and easily, and that those who need more complex products, requiring an assessment and prescription process, are not overlooked.
- In terms of the humanitarian policy landscape, there is increasing recognition of the needs of older people and older people with disability, specifically linking the intersection of age, gender and disability, and the need for AT to maintain their independence and autonomy. Policy and practice has historically addressed these issues in siloes, and there has been failure to approach them together and recognise the shared or specific barriers faced in daily life. It is observed through the policy and practice landscape that positive changes are evident, notably the recently launched Inter-Agency Standing Committee (IASC) Guidelines, Inclusion of Persons with Disabilities in Humanitarian Action which make specific reference to older people and AT. The policy landscape is fertile ground and needs influencing and capacity building to effectively meet the needs of older people requiring AT in emergency settings.

Further qualitative research would also be recommended to build more in-depth evidence on the impact of AT on resilience building. The provision of APs not only has a major impact on older people themselves, but also helps implementing agencies to ensure that every member of an affected population receives the services to which they are entitled, thereby strengthening the accountability of interventions. Access to AT is a pre-condition for inclusion. AT, and will support protection, vulnerability reduction and resilience building for older people.

1. Introduction

The purpose of this report is to explore the intersection between age and disability and the use of assistive technology (AT) by older people in both emergency response and as a tool for disaster risk reduction (DRR), in selected countries across Asia.

AT is defined as knowledge and skills related to assistive products (including both systems and services), whilst an Assistive Product (AP) is any external product used “to maintain or improve an individual’s functioning and independence, and thereby promote their well-being” (WHO, 2016; 1). This includes anything from hearing aids to toilet commodes.

Across Asia, HelpAge has implemented a range of programmes in emergency response and DRR, including the provision of assistive products for older people. However, the experiences of older people as users of AT, their specific needs, and the potential of AT to reduce vulnerability and build resilience, has been under-explored.

Understanding older people’s experiences in relation to AT is essential to inform better programme planning, frameworks and policies, both organisationally within HelpAge International and across the wider humanitarian sector. Research in this area is essential at a time when global population estimates predict the number of older people and people requiring AT to increase significantly.

The main objectives of this report are to present:

1. Secondary research through a literature review of available information on the intersectionality between disability, assistive technology and older people. The literature review will also explore the situation of older people with disabilities, or AT needs, within emergency situations, and relevant policies and standards which represent a move towards a more global call for the provision of AT for older people in humanitarian response.
2. Primary research carried out through a survey of 252 older people with disabilities, or AT needs, who had received an assistive product through HelpAge programmes in Bangladesh, Indonesia, Myanmar, Nepal and Pakistan.

Based on the findings of both primary and secondary research, this report will offer recommendations for both HelpAge International and global humanitarian response.

2. Literature review

2.1 Age and assistive technology: the global picture

In 2019 the United Nations (UN) estimated that globally there were 703 million people aged 65 years or over (UN, 2019). It is projected this figure will rise to 1.5 billion by 2050, with one in six people aged 65 years or over (ibid).

The intersection between age and disability is clear, with older people more likely to live with one or more impairments and require some form of AT for daily living.

“As people age, including those with disabilities, their function declines in multiple areas and their need for assistive products increases accordingly” (WHO, 2016; 1).

According to the World Health Organization (WHO) 46 per cent of the world’s population aged 60 years or older have a moderate to severe disability (WHO, 2011). The WHO also estimates more than a billion people, or 15 per cent of the world’s population, live with some form of disability (ibid). Of the global population living with some form of disability, the WHO approximates that in excess of 1000 million people would benefit from assistive products (WHO Executive Board, 2016). The WHO also projects 1000 million to increase above 2000 million by 2050 (ibid). A key factor in this WHO projection is a demographic shift towards an ageing population where older people are likely to require two or more assistive products as they age (ibid).

However, WHO states that only 10 per cent of people requiring an assistive product have access to one (WHO, 2016), a proportion that is likely to be significantly lower in emergency settings where multiple factors are at play.

2.2 Assistive technology and emergencies

In an emergency context the inherent chaos and the increase in injuries (as a result of conflict or natural disasters) result in an increased need for AT. People require AT as a result of:

- Losing their device during the emergency;
- Short term injury resulting from the emergency;
- Long term/permanent injury resulting from the emergency (Xavier, 2014).

During emergency response (especially the acute phase) basic provision of essential AT is often not available due to:

- Existing health structures and referral networks having broken down;
- Uncoordinated responses led by different emergency response agencies with inconsistent priorities;
- Emergency response agencies being ill-equipped to identify and prioritise AT needs, with a lack of data to make decisions;

Where AT is available it can be inappropriate for the challenging environment of emergency settings, is often slow to arrive and/or lacks appropriate training in service provision (Thomas and Obrecht, 2015).

It is often the case that in the regions where emergencies take place, the existing health structures are not fully developed or functional. The emergency therefore puts increased pressure on already scarce resources and many areas of health provision are not met (Lukkarinen, 2019). The provision of AT is not prioritised as a ‘life-saving’ intervention.

A lack of appropriate assistive products compounds both disabled and older people's vulnerability and exclusion from emergency response interventions. People who require AT lack independence and equal access to potentially life-saving relief efforts (Thomas and Obrecht, 2015). "There are factors associated with ageing and disability that can increase vulnerability to the impact of disasters and other crises" (IFRC, 2018; 86). Older people and people with disabilities are often out of sight; out of reach; left out of the loop; or deemed to be out of the scope of the humanitarian sector (ibid; 5).

2.3 Assistive technology and emergencies: the experience of older people

The experiences of older people in emergencies, with specific reference to those with disabilities, has been documented by HelpAge (HelpAge International, 2018) and Humanity & Inclusion (previously Handicap International, 2012). Both organisations independently highlight that older people with disabilities face a number of difficulties including:

- Difficulty escaping: People may not be able to evacuate from emergency situations quickly, or to evacuate without assistance, and they may be overlooked or ignored by search and rescue teams.
- Difficulty obtaining appropriate information about emergency procedures, and as a result difficulty escaping: For example, people with visual or hearing difficulties may not receive early warning messages.
- Difficulty obtaining information about available services and facilities: For example, people with mobility difficulties may not be able to leave their home/location to access information.
- Physical barriers and accessibility issues: For example, travel to distribution points including food and water, accessible public buildings, shelters and homes, and water and sanitation.
- Difficulty in carrying out daily activities as a result of the above barriers.

Rapid needs assessments (RNAs) and project case studies carried out internally by HelpAge across a number of countries, have also underlined the issues faced by older people with disabilities, highlighting that:

- A proportion of older people with disabilities lose their assistive product during a crisis, which increases their isolation in daily life and impacts their ability to access information and services. 38 per cent of older people surveyed by HelpAge in the Philippines had lost their assistive product (HelpAge, 2020; 6).
- Older people in emergency situations are often dependent on family members. This is evidenced in HelpAge RNAs which show 76 per cent of older people surveyed in Pakistan (HelpAge, 2019; 9), and 55 per cent in Indonesia (HelpAge, 2017; 9) were dependent on family members. Dependency leaves them vulnerable to barriers, which could prevent them from escaping and independently accessing support in an emergency situation.
- Older people with disabilities face difficulty accessing humanitarian assistance. In Pakistan 56 per cent of

Dependency and difficulty escaping

Maria's mobility began to decline in her seventies. Living on the side of a steep hill, she became unable to leave her house and was dependent upon her daughter to bring her basic supplies. When mudslides hit Maria's home her daughter was not nearby, and she was unable to escape. (HelpAge case study)

Dependency, difficulty obtaining information and difficulty escaping

Ibrahim's hearing began to decline in his sixties. He gradually became reliant on his wife and he no longer wanted to leave the house. When flooding hit his home, his wife was out shopping. Ibrahim had not heard the warning on the loudspeaker from a car driving past his home, nor had he heard the warnings on the radio, and so he was unable to escape in time. (HelpAge case study)

older people surveyed were not able to reach aid distribution sites independently (HelpAge 2019; 12).

- Older people with disabilities face issues of safety and vulnerability. In the Philippines HelpAge RNAs showed that 44 per cent of older people with disabilities reported not feeling safe accessing health facilities, 43 per cent reported not feeling safe accessing community services (recreational or social spaces) and 41 per cent did not feel safe at home (HelpAge, 2020; 6).
- Simple products such as torches could be essential AT for older people with disabilities. For example, in Indonesia, head-torches enabled people living in temporary shelters to safely use public toilets during the night, and also enabled them to use both hands for using walking sticks or other mobility devices.

The issues outlined above exacerbate the vulnerability of older people with disabilities, or older people with AT needs. The issues faced threaten older people's dignity and independence, including participation in decisions that affect their lives, and could leave older people increasingly vulnerable to abuse.

It is recognised that rehabilitation and assistive products can help address these issues and enable older people with AT needs to build resilience and live safe and dignified lives.

2.4 Age, assistive technology and emergencies: the policy landscape

For an effective policy landscape supporting the rights of older people requiring AT in emergency settings, recognition of the intersectionality of age, disability and AT must be made. Whilst policy and practice has historically addressed these issues in silo, and there has been failure to approach them together, changes are being seen, signalling that the policy landscape is fertile ground to effectively meet the needs of older people requiring AT in emergency settings.

The Madrid International Plan of Action on Ageing (UN, 2002) was adopted by the UN Second World Assembly on Ageing and agreed by 159 governments. Although the Madrid plan is not binding, it recognises the rights of older people including making reference to assistive technology and, in a separate statement, also supports increasing access to aid for older people during and post emergency situations. The Madrid plan does not, however, make explicit reference to the need for AT in emergency situations for older people with disabilities.

The UN Convention on the Rights of Persons with Disabilities (CRPD) (UN, 2006), seeks to ensure the availability of AT (Article 26) and the protection of persons with disabilities in situations of risk and humanitarian emergencies (Article 11). The CRPD does not address the issue of older people, nor make explicit reference to the need for AT for older people in emergency situations. However, the next Session of the Conference of States Parties to the CRPD has made addressing the rights and needs of older persons with disabilities one of its three focus topics, marking a change in approach and recognition of the intersection between age and disability (UN, 2020).

Another key turning point in addressing the lack of an intersectional approach was made in 2018 when the UK Department for International Development (DFID) held a Global Disability Summit. The summit brought together a range of stakeholders, including delegates from governments and Disabled Peoples Organisations (DPOs), who made commitments to implementing the UNCRPD and signed up to a Charter for Change. Positive commitments to the provision of AT were made by governments. For example, Nepal made specific reference to 'persons with disabilities as a vulnerable population with increased risk during disasters and has made provision to protect them' in their Disaster Risk Reduction and Management Act 2018 (DFID, 2019; 19).

Nepal is also making headway in re-shaping the policy landscape, being one of the first countries (alongside Tajikistan) to develop their own national Priority Assistive Product List. The list is based on the Priority Assistive Product List (APL) set out as a guide for national governments by the Global Cooperation on Assistive Technology (GATE) under the WHO (WHO, 2016). Nepal, however, has also listed specific assistive products required in emergency situations.

In terms of the humanitarian policy landscape, there is increasing recognition of the needs of disabled people, specifically linking the issues of age, disability and the need for AT. The Sendai Framework for Disaster Risk Reduction 2015-2030 (UN, 2015), which replaced the previous Hyogo Framework, places more emphasis on inclusion and accessibility, and the involvement of disabled people in developing policies. The UNHCR Age, Gender and Diversity Policy (UNHCR, 2019) also makes equal inclusion of all people mandatory. The international guidelines on humanitarian response set out in The Sphere Handbook (Sphere, 2018) make specific reference to people with disabilities and the need for assistive devices.

A significant step towards recognising the needs of vulnerable people (older people and people with disabilities) and the link with AT has been made in the recently launched Inter-Agency Standing Committee (IASC) Guidelines: Inclusion of Persons with Disabilities in Humanitarian Action (IASC, 2019). The IASC guidelines make specific reference to older people and AT. These guidelines represent a positive step towards better recognition of the intersectionality and importance of AT for older people.

Overcoming the siloed approaches to older people, disability, AT and humanitarian assistance will be essential to meet the needs of older people who require AT in emergency situations. The new IASC Guidelines signal a positive change and coupled with the energy behind the Global Cooperation on Assistive Technology (GATE) which seeks to address AT needs under universal health coverage and meet the both the UNCRPD and Sustainable Development Goals (SDGs), provide a fertile landscape for addressing the AT needs of older people in emergency settings.

Appendix 1 summarises the key policies referenced in this section, and also guidelines and manuals on inclusive emergency response and disaster management. These guidelines and manuals were issued by non-governmental organisations including CBM International, Humanity & Inclusion, and HelpAge International.

3. Methodology

This study employed primary research methods to gather both quantitative and qualitative information through a semi-structured survey with people with disabilities. The purpose of the primary research was to gather perspectives on the use of age appropriate assistive devices for vulnerability reduction in DRR and humanitarian response from HelpAge programme beneficiaries.

3.1 Ethical considerations

Confidentiality: All data regarding individuals will remain confidential and respondents were given unique index numbers that were used for data analysis.

Informed consent: All respondents involved in this study received appropriate information about the nature and purpose of the study. All respondents engaged in this study did so with the full understanding there were no incentives or rewards for participation; conversely there were no disincentives for not participating.

Working with vulnerable groups: All enumerators were experienced working with elderly people and people with disabilities and sensitive to the needs and concerns of respondents.

3.2 Sample

The research population consisted of beneficiaries of HelpAge projects in five countries across Asia: Bangladesh, Indonesia, Myanmar, Nepal and Pakistan. See Figure 1 for the geographical locations of the study.

Figure 1: Geographical locations of the study



The five countries were identified as being focus countries for HelpAge programme activities working on disability in both DRR and humanitarian response. In addition, they are situated in a region where, despite a high level of humanitarian activity, there is little

assessment of the experiences of older people as users of assistive technology, and the impact of assistive products on their vulnerability in humanitarian situations.

HelpAge is carrying out:

- DRR projects in:
 - Bangladesh
 - Myanmar
 - Nepal
- Humanitarian response projects in:
 - Indonesia
 - Pakistan

252 Respondents were identified from HelpAge project beneficiaries using systematic random sampling. This helped to ensure the relative total numbers of project beneficiaries reached in each country was reflected, in addition to the relative balance between male and female project beneficiaries reached. As a result, the percentage of respondents across the countries varies considerably; from the lowest at 7 per cent in Myanmar to the highest at 40 per cent in Bangladesh. The distribution between beneficiaries of DRR projects and Humanitarian response also varies, with 63 per cent from DRR and 37 per cent from Humanitarian response. See Appendix 3 Table 1 for the breakdown of respondents by country and Table 2 for the breakdown of respondents by whether the project was DRR or humanitarian response.

It is also important to note that there were not a consistent number of respondents in the sample across gender (male/female) or age groups, and this has been taken into account in cross analysis using these categories. There was a higher percentage of females in the sample (58 per cent) than males (42 per cent), and the percentages across age groups range from the lowest at 9 per cent in the 80+ years category and highest in 60-69 (33 per cent) and 70-79 (32 per cent). See Appendix 3 Table 4 for breakdown of respondents by Female/male; Table 5 for breakdown of respondents by age.

3.3 Research methods

A semi-structured survey, which included both quantitative and qualitative approaches, was piloted in Pakistan before being carried out with 252 respondents during October and November 2019. The surveys were carried out through face-to-face interviews with respondents in their homes, or at project meetings, by enumerators from HelpAge offices in each of the five countries. The enumerators were all experienced in working with older people and were experienced in carrying out surveys.

The survey questions were designed to gather a range of quantitative, factual information and qualitative, value-driven information to optimise the range of information gathered within one survey.

A total of 39 questions were included in the survey. This incorporated the Washington Group short set of questions (WGQs) which are designed to identify 'people at greater risk than the general population for participation restrictions' (Washington Group on Disability Statistics, 2016) due to functional difficulties. The questions ask whether people have difficulty performing basic universal activities in six core functional domains; mobility, vision, hearing, cognition, self-care and communication (ibid). Aiming to learn more about the vulnerability older people have to isolation and potential abuse, HelpAge added an additional question to the Washington Group short set: 'Do you have difficulty leaving your home or getting out of bed?' This replaced the question in the Washington Group short set on cognition, as the HelpAge projects in the countries surveyed had not provided assistive products related to cognition. The issue of cognition is recognised as a gap for further study. See Appendix 2: HelpAge study tool (Survey).

Closed questions explored the types of assistive products used by respondents, and how they received them during DRR or emergency response. Answers illustrated how provision of assistive technology to older people can reduce their vulnerability, and highlighted areas where an improvement in provision would support vulnerability reduction, summarised in the conclusions and recommendations. The survey was concluded with three open-ended questions, which explored recommendations respondents had for improving the appropriateness, accessibility and affordability of assistive products.

3.4 Evaluation of research methods

The use of random sampling, based on probability, helped reduce potential bias in data, however, data remained susceptible to response bias (see below).

Using predominantly closed questions enabled rapid collection of data, which took place across all countries within a time span of 30 days. Closed questions also enabled easier coding and analysis of data. However, closed questions were less flexible in providing new insights or reflecting an accurate picture. The use of closed questions with pre-defined options for answers also risked respondents being influenced in their answer, because there is the suggestion inherent in this type of questioning that there is a possible 'right' answer (Hyman and Sierra,2016).

The use of enumerators from HelpAge offices carried the potential for social-desirability bias in the answers given by the respondents. Social-desirability bias may have resulted in the over-reporting of positive experiences by the respondents who did not want to give negative responses having received support from HelpAge. The data showed this to be a potential risk as overwhelmingly positive responses on the assistive products and services received by respondents, seemed to be contradicted by other responses to the survey and by recommendations given in the open ended questions which concluded the survey.

3.5 Analysis of data

Analysis of the data provided through the survey was carried out in Excel. The first level of analysis was carried out using data drawn directly from survey questions to observe notable patterns and identify themes (see Appendix 3 for tables presenting this data). From this first level analysis, areas for further analysis were identified for a second level of analysis (see Appendix 4 for tables presenting this data). The second level of analysis either coded or categorised data to gain new insight, or cross-analysed using key categories, specifically Male/female and age group. Cross-analysis enabled observation of any notable relationships between the data which are discussed in the findings.

In many cases, analysis is made using percentages rather than absolute values. Percentages are especially useful when looking at cross-analysis of any data with Male/female for example, as there were different numbers of respondents for each group (Males 106 and Females 146). Patterns using percentages of total Male/female were not skewed by the difference in numbers between Males and Females in the sample.

4. Findings

4.1 Background

See Methodology for a summary of the background information regarding the sample population and key categories of respondents, including country, DRR/Emergency response programme, gender (Male/Female) and age group. As noted, the percentages of respondents across the categories vary significantly and this must be taken into consideration when making any observations in any cross-analysis of data using these categories.

In addition to the above categories, it was also noted whether survey respondents lived in a rural, semi-urban or urban environment. 87 per cent of respondents were living in a rural environment and 12 per cent in a semi-urban. The geographical location and environment in which respondents live will affect respondents' access to services and information, and further analysis of these environmental factors could be made in a future study.

See Appendix 3, Tables 1 to 5 for a summary of all background information.

4.2 Disability

The Washington Group short set of questions (WGQs) were used to identify functional difficulties experienced by respondents, and as an indicator of disability. For the purpose of this study, levels of difficulty were categorised in the following six domains: Seeing, Hearing, Self-care, Communication and Leaving the house/getting out of bed.

Figure 2 shows the percentage of respondents reporting difficulty across the six domains¹ (see Appendix 3 Table 6). It is notable that the domains with the highest percentage of respondents at each level of difficulty include:

- No – no difficulty: Hearing (64 per cent) and Communication (60 per cent).
- Yes – some difficulty: Seeing (44 per cent), Leaving the house/getting out of bed (38 per cent), and Walking or climbing steps (31 per cent).
- Yes – a lot of difficulty: Walking or climbing steps (33 per cent), Self-care (23 per cent), and Seeing and Leaving the house/getting out of bed (both 14 per cent).
- Cannot do at all: Walking or climbing steps (10 per cent), Self-care (7 per cent), and Leaving the house/getting out of bed (6 per cent).

It is evident that the domains in which people experience the most difficulty include: Walking or climbing steps, Seeing, Leaving the house/getting out of bed and Self-care. What is interesting is that all four of these domains either result from or impact upon levels of mobility.²

These findings are supported by evidence from RNAs carried out by HelpAge across 11 countries³, which confirms that, according to the WGQs people were identified as having

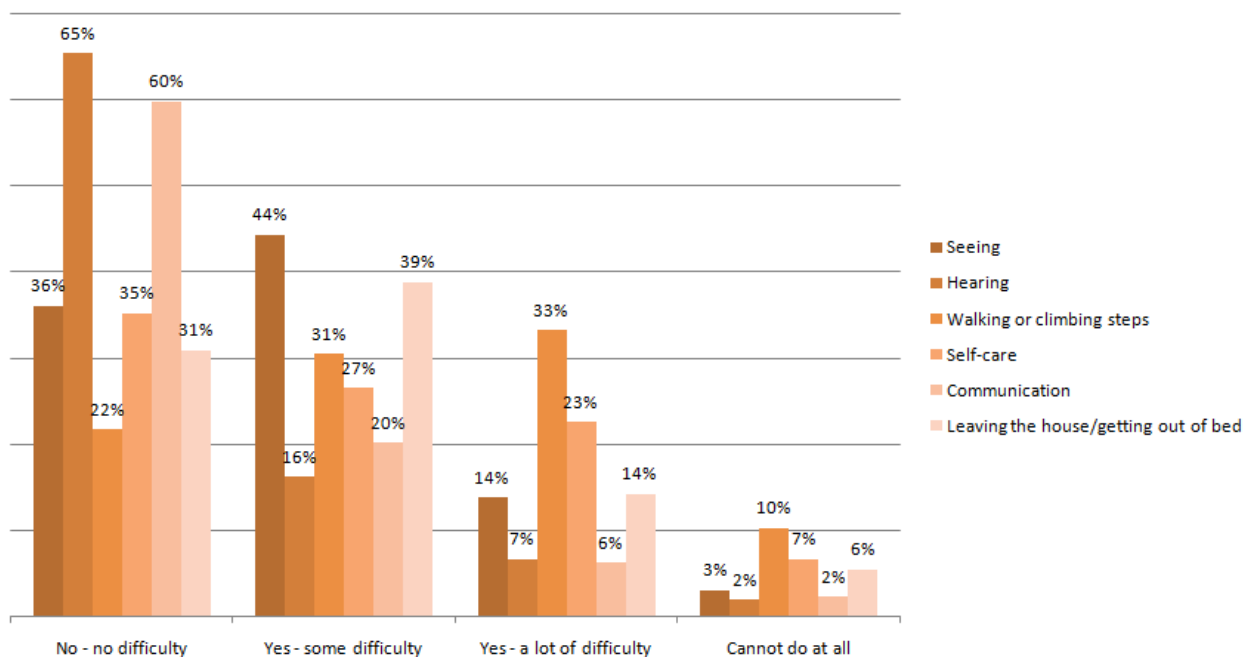
¹ Note: Figure 2 shows numbers of respondents as a percentage of the total for each domain and does not include those that did not answer the question.

² Note: Difficulty in Leaving the house/getting out of bed is a category added by HelpAge to the WGQs and is not strictly linked to functional disability but could also result from social and cultural issues. This would need to be explored further in a future study.

³ Mozambique: Ethiopia, Jordan, South Sudan, Tanzania, Mozambique Tete, Mozambique Sofala, Pakistan, Malawi, Syria, Yemen, Venezuela, Zimbabwe

'a lot of difficulty' or 'cannot do at all' in the domains of 'Walking or climbing steps' and 'Seeing'⁴.

Figure 2: Percentage of respondents reporting difficulty in six domains



The findings from this study (and also the combined RNAs) reflect available global statistics, which show a higher percentage of mobility and vision impairments when compared with other impairments such as hearing:

- 20-33 per cent of the global population are estimated to have musculoskeletal conditions (WHO, 2019).
- 29 per cent of the global population are estimated to have a visual impairment or blindness (based on 2.2 billion cited by WHO, 2019; 26).
- 6 per cent of the global population are estimated to have disabling hearing loss (WHO, 2018; 5).

It is difficult to identify global statistics regarding the need for AT for self-care as the need crosses a wide range of issues including mobility and incontinence, and is likely to be an area that has a disproportionately high impact on older people. This is an area that requires further research.

The correlation between the findings of this study, combined RNAs and available global statistics, suggests any recommendations emerging from this study on AT needs, are likely to be valid across different contexts that are beyond the scope of this study.

4.2.1 Disability: males/females and age groups

When we analyse the data on disability by the categories of Male and Female, the overall levels of functional difficulty experienced across the six domains do not show marked differences between Males and Females. However, some interesting observations can be made on individual domains. For example, in the domain of Self-care, Males report higher 'no difficulty' and Females report higher 'cannot do at all' (Appendix 4 Table 1). The reasons for such differences would be interesting to explore in a further study as

⁴ Unlike this study, the combined RNAs also cited 'Remembering or concentrating' as a key domain where difficulty was experienced. This difference would require further exploration.

they may relate to social and cultural differences in Self-care practices between Males and Females, or differences in functional needs between Males and Females that impact on Self-care.

When analysed by age groups, there are few emerging patterns, however, the 80+ age group shows the lowest percentage of respondents reporting 'no difficulty' and also the highest percentage reporting 'cannot do at all' across all six domains.

4.2.2 Multiple disabilities: males/females and age groups

Further analysis of the data to identify respondents reporting some level of difficulty (including some, a lot, or cannot do at all) shows that only 13 per cent cite difficulty in one domain, whereas 71 per cent have some degree of difficulty in two or more (5 per cent reported no difficulty and 11 per cent did not answer the question) (Appendix 4 Table 2). There is no marked difference in the data between males and females (Appendix 4 Table 3).

However, there is variation in the number of domains reported by different age groups (Appendix 4 Table 4), key observations can be seen as follows:

- 50-59 peaks at One
- 60-69 peaks at Three
- 70-79 peaks at Five
- 80+ peaks at Six⁵

The pattern that has emerged from the data shows that as people age, difficulties are experienced in an increasing number of domains. This suggests the need for AT increases with age and older people frequently have multiple challenges and complex needs, which require access to a package of support, rather than a single assistive device. These needs will also be context specific, rather than limited to the specific impairment causing the functional disability and will, therefore, require analysis of environmental factors which will differ between DRR and emergency relief situations.

4.3 Assistive products

4.3.1 Assistive products: needed prior to the emergency

Respondents to the survey who were interviewed in post-emergency contexts were asked about their need for assistive products prior to the emergency. Of those who answered the question, 55 per cent of respondents reported they needed assistive products before the emergency but did not have them; by contrast, only 14 per cent reported they had and used assistive products before the emergency (Appendix 3 Table 9). Thirty per cent reported they did not need assistive products before the emergency. This reinforces the concern (see literature review) that where emergencies take place, often the existing health structures and service provision are not well developed, and older people do not have access to the assistive products they need.

4.3.2 Assistive products: lost or damaged during emergency

Looking at respondents' experiences of loss or damage to their assistive product during an emergency, it is interesting that 25 per cent reported loss or damage to their product (14 per cent damage and 11 per cent loss) whilst 69 per cent report no loss or damage (5 per cent reported they were not able to use their assistive product during the emergency and 1 per cent reported they did not know) (Appendix 3 Table 10). This suggests that during and following an emergency, whilst a proportion of older people

⁵ The outlier in this pattern is Below 50 which peaks at Three. This would need to be analysed further to understand the reasons for this and the specific ages of people involved and related cultural understandings of who is an 'older person'.

experience loss or damage to their assistive product, a large proportion either did not have a product prior to the emergency, or, require a product as a direct result of the emergency. This relates to the issue highlighted in section 4.3.1 above.

4.3.3 Assistive products: received during emergency

Appendix 3 Table 11 shows the assistive products received during a humanitarian emergency. The products that were most commonly received underline the main areas of functional difficulty identified in the WGQs (Walking/climbing steps and Seeing), with the products cited most being: Eyeglasses (29 per cent), Walking stick (18 per cent) and Wheelchair (12 per cent). All other products were cited by 5 per cent or less of respondents, including Torch (5 per cent), alongside Toilet commode (2 per cent), and Hearing aid (2 per cent).

The assistive products were cited according to a pre-determined list of products drawn up in the survey questions. It is therefore difficult to draw conclusions from this as to whether these products are the most needed, especially when considering the relatively low provision of products such as Toilet commode (5 per cent), Urine pot (2 per cent) against the WGQs, which highlight Self-care as a key domain in which people experience difficulty.

This raises the question of whether answers indicate that a limited range of products is made available through services during and following emergencies. Additionally, answers raise questions about levels of awareness amongst older people of the types of products that could be available to them, and therefore the choices they could make. This also links to the issue highlighted in section 4.2 that there is little information globally on the need for AT relating to Self-care. There is also little exploration of the use of simple AT in emergency contexts, such as torches, and documentation of how older people can access such basic products to help them. It is necessary to further explore the range of products that could be offered to help older people, through asking them what they want and need, rather than pre-determining their responses through a pre-conceived list. Information on the range of products must feed into awareness-raising amongst older people in DRR and emergency settings. The inclusion of older people with disabilities in emergency response planning and implementation is essential.

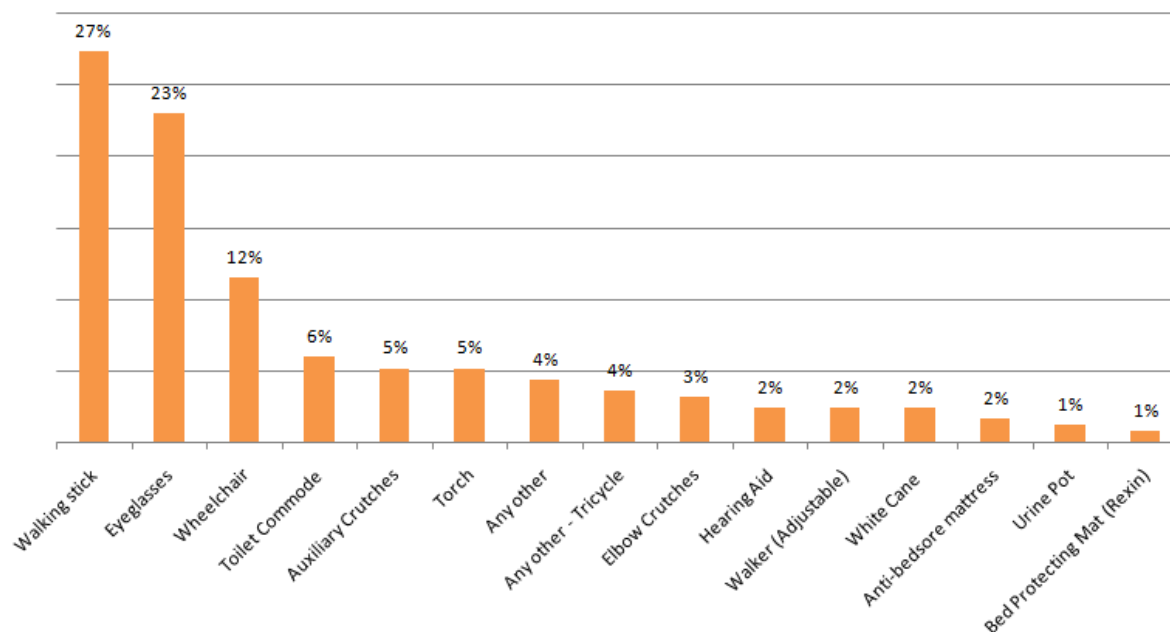
4.3.4 Assistive products: owned and used in DRR and post-emergency

In addition to which assistive products respondents received, respondents were also asked which products they currently owned and used. The answers to both questions correlate very closely, showing that the assistive products that older people did have, were useful in their daily life and were not left unused. The correlation suggests the processes of assessing and prescribing the assistive products for each person were effective in meeting their needs (see Appendix 3 Table 7 and 8).

The products used (and owned) are illustrated in Figure 3 below, and clearly show the three most used assistive products to be the following:

- Walking sticks
- Eyeglasses
- Wheelchairs

Figure 3: Percentage of assistive products used



The three most used assistive products correlate with the products received during an emergency, however, more Eyeglasses are provided during an emergency than Walking sticks, whereas more Walking sticks are owned and used than Eyeglasses. It is unknown whether the Eyeglasses were provided through screening and prescription and raises the question of whether less are owned and being used than walking sticks due to inaccurate prescription or changes in vision since the Eyeglasses were originally prescribed.

As with the products provided during an emergency, those owned and used underline the main areas of functional difficulty identified in the WGQs (Walking/climbing steps and Seeing). It is important to recognise, however, that the WGQs are designed to assess prevalence and are not intended to be used as a screening tool. The functional difficulty expressed through the WGQs therefore may not directly map onto the assistive products identified here, but may indicate need for other AT solutions.

When asked which assistive products people were using, respondents could list any number of products. None, however, listed more than three products. When comparing how many assistive products respondents were using with the number of domains in which they experienced functional difficulty (using the WGQs), 153 respondents (or 61 per cent) only had one product despite experiencing difficulty in more than one domain. 19 respondents (or 8 per cent) had two products and experienced difficulty in two or more domains. Only two respondents (or 1 per cent) reported having three products and experiencing difficulty in three or more domains, both citing all six domains. There was no correlation between the increasing number of difficulties people had, and increasing number of products (see Appendix 4 Table 5). It is also important to note that a number of respondents (6, or 2 per cent) reported not using a product, despite experiencing difficulty in one or more domains.

4.4 Service provision

With any assistive product it is imperative that it meets the user's needs and environment, and is safe and durable (WHO, 2008). This involves the provision of products through a service that assesses, selects and provides the right product, a process which has been formalised by the WHO. In the wheelchair sector the WHO Guidelines on the provision of Manual wheelchairs in less resourced settings (2008), use eight steps for comprehensive service delivery. This has been modified by the WHO to create a more generic AT service model for training personnel based on four steps:

proper assessment, fitting, user training, and follow-up (including repair and maintenance) (WHO, 2018).

In the countries included in this survey, assistive products were provided through different mechanisms; some through trained rehabilitation teams, including physiotherapists, and others through DPOs who train community volunteers. The WHO recommended four steps of service provision are not fully integrated into the programmes implemented by HelpAge across the five countries. Each country and context faces different constraints, which are exacerbated in emergency contexts, as highlighted in the literature review. Survey questions therefore aimed to explore the level to which service provision met users' needs and areas where improvement could be made towards following the WHO recommended four steps.

4.4.1 Proper assessment and fitting

89 per cent of respondents reported that they were consulted in the assessment of their needs for assistive products and 11 per cent reported that they were not (Appendix 3 Table 12). When looking at the difference between Males and Females, the percentage of Males reporting they were consulted is slightly higher than Females, although there is very little significant difference (Appendix 4 Table 9).

79 per cent of respondents requested a product during their consultation (Appendix 3 Table 13) and reporting of the products received against those requested shows these requests were mostly met (Appendix 3 Table 14).

This would suggest the concerns and needs of older people are being listened to during the process of providing assistive products. However, it is notable that only 22 per cent of respondents felt they could request a Male or Female physician or therapist (Appendix 3 Table 18) and this raises questions regarding the quality of the assessment process which should be tailored to meet an individual's needs.

79 per cent of products were received from NGOs and 9 per cent from hospitals (Appendix 3 Table 16). This might indicate a correlation with the situation raised in the literature review; that existing poor infrastructure and health systems are put under further pressure by an emergency, resulting in the provision of services through humanitarian organisations.

30 per cent of assistive products were prescribed by a doctor or physiotherapist (Appendix 3 Table 15). A similar, but slightly higher response was given to a different question where 48 per cent of respondents reported that their needs were assessed by a doctor/physician (Appendix 3 Table 17). Only 24 per cent of respondents reported receiving physiotherapy (Appendix 3 Table 19) although it is unknown how many respondents actually required physiotherapy and would require further study.

It is unclear from this survey whether the assistive products provided required prescription by a doctor, physician or physiotherapist, or required physiotherapy. This suggests there is a need to explore the idea of certain assistive products requiring the involvement of an expert (doctor/physician/physiotherapist) whilst other, simpler and more basic products could be provided without expert input. We have to ask whether implementing a system of basic screening and triage could help identify older people who can benefit from basic assistive devices (such as torches/toilet commodes/walking sticks) without going through full service process within the highly pressured emergency situations. Identifying this distinction could enable the provision of more products quickly and easily within the constraints of an emergency context.

4.4.2 User training (including for caregivers)

The survey shows 69 per cent of respondents received training on using or maintaining assistive products, compared with 27 per cent who did not. 4 per cent did not know or did not answer (Appendix 3 Table 21). Whilst some of the respondents reporting that they did not receive training on using or maintaining their assistive product, may not have required training (for instance those receiving reading glasses), WHO recommendations indicate that all people receiving assistive products should undergo some level of user training, especially as maintenance is a key issue.

Training provided to caregivers was lower, with only 43 per cent of respondents reporting that their caregiver received training on using or maintaining the assistive product and 34 per cent reporting that they did not. 13 per cent reported that they did not have a caregiver or support (Appendix 3 Table 22). This raises the following questions:

- Would the respondents reporting that their caregiver did not receive training benefit from their caregiver receiving training?
- Would the respondents reporting not having a caregiver, benefit from a caregiver or support?
- To what level are the respondents dependent on a caregiver or support?
- What is the impact of not having a caregiver or support on older people?

The issue of dependency and need for a caregiver amongst older people has been highlighted in the literature review and is an issue which would require further study.

4.4.3 Follow-up (including repair and maintenance)

96 per cent of respondents reported that they did not need any repair or maintenance of their assistive product (Appendix 3 Table 24). Only 36 per cent of respondents reported being able to repair or replace their assistive product during the emergency (Appendix 3 Table 23). It is unclear from the survey whether this relates to respondents not needing repair and maintenance as their products did not become defective, or whether it relates to a lack of available services and information/awareness of services.

4.4.4 User experience/satisfaction with assistive product and service

The overwhelming message from the survey responses was that users were satisfied with their assistive product:

- 94 per cent said the assistive product they received was relevant to their needs (Appendix 3 Table 26).
- 90 per cent were satisfied with the quality of their assistive product (Appendix 3 Table 28).
- 77 per cent reported they found using their assistive product easy or very easy (Appendix 3 Table 29).

The most cited reason for not using a product was that they did not have anyone to assist them (9 per cent), followed by not having the right size (5 per cent), and finally the product not being suitable for the environment (4 per cent). However, most did not answer the question (79 per cent), indicating that most are using the products they have been provided with (Appendix 3 Table 30).

These positive responses, however, raise the issue of social-desirability bias, as questions have been raised in sections 4.3.3 and 4.3.4, as to whether the assistive products received meet the findings of the WGQs on disability prevalence. There is little mention of assistive products provided and used, which meet the needs for self-care (which was raised as significant area of functional difficulty by respondents). Also, few respondents report receiving, owning or using more than one product (Appendix 4 Table 5), despite 71 per cent requiring more than one according to the WGQs (Appendix 4

Table 2). Again, the question of knowledge and awareness of choice and quality of service amongst older people is raised.

Additionally, in the open-ended questions that concluded the survey 47 per cent of respondents made recommendations on improving the appropriateness of the assistive products provided in the future. Of those that made recommendations, responses were categorised and 61 per cent suggested better quality products (including more durable products and age-appropriate products). 29 per cent suggested better assessment of users needs. This somewhat contradicts the overwhelming positive responses above. 8 per cent suggested follow-up of users to ensure the product still meets the user's needs and check whether there is any repair or maintenance required and 2 per cent suggested consultation with the community. (See Appendix 3 Table 38)

4.4.5 User awareness of and referral to other services and support available

Only 33 per cent of respondents reported there was a referral mechanism for support. 54 per cent of respondents reported that there was not and 13 per cent did not know (Appendix 3 Table 32). Similarly, only 37 per cent reported they knew where to go to seek physiotherapy if needed, and 62 per cent reported that they did not know where to go (Appendix 3 Table 34).

Only 19 per cent received other forms of support (Appendix 3 Table 33), 16 per cent of which was for physical modifications to their home environment (e.g. handrails).

In contrast to the positive user experience and high levels of user satisfaction reported from the findings, it would seem that in reality there is not a wider support network available for older people requiring AT.

4.5 Impact of assistive product on users

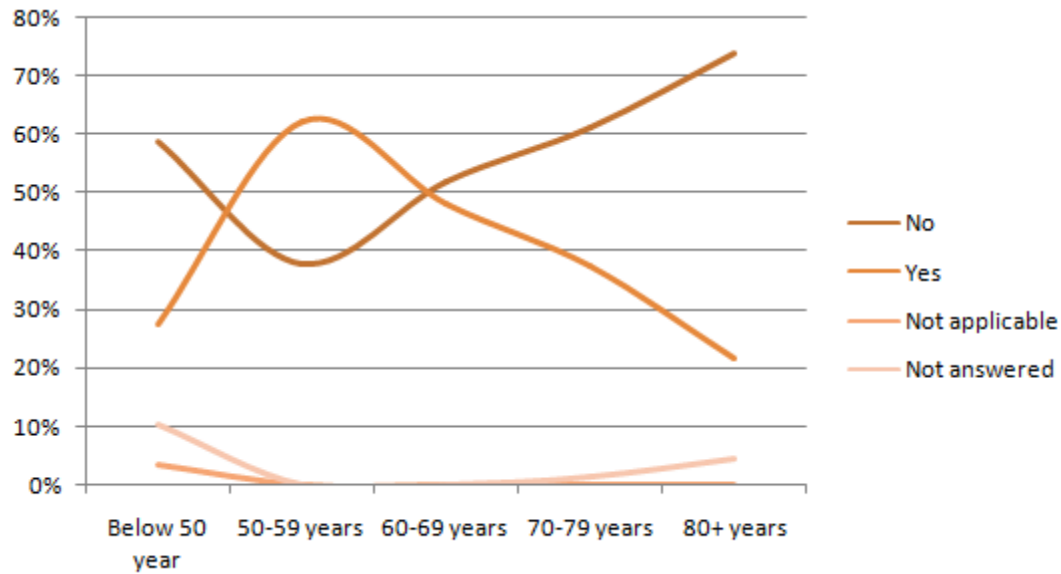
Responses to the survey strongly support the assertion that the use of an assistive product reduces the dependency of users on others. 79 per cent of respondents reported that as a result of their assistive product they are less dependent on others. Only 18 per cent reported no change, however, 2 per cent reported that they are more dependent. It is not known why this 2 per cent (6 respondents) reported a negative change, so this would require further exploration (Appendix 3 Table 36).

The notable positive impact of an assistive product on older people's sense of independence is significant given the high dependency of older people on others, as evidenced by previous RNAs carried out by HelpAge; for example in Pakistan 76 per cent of older people report dependency on family members (HelpAge 2019; 9) and 56 per cent of older people with disabilities report not being able to reach aid distribution sites alone (ibid; 12).

42 per cent of respondents reported that the assistive product has increased their ability to initiate income generating activities, whilst 56 per cent reported it had not (see Appendix 3 Table 37). Slightly more males (51 per cent) reported this positive impact on income generating activities than females (36 per cent) (Appendix 4 Table 12).

When looking at this across age groups, the number of respondents reporting that their ability to initiate income generating activities had increased, peaks in the age group 50-59 and then declines with age. Those who responded negatively were in the 60+ age group, which indicates that those in older age groups are less likely to engage in income generating activities. See Appendix 4 Table 13 and Figure 4 below.

Figure 4: Percentage of older people able to initiate income generating activities, by age group



Questions were not asked regarding respondents' feelings of safety and/or vulnerability; however, it could be inferred that reduced dependency and increased potential for income generation could reduce vulnerability, increase safety, and build resilience. The provision of an assistive product will enable users to access services and is a pre-condition to inclusion in all aspects of DRR and emergency response. This underlines the importance of recognising the need to address the AT needs of older people in national and international policy to ensure commitments to overriding principles of human rights (including the CRPD) can be met.

Further exploration of the impact on dependence/independence would be required to identify key areas where the AT can support, such as accessing aid and meeting basic needs.

5. Conclusions

There is a growing volume of literature on the intersection between older people, disability and need for AT, and acknowledgment of this intersection within humanitarian response. This is supported by increasing recognition of the needs of older people and users of AT in humanitarian response policy provisions, notably in the ISAC Guidelines released in 2019 which specifically encourage all emergency relief agencies to address the particular requirements of people with disabilities and 'make assistive devices available' (IASC, 2019; 19). With the number and magnitude of emergencies (either man-made or natural) growing, the increasing global population of people aged 60 and older, and increasing global population of people requiring AT, the provision of AT to older people both in DRR and Emergency response will be imperative.

The findings of this study identify ten key conclusions which should inform better programme planning, frameworks and policies, to ensure the provision of AT to older people, both organisationally within HelpAge International and across the wider humanitarian sector:

1. The functional difficulties most cited by older people are mobility, vision and self-care.

This correlates with available statistics across the global population and therefore supports recognition of key APs that are required in emergency settings, whilst attention must also be given to the specific products that may be useful for older people in specific contexts.

2. Older people experience multiple functional difficulties.

71 per cent of respondents experience functional difficulties in two or more areas. This highlights the need for multiple APs and a coordinated multi-disciplinary package of support for older people.

3. The number of functional difficulties experienced by older people increases with age.

The number of 80+ year olds experiencing functional difficulties peaks at 6 areas of functional difficulty, whereas 50-59 year olds peaks at 1. This highlights the need to change and increase the package of support for older people through the life course and the need for follow-up with AT users.

4. Few respondents report owning/using more than one AP, despite experiencing multiple functional difficulties.

61 per cent of respondents only had one AP but experienced two or more areas of functional difficulty. This stresses the need for a package of support for older people with AT needs, and coordination across multi-disciplinary teams.

5. The most common APs received, owned and used by older people correlates with the functional difficulties most cited, including mobility and vision. However, there is little mention of AT relating to self-care and this study does not consider cognition.

27 per cent of assistive products cited are walking sticks, 23 per cent eyeglasses, but only 6 per cent toilet commodes and no mention of other products such as continence management products. This raises important questions regarding self-care as an under explored issue, which has potentially significant impact for older people in terms of both physical and mental health. This study also does not address the issue of cognition. These gaps highlight the need to involve older people with AT needs in identifying the APs that would help them, and also involve them in planning for AT provision in DRR and emergency response.

- 6. There is a gap in provision of APs in pre-emergency situations.**
55 per cent of respondents needed an AP prior to the emergency but did not have one. This highlights the importance of setting up service provision through DRR as a risk reduction measure; AT can help older people escape and increase their resilience during the emergency as they are more independent. The gap in AP provision also suggests that AT provision should be prioritised and integrated into mainstream development programming.
- 7. A high proportion of respondents to this survey reported positive experiences of receiving an AP and the product itself.**
94 per cent of respondents reported that their product was relevant to their needs; 90 per cent that they were satisfied with the quality of the product; 77 per cent found using their product easy; and 89 per cent reported that they were consulted on the product they needed. Whilst these positive experiences reflect well on the quality of service provision and products, they also raise the question of social-desirability bias, and also whether older people are aware of the quality of service they should be receiving and quality and range of products that should be available.
- 8. A low percentage of APs were prescribed by a doctor or physiotherapist.**
Only 30 per cent of assistive products were reported to have been provided by a doctor or physiotherapist. Within the constraints of an emergency setting there may be scope to explore assistive products that could support older people but without being provided through experts. Formalising this through a process of basic screening and triage could help ensure that those who need simple products can access them quickly and easily, and that those who need more complex products, requiring an assessment and prescription process, are not overlooked.
- 9. There is little wider support to meet older people's AT needs beyond APs, and limited referral network available.**
Only 33 per cent of respondents reported a referral mechanism for support and only 19 per cent reported receiving other forms of support (predominantly in the form of physical modifications to their home environment). Given the increasing number of functional difficulties experienced by older people through the life course, further support and identification of referral networks for older people are recommended.
- 10. AT can have a positive impact on reducing older people's dependence on others, with the potential to reduce their vulnerability and build their resilience.**
79 per cent of respondents report that the assistive product had a positive impact on their independence.

The overriding conclusion from this study is that AT can be a powerful tool for the reduction of dependence and vulnerability amongst older people, and for building their resilience in humanitarian response and DRR.

6. Recommendations

The central recommendation from this report is that HelpAge ensures the provision of AT is embedded into both DRR and emergency response programmes internally through programme planning, frameworks and policies, but also through advocacy with international agencies.

To achieve this, the following recommendations are made to ensure a comprehensive approach to the provision of AT to ensure vulnerability reduction and resilience building for older people. Recommendations are informed by the above conclusions drawn from this study, however, they could be further supported by more in-depth qualitative research exploring the lived experiences of older people and impact of AT on their lives, with regards to their vulnerability, protection and independence.

6.1 Identification of need and data

The findings in this report show variations between the experiences of older people requiring AT across different age groups, suggesting that there are needs specific to older people in terms of the number and range of AT they require as they move through the life course. Findings also suggest that there are differences in AT need between Males and Females.

Clear identification of the AT needs of older people must therefore be made. There is an evident need for a package of support, which will change over time as people age and potentially require increasing number of assistive products. These measures will ensure that people receive the products and range of products that they require.

To achieve these measures, it is recommended that in any humanitarian response or DRR project, the disaggregation of data is essential. Further research and the development of research tools are required to ensure gender sensitive, age and disability inclusive data collection.

Findings also highlight that self-care is an under explored area of need, exposing a gap in data regarding the AT needs of older people relating to self-care, specifically the areas of need and different types of products that could be helpful. It is recommended that a further study is carried out to explore the issue of self-care and assistive products that could positively impact on older people's feelings of vulnerability and safety; for example a toilet commode or a head-torch to light the way to toilet facilities.

6.2 Identification of priority assistive products

Following the lead of countries such as Nepal, compiling a list of priority assistive products for DRR and emergency response, that can be adapted to be context-specific, is recommended for HelpAge programmes. The results of this study clearly show the predominant AT needs amongst older people are for assistance with mobility, vision and self-care.

These results support a list of recommended products for stockpiling in DRR compiled by Humanity & Inclusion (HI, 2012), but also suggests expanding the list to include the following assistive products:

- Walking stick
- Wheelchair
- White cane
- Eyeglasses (at least non-prescription reading glasses)
- Auxiliary crutch (adjustable in various sizes)
- Elbow crutch
- Walking frame
- Toilet chair
- Bed pan
- Urinal (urine pot)
- Anti-bedsore mattress
- Bed-protecting mat
- Torch

Humanity & Inclusion also recommends rechargeable batteries (for hearing aids) with a solar charger, and red and white spray (to support mobility in evacuation). However, these items would need further exploration as they did not form part of this study and findings suggest a relatively low need for hearing aids.

Complexities in the assessment and prescription of some items, notably wheelchairs, eyeglasses (prescription glasses) and hearing aids would need to be considered in stockpiling in DRR and provision during emergency response. Recognition must also be given to the need for simple and low-cost solutions which do not require assessment and prescription, especially in humanitarian response. Further research into such solutions and their impact is recommended.

6.3 Involvement of older people in identification of need and priority assistive products

Whilst the survey responses in this study provide a positive picture of the experiences of older people receiving assistive products, it is clear that the full range of their AT needs are not being met. The survey also indicates that older people may not be aware of the range of assistive products that should be available to them and could help improve their levels of independence and inclusion.

A key recommendation would therefore be to implement a programme of awareness raising of the issues surrounding older people requiring AT, amongst users themselves, caregivers and service providers in both DRR and emergency response. This will help ensure older people do not fall into isolation and increased vulnerability through being siloed and excluded. It will also ensure co-production of solutions with older people, ensuring they are included both in humanitarian response and planning for DRR measures. It is recognised that within DRR and emergency response “the focus tends to be on addressing needs rather than ensuring the active participation of older people and persons with disabilities in decision-making processes” (IFRC, 2018;97).

It is also recommended that HelpAge carry out a further study which specifically explores what assistive products older people would like and find helpful to them in order to increase their independence, reduce their vulnerability and build resilience, including simple products not traditionally considered, such as torches. This should also include recommendations for increasing accessibility within homes and to locations of aid distribution, and/or recommendations for accessibility audits.

6.4 Coordination and integration of service provision

It is clear from the literature and the findings of this report that the AT needs of older people are being met through targeted projects and not wider healthcare services within DRR and emergency settings. Whilst AT provided through projects, such as those implemented by HelpAge International, is effective, provision appears to lack coordination and does not meet the full needs of AT users. This situation could be improved by providing a package of support to meet multiple AT needs and linking older people into a network of support.

Firstly, it is recommended that HelpAge formalises the use of the WHO recommended four steps (proper assessment, fitting, user training, and follow-up) in DRR and emergency response programming. These four steps were developed as part of an online package of training, which is being developed for personnel involved in the provision of key assistive products (WHO, 2018). This training, alongside exploration of simple screening for AT through apps that is being carried out as part of the AT2030⁶ initiative, could form a strong basis for formalising the provision of AT within programme planning.

As indicated in 6.2, provision of AT following the four steps could also include screening to identify whether older people with AT needs have needs that can be met simply and effectively within an emergency setting, or whether their needs require more complex assessment and prescription involving multi-disciplinary teams.

Secondly, it is recommended that HelpAge also promotes the WHO 'four steps' within wider humanitarian response amongst other stakeholders to ensure the AT needs of older people are integrated into wider health systems. This includes strengthening referral networks and coordination, in addition to multi-disciplinary support, linking with rehabilitation and other professionals for guidance. Older people have multiple AT needs, and AT forms part of a process of working towards independence and inclusion, that also looks at wider needs such as the accessibility of the environment.

The positive impact that AT can have on independence, highlighted by this report, should be used by HelpAge to advocate for the inclusion of assistive product provision more generally in humanitarian response. We can clearly see that the provision of assistive products not only has a major impact on older people themselves, but also helps implementing agencies to ensure that every member of an affected population receives the services to which they are entitled, and, thereby strengthening the accountability of interventions. Access to AT is a pre-condition for inclusion. AT, and inclusion, will support protection, vulnerability reduction and resilience building for older people.

⁶ Initiative launched at the Global Disability Summit held in July 2018 and funded by DFID (matched by private sector, national governments and academic institutions) to establish 'what works' to improve access to AT (Global Disability Innovation Hub, 2020)

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Appendices

Appendix 1: Policies and frameworks recognising the need for inclusion of disabled people/older people in emergency response

Policy/framework	Date	Content
Inter-Agency Standing Committee (IASC) Guidelines: Inclusion of Persons with Disabilities in Humanitarian Action (https://interagencystandingcommittee.org/iasc-task-team-inclusion-persons-disabilities-humanitarian-action/documents/iasc-guidelines)	2019	Comprehensive guidelines on inclusion of people with disabilities with specific reference to older people and attention to age as a cross cutting issue. Also reference to assistive devices as part key to inclusion.
UNHCR Age Gender and Diversity Policy (https://www.unhcr.org/protection/women/4e7757449/unhcr-age-gender-and-diversity-policy.html)	2019	Aims to ensure that persons of concern can enjoy their rights on an equal footing and participate meaningfully in the decisions that affect their lives, families and communities. Compliance with this policy is mandatory.
The Sphere Handbook (https://handbook.spherestandards.org/en/sphere/#ch001)	2018	Guidelines based on understanding that people have the right to assistance, the right to life with dignity, the right to protection and security, and the right to fully participate in decisions related to their own recovery. Covers in five technical areas of humanitarian response: WASH, Food security, Nutrition; Shelter and settlement; Health. Specific consideration of older people and people living with disabilities is made and reference to the importance of assistive devices is present.
Humanitarian Inclusion Standards for Older People and People with Disabilities (CBM International, HelpAge International, and Handicap International) (https://reliefweb.int/report/world/humanitarian-inclusion-standards-older-people-and-people-disabilities)	2018	Produced as part of the Age and Disability Capacity Programme (ADCAP) programme and designed to be used as guidance for programming, and as a resource for training and advocacy, particularly for influencing organisational policies and practice to be more inclusive. Covers everything from data management to addressing barriers and increasing participation
Core Humanitarian Standard on Quality and Accountability (https://corehumanitarianstandard.org/the-standard)	2017	Nine Commitments to the experience that organisations and individuals involved in humanitarian response expect. Aimed to be used to improve the quality and effectiveness of the assistance. Not directly linking to age/disability/assistive technology but relevant.

Policy/framework	Date	Content
Charter on the inclusion of persons with disabilities in humanitarian action (http://humanitariandisabilitycharter.org/)	2016	Following the launch of the Sustainable Development Goals (SDGs), in 2016 the commitment to 'leave no one behind' became one of the five core commitments of the Agenda for Humanity, set at the World Humanitarian Summit. The Charter pledged to place people with disabilities at the centre of humanitarian response, and to ensure they receive protection and assistance without discrimination
Sendai Framework for Disaster Risk Reduction 2015-2030 (https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030)	2015	Adopted at the World Conference on Disaster Risk Reduction, held in Sendai, Japan. Emphasises the importance of inclusion and accessibility, and recognises the need for the involvement of people with disabilities and their organisations in the design and implementation of disaster risk reduction (DRR) policies.
All under one roof : Disability-inclusive shelter and settlements in emergencies guidelines (IFRC, Handicap International and CBM International) (https://www.ifrc.org/Global/Documents/Secretariat/Shelter/All-under-one-roof_EN.pdf)	2015	Aims to transform the way that humanitarian organisations approach inclusion and accessibility in their shelter and settlement programmes, bridging the gap between good intentions and practical implementation. Offers technical guidance for disability-inclusive shelters and settlement support in emergencies.
United Nations Convention on the Rights of Persons with Disabilities UNCRPD (https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/article-11-situations-of-risk-and-humanitarian-emergencies.html)	2006	Article 11 (on situations of risk and humanitarian emergencies) calls upon States Parties to take "all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters"
Hyogo Framework for Action 2005-2015 (https://www.unisdr.org/2005/wcdr/intergover/official-doc/L-docs/Hyogo-framework-for-action-english.pdf)	2005	Adopted at the World Conference on Disaster Reduction held in Hyogo, Japan. Replaced by the Sendai Framework in 2015.
Political Declaration and Madrid International Plan of Action on Aging (https://www.un.org/development/desa/ageing/madrid-plan-of-action-and-its-implementation.html)	2002	Adopted at the Second World Assembly on Aging, Madrid, Spain and agreed by 159 governments. Recognises the rights of older people including making reference to assistive technology and also supports increasing access to aid for older people during and post emergency situations.

Appendix 2: HelpAge study tool (Survey)

QUESTIONNAIRE FOR OLDER PERSONS AND PERSON WITH DISABILITIES

Interviewer instructions are written in **BOLD** throughout, please follow instructions carefully and ensure that the filtering and guidance are followed

INTERVIEWER INSTRUCTIONS:

- Enumerators need to interview respondents one by one.
- Give a chance to the respondents to ask questions if they do not understand some words.
- Ensure you have collected and recorded consent using the relevant forms

ADD IN DESCRIPTION OF THE RESEARCH, PARTICIPATION GUIDANCE AND CONFIRMATION OF CONSENT

TO BE COMPLETED BY INTERVIEWER:

Date of Interview

Name of Interviewer

Country of interview (**please tick (✓) only one answer**)

Bangladesh

India

Indonesia

Myanmar

Nepal

Pakistan

Location (**please tick (✓) only one answer**)

Rural

Semi-urban

Urban

Humanitarian Response – If applicable (**please tick (✓) only one answer**)

Flood

Earthquake

Cyclone

Other.....

Beneficiary Involvement – If applicable (**please tick (✓) only one answer**)

Pre- Disaster

Post-Disaster

Both

Sex of respondent (**please tick (✓) only one answer**)

Man

Woman

Questionnaire:

ASK ALL

Q1. How old are you? **(please tick (✓) only one answer)**

- Below 50 year
- 50-59 years
- 60-69 years
- 70-79 years
- 80 + years

ASK ALL

Q2. Do you have difficulty with the following? **(please tick (✓) only one answer for each option)**

**No – no
difficult**

**Yes –
some
difficulty**

**Yes – a
lot of
difficulty**

**Cannot
do at all**

- a. difficulty seeing, even if wearing glasses?
- b. difficulty hearing, even if using a hearing aid?
- c. difficulty walking or climbing steps?
- d. difficulty (with self-care such as) washing all over or dressing?
- e. Using your usual (customary) language, do you have difficulty communicating, for example understanding or being understood?
- f. difficulty leaving your home or getting out of bed?

ASK ONLY THOSE WHO ARE BENEFICIARIES OF A EMERGENCY / DISASTER RESPONSE – OTHER RESPONDENTS GO TO Q4

Q3. Which of the following statements describes your situation best **(please tick (✓) only one answer)**

- 1 I did not need to use any assistive products before the emergency
- 2 I needed assistive products before the emergency, but I did not have them
- 3 I had and used assistive products before the emergency
- 4 Don't know / not sure

ASK ALL

Q4. Which of the following assistive products do you have? **(please tick (✓) ALL THAT APPLY)**

- 1 Walking stick
- 2 White cane
- 3 Wheelchair
- 4 Auxiliary Crutches
- 5 Elbow crutches
- 6 Urine Pot
- 7 Toilet Commode
- 8 Eyeglasses
- 9 Torch
- 10 Anti-bedsore mattress
- 11 Bed Protecting Mat (Rexin)
- 12 Walker (Adjustable)
- 13 Hearing Aid
- 14 Magnifying Glass
- 15 Prothesis & Orthotics
- 16 Any other -----

ASK ALL

Q5. Were you consulted about the assistive products you are using or need?

(please tick (✓) only one answer)

- | | | |
|---|-----------------------|-----------------|
| 1 | Yes | GO TO Q6 |
| 2 | No | GO TO Q8 |
| 3 | Don't know / not sure | GO TO Q8 |

ASK ONLY THOSE WHO ANSWER YES AT Q5

Q6. During the consultation did you request any assistive products?

(please tick (✓) only one answer)

- | | | |
|---|-----------------------|-----------------|
| 1 | Yes | GO TO Q7 |
| 2 | No | GO TO Q8 |
| 3 | Don't know / not sure | GO TO Q8 |

ASK ONLY THOSE WHO ANSWER YES AT Q6

Q7a. Which products did you request?

Q7b. And which products did you receive?

REQUESTED	RECEIVED
(✓)	(✓)

(please tick (✓) ALL THAT APPLY)

- 1 Walking stick
- 2 White cane
- 3 Wheelchair
- 4 Auxiliary Crutches
- 5 Elbow crutches
- 6 Urine Pot
- 7 Toilet Commode
- 8 Eyeglasses
- 9 Torch
- 10 Anti-bedsore mattress
- 11 Bed Protecting Mat (Rexin)
- 12 Walker (Adjustable)
- 13 Hearing Aid
- 14 Magnifying Glass
- 15 Prothesis & Orthotics
- 16 Any other -----

ASK ONLY THOSE WHO ARE BENEFICIARIES OF A EMERGENCY / DISASTER RESPONSE – OTHER RESPONDENTS GO TO Q10

Q8. Of the products that you have, which were provided during the disaster?

ASK ONLY THOSE PRODUCTS ANSWER AT Q4

(please tick (✓) ALL THAT APPLY)

- 1 Walking stick
- 2 White cane
- 3 Wheelchair
- 4 Auxiliary Crutches
- 5 Elbow crutches
- 6 Urine Pot
- 7 Toilet Commode
- 8 Eyeglasses
- 9 Torch
- 10 Anti-bedsore mattress
- 11 Bed Protecting Mat (Rexin)
- 12 Walker (Adjustable)
- 13 Hearing Aid
- 14 Magnifying Glass
- 15 Prothesis & Orthotics
- 16 Any other -----

ASK ONLY THOSE WHO ARE BENEFICIARIES OF AN EMERGENCY / DISASTER RESPONSE

Q9. How well was your need for assistive products addressed or identified?

(please tick (✓) only one answer)

- 1 I wasn't asked / my needs were not identified
- 2 My needs were addressed but it took a long time
- 3 My needs were addressed well and on time
- 4 Don't know / not sure

ASK ALL

Q10. Which of the following assistive devices are you **using?**

ASK ONLY THOSE INDICATED AT Q4

(please tick (✓) ALL THAT APPLY)

- 1 Walking stick
- 2 White cane
- 3 Wheelchair
- 4 Auxiliary Crutches
- 5 Elbow crutches
- 6 Urine Pot
- 7 Toilet Commode
- 8 Eyeglasses
- 9 Torch
- 10 Anti-bedsore mattress
- 11 Bed Protecting Mat (Rexin)
- 12 Walker (Adjustable)
- 13 Hearing Aid
- 14 Magnifying Glass
- 15 Prothesis & Orthotics
- 16 Any other -----

ASK ALL

Q11a. How long have you had the product?

Q11b. How often do you use it?

(please tick (✓) only one answer for each product)

*** ASK ONLY THOSE INDICATED AT Q10**

		Y / M / D	Everyday	Regularly	Occasionally	Never
1	Walking stick					
2	White cane					
3	Wheelchair					
4	Auxiliary Crutches					
5	Elbow crutches					
6	Urine Pot					
7	Toilet Commode					
8	Eyeglasses					
9	Torch					
10	Anti-bedsore mattress					
11	Bed Protecting Mat (Rexin)					
12	Walker (Adjustable)					
13	Hearing Aid					
14	Magnifying Glass					
15	Prothesis & Orthotics					
16	Any other -----					

ASK ALL – INSERT UNUSED PRODUCTS INTO THE TOP ROW – PRODUCTS THAT RESPONDENTS HAVE (Q4) BUT ARE NOT USING (NOT INDICATED AT Q10)

Q12. Of the products you have but are not using, why are you not using them?

Please tick (✓) ALL REASONS THAT APPLY for each product)		INSERT PRODUCT	INSERT PRODUCT	INSERT PRODUCT	INSERT PRODUCT	INSERT PRODUCT
1	It's not the right size / doesn't fit					
2	It is too difficult to use					
3	I don't know how to use it					
4	Not suitable for my home / environment					
5	I don't have anyone to support me using it					
6	Any other -----					
7	Don't know					

ASK ALL

Q13. In general, who prescribed /recommended the assistive product/products for you?

(please tick (✓) only one answer)

- 1 Doctor / physio therapist
- 2 NGO
- 3 Other-----
- 4 I chose it myself / had no recommendation
- 5 Don't know / not sure

ASK ALL

Q14 In general, where did you get the assistive products you are using from?

(please tick (✓) ALL THAT APPLY)

- 1 Hospital
- 2 Shop
- 3 NGO
- 4 Other.....
- 5 Don't know / not sure

THE NEXT SECTION ASKS QUESTIONS FOCUSING IN THE PRODUCT THE RESPONDENT USES THE MOST AT Q10

IF RESPONDENT USES 2 OR MORE PRODUCTS THE SAME ASK RESPONDENT WHICH PRODUCT IS MOST IMPORTANT TO THEM AND ASK THE NEXT QUESTIONS ABOUT THAT PRODUCT

Thinking specifically about the assistive product you use the most

..... <INSERT PRODUCT>.....

ASK ALL

Q15. Is the assistive product relevant to your needs?

(please tick (✓) only one answer)

- 1 Yes
- 2 No
- 3 Don't know / not sure

ASK ONLY THOSE WHO ARE BENEFICIARIES OF A EMERGENCY / DISASTER RESPONSE – OTHER RESPONDENTS SKIP TO Q19

Q16. Was the assistive product relevant to your needs during the emergency?

(please tick (✓) only one answer)

- 1 Yes
- 2 No
- 3 Don't know / not sure

ASK ONLY THOSE WHO ARE BENEFICIARIES OF A EMERGENCY / DISASTER RESPONSE

Q17. During the emergency situation was your assistive device lost or damaged?

(please tick (✓) only one answer)

- 1 No **GO TO Q19**
- 2 Lost **GO TO Q18**
- 3 Damaged **GO TO Q18**
- 4 I wasn't able to use it during the emergency **GO TO Q19**
- 5 Don't know / not sure **GO TO Q19**

ASK ONLY THOSE WHO ARE BENEFICIARIES OF A EMERGENCY / DISASTER RESPONSE

Q18. Were you able to repair or replace the product?

(please tick (✓) only one answer)

- 1 Yes
- 2 No
- 3 Don't know / not sure

ASK ALL

Q19. If you lost or damaged your assistive product, where would you go to replace or repair it?

(please tick (✓) ALL THAT APPLY)

- 1 Hospital
- 2 Shop
- 3 NGO
- 4 Other.....
- 5 Don't know / not sure

ASK ALL

Q20. Were you satisfied with the quality of provided assistive product?

(please tick (✓) only one answer)

- 1 Yes
- 2 No
- 3 Don't know / not sure

ASK ALL

Q21. Did you ever require maintenance/ replacement of your assistive product?

(please tick (✓) only one answer)

- 1 Yes **GO TO Q22**
- 2 No **GO TO Q23**
- 3 Don't know / not sure **GO TO Q23**

ASK ONLY THOSE WHO ANSWER 'YES' AT Q21

Q22. Which of the following best describes the service provider you were able to access for the maintenance / repairs

(please tick (✓) only one answer)

- 1 Easily Accessible to me
- 2 Affordable
- 3 Easily Accessible and affordable
- 4 Neither accessible or affordable
- 5 Don't know / not sure

ASK ALL

Q23. Were trainings/ orientations/ guidance provided to you on using and maintenance of your product?

(please tick (✓) only one answer)

- 1 Yes
- 2 No
- 3 Don't know / not sure

ASK ALL

Q24. Were caregivers provided any training/orientation?

(please tick (✓) only one answer)

- 1 Yes
- 2 No
- 3 Don't know / not sure
- 4 I don't have any care givers / support

ASK ALL

Q25. Is there any referral mechanism to provide you further required support?

(please tick (✓) only one answer)

- 1 Yes
- 2 No
- 3 Don't know / not sure

ASK ALL

Q26. Apart from provision of assistive products, what measures were taken to facilitate you?

(please tick (✓) only one answer)

- 1 None
- 2 Accessible house design
- 3 Fixtures in Toilet
- 4 Room rail holders
- 5 Other.....
- 6 Don't know / not sure

ASK ALL

Q27. Were your needs assessed or prescribed by a doctor or physician?

(please tick (✓) only one answer)

- 1 Yes
- 2 No
- 3 Don't know / not sure

ASK ALL

Q28. Were you able to request a male / female physician / therapist **(CHANGE SEX DEPENDANT ON RESPONDENT)** available to prescribe/assess your needs if you wanted to?

(please tick (✓) only one answer)

- 1 Yes
- 2 No
- 3 Don't know / not sure

ASK ALL

Q29. Have you ever received physiotherapy?

(please tick (✓) only one answer)

- 1 Yes
- 2 No
- 3 Don't know / not sure

GO TO Q30
GO TO Q31
GO TO Q31

ASK ONLY THOSE WHO INDICATE YES AT Q29

Q30. Has physiotherapy helped to reduce your dependence on assistive product / or improved your ability to manage them?

(please tick (✓) only one answer)

- 1 Yes
- 2 No
- 3 Don't know / not sure

ASK ALL

Q31. Would you know where to go to if you needed physiotherapy?

(please tick (✓) only one answer)

- 1 Yes
- 2 No
- 3 Don't know / not sure

ASK ALL

Q32. How, if at all, has your assistive product affected your dependency on others?

(please tick (✓) only one answer)

- 1 Less dependant
- 2 More dependant
- 3 No change

ASK ALL

Q33. Did the assistive product help you in initiating any income generating activity like employability or small-scale business?

(please tick (✓) only one answer)

- 1 Yes
- 2 No

ASK ALL

Q34. How difficult do you find your assistive product to use?

(please tick (✓) only one answer)

INSERT MOST USED DEVICE	LEVEL OF DIFFICULTY				
	Very Easy	Easy	Neutral	Difficult	Very Difficult

ASK ONLY THOSE WHO INDICATE 'DIFFICULT / VERY DIFFICULT' AT Q34

Q35. What are the reasons you find this assistive product challenging?

WRITE IN

ASK ALL

Q36. How important do you feel it is to provide assistive devices in an emergency?
(please tick (✓) only one answer)

Very Important	Moderately Important	Neutral	Slightly Important	Not important
----------------	----------------------	---------	--------------------	---------------

ASK ALL

Q37. What could be done to improve the appropriateness of devices provided in future?
WRITE IN

ASK ALL

Q38. What could be done to improve the accessibility of assistive devices provided in future?
WRITE IN

ASK ALL

Q39. What could be done to improve the affordability of assistive devices provided in future?
WRITE IN

Thank respondent and close.

-END-

Appendix 3: Tables (data from survey questions)

List of Tables (including relevant survey question)

1.	Background
	Table 1: Country
	Table 2: Disaster Risk Reduction/Emergency response
	Table 3: Location (urban/rural)
	Table 4: Male/Female
	Table 5: Age (Survey question 1)
2.	Disability
	Table 6: Degree of functional difficulty experienced by respondents across six domains (Survey question 2)
3.	Assistive products
	Table 7: Assistive products owned by respondents (Survey question 4)
	Table 8: Assistive products being used by respondents (Survey question 10)
	Table 9: Need for and access to assistive products pre-emergency (Survey question 3)
	Table 10: Loss or damage to assistive products during emergency (Survey question 17)
	Table 11: Assistive products received during emergency (Survey question 8)
4.	Service provision
	Table 12: Users consulted on the assistive products they use or need (Survey question 5)
	Table 13: Users requested an assistive product during consultation (Survey question 6)
	Table 14: Assistive products requested and received (Survey question 7)
	Table 15: Who prescribed / recommended the assistive product(s) (Survey question 13)
	Table 16: Where assistive product(s) were received from (Survey question 14)
	Table 17: Needs assessed or prescribed by a doctor or physician (Survey question 27)
	Table 18: Users able to request a male / female physician or therapist (Survey question 28)
	Table 19: Physiotherapy received (Survey question 29)
	Table 20: Reduction in dependence on assistive product or improved ability to manage product as a result of physiotherapy (Survey question 30)
5.	Training for users and caregivers
	Table 21: Training on using and maintenance assistive product provided to users (Survey question 23)
	Table 22: Training on using and maintenance assistive product provided to caregivers (Survey question 24)
6.	Follow-up, repair and maintenance
	Table 23: Able to repair or replace assistive product during emergency (Survey question 18)
	Table 24: Maintenance/ replacement of assistive product required (Survey question 21)
7.	User experience/satisfaction with assistive product and service
	Table 25: How well needs for assistive products were addressed or identified (Survey question 9)

	Table 26: Assistive product relevant to user needs (Survey question 15)
	Table 27: Assistive product relevant to user needs during emergency (Survey question 16)
	Table 28: User satisfied with the quality of assistive product (Survey question 20)
	Table 29: Ease of use of assistive products for users (Survey question 34)
	Table 30: Reasons for users not using products (Survey question 12)
	Table 31: Experience of maintenance / repair service (Survey question 22)
8.	User awareness of and referral to other services and support available
	Table 32: Knowledge of any referral mechanisms for further support (Survey question 25)
	Table 33: Receipt of any other type of support (Survey question 26)
	Table 34: Knowledge of where to go to access physiotherapy (Survey question 31)
	Table 35: Knowledge of where to go to replace or repair assistive product (Survey question 19)
9.	Impact of assistive product on users
	Table 36: Impact on users' dependency on others (Survey question 32)
	Table 37: Impact on users' ability to initiate income generating activities (Survey question 33)
10.	Open-ended questions
	Table 38: Recommendations to improve the appropriateness of products provided in future (Survey question 37)

1. Background

Table 1: Country

	Number of respondents	Percentage of respondents
Bangladesh	100	40%
Indonesia	40	16%
Myanmar	18	7%
Nepal	40	16%
Pakistan	54	21%
Total	252	100%

Table 2: Disaster Risk Reduction/Emergency response

	Number of respondents	Percentage of respondents
DRR	158	63%
Emergency response	94	37%
Total	252	100%

Table 3: Location (urban/rural)

	Number of respondents	Percentage of respondents
Rural	218	87%
Semi-urban	31	12%
Urban	1	0%
Not answered	2	1%
Total	252	100%

Table 4: Female/male

	Number of respondents	Percentage of respondents
Female	146	58%
Male	106	42%
Total	252	100%

Table 5: Age

	Number of respondents	Percentage of respondents
Below 50 year	29	12%
50-59 years	37	15%
60-69 years	83	33%
70-79 years	80	32%
80+ years	23	9%
Total	252	100%

2. Disability

Table 6: Degree of functional difficulty experienced by respondents across six domains

	Seeing		Hearing		Walking or climbing steps		Self-care		Communi-cation		Leaving the house/ getting out of bed	
No - no difficulty	91	36%	165	65%	55	22%	89	35%	151	60%	78	31%
Yes - some difficulty	112	44%	41	16%	77	31%	67	27%	51	20%	98	39%
Yes - a lot of difficulty	35	14%	17	7%	84	33%	57	23%	16	6%	36	14%
Cannot do at all	8	3%	5	2%	26	10%	17	7%	6	2%	14	6%
Not answered	6	2%	24	10%	10	4%	22	9%	28	11%	26	10%
Total	252	100%	252	100%	252	100%	252	100%	252	100%	252	100%

3. Assistive products

Table 7: Assistive products owned by respondents (primary product only)

	Number of respondents	Percentage of respondents
Walking stick	69	27%
Eyeglasses	58	23%
Wheelchair	29	12%
Toilet Commode	15	6%
Auxiliary Crutches	13	5%
Torch	13	5%
Any other	11	4%
Any other - Tricycle	9	4%
Elbow Crutches	8	3%
Hearing Aid	6	2%
Walker (Adjustable)	6	2%
White Cane	6	2%
Anti-bedsore mattress	4	2%
Urine Pot	3	1%
Bed Protecting Mat (Rexin)	2	1%
Total	252	100%

Table 8: Assistive products being used by respondents

	Number of respondents	Percentage of respondents
Walking stick	66	26%
Eyeglasses	60	24%
Wheelchair	29	12%
Toilet Commode	15	6%
Auxiliary Crutches	12	5%
Any other	11	4%
Torch	10	4%
Any other - Tricycle	9	4%
Elbow Crutches	8	3%
White Cane	7	3%
Hearing Aid	6	2%
Walker (Adjustable)	5	2%
Anti-bedsore mattress	4	2%
Bed Protecting Mat (Rexin)	2	1%
Urine Pot	1	0%
Not answered	7	3%
Total	252	100%

Table 9: Need for and access to assistive products pre-emergency

	Number of respondents	Percentage of respondents
I did not need to use any assistive products before the emergency	42	30%
I had and used assistive products before the emergency	19	14%
I needed assistive products before the emergency but I did not have them	76	55%
Don't know / not sure	1	1%
Total	138	100%

Note: total number of respondents includes only those who answered the question as the question focuses specifically on respondents interviewed post-emergency (and not those in DRR situations).

Table 10: Loss or damage to assistive products during emergency

	Number of respondents	Percentage of respondents
Lost	15	11%
Damaged	19	14%
I wasn't able use it during the emergency	7	5%
No	94	69%
Don't know / not sure	1	1%
Total	136	100%

Note: total number of respondents includes only those who answered the question as the question focuses specifically on respondents interviewed post-emergency (and not those in DRR situations).

Table 11: Assistive products received during emergency

	Number of respondents	Percentage of respondents
Eyeglasses	38	29%
Any other	24	18%
Walking stick	24	18%
Wheelchair	16	12%
Any other - Tricycle	6	5%
Toilet Commode	6	5%
Torch	6	5%
Auxiliary Crutches	3	2%
Hearing Aid	3	2%
Elbow Crutches	2	2%
Urine Pot	2	2%
White Cane	2	2%
Walker (Adjustable)	1	1%
Total	133	100%

Note: total number of respondents includes only those who answered the question as the question focuses specifically on respondents interviewed post-emergency (and not those in DRR situations).

4. Service provision

Table 12: Users consulted on the assistive products they use or need

	Number of respondents	Percentage of respondents
Don't know / not sure	1	0%
No	27	11%
Yes	224	89%
Total	252	100%

Table 13: Users requested an assistive product during consultation

	Number of respondents	Percentage of respondents
Don't know / not sure	1	0%
No	40	16%
Yes	198	79%
Not answered	13	5%
Total	252	100%

Table 14: Assistive products requested and received

	Requested		Received	
Walking Stick	57	23%	57	23%
Eyeglasses	49	19%	49	19%
Wheelchair	32	13%	29	12%
Toilet Commode	17	7%	15	6%
Torch	12	5%	12	5%
Auxiliary Crutches	10	4%	12	5%
Any other	9	4%	9	4%
Any other - Tricycle	9	4%	9	4%
Hearing Aid	8	3%	6	2%
Anti-bedsore mattress	4	2%	4	2%
Elbow Crutches	4	2%	7	3%
Urine Pot	3	1%	3	1%
White Cane	3	1%	4	2%
Bed Protecting Mat (Rexin)	2	1%	2	1%
Walker (Adjustable)	1	0%	2	1%
Not answered	32	13%	32	13%
Total	252	100%	252	100%

Table 15: Who prescribed / recommended the assistive product(s)

	Number of respondents	Percentage of respondents
Doctor / physiotherapist	75	30%
NGO	140	56%
I chose it myself / had no recommendation	20	8%
Other	8	3%
Don't know / not sure	7	3%
Not answered	2	1%
Total	252	100%

Table 16: Where assistive product(s) were received from

	Number of respondents	Percentage of respondents
Hospital	22	9%
NGO	199	79%
Shop	23	9%
Other	1	0%
Don't know / not sure	7	3%
Total	252	97%

Table 17: Needs assessed or prescribed by a doctor or physician

	Number of respondents	Percentage of respondents
Don't know / not sure	27	11%
No	105	42%
Yes	120	48%
Total	252	100%

Table 18: Users able to request a male / female physician or therapist

	Number of respondents	Percentage of respondents
Don't know / not sure	58	23%
No	137	54%
Yes	56	22%
Not answered	1	0%
Total	252	100%

Table 19: Physiotherapy received

	Number of respondents	Percentage of respondents
Don't know / not sure	10	4%
No	180	71%
Yes	61	24%
Not answered	1	0%
Total	252	100%

Table 20: Reduction in dependence on assistive product or improved ability to manage product as a result of physiotherapy

	Number of respondents	Percentage of respondents
Don't know / not sure	30	26%
No	42	36%
Yes	44	38%
Total	116	100%

Note: total number of respondents includes only those who answered the question as the question focuses specifically on respondents interviewed who received physiotherapy.

5. Training for users and caregivers

Table 21: Training on using and maintenance assistive product provided to users

	Number of respondents	Percentage of respondents
Don't know / not sure	8	3%
No	68	27%
Yes	174	69%
Not answered	2	1%
Total	252	100%

Table 22: Training on using and maintenance assistive product provided to caregivers

	Number of respondents	Percentage of respondents
Don't know / not sure	22	9%
I don't have any care givers / support	34	13%
No	85	34%
Yes	109	43%
Not answered	2	1%
Total	252	100%

6. Follow-up, repair and maintenance

Table 23: Able to repair or replace assistive product during emergency

	Number of respondents	Percentage of respondents
Don't know / not sure	14	13%
No	56	51%
Yes	39	36%
Total	109	100%

Note: total number of respondents includes only those who answered the question as the question focuses specifically on respondents interviewed post-emergency (and not those in DRR situations).

Table 24: Maintenance/ replacement of assistive product required

	Number of respondents	Percentage of respondents
Don't know / not sure	9	4%
No	242	96%
Not answered	1	0%
Total	252	100%

7. User experience/satisfaction with assistive product and service

Table 25: How well needs for assistive products were addressed or identified

	Number of respondents	Percentage of respondents
Don't know / not sure	1	1%
I wasn't asked / my needs were not identified	9	6%
My needs were addressed but it took a long time	25	17%
My needs were addressed well and on time	115	77%
Total	150	100%

Note: total number of respondents includes only those who answered the question as the question focuses specifically on respondents interviewed post-emergency (and not those in DRR situations).

Table 26: Assistive product relevant to user needs

	Number of respondents	Percentage of respondents
No	16	6%
Yes	236	94%
Total	252	100%

Table 27: Assistive product relevant to user needs during emergency

	Number of respondents	Percentage of respondents
Don't know /not sure	2	1%
No	17	7%
Yes	121	48%
Not answered	112	44%
Total	252	100%

Table 28: User satisfied with the quality of assistive product

	Number of respondents	Percentage of respondents
Don't know / not sure	6	2%
No	19	8%
Yes	227	90%
Total	252	100%

Table 29: Ease of use of assistive products for users

	Number of respondents	Percentage of respondents
Very Easy	114	45%
Easy	81	32%
Neutral	13	5%
Difficult	9	4%
Very Difficult	7	3%
Not answered	28	11%
Total	252	100%

Table 30: Reasons for users not using products

	Number of respondents	Percentage of respondents
I don't have anyone to support me using it	23	9%
I don't know how to use it	2	1%
It is not the right size / doesn't fit	12	5%
Not suitable for my home / environment	9	4%
Any other - damaged	1	0%
Any other	4	2%
Don't know	2	1%
Not answered	199	79%
Total	252	100%

Table 31: Experience of maintenance / repair service

	Number of respondents	Percentage of respondents
Easily accessible to me	15	6%
Affordable	5	2%
Easily accessible and affordable	9	4%
Neither accessible or affordable	10	4%
Don't know / not sure	33	13%
Not answered	180	71%
Total	252	100%

8. User awareness of and referral to other services and support available

Table 32: Knowledge of any referral mechanisms for further support

	Number of respondents	Percentage of respondents
Don't know / not sure	33	13%
No	136	54%
Yes	83	33%
Total	252	100%

Table 33: Receipt of any other type of support

	Number of respondents	Percentage of respondents
Handrails/other physical modification to home	40	16%
Financial support	2	1%
Other	6	2%
None	204	81%
Total	252	100%

Note: categorised from question answers

Table 34: Knowledge of where to go to access physiotherapy

	Number of respondents	Percentage of respondents
Don't know / not sure	44	17%
No	114	45%
Yes	92	37%
Not answered	2	1%
Total	252	100%

Table 35: Knowledge of where to go to replace or repair assistive product

	Number of respondents	Percentage of respondents
Don't know / not sure	72	29%
Hospital	15	6%
NGO	71	28%
Shop	88	35%
Other	3	1%
Not answered	3	1%
Total	252	100%

9. Impact of assistive product on users

Table 36: Impact on users' dependency on others

	Number of respondents	Percentage of respondents
Less dependant	200	79%
More dependant	6	2%
No change	46	18%
Total	252	100%

Table 37: Impact on users' ability to initiate income generating activities

	Number of respondents	Percentage of respondents
No	140	56%
Yes	106	42%
Not applicable	1	0%
Not answered	5	2%
Total	252	100%

10. Open-ended questions

Table 38: Recommendations to improve the appropriateness of products provided in future

	Number of respondents	Percentage of respondents
Better quality products (durable and age appropriate)	73	61%
Proper consultation and assessment of user needs and environment	35	29%
Follow up (including repair and maintenance)	9	8%
Consultation with community	2	2%
Total responses	119	100%

Appendix 4: Tables (data from cross-analysis of survey questions)

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1. Disability

Table 1: Example of functional difficulty experienced by males/females: Self-care

	Female		Male	
No - no difficulty	46	32%	43	41%
Yes - some difficulty	33	23%	34	32%
Yes - a lot of difficulty	40	27%	17	16%
Cannot do at all	13	9%	4	4%
Not answered	14	10%	8	8%
Total	146	100%	106	100%

Table 2: Number of domains in which respondents experience some degree of functional difficulty (including some, a lot or cannot do at all)

	Number of respondents	Percentage of respondents
None	12	5%
One	33	13%
Two	30	12%
Three	49	19%
Four	41	16%
Five	31	12%
Six	28	11%
Not answered	28	11%
Total	252	100%

Table 3: Number of domains in which respondents experience some degree of difficulty by male/female

	Female		Male	
None	5	3%	7	7%
One	20	14%	13	12%
Two	11	8%	19	18%
Three	29	20%	20	19%
Four	24	16%	17	16%
Five	21	14%	10	9%
Six	16	11%	12	11%
N/A	20	14%	8	8%
Total	146	100%	106	100%

Table 4: Number of domains in which respondents experience some degree of functional difficulty by age group

Number of domains	Below 50 year	50-59 years	60-69 years	70-79 years	80+ years	Total
None	2	2	3	4	1	12
One	3	12	14	4		33
Two	3	5	12	9	1	30
Three	12	8	20	8	1	49
Four	9	5	9	14	4	41
Five		3	11	15	2	31
Six		2	6	10	10	28
Not answered			8	16	4	28
Total	29	37	83	80	23	252

Note: table shows numbers not percentages and highlighted cells show values >10 in age groups and >40 in the total.

Table 5: Number of domains in which respondents experience some degree of functional difficulty against number of products respondents using

Number of domains	Number of assistive products respondents using				
	No product	1 product	2 products	3 products	Total
0	2	10			12
1	1	31	1		33
2		25	4	1	30
3	2	42	5		49
4	1	37	3		41
5		28	3		31
6	1	21	4	2	28
Not answered		28			28
Total	7	222	20	3	252

Note: table shows numbers not percentages and highlighted cells show values discussed in the report.

2. Assistive products

Table 6: Assistive products owned categorised by domains to cross check with domain analysis

	Number of respondents	Percentage of respondents
Seeing	64	25%
Hearing	6	2%
Walking or climbing steps	134	53%
Self-care	24	10%
Leaving the house/getting out of bed	13	5%
Other	11	4%
Total	252	100%

Table 7: Assistive products owned by respondents by male/female

	Female		Male	
Walking Stick	40	27%	29	27%
Eyeglasses	35	24%	23	22%
Wheelchair	21	14%	8	8%
Toilet Commode	11	8%	4	4%
Auxiliary Crutches	3	2%	10	9%
Torch	6	4%	7	7%
Any other	5	3%	6	6%
Any other - Tricycle	3	2%	6	6%
Elbow Crutches	1	1%	7	7%
Hearing Aid	3	2%	3	3%
Walker (Adjustable)	5	3%	1	1%
White Cane	5	3%	1	1%
Anti-bedsore mattress	4	3%		0%
Urine Pot	2	1%	1	1%
Bed Protecting Mat (Rexin)	2	1%		0%
Total	146	100%	106	100%

Table 8: Assistive products owned by respondents by DRR/Response

	DRR		Response	
Walking Stick	49	31%	20	21%
Eyeglasses	33	21%	25	27%
Wheelchair	5	3%	24	26%
Toilet Commode	13	8%	2	2%
Auxiliary Crutches	10	6%	3	3%
Torch	13	8%		0%
Any other	11	7%		0%
Any other - Tricycle		0%	9	10%
Elbow Crutches	4	3%	4	4%
Hearing Aid	5	3%	1	1%
Walker (Adjustable)	3	2%	3	3%
White Cane	4	3%	2	2%
Anti-bedsore mattress	4	3%		0%
Urine Pot	2	1%	1	1%
Bed Protecting Mat (Rexin)	2	1%		0%
Total	158	100%	94	100%

3. Service provision

Table 9: Users consulted on the assistive products they use or need by male/female

	Female		Male	
Don't know / not sure		0%	1	1%
No	17	12%	10	9%
Yes	129	88%	95	90%
Total	146	100%	106	100%

4. Training for users and caregivers

Table 10: Training on using and maintenance assistive product provided to users by male/female

	Female		Male	
Don't know / not sure	7	5%	1	1%
No	36	25%	32	30%
Yes	101	69%	73	69%
Not answered	2	1%		0%
Total	146	100%	106	100%

5. User experience/satisfaction with assistive product and service

Table 11: Reasons for users not using products by male/female

	Female		Male	
I don't have anyone to support me using it	14	10%	9	8%
I don't know how to use it		0%	2	2%
It is not the right size / doesn't fit	10	7%	2	2%
Not suitable for my home / environment	4	3%	5	5%
Any other - damaged		0%	1	1%
Any other	3	2%	1	1%
Don't know	2	1%		0%
Not answered	113	77%	86	81%
Total	146	100%	106	100%

6. Impact of assistive product on users

Table 12: Impact on users' ability to initiate income generating activities by male/female

	Female		Male	
No	90	62%	50	47%
Yes	52	36%	54	51%
Not applicable		0%	1	1%
Not answered	4	3%	1	1%
Total	146	100%	106	100%

Table 13: Impact on users' ability to initiate income generating activities by age group

	Below 50 year		50-59 years		60-69 years		70-79 years		80+ years	
No	17	59%	14	38%	43	52%	49	61%	17	74%
Yes	8	28%	23	62%	40	48%	30	38%	5	22%
Not applicable	1	3%		0%		0%		0%		0%
Not answered	3	10%		0%		0%	1	1%	1	4%
Total	29	100%	37	100%	83	100%	80	100%	23	100%

HelpAge International is a global network of organisations promoting the right of all older people to lead dignified, healthy and secure lives.

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