

Acknowledgements

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 - Kylie Mines (Motivation Australia)
- Results come from 100 contributors in the sector...
- *Funding through WHO Kobe was from Japanese Ministry of Health, Labour and Welfare*



Assistive Devices (AD)

AD is commonly referred to as Assistive Technology (AT), and also known as 'aids and equipment'

The World Health Organisation (2004):

'any device or system that allows individuals to perform tasks they would otherwise be unable to do or increases the ease and safety with which tasks can be performed'

Survey used term Assistive Devices (AD)

Medical devices (MD)

Medical devices are diverse and widely regulated

Global Harmonization Task Force (GHTF) definition

This survey focused on MD for:

- ❑ cardiovascular diseases, malignant neoplasms, sense organ diseases and respiratory diseases &
- ❑ general/broad clinical application

Background

- This work was phase 2 ...
- Built on the findings, and used a subset of countries:
 - Medium income countries (MIC):
 - China, Malaysia, Philippines & Viet Nam
 - Higher income countries (HIC):
 - Republic of Korea, Japan
- Time was short Nov 2013 – March 2014

Lead to constraints...

□ Time:

- Weren't able to translate to local languages
- Little opportunity to pilot survey

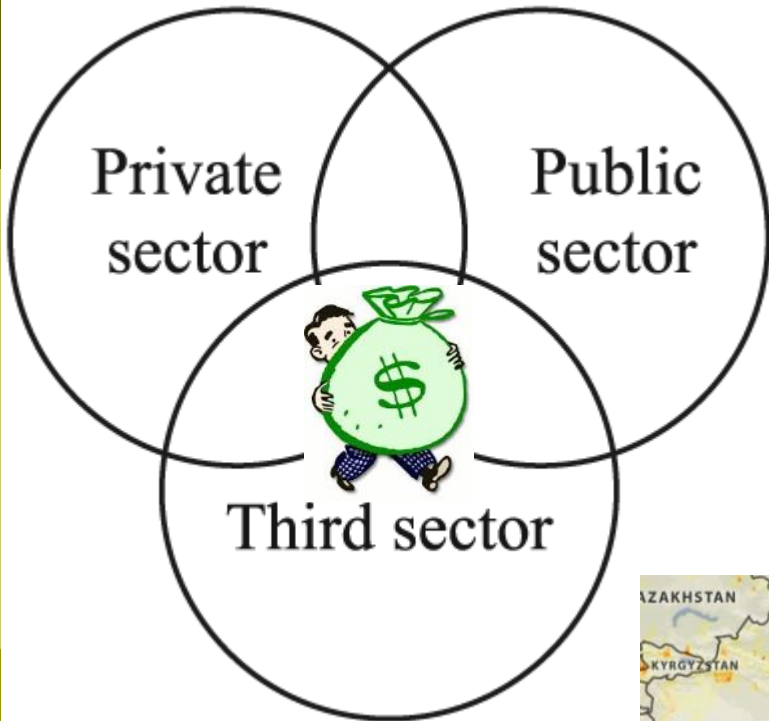
□ Resources:

- No scope for in-country interviews/focus group
- Internet delivery was preferred method (print backup)
- Relied on willingness of stakeholders to complete survey

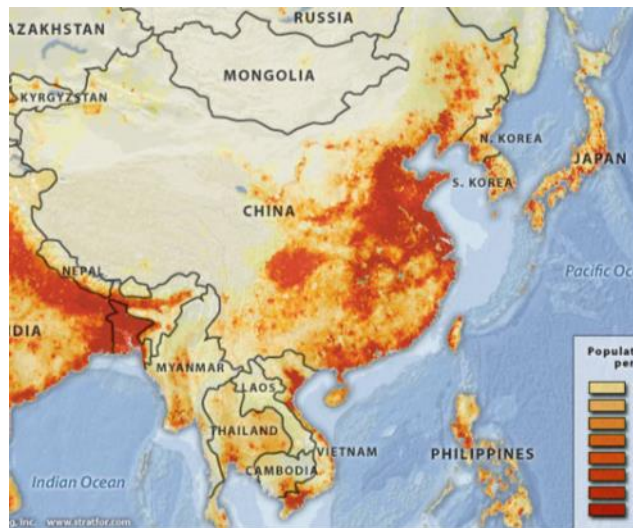
Who completed it?

Country	Initial respond	Provided Demogr. data	People who indicated some expertise in:		People who fully completed the survey from each country	
			AD	MD	AD	MD
China	24	19	14	10	13	7
Japan	94	21	8	12	4	9
Malaysia	8	7	4	3	4	3
Philippines	29	26	23	21	17	15
Republic of Korea	31	24	19	16	6	6
Viet Nam	10	3	3	2	2	2
TOTAL	196	100	71	64	46	42

Where did they come from?

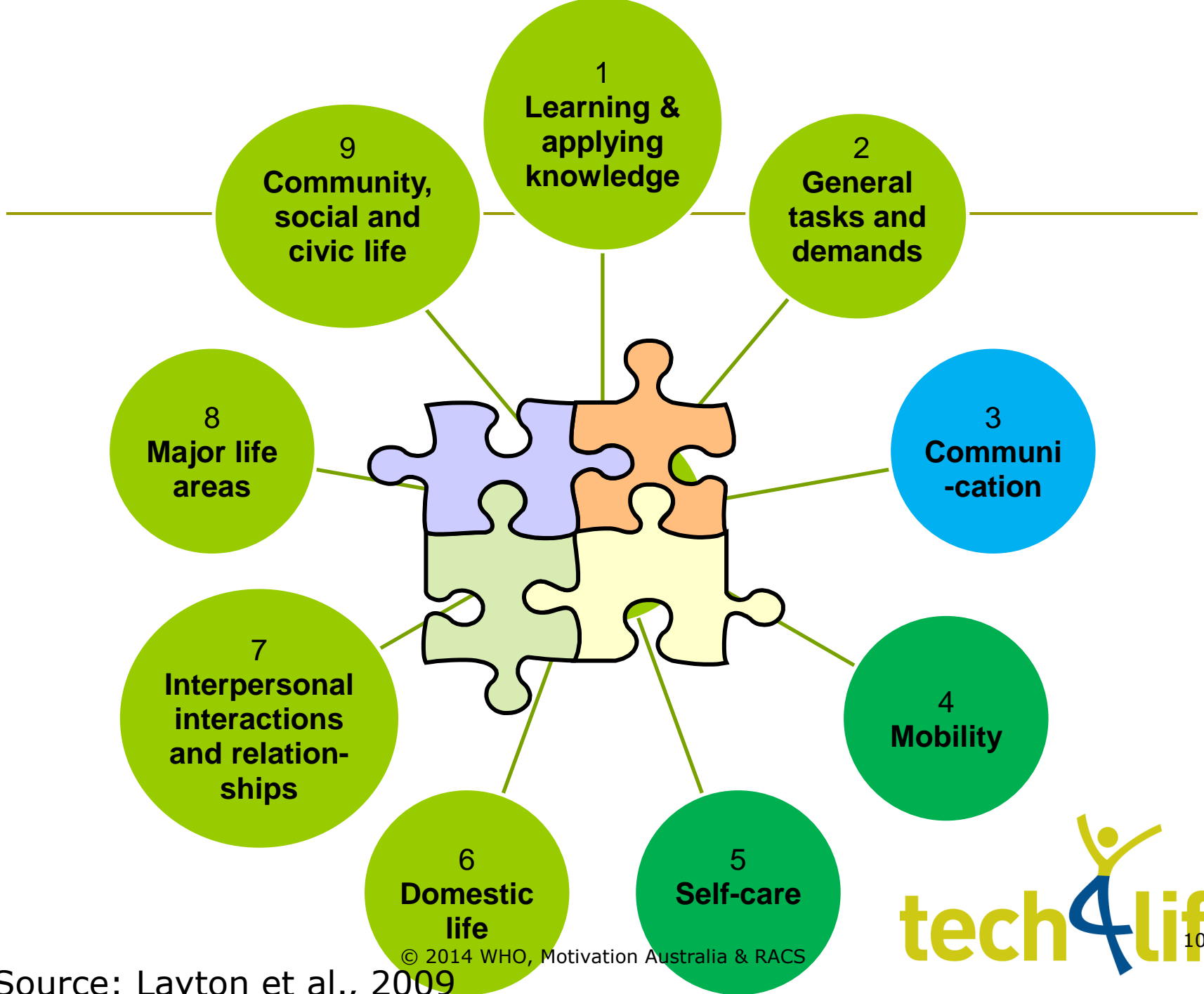


Range of disciplines/levels



What were they asked?

- AD – rating/priority of functional activities
 - rating/priority of related AD
 - current level of use of 11 AD categories
 - access-, accept-, adapt-, afford-, availability & quality of AD for older people
 - Reasons for AD success & failure, suggestions to improve situation
- MD – indicated preferred and current availability (across three settings) for
 - 4 specialist disease areas
 - range of generalist MD
 - Reasons for MD success & failure, suggestions to improve situation



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Source: Layton et al., 2009

AD – Functional activities

Eat and drink as independently as possible	4.3
Transfer to or from bed or chair	4.2
Able to be clean and hygienic	4.2
Able to hear and communicate	4.1
Able to dress	3.9
Able to see and understand writing	3.9
Move about and use transport	3.9
Grip or pickup items and do housework	3.7
Manage health care & fatigue including following health advice	3.7
Participate in community activities (can include employment) & visiting others	3.4
Take care of a family member	3.2
Experience intimate/sexual relations	2.7

Hear & communicate

Eat & drink independently

Move + transport Experience Intimacy Clean & hygiene

Manage health & fatigue

Community participation & visiting
Care for family

Dress

Bed or chair transfer

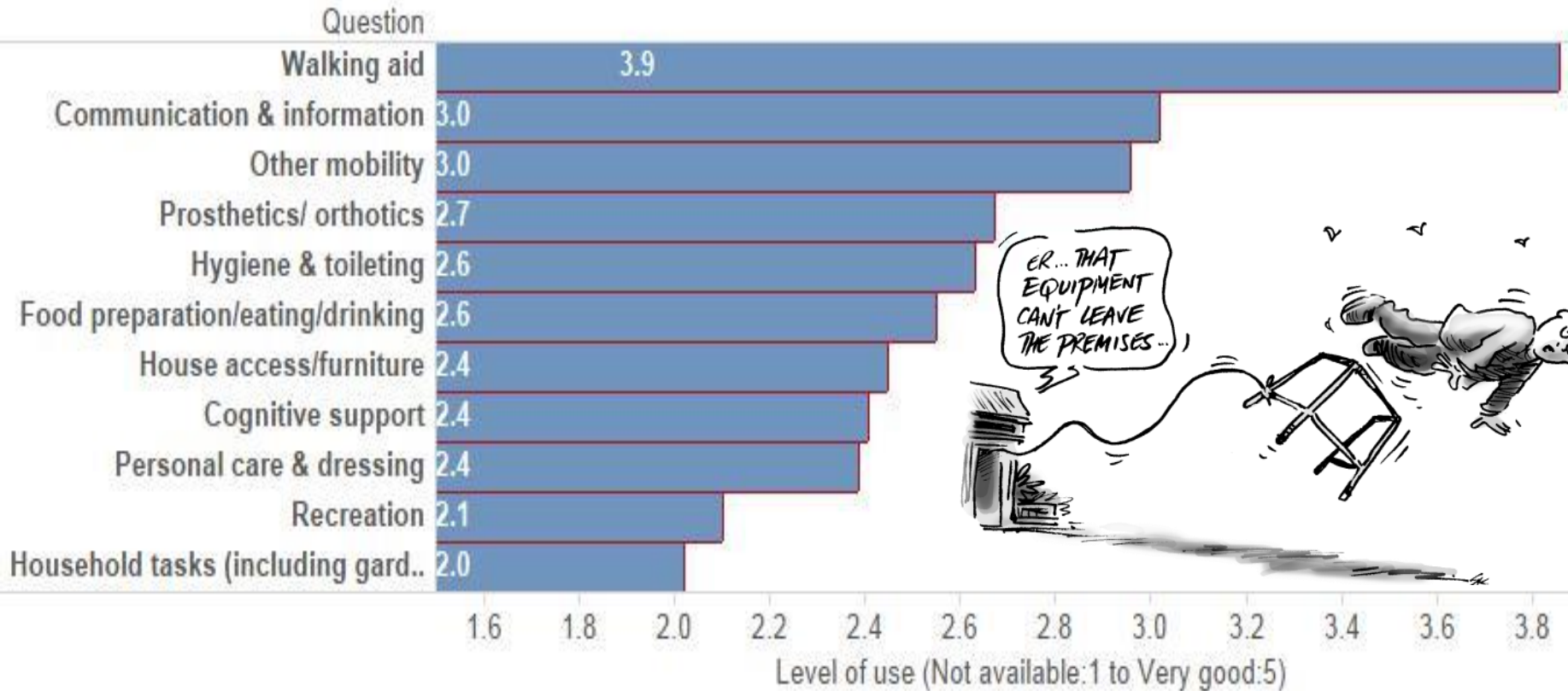
See and 'read

Pickup items & housework

Top 13 draft AD priorities

AD for seeing	4.2
AD for transfer and turning	3.9
AD for cognitive assistance	3.9
Non AD: Personal assistance	3.7
AD for personal care	4
Supporting handrails and grab bars	4.1
Adapted furniture and accessories	3.7
AD for preparing food and drink	3.9
Adapted beds	3.8
AD for hearing	4.3
Modification or AD for building access	3.7
Safety equipment for home & other places	4.2
AD for managing continence	3.9

Effective use of AD groups - current



Exploring the six principles..



Accessibility (inc. services)

- ❑ Similar to effective use
- ❑ Highest in Japan and Korea
- ❑ Prosthetics & mobility aids OK
- ❑ Cognitive & household aids poor/non-existent

Acceptability

- ❑ Generally OK
- ❑ Poorer in China & Viet Nam
- ❑ Walking aids well accepted, cognitive aids least



Exploring the six principles... (2)

Adaptability

- ❑ Prosthetics & mobility aids good
- ❑ Little or none for other AD

Affordability

- ❑ Best in HIC, then China
- ❑ Only walking aids a reasonable cost
- ❑ AD for cognitive support, communication and house modification unaffordable by most in MIC

Exploring the six principles... (3)

Availability (necessary resources & services)

- Depended on location (in all countries), if available at all
- HICs and Malaysia were highest, particularly for prosthetics & mobility AD.

Quality

- Surprisingly poor – even in HICs
- Dependent on source

Reasons for AD success (HIC)

Functionally very effective	80%
There is a well-functioning and accessible service in place to assess individual user's needs and prescribe the device	80%
There is Government commitment and action to ensure access to assistive devices	60%
The device is available for an affordable cost to older person and/or their family	80%
The device is adjustable ; or there is a choice of type to properly suit the individual	60%
The device is routinely provided for those with identified need	40%
The device is a part of other supports/therapy	70%
There is good community education & awareness of such devices	50%
The device looks good	20%
Culturally appropriate and acceptable	20%
There is research evidence of the benefits the device offers	30%
The device was created and/or is readily available locally	10%

Reasons for AD success (MIC)

The device is available for an affordable cost to older person and/or their family	89%
The device is a part of other supports/therapy	58%
Functionally very effective	61%
There is Government commitment and action to ensure access to assistive devices	69%
There is a well-functioning and accessible service in place to assess individual user's needs and prescribe the device	53%
There is good community education & awareness of such devices	47%
The device is adjustable; or there is a choice of type to properly suit the individual	47%
The device was created and/or is readily available locally	36%
Culturally appropriate and acceptable	28%
The device is routinely provided for those with identified need	36%
There is research evidence of the benefits the device offers	22%
The device looks good	19%

Why AD was NOT successful...

- ❑ Cost unaffordable
- ❑ Poor community education & awareness
- ❑ MIC – no service to assess/assist, and local unavailability, unusable
- ❑ HIC – no adjustment, and stigma

Strategies to improve AD access

1. Government/agency help to get AD
2. Community awareness & education
3. (HIC) Better quality checks
4. (MIC) Suitable devices for local need
5. Locally available services to assist
 - ▣ Health professional training
 - ▣ AD development \$

Lowest rank: less regulation!

Medical Devices

- Four specialised diseases:
 - Cardiovascular
 - Malignant neoplasms (cancers)
 - Sense organ diseases
 - Respiratory diseases
- General use MD
 - Basic diagnostic
 - Laboratory diagnostics
 - Point of care in vitro
 - Diagnostic imaging
 - MD for surgery & intensive care

MD response tables

Technology	Source	Should be available, %			Not necessary (%)	Currently available, %		
		Health centre	Public hospital	Private hospital		Health centre	Public hospital	Private hospital
Basic X ray system	All	26	40	23	5	30	72	72
	MIC	21	36	33		25	79	64
	HIC	33	47	18	13	40	60	87
Fluoroscopy, mobile	All	14	37	23	5	16	67	63
	MIC	7	32	18		7	68	57
	HIC	27	47	33	13	33	67	67
Ultrasound system	All	21	42	23	5	23	72	70
	MIC	14	39	14		18	75	64
	HIC	33	47	40	13	33	67	80
CT system	All	9	42	21	5	9	70	65
	MIC	0	39	14		7	64	61
	HIC	27	47	33	13	13	80	73

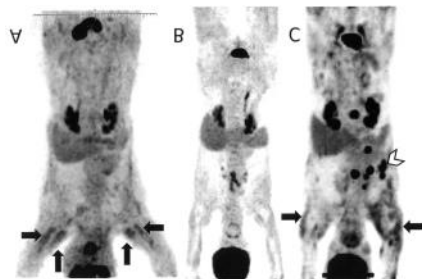
MD for specific diseases

□ Cardiac

- Only cardiography & external defibrillators recommended for health centres. Private hospitals better equipped than public hospitals
- Advanced devices currently only in HIC

□ Malignant neoplasms

- Strong support for public hospitals to have MD
- Higher availability in MIC private hospitals than in HIC



MD for specific diseases (2)

□ Sense Organ

- Most MD rated important (but not present) in health centres (not surgical or laser related),
- Greater coverage needed in hospitals

□ Respiratory

- Peak flow meters & nebulizers priority for clinics, but hospitals higher for all MD in HIC
- Availability seems good in most hospitals, but also extra demand for MD



MD for general use

- ❑ **Basic diagnostic** – generally good coverage across the board. Some items 'not necessary' in HIC.
- ❑ **Laboratory diagnostic** – consistent, and generally good availability in hospitals. Some items 'not necessary' in HIC.
- ❑ **Point of Care in vitro diag.-** good availability and in the right places.
- ❑ **Diagnostic imaging** – Availability in hospitals good. Push for access in health centres for HIC.
- ❑ **Surgery & intensive care** – HIC had and expected more MD in health centres. Public hospitals had highest levels of demand & availability

Ranked influences on MD availability

Appropriateness of the device or service in terms of current practice

Acceptability to health care personnel*

Affordability of the device or service (if it is reimbursable)

Availability of the device in the national medical device market

Affordability of the device or service (if it is not reimbursable and the person has to pay as out-of-pocket expenditure)

Acceptability to patients

Quality of the devices

Other factors

* Interestingly ***lack of acceptance*** by health personnel did not 'lead' to unavailability!

Unavailability of MD – other factors

MIC noted

- ❑ Small hospitals struggled to get/replace MD due to impact on profit
- ❑ Limited trained personnel to operate
- ❑ Lack of capital to purchase
- ❑ Government 'red tape' hinders acquisition
- ❑ Return on investment low if patient funded

Strategies to improve MD access

- 1 Decrease cost of available devices / services
- 2 Improve governance and policy
- 3 Improve levels of training for health care personnel by manufacturers
- 4 Improve quality of available devices
- 5 Improve infrastructure and health service provision.
- 6 Increase funds for maintenance of medical equipment to avoid down time that makes them unavailable.
- 7 Improve distribution of products or services
- 8 Have a regulatory process for medical devices(if not available)
- 9 Increase regulatory efficiency (if available but long response time)
- 10 Increase local production of devices in your country, to increase availability
- 11 Increase availability of donated devices



AD & MD - Conclusions

- ❑ Need to validate AD focus with older people themselves & extend survey
- ❑ *Cost* remains an important driver
- ❑ AD & MD most effective when part of other services
- ❑ *Governments play vital role* in getting affordable AD & MD to those who need it
- ❑ *Education/training* – of professionals AND community

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