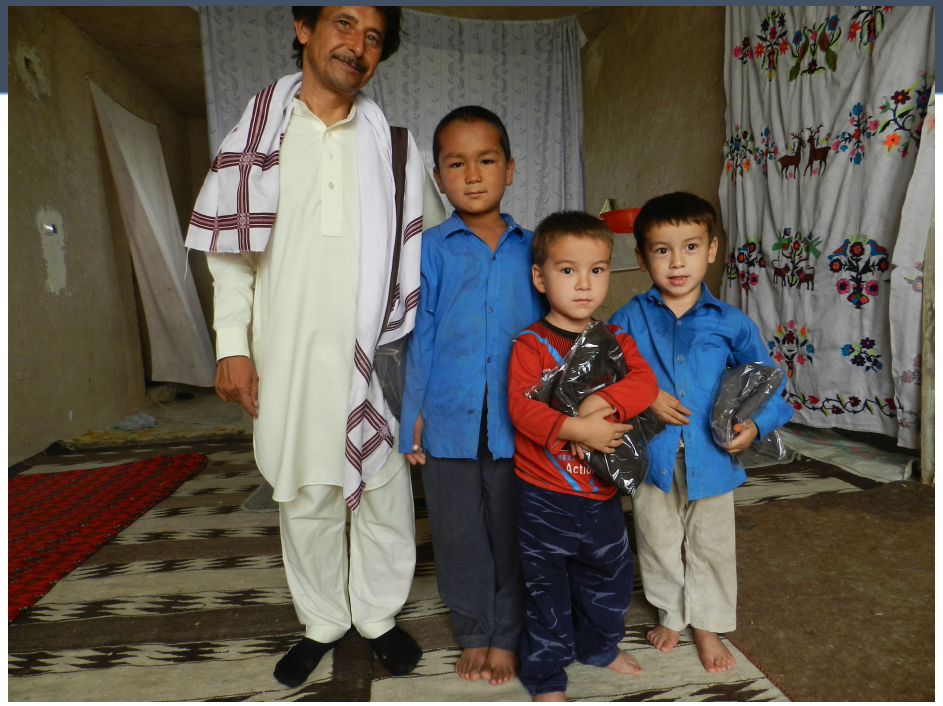
Healthcare and Education for Persons with Disabilities in LMICs: Access and Trends



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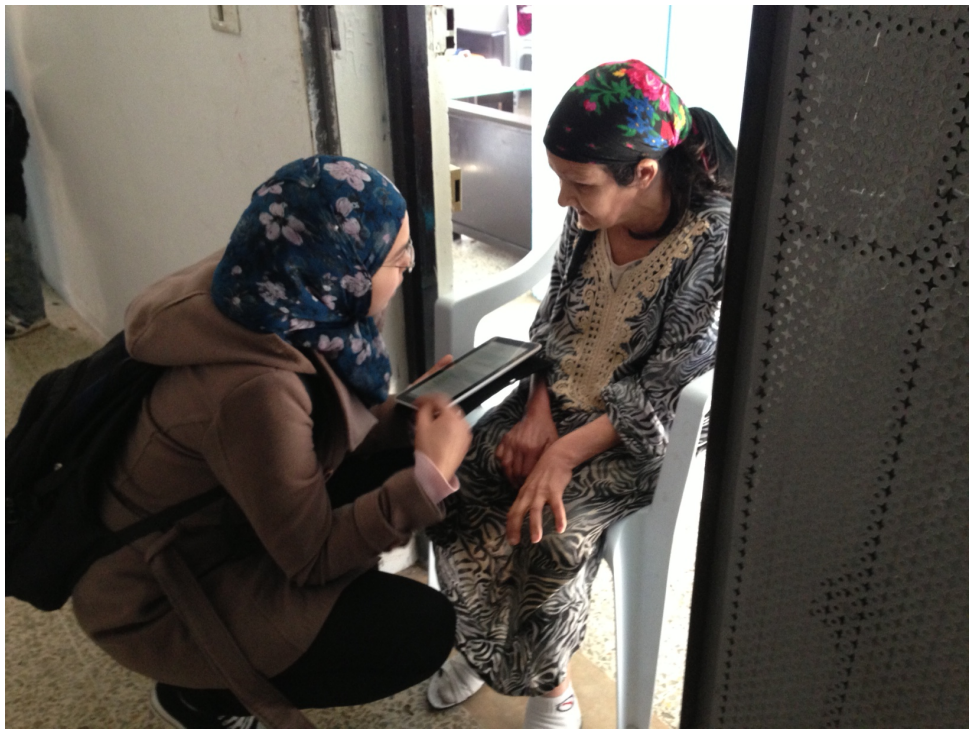
Outline

- Introduction
- Methodology: multiple disability studies in Afghanistan, India, Morocco, Nepal, Sierra Leone, Sudan, Tunisia
- Main findings on healthcare
- Main findings on education
- Concluding remarks and current research

Introduction



Tunisia, Disability survey, 2014

Capability approach (CA) and Disability

- Disability is lack of capabilities: poor conversion factors and lack of agency
- Persons with disabilities are deprived of agency, facing deprivation resulting from a double handicap: an earnings handicap and a conversion handicap
- The conversion handicap refers to the extra needs and costs of living with a disability in a given environment
- The CA looks at the impact of disability on the family and community and promotes the understanding that the poverty of persons with disabilities comprises of the congregation of multiple factors: poor access to health and education, social exclusion, disempowerment, not just lack of material resources.

Measuring inequalities to achieve the SDGs

- Are the barriers and inequalities faced by persons with disabilities persistent across various countries?

=> Measure the gap in economic and social opportunities and circumstances between disabled and non-disabled persons at individual and household level

- What are the consequences of these inequalities on the quality of life and aspirations of persons with disabilities?

=> One important aspect is the role of stigma on discriminations and its impact on persons with disabilities' quality of life

Examining data collected over a decade in LMICS

Analysis of data from large-scale surveys in Low and Middle Income Countries (LMICs) and in Conflict settings

- Afghanistan 2005 and 2013: Handicap International-UNOPS-Swiss & French Cooperation / Swedish Committee for Afghanistan- SIDA,
- Darfur, Sudan 2008: UNICEF
- Sierra Leone, 2009: Leonard Cheshire Disability
- New, Delhi India 2011: DFID
- Nepal, 2011: DFID
- Morocco and Tunisia (2014): Handicap International

Collecting primary data to construct a picture of disability and capabilities

- Questions about socio-economic family background
- Screening for disability (DSQ34)
- Questionnaires to measure:
  - ✓ individual conversion factors (characteristics),
  - ✓ functionings: what people do and choose to be
  - ✓ existing opportunities and barriers to achieve wellbeing in a given context considering various domains of capabilities
  - ✓ norms and values, prejudice and social exclusion
- Looking at access to health and education, employment, income and assets, livelihoods, self-perception, social status and social exclusion process
- Prepared by and completed with qualitative work for cultural validity

n=1245	OR (95% CI)	P value
Predictor variables		
Level 1		
Gender Female (ref: Male)	1.00 (0.74-1.35)	0.98
Age	0.99 (0.99-1.00)	0.03
Education (Ref: No formal education)	1.52 (1.05-2.20)	**0.03**
Ethnicity (Ref: Pashtun) Tajik	0.83 (0.531.30)	0.42
Minority	0.99 (0.62-1.58)	0.96
Type of disability Sensory	0.88 (0.62-1.26)	0.49
Mental and Associated (Ref: Physical)	0.81 (0.57-1.15)	0.24
Asset index	1.78 (1.24-2.55)	**0.001**
20%-80%	2.60 (1.61-4.21)	**<0.001**
20% richest (Ref: 20% poorest)		
Working for monetary compensation Working (Ref: Not working)	1.27 (0.89-1.82)	0.18
Cause of disability Acquired after birth (Ref: By birth)	0.81 (0.61-1.09)	0.17
Year 2013 (Ref: 2005)	0.36 (0.21-0.64)	**<0.001**
Level 2		
Time to reach clinic	0.99 (0.99-1.00)	0.59
Village connectivity by a paved road (Ref: Not connected)	1.23 (0.73-2.09)	0.44
Electricity in village (Ref: No)	1.47 (0.89-2.44)	0.13
District Center Distance	0.98 (0.94-1.01)	0.14
Distance to Road	1.12 (0.97-1.29)	0.11
Distance to Road*Year (ref: 2005)	0.74 (0.58-0.95)	**0.02**
AIC	1546.2	

Afghanistan: Access to healthcare (2005-13)

- No difference by gender, age, cause/type of disability
- Educated people and those from wealthier HH are more likely to access healthcare
- Access is worse in 2013 compared to 2005 for persons with disabilities (2.7 time less likely).
- Worse access in remote areas in 2013 than in 2005 (1.35 time less likely)

Sierra Leone: Access to healthcare (2009)

n=424	OR	CI
Female (ref. male)	1.63	0.49-5.32
Mild/moderate disability (ref. non-disabled)	0.36	0.12-0.99
Severe/very severe disability	0.03	0.00-0.15
Disabled women (interaction)	1.65	0.40-6.69
Age group 30-39 (ref. 18-29)	2.92	0.57-14.8
Age group 40-49	0.57	0.13-2.50
Age group >50	1.32	0.19-9.13
Married, partner or engaged (ref. not married)	1.59	0.27-9.40
Married, polygamous	2.22	0.25-19.1
Divorced or widowed	1.02	0.18-5.65
Rural (ref. urban)	1.03	0.49-2.15
Primary education (ref. no education)	4.18	1.68-10.3
Secondary education	1.16	0.25-5.26
Tertiary education	10.80	1.07-108.4
Educated disabled person (interaction)	0.81	0.12-5.13
Working (ref. not working)	0.08	0.03-0.21
Active disabled person (interaction)	45.96	10.14-208.2
Poorest group (ref. richest)	1.71	0.25-11.4
Middle group	1.23	0.18-7.96

- Less access to public facilities for persons with disability (33 times less likely)
- Educated people more likely to access healthcare
- Better access for persons with disability if they are employed

Morocco: Access to healthcare (2014)

Morocco n=1339	IV model
Disability (ref no disability)	-0.27(-0.52--0.01)
Rural (ref urban)	-0.07(-0.13--0.01)
Gender (female/male)	0.06(0.00-0.11)
Age 19-65 (ref <18)	0.11(0.02-0.19)
Over 65	0.23 (0.12-0.33)
20% poorest (Ref: 20%-richest)	-0.01(-0.11-0.09)
20%-40%	0.1(-0.00-0.20)
40%-60%	0.03(-0.07-0.12)
60%-80%	-0.03(-0.11-0.06)
Head of HH Primary (no school)	0.01(-0.05-0.07)
Middle school	-0.01(-0.11-0.09)
High school	0.02(-0.09-0.14)
University	0.06(-0.07-0.19)
Household size	0(-0.00-0.01)
Head HH married (not married)	0(-0.07-0.08)
constant	0.72(0.55-0.89)

- Persons with disability and elderly have less access
- Less access in rural areas
- Better access for women and elderly

Tunisia: Access to healthcare (2014)

Tunisia n=1363	IV model
Disability (ref no disability)	-0.06(-0.24-0.11)
Rural (ref urban)	-0.02(-0.07-0.02)
Gender (female/male)	0.08(0.02-0.12)
Age 19-65 (ref <18)	-0.03(-0.11-0.05)
Over 65	0.09(-0.001-0.18)
20% poorest (Ref: 20%-richest)	0.02(-0.06-0.10)
20%-40%	0.02(-0.06-0.09)
40%-60%	0(-0.08-0.07)
60%-80%	0.01(-0.06-0.08)
Head of HH Primary (no school)	0.07(-0.03-0.16)
Middle school	0.07(-0.02-0.16)
Highschool	0.04(-0.08-0.16)
University	0.05(-0.04-0.13)
Household size	0.01(-0.00-0.01)
Head HH married (not married)	0(-0.06-0.06)
constant	0.8(0.57-1.02)

- Persons with disability and elderly have less access
- Less access in rural areas

=> but not statistically significant

- Slightly higher access for girls and women

Afghanistan: Access to school (2005-13)

	OR	(95%CI)
Gender (male ref)	0.37	0.20 - 0.66
Age (continuous)	1.00	0.96 - 1.03
Ethnic group (Pashto ref)		
Tajik	1.47	0.65 - 3.27
Other minority groups	1.24	0.53 - 2.87
Type of disability (mobility)		
Sensory	0.24	0.10 - 0.52
Mental and associated	0.12	0.05 - 0.27
Asset tertiles (20% poorest ref)		
20%-80%	1.18	0.52 - 2.63
20% Highest	1.88	0.71 - 4.91
Acquired (disability at birth ref)	1.05	0.58 - 1.88
HHH educated (not educated ref)	2.47	1.35 - 4.49
Sex HHH (female ref)	1.24	0.38 - 4.02
Size of HH	1.07	0.96 - 1.18
Electricity in village (none ref)	1.35	0.25 - 7.20
Year 2013 (2005 ref)	0.39	0.16 - 0.94
Electricity*year (ref 2005)	1.60	0.24 - 10.6
Intercept	0.17	0.03 - 0.78

Level 1 at individual level

- Women with disabilities have 3 times less chances of access;
- In 2013 all children with disabilities are 4.3 times less likely to access;
- Persons with mental/associated disability are 2.3 times less likely to access school;
- Persons with Disabilities with known cause are 3.3 times more likely to access school than when the cause is unknown.

Level 2 at Village Level

- 2.3 times more likely to go to school if there is electricity in village.
- In 2013, villages poorly connected by paved road are 5.9 times less likely to send their children with disabilities to school than those poorly connected in 2005;

stigma and accessibility issue not solved.

Afghanistan: Trends in Literacy Rates (2005-13)

	OR	(95%CI)
Gender (male ref)	**0.37**	**0.20 - 0.66**
Age (continuous)	1.00	0.96 - 1.03
Ethnic group (Pashto ref)		
Tajik	1.47	0.65 - 3.27
Other minority groups	1.24	0.53 - 2.87
Type of disability (mobility)		
Sensory	**0.24**	**0.10 - 0.52**
Mental and associated	**0.12**	**0.05 - 0.27**
Asset tertiles (20% poorest)		
20%-80%	1.18	0.52 - 2.63
20% Highest	1.88	0.71 - 4.91
Acquired (disability at birth)	1.05	0.58 - 1.88
HHH educated (not educated)	**2.47**	**1.35 - 4.49**
Sex HHH (female ref)	1.24	0.38 - 4.02
Size of HH	1.07	0.96 - 1.18
Electricity in village (none ref)	1.35	0.25 - 7.20
Year 2013 (2005 ref)	**0.39**	**0.16 - 0.94**
Electricity*year (ref 2005)	1.60	0.24 - 10.6
Intercept	0.17	0.03 - 0.78

Girls and young women are 2.7 times less likely to read and write

Young with sensory, learning/ mental/associated disabilities are resp. 4.1 and 8.5 times less likely to read and write

Those living in HH where the head is educated are 1.2 times more likely to read and write

Children and young people with disabilities in 2013 are 2.6 times less likely to read and write

India: Access to school

	Access to Primary School		Access to Secondary School		Access to High School	
	p value	Odds Ratio	*p* value	Odds Ratio	*p* value	Odds Ratio
Age	0.020	0.968	0.000	0.931	0.059	0.962
Gender (Ref=Male)	0.137	1.193	0.299	1.161	0.805	1.029
Religion (Ref=Hindu)	0.022		0.255		0.000	
Muslim	0.908	0.977	0.110	1.415	0.000	3.468
Other	0.006	1.911	0.756	0.885	0.092	1.554
Disability (Ref=Not disabled)	0.064	1.629	0.008	1.927	0.016	1.749
Asset Index (Ref = Richest quintile (5th))	0.000		0.000		0.000	
1st quintile	0.977	0.994	0.000	5.318	0.000	5.885
2nd quintile	0.256	1.250	0.001	2.500	0.000	3.856
3rd quintile	0.244	1.251	0.730	1.102	0.018	1.535
4th quintile	0.005	0.525	0.797	0.926	0.970	0.993
Head of household gender (Ref = Male)	0.380	0.854	0.042	1.483	0.719	0.939
Head of household education (Ref = Edu	0.000	1.782	0.051	1.386	0.000	2.672
Household size (Ref = 1-4)	0.368		0.000		0.000	
5 to 7	0.177	1.244	0.001	2.042	0.989	0.998
8 or above	0.230	1.259	0.000	3.837	0.000	2.501

- **Disability is most significant factor in terms of access to Primary school.**
- **Access to higher levels is determined by a more complex combination of factors at the individual and household levels.**
- No significant differences in terms of basic literacy.

Western Darfur: ACCESS TO SCHOOL

	OR	(95%CI)
Age (y)	1.09***	1.05 - 1.12
Gender (Ref = male)	0.35***	0.27 - 0.44
Disability (Ref = Not disabled)	1.18	0.86 - 1.60
Head of household gender (Ref = Male)	0.87	0.61 - 1.22
Head of household education (Ref = Educated)	0.71**	0.53 - 0.91
Martial Status (Ref = Single)	1.07	0.71 - 1.61
Land size (Ref = Smallest size tertile (1st))	0	-
3rd tertile Largest size	1.49	1.09 – 2.03
2nd tertile (Middle size)	1.04	0.79 - 1.35
Constant	0.46*	-

Girls, children from household where the head is not educated and children from poorest HH have less access; but no significant difference according to disability

Morocco & Tunisia ACCESS TO SCHOOL

Predictor Variables	OR	(95%CI)	P value
Disability (ref no disability)	0.45	0.28-0.72	0.001
Rural (ref urban)	0.46	0.29-0.72	0.001
Gender (ref male)	0.34	0.20-0.55	<0.001
Age 19-60 (ref <18)	0.46	0.18-1.12	0.089
20% poorest (Ref: 20%-richest)	0.39	0.17-0.86	0.02
20%-40%	0.35	0.16-0.75	0.007
40%-60%	0.62	0.27-1.39	0.252
60%-80%	1.14	0.47-2.71	0.776
Does not work (ref full time)	0.87	0.43-1.74	0.697
Work part time	2.29	1.33-3.94	0.003
Household size	0.84	0.74-0.94	0.005
Head HH married (not married)	1.43	0.82-2.47	0.197

Predictor Variables	OR	(95%CI)	P value
Disability (ref no disability)	0.69	0.50-0.92	0.014
Rural (ref urban)	0.70	0.51-0.94	0.02
Gender (female/male)	0.29	0.21-0.39	<0.001
Age 19-60 (ref <18)	0.17	0.10-0.28	<0.001
20% poorest (Ref: 20%-richest)	0.35	0.21-0.58	<0.001
20%-40%	0.52	0.32-0.84	0.009
40%-60%	0.43	0.26-0.69	0.001
60%-80%	0.59	0.36-0.94	0.027
Does not work (ref full time)	1.11	0.70-1.74	0.66
Work part time	1.63	1.15-2.28	0.005
Household size	0.95	0.89-1.00	0.085
Head HH married (not married)	0.73	0.47-1.12	0.15

Concluding remarks and current research

- Often **negative relationship between disability and access to healthcare and education**, particularly in low income countries and conflict settings; however, this relationship is complex and moderated by various other factors that differ according to contexts;
- **Stigma plays an important role** in determining access but also in sustaining access to services. Stigma translates in reduced opportunities : lowering self esteem & aspirations.
- School-based survey in Southern Morocco with UNICEF-Handicap-International on social exclusion in schools;
- Systematic review on assessment of inclusion in education with Institute of Education (London);
- Looking at dynamic processes of social exclusion in education through systems dynamics methodologies (focus on contexts, process and mechanisms).

Thank you

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All papers, briefs and reports are available on:
http://global-disability-vulnerability.com