Chronic Poverty Advisory Network

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Disability, poverty and poverty dynamics: a preliminary analysis of panel data, policies and politics in Bangladesh

Synthesis

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December 2017

CPAN is hosted at the Overseas Development Institute, London

Acknowledgements

The sustained inputs of Alexandre Cote of the International Disability Alliance to this synthesis paper are acknowledged. He challenged and tested all the results and was relentless in pursuing a synthesis which made arguments solidly based on the evidence in the working papers.

This research was made possible through the support of the International Disability Alliance (IDA) and the Australian Department of Foreign Affairs and Trade (DFAT). The views expressed in this publication are those of the authors and not necessarily those of the Australian Department of Foreign Affairs and Trade. Responsibility for the content rests entirely with the writer.

Australian Government

Department of Foreign Affairs and Trade

International Disability Alliance

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Summary

The incidence of poverty in developing countries is generally higher among persons with disabilities than those without. However, in Bangladesh this is not the case, except for those with severe disabilities. It may be useful for the disability movement to focus on the (relatively high) proportion of households affected by disabilities (one third of all households in Bangladesh), and the implications for those households in terms of wellbeing, chronic poverty and impoverishment, rather than the number of disabled people, or the number of poor people with disabilities, which are such contested statistics. On the other hand, severe disabilities in the Bangladesh of 2010 were significantly associated with extreme poverty incidence, and their absence with never being poor. About 1/6 of the disabled population is severely disabled.

Four pathways between disabilities and poverty were explored through regression analysis: labour market participation and access to social protection, marriage, education and education expenditure, and health expenditure. Persons with disabilities are significantly disadvantaged in terms of household spending on education, but it is only persons with severe disabilities who had lower educational achievements than people without.

By contrast health spending is more difficult to paint an accurate picture: survey data tells us that it is not higher for persons with disabilities, even those with severe disabilities, which could suggest ambivalence and even neglect by their households. The qualitative research, however, gives a different result: medical expenditures are an important part of the impoverishment affecting some households including persons with disabilities, and also contribute to their chronic poverty. The difference across the data sources could be explained by the failure of the surveys to capture one off lumpy expenditures, which are captured by the longer time periods typically studied in a life history.

In the regression analysis, participation in labour markets, marriage, and social protection was found to be lower for persons with disabilities (both moderate and severe) than the average, and this affected women particularly; and for labour markets and marriage it affected seeing, walking and self-care disabilities in particular. These relationships suggest that there could indeed be disability-related factors which contribute to explaining medium-long term poverty status changes and dynamics.

The only one of these outcomes not differentiated by gender was in education, a symptom of the relatively egalitarian norms surrounding education in Bangladesh. More women than men have disabilities, especially when these are ‘severe’. There is a ‘triple discrimination’: being poor, a woman, and disabled makes it very hard to escape extreme poverty. Disability is therefore an issue women’s movements could usefully take up.

Urbanisation and migration to towns and cities are often ways out of poverty, especially where urbanisation is accompanied by industrialisation as in Dhaka. However, urban life can be difficult for persons with disabilities: though better jobs are more accessible they may be less so for persons with disabilities, the cost of living can be more expensive, and mobility difficulties could be exacerbated. Persons with severe disabilities in cities are especially likely to be in extreme poverty.

The rural chronic poor (poor in both 2006 and 2010; or even across the three survey waves) include about a third of individuals with disabilities compared to just over a quarter of persons with disabilities among those who are not chronically poor. The differences between severe, moderate and mild disabilities are statistically significant only for the groups of persistently poor and never poor across three survey waves: the presence or absence of a severe disability being an important determinant of the odds of being chronically poor or never poor, but not so clearly of movements around the poverty line.

Household size would appear to be an important factor in keeping households with persons with disabilities chronically poor: they tend to compensate for the disabilities by having more children, a factor in chronic poverty more generally. Poor parents in Bangladesh are still rationally insecure about care in old age, and plan to have enough children to look after them. One third of households include someone aged 60 or more, and there is a rapidly ageing population. This finding has significant policy implications – a long term government commitment to a significant old age pension, or other social protection scheme which would support older people would make a big difference.

There is a 'triple discrimination' facing poor women with disabilities: among the chronically poor women with disabilities are seven times more likely to be employed than men with disabilities; and this number increases to fifteen times more likely for women with high levels of functional impairments (or severe disabilities). This is most likely a result of women needing to working even if the work is insecure and low paid possibly due to their greater depth of poverty.

Of those individuals in panel survey households who fell into poverty (between the late 1990s or early 2000s and 2010), over 4 in 10 were persons with disabilities. Even though the panel sample was not nationally representative, so it cannot be taken as such, this is a remarkable finding, suggesting very strong vulnerability to poverty of some people with disabilities, suggesting that disabilities can be strong contributing factors in downward mobility into poverty.

Downward mobility is especially common among women and children with disabilities. Women with disabilities are likely to be vulnerable at the individual level, and at the household level if they are in a female headed household. They may be vulnerable within a household to marriage problems, threats of divorce, abandonment and dowry problems. And they may have a weak fall-back position in intra-household bargaining or conflict because if they are divorced or abandoned their situation may be more difficult.

The impact of disabilities in men may also be pronounced at the household level - especially if they are prevented from income earning. Women's income earning opportunities are more limited, especially in rural areas, due to other gender-related restrictions. So when a man is disabled, and has reduced income earning, and he would otherwise be a main breadwinner, the relative impact on the household's poverty status is likely to be pronounced. This makes it challenging to make definitive statements on the relative impact of disability on men's and women's poverty.

The qualitative research shows disabilities being significant factors in impoverishment processes as well as chronic poverty. Key factors in both trajectories include: exclusion from work, or inclusion only in the lowest productivity and waged agricultural work; medical and related transport expenses, often chronic

rather than one off; marriage – especially difficulties with dowries for persons with disabilities (especially girls/women), abandonment of wives on becoming disabled or on the birth of a disabled child; household separation, with parts of a joint household without a person with disabilities hiving off to reduce its liabilities; and social stigma.

Medical expenses were especially significant in stories of downward mobility. In a few cases among the life histories hundreds of thousands of taka were spent; in many cases assets were sold – agricultural land, livestock, capital from businesses - to pay doctors' fees, diagnostic tests, medicines, transport; loans were also taken, including, in a small number of cases, from moneylenders at high interest rates. Among the 2006 non-poor rural households in the panel survey data, the monthly medical expenditures of Households with Persons with Disabilities (HHWPWD) were higher (638 Taka) if they became poor in 2010 compared to those who did not become poor (420 Taka).

Having a disability is no bar to escaping poverty. The latter was easier in general during the high economic growth period up to the mid-2000s. After that it became harder to escape extreme poverty in general (for persons with or without disabilities), and among persons with disabilities in moderate poverty there was a lower rate of escape than among the moderately poor without disabilities. It is also possible that it is easier to escape poverty with a disability if you are young – under 20 years old. The higher rates of education stipends were found to be significant factors contributing to the ability to escape poverty – the only policy which comes through this research as important.

A theme of this research is that disaggregation – by level of poverty, severity and type of disability, is a useful basis for policy. This is not with the objective of dividing one disabled person or one poor person against another, but with a view to making policy more adept at tackling chronic poverty, preventing impoverishment and sustaining escapes from poverty – the three objectives needed to eradicate extreme poverty (CPAN, 2014). The research also raises the issue of chronic illnesses which produce the same effects as functional impairments: should these not be considered in the same policy analysis.

The policy environment in Bangladesh for disability issues has definitely improved during recent years, according to the perceptions of Disabled People's Organisations (DPOs), due to the advent of the Sustainable Development Goals and also national political leadership from the highest levels. The advent of a Disability Act in 2013, and the accessibility of the budget process to DPOs, the greater willingness of the private sector to take on employees with certain disabilities, are all significant, though there is much more work to be done to reform the labour market. Out of all these, it is the SDGs which best draw the links between disability and the eradication of poverty. This has not been a massive topic in the national discourse on disability or poverty. The evidence presented in this and related papers should help to change that.

Specific policies which have worked for poor persons with disabilities are the Disability Allowance and the Disability Stipend in education. The constraint on such schemes, however, is the government's overall unwillingness to expand social protection provision beyond 1.8% of GDP. A strong alliance of anti-poverty and special interest organisations will be needed to overturn this resistance.

This is linked to the question of the proportion of the population which is disabled and poor. A recognition of the Household Income and Expenditure Survey figures, based on current global 'best practice' Washington Group questions on the prevalence of disabilities would challenge the ceiling of 1.8% of GDP. The finding that a third of households have a person with a disability is a further way of challenging this. However, the analysis presented here suggests that most persons with disabilities are not in poor households, and in the rural poverty dynamics analysis are in households which have never been poor since the late 1990s.

The analysis also suggests that disability can be a strong factor in both impoverishment and chronic poverty. A poverty- and vulnerability-targeted approach to social protection which covers poor and vulnerable persons with disabilities and their households may be manageable with relatively small increases in the % of GDP devoted. A specific suggestion in this regard would be for the government of Bangladesh to develop the health insurance scheme it has been considering recently to reduce the generally burgeoning medical expenses, but also targeted to vulnerable households, including those above but close to the poverty line which include persons with disabilities.

Introduction: Investigating disability and poverty

In the last decade there has been a significant volume of research on the relationship between disability and poverty. Some of the leading conclusions of this include:

- Persons with disabilities and Households with people with disabilities (HHWPWD) are not necessarily poor. Persons with disabilities are more inclined to be poor and remain within a lower socio-economic class compared to their able-bodied counterparts.[1]
- There were limited cross-country comparable findings, and little longitudinal research to provide a dynamic analysis (WHO 2011). The former has begun to change as data has improved, but the latter is still true. This was a motivation for this research project.
- Women with disabilities (WWD) are more disadvantaged across a number of dimensions than men with disabilities (Emmett and Alant 2006; Reicher 2012). Poor WWD are argued to face three-fold discrimination as a result of their gender, perceived inability and low economic status (Kiani 2009) and this frequently translates into an inability to access labour markets and microfinance programmes (Bualar 2011; Lewis 2004; Naami et al. 2012), social isolation, violence and an extreme exclusion from services and social protection, as for example in South Africa (Humphrey, 2016). The impoverishing effects of stigma may be especially strong for women with mental illnesses (Trani et al, 2015).
- Little is known about other intersecting disadvantages.
- Persons with disabilities experience lower rates of employment (Emmet 2006; Kamaleri and Eide 2011; Mitra et al. 2013), often receive lower wages when they work (Lamichkane 2012; Loeb and Eide 2004; Mitra and Sambamoorthi 2006), and are more likely to be economically disadvantaged, lacking the assets needed to engage in productive self-employment (WHO 2011). Exclusion from employment is central to the reasons for multi-dimensional poverty among HHWPWD. However, there is considerable heterogeneity across developing countries in terms of the employment rates of PWD relative to people without disabilities and this means that disability employment policies need to be context-specific (Mizunoya and Mitra 2013).
- There can also be heterogeneity of employment opportunities for different disabilities: for example, in India it was found that in rural areas, having a mental disability decreased the likelihood of employment, while being female and having movement, or sight impairment (compared to other disabilities) increased the likelihood of employment. In urban areas, being female and illiterate decreased the likelihood of employment but having sight, mental and movement impairment (compared to other disabilities) increased the likelihood of employment (Naraharisetti et al, 2016).
- Persons with disabilities face significant barriers to access to health services – lack of transport, availability of services, inadequate drugs or equipment, and costs (Eide et al, 2015). Ongoing health and disability-related costs can be significant contributors to impoverishment (Palmer et al, 2015).
- Children with disabilities are less likely to attend school and college, despite the high returns which are possible, for example, in Nepal (Lamichhane and Sawada, 2013). Where inclusive

[1] (Eide & Loeb 2006; Eide & Kamaleri 2009; Eide et al. 2011; Eide & Ingstad 2013; Henning & Bhekie 2011; Kalameri & Eide 2011; Loeb et al. 2008; Mitra & Sambamoorthi 2009; Mitra et al. 2013; Parnes et al. 2009; Trani & Loeb 2008).

education programmes have been implemented, there is little evaluation of the impact on *poor* children with disabilities.

- There is little evidence on the impact of social protection on PWD or HHWPWD, though some work suggests that coverage and benefit levels have been low (Banks et al, 2016; Palmer, 2013); in Tanzania, for example, people with disabilities were aware of social protection programmes in their area but were not targeted specifically, and benefit packages offered by the programmes were not adapted to their needs (Kuper et al, 2016). Health insurance may not necessarily prevent impoverishment, for example, in China (Sagli et al, 2013).

The gap in the growing volume of work bringing together these two discourses has been recognised as the development of a dynamic or longitudinal understanding of the relationship between poverty and disability (Mitra et al, 2013; Eide and Ingstadt, 2013). This research attempts to introduce this and compare and integrate the results which can be obtained through cross-section analysis of a household survey with longitudinal analysis of panel and qualitative research data. Most previous research has relied on cross-section household surveys, and there has been significant progress in getting a standardised group of questions (the Washington Group questions)[2] into many of these regular surveys in developing countries.[3] The advantages of such surveys include their scale and national representativeness, and their ability therefore to generate statistics about the incidence of households with particular characteristics (levels of poverty, nature and levels of disability, for example), and to correlate a wide range of characteristics, to generate an understanding of which are associated together in a particular national context, or across such contexts. This contributes to the development of theory about the relationships between poverty and disability, and enables the testing of some hypotheses.

Introducing a longitudinal dimension, through panel data and life history focused qualitative research enables tracing changes over time, the impact of particular *events* (such as becoming disabled) on individuals or households; or *stresses* (such as a continuing disability, or chronic illness); and thus *poverty dynamics* – changes in poverty status of households or individuals over time. Longitudinal research also enables the development of greater insights and stronger claims on *causality* (Davis and Baulch, 2011; Davis, 2009). Taking a dynamic approach is therefore useful for the generation of insights for policy makers.

Disabilities primarily affect individuals, but also have significant consequences for carers and other members of their households; poverty primarily affects households, though individuals' wellbeing within household also varies. This makes the analysis of the two issues together complex. A poverty lens makes households the more important unit of analysis, and these are complex – with consumption-focused households often nested within wider asset-using extended households; and surveys have to simplify the household unit in situations where kinship relationships are important and complex.

[2] The short version of these is: Do you have difficulty seeing, even if wearing glasses? 2. Do you have difficulty hearing, even if using a hearing aid? 3. Do you have difficulty walking or climbing steps? 4. Do you have difficulty remembering or concentrating? 5. Do you have difficulty (with self-care such as) washing all over or dressing? 6. Using your usual (customary) language, do you have difficulty communicating, for example understanding or being understood?

[3] By 2016, 41 countries have used the questions in a census, living standards survey or pre-test for a survey/census, of which 4 are High Income Countries. Source: Reports to Washington Group, courtesy Mitch Loeb.

In Bangladesh, for census and household survey purposes, a household is defined by who usually eats together ('khana'), sometimes also referred to as a 'ghor', which means a small dwelling or room. However, the extended household may share land or other assets. Often in villages the extended household dwells in a cluster of dwellings referred to as a 'bari' - which means home or homestead. At other times extended family members may live completely separately - although may still contribute to joint finances.

If brothers in a joint household get married they may decide to 'go separate' ('alada' in Bangla), and this decision may be triggered by better off couples thinking they can do better alone; the advent of a disability can lead to such separation.

Qualitative research can look at these relationships beyond the narrowly defined consumption household, and this is especially important for understanding coping strategies. If a household is struggling it may be supported by others in extended family, or not – the influence can be positive or negative. If brothers in a joint household get married they may decide to 'go separate', and this decision may be triggered by better off couples thinking they can do better alone; the advent of a disability can lead to such separation. On the other hand, if a household is struggling because it includes a person with a disability, an older brother may come to the household's help. Remittances from migrants to Dhaka or the Middle East play a growing role in household economies. Land is not always divided at same time as consumption households divide. Land division among children may occur when a father dies, or beforehand. Surveys need specific modules to cover such important topics properly. Qualitative, life history research quickly gets into them if they are relevant parts of people's stories.

The household is also the transmitter of social norms good and bad, something which is important in the case of disability as well as poverty. It is the primary social unit which will transmit discriminatory attitudes and behaviour, or defend its members against discrimination. Again, specific questions or modules would be needed in a household survey to understand these; qualitative research can uncover them more easily. Thus there is great complementarity in combining quantitative, household survey based research with qualitative research.

In this research we have used medium-N samples of households – while not statistically representative of populations, these are significantly greater than a few case studies, and when results begin to repeat themselves, can give a high degree of confidence in the results.

Household surveys used for poverty analysis are not surprisingly good at revealing *household* level trends and factors; their ability to reveal *individuals'* outcomes and issues are more limited, and they have typically been able to take only a limited view of disabilities, a situation the inclusion of the Washington Group of questions in many surveys has helped improve. Qualitative research focuses on individuals as well as households and is capable of taking a more nuanced approach to disabilities as well as developing a more rounded longitudinal understanding of poverty and wellbeing. An example would be the way in mental health issues emerge strongly from qualitative research, but are often barely touched by survey research on disabilities more generally, unless in the rare cases they are specifically designed to. The Washington Group questions can provide some insights related to mental health.

In the qualitative research reported here mental health problems were common, and those reported by interviewees were often severe – milder conditions like depression would have most likely not been picked up by researchers not trained in mental health, or by the community. Mental health issues are poorly treated medically, often diagnosed superstitiously, and treated with social isolation – all of which makes their impact on wellbeing quite critical.

Gender emerges as a critical differentiating factor in much of our work, both survey and qualitative. In patriarchal systems women already suffer disadvantages; when you add disabilities their outcomes are often significantly worse. This research has explored the 'triple discrimination' experienced by poor, disabled women. Employment, for example, is more likely to be vulnerable for women with disabilities; and the poorest women are also more likely to be employed, having no alternative. Marriage, dowry and divorce are also harsh. On the other hand, poverty can be especially harsh when the breadwinner of a household becomes disabled – and this is usually a man.

In terms of the ability of the research to shed light on the direction of causality – 'does disability cause poverty or vice versa?' - qualitative research, based on life histories, is good at pointing to ways in which disabilities can influence individuals' and households' wellbeing, but less good at understanding how poverty might cause disability. To say that poverty causes an impairment would require a medical diagnosis and a discussion with a medical practitioner to know whether, for example, nutritional deprivation might have contributed to the disability, and this was not obtained for this research. However, it was plausible that a number of observed conditions could have been attributed at least partly to poverty – where unorthodox medical treatment had gone wrong, for example, and the right kind of treatment had not been available. It is easier to understand how poverty can exacerbate the effect of an impairment.

A survey based approach is better at working on the contribution of poverty to impairments by investigating the frequency of occurrence of disabilities at different levels of poverty, or among people experiencing different trajectories – escapes from poverty, impoverishment or chronic poverty. Diwakar (2016) and Sen (2016) both contain analysis of these issues.

Analysis of the 2006-2010 panel data, where there was a module on disability in 2006 is capable of generating an understanding of the impact on wellbeing over time of disabilities. However, because there was no equivalent module in 2010, it is unable to trace the impacts of wellbeing on disability status. In this sense, there is no escape from the need for more frequent or regular inclusion of disability questions and modules in surveys, or for dedicated surveys on disability.

1. Disability is a much more significant issue for poverty than population-based estimates of the number of PWDs would suggest.

A first contentious point for research on disability and poverty is the question of how many people have disabilities.[4] Different approaches to measurement throw up significantly different numbers, and those that are measured are mostly physical disabilities. The Bangladesh 2011 Census produced an incidence figure of 1.4%, while our analysis of the 2010 Household Income and Expenditure Survey (HIES) produced a figure of 9% (9.6% rural and 7.5 urban), based on the Washington Group questions; the 2006 IFPRI rural panel survey produced a figure of 22% of individuals with physical impairments, measured by 'activities of daily living',[5] but this latter survey is not representative of the population, unlike the other two. Being a panel established in the 1990s and early 2000s, it has an older sample, for example, and other things being equal, older people could be expected to experience more disabilities.

The Washington Group questions implicitly take mental health issues into account to a greater extent than the activities of daily living. Interestingly the more inclusive Washington Group questions in the Household Income and Expenditure Survey have produced a lower incidence of persons with disabilities than the more purely physically delineated activities of daily living questions in the panel data.

Table 1: Incidence of Household Poverty by Disability Status of Population, Household Income and Expenditure Survey, 2010 (Col. %)

	No disability	**Disability**	**No Disability**	**Disability**	**Severally Disabled**	**Moderately Disabled**
Extreme Poor	33.69	29.62	18.86	16.08	21.00	15.09
Moderate Poor			14.83	13.54	13.19	13.61
Vulnerable Non-Poor	66.31	70.39	16.44	16.69	17.87	16.45
Comfortable Non-Poor			49.87	53.70	47.93	54.86
Total	100	100	100	100	100	100

Source: Sen (2016), Table 3.4, and author's calculations

Note: Levels of disability 1-No Difficulty (=no disability); 2-Yes, Some Difficulty (=moderate disability); 3-Yes, Severe Difficulty or can't see/hear/ (=severe disability)

1.1. Unpacking the weak poverty-disability link

Across countries explored in research to date, persons with disabilities are more inclined to be poor and remain within a lower socio-economic class compared to their able-bodied counterparts.[6] However, in

[4] Global Burden of Disease Analysis suggest that 15-20% of the population live with a disability, including those resulting from mental health issues. 2-4% are severely disabled (WHO, 2008, 2011).

[5] The Washington Group questions ask about the degree of difficulty in seeing, hearing, walking/climbing steps, remembering/concentrating, self-care and communicating (being understood or understanding). The Activities of Daily Living questions record: impairments include a missing or deformed limb, paralysis, use of assistance such as glasses or a wheelchair, or experience difficulty hearing/seeing/speaking. Activity limitations cover whether an individual is unable to stand after sitting down, sweep the floor, walk five kilometres, or carry 20 litres of water for 20 minutes.

[6] (Eide & Loeb 2006; Eide & Kamaleri 2009; Eide et al. 2011; Eide & Ingstad 2013; Henning & Bhekie 2011; Kalameri & Eide 2011; Loeb et al. 2008; Mitra & Sambamoorthi 2009; Mitra et al. 2013; Parnes et al. 2009; Trani & Loeb 2008).

Bangladesh, among households with a disability the incidence of poverty in 2010 was approximately 30%, compared to approximately 34% among households without a disability, according to the 2010 Household Income and Expenditure Survey (Table 1). Clearly there are many poor households which include persons with disabilities; but there are also many non-poor households, and the expected correlation between poverty and disability incidence appears not to be there. As results from use of the Washington Group questions accumulate, it will be interesting to compare Bangladesh with other countries.[7] This is a surprising and counter-intuitive finding, which can perhaps be better understood by disaggregating both disabilities and poverty into more or less severe categories.

Among the moderately disabled, there were fewer extreme poor households and more comfortable non-poor households compared to households with no person with a disability. The reasons for this need further exploration, but could be to do with employers being more willing to employ persons with moderate levels of disability; the lower costs and caring requirements associated; or possibly the greater availability of formal or informal social protection.

1.2. Severe disabilities are associated with extreme poverty

Of the disabled population, about 16% were severely disabled in 2010, as measured by the self-reporting indicators used by the Washington Group questions in the HIES. As indicated in Table 1, this is an especially significant group for poverty analysis, as severe disabilities interact more intensively with the incidence of extreme poverty than moderate disability. It is only this group which has a higher incidence of extreme poverty than the group of households with no disability. Severely disabled individuals experience multiple disadvantages which are likely to make them chronically poor, even when their households are not, if poverty is measured by individual rather than household indicators. At present, data limitations preclude us from testing this relationship. However, what the survey data does indicate is a higher share of extremely poor households where these include persons with severe disabilities, compared to those who are not severely disabled.

1.3. Many households affected by disabilities

In any case, population-based estimates do not do justice to the size of the overall issue, given the effects of disabilities on household wellbeing: 1/3 of households in the nationally representative HIES include at least one person with a disability – so if household wellbeing is truly a household issue and not determined by the aggregation of individual wellbeings, disabilities could be expected to play a substantial role in overall poverty and wellbeing dynamics.

It could be better for the disability movement to focus on the proportion of households affected by disabilities as well as the proportion and numbers of individuals, as this is something the whole population can relate to, and policy makers too. However, if these were derived from the 2011 Census, the figure would only be 6% of households. So the source of the data and its legitimacy is critical.

In the original 2007 life histories examined for this research (not selected for the presence of a disability) 34% of people (101 out of 293) whose life histories were recorded were affected in some way by a

[7] It would be especially interesting to compare Bangladesh with other countries where extreme poverty has been reducing rapidly – Vietnam and Cambodia, for example; or with parts of India where the same is true.

disability (their own or someone else's) at some time in their lives. It is important to point out that this sample was not selected with disability in mind.

Policy makers are most focused on generic issues like growth and poverty, so a second focus for the disability movement would be the relationship between poverty and disability discussed in this paper. Households with members with severe disabilities are more likely to be extremely or moderately poor than households without disabilities or with moderate disabilities. The magnitude of the poverty effect is larger for severe disabilities, but still not very large. The finding that the moderately disabled have lower levels of extreme poverty than people without disabilities is statistically significant, and therefore a puzzle, as mentioned above.

However, in cities and towns the adverse effect (on poverty status) of being moderately disabled is more pronounced than in villages (Sen, 2016): urbanisation does not automatically create an inclusive growth process for PWD, as it tends to for others. This means that one route out of poverty is, if not closed, at least heavily constrained for persons with disabilities.

1.4. Pathways between disability and poverty: education, marriage, labour markets and social protection

Various pathways between disability and poverty were examined through regression analysis: these included human capital formation, labour market participation, marriage and access to social protection. In the case of education, there were significant differences in education achievements between severely disabled members and people without disabilities; but no differences between moderately disabled members and people without disabilities. Expenditure on schooling is likely to determine future wellbeing status. Here persons with disabilities are much more disadvantaged than those without, and the effect is greater for those with severe disabilities. This means they are likely to be stuck at the lower end of the job market in future, in unskilled, insecure, informal work. People without disabilities and persons with moderate disabilities will escape poverty more often.

By contrast, health spending is not higher for people with disabilities, even those with severe disabilities, which could suggest ambivalence and even neglect of disabled members by their households. However, the qualitative research gives a different result – see below.

Participation in both labour markets and marriage is lower for persons with disabilities, especially for women and people with functional impairments in seeing, walking and self-care. This affects both moderately and severely disabled people. There is a similar finding for participation in social protection programmes, though this does not differentiate by type of disability. Given the importance of labour markets and marriage for determining wellbeing and poverty outcomes, it is surprising that the severe/moderate difference in this respect noted above is so marked.

As reported above, there is a strong gender dimension to the incidence of disability and poverty: more women than men have disabilities, especially when these are 'severe'. There is a 'triple discrimination' which will be explored later: being poor, a woman, and disabled makes it very hard to escape extreme poverty. Disability is therefore an issue women's movements can usefully take up. Of the above outcomes,

only education outcomes were not differentiated by gender. In marriage, labour market participation and social protection women with disabilities experienced worse results than men on average.

1.5. The specifics of disability in an urban setting

In urban areas, severe disability is associated with far higher incidence of extreme poverty than households without persons with disabilities, and the difference is larger for cities compared to small towns. This may be partly because the better livelihood opportunities in cities draw people with (especially severe) disabilities from the rural areas. However, once there, mobility and other difficulties would have big impacts in city slums and cities more broadly, where pavements and streets are not often disability-friendly. Cities are more dangerous environments, with less protection. In villages people with disabilities are known and there is more social integration; it may also be easier to get around. On the other hand, persons with disabilities may be teased and harassed in those environments. Income needs and income levels are much greater in a city, and it may be harder for persons with disabilities to get work than in a village setting, where work is less demanding and often agriculture-based. In many villages some things can be obtained for free. In a city firewood, water, food all need to be bought.

2. Disability as a factor in rural chronic poverty

According to the rural panel data, there is a slightly higher prevalence of disability amongst those in chronic poverty compared to those who are not in chronic poverty. 'Amongst the population of persistently poor individuals according to the 2006 and 2010 waves [of the IFPRI panel data], 30% are Persons with disabilities. This compares to just over a quarter (26%) of Persons with disabilities amongst individuals who are not persistently poor. There is a similar trend wherein a higher percentage of persons with severe disabilities (here defined more narrowly than in the previous analysis) exist amongst the persistent poor and extreme poor.' (Diwakar, 2016)

Table 2: Disability by poverty trajectory (3-wave panel data)

	Persistently Poor	Escape	Descend	Never Poor	Statistical significance
No disability	68.33%	73.10%	76.17%	75.66%	Yes, .05 level
Any disability	31.67%	26.90%	23.83%	24.34%	Yes, .05 level
Severe	19.22%	13.95%	13.62%	10.78%	Yes, .01
Moderate	7.47%	11.28%	6.81%	10.73%	Yes, .1
Mild	15.30%	12.46%	12.77%	12.59%	No

Source: Diwakar (2016)

Note on definitions: Like other definitions of levels of disability (see for example, WHO, 2011), this attempts to divide the scales provided in the panel's disability module into practical categories ranging from mild to severe/extreme disability.

In our analysis, a Person with severe disability has at least one of the following impairments:

- Sensory (hear, speak, see): blind in both eyes, deaf in both ears, cannot speak at all
- Functions (stand up after sitting down, sweep floor, walk 5km, carry 20L water for 20min): not at all
- Deformed or paralysed: from hips down, from neck down, left side of body, right side of body, whole body, more than one limb

A moderately disabled Individual is not severely or mildly disabled, and has at least one of the following impairments:

- Sensory (hear, speak, see): generally poor eyesight, cannot see at night, blind in one eye, deaf in one ear, hardly speaks
- Functions (stand up after sitting down, sweep floor, walk 5km, carry 20L water for 20min): lot of difficulty
- Deformed or paralysed: arm, leg, jaw, back

A mildly disabled Individual is not severely or moderately disabled, and has at least one of the following impairments:

- Sensory (hear, speak, see): sometimes has difficulty, generally has difficulty, difficulty seeing things close or far
- Functions (stand up after sitting down, sweep floor, walk 5km, carry 20L water for 20min): with a little difficulty
- Deformed or paralysed: finger, hand, toes, foot

Table 2 shows that – this time using 3 wave survey data[8] - that there is a higher prevalence of disability amongst the rural persistently poor (32%) compared to the never poor (24%). And severe disabilities are more common amongst the persistently poor compared to those who have escaped or even descended into poverty. While most of these results are what could be expected, it is interesting that there seems no particular relationship between disability incidence and impoverishment, a finding which runs against the findings of the qualitative research. Unfortunately, the survey disability data is limited to one round (2006), so it does not reflect adequately the potential impact of disability onset and dynamics on poverty

[8] This is survey data over three points in time, late 1990s, 2006 and 2010.

outcomes or dynamics. This is better reflected in this project by the qualitative data analysis (see below). Survey work elsewhere has found significant change in disability status between one survey round and another.

Table 3 shows that the majority of persons with disabilities were either not poor in all three survey years (late 1990s, 2006 and 2010) or escaped poverty over the period. Though many either 'churned' (ie crossed and re-crossed the poverty line) or descended, there were relatively few cases of impoverishment and persistent poverty. Persons with severe disabilities are more likely to be persistently poor compared to those with mild or moderate disabilities, and also less likely to be never poor. These are statistically significant findings, in line with the expectations generated from the one point in time analysis of the HIES above.

Table 3: Descriptive statistics on basic poverty dynamics for households with/without varying degrees of disability

	2-wave	Using 3-wave data					
Disability	Persistently poor N=518	Persistently poor N=281	Poverty escapers N=1011	Poverty descenders N=235	At risk (churn or descend) N=643	Never poor N=1771	Sample size [N]
None	9.16%	7.03%	27.05%	6.55%	16.29%	47.35%	2830
Any	10.18%	9.14%	27.93%	5.75%	17.60%	41.68%	1034[A]
Severe	11.57%	11.27%	29.44%	6.68%	18.42%	37.82%	505
Moderate	6.25%	5.41%	29.38%	4.12%	15.11%	45.56%	417
Mild	9.82%	8.92%	26.14%	6.22%	18.00%	44.60%	500

[A] Any disability covers individuals who are moderate or severely disabled, as well as those who have identified as disabled from the employment module or require assistive devices.

Note 1: Table describes the poverty trajectories FOR the subset of those with different disability statuses. The incidence for each poverty trajectory slightly reduces when we rely on 3-wave panel data compared to 2-wave. Escapers includes Poor-Non-poor-Non-poor (PNN) as well as Poor-poor-non-poor (PPN); churn included PNP and NPN.

Note 2: Not completely accurate to compare the different groups by column in and of itself, since the denominator is the degree of disability.

Note 3: Statistical significance: there is a statistically significant (at the 0.05 level) difference in the 3-wave persistent poverty status between the three different groups of disability strength (severe, moderate, mild). There is also a statistically significant (at the 0.01 level) difference in the never poor status between the three different groups of disability strength (severe, moderate, mild). There is no statistically significant difference amongst the other groups.

Source: Diwakar (2016)

Disability is a common factor in both chronic poverty and impoverishment, according to the qualitative analysis of life histories for this project. Key factors in both trajectories include: exclusion from work, or inclusion only in the lowest productivity and waged agricultural work; medical and related transport expenses, often chronic rather than one off; marriage – especially difficulties with dowries for persons with disabilities (especially girls/women), abandonment of wives on becoming disabled or on the birth of a disabled child; household separation, with parts of a joint household without a person with disabilities hiving off to reduce its liabilities; and social stigma (Davis, 2016b).

2.1. Labour market participation

As discussed above, participation in the labour market is constrained for some persons with disabilities, which will potentially contribute to their poverty and the poverty of their households. Moderate and

severe disabilities were associated with 4% and 16% less labour force participation respectively in the 2010 Household Income and Expenditure Survey. The effects of severe disabilities are greater for men than women; and in urban areas compared to rural. Difficulties in seeing, walking and especially self-care are all associated with reduced participation, with the likelihood of being unemployed, and with lower probability of being employed outside the farm sector, compared with people without such disabilities, and more so for men than women. These findings are similar to those in other countries, and reasons include: access to workplaces, suitability of workplace environments including workplace accommodation, observed and unobserved productivity gaps, discrimination, and high opportunity costs for mobility. These findings suggest that interventions to improve the attractiveness of persons with disabilities to prospective employers, to reduce discrimination and adapt workplaces and transport systems will all have positive effects for people with disabilities, and for the households they are a part of.

More persons with disabilities were self-employed rather than employed, compared to non-disabled, and most of this is in low value-added agriculture. Access to salaried employment is even limited for people with moderate disabilities, despite the fact that their educational attainments are almost identical to those of people without disabilities. This suggests considerable discrimination and/or practical access issues. There are also significant gaps between the wages of persons with disabilities compared to others, especially for the severely disabled. These gaps are not compensated by additional remittances to households including persons with disabilities.

Linked to participation in the labour market is education spending by households. As we have seen, this is significantly lower for households with persons with disabilities, and especially where the disability is severe, and especially in urban areas. It seems that education spending is a critical area where households discriminate among their children, anticipating observed school attainment and labour market differentials. Keeping children with disabilities in school and working on transitions to work would appear two fruitful areas for policy and programmatic focus: success in these would help challenge the prevalent negative social norms associated with disabilities.

2.2. Household size

Household size would appear to be an important factor in keeping households with persons with disabilities chronically poor: they tend to compensate for the disabilities by having more children, a factor in chronic poverty. Table 4 demonstrates that households that are persistently poor had 5.7 members on average in 2010, according to 3-wave panel data, and are larger than those which are not persistently poor (an average of 4.6). This suggests that poor parents in Bangladesh are still rationally insecure about care in old age, and plan to have enough children to look after them. One third of households include someone aged 60 or more, and there is a rapidly ageing population inadequately covered by social protection.

Table 4: Chronically poor households with disabled members are larger than others

	Persistently poor	Poverty escapers	Poverty descenders	At risk (churn or descend)	Never poor
HHWPWD	6.0	4.3	4.9	5.3	4.7

Households without persons with disabilities	5.3	4.4	5.1	4.9	4.4
Statistical significance	Yes- 0.1 level	No	No	No	Yes- 0.05 level

This suggests that more attention needs to be given by government to making the old age pension more meaningful and reach all poor households, and to providing universal health coverage. The latter may be done within the context of a national health insurance scheme. Box 1 has more details.

Box 1: Bangladesh's Old Age Allowance

This is one of the oldest of Bangladesh's almost 100 social protection measures, which cost more than 2% of GDP. '…It suffers from a number of widely reported limitations; under coverage, inadequate benefit levels and administrative capacity constraints. The overarching constraint of the programme stems from limited budgetary allocation at 0.13 per cent of GDP. Meanwhile, analysis of the 2010 Household Income and Expenditure Survey confirms findings from previous studies by highlighting significant targeting errors within the scheme. Despite sufficient budget to provide benefits to all poor older people, the majority of poor older people miss out. This is due to targeting errors which see over 50 per cent of benefits going to non-poor older people and almost a third of benefits going to those below the age of eligibility.

A universal benefit level of 600 Taka to people aged 60 and over would cost 68 billion BDT, which is equivalent to an additional 0.5 per cent of GDP over and above the cost of the existing programme. Such a programme would lift 2.5 million people out of poverty and reduce the poverty rate of the population living with older people (32 percent of the population) by 6 percentage points. This would be equivalent to a fall in poverty greater than that achieved between2005 and 2010 for the population living in older headed households. A programme of this size could have a macroeconomic impact, increasing GDP by over 0.7 per cent. With this in mind, the programme would not present an additional cost to the Bangladesh economy.'

Source: HelpAge International and Bureau of Economic Research (2013) Old Age Social Protection Options.

2.3. The 'triple discrimination' burden

Persistently poor women with disabilities experience a 'triple discrimination' which keeps them poor. This is visible in terms of employment, education, public transfers and the use of asset sales as a coping strategy. For example, chronically poor women with high levels of functional impairment have to work even in low paid, insecure work, as they often have no alternative – they are 15 times more likely to be employed than chronically poor men with high levels of functional limitations, and at the same time significantly less likely to have completed primary education.

While disabilities in general are associated with reduced opportunities for employment or self-employment, among the chronically poor,[9] women with disabilities are seven times more likely to be employed than men. This could be a result of a combination of absence of choice for some women – they have to work but they are employed on very poor, insecure terms; or it could the result of the development programmes which target poor women, for example the Employment Generation Program for the poorest (EGPP), where a third of the beneficiaries are women, though employment generation programmes employ mainly the able bodied, so in fact are likely to discriminate against persons with disabilities.[10] It is more likely that they are working out of need. It may also be that they are more likely to be childless, or in a female headed household.

The qualitative research also found women with disabilities working more frequently than men with disabilities, and they were less well paid. A great depth of poverty forces people to work, and for very low wages.

Poor village infrastructure and low incidence of wheelchairs and other assistive devices also combines to make mobility around villages difficult, with implications for work and self-employment.

[9] Here those poor in both 2006 and 2010

[10] But there is no easily accessible information on how many are persons with disabilities.

3. Disability as a downward pressure on household wellbeing

In terms of mobility around the extreme poverty line we see households with persons with disabilities being both downwardly as well as upwardly mobile. However, the analysis of panel data does not show large differences between persons with disabilities and those without. The qualitative analysis, by contrast, emphasises the overriding importance of disabilities as a source of downward pressure in the Bangladesh context. The transmission of such pressure is through: (i) financial pressures (lower income opportunities, increased costs, especially medical, and foregone income due to care burden; (ii) very heavy care burdens precipitating household division, abandonment of wives, separation, divorce, or taking a second wife, and reducing the status of the first wife and family including the PWD; and (iii) stigmatisation, discussed below.

3.1. Medical expenses

Medical expenses loom especially large in stories of downward mobility in the qualitative research. In a few cases among the life histories hundreds of thousands of taka were spent; in many cases assets were sold – agricultural land, livestock, capital from businesses - to pay doctors' fees, diagnostic tests, medicines, transport; loans were also taken, including, in a small number of cases, from moneylenders at high interest rates (Davis, 2016b: 11). Among the 2006 non-poor rural households in the panel data, the monthly medical expenditures of PWDs' households were higher (638 Taka) if they became poor in 2010 compared to those who did not become poor (420 Taka). Box 2 illustrates the downward spiral related to medical expenses.

Box 2: The impact of medical expenses: two cases

R was born in 1986 with a hearing impairment. When she turned five, she was first taken to the doctor. From then, treatment of her ears continued. Almost all of the *choto daktar* (local non-MBBS doctors) and *boro daktar* (MBBS doctors) in their sub-district town of Trishal were consulted. R was also taken to a well-known doctor in Mymensingh, costing Tk 1500 per visit. There was no improvement. Her brother said 'There is no account of how much we spent on treating her ears. I gave money for her treatment, so did my father and elder brother. We family members jointly took the decision on where to take her for her treatment. My elder brother helped me take the decision. When we saw doctors, they say medicines will heal her, but nothing worked.'

Her mother also reported (LH3) that more recently in 2014 alone they spent about 25 thousand taka on R's treatment. This time they sold land for 40 thousand taka they had inherited to pay for this.

In another example, in 2012, M (LH5), whose husband (40) and son (18) both suffer from mental illness, sold two cows for 25 thousand taka to pay off a debt accrued for treatment. As a result they faced hardship and could not properly eat for three times a day. Her husband was ill and no one else in the family could earn at the time. Then in 2013, her husband became more ill and she sold earrings for tk 6000 to pay for treatment. It was difficult for M to work due to the need to care for her son who could not be left alone.

Then in 2014, she spent about 3000 taka for medical treatment for her son, and in 2015 because he bit his hand causing a wound, 500 taka was spent to pay for this. The money was collected from the income of their business.

In 2016, her husband started business in the market but didn't have sufficient capital. So, M took the decision to work in a garments factory but after two days her husband became so ill she had to give up her job. Currently she works cooking for others and they are no longer able to pay for continuing treatment for her son. (Davis 2016b: 11)

A further key factor could be that (as mentioned above) households compensate for the advent of a person with disability by having another child, or, in the case of a male household head, by marrying again and having other children by a second wife. This is known to be associated with downward mobility into poverty in general (Baulch, 2011) – though the causality needs to be thought about carefully. In this case, the cause would appear to be the advent of a person with disabilities (usually a child); but, it could also be that this cause operates to a greater extent among households which are already relatively poor compared to the non-poor (but still vulnerable) or rich households.

3.2. Disability – a single shock which impoverishes many

Of those individuals in panel survey households who fell into poverty (between the late 1990s or early 2000s and 2010), over 4 in 10 were persons with disabilities. Even though the panel sample was not nationally representative, so it cannot be taken as such, this is a remarkable finding, suggesting very strong vulnerability to poverty of some people with disabilities.

In most studies of poverty dynamics it is combinations of shocks which impoverish (Baulch, 2011), rather than single shocks. Combinations of shocks – life cycle effects leading to double whammies: for example, parents get ill, daughters need dowries at the same time – can be disastrous. Downward spirals into poverty, which may then be long lasting, have multiple causes. The advent of a disability appears as one element of downward spiral – but it can be the key downward pressure leading to impoverishment.

However, it appears that the advent of a disability itself is may be enough to push a household into lasting poverty. This is an important difference. While analysing causal links brings with it endogeneity issues surrounding testing the effect of disability on poverty trajectory, descriptively we see a higher prevalence of disability amongst poverty churners or descenders, as well as a higher prevalence amongst individuals who were non-poor in 2006 but poor in 2010. If this is the case and the causal chain does hold, as suggested in the qualitative research, this is quite a striking finding.

Among households experiencing transitory escapes (ie that have begun and ended the period in extreme poverty but escaped temporarily in between) persons with disabilities are more common than others.

Among the moderate poor, persons with disabilities were more likely to descend into extreme poverty than those without disabilities between 2006 - 2010. The same holds true amongst non-poor in 2006 who became poor in 2010, though to a smaller degree. While some moderately poor persons with disabilities were also in households which escaped poverty altogether, this was less likely than becoming extremely poor.

Downward mobility into extreme poverty is more common among women and children with disabilities than men. This could be partly because of the additional marriage related factors discussed above which women with disabilities may face. The gender dimension of the relationship between poverty and disability is complex partly because of levels of analysis. Women with disabilities are likely to be vulnerable at the individual level, and at the household level if they are in a female headed household. They may be vulnerable within a household to marriage problems, threats of divorce, abandonment and dowry problems. And they may have a weak fall-back position in intra-household bargaining or conflict because if they are divorced or abandoned they have access to fewer resources and relationships which protect.

The impact of disabilities in men may also be pronounced at the household level - especially if they are prevented from income earning. Women's income earning opportunities are more limited, especially in rural areas, due to other gender-related restrictions. So when a man is disabled, and has reduced income earning, and he would otherwise be a main breadwinner, the relative impact on the household's poverty status is likely to be pronounced. This makes it challenging to make definitive statements on the relative impact of disability on men's and women's poverty.

All these findings tend to suggest that public policies and programming need to focus more on preventing impoverishment than they do. This was a case also made in the 2014-5 Chronic Poverty Report (CPAN, 2014).

4. Escaping poverty with disabilities – what can we learn from such cases?

It is clear from both the panel data analysis and from the qualitative research that having a disability is itself no bar to escaping monetary poverty. In the rural panel sample, around 20% of extreme poor in 2006 became moderately poor by 2010, while 30% became non-poor by 2010. This was the case regardless of disability status.

During the period of high economic growth between the late 1990s or early 2000s and 2006, one third of the rural individuals in the panel data escaped poverty, of whom 30% had a disability – disabilities themselves were no bar to escaping poverty in good economic times. This is higher than the national rate of escape at that time (for example, between 1996 and 2005, the poverty headcount rate at $1.25 reduced by around 10 percentage points to rest at 50.5% by the end of the period), perhaps because the surveys were designed to capture the impact of various development programmes and cash transfers.

Between 2006 and 2010 households with persons with disabilities improved their wellbeing at the same rate as households without, both among the poor and the non-poor. However, focusing on the moderate poor there is a significant difference – 1 in 2 persons with disabilities escaped poverty compared to 2 in 3 persons without disabilities. It may be that this slower rate of escape over this period can be explained by the impact of the dramatic 2008 food price rises which coincided with the global financial crisis. But it may also be that the ageing households in the panel were less likely to generate the momentum required to escape. However, these are hypotheses. The main takeaway is the indication that there is a high rate of mobility amongst those who are moderately poor, and that escaping this moderate poverty is easier for persons without disabilities. Escaping extreme poverty is a lot harder regardless of disability status.

A further hypothesis would be that where the breadwinners – usually men – are not disabled they may be still able to carry their households out of poverty where their strategies are good enough, and their usually small asset base not disrupted. Where male breadwinners are disabled downward trajectories are more common. It is clearly important to recognise the importance of this gender dimension.

Age may also be a factor in escaping poverty. Amongst children (aged less than 15 years in 2010), the percent who are in households that have escaped poverty are: 34.15% if disabled, and 31.80% if not disabled. The qualitative research indicated that the majority of (the relatively few – 17 % of the total interviewees in 2016) households on improving trajectories were those where the persons with disabilities were under 20 years old. The significance of this finding needs further thought and exploration, especially in including persons with disabilities in development interventions. An implication could be that supporting young persons with disabilities to escape poverty through education and training, and entry into the job market could have a high payoff.

Escapers with disabilities have benefited from education stipends at a higher rate than non-escapers; though this does not affect women and girls with disabilities. This is the only policy or programme found to have been significant in our research.

Urbanisation, industrialisation and rural-urban migration can be problematic for persons with disabilities or households including persons with disabilities– these do not provide the same possibilities of escaping

extreme poverty that households without PWD experience. Other CPAN research on poverty dynamics increasingly emphasises the importance of these routes out of poverty as agriculture becomes a less powerful driver of escapes from poverty: the policy implication would be the great importance of improving access to urban and working environments for PWDs.

5. Stigma and discrimination

'Stigmatisation of people with disabilities was widespread and has very detrimental effects. Children with disabilities were commonly excluded from education, people were isolated because they were reluctant to move in public – fearing harassment or teasing. Spouses with disabilities were often criticised by in-laws and more vulnerable to being divorced or harassed in dowry disputes. Mothers of disabled children were criticised because they were seen as being at fault or harbouring evil. There is a great need in Bangladesh for better general education about disability and more grassroots-level support and networking to support those with disability and counter the discrimination and stigma that people with disabilities routinely face.' (Davis, 2016b: 17)

Households are active arenas for stigmatisation. Marriage is an example: persons with disabilities are less likely to get married, and people with severe disabilities especially so.

Social norms appear to legitimise unpleasant behaviour, such as harassment and teasing, towards persons with disabilities, mothers of children with disabilities, and children with disabilities. One of the serious consequences of this is that children with disabilities are discouraged from going to school.

Public institutions do also discriminate – for example some social protection programmes exclude people with severe disabilities who cannot work. People with 'moderate' disabilities were 20% less likely to participate in social protection programmes compared to those without a disability in the HIES, with women especially less likely to participate. For schooling it would seem that discrimination against severely disabled children is especially significant (Sen, 2016).

The poverty-focused micro-finance industry in Bangladesh has barely worked on including persons with disabilities into their programmes, according to a Centre for Financial Inclusion blog.[11]

Labour market outcomes suggest some discrimination: persons with disabilities are mainly involved in agriculture if they are employed; to a much lesser extent in manufacturing (half the rate of people without disabilities) or services. Moderately disabled people have a similar educational status to people without disabilities, but have significantly less salaried employment.

Finally, PWD and especially women and girls with disabilities may be kept out of the public eye, for reasons of shame.

The 2013 Act of Rights of Disabled Persons and Social Protection lays a foundation for addressing these embedded institutional and social/cultural practices (see below). It will be important to monitor and evaluate the efficacy of this measure: there is surprisingly little evidence globally on the effectiveness of anti-discrimination measures on the wellbeing of persons with disabilities and their households (Marcus et al, 2016).

[11] https://cfi-blog.org/2014/08/07/financial-inclusion-of-disabled-people-in-bangladesh-the-broken-promises-of-mfis/

6. The importance of differentiating disabilities

While there would be broad international acceptance that all persons with disabilities should have the same rights as people without disabilities, the ideology of disability movements has tended to be to treat all disabilities as the same, or equally deserving attention, or as all persons with disabilities having similar (if not the same) needs. The research carried out for this project would suggest that this is not a realistic basis for disability-aware anti-poverty policy. Nor is it the best basis for enlarging the concern of public policy with disability issues, as the positions of large numbers of persons with disabilities are thoroughly neglected. The mentally ill and disabled are often not counted, though, as we have seen, the Washington Group questions have gone some way towards this; but they remain very highly stigmatised and ill treated in many societies, for example.

The disadvantages of disaggregation and targeting would be compensated by the enlargement of the significance and scope of the issue: the fact, for example, that properly including the mentally ill or disabled would significantly add to the numbers of persons with disabilities; and the fact that one third of all households have a person with a disability. The movements could focus energy on getting policy makers to take the wider impact of disability – especially on households, but also on extended families, and even communities, into account.

6.1. Severe disabilities

16% of PWD in Bangladesh (as measured by the Washington Group questions in the Household Income and Expenditure Survey) were severely disabled in 2010.

In much of the above analysis, severe disabilities are strongly linked to extreme poverty. The reasons include: labour force participation is lower; education achievements are significantly lower; households with people with severe disabilities are unlikely to operate any agricultural land or own a house, people with severe disabilities (especially women) are less likely to get married than others. Female headed households with moderate disabilities may be equally disadvantaged. Households with people with severe disabilities have lower non-food expenditure, much of which is for health and education, suggesting that this will create downward pressures over time, and certainly reduce the possibilities for education-based pathways out of extreme poverty. It also suggests that such households may give low priority to spending money on their severely disabled members (Sen, 2016).

The implication of these findings is that households with severely disabled people are likely to remain extremely poor without special policy measures in their favour. Given the difficulties of targeting programme benefits in Bangladesh, and the low status and low political visibility of severely disabled people, it is unlikely that social protection or other measures would effectively reach such a group.

With reference to poverty, the criteria for defining a severe disability might include whether a disability disqualifies a person from earning a decent income, one enabling an income over the extreme poverty line. Conceptually we might think of three four categories: those who could never earn an income (and therefore need permanent welfare); those who could earn in more benign circumstances (such as higher economic growth, less discrimination in labour markets; more active assistance/support; protected

employment eg from NGOs); another group earning now, but likely to become unable to earn; and a final group likely to be able to continue earning into the future.

There is a presumption among policy makers against creating dependence on welfare, so the above differentiation may not sit easily with policy makers trained in neo-liberal traditions. There is also a presumption among poverty activists that people can make it out of poverty themselves, given the right kind of support or social and economic environment. But this is simply not the case in general, as the literatures on agricultural extension and micro-finance have made clear: chronic poverty is a sign that people do get left behind. The question for policy makers and activists is what combination of social protection and other measures will be sufficient to enable households with persons with severe disabilities to escape poverty in a sustained way, without high risks of re-impoverishment.

The answer which this research would suggest is that social protection is essential, but needs combining with measures addressing labour market participation (education, training, employment practices) and social norms around marriage, education, and the creation of disability-friendly working and living environments especially in cities.

6.2. Mental health

Mental health: neither survey analysed here was able to provide a strong reflection on mental health or disabilities. From the qualitative research it is clear that severe mental health problems are common. Non-severe problems may be even more common, but the researchers were not adequately trained to pick these up, and interviewees and the community may also not be sufficiently discerning. Mental ill-health can also induce impoverishment, or contribute to a household remaining chronically poor.

To quantify this, surveys focused on, or which take account of mental health need to be developed. Services on mental health need to be developed. These should perhaps focus first on the common mental health issues which can be easily diagnosed and treated at a local level by trained practitioners, rather than the expensive psychiatric hospitals and trained specialists who can only ever treat a tiny proportion of a country's mentally ill. WHO argues for the integration of mental health services into all levels of medical care.[12] There are examples of innovative low cost mental health care which can reach thousands,[13] but few of whole scaled up services. This will be a topic of future CPAN work.

6.3. Chronic illness

The qualitative research carried out for this project suggests that chronic illnesses (such as asthma, gastric problems, tumours, diabetes, stroke, chronic tuberculosis, liver problems, suspected UTI, nutritional deficiencies) may have similar effects to disabilities. If this is the case, it provides the basis for a strong argument for the disability movement. Chronic illnesses have been given a substantial place in development since the 1990s, in both the MDGs and the SDGs, resulting in significant international aid

[12] http://www.who.int/mental_health/policy/development/en/
[13] https://www.eurekalert.org/pub_releases/2016-01/tca-pia012116.php

flows and national public expenditure. For example, $33 billion had been contributed to the Global Fund between 2002 and 2015.[14]

The possibility that chronic illnesses could be counted, in situations where cures are elusive, as disabilities because their wellbeing effects are similar, opens another important angle for disability movements. Unfortunately, the panel data used for this research only contains information about illnesses experienced during the previous two weeks, so cannot shed light on this issue.

If this hypothesis is correct, it would suggest that disability campaigners can be suggesting to governments and donors that, in order to eradicate extreme poverty there is a need to spend similar amounts of money, and develop similar levels of service for persons with disabilities as for people with chronic illnesses. This is not to suggest that similar modalities should be used – the vertical health programmes developed at international level have certainly drawn attention to illnesses like HIV/AIDS, malaria, tuberculosis; but have also detracted from the development of all round, coherent health services in many developing countries, which would be capable of addressing the broad range of such illnesses.

[14] http://www.theglobalfund.org/en/financials/

7. Policy Analysis

Table 5 summarizes some of the leading disability-relevant policies in Bangladesh, as seen at the time of designing this research. These are shaded light grey. However, the research, as was predictable, has thrown up a wider range of policy areas which are significant in the analysis of links between disability and poverty. For example, it emerges that industrialisation and urbanisation, the two drivers of economic development in Bangladesh, do not provide inclusive environments for persons with disabilities. Difficulty in seeing, walking and self-care all reduce the likelihood of participating in labour markets. Education, skills and work opportunities are all needed if persons with disabilities are to be included in growth and be upwardly mobile. Health insurance is critical to preventing impoverishment, but absent. So Table 5 has been updated to include a second row and additional columns of policies, shaded darker grey.

Table 5: Some leading disability-relevant policies in Bangladesh

Stage Identified	*Social Protection*	*Education*	*Labour markets*	*Health*
Research design	Allowances for the Financially Insolvent Disabled Protection of Children at Risk Old age allowance Allowances for Widows, Deserted and Destitute Women	Primary Education Sub-stipend Programme Stipend for Disabled Students Grants for the Schools for the Disabled	100 Days Employment Generation Scheme	
Research conclusions	Further targeting of extremely poor with disabilities Treatment of chronic illnesses	Work-based skills	Industrial policy, and work place environments Transport policy Urbanization policy Financial services policies and programmes	Health insurance Policies on chronic illnesses

7.1. The changing context for improved policy on disability

According to a consultation with Disabled Persons Organisations (DPOs),[15] disability advocates, and financing NGOs in Bangladesh, the context for disability work has changed remarkably during the last 5 years. There has been much greater awareness of the need to act in favour of persons with disabilities than there had been previously. This appears to have had two drivers: firstly the transition from the MDGs, which did not mention disability, to the SDGs, which have included specific commitments to include persons with disabilities as well as the general commitment to 'leave no one behind'. Secondly, the Prime Minister's daughter's strong championing of people with autism has transformed the profile of autism in public discourse and policy discussions,

[15] Carried out by Binayak Sen and Mosharraf Hossain

which has had a positive knock on effect on disabilities generally – for example, disabled persons organisations have an audience with the minister of finance prior to the budget. At the same time there is an apprehension among DPOs that the political focus on autism may sideline other disabilities.

The 2013 Disability Act is another indicator that disability issues are now represented more strongly in the government's political agenda. The Act focuses on 12 types of disability (compared to the 6 in the Washington Group statistics), and is therefore implicitly committed to a level of disaggregation of disability. However, there is no data to support the Act in this respect.

The private sector is showing signs that attitudes have begun to change: a number of garments and other companies have begun to employ persons with certain disabilities – for example some garments factories employ people with hearing disabilities. Training programmes have shown promise, and have been appreciated by employers, but there are complementary issues such as transport access to the workplace which may have to be addressed before training can make much permanent impact. However, the private sector as a whole remains a stumbling block to progress, so there is a lot of work to be done to persuade employers to take more flexible attitudes to employing poor persons with disabilities.

The principal significant existing government programmes noted by DPOs during the consultation included the Disability Allowance and the Disability Stipend. The Stipend (300 Taka per pupil/month for primary and 500 Taka for secondary) is seen to have increased enrolment of disabled students in education. Interestingly the Disability Allowance is the one government grant which recognizes a division between moderate and severe poverty among persons with disabilities: acknowledging the priority which should be given to those who 'do not have means'. DPOs consulted saw this distinction as legitimate.

However, the overarching issue for such welfare measures is to increase the overall size of the social protection envelope, currently 1.8% of GDP. This is a poverty issue rather than a disability, since many needy people in Bangladesh remain outside the envelope. DPOs need to be part of a strong coalition across affected groups to expand this envelope.

7.2. The number of persons with disabilities, the financial envelope for social protection, and inclusion of persons with disabilities

For poor persons with disabilities specifically, this issue is linked to the contested question of the size of the disabled population, and the proportion that is poor. The Household Income and Expenditure Survey is the best current source of data, but is not seen as legitimate by government because it would involve significantly expanding the social protection envelope.

As mentioned the size of the disabled population is disputed. Despite the regular Household Income and Expenditure Survey (HIES) being the recognized source of statistics on poverty, the government has chosen not to recognize the figures it produces on disability, preferring to stick with the much lower Census result.

The current envelope for social protection is 1.8% of GDP. A recognition of the HIES figures would mean expanding the resources devoted to social protection in the form of the disability allowance

and disability stipend. This issue has wider application, however. There are many extremely poor households which deserve inclusion in social protection schemes but which are not included because financial resources are scarce, and access is therefore politically rationed.

NGOs have also not yet produced much data on the inclusion of persons with disabilities in their programmes, though there are exceptions such as BRAC. This produces data on the numbers of persons with disabilities included in its education and credit programmes, though these numbers are relatively modest.[16] At international level there is slow progress towards such reporting.[17]

7.3. Disaggregation and targeting

There are two controversial aspects to this. The first, less controversial one is about targeting as a priority, persons with disabilities who are also extremely poor, and/or vulnerable to becoming extremely poor. This sort of targeting is hard to argue against in a situation where government has to prioritize among its citizens. The Disability Allowance is already targeted in this way, and this has been acceptable at least to the DPOs consulted for this research.

A second, potentially more controversial disaggregation is by severity of a disability. This is controversial because the proportion of persons with disabilities who have *severe* disabilities is relatively low (16% of the disabled population according to the HIES). If government (or NGOs) were to focus on severely disabled people alone on the grounds that they were more likely than others to be in extreme poverty, and that moderately disabled people were more likely to be able to escape poverty, this would undoubtedly help achieve financial objectives, limiting the required social protection envelope, for example.

However, it would exclude from discussion the strong ways in which even moderate disabilities can render people and households vulnerable to poverty or less able to escape poverty. Given the need to prevent impoverishment in order to eradicate extreme poverty (CPAN, 2014) it would be vital also to continue to target individuals and households vulnerable to poverty – but perhaps this should be done explicitly and possibly through different policy and programme measures.

For example, in social protection, health and other forms of insurance could be relevant by comparison with the targeted social assistance which is appropriate for the poorest. Given the importance of catastrophic and regular medical expenditures as a source of downward pressure for households with persons with disabilities established in this research a health insurance scheme (targeted among others to HHWPWD) would make sense. Bangladesh could learn from the experiences of countries like Cambodia and Rwanda, which have introduced universal health insurance schemes. While this is not a straightforward solution to expanding universal health coverage, the experience of these two low income countries indicate it can work.

7.4. Monitoring and data

The absence of accepted statistics at national level is reflected in the general absence of data on programme participation, whether in terms of government or NGO programmes. There is no easily accessible information about the coverage or impact of the various social protection

[16] Information from Mosharraf Hossain, Action on Disability and Development.
[17] Information from Alex Cote, International Disability Alliance.

schemes or other government programmes like inclusive education.

Just as they led the way in including and monitoring women in development, NGOs could lead the way in monitoring the involvement of significant categories of persons with disabilities, as well as older and younger people, and people from other minorities or discriminated against groups. This should always be combined with monitoring socio-economic status. This will create an expectation that government will follow.

7.5. Disability invalidates assumptions behind calculation of poverty thresholds: towards disability-adjusted poverty thresholds?

The qual-quant research found a strong mismatch between monetary poverty and qualitatively assessed, asset based measures. This is plausibly because of the massive medical and related expenses which fall on households with people with disabilities or with chronic illnesses (Davis, 2016b). These costs undermine any ability a household has to escape poverty or stay out if it, if they are vulnerable. This suggests that the monetary poverty lines are not set high enough to reflect the costs associated at least over substantial periods of time with disabilities, especially severe ones, or with chronic illnesses. In addition, there would be recurring costs associated with assistive devices (wheelchairs, hearing aids, glasses) which can be quite lumpy, and are therefore sometimes foregone by people who cannot afford them. Costs of searching for employment are also likely to be higher. Thus there is potentially a general case for a disability adjusted poverty line.

It is also possible that there are a number of other groups experiencing discrimination and multiple disadvantages also experience additional costs for achieving a decent life. The assumption in a household survey is that all members of the household share the same standard of living, but it may be harder for some women, some children, some older people to achieve this.

7.6. Social protection

Persons with disabilities are significantly less likely to benefit from social protection programs than people without, according to this research. Again women with disabilities get less from these programs, as do those facing difficulties with vision. The finding that persons with disabilities are excluded from social protection programs is not an unusual one across countries: even in better governed countries and more effective programs like those of S Africa or Vietnam exclusion errors can be important (Banks et al, 2016; Palmer and Nguyen, 2012).

Slightly more children with disabilities received the education stipends than those without in 2010, but chronically poor girls (especially) and boys with disabilities have lower primary attendance than others. Stipends did not yet reach half the chronically poor persons with disabilities by 2010, nor is there much advantage for girls over boys. Sending girls to school is a key way to disrupt the triple discrimination burden faced by poor women with disabilities.

Coverage of persistently poor women with disabilities was reasonable in 2006 and 2010 (about 2/3 of those identified in the panel data were covered by social assistance). Chronically poor women with high levels of functional limitation are relatively well targeted by public transfers.

Poverty escapers are more likely than chronically poor to have received stipends, suggesting that stipends may be playing an important role also in upward mobility. However, the qualitative research casts doubt on this: this impact is likely to be limited because the transfer amounts are small and are unlikely to lift the household out of poverty.[18]

In 2010 the Allowance for Financially Insolvent Persons with Disabilities was introduced focused on the 'elderly, homeless, women with multiple disabilities, and poor intellectually impaired children in economically disadvantaged areas'. Box 7 reports on its performance. There were a number of cases in the qualitative research where PWD were benefiting. This allowance is one of a set of allowances allocated by the Union Parishad chairpersons, and this is where the massive targeting errors occur of the sort discussed in Box 2 above, prompted by the fact there are not enough cards to go around in each Union Parishad.

'Addressing health shocks is critical. Both the life histories and the experiences of implementing the graduation approach. Both the qualitative and quantitative analysis highlight again and again the role of health shocks in driving both transitory poverty escapes and impoverishment. Health insurance is not available in Bangladesh, with the exception of a few NGO-led initiatives. Given the poverty of the poorest households, if health insurance were to be accessible for them, their premiums would need to be subsidized.' (Scott and Diwakar, 2016)

Box 3: The Bangladesh Allowance for Financially Insolvent Persons with Disabilities

Design: This government run programme is executed by Department of Social Security through implementation committees at the national, district and upazila2 levels. Separate committees also operate for the municipal and ethnic minorities areas. In 2012, 298,000 people received a monthly allowance of US$3.80. The Government of Bangladesh estimates that 1.5 per cent or 2.3 million are severely disabled, and that 6.3 per cent of households have a member with a severe disability. The government also recognises that the social protection programme has several shortcomings, including 'inadequate procedures for identifying disability, transfer levels that are too low to provide the level of support required; and, the exclusion of a high proportion of deserving people with severe disabilities' (Government of Bangladesh, 2013: 64).

The government also gives stipends to students with disabilities, to enable them to continue their education in specialised and mainstream educational institutions from primary to university levels. However, this stipend only reaches 18,600 children in total, which is only a small proportion of the total number of children in need, and value of the stipend is low (Government of Bangladesh, 2013).

In the next five years, the government aims to prioritise disabled children. Its plan is to identify all poor disabled children in the country, and to ensure that every child with a disability certificate will be provided with a regular cash transfer. It will also put in place processes to remove children with disabilities from the street.

[18] Communication from Peter Davis.

The government will also significantly expand the scheme for disabled adults, applying a means test to each candidate. Robust measures are to be designed for identifying severe disability and an appeals mechanism will be put in place for persons feeling that they have been unfairly excluded. Additional support will be provided in the form of vocational education and small business schemes, as well as by eliminating discrimination in the labour market. Implementation plans are to be submitted for approval in December 2014, and will begin to be implemented in July 2015.

Definition and assessment of disability: The programme has five categories which consist of hearing, visual, speech, intellectual, and physical impairment. Beneficiaries must be poor with severe or multiple disabilities and/or children in school. To be eligible, a disabled person must fulfil the following criteria: an annual income not exceeding Taka 24,000; Destitute; Local resident; Above six years of age; Selected by the concerned committee. Aside from these criteria, priority is given to the elderly, homeless, women with multiple disabilities, and poor and intellectually impaired children in economically disadvantaged areas of the country. It is not clear how poverty is measured when eligibility is assessed.

Source: Oddsdottir, F (2014) Social protection programmes for people with disabilities. Governance and Social Development Resource Centre, Helpdesk Report www.gsdrc.org

7.7. Credit

Worryingly, loans are widely used by chronically poor households including persons with disabilities as a coping strategy in the absence of assets to sell; for female headed HHWPWD assets sales are much more common for HHWPWD than for others, indicating an absence of safety nets for these households, but at least loans are less common than for households without persons with disabilities.

There may be some self-selection for NGO/*samiti* loans, which are mediated by community leaders – these may exclude persons with disabilities if they are considered less likely to pay loans.

From the qualitative work, loans have often been part of story of decline, even if they postpone asset sales. In this sense they can be bad news. Interest rates are high. In limited cases consumption loans were useful, for example, for medical expenses, and some even took a high interest loan for this and then paid it off with a lower interest NGO loan later.

Box 4: Access to finance in rural Bangladesh

Despite widespread access to finance in rural Bangladesh, this is not necessarily appropriate for people's needs. From both the FGDs and life histories, being trapped in vicious cycles of loan repayments is an important driver of transitory poverty escapes. In particular, flexible terms and conditions emerge as important for credit to be able to contribute to sustained poverty escapes. Meanwhile, it is important that different types of credit are designed for (i) helping households quickly access finance in the instance of health shocks and (ii) enabling productive investments.

While there has been some adaptation of micro-finance for the extremely poor, for example, the BRAC Targeting the Ultra-Poor Programme, this seems not to have extended to adaptations focused on persons with disabilities. Most persons with disabilities in poor households are involved in farm activities and self-

employment, where they need access not only to financial services, but also to technology, skills, information and infrastructure designed to include.

References

Baulch, R. (2011) Why Poverty Persists: Poverty Dynamics in Asia and Africa (Cheltenham, UK and Northhampton, USA: Edward Elgar

CPAN (Chronic Poverty Advisory Network) (2014) The Chronic Poverty Report 2014-5: The road to zero extreme poverty. www.chronicpovertynetwork.org

Davis, P., & Baulch, B. 2011. Parallel Realities : Exploring Poverty Dynamics Using Mixed Methods in Rural Bangladesh. Journal of Development Studies, 47(1), 118–142.

Davis P. 2009. "Poverty in time: Exploring poverty dynamics from life history interviews in Bangladesh". In: Poverty Dynamics: Interdisciplinary Approaches. Oxford, Oxford University Press. Edited by Tony Addison, David Hulme, and Ravi Kanbur.

Davis, P. (2016a) Poverty dynamics and disability in rural Bangladesh: learning from life-history interviews. Chronic Poverty Advisory Network, Working Paper

Davis, P. (2016b) Exploring the links between poverty and disability in rural Bangladesh. Chronic Poverty Advisory Network, Working Paper

Diwakar (2016) A tale of triple discrimination: disability and poverty dynaics amongst women in rural Bangladesh. Chronic Poverty Advisory Network, Working Paper

Marcus, R., Mdee, A., and Page, E. (2016) Anti-discrimination policies and programmes in low-and middle-income countries: Experiences in political participation, education and labour markets. Phase 1 Evaluation Report. Chronic Poverty Advisory Network, www.chronicpovertynetwork.org

Samman, E. and Rodriguez-Takeuchi, L. (2013) Old age, disability and mental health: data issues for a post-2015 framework. London: Overseas Development Institute, Background Note

Sen, B. and Haque, M. (2016) Unpacking disability-extreme poverty links in Bangladesh through the Household Income and Expenditure Survey: a quantitative exercise. Chronic Poverty Advisory Network, Working Paper

Scott, L. and Diwakar, V (2016) Ensuring Escapes from Poverty are Sustained in rural Bangladesh. Washington D.C.: USAID, Leveraging Economic Opportunities

WHO (2008) Global Burden of Disease 2004 update. Geneva: WHO. Available at: http://bit.ly/BNESLR18

WHO (2011) World report on disability. Geneva

Annex 1. Research questions: recap and notes on progress

- What is the extent and nature of disability, and are households containing a person with a disability disproportionately among the poorest and chronically poor?
- *Need more on second part*
- What is the nature of inclusion in education and the labour-market of people with disabilities and their care-givers?
- *Addressed, but there is a gap on care givers – see sub-section in Davis (2016b)n. Nothing in panel data.*
- How does having a household member with a disability influence household-level coping strategies?
- *Sale of assets higher, depends on position in HH – if would have been a breadwinner this is a downward pressure; social isolation associated with stigma – less access to networks, markets eg credit; shame superstition leads to vulnerability and isolation, restricted in strategies they can pursue. Eg paralysed child needs constant care, mother can't get a job, don't go out much in case of inappropriate behaviour. May be some liberations – eg for poor women, deserving poor means that social norms don't restrict. Informal forms of social protection and loosening respectability norms.*
- What are the direct-costs of disability in terms of health-care expenditures?
- *Needs answering more comprehensively. Interesting finding is that households including severely disabled members have lower health expenditures than others.*
- What is the extent of inclusion of households containing a disabled member within existing government safety nets, financial services and other key services (education, health, agriculture, small business)? And what difference does this make to the household's trajectory?
- *Some discussion in text.*
- *From qualitative research – not much. Some cases accessing, and benefits are good. Disability allowance is reaching. However, kids do get withdrawn from school despite education stipends. Appropriate toilets are important, travelling and harassment on way to school can be constraints. Compare non-disabled kids. Disabled children vulnerable to being teased. Trouble getting there.*
- Is it possible to see the impact of any anti-discrimination measures on these households? What would be required in order to do so?
- *Not available from quantitative data. No questions in surveys. Need to design questions for the future.*
- *From qualitative research: Disabled people had received encouragement from being in contact with other disabled groups/people – information shared on access to assistive devices. No cases with ADM. Could address in data brief. No of disabled people tapping into DPOs v small. DPOs a patchwork – coverage limited. DPOs could have a big impact on reducing discrimination.*

- What are the policy implications of the answers to these questions, and to what extent are there political (or other) processes which ensure these issues are on or off the policy and political agenda and then receive adequate attention in implementation?
- *Addressed to some extent.*
- What are the strengths and weaknesses of different types of survey questions on disability and how may these influence findings and policies?
- *See introduction, and data piece to be written*