



Include us!

A study of disability among Plan International's sponsored children

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



International
Centre for Evidence
in Disability



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For an accessible format of the report, further information or questions on the analysis, please contact:

Adrienne.Monteath-vanDok@plan-international.org,
Research Coordinator at Plan International,
International Headquarters

This report has been compiled by: Adrienne Monteath-van Dok and Jacqueline Gallinetti from Plan International

Hannah Kuper, Maria Zuurmond, Lisa Danquah, Kevin Wing, Jenny Evans from the London School of Hygiene and Tropical Medicine

Edited by Anna Brown

Design by Sandra Dudley

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Executive summary

Within the international community, there is a growing awareness of the problems caused by the paucity of data on children with disabilities. There are around 150 million children with disabilities in the world today. They face many barriers to their inclusion and participation in everyday activities, according to the World Report on Disability by the World Bank and the World Health Organization (WHO).¹

UNICEF argues that for these children, ‘many of their deprivations stem from and are perpetuated by their invisibility’ and the report calls for ways in which they ‘can be rendered visible through sound data collection and analysis’.²

Presented here is latest research on children with disabilities from Plan International, in collaboration with the London School of Hygiene and Tropical Medicine. Its basis is Plan’s powerful dataset of 1.4 million sponsored children, used here for the first time to explore more fully the challenges faced by children with disabilities. The compelling findings, based on Plan’s sponsored children, will help Plan – and other researchers and organisations – to improve responses to the needs of children with disabilities, particularly their health and education.

Research scope and objectives

As part of its sponsorship role, Plan has for several years collected a wealth of data on the lives of its sponsored children in developing countries. Now Plan has taken that dataset a step further in a wide-reaching study with two overarching objectives. The first was to

The findings – missing out on health and schooling

The key findings from initial analyses of the dataset were the following:

- Children with disabilities are **substantially less likely to attend school than children without disabilities**. In fact, the likelihood that a child with a disability did not attend school was often more than ten times greater than for a child without a disability.
- When children with disabilities do attend school, **their level of schooling is below that of their peers**.
- Children with disabilities are much **more likely to have had a serious illness in the last 12 months**, including malnutrition, than children without disabilities.

Within most countries, inclusion levels for children with disabilities in schooling were highest for those with vision or hearing impairments and lowest for those with learning, physical or communication impairments. This indicates that the level of exclusion can be linked to the type of impairment. This area is ripe for more research to determine why, for example, some children with certain impairments are more able to access school than children with other types.

Poor health and lack of school attendance are likely to have a long-lasting impact on the life of the child. These factors may influence future employment opportunities, social opportunities, and their overall quality of life, including the likelihood of experiencing poverty.

Implications – furthering our understanding of children with disabilities

For Plan, the findings of this study have three sets of implications.

First, programmatically they show that more efforts are needed to promote the inclusion of sponsored children with disabilities in education, and to meet their health needs. Second, the study shows areas needing further research: to determine *why* children with disabilities are not attending formal education and *why* they report high rates of illness.

Once this research is completed, Plan can develop targeted interventions alongside with mainstreaming disability inclusion, and advocate more broadly for change within those countries. Third, the study has demonstrated that the sponsorship dataset is a valuable and usable resource that can inform Plan programming, particularly on inclusion.

This short report considers the international framework on children with disabilities; describes the methodology of the analyses; presents the main findings; explores Indonesia as a sample country study; and outlines the implications for Plan and other development actors.

More detailed findings and wider framework reviews can be found in the full report into the dataset study available on Plan International's website: plan-international.org

1. Introduction

“The child sponsorship dataset is a unique and fantastic resource. It provides internationally comparable data of more than a million children across 49 countries, and includes detailed information about their lives. This information can be used to fill many existing knowledge gaps and help Plan and other organisations to better target the needs of children in resource-poor settings in order to improve their lives and their futures.”

Dr Hannah Kuper, Director at the International Centre for Evidence in Disability at the London School of Hygiene and Tropical Medicine

Plan International is one of the oldest and largest children’s rights and development organisations in the world, working in 50 developing countries across Africa, Asia and Latin America. For several years, Plan has collected a wealth of data on more than 1.4 million of the children who are sponsored through Plan. Now Plan has taken that powerful dataset a step further, using it for the first time to explore more fully the challenges faced by sponsored children with disabilities. The compelling results will help Plan – and other researchers and organisations – to improve their responses to the needs of children with disabilities.

At the heart of these responses must be inclusion. There are 150 million children with disabilities who face many barriers to their inclusion and participation in everyday activities, according to the World Bank and the WHO.³ Enabling these children to overcome such barriers is part of Plan’s commitment to the principles of inclusion and non-discrimination. It is central to Plan’s child-centred community development (CCCD)

approach that underscores all its work. It can be seen in Plan's Global Strategy for 2011 to 2015, One Plan, One Goal, with its strategic pledge to work with excluded and marginalised children – which includes children with disabilities – and towards 'better mainstreaming of inclusion'.⁴

The commitment to inclusion was a key driver behind the research presented here. It is part of a study begun in 2013, in collaboration with the International Centre for Evidence in Disability at the London School of Hygiene and Tropical Medicine (LSHTM),⁵ to explore the feasibility of Plan's sponsorship dataset for research. The primary objective of the project was to understand better the challenges faced by sponsored children with a disability in order to improve Plan's programmatic response and to help fill existing knowledge gaps on children with disabilities. The second objective was to gauge the usefulness of the dataset for research purposes by using it for quantitative analysis; this also would help improve Plan's programming, as well as identify areas for improving the collection and processing of data for future use.

What makes this dataset unique derives from the cumulative effect of several of its characteristics:

- it is extremely large and has children with disabilities in each country's sponsorship programme
- it spans a large number of countries
- it asks comparable questions across all those countries
- the questions are comprehensive in assessing multiple domains of inclusion.

The dataset originates from Plan's sponsorship role: children in developing countries are sponsored by donors who live in countries where Plan has national offices, such as the United States, Canada, Japan, the United Kingdom, Germany, and the Netherlands among many other places. Plan annually collects data on the development of each sponsored child in order to update the sponsors about the child's life and living conditions, and how the donated funds are spent in the community. It includes variables relating to: location, gender, health, education, disability, birth registration, water and sanitation, and housing to name a few. Currently the database holds information on more than 1.4 million children with data for the last six years.

As well as updating sponsors, the dataset represents an extremely useful source of information to help Plan in evidence-based decision-making. It has already been used in a number of ways, primarily for reporting and for monitoring and evaluation initiatives. But the full potential of the dataset as a source for quantitative research to establish trends and generate knowledge had not been fully realised – until now.

This short report is a snapshot of the main findings from the study. It contextualises the project within the international framework on children with disabilities (Chapter 2); describes the project's methodology (Chapter 3); presents its main findings (Chapter 4); explores the findings through a representative country analysis of Indonesia (Chapter 5); and finally outlines the implications for Plan's work with children with disabilities and for future research (Chapter 6).

Full report

At several points, this document refers to the full report of the study of Plan's dataset, including all findings and wider framework reviews.

The full report is available on Plan International's website: plan-international.org



Credit: Plan / Martin Acevedo

2. Setting the scene

There is growing awareness within the international community about the problems caused by the paucity of data about children with disabilities. UNICEF in the *State of the World's Children: Children with Disabilities* argues that for children with disabilities, 'many of their deprivations stem from and are perpetuated by their invisibility' and the report calls for ways in which they 'can be rendered visible through sound data collection and analysis'.⁶

As part of this study, the LSHTM carried out a review of Plan's own documentation on disability inclusion and key informant interviews, as well as an updated literature review of recent studies and reports on disability. The aim was to embed the analysis of the sponsorship data within a wider framework of current international work on disability, and provide a useful benchmark against which to understand and interpret the Plan data.

Issues highlighted in the review of Plan's work included:

- the lack of reliable data about children with disabilities, making it hard to plan services
- the need for all programmes to be inclusive and not only focus on projects for specific excluded groups
- the need for increased global leadership from Plan on the issue of disability.

The analysis of Plan's sponsorship data on children with disabilities responds to these issues.

Alongside an increasing demand for quality research and reliable statistics on the magnitude of disability there is general agreement about the challenges of generating statistics on disability. These include the wide discrepancies in the data, and the limited knowledge available about the status of children with disabilities. These challenges largely stem from a lack of assessment of disability, due to disagreements over definitions of disability and differing views and approaches on the best way to measure disability.⁷

These issues are being tackled by initiatives from UNICEF and the World Bank to reach consensus on measuring disability in children.

International rights-based framework: implications for development organisations

Two key United Nations conventions provide principles for working with children with disabilities: the Convention on the Rights of the Child (UNCRC) and the Convention on the Rights of Persons with Disabilities (UNCRPD).

The UNCRPD, which came into force in 2008 and has been ratified by 138 countries so far, emphasises the need for international development programmes to be inclusive of and accessible to persons with disabilities. Article 32 specifically commits development actors to mainstream disability rights. UNCRPD is gradually influencing donor priorities and requirements, and increasingly placing demands upon organisations to show that programmes are inclusive of persons with disabilities.

3. Methodology

3.1 Collection of data

Plan's sponsorship data is collected in the local language by frontline staff and volunteers using paper questionnaires. Interviews are conducted with the caregiver of a sponsored child. Before the start of an interview, consent is sought in order to use the data to inform programming, and for sponsorship and fundraising activities. The questionnaire used in the interview covers: age, gender, birth registration, family situation, health, education, type of house and assets, water and sanitation facilities. The volunteers and staff are trained in data collection methods and provided with guidelines set out in Plan's Sponsorship Booklet. Once collected, the data is entered into Plan's purpose-built database, ChildData, which operates on a code system. There are restrictions on which staff may access ChildData – they are specifically cleared for their tasks for child protection reasons.

The data is subsequently transferred to another database, BI Online (Cognos), to be used for management purposes, analysis and research. Each child is assigned a unique sponsorship number, ensuring the anonymity of the child and his/her family. Currently this database holds data from 2008. However, for

Sponsorship data explained

In 2012, there were 1,431,075 children in 49 countries who took part in Plan's sponsorship programme (Myanmar does not yet have a sponsorship programme). Sponsored children have sponsors in 20 different countries.

Plan's sponsorship database holds data from the last six years, starting in 2008. Sponsorship donations benefit the entire community and not only the sponsored child.

this research only the 2012 data was analysed because this contained responses to the most up-to-date questions on disability.

Specifically, the caregiver was asked:

- Does the sponsored child have an impairment/a medical condition that can lead to disability? (yes/no)
- If yes, what type of impairment?

A distinction was made between impairment (ie. loss or abnormality of body structure or physiological function, such as vision impairment) and disability (ie. long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder a child's full and effective participation in society on an equal basis with others).

3.2 Data analysis

For the statistical analysis the data was transferred into the statistical programme Stata.⁸ Children within the database were categorised as 'children with disabilities' or 'children without disabilities' based on self-report. For children with disabilities, they were classed by type of impairment. Children with disabilities were compared to those without (as a control group) for a number of variables: birth registration, health, education and poverty

Disability is the umbrella term for impairments, activity limitations and participation restrictions and refers to difficulties encountered in any or all three areas of functioning.

Impairments are problems in body function or alterations in body structure – for example, paralysis or blindness

Activity limitations are difficulties in executing activities – for example, walking or eating

Participation restrictions are problems with involvement in any area of life – for example, facing discrimination in employment or transportation

The World Report on Disability, 2011

variables among others. The poverty variables were scored through a principal component analysis,⁹ where distance to water, family assets and household characteristics were combined to provide a score which served as an economic proxy. The mean values and the proportion of children in different categories, such as those attending school or not, were calculated in relation to children with disabilities and those without. The difference between the children with and without disabilities was tested for statistical significance¹⁰ for these key variables in order to identify whether there was a relationship between disability and the key variable (eg. poverty, school attendance).

The children with disabilities were generally older than those without, therefore age had to be adjusted to make meaningful comparisons. A multiple logistic regression model¹¹ was created to make these comparisons, using the Stata statistical package. Through Stata the odds ratios and 95 per cent confidence intervals¹² were generated, which allowed assessment of the age-adjusted relationship between disability and key variables. Most of the analyses were conducted separately for boys and for girls. For the education variables the analysis included children aged five years and older. Given the small number of young people aged 18 years and older in the sponsorship programme, they were excluded from all the country analyses.

The study analysed 30 of Plan's 50 programme countries. Nineteen countries did not have a high enough number of children with disabilities in their sponsorship programmes to make meaningful statistical inferences. The threshold number of children with a disability that would allow for a statistical analysis was set at 100. So for example, Togo, which has 98 children with a disability in its sponsorship programme, was not included. Yet it is important to note that all countries include children with disabilities in their sponsorship programmes. Myanmar was not included because it does not have a sponsorship programme; operations only started there after Cyclone Nargis.

3.3 Limitations

As with every dataset there are a number of limitations to be noted. First, the data reflects the status of sponsored children only. In some locations, the sponsored children are representative of all children in the communities where Plan works; however, this is not necessarily the case in all areas that Plan works. As the data only represents sponsored children, no general statement about children with disabilities can be made at a national level.

Second, Plan has more than 1.4 million sponsored children but traditionally, due to different data collection cycles, the data is not always updated annually for each child. Sometimes this happens once every 18 months, or more likely, twice within the same year (at the beginning and end of that year), which means the following year is missing. Where this occurs, the most recent sponsorship questionnaire update is used. It is worth mentioning that the sponsorship team in Plan have recently adapted the data collection cycles to ensure that future collection takes place annually. Although the quality of data was generally very high, for some variables there were issues with miscoded or missing data (eg. duration of disability). Problems with data quality are unlikely to be different depending on disability status, and so any bias in the results would have been towards the null,¹³ thus underestimating any potential associations.

3.4 Contextualising the data

The sponsorship data analysis provides Plan with a valuable resource for quantitative analysis, but to create a full picture the data should be understood in its (local) context. To ensure this, supplementary information, such as programme focus areas, was included as part of the analysis in the full report. Also reported was whether the country had signed and ratified the UNCRPD and/or whether specific national laws exist that afford children with disabilities their rights.

4. Main findings: missing out on education and health

4.1 Background

These are some of the most important, consistent findings relating to inclusion in education and to health among children with disabilities, arising from the dataset analyses. The full report describes more detailed findings, such as the reasons for not attending school. It also gives country-specific findings – included in this report is the example of Indonesia.

For any statistical analysis, it is important to set out the demographic characteristics in order to understand the population to which the analyses relate. Tables 1, 2 and 3 present the total number of sponsored children with and without a disability in the thirty countries, and the distribution by age and gender.

Despite the large numbers of children enrolled in the sponsorship programme, the number of children who reported

Key findings

Children with disabilities are substantially less likely to attend school than children without disabilities.

Where children with disabilities do attend, their level of schooling is below that of their peers.

Children with disabilities are much more likely to have had a serious illness in the last 12 months, including malnutrition, than children without disabilities.

Latin America, Africa and Asia: Number of sponsored children, disability, age and gender distribution

Table 1
Latin America

Country	Number of children <18	Of which children with a disability	% with a disability	Average age	% Boys	% Girls
Bolivia	41,979	372	0.9%	9.5	41%	59%
Brazil	12,993	143	1.1%	6.9	44%	56%
Colombia	22,020	235	1.0%	8.8	42%	58%
Dominican Republic	26,560	178	0.7%	8.7	41%	59%
Ecuador	47,070	793	1.7%	9.7	46%	54%
El Salvador	34,814	646	1.9%	10.0	45%	55%
Guatemala	38,797	432	1.1%	9.9	44%	56%
Honduras	34,040	551	1.6%	9.3	44%	56%
Nicaragua	27,793	459	1.7%	9.5	46%	54%
Paraguay	7,813	114	1.5%	9.0	46%	54%
Peru	25,364	195	0.8%	8.9	42%	58%

Table 2
Africa

Country	Number of children <18	Of which children with a disability	% with a disability	Average age	% Boys	% Girls
Benin	24,547	108	0.4%	10.5	6%	94%
Egypt	33,871	452	1.3%	9.9	44%	56%
Guinea	28,208	146	0.5%	9.9	30%	70%
Kenya	60,139	258	0.4%	10.1	42%	58%
Mozambique	6,782	119	1.8%	6.2	44%	56%
Niger	19,103	185	1.0%	7.7	33%	67%
Rwanda	6,443	214	3.3%	7.2	29%	71%
Senegal	32,738	155	0.5%	9.1	36%	64%
Sudan	27,225	131	0.5%	9.8	37%	63%
Tanzania	24,303	105	0.4%	9.8	41%	59%
Uganda	35,466	268	0.8%	9.6	39%	61%
Zambia	16,725	113	0.7%	10.2	47%	53%
Zimbabwe	33,346	200	0.6%	10.5	34%	66%

Table 3
Asia

Country	Number of children <18	Of which children with a disability	% with a disability	Average age	% Boys	% Girls
India	65,360	522	0.8%	8.0	35%	65%
Indonesia	45,860	376	0.8%	9.4	45%	55%
Nepal	38,450	259	0.7%	9.6	26%	74%
Philippines	33,543	397	1.2%	9.6	39%	61%
Sri Lanka	21,743	166	0.8%	9.6	45%	55%
Vietnam	34,639	608	1.8%	8.5	34%	66%

having a disability was relatively small, ranging from 0.4 to 3.3 per cent of the children included. Although this data is useful for estimating the prevalence of self-reported disability among the sponsored children, it cannot be extrapolated to the general population. These estimates are also likely to underestimate the true prevalence among the sponsored children: few caregivers perceive their child as having a disability, even though the child would potentially be classed as 'having a disability' through more comprehensive assessments or questionnaires, or caregivers may be more likely not to report on a child's disability for a number of reasons.

The age and gender distribution was similar across the countries. The children with disabilities were generally older than those without. This is consistent with disabilities becoming manifest during the development of the child, rather than always being evident, or present, from birth.

Tables 4, 5 and 6 indicate types of underlying impairment that cause the disability, categorised as: learning, physical, communication, vision and hearing. Among the children with disabilities, the least common types of impairment were vision or hearing; the most common were communication and physical impairments, with the latter marginally more prevalent. Reports of learning impairments were very low in Africa, potentially indicating under-reporting of this condition due to stigma or lack of awareness, rather than a lack of occurrence of learning impairment.

**Africa, Latin America and Asia:
Type of impairment reported among the sponsored
children with a disability (rounded to nearest whole
number)**

**Table 4
Africa**

Country	Learning	Physical	Communication	Vision	Hearing
Benin	1%	31%	5%	46%	17%
Egypt	26%	31%	26%	13%	4%
Guinea	3%	43%	32%	13%	8%
Kenya	6%	25%	28%	15%	27%
Mozambique	2%	23%	30%	17%	29%
Niger	1%	48%	27%	14%	10%
Rwanda	3%	45%	9%	22%	21%
Senegal	6%	27%	45%	17%	5%
Sudan	6%	38%	24%	21%	10%
Tanzania	3%	57%	18%	10%	11%
Uganda	1%	36%	26%	15%	22%
Zambia	6%	32%	22%	20%	19%
Zimbabwe	11%	37%	23%	15%	16%

Table 5
Latin America

Country	Learning	Physical	Communication	Vision	Hearing
Bolivia	20%	19%	33%	20%	8%
Brazil	27%	43%	12%	13%	6%
Colombia	29%	21%	26%	19%	6%
Dominican Republic	16%	32%	20%	28%	4%
Ecuador	21%	22%	25%	25%	6%
El Salvador	10%	36%	33%	15%	7%
Guatemala	11%	24%	31%	27%	7%
Honduras	26%	21%	19%	28%	7%
Nicaragua	21%	22%	28%	23%	6%
Paraguay	20%	28%	23%	25%	4%
Peru	26%	22%	24%	25%	4%

Table 6
Asia

Country	Learning	Physical	Communication	Vision	Hearing
India	4%	45%	24%	23%	5%
Indonesia	9%	32%	39%	12%	7%
Nepal	3%	53%	25%	16%	4%
Philippines	10%	36%	31%	17%	6%
Sri Lanka	10%	24%	33%	22%	12%
Vietnam	20%	33%	18%	22%	7%

4.2 Education – left out, held back

The education analysis included assessment of formal education attendance, reasons for non-attendance and level of schooling, among children aged five years and older.

Attendance

Levels of school attendance among children without disabilities were generally very high – above 90 per cent for most countries. However, what appears clearly from the analysis is that children with a disability are substantially less likely to attend formal education. For example, in Brazil 98 per cent of sponsored boys and girls without a disability go to school, compared to 72 per cent of girls with a disability and 77 per cent of boys with a disability. After adjusting for age, Tables 7, 8 and 9 indicate how many times less likely a child with a disability is to attend school compared to a child without a disability (the odds ratio). Alarming, the likelihood that a child with a disability did not attend school was often ten times greater than that for a child without a disability. Although the magnitude of the relationship varied between countries, this was generally similar for boys and girls within each country.

Non-attendance

The most commonly reported reason for sponsored children with a disability not attending school was because of impairment or illness. In contrast, the main reason for children without a disability not attending formal education was being too young. For example in Egypt, 80 per cent of children with a disability say that they do not go to school ‘because they have an impairment’, whereas 75 per cent of children without a disability say that they are ‘too young’. When a child with a disability says that the impairment was the main reason for not attending school, it strongly indicates that the barrier stopping the child from realising his or her right to education relates to exclusion due to disability – not a lack of access to education in general. Further research is required into the underlying reasons for non-attendance.

Latin America, Africa and Asia: Odds ratio for the relationship between disability and lack of formal education attendance among children aged 5+

Table 7
Latin America

Country	Boys	Girls
Bolivia	7.8*	8.5*
Brazil	15.1*	25.2*
Colombia	30.0*	21.5*
Dominican Republic	16.3*	31.0*
Ecuador	11.3*	9.1*
El Salvador	6.3*	5.0*
Guatemala	5.3*	4.0*
Honduras	3.2*	4.1*
Nicaragua	9.1*	10.0*
Paraguay	21.9*	21.3*
Peru	15.6*	13.9*

Table 8
Africa

Country	Boys	Girls
Benin	4.5	3.2*
Egypt	25.4*	19.5*
Guinea	8.1*	10.9*
Kenya	52.2*	60.2*
Mozambique	2.0	5.4*
Niger	2.8*	6.0*
Rwanda	4.3*	2.1*
Senegal	6.6*	3.7*
Sudan	20.7*	14.1*
Tanzania	3.9*	5.5*
Uganda	18.8*	10.2*
Zambia	8.2*	5.7*
Zimbabwe	7.2*	4.1*

Table 9
Asia

Country	Boys	Girls
India	8.6*	4.0*
Indonesia	10.0*	20.8*
Nepal	13.4*	6.3*
Philippines	13.9*	13.1*
Sri Lanka	38.7*	36.1*
Vietnam	10.8*	17.5*

** Statistically significant
result with 0-value<0.05*

Levels of schooling

Children with disabilities who do attend school are generally at a lower level of schooling than their non-disabled peers of the same age. For example, in Guatemala, boys with disabilities are 7.8 times more likely (odds ratio) to be in nursery or pre-school and three times more likely to be in primary rather than secondary school, compared to non-disabled peers.

Within most countries, inclusion rates for children with disabilities are highest for those with vision or hearing impairments and lowest for those with learning, physical or communication impairments. This indicates that the level of exclusion can be linked to the type of impairment. This area is ripe for more research to determine why, for example, some children with certain types of impairment are more able to access school than children with other types. Such research would allow Plan to identify targets to promote inclusion.

4.3 Health – greater vulnerability

The sponsorship questionnaire asks whether the sponsored child has had ‘any serious health problems during the last 12 months’, and if so, to specify the type of illness.

The findings from the analysis show that children with a disability are much more likely to have had serious health problems in the last 12 months than children without disabilities (see Tables 10, 11 and 12). In all likelihood, the serious illness may be related both to the disability (eg. children with hearing impairment with ongoing ear problems), as well as to the higher vulnerability of children with a disability to serious illness (eg. children with disabilities may be more likely to experience malnutrition because of difficulties in feeding).

Latin America, Africa and Asia: Odds ratio for the relationship between disability and serious illness in the last 12 months

Table 10
Latin America

Country	Boys	Girls
Bolivia	4.6*	5.3*
Brazil	5.4*	5.1*
Colombia	9.7*	7.1*
Dominican Republic	5.9*	9.3*
Ecuador	5.3*	5.8*
El Salvador	2.5*	3.0*
Guatemala	4.7*	3.9*
Honduras	3.1*	2.7*
Nicaragua	2.7*	2.1*
Paraguay	3.6*	4.2*
Peru	4.2*	6.3*

Table 11
Africa

Country	Boys	Girls
Benin	no data	4.7*
Egypt	9.5*	14.8*
Guinea	17.7*	12.9*
Kenya	4.1*	3.9*
Mozambique	4.7*	2.4*
Niger	1.1	1.3
Rwanda	5.1*	10.8*
Senegal	7.0*	10.4*
Sudan	3.8*	10.4*
Tanzania	6.9*	4.7*
Uganda	3.6*	3.4*
Zambia	3.0*	1.6
Zimbabwe	6.3*	6.9*

Table 12
Asia

Country	Boys	Girls
India	3.6*	2.9*
Indonesia	4.3*	3.0*
Nepal	3.8*	5.4*
Philippines	4.4*	3.2*
Sri Lanka	12.4*	26.1*
Vietnam	3.4*	3.0*

** Statistically significant
result with 0-value<0.05*

5. Sample country analysis: Indonesia

Over the past decade, Indonesia has transitioned into a middle income country with one of the fastest developing economies in Asia. Yet, economic progress has been uneven with increasing income gaps between urban, rural and remote areas. In particular, eastern Indonesia faces ongoing development challenges, due to its geographical isolation and marginalisation from the industrial, commercial and administrative centres.¹⁴ Therefore Plan Indonesia's operations are mainly focused on eastern Indonesia. Plan Indonesia works in nine programme units, reaching 294 communities and has 46,015 sponsored children, of whom 380 reported that they have a type of impairment.¹⁵

Plan Indonesia, in their strategic planning, identify early childhood care and development as one of their priority areas of work. They specify a particular focus on children with disabilities, who often don't enter the formal education system. The Indonesian Directorate of Special Education and Services estimated in 2010 that over two million children with disabilities of a school going age are not attending school. Plan continues to develop programmes to address this issue and in this sense this research should add to the existing knowledge base to inform further action.

5.1 Education

The sponsorship data analysis indicated that, after taking account of age, children with a disability were much less likely to attend formal education than those without a disability (Table 13). Likewise, after

accounting for age differences, children with a disability – and in particular girls – were more likely to be at a lower school level than children without a disability. Having an impairment was cited as the major reason for not attending formal education among children with disabilities (73 per cent) while being too young was the most common reason for non-attendance among children without disabilities (79 per cent). By type of impairment, the data showed children with physical or communication impairments were the least likely to attend school. This overall pattern was apparent among boys and girls (Table 14).

Table 13
Sponsored children aged five and older attending formal education in Indonesia

	Boys			Girls		
	With a disability	Without a disability	Age-adjusted odds ratio*	With a disability	Without a disability	Age-adjusted odds ratio*
Yes	115 (61%)	17,196 (94%)	BASELINE	77 (48%)	20,690 (95%)	BASELINE
No	73 (39%)	1,088 (6%)	10.0 (7.4 - 13.5)	84 (52%)	1,061 (5%)	20.8 (15.1 - 28.5)

Table 14
Type of impairment among sponsored children with disabilities in relation to education

	Boys: age adjusted odds ratio*	Girls: age adjusted odds ratio*	Total group: age and sex adjusted odds ratio*
No disability	BASELINE	BASELINE	BASELINE
Learning	3.8 (1.4 - 10.4)	5.5 (1.1 - 26.7)	4.3 (1.9 - 10.0)
Physical	11.7 (7.2 - 19.1)	16.3 (8.3 - 31.7)	13.0 (8.7 - 19.2)
Communication	19.9 (11.7 - 33.6)	44.4 (27.7 - 71.3)	30.8 (21.8 - 43.6)
Vision	4.4 (1.6 - 11.8)	4.8 (1.6 - 14.4)	4.5 (2.2 - 9.4)
Hearing	2.3 (0.5 - 10.6)	7.8 (2.4 - 24.9)	4.6 (1.9 - 11.4)

*95% confidence interval

5.2 Health

Children with disabilities in Indonesia were more likely to report having a serious illness in the last 12 months than children without disabilities. The pattern was observed most strongly for those children with physical and hearing impairments (Table 15). The most common type of illness among children with disabilities was malaria, followed by severe diarrhoea, acute respiratory tract infection, malnutrition and vaccine-preventable diseases.

Nearly all sponsored children sought treatment when they reported having a serious illness in the last 12 months. However, children with disabilities were less likely to seek treatment than children without disabilities. Among those children with disabilities who had not sought treatment, the reasons given were either 'too expensive' or having 'no transport'. Boys with disabilities were associated with receiving hospital treatment for the illness, but girls were not.

Table 15
Sponsored children in Indonesia with and without disabilities who experienced serious illness in last 12 months

	Boys			Girls		
	With a disability	Without a disability	Age-adjusted odds ratio*	With a disability	Without a disability	Age-adjusted odds ratio*
No	159 (80%)	19,167 (94%)	BASELINE	151 (86%)	23,860 (95%)	BASELINE
Yes	41 (21%)	1,155 (6%)	4.3 (3.1 - 6.1)	25 (14%)	1,302 (5%)	3.0 (2.0 - 4.7)

*95% confidence interval

Case study:

Inclusive school project gives learning boost for Anang

Anang is an 11-year-old sponsored boy with multiple disabilities who lives with his family in Rembang, Central Java, Indonesia. He has difficulties seeing and hearing, and for a long time was unable to walk. Whenever he went to school, his mother would carry him on her shoulders. Anang is in grade 6 at the State Primary School.



Thanks to a European Union-backed project Promoting Inclusive Education in Rembang, Anang now travels to school in a wheelchair. His teachers have received training as teachers for children with special needs. With their support, Anang has now learned to stand and walk independently.

His parents say the project has helped their son in many ways:

“All his friends help out, pushing his chair to the classroom and taking him to the lavatories. Anang is able to communicate better. He is also using his cell phone to send SMS. As he loves maths, the teachers support him by recording the classroom activities, which he plays and replays at home.”

Anang is now ready to complete his primary schooling. His recent progress has given his parents hope that he will soon begin studies at the inclusive Junior High School.



6. Conclusion: furthering our understanding

The findings of this study have three main sets of implications that align with the objectives of the study. These objectives were to gain a better understanding of the challenges faced by sponsored children with disabilities; to fill existing knowledge gaps in this domain; and to gauge the usefulness of the Plan sponsorship dataset for improved programming and wider research.

First, these analyses from the dataset show that children with disabilities are much less likely to attend formal education compared to their peers without disabilities. Children with disabilities are also significantly more likely to experience serious illness in the last 12 months. These two findings have important implications for the child's participation in his/her community and for the child's family. They may need to care for the sick child or the child not attending school, or pay for their treatment. This all places further strain on already impoverished households. In the long term, poor health and lack of school attendance are likely to have lasting impacts on the life of the child. They may influence future employment opportunities, social opportunities, and the overall quality of life, including the likelihood of experiencing poverty later on.

Second, in order to establish how Plan addresses these challenges within programme work, further research is needed to determine why children with disabilities are not attending formal education and why they are reporting high rates of illness. There also needs to be investigation into how these illnesses can be prevented or ameliorated for children

with disabilities. Once this research is done, Plan can develop targeted interventions, alongside with mainstreaming disability inclusion, in order to improve the lives of children with disabilities in the programme areas, and also advocate more broadly for change within the countries concerned.

Third, the research has demonstrated that the Plan sponsorship dataset is a valuable and useable resource that can inform Plan programming. The analysis has shown that there are questions relating to other aspects of inclusion that should be explored within the dataset, for example, in relation to gender and inclusion. It would also be extremely beneficial for Plan to consider how the dataset could be explored to monitor children over time, enabling valuable longitudinal studies into the life trajectories of the sponsored children. Specifically, the longitudinal follow-up of children with disabilities would be useful to compare their long-term future inclusion, in terms of livelihood and social participation, to that of children without disabilities. This has not yet been explored by other organisations.

The benefits of this study are twofold. Not only has the research identified issues that Plan needs to address in its programmatic work – it has also contributed important information to understanding the current situation for children with disabilities. Plan can use this to improve its work within the communities it serves, while the information captured by the sponsorship dataset can add value to the general body of knowledge and learning in relation to children with disabilities.

Endnotes

1. *World Report on Disability*. World Health Organisation, 2011, p.4, at http://www.who.int/disabilities/world_report/2011/en/index.html.
2. *The State of the World's Children: Children with disabilities*. United Nations Children's Fund (UNICEF), 2013, p. 9, at <http://www.unicef.org/sowc2013/>.
3. *World Report on Disability*, p.36.
4. *One Plan One Goal*, Plan International, 2011, pp.2,4 and 5, at <http://plan-international.org/files/global/publications/about-plan/Strategy-2015.pdf>
5. The London School of Hygiene and Tropical Medicine were responsible for the statistical analysis of the research.
6. *The State of the World's Children*, p. 9.
7. *World Report on Disability*, p.46.
8. Stata is a statistical software package that provides data analysis, data management, and graphical representation of data.
9. Principal component analysis is a statistical procedure that allows for the conversion of a set of observations into a single score. In this case, a large number of observations related to poverty (eg. household assets and sanitation) were converted into a single poverty score.
10. Statistical significance is when a test rejects the null hypothesis. This is usually determined by the p-value calculated by the statistical test being less than 0.05.
11. A multiple logistic regression model is a statistical model whereby the difference between two groups is assessed (eg. between children with and without disabilities in school attendance), while keeping other differences between the groups constant (eg. age).
12. 95 per cent confidence intervals show the range for which there is a 95% confidence that it includes the true value of the parameter.
13. The null is also called "non differential misclassification bias" in technical jargon. It means that if there is a poor measure of the variable (eg. illness in last month) then two groups that are actually different in terms of that variable will appear more similar. In other words, some children who were ill were classed as not ill, and vice versa, in both groups. This means that differences are concealed, and that the association that is being reported is biased towards the null, where null is no difference between the two groups.
14. *Country Strategic Plan 2013 – 2017*, Plan Indonesia, 2013.
15. Plan Indonesia has a total of 46,015 sponsored children of whom 380 reported to have a type of impairment. Yet, because children aged 18 and above and those of whom data was missing, were excluded from the analysis, the total number of sponsored children analysed in this research is 45,860 of whom 376 reported to have a type of impairment.

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