Technical Report

The Tenth Research Dive for Inclusive Development and Humanitarian Responses

June 2023

Executive Summary

In 2010, the World Health Organization (WHO) estimated that approximately 15% of the global population had some form of disability. This number continues to grow due to ageing populations and increased diseases related to disabilities, such as diabetes, cardiovascular issues, and mental illnesses (WHO & World Bank, 2011).

Persons with Disabilities often face disadvantages and encounter higher barriers to enjoying the same human rights and freedoms as their non-disabled counterparts. These barriers include inadequate policies and standards, negative attitudes, lack of service provision, problems with service delivery, insufficient funding, lack of accessibility, limited consultation and involvement, and inadequate data and evidence.

Furthermore, the availability of disability data is often fragmented and lacks integration, limiting data utilisation. To address the challenges, Pulse Lab Jakarta (PLJ) collaborated with Saraswati, CBM Global Disability Inclusion, and Data Science Indonesia, to invite participants to partake in its tenth Research Dive for Development focused on inclusivity. The research dive ran from 12-15 June 2023 with 11 participants joining from academia and research, alongside three senior lecturers who took the roles of advisor. Participants were divided into three groups and assigned the following tasks: (1) exploring the inclusive approaches to disaster risk reduction, (2) understanding the education challenges for children with disabilities, and (3) examining healthcare utilisation for persons with disabilities.

This report outlines the findings from the research conducted and is structured as follows:

1. The first paper details background information of the different datasets assigned to each group.
2. The second paper delves into the accessibility of social protection programs for individuals with disabilities while considering the variation of natural disasters across the region informed by InaRISK data. The team created the Social Protection Index derived from Susenas data as an informative tool to guide planning and resource distribution to mitigate risk and facilitate recovery for persons with disabilities.
3. The third paper scrutinises the representation of children with disabilities who are not partaking in educational activities. It combines socioeconomic indicators and social protection measures derived from Susenas data and evaluates the accessibility of special schools (Sekolah Luar Biasa) as depicted in the Dapodik data. The overarching objective is to explore potential disparities between participants and non-participants in education and identify the underlying contributing factors.
4. The fourth paper focuses on the healthcare system that is vital in promoting child development during the early years. Developmental delays in children have been found to correlate with socioeconomic indicators and social protection measures. Therefore, ensuring the availability of healthcare resources and health insurance support for child development becomes crucial in preventing adverse outcomes during the later stages of life.

Pulse Lab Jakarta, in partnership with Saraswati, CBM Global Disability Inclusion and Data Science Indonesia, is grateful for the cooperation of AIDRAN, UNFPA, UNICEF, BRIN, Multimedia Nusantara University, STIKOM Bali, Gadjah Mada University, Atma Jaya University, the Ministry of Education and Culture, and the Ministry of Health.

Understanding the Situation of Persons with Disabilities Through Collaborative Research

Being invited as one of the advisors for Research Dive 10, focusing on Disability-Inclusive Development and Humanitarian Responses, was a real pleasure. Disability inclusion in Disaster Risk Reduction (DRR) and humanitarian action has been my core research focus for over a decade. I can vouch that efforts to understand the situations of persons with disabilities in the disaster context are currently lacking globally. The collaborative research initiative provided by the research dive allows an excellent avenue to fill the gaps and contribute to further understanding and advancing the lives of persons with disabilities in Indonesia.

Despite being short, the research dive adopts a unique method in which research teams are free to explore ideas, extract data, and pull analyses relevant to address research problems in a relatively short period. The process was only possible due to the great team composition, including academics, practitioners, data analysts, and data engineers. I was constantly amazed by the fresh and diverse perspectives and skills brought by these young researchers and how they enhanced the quality of our work. I hope this process and my contribution is as insightful for readers as it was for me.

Pradytia Pertiwi is a lecturer and faculty member in the Faculty of Psychology Universitas Gadjah Mada, Indonesia. Pradytia is passionate about human development and how social norms and values shape the perception and behaviour of individuals and groups. She believes that empowering individuals will forge change in their community and environment. Pradytia focuses on teaching, research and development practice at the intersection of psychology, disasters, development and inclusion, seeking to co-create knowledge with communities. She believes in the power of equal partnerships between academics, development agencies and communities in the knowledge co-creation process.

Diving into Disability Research Through Collaboration

I am genuinely grateful for the opportunity to be involved in the 10th Research Dive program. As a researcher whose work mainly uses qualitative methods, the program has professionally enriched me with quantitative perspectives on the issue of disability and education. As an advisor, it was a rewarding experience to share critical issues on children with disabilities and inclusive education with the team and to collaborate with data scientists and other qualitative researchers with a diverse focus to aim at a specific problem we wanted to study. We finished a research report on children with disabilities and their non-participation status in education in only two days. Not only that, we already envision our plan to further the study using mixed methods to provide a better understanding of the issue of the high rate of children with disabilities who are not accessing formal education.

Elga Andriana received her Bachelor's degree from the Faculty of Psychology UGM, a Master of Education from Monash University, and a PhD in Inclusive Education from the University of Sydney. She is a lecturer at the Faculty of Psychology and a researcher at the Center for Life Span Development at UGM. Her research interests include inclusive education, student well-being, student voice, and Universal Design for Learning.

Spporting Evidence-Based Policy Through Research Dive

I was delighted to be one of the Research Dive advisors for the 10th batch of research dive participants. The event was an excellent example demonstrating how research can offer a pathway to high-quality research, produce results quickly, and can possibly be used as evidence-based policy, especially in health areas. It also exhibited excellent collaboration between researchers from various organizations. There was great synergy among the participants, including researchers, data analysts and data scientists, which confirmed the importance of such complementarity when working on such a diverse research issue and tight schedule. I met several young, vibrant and smart academics, researchers, data analysts and data scientists who worked together to pull off research that usually takes weeks or months to complete. I hope my contribution was meaningful in helping the team to refine their ideas and research approaches.

Titi Kanti Lestari has been a freelance consultant (at WB, UNESCAP, and ILO) and part-time lecturer at Atmajaya University since 2018. Previously she worked with BPS-Statistics Indonesia in various areas. Titi has a PhD from Monash University Australia in Applied Econometrics and a Master's Degree in Economic Development from Wollongong University Australia. She also has a Bachelor's Degree in Financial Management from the University of Indonesia and a Diploma in Statistics from the Academy of Statistics Indonesia.

Research Dive Participants

Research Dive Advisors

Pradytia Putri Pertiwi, Ph.D	Gadjah Mada University
Elga Andriana, Ph.D	Gadjah Mada University
Titi Kanti Lestari, Ph.D	Atmajaya University

Research Dive Researchers

Group 1 - Exploring Inclusive Approaches to Disaster Risk Reduction

Utami Diah Kusumawati	Multimedia Nusantara University
Imama Lavi Insani	STIKOM Bali
Yulies Puspitaningtyas	Saraswati
Puspita Anggraini Kaban	Data Science Indonesia

Group 2 - Understanding Education Challenges for Children with Disabilities

Mugia Bayu Rahardja	BRIN
Indah Okitasari	BRIN
Dewi Nastiti Lestariningsih	BRIN

Group 3 - Examining Healthcare Utilisation for Persons with Disabilities

Aan Kurniawan	BRIN
Wisnu Fadila	BRIN
Mardiana Dwi Puspitasari	BRIN
Agus Hasan Hidayat	Data Science Indonesia

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Data Description for Research Dive Inclusive Development and Humanitarian Responses

Muhammad Rheza Muztahid
Pulse Lab Jakarta
Jakarta, Indonesia
muhammad.rheza@un.or.id

1. INTRODUCTION

The research dive on "Inclusive Development and Humanitarian Responses" utilised four main datasets:

- Disaster Risk Information System
- Hospital & Facility Information System
- Special Needs Schools Dataset
- National Socioeconomic Survey

These datasets were crucial in exploring the interplay between inclusive development and effective humanitarian responses. By analysing these diverse datasets, we aimed to gain a comprehensive understanding of the challenges, opportunities, and potential strategies for fostering inclusive development and enhancing humanitarian responses.

Disaster Risk Information System (InaRISK 2020)

InaRISK is a risk assessment portal that was developed jointly by the National Disaster Management Agency (BNPB) and the United Nations Development Program (UNDP). The InaRISK data provided valuable insights into risk information at the district/city level. By examining this data, we sought to identify vulnerable areas, assess the impact of disasters on marginalised communities, and propose measures to promote inclusive development while addressing the unique needs of affected populations.

KABUPATEN/KOTA	PROVINSI	SKOR	KELAS RISIKO	PCODE
ACEH BARAT	ACEH	189,04	TINGGI	1107
ACEH BARAT DAYA	ACEH	183,2	TINGGI	1112
ACEH BESAR	ACEH	211,2	TINGGI	1108
ACEH JAYA	ACEH	178,8	TINGGI	1116
ACEH SELATAN	ACEH	171,2	TINGGI	1103
ACEH SINGKIL	ACEH	178	TINGGI	1102
ACEH TAMIANG	ACEH	146,52	TINGGI	1114
ACEH TENGAH	ACEH	124,8	SEDANG	1106
ACEH TENGGARA	ACEH	127,23	SEDANG	1104

Figure 1. Disaster Risk Information

Data Information		Column Information	
Coverage:	All regions in Indonesia	KABUPATEN/ KOTA	District/City
Level:	Districts and cities	PROVINSI	Province
Data Information		Column Information	
Year:	2020	SKOR	Risk score
Rows:	514	KELAS RISIKO	Risk class/category
Columns:	5	PCODE	District/City ID
Size:	26 KB		

Hospital & Facility Information System: SIRS (2023)

SIRS, also known as the Hospital Information System or online hospital, was built by the Ministry of Health. The available data in SIRS includes essential information about hospitals and the services they provide and was instrumental in examining the accessibility, availability, and quality of healthcare services. This dataset enabled us to assess the capacity of healthcare facilities to respond to emergencies, identify gaps in service provision for vulnerable groups, and suggest strategies for ensuring inclusive development in the healthcare sector.

	kode_rs	nama_rs	kecamatan	kabkot	provinsi	provinsi_id	kabkot_id	kecamatan_id	telp	pemilik_rs	...	c161	c162	c163	c164	c165	c166	c167
0	1102016	RS Umum Daerah Aceh Singkil	gunung meriah	aceh singkil	aceh	11	1102	1102031	-	Pemkab	...	0	0	0	0	0	0	0
1	1103010	RS Umum Daerah Dr. H. Yuldin Away	tapaktuan	aceh selatan	aceh	11	1103	1103050	0656-21013	Pemkab	...	0	0	0	0	0	0	0

Figure 2. Hospital Data

	kolom	layanan
0	c1	Pelayanan medik dasar / umum
1	c2	Pelayanan medik gigi mulut
2	c3	Pelayanan KIA/KB
3	c4	Pelayanan Gawat Darurat Umum 24 jam & 7 hari s...
4	c5	Radiologi
...	...	...
165	c166	Mikrobiologi Klinik
166	c167	Kedokteran Olah raga
167	c168	Laboratorium Gizi
168	c169	Bank Mata
169	c170	Kedokteran Okupasi

Figure 3. Services Data

Hospital Data		Services Data	
Coverage:	Hospitals in Indonesia	**Coverage:**	All services
Level:	1-row/hospital	**Level:**	1-row/service
Year:	2023	**Year:**	2023
Rows:	3,029	**Rows:**	170
Columns:	183	**Columns:**	2
Size:	1.5 MB	**Size:**	4 KB

Special Needs Schools: Dapodik (2023)

Dapodik, or the Basic Education Data, is a national-scale data system integrated with other educational data. It was developed by the Ministry of Education, Culture, Research, and Technology. The available data pertains to special needs schools (SLB) throughout Indonesia.

The "Special Needs Schools" dataset allowed us to explore the educational landscape for individuals with special needs. By analysing this dataset, we aimed to understand the availability of specialised education, assess the adequacy of support systems, and propose measures to ensure inclusive development and equal access to education for all. This dataset is also combined with Google Maps data to complete the school location coordinates which will be used to determine access to the location.

nama_sekolah	akreditasi	gmap_kecamatan	gmap_kabkota	gmap_provinsi	gmap_provinsi_id	gmap_kabkot_id	gmap_kecamatan_id	gmap_lat	...	sumber_air_m
SLB B BUDI NURANI	A	cimahi selatan	cimahi	jawa barat	32	3277	3277010	-6.899891	...	
SEKOLAH KHUSUS PELITA NUSANTARA	B	NaN	NaN	NaN	0	0	0	0.000000	...	
SLB BC HIKMAT	B	padalarang	bandung barat	jawa barat	32	3217	3217090	-6.843323	...	
SLB N WAIKABUBAK	B	loli	sumba barat	nusa tenggara timur	53	5301	5301050	-9.647915	...	

Figure 4. SLB Data

SLB Data		Categories Data	
Coverage:	SLBs in Indonesia	**Coverage:**	All disability categories
Level:	1-row/SLB	**Level:**	1-row/category
Year:	2023	**Year:**	2023
Rows:	2,299	**Rows:**	23
Columns:	118	**Columns:**	2
Size:	1.3 MB	**Size:**	1 KB

No	dc_code	dc_name
1	A	Tuna netra
2	A1	Low vision
3	B	Tuna rungu
4	C	Tuna grahita ringan
5	C1	Tuna grahita sedang
6	D	Tuna daksa ringan
7	D1	Tuna daksa sedang,
8	E	Tuna laras
9	F	Tuna wicara
10	G	Tuna ganda
11	H	Hiperaktif
12	I	Cerdas istimewa
13	J	Bakat istimewa
14	K	Kesulitan belajar
15	L	Lambat belajar
16	M	Autis-2
17	N	Korban penyalahgunaan narkoba
18	O	Indigo
19	P	Down syndrome
20	Q	Autis
21	Q1	ADHD atau Attention Deficit Hyperactivity Disorder
22	Lainnya	Lainnya
23	Tidak ada	Tidak ada

Figure 5. Disability Categories

National Socioeconomic Survey: SUSENAS (March 2020)

SUSENAS (National Socioeconomic Survey) is one of the surveys conducted by the Central Statistics Agency (BPS) to generate various indicators in the fields of social and economic aspects, such as education, healthcare, household expenditure, and more. The SUSENAS data is separated into two surveys: the household survey and individual survey.

The SUSENAS dataset provided a comprehensive range of socioeconomic indicators, which was used to examine the intersection between socioeconomic factors and inclusive development. By analysing indicators such as education, healthcare, household expenditures, and more, we aimed to identify socioeconomic barriers and opportunities for promoting inclusive development and effective humanitarian responses.

	fwt	psu	r101	r102	r105	r1801	r1802	r1802lain	r1806	r1807	...	r302	r303	r304	r305	renum	ssu	strata	wi1	wi2
0	2.125173	110121651	11	1	2	1	1	NaN	3	3	...	0	3	3	0	156	110121651200068	11012	21651	200068
1	40.421852	110121651	11	1	2	1	1	NaN	3	3	...	0	2	2	0	153	110121651143724	11012	21651	143724
2	37.166161	110121651	11	1	2	1	1	NaN	3	3	...	0	1	1	0	157	110121651271967	11012	21651	271967
3	58.533455	110121651	11	1	2	1	1	NaN	3	3	...	1	4	3	1	158	110121651275265	11012	21651	275265
4	61.811142	110121651	11	1	2	1	1	NaN	3	3	...	0	2	2	1	151	110121651114016	11012	21651	114016

Figure 6. Household Survey

	position	variable	question	flag	panjang	tipe_data	partisi
0	2	fwt	Penimbang	1.0	18	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
1	522	psu	Primary Sampling Unit	NaN	9	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
2	3	r101	Provinsi	2.0	2	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
3	4	r102	Kabupaten/Kota	3.0	2	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
4	5	r105	Tipe daerah	NaN	1	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
...	...	...	...	...	...	...	...
69	523	ssu	Secondary sampling unit	NaN	15	character	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
70	524	strata	Strata yang dipakai kombinasi klasifikasi desa...	NaN	5	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
71	525	wi1	No urut NKS	NaN	5	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
72	526	wi2	No urut Ruta	NaN	6	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
73	527	wi3	No urut ART	NaN	3	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...

Figure 7. Household Survey Column Information

	fwt	psu	r1002	r1003	r1004	r1005	r1006	r1007	r1008	r1009	...	r618	r619	r620	r701	renum	ssu	strata	wi1
0	2.125173	110121651	2.0	6.0	3.0	7.0	3.0	8.0	2.0	7.0	...	NaN	NaN	NaN	1.0	156	11012165120068	11012	21651
1	2.125173	110121651	3.0	7.0	4.0	8.0	3.0	8.0	2.0	7.0	...	NaN	NaN	NaN	5.0	156	11012165120068	11012	21651
2	2.125173	110121651	4.0	8.0	4.0	8.0	3.0	7.0	3.0	8.0	...	NaN	NaN	NaN	5.0	156	11012165120068	11012	21651
3	40.421852	110121651	4.0	8.0	4.0	8.0	4.0	8.0	4.0	8.0	...	NaN	NaN	NaN	1.0	153	11012165114372	11012	21651
4	40.421852	110121651	4.0	8.0	4.0	8.0	4.0	8.0	4.0	8.0	...	NaN	NaN	NaN	1.0	153	11012165114372	11012	21651

Figure 8. Individual Survey

	position	variable	question	flag	panjang	tipe_data	partisi
0	2	fwt	Penimbang	1.0	18	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
1	522	psu	Primary Sampling Unit	NaN	9	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
2	102	r1002	Apakah mengalami kesulitan/gangguan penglihatan?	NaN	1	numeric	["kor20ind_1_diseminasi"]
3	103	r1003	Apakah mengalami kesulitan/gangguan pendengaran?	NaN	1	numeric	["kor20ind_1_diseminasi"]
4	104	r1004	Apakah mengalami kesulitan/gangguan berjalan/n...	NaN	1	numeric	["kor20ind_1_diseminasi"]
...	...	...	...	...	...	...	...
80	523	ssu	Secondary sampling unit	NaN	15	character	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
81	524	strata	Strata yang dipakai kombinasi klasifikasi desa...	NaN	5	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
82	525	wi1	No urut NKS	NaN	5	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
83	526	wi2	No urut Ruta	NaN	6	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...
84	527	wi3	No urut ART	NaN	3	numeric	["kor20ind_1_diseminasi","kor20ind_2_diseminas...

Figure 9. Individual Survey Column Information

Household Survey Data		**Individual Survey Data**	
Coverage:	Indonesia (sampling)	**Coverage:**	Indonesia (sampling)
Level:	1-row/household	**Level:**	1-row/individual
Year:	2020	**Year:**	2020
Rows:	334,229	**Rows:**	1,258,328
Columns:	74	**Columns:**	85
Size:	66 MB	**Size:**	282 MB

By leveraging these four datasets, our research dive sought to generate evidence-based insights and recommendations. The findings from this interdisciplinary analysis can contribute to policy formulation, program design, and future research endeavours aimed at advancing inclusive development and strengthening humanitarian responses. We aim to foster sustainable and equitable progress for all individuals, particularly those facing vulnerabilities and marginalisation through a holistic approach that considers the diverse dimensions of inclusive development.

How Secure are People with Disabilities in A Disaster? A Quantitative Assessment of Indonesia's Socioeconomic Survey

Utami Diah Kusumawati
Universitas Multimedia Nusantara
Tangerang, Indonesia
utami.diah@umn.ac.id

Puspita Anggraini Kaban
BPS Statistics Indonesia
Jakarta, Indonesia
puspita.kaban@bps.go.id

Yulies Puspitaningtyas
Saraswati
Jakarta, Indonesia
yulies@saraswati.global

Imama Lavi Insani
STIKOM Bali
Denpasar, Indonesia

Pradytia Pertiwi
Universitas Gadjah Mada
Jakarta, Indonesia
pradytia.putri.pertiwi@ugm.ac.id

ABSTRACT

Persons with Disabilities in Indonesia continue to experience unsatisfactory conditions when it comes to issues ranging from education, employment, community acceptance, and social protection. These conditions are exacerbated by poverty which contributes to persons with disabilities becoming socially more vulnerable than non-disabled people. The global COVID-19 pandemic has deepened pre-existing inequalities of persons with disabilities and has disproportionately impacted them both directly and indirectly. The G20 forum underlines the importance of the social protection system as one of the most significant instruments for reducing poverty, risk, and vulnerability, among others, including the consequences of disasters and climate change. However, the scope of benefits of the social protection system for at-risk groups, including persons with disabilities, remains limited. Evidence on the outreach of persons with disabilities in the social protection system has also not been mapped. As such, scientific evidence to inform social protection planning for persons with disabilities in disaster situations is currently lacking. This quantitative study aims to understand the extent to which persons with disabilities are likely to be socially secure in disaster situations by looking at their access to social protection schemes. Using the data from the National Socioeconomic Survey (SUSENAS) 2020, five categories of social protection schemes were used to construct a Social Protection Index of persons with disabilities living in disaster-risk local areas.

To support this, the 2020 Indonesia Disaster Risk Index (IRBI) dataset was used to map the disaster risk level of Indonesia's regions. The finding shows that 43.9% of persons with disabilities live at high risk of disaster, and only 17.6% of this percentage will be potentially highly secure if disaster strikes. The research also reveals that among the five categories of social protection schemes, BPJS Kesehatan (Indonesian Health Care and Social Security Agency) is the program that contributes the most for persons with disabilities in special situations, like a disaster. Persons with disabilities are found to be 1.14 times more likely to be "slightly secure" in disasters compared to those without disabilities, who are more likely to be "moderately or highly secure". As such, there is an urgent need to cover the gaps in providing social protection schemes for persons with disabilities in high-risk disasters, as well as planning such arrangements in pre-disaster situations.

KEYWORDS

Social protection, Disability, Disasters, Indonesia

1. INTRODUCTION

Indonesia is in the top three countries with the highest disaster risk worldwide (World Risk Report, 2022), with 46% of its districts/municipalities categorised as being at high risk to natural hazards (InaRISK, 2020). Sixteen percent of the world population is estimated to live with a disability (WHO, 2020) and are two to four times higher at risk of being injured or killed in a disaster emergency (UNDRR, 2013). A report from Indonesia Statistics indicated there are 22.5 million people with disability in Indonesia in 2020 (BRIN, 2022) within the categories of physical, intellectual, mental, sensory, and multiple disabilities (Kemensos, 2020). Furthermore, people with disabilities have disproportionate access to education, employment, and social protection (BRIN, 2022). Social protection is a public policy designed for individuals, households, and communities to manage risks and support the vulnerable (H.Robert, & J.Steen, 2000). Wisner mentioned vulnerability means 'the lack of capacity to anticipate, cope, resist and recover from disaster' (as cited in Peacock & Prater, 2012, p. 687).

A social protection system that explicitly incorporates disaster risk considerations into its design can further build household

resilience to disasters (ASEAN, 2021). Global and regional evidence shows that disaster-responsive social protection can complement traditional humanitarian response by serving as a first response and early recovery instrument. While the systematic implementation of Disaster Risk Reduction and Climate Change Adaptation (DRRCCA) integrated social protection is still limited, the aspirational frameworks and practices have been raised globally, including in the 2030 Agenda for Sustainable Development, Paris Agreement on Climate Change, Sendai Framework for Disaster Risk Reduction 2015–2030, and Agenda for Humanity.

Although operating in different domains, all frameworks aim to reduce the impact of shocks on individuals and communities by anticipating risks and uncertainties and addressing vulnerabilities. This is particularly important to shift a conservative and reactive response to forecast-based, anticipatory action to better prepare for, prevent, and mitigate the adverse impact of predictable disasters. Additionally, because social protection directly targets the most vulnerable, including persons with disabilities, it can provide an additional layer of protection from and resilience to future impacts. Climate change and hazards emphasise the need to increase the resilience of livelihoods, and disaster risk reduction and social protection have a key role to play in ensuring this happens.

Source: Adapted by authors from Davies, Guenther, Leavy, Mitchell and Tanner, 2009

Figure 1. Conceptual framework of disaster risk reduction, climate change adaptation, and social protection overlaps

Indonesia has paved the way to build a strong social protection system. The social protection system is believed to be one of the most beneficial tools to minimise risk and vulnerability caused by disasters or climate change (TNP2K, 2023). Indonesia has, in general, three social protection schemes which consist of non-contributory, contributory and livelihood enhancement programs.

Social assistance programs are generally non-contributory, budgeted, and disbursed by the government through cash, non-cash, and in-kind assistance for targeted individuals or households who meet a certain criteria of vulnerability. Social insurance programs are mostly contributory and are mandated by the law to target and benefit individuals for specific purposes, such as the national health insurance (Jaminan Kesehatan Nasional/JKN) and employment insurance programs. The third component is the livelihood enhancement programs, which are government-funded or privately-funded, and aim to improve access to decent work and economic stability through vocational and job training and matching programs.

The non-contributory social assistance programs, among others, include the Family Hope Program (Program Keluarga Harapan/PKH), Smart Indonesia Program (Program Indonesia Pintar/PIP), Non-Cash Food Assistance/Staple Food (Bantuan Pangan Non-Tunai/BPNT/Sembako), and ATENSI Program aimed for the elderly and people with disabilities. The contributory social insurance programs include the National Health Security Program (JKN) and Social Insurance for Employment programs. The social insurance for employment programs consists of five main programs, namely:

- Work Injury Compensation Insurance (JKK)
- Survivor's Benefit Insurance (JKM)
- Old-Age Savings (JHT)
- Pension Insurance (JP); and
- Unemployment Benefit Insurance (JKP)

2. METHODOLOGY

The study adopted a quantitative assessment of available secondary data: the Indonesian National Socioeconomic Survey (SUSENAS) 2020 and the Indonesia Disaster Risk Index (IRBI) (BNPB, 2020). We focused on social protection variables available from SUSENAS to understand access to the social protection programme of persons with disabilities living in high-risk regions (regency/municipality level).

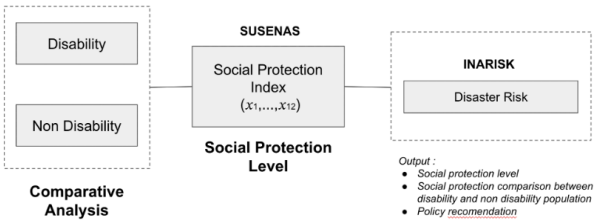

Figure 2. Methodology framework

3. DATASETS

The study adopted a quantitative assessment of available secondary data: the Indonesian National Socioeconomic Survey (SUSENAS) 2020 and the Indonesia Disaster Risk Index (IRBI) (BNPB, 2020). We focused on social protection variables available from SUSENAS to understand access to the social protection programme of persons with disabilities living in high-risk regions (regency/municipality level).

Table 1. Indonesian Social Protection System closely linked with disaster risk reduction initiatives implemented in Indonesia

	PKH (Family Hope Program)	JKN Kesehatan (Health Insurance)	Cash Assistance	Sembako & BPNT (Cash for Food)	KKS (Family Welfare Card)
Purpose	Poverty reduction	Prevention of health shocks	Humanitarian assistance	Increasing food security, nutrition improvement	Welfare assistance
Responsible Body	Ministry of Social Affairs	BPJS	Local government, Ministry of Finance	Ministry of Social Assistance	Ministry of Social Assistance
Target, Criteria of Beneficiary	Targeted households meeting certain vulnerability criteria e.g. poor household, a household with people with disability/infant/ baby/children	Universal — Indonesians	People with social welfare problems; poor households; people affected by disaster (can be temporary and incidental)	Poor households	People with social welfare problems; poor households (PMKS)

3.1 Sample

We adopted the Washington Group on Disability Statistics (WG) measurement to determine whether someone is classified as a person with a disability. At the very least, persons with disabilities have a lot of difficulty or worse in one of the following functions: vision, hearing, mobility, cognition, self-care, and communication. The disability assessment was only applied to individual samples of SUSENAS over two years of age. Based on the data, we estimated Indonesia's population of persons with disabilities to be 2.4% of the total population.

3.2 Data Analysis

We constructed an index to measure the level of protection for individuals. This index was developed using the principal component analysis method and consists of five variables related to social protection. We selected three principal components with 86.06 variance explained as explained in Table 2. We classify the level of social protection based on the distance of the observation's index value to the total mean and the distance of 1.5 times the standard deviation was the threshold to determine whether the observations lay on the deviation of slightly protected, moderately protected, or highly protected.

Table 2. Principal components of Indonesian Social Protection categories based on TNP2K

Importance of Components:			
	Comp. 1	Comp. 2	Comp. 3
Standard Deviation	0.5946293	0.4054791	0.25167425
Proportion of Variance	0.5234126	0.2433821	0.09376249
Cumulative Proportion	0.5234126	0.7667946	0.86055713

According to the Wilcoxon Rank test, there was a significant difference between the social protection index of persons with disabilities and people without disability (Table 3). The boxplot of the Social Protection Index of both populations showed that, in general, persons with a disability had higher social protection status (Figure 3). However, we also found that with a significance level of 95%, persons with disabilities were 1.14 times more likely to fall into slightly secure conditions (Table 4).

Table 3. Wilcoxon rank sum test result

W	*p-value*
1.8292e+10	0.0016

Table 4. Odds ratio between non-disability and disability on slightly secure criteria

Predictor	Estimate	Lower	Upper
Non-disability	1		
Disability	1.14 (9.631014e-06)	1.07 (9.304782e-06)	1.20 (6.619698e-06)

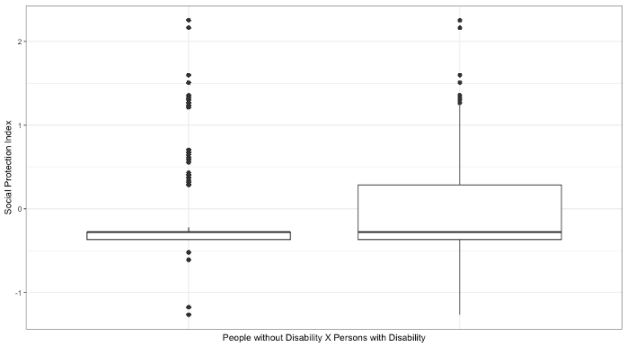

Figure 3. Boxplot of Social Protection Index by class of population

4. KEY FINDINGS AND DISCUSSION

To understand the relation of social protection data with disaster risk index data, we used descriptive analysis and data visualisation.

4.1 Social Protection Coverage

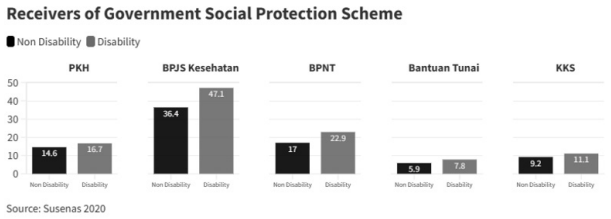

Figure 4. Receivers of Government Social Protection Scheme

4.2 Social Protection Index

With a predetermined social protection index threshold, we estimate that 13.1% of the total population were highly secure, 83.6% were moderately secure, and 3.2% were slightly secure. Figure 5 shows the distribution of social protection categories based on disability conditions. Among the disability and non-disability groups, the data reveals that persons with disabilities have a higher representation in the "slightly secure" social security level than their non-disabled counterparts. Specifically, 3.8% of persons with disabilities fall into the "slightly secure" level, while only 3.2% of non-disabled individuals are in the same group.

4.3 Social Protection Index

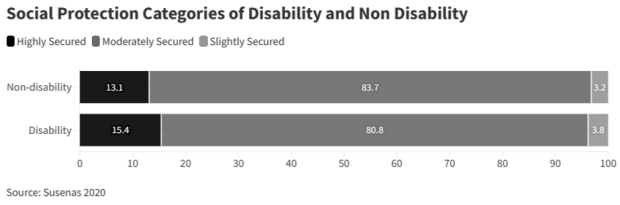

Figure 5. Social Protection Categories of Disability and Non-Disability

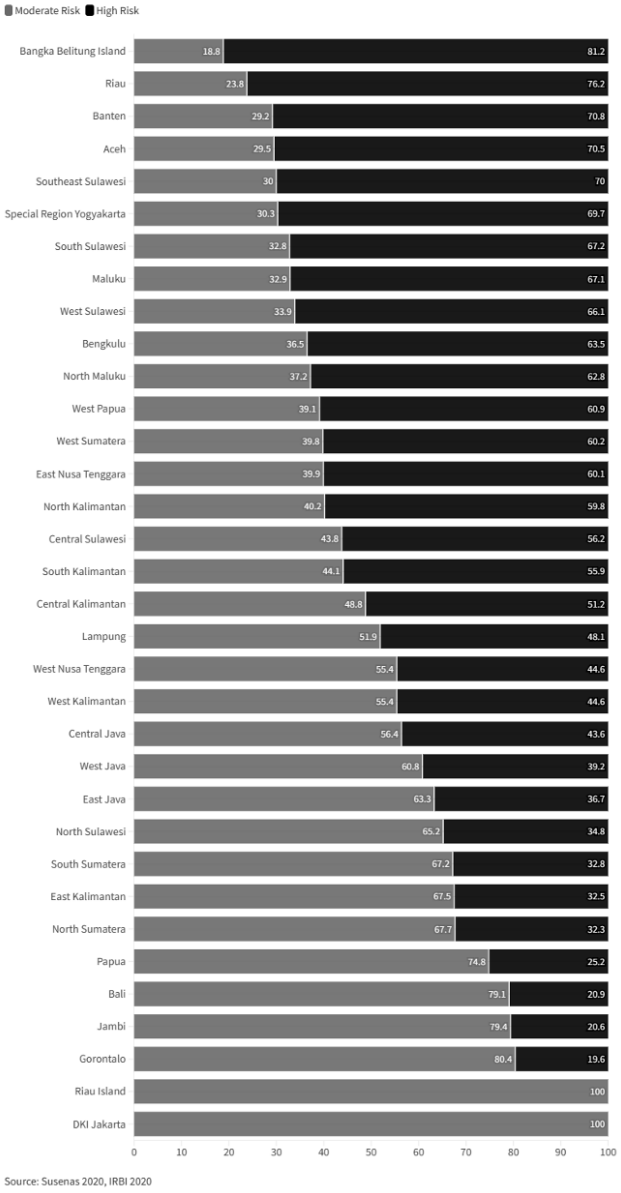

Figure 6. Distribution of Persons with Disabilities Based on Disaster Risk Exposure by Province

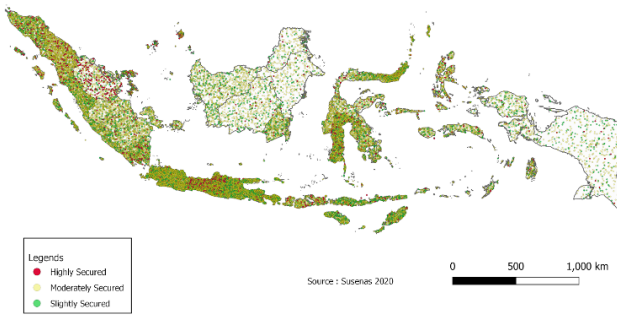

Figure 7. Distribution of Socially Secured People During a Disaster in Indonesia

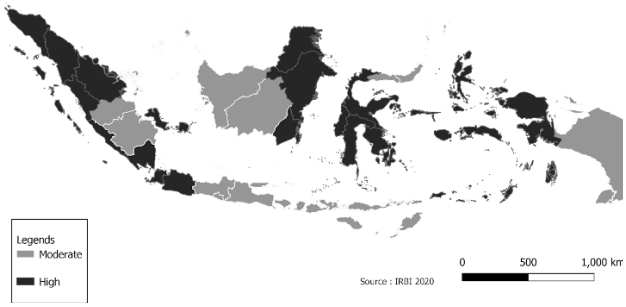

Figure 8. Disaster Risk Index Map

The findings show that 43.9% of persons with disabilities live at high risk of disaster, and only 17.6% of those will be potentially highly secure in disasters. The research also reveals that among the five categories of social protection schemes, JKN Kesehatan (Indonesian Health Insurance/ BPJS Kesehatan) is the highest contributor to social protection of persons with disabilities living in disaster-prone regions. Persons with disabilities are found to be 1.14 times more likely to be "slightly secure" in disasters compared to those without disabilities.

Considering the overall findings, precautions should be applied when analysing disability data. The fact that disability is not a criterion for sampling selection in SUSENAS data collection might have resulted in the low prevalence of disability. Therefore, comparing groups may have provided useful insights to see which groups need to be targeted more than others. However, further research, especially supported by qualitative analysis, is needed to increase accurate judgement about the scale of the need for social protection.

5. CONCLUSIONS AND RECOMMENDATIONS

This study is limited to the sample size of SUSENAS, which does not consider specific criteria for selecting a disability. Furthermore, the data does not cover persons with disabilities who do not live with their families, such as the homeless and those who have been institutionalised, due to the analysis' observation unit (households). As such, there is a need to extend the study by complementing the SUSENAS data with other datasets, for example, the DTKS data (Indonesia Social Welfare Data), to enrich the analysis for improved targeting and increasing protection coverage.

It can be concluded that 47.9% of persons with disabilities live in areas at high-risk of disasters (i.e. the top five high-risk areas: Bangka Belitung, Riau, Banten, Aceh and East Sulawesi) but only 17.2% of the population of persons with disabilities are potentially "highly secure" in terms of social protection. Extending social protection coverage for persons with disabilities, especially those in high-risk disaster areas, is warranted. A first step may start with BPJS Kesehatan as the highest contributing scheme to the social protection index.

Extending the remaining four social protection programmes is also recommended. Most of the social protection programs have not met their coverage target. PKH only covers less than 20% of both persons with disabilities and persons without disabilities, while it is meant to cover 60% of households with the lowest expenditure. The coverage for BPNT, Bantuan Tunai, and KKS should refer to the poverty rate (9.78% in 2020).

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Anak Dengan Disabilitas dan Tingkat Non-Partisipasi Dalam Pendidikan: Disparitas, Pola Demografi, dan Peran Perlindungan Sosial

Elga Andriana
Universitas Gadjah Mada
Yogyakarta, Indonesia

Mugia Bayu Rahardja
Badan Riset dan Inovasi Nasional
Jakarta, Indonesia

Indah Okitasari
Badan Riset dan Inovasi Nasional
Jakarta, Indonesia

Dewi Nastiti Lestariningsih
Badan Riset dan Inovasi Nasional
Jakarta, Indonesia

ABSTRAK

Regulasi pendidikan di Indonesia mengamanatkan seluruh warga negara Indonesia memiliki hak yang sama dalam pemenuhan hak pendidikan. Akan tetapi peraturan yang telah ditetapkan belum sejalan dengan pencapaian partisipasi pendidikan bagi anak dengan disabilitas. Berdasarkan data yang diperoleh dari Susenas, Kominfo PMK dan UNICEF, persentase anak dengan disabilitas yang menempuh pendidikan formal baru berkisar 12.26%. Data ini menunjukkan angka non-partisipasi pendidikan anak dengan disabilitas cukup tinggi, yaitu berkisar 87%. Penelitian ini bertujuan untuk mendapatkan gambaran kondisi non-partisipasi anak dengan disabilitas dalam akses pendidikan, khususnya melihat lebih dalam aspek disparitas, pola demografi, dan perlindungan sosial. Penelitian ini menggunakan desain penelitian kuantitatif.

Populasi dalam penelitian ini adalah seluruh anak disabilitas usia sekolah di Indonesia. Sampel penelitian ini diperoleh dari data sekunder yang bersumber dari Survei Sosial Ekonomi Nasional (SUSENAS) tahun 2020. Kesimpulan dalam penelitian ini menunjukkan bahwa disparitas memperlihatkan tiga provinsi dengan tingkat non-partisipasi pendidikan tertinggi, yaitu Sulawesi Tengah (81.7), Nusa Tenggara Timur (74.1) dan Sulawesi Barat (70.1). Provinsi dengan non-partisipasi pendidikan terendah yaitu Bali (37.5), DIY (37.8) dan Jakarta (41.3); selanjutnya dari sisi demografi, hasil awal penelitian menunjukkan bahwa laki-laki memiliki kemungkinan lebih besar untuk tidak bersekolah daripada perempuan; berdasarkan usia, tiga dari lima anak dengan disabilitas usia 6-9 tahun tidak bersekolah. Selain itu, anak dengan disabilitas di perdesaan berisiko lebih besar untuk tidak bersekolah (OR=1.83). Jika melihat dari status ekonomi, anak dengan disabilitas dari keluarga ekonomi terbawah memiliki resiko terbesar tidak bersekolah.

Selanjutnya untuk perlindungan sosial memperlihatkan anak dengan disabilitas dari keluarga yang menerima program perlindungan sosial justru memiliki risiko tidak bersekolah lebih tinggi dibandingkan yang tidak menerima program perlindungan sosial.

KATA KUNCI

Anak disabilitas, Non-partisipasi pendidikan, Disparitas, Pola demografi, Perlindungan sosial

1. PENDAHULUAN

Undang-Undang Dasar 1945 Pasal 31 ayat (1) menyatakan bahwa setiap warga negara Indonesia berhak mendapatkan akses terhadap pendidikan terlepas dari apapun keragaman yang ada pada diri individu, termasuk individu dengan disabilitas. Dalam mewujudkan amanat tersebut, pemerintah mengupayakan pemenuhan pendidikan untuk semua anak dengan mengeluarkan UU No. 20 tahun 2003 tentang sistem pendidikan nasional dalam pasal 5 ayat 1, 2, dan 4 yang mengemukakan bahwa segenap warga negara menyandang hak yang setara dalam memperoleh pendidikan berkualitas. Selain itu, Peraturan Pemerintah Nomor 19 Tahun 2005, pasal 4 tentang standar nasional pendidikan juga memiliki tujuan untuk menjamin mutu pendidikan nasional dalam rangka mencerdaskan kehidupan bangsa, membentuk karakter atau watak, dan peradaban bangsa yang bermanfaat. Menyusul kemudian, Peraturan Menteri Pendidikan Nasional RI No. 70 Tahun 2009, pasal 6 yang menyatakan bahwa pemerintah kabupaten atau kota menjamin terselenggaranya pendidikan inklusif sesuai dengan kebutuhan siswa.

Namun, dukungan pemerintah dalam bentuk perundangan dan peraturan yang telah ditetapkan ternyata belum sejalan dengan pencapaian partisipasi pendidikan bagi anak dengan disabilitas. Beberapa data menunjukkan bahwa angka partisipasi anak dengan disabilitas yang dapat mengakses pendidikan terbilang masih rendah. Data Kementerian Pendidikan dan Kebudayaan (2019) menyebutkan 993.000 peserta didik penyandang disabilitas

menempuh pendidikan di sekolah reguler (Konferensi Disabilitas BRIN, 2022). Data mengacu sumber lain juga menunjukkan kecenderungan yang sama. Menurut data statistik yang dipublikasikan Kemenko PMK pada Juni 2022, angka kisaran anak dengan disabilitas usia 5-19 tahun adalah sebesar 3, persen. Sedangkan jumlah penduduk pada usia tersebut pada tahun 2021 adalah 66,6 juta jiwa. Dengan demikian, jumlah anak usia 5-19 tahun dengan disabilitas berkisar 2.197.833 anak. Sementara data Kemendikbudristek per Agustus 2021 menunjukkan jumlah peserta didik pada jalur Sekolah Luar Biasa (SLB) dan inklusif adalah 269.398 anak. Berdasarkan data tersebut, persentase anak dengan disabilitas yang menempuh pendidikan formal baru berkisar 12.26%. Artinya angka non-partisipasi pendidikan anak dengan disabilitas cukup tinggi, yaitu berkisar 87%.

Dalam penelitian ini, non-partisipasi pendidikan atau angka dimana anak dengan disabilitas tidak bersekolah mengacu pada kategori Susenas yaitu persentase anak dengan disabilitas yang belum memperoleh pendidikan (tidak/belum pernah sekolah) serta yang tidak bersekolah lagi. Terdapat beberapa faktor yang menyebabkan anak dengan disabilitas tidak bersekolah diantaranya disparitas, demografi dan perlindungan sosial. Disparitas dalam penelitian ini diartikan sebagai wilayah yang menggambarkan angka non-partisipasi sekolah pada anak dengan disabilitas. Berikut adalah beberapa kondisi yang dapat mempengaruhi disparitas dalam akses pendidikan bagi anak-anak dengan disabilitas: 1) ketidaktersediaan infrastruktur: beberapa sekolah mungkin tidak memiliki fasilitas yang memadai atau aksesibilitas yang diperlukan untuk mendukung kebutuhan anak-anak dengan disabilitas, seperti: ketiadaan ramp khusus untuk kursi roda, toilet yang tidak dapat diakses, atau akses transportasi yang terbatas bagi anak-anak dengan kebutuhan mobilitas khusus; 2) kurangnya sumber daya dan tenaga pengajar yang terlatih: tidak semua sekolah memiliki staf yang terlatih untuk bekerja dengan anak-anak dengan berbagai jenis disabilitas; 3) stigma sosial terhadap disabilitas dapat menyebabkan perlakuan yang tidak adil atau diskriminatif terhadap anak-anak dengan disabilitas; 4) keterbatasan layanan dukungan, seperti dukungan pendamping, terapi fisik atau terapi okupasi, dan dukungan khusus lainnya untuk menunjang pendidikan reguler; 5) kurangnya kebijakan yang melindungi hak-hak anak-anak dengan disabilitas atau tidak adanya regulasi yang memastikan penyediaan pendidikan inklusif; 6) kurangnya promosi akan pendidikan inklusifyang memungkinkan semua anak, termasuk anak disabilitas mendapatkan kesempatan yang sama untuk belajar dan berkembang.

Faktor kedua yang memberikan kontribusi yang cukup signifikan adalah faktor sosiodemografi. Ada korelasi yang signifikan antara faktor risiko sosio-demografis dan masalah non-partisipasi pada anak dengan disabilitas. Faktor sosio-demografi memperlihatkan anak dengan disabilitas menghabiskan banyak waktu di luar sekolah dan hal ini memberikan pengaruh terhadap kehidupan anak tersebut. Faktor sosio-demografi ini adalah tingkat ekonomi keluarga yang rendah. Selain itu pula terdapat beberapa faktor lainnya, seperti: : 1) lokasi geografis di mana anak-anak dengan disabilitas yang tinggal di daerah pedesaan atau terpencil sering kali menghadapi tantangan dalam aksesibilitas pendidikan, dan etnisitas dan kebudayaan di mana anak-anak dengan disabilitas dari kelompok etnis minoritas atau kelompok budaya tertentu rentan menghadapi tantangan mengakses pendidikan. Perbedaan budaya, kurangnya dukungan budaya, atau kurangnya penyediaan layanan pendidikan yang responsif terhadap kebutuhan khusus mereka dapat menyebabkan disparitas dalam aksesibilitas pendidikan. Terakhir status migrasi dan pengungsi. Anak-anak dengan disabilitas yang berada dalam situasi migrasi atau status pengungsi menghadapi tantangan dalam mengenyam pendidikan.

Selanjutnya, ada tidaknya akses terhadap program perlindungan sosial di bidang pendidikan, seperti Program Indonesia Pintar (PIP), Kartu Indonesia Pintar (KIP), juga memiliki pengaruh terhadap kondisi non-partisipasi pendidikan anak dengan disabilitas. Penelitian menunjukkan bahwa pemberian PIP pada anak dari rumah tangga kelompok pengeluaran 40% terendah secara signifikan dapat meningkatkan peluang anak usia 13-15 tahun untuk bersekolah SMP sederajat dan peluang anak usia 16-18 tahun untuk bersekolah SMA sederajat (Pasman, 2021).

Faktor-faktor tersebut menjadi penting untuk dikaji dampaknya pada kondisi pemerataan pendidikan di Indonesia khususnya terkait bonus demografi pada tahun 2045 yang akan menunjukkan ledakan pada usia produktif termasuk usia sekolah. Faktor sosio-demografis dapat berkontribusi dalam terjadinya perilaku tidak mengenyam pendidikan pada anak disabilitas. Oleh karena itu, untuk menekan angka non-partisipasi pendidikan anak dengan disabilitas di Indonesia, penting untuk mendapatkan gambaran disparitas, pola demografi dan peran perlindungan sosial. Dengan demikian, studi ini bertujuan untuk (1) menggambarkan secara deskriptif gambaran disparitas antar wilayah terkait angka non-partisipasi pendidikan anak dengan disabilitas, (2) mendapat gambaran pola demografi terkait non-partisipasi pendidikan anak dengan disabilitas, dan (3) menguji peran akses perlindungan sosial terhadap angka non- partisipasi pendidikan anak disabilitas berdasarkan pada data Susenas tahun 2020.

2. METODE PENELITIAN

2.1 Desain dan variabel penelitian

Penelitian ini menggunakan desain penelitian kuantitatif. Populasi dalam penelitian ini adalah seluruh anak disabilitas usia sekolah di Indonesia. Sampel penelitian ini diperoleh dari data sekunder yang bersumber dari Survei Sosial Ekonomi Nasional (SUSENAS) tahun 2020. Dalam penelitian ini, non-partisipasi pendidikan atau angka dimana anak dengan disabilitas tidak bersekolah mengacu pada kategori Susenas, yaitu anak dengan disabilitas yang belum memperoleh pendidikan (tidak atau belum pernah sekolah) serta yang tidak lagi bersekolah. Faktor yang dikaji dalam penelitian ini antara lain disparitas wilayah, faktor demografi, dan perlindungan sosial. Disparitas wilayah adalah perbedaan angka non-partisipasi antar provinsi di Indonesia. Faktor demografi adalah atribut tertentu usia, jenis kelamin, tempat tinggal, dan faktor status sosial ekonomi keluarga. Perlindungan sosial adalah peran jaminan negara untuk keberlangsungan pendidikan, misalnya dalam bentuk

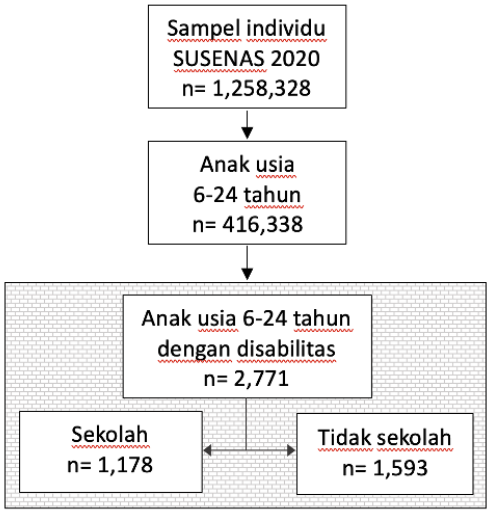
kartu seperti Kartu Indonesia Pintar (KIP) yang dapat digunakan untuk mendapatkan akses pendidikan yang layak di Indonesia.

2.1 Analisis data

Analisis data pada penelitian menggunakan analisis univariat dan bivariat. Analisis univariat dilakukan dengan menyusun distribusi frekuensi variabel status disabilitas anak umur 6-24 tahun dan variabel karakteristik lainnya yang diamati pada penelitian ini. Analisis bivariat dilakukan dengan menyusun tabulasi silang antara variabel status disabilitas anak umur 6-24 tahun dengan variabel status menerima program perlindungan sosial dan variabel lain yang juga diamati pada penelitian ini.

3. HASIL DAN DISKUSI

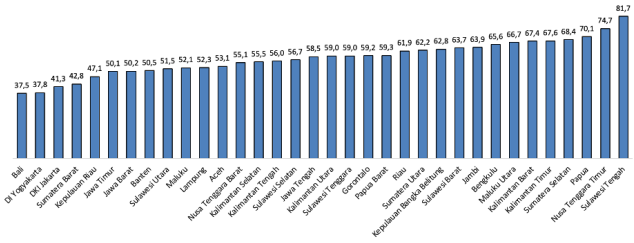
Pertama, dipaparkan terlebih dahulu alur pemilihan unit analisis yang diawali dengan mengidentifikasi sampel individu Susenas 2020 sejumlah 1.258.328 orang. Selanjutnya dilakukan langkah pencarian jumlah semua anak pada rentang usia 6-24 tahun. Rentang usia 6-24 tahun ini ditentukan berdasarkan pencarian usia anak disabilitas terendah dan usia anak disabilitas tertinggi yang masih bersekolah (n= 416.338) berdasarkan data Susenas. Langkah berikutnya adalah mencari jumlah anak dengan disabilitas di rentang usia tersebut (n= 2,771). Langkah terakhir, ditemukan 1,593 anak dengan disabilitas yang tidak bersekolah yang digambarkan dengan alur bagan di bawah ini:



Figur 1. Alur pemilihan unit analisis

Setelah didapatkan unit analisis, kemudian dilakukan analisis yang menghasilkan gambaran hasil disparitas, pola demografi dan peran perlindungan sosial terhadap angka non-partisipasi pada anak dengan disabilitas. sosial dan variabel lain yang juga diamati pada penelitian ini.

3.1 Gambaran disparitas non-partisipasi pendidikan pada anak dengan disabilitas



Figur 2. Grafic persentasi disparitas non-partisipasi seluruh provinsi, Susenas 2020

Provinsi	Jumlah anak dengan disabilitas	SLB*			Rasio
		Jumlah	Negeri	Swasta	
Aceh	12,085	74	30	44	1 : 163
Sumatera Utara	26,772	58	29	29	1 : 462
Sumatera Barat	12,650	153	29	124	1 : 83
Riau	18,748	47	17	30	1 : 399
Jambi	8,296	18	13	5	1 : 461
Sumatera Selatan	26,196	35	15	20	1 : 748
Bengkulu	4,531	17	14	3	1 : 267
Lampung	18,800	28	11	17	1 : 671
Kepulauan Bangka Belitung	2,479	9	7	2	1 : 275
Kepulauan Riau	5,973	18	8	10	1 : 332
DKI Jakarta	22,385	90	13	77	1 : 249
Jawa Barat	98,754	384	42	342	1 : 257
Jawa Tengah	69,484	190	39	151	1 : 366
DI Yogyakarta	7,114	79	9	70	1 : 90
Jawa Timur	79,516	438	71	367	1 : 182
Banten	28,636	103	8	95	1 : 278
Bali	6,261	14	12	2	1 : 447
Nusa Tenggara Barat	13,944	51	18	33	1 : 273
Nusa Tenggara Timur	16,605	32	25	7	1 : 519
Kalimantan Barat	12,010	23	14	9	1 : 522
Kalimantan Tengah	5,770	24	19	5	1 : 240
Kalimantan Selatan	10,098	28	20	8	1 : 361
Kalimantan Timur	5,727	36	10	26	1 : 159
Kalimantan Utara	2,390	5	5	0	1 : 478
Sulawesi Utara	7,195	31	6	25	1 : 232
Sulawesi Tengah	7,455	30	16	14	1 : 249
Sulawesi Selatan	22,310	84	23	61	1 : 266
Sulawesi Tenggara	6,106	77	17	60	1 : 79
Gorontalo	3,155	8	8	0	1 : 394
Sulawesi Barat	4,870	25	13	12	1 : 195
Maluku	2,868	14	9	5	1 : 205
Maluku Utara	2,071	19	15	4	1 : 109
Papua Barat	3,040	5	4	1	1 : 608
Papua	6,422	10	7	3	1 : 642

* Sumber data: Dapodik-SLB tahun 2020 (https://dapo.kemdikbud.go.id/sp)

Figur 3. Jumlah anak usia 6-24 tahun dengan disabilitas, jumlah SLB dan rasio menurut Provinsi, Susenas 2020, Dapodik SLB 2020

Dari Figur 2 dapat dilaporkan 3 provinsi dengan tingkat non-partisipasi (persentase) tertinggi yaitu: Sulawesi Tengah (81.7), Nusa Tenggara Timur (74.1) dan Papua (70.1), sementara 3 provinsi dengan tingkat non-partisipasi terendah adalah Bali (37.5), DIY (37.8) dan Jakarta (41.3).

Hasil analisis mengenai disparitas mencerminkan permasalahan pendidikan anak dengan disabilitas yang terlihat dari ketimpangan persentase non-partisipasi antar provinsi di Indonesia. Tingkat non-partisipasi tertinggi dialami provinsi Sulawesi Tengah, Nusa Tenggara Timur dan Sulawesi Barat, sementara angka non-partisipasi terendah dicapai oleh DIY,

Bali serta Jawa Timur. Sejumlah provinsi di Indonesia memiliki persentase non-partisipasi di atas persentase nasional. Hal ini mengindikasikan ketidakseimbangan pembangunan fasilitas pendidikan antar provinsi serta akses pelayanan pendidikan bagi anak dengan disabilitas yang kurang merata. Hasil ini dapat menjadi pertimbangan prioritas intervensi bagi tiga daerah dengan tingkat non-partisipasi tertinggi dengan melakukan evaluasi ketersediaan fasilitas Sekolah Penyelenggara Pendidikan Inklusif (SPPI) dan Sekolah Luar Biasa (SLB) dan faktor sosial budaya setempat. Ketersediaan fasilitas pendidikan bagi anak dengan disabilitas merupakan hal penting yang harus diperhatikan oleh pemerintah karena faktor utama untuk peningkatan partisipasi sekolah anak dengan disabilitas adalah tersedianya fasilitas pendidikan (Huisman & Smits, 2018; Sugiarto, 2015). Pengembangan fasilitas ini perlu lebih merata sehingga akses pendidikan bisa lebih mudah dijangkau oleh seluruh penyandang disabilitas di berbagai wilayah baik di pedesaan maupun di perkotaan di setiap provinsi di Indonesia (Dewi & Soebijarto, 2019).

Karakteristik		Tidak sekolah (%)	OR	p-value
Jenis kelamin	Laki-laki (reff)	55.6	1.00	0.081
	Perempuan	55.3	0.98	
Kelompok umur*	6-9 (reff)	55.9	1.00	0.000
	10-14	17.4	0.16	
	15-19	59.8	1.17	
	20-24	83.6	4.01	
Wilayah tempat tinggal*	Perkotaan (reff)	48.7	1.00	0.000
	Perdesaan	63.6	1.83	
Kuintil pengeluaran rumah tangga*	Terbawah	62.4	1.71	0.000
	Menengah bawah	53.8	1.19	
	Menengah	54.2	1.21	
	Menengah atas	47.3	0.92	
	Teratas (reff)	49.4	1.00	
Menerima program bantuan sosial (KIP,PIP,PKH, dll)*	Ya (reff)	56.2	1.00	0.000
	Tidak	54.9	0.94	

*) Uji chi-square signifikan pada taraf α=0.05

Figur 4. Karakteristik Demografi dan Persentase Non-Partisipasi Anak Disabilitas

3.1 Gambaran pola demografi non-partisipasi pendidikan pada anak dengan disabilitas

Gambaran di Figur 4 menunjukkan pola demografi anak disabilitas yang menyasar pada jenis kelamin, kelompok umur, dan wilayah tempat tinggal. Pada jenis kelamin ditemukan angka (55,6%) untuk anak laki-laki yang tidak sekolah dan angka (55,3%) untuk anak perempuan yang tidak sekolah. Sementara itu, kelompok usia 6–9 tahun menunjukkan angka 55,9%; kelompok umur 10–14 tahun menunjukkan angka 17,4%; kelompok umur 15–19 tahun menunjukkan angka 59,8%, dan kelompok umur 20–24 tahun menunjukkan angka 83,6% untuk anak disabilitas non-partisipasi pendidikan. Artinya, semakin tinggi kelompok umur semakin tinggi pula angka nonpartisipatif. Selain itu pula, pada wilayah tempat tinggal (perkotaan) memperlihatkan angka 48,7% untuk nonpartisipatif dan wilayah tempat tinggal (perdesaan) menunjukkan angka 63,6% untuk nonpartisipatif. Angka perdesaan menunjukkan jumlah nonpartisipatif lebih tinggi dibandingkan angka perkotaan.

Hasil analisis menunjukkan tren bahwa laki-laki memiliki kemungkinan lebih besar untuk tidak bersekolah daripada perempuan; berdasarkan usia, tiga dari lima anak dengan disabilitas usia 6-9 tahun tidak bersekolah; anak dengan disabilitas di perdesaan berisiko lebih besar untuk tidak bersekolah (OR=1.83); berdasarkan status ekonomi, anak dengan disabilitas dari keluarga ekonomi terbawah memiliki resiko terbesar tidak bersekolah. Selanjutnya, anak disabilitas berusia 20—24 tahun yang tidak berpartisipasi dalam pendidikan sangat tinggi. Hal itu bisa menunjukkan adanya masalah atau tantangan dalam sistem pendidikan yang perlu ditinjau. Selain itu pula, partisipasi pengambilan keputusan pada anak disabilitas usia 20—24 tahun untuk mengikuti suatu wadah yang inklusif seperti Musyawarah Perencanaan Pembangunan (Musrenbang) dan Forum Anak (FA) menjadi sangat efektif dalam memberikan kesempatan bagi anak-anak untuk mengekspresikan kekhawatiran dan harapan mereka secara langsung (UNICEF dan Bappenas, 2022). Peran serta anak disabilitas pada usia 20—24 tahun sangat penting karena mereka merupakan bonus demografi pada tahun 2030—2040 mendatang.

3.1 Peran akses perlindungan sosial terhadap angka non-partisipasi pendidikan anak dengan disabilitas

Figur 4 juga menunjukkan bahwa 56,2% adalah anak dengan disabilitas yang menerima bantuan sosial berupa KIP, PIP namun tidak bersekolah pada rentang usia 6-24 tahun. Sementara itu, 54,9% merupakan anak yang tidak menerima berbagai bentuk bantuan sosial dari pemerintah dan merupakan anak yang juga tidak mengenyam sekolah pada usia sekolahnya.

Bantuan sosial (bansos) merupakan bentuk bantuan yang diberikan oleh pemerintah kepada masyarakat atau kelompok tertentu yang menjadi target dengan tujuan meningkatkan kemampuan publik yang lebih luas. Peraturan Menteri Dalam Negeri (Permendagri) Nomor 32 tahun 2011 menyebutkan bahwa bantuan sosial yang diberikan oleh pemerintah kepada masyarakat merupakan sebuah pemberian bantuan berupa uang, barang dan kebutuhan lain yang diberikan dari pemerintah daerah kepada suatu individu, kelompok masyarakat tertentu atau masyarakat secara selektif dan dan bersifat tidak terus menerus. Tujuan utama dari pemberian bantuan ini adalah mengurangi dampak resiko yang akan terjadi pada suatu masyarakat akan suatu keadaan tertentu termasuk keadaan ekonomi (Alba & Kurniawan, 2019).

Pada umumnya, penelitian terdahulu menunjukan bahwa bantuan sosial yang diberikan oleh pemerintah berpengaruh cukup signifikan terhadap tingkat partisipasi suatu kelompok masyarakat (Nau Dewa & Prasetyo, 2022) Namun, data hasil penelitian ini menunjukkan kebalikan dari pola hasil yang telah dilakukan oleh para peneliti terdahulu. Hal ini disebabkan karena data yang digunakan adalah data yang memaparkan kondisi anak disabilitas yang bersekolah pada usia sekolah yang tidak sama dengan rentang usia yang semestinya ada pada jenjang sekolah reguler. Sebagai contoh, anak disabilitas yang berusia sembilan tahun masih duduk di bangku sekolah dasar kelas dua. Hal ini tentu saja bertolak belakang dengan kondisi bahwa anak berusia sembilan tahun semestinya berada pada jenjang sekolah

dasar kelas dua atau tiga. Faktor penyebab terjadinya situasi demikian perlu digali lebih dalam untuk melihat faktor faktor apa saja yang mempengaruhi kondisi tersebut. Selain itu, data penelitian ini menggambarkan bahwa semakin tinggi rentang usia anak dengan disabilitas maka semakin tinggi pula tingkat non-partisipasi pendidikannya.

4. KESIMPULAN

Dari paparan hasil penelitian awal, terdapat beberapa hal yang dapat disimpulkan:

1. **Disparitas:** Tiga provinsi dengan tingkat non-partisipasi pendidikan tinggi, Sulawesi Tengah (81.7), Nusa Tenggara Timur (74.1) dan Sulawesi Barat (70.1). Provinsi dengan non -partisipasi pendidikan rendah yaitu Bali (37.5), DIY (37.8) dan Jakarta (41.3).
2. **Demografi:** Laki-laki memiliki kemungkinan lebih besar untuk tidak bersekolah daripada perempuan; berdasarkan usia, tiga dari lima anak dengan disabilitas usia 6-9 tahun tidak bersekolah; anak dengan disabilitas di perdesaan berisiko lebih besar untuk tidak bersekolah (OR=1.83); berdasarkan status ekonomi, anak dengan disabilitas dari keluarga ekonomi terbawah memiliki resiko terbesar tidak bersekolah.
3. **Perlindungan sosial:** anak dengan disabilitas dari keluarga yang menerima program perlindungan sosial justru memiliki risiko tidak bersekolah lebih tinggi dibandingkan yang tidak menerima program perlindungan sosial.

5. REKOMENDASI

Dari paparan hasil penelitian awal, terdapat beberapa hal yang dapat disimpulkan:

1. Penelitian lanjutan tentang keberadaan dan serapan sekolah inklusi terutama di tiga daerah dengan tingkat non-partisipasi pendidikan tertinggi.
2. Diperlukan penelitian lanjutan dengan desain kualitatif untuk mendapatkan penjelasan atas fenomena non-partisipasi pendidikan dari perspektif orangtua dan anak, misalnya: tingginya anak dengan disabilitas usia 20-24 tahun yang tidak bersekolah, anak dengan disabilitas dari keluarga yang menerima program perlindungan sosial justru menunjukkan prevalensi tidak bersekolah yang lebih tinggi.

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Interventions for Potential Development Disorders in Toddlers in Indonesia: SUSENAS and SIRS Data Analysis

Aan Kurniawan
Pusat Riset Kesehatan Masyarakat dan Gizi, BRIN
Jakarta, Indonesia

Wisnu Fadila
Pusat Riset Kependudukan, BRIN
Jakarta, Indonesia

Agus Hasan Hidayat
Data Science Indonesia
Jakarta, Indonesia

Mardiana Dwi Puspitasari
Pusat Riset Kependudukan, BRIN
Jakarta, Indonesia

Titi Kanti Lestari
Universitas Atmajaya
Jakarta, Indonesia

ABSTRACT

Developmental delays jeopardize a child's growth and development. In 2022, approximately 5% of Indonesian children aged 2 to 4 had one or more functional difficulties. The study aims to identify the availability of healthcare facilities, health insurance, and social protection measures to address the needs of children aged 2 to 5 years with developmental delays. Using the 2020 National Socio-Economic Survey (SUSENAS) core dataset, 2,181 children aged 2 to 5 years were identified as having potential developmental delays. Approximately 29.99% of children are at the lowest household expenditure. Approximately 45.03%of children do not have health insurance. Around 79.31% of children live in households without social protection. The percentage of children with developmental delays ranged from 18.95% to 0.4% in each province. Paediatric and paediatric emergency services account for 90.36% and 1.06% of all healthcare services. Approximately 57.66 percent of children are not immunised. The KIA book is not available to around 41.38 percent of children. Healthcare insurance and social security programs should be provided to disadvantaged children. Surveillance should be conducted to ensure a more equitable distribution of healthcare resources based on the number of children with developmental delays.

1. INTRODUCTION

Early childhood is a moment of tremendous opportunity and enormous vulnerability in optimising children's capacity for development. Therefore, establishing their health and well-being throughout their lives is critical[1]. Around 1 to 3% of children under five have global developmental delay (GDD)[2]. Developmental delay in children under five is defined as a delay in at least one developmental domain, such as motoric, speech/language, cognitive, social/personal, and daily activities, compared to peers in the same population[3]. Delay in development threatens a child's adaptive functioning, growth and development. According to the framework of ICF, an individual's level of functioning is a dynamic combination of biological, individual, and environmental factors; therefore, starting rehabilitation services and treatment at the earliest stage possible will be crucial.

In 2022, approximately 5% of Indonesian children aged 2 to 4 have one or more functional difficulties[4]. As a result, data capturing sociodemographic variables should be made available.

The paper aims to provide an overview of addressing child developmental delay among Indonesian children under five, capturing data on the availability of health facilities; personnel; and services, and understanding the social protection needs to support the growth of children with potential developmental delay.

2. METHODOLOGY

2.1 Data and Participants

The study uses the 2020 National Socio-Economic Survey (SUSENAS)-Core dataset. The study identified 89,348 children aged 2-5 years in Indonesia, and 2,181 children aged 2-5 years have the potential for developmental delay.

2.2 Measures

2.2.1 Outcome Variable

The outcome variable is children aged 2-5 years with the potential for developmental delay. Children aged 2-5 years with the potential for developmental delay are defined as having 'some difficulty,' or 'a lot of difficulties,' or 'cannot do at all' in at least one functional domain, including the motoric (seeing, walking or climbing steps, and picking up a small object), speech/language (communicating and hearing), and social/

personal (remembering or concentrating, controlling behaviour, and self-care).

2.2.2 Explanatory variables

1. Household expenditure per capita levels (the highest, high, middle, low, the lowest)
2. Health insurance coverage (national health insurance (BPJS), others, no health insurance)
3. Social protection coverage; receiving benefits from at least one of the following types: Kartu Keluarga Sehat (a cash assistance program for the poor or near-poor) or an assistance program specialised for poor households with pregnant mothers, children, elderly, or persons with disabilities (Program Keluarga Harapan), food support for poor Indonesian people (BNPT), or other social assistance programs from the municipal government.
4. Immunisation coverage (BCG, polio, DPT, Hepatitis-B).
5. KIA book (the book for recording a child's growth and development) (yes, no).
6. Healthcare facilities in hospitals (growth and developmental child health services, medical rehabilitation, paediatric cardiology, paediatric, paediatric ophthalmologist, endocrine, paediatric emergency and intensive care, paediatric orthopaedic, nutrition and metabolism, ENT, paediatric ophthalmology, paediatric heart surgery).

2.2.3 Statistical analysis

The study uses descriptive analysis. Bivariate analysis with the chi-square cross-tabulation examines the relationship between the outcome variable and each explanatory variable.

3. RESULTS AND DISCUSSION

Most children aged 2-5 years with developmental delay (around 29.99%) are from households with the lowest household expenditure (Figure 1). Furthermore, the number of children with developmental delays decreases as household expenditure increases.

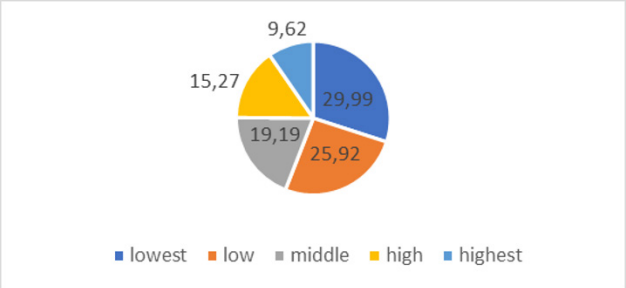

Figure 1. Household expenditure level of children aged 2 to 5 years with developmental delay (in percentage)
Source: 2020 SUSENAS-core (authors' calculation)

About 45.03% of children aged 2 to 5 years with developmental delay do not have health insurance (Figure 2). Moreover, approximately 79.31% of children with developmental delays live in households without social protection (Figure 3). The findings highlight the government's quick responsiveness to provide disadvantaged children with health insurance and social protection coverage.

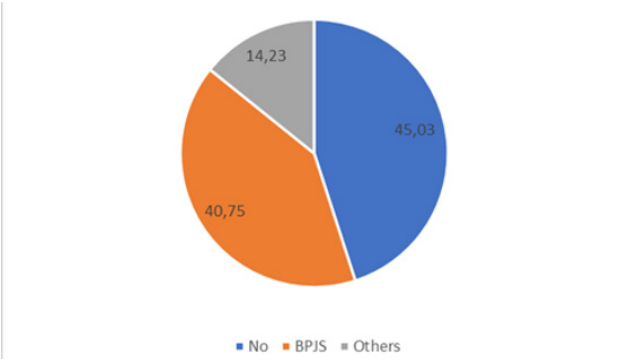

Figure 2. Households of children aged 2 to 5 years with developmental delay with health insurance (in percentage)
Source: 2020 SUSENAS-core (authors' calculation)

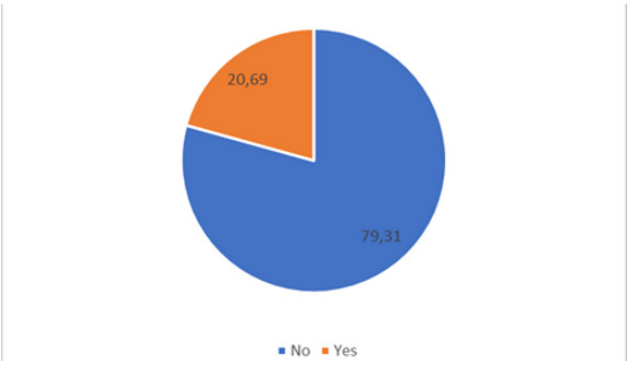

Figure 3. Households of children aged 2 to 5 years with developmental delay with social protection (in percentage)
Source: 2020 SUSENAS-core (authors' calculation)

The percentage of children with developmental delay ranges from 18.95% in Jawa Barat to 0.4% in Kalimantan Utara (Table 1). Furthermore, Table 2 shows the various types of healthcare services provided to children with developmental delay, with paediatric and paediatric emergency accounting for 90.36% and 1.06%, respectively.

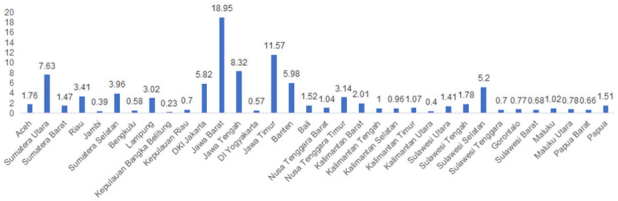

Table 1. The proportion of children aged 2 to 5 years with developmental delay by province
Source: 2020 SUSENAS-core (authors' calculation)

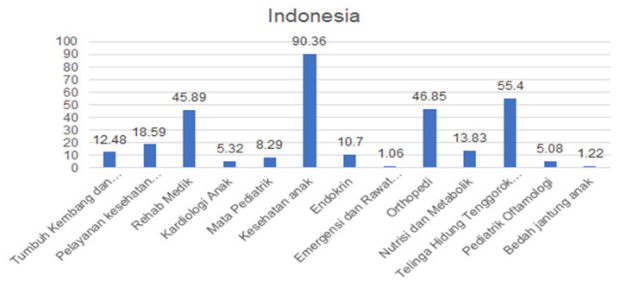

Table 2. The proportion of healthcare services used to treat children under the age of five with developmental delay by types
Source: 2020 SUSENAS-core (authors' calculation)

Approximately 57.66% of children with developmental delays do not receive an immunisation (Figure 4). Furthermore, only about 41.38% of children with developmental delays were monitored for growth and development, as the KIA book indicates (Figure 5).

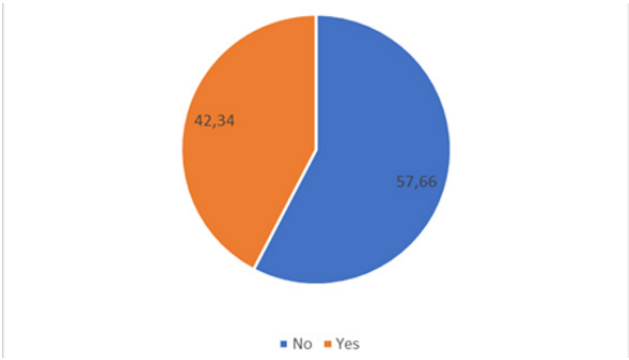

Figure 4. Children aged 2 to 5 years with developmental delay with immunisation coverage (in percentage)
Source: 2020 SUSENAS-core (authors' calculation)

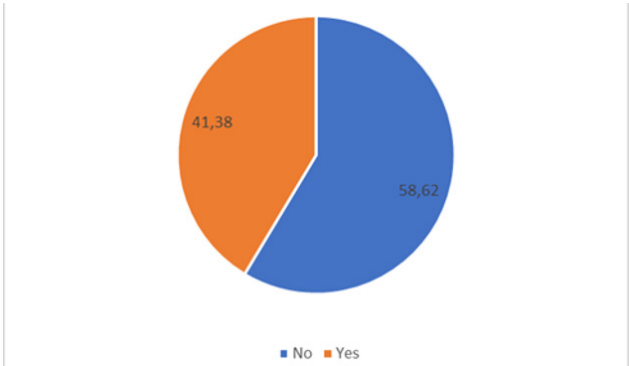

Figure 5. Children aged 2 to 5 years with developmental delay with KIA book (in percentage)
Source: 2020 SUSENAS-core (authors' calculation)

4. CONCLUSION AND RECOMMENDATION

Since many children with developmental delays reside in low-income households, such disadvantaged children should receive healthcare insurance and social security programs. Surveillance should be carried out to ensure a more equitable distribution of healthcare resources based on the number of children with developmental delays due to unequal healthcare facility provision.

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