CHILDLIGHT
Global Child Safety Institute

SEARCHLIGHT 2023
CHILDLIGHT ANNUAL FLAGSHIP REPORT

THE UNIVERSITY
of EDINBURGH

Flagship Report Introduction

Child Sexual Exploitation and Abuse (CSEA) is a pandemic affecting millions of children all over the world and indiscriminately inflicting serious harm, with consequences for all of society.

Like all outbreaks, until we can understand where, how and why it is happening we don't stand a chance of bringing it under control. It's also impossible to talk about this issue and not acknowledge the role that technology has, and continues to play in facilitating this abuse. Our hope is that by shining a light on the nature of CSEA, we can help governments, businesses, law enforcement and anyone working with children understand how this is happening and what steps can be taken to keep children safe.

Childlight's first Flagship Report explores the nature of CSEA through nine new research studies with several key themes emerging:

CSEA is prevalent in every global region where it is measured but we need more data coverage from low and lower-middle income countries and for boys.

We conducted a global scoping review of 404 studies with 673 data points from nationally and sub-nationally representative prevalence studies globally. Low and lower-middle income countries were less likely to have representative data on CSEA. Our scoping review also found that there is also 1/3 less data on CSEA affecting boys globally. Accessible data from multi-country survey initiatives such and the Violence Against Children and Youth Surveys (VACS), which we also analysed across 17 countries, are important for providing comparable data.

Studies highlight that CSEA happens across childhood and often early in life. From our analysis of comparable multi-country data (VACS) we found that adolescents often report pre-pubescent onset of CSEA. We also found that professionals are also concerned

with the growing trend of CSEA against infants and toddlers in highly traded child sexual abuse material content. The nature and scale of CSEA among younger age groups is difficult to measure for a range of ethical and methodological reasons. We propose an innovative approach to measuring the nature and prevalence among these younger age groups and present this in the form of a data blueprint and our commitment to shining a light on hidden abuse.

"Hidden populations" may be especially vulnerable. Throughout our studies, we find that offenders target especially vulnerable populations – from children with disabilities, to children in the early years to adults who are historic abuse survivors. Our studies highlight the nature of abuse in each of these specific areas – and an urgent need to enact prevention initiatives including online.

A significant proportion of men offend online and would do so against younger age groups if they knew no one would find out. We are publishing the first study of a general representative sample of men that asked about their online behaviours including sexual offending against children. The research measured the prevalence of offending, risk behaviours and attitudes amongst a weighted sample of 1,945 Australian, 1,473 UK and 1,506 US men over 18 years of age and findings show a significant proportion of men have already offended against children online and many more would do so, and against pre-pubescent children, if they knew they could get away with it.

Online sexual offending behaviours against children also indicates higher risk for other harmful sexual behaviours among men. UK males who reported online sexual offending behaviours against children were 17 times more likely to also report watching bestiality pornography than men who did not report sexual offending against children. There is also

increased risk across the other two nations for more violent pornographic consumption among these men.

Our legislation and policies need updating for new and emerging technologies. Our technology is rapidly evolving and with it are new ways to sexually offend against children. We reviewed 135 studies, 31 pieces of legislation and conducted 14 expert interviews to identify gaps and challenges, as well as opportunities for prevention, among legislation to address potential harms in extended reality environments.

More can be done by online content sharing services to measure and transparently report their efforts to tackle online CSEA. Our review of the metrics reported by companies who provide online content sharing services shows that the majority do not transparently report CSEA harms conducted through and on their services and for those that do, they capture a range of metrics which makes it difficult to compare preventative and response efforts across services. This is especially important because data from the representative sample of men shows that those who offend against children online are more likely to use privacy and encryption technologies.

Many of these studies represent the first of their kind in understanding the nature of CSEA globally. This Flagship Report is an important initial step that prepares the groundwork for our future ambitions to look at who benefits from CSEA as well as the burden it places on society. It is difficult to believe that anyone who has seen the horror of this abuse and its impact on survivors could continue to ignore it.

At our core – our mission is to safeguard as many children as possible from sexual exploitation and abuse. We know we cannot deliver this alone which is why collaboration and partnership is at the heart of how we work. We cannot and will not stop until we know that children are safer in this world and must now move beyond the data to action – because children can't wait.

A scoping review of the coverage of studies measuring CSEA victimisation prevalence globally

High-income countries provide the most data points on child sexual exploitation and abuse prevalence with low-income countries globally under-represented.

Number of data points included in the review by World Bank region

Low income
34

Lower-middle income
137

Upper-middle income
86

High income
416
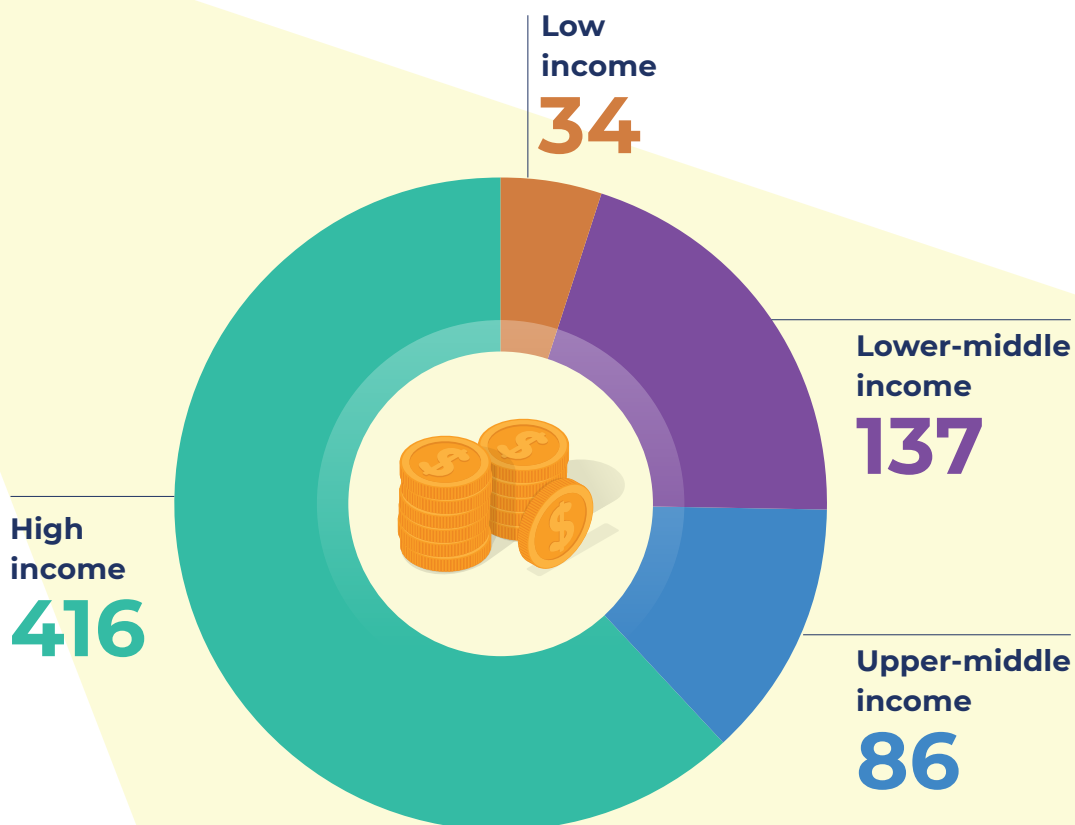
This study used a scoping review approach to better understand the global coverage of national and sub-national studies published between 2010 and 2021.

Research findings

A total of 404 studies with 673 data points reported CSEA overall prevalence. Most of those data points come from high-income countries while lower-income countries appear to have the lowest number, followed by upper-middle income countries.

These disparities could be influenced by some of the challenges faced by lower-income countries including, limited financial resources, a shortage of trained personnel, legal and awareness-related impediments, and cultural factors that may deter both reporting and the collection of data regarding child sexual exploitation and abuse.

For upper-middle income countries, the challenges to CSEA measurement may be influenced by the lack of donors and other funding to support such initiatives.

Of the total data points, only 550 disaggregated prevalence estimates by sex to include female prevalence estimates and 375 to include estimates for males. In other words, we have one-third more prevalence studies on CSEA affecting females, while several studies do not include males. Clearly, there is a need for parity in our measurement to get the full picture of how this affects all children globally.

Looking across all continents, there are more prevalence data that report female-only CSEA estimates. However, South and North America and Europe had better proportional representation of data that included both boys and girls.

Suggested citation:

Ren, J., Fang, X., Zhang, J., Jin W., and Fry, D. A scoping review of the coverage of studies measuring CSEA victimisation prevalence globally. In Searchlight 2023 - Childlight's Annual Flagship Report. Childlight – Global Child Safety Institute: Edinburgh, 2023.

Researchers:
Jingru Ren, Prof Xiangming Fang, Jinjin Zhang, Wuwenhao Jin, and Prof Deborah Fry

Registered study protocol:
https://osf.io/7ycj9

Technical notes:
https://childlight.org/sites/default/files/2023-12/A-A-scoping-review-of-the-coverage-of-studies-measuring-CSEA-victimisation-prevalence-globally-Technical-Note.pdf

Number of data points included in the review by World Bank region that disaggregated prevalence estimates by sex

● Female   ● Male
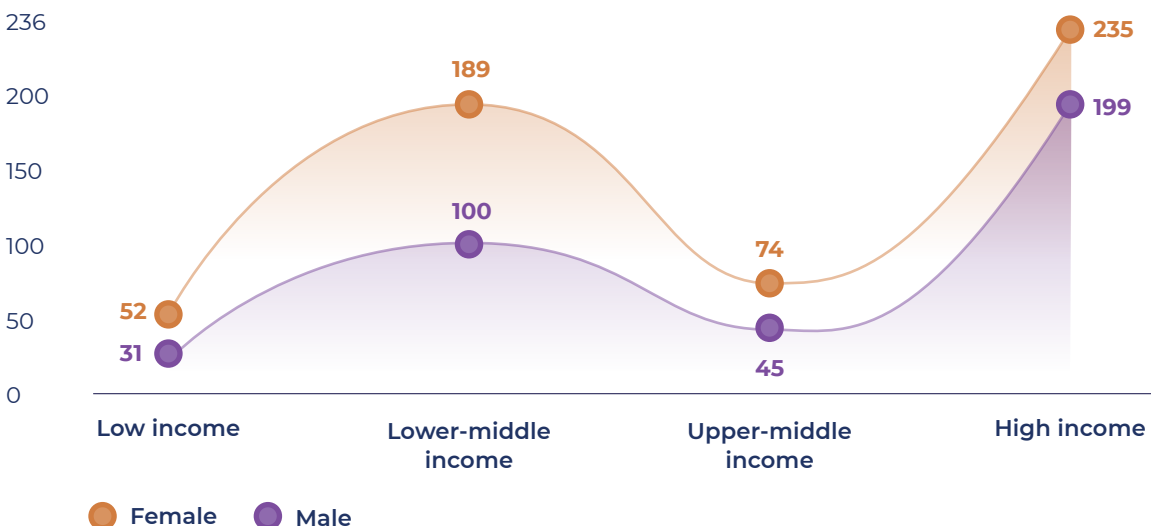
Number of prevalence estimate data points by sex on CSEA per continent, global scoping review

NORTHERN AMERICA

155 | 130

EUROPE

84 | 70

ASIA

78 | 47

SOUTHERN AMERICA

30 | 24

AFRICA

175 | 101

OCEANIA

28 | 3

Total

Female
550

Male
375
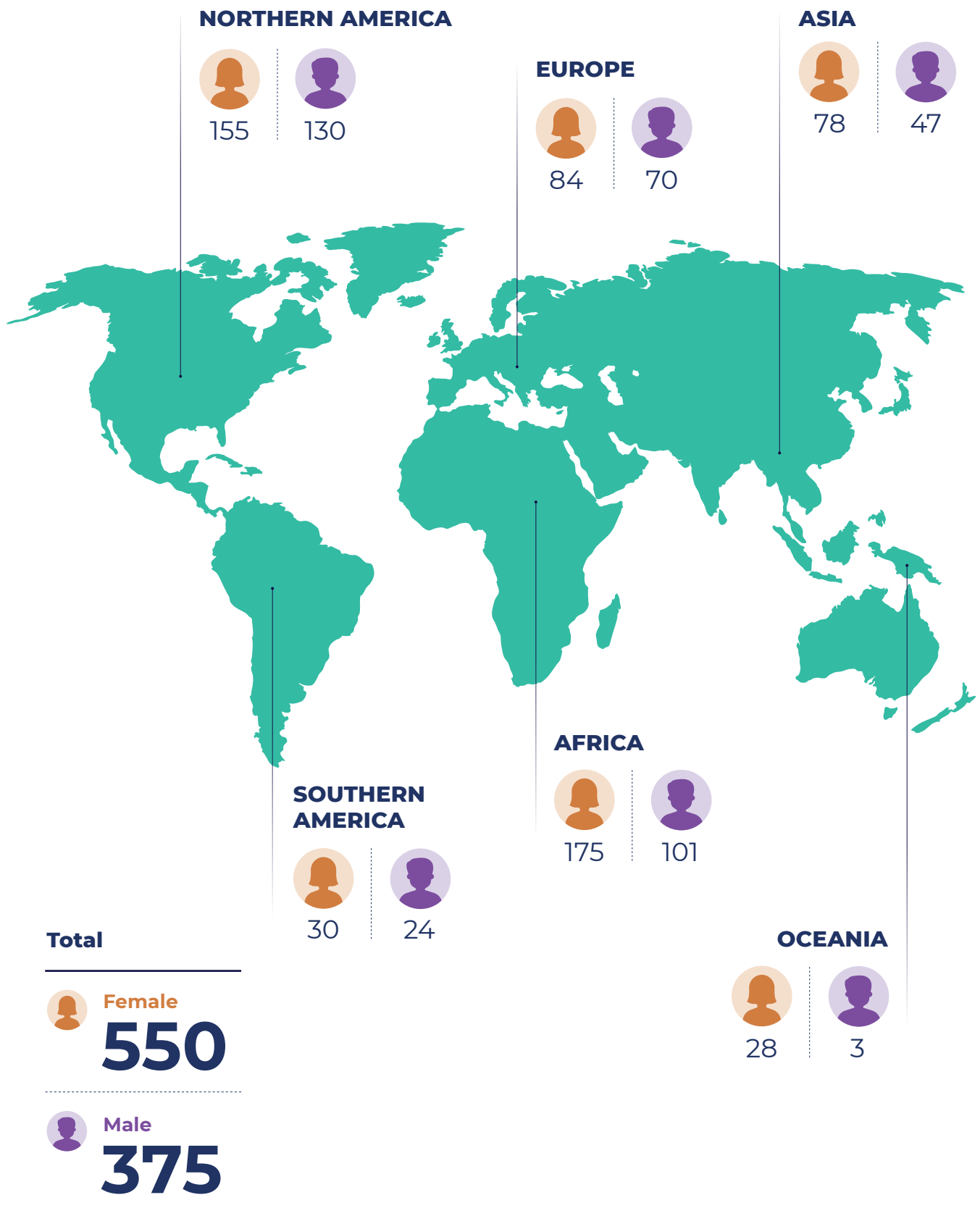
B

The nature of online offending against children: Population-based data from Australia, UK and the USA

Men in Australia, UK and USA who report online sexual offending behaviours against children also report being 2-3 times more likely to seek sexual contact with children between the ages of 10–12 years old if they were certain no one would find out.

2x
more likely

2.5x
more likely

2.8x
more likely

This study is the first survey employing a general representative sample of men to ask about their online behaviours including sexual offending against children. The research measured the prevalence of offending, risk behaviours and attitudes amongst a weighted sample of 1,945 Australian, 1,473 UK and 1,506 US men over 18 years of age.

Research findings

The responses show that that men who commit online offending behaviours against children in all three countries were at increased risk of reporting they would also seek sexual contact with a child between the ages of 10 to 12 years old if certain that no one would find out compared to men who reported no online child sexual offending behaviours.

Over 1 in 20 surveyed men from Australia, UK and USA said they were 'definitely' or 'highly likely' to have sexual contact with a child between the ages of 10 to 14 years old if they thought no one would find out. These percentages were slightly higher for US men for both age groups of children (10 to 12 years and 12 to 14 years old). While most men reported they would 'never' seek out sexual contact with pre-pubescent children (87.1% and 84.3% of the total for 10-12 and 12-14 year olds respectively), a significant proportion (13-16% of surveyed men across the three nations) said they would consider having sexual contact with a child if they knew no one would find out. This equates to millions of men across the three countries if applied to current population census data.

From these representative samples, it was found that nearly 1 in 10 men reported committing at least one type of sexual offending behaviour against children online at some point during their lifetime.

For those that report already engaging in at least one harmful online behaviours against children, they are two to three times more likely to also report they would have sexual contact with pre-pubescent children if they thought no one would find out.

The findings from this survey suggest that a significant proportion of the adult male population in Australia, UK and the USA may have engaged in at least one online offending behaviour against children including knowingly and deliberately viewing what is known as 'child sexual abuse material' or sexually explicit videos and images of children under the age of 18, paying for this content, flirting or having sexual conversations online with children and/or engaging in sexually explicit webcam interactions with children under the age of 18.

Men who reported online child sex offending behaviours were significantly more likely to use privacy software and to watch violent pornography, bestiality, and purchase online sexual content from adults. UK males who reported online sexual offending behaviours against children were 17 times more likely to also report watching bestiality pornography and 5.7 times more likely to also purchase adult pornography online than men who did not report sexual offending against children. There is also increased risk across the other two nations for more violent pornographic consumption among these men.

Men who reported that they already have committed sexually offending behaviours against children at some point in their life were also twice as likely to use any privacy software for their online activities than men who did not report any online sexual offending against children.

This survey in Australia, the UK and the US shows that men who reported sexually offending behaviours against children online self-report being in denial that there is anything wrong with their abusive behaviours and are at an increased risk of diffusing blame onto others.

Men were asked questions from the Child Sexual Abuse Myth scale to find out their

beliefs around child sexual abuse. When controlling for age, employment, and residential location, those who already reported that they had engaged in sexual offending online at some point in their lives were between 1.2 to 3.8 times more likely to endorse denial, blame diffusion and restrictive stereotypical beliefs. Men in the UK who reported some sort of sexual offending online behaviour in the past against children were more likely to adhere to denial of abusiveness beliefs than men who did not report offending in any of the countries.

This study provides important data to better understand attitudes and behaviours in a general sample of men around online sexual offending against children. This points to the urgent need for increased prevention efforts for men who report sexual interest in children (such as through hotlines) to increased regulation of online spaces as well as awareness raising of the harms against children, families and wider society of online sexual offending against children.

Percentage of cross country prevalence of online child sex offending, by type for Australia, UK and USA, 2023

Knowingly and deliberately viewed pornography of a person below the age of 18
- Australia: 2.5%
- U.K.: 2.9%
- U.S.: 5.1%

Flirted or had sexual conversations with a person below the age of 18 online
- Australia: 4.3%
- U.K.: 3.7%
- U.S.: 5.9%

Engaged in a sexually explicit webcam interaction with a person below the age of 18
- Australia: 1.8%
- U.K.: 1.4%
- U.S.: 4.2%

Paid for online sexual interactions, images or videos involving a person below the age of 18
- Australia: 1.7%
- U.K.: 2.0%
- U.S.: 4.8%

Legend:
- Australia
- U.K.
- U.S.

Increased odds of attitudes towards child sexual abuse among men who report sexual offending online,* adjusted odds ratios

Total
- Denial of abusiveness: 3.15
- Blame diffusion: 1.21
- Restrictive stereotypes: 2.32

Australia
- Denial of abusiveness: 2.63
- Blame diffusion: 1.24
- Restrictive stereotypes: 2.14

U.K.
- Denial of abusiveness: 3.81
- Blame diffusion: 1.48
- Restrictive stereotypes: 2.05

U.S.
- Denial of abusiveness: 3.12
- Blame diffusion: 1.08
- Restrictive stereotypes: 2.48

Legend:
- Denial of abusiveness
- Blame diffusion
- Restrictive stereotypes

Increased odds of pornography use and covert online behaviours by men who report sexual offending against children online,* adjusted odds ratios

Total
- Watches bestiality: 10.48
- Watches rough/violent porn: 5.18
- Purchased porn online: 8.21
- Use any privacy software: 2.68

Australia
- Watches bestiality: 6.89
- Watches rough/violent porn: 3.88
- Purchased porn online: 8.04
- Use any privacy software: 2.20

U.K.
- Watches bestiality: 17.33
- Watches rough/violent porn: 5.96
- Purchased porn online: 5.65
- Use any privacy software: 1.95

U.S.
- Watches bestiality: 10.09
- Watches rough/violent porn: 6.63
- Purchased porn online: 9.66
- Use any privacy software: 4.46

Legend:
- Watches bestiality
- Watches rough/violent porn
- Purchased porn online
- Use any privacy software

Cross country prevalence of likelihood would have sexual contact with a child between 10 to 12 years if certain that no one would find out

	Unlikely	Maybe	Very likely	Definitely
Total	5.1%	2.6%	2.8%	2.5%
Australia	5.8%	2.3%	2.6%	2.0%
U.K.	4.1%	3.1%	1.9%	1.6%
U.S.	5.0%	2.5%	3.3%	4.0%
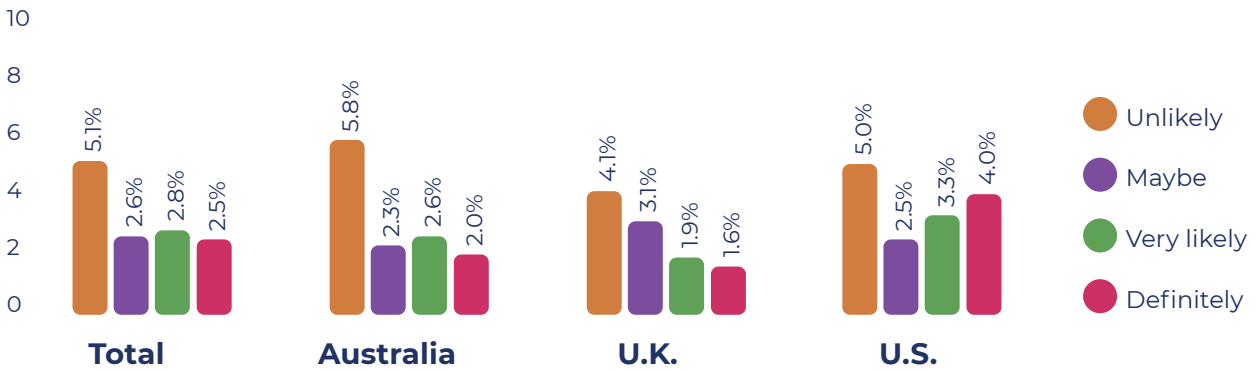
Cross country prevalence of likelihood would have sexual contact with a child between 12 to 14 years if certain that no one would find out

	Unlikely	Maybe	Very likely	Definitely
Total	6.7%	2.9%	2.9%	3.2%
Australia	5.9%	3.1%	3.1%	2.7%
U.K.	6.4%	2.3%	2.6%	1.6%
U.S.	7.9%	3.2%	3.2%	5.3%
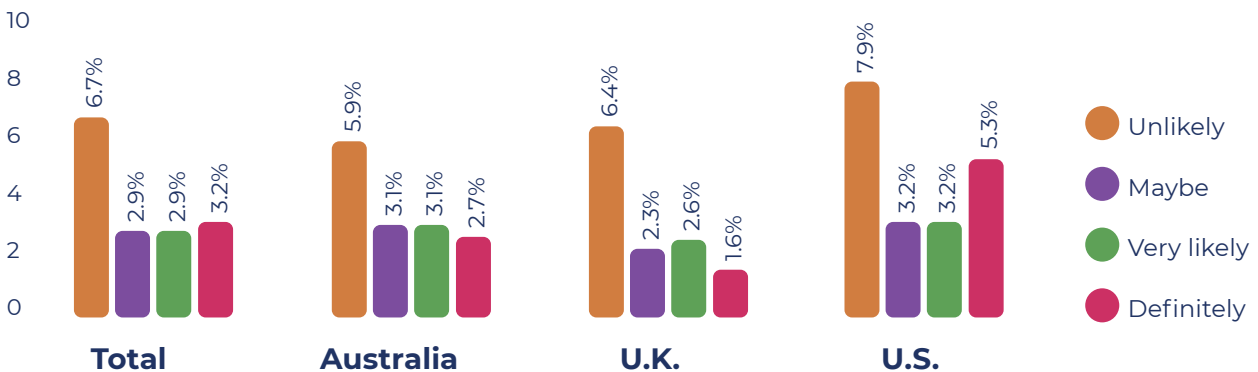
Nature of Online Child Sexual Exploitation and Abuse (CSEA)

> **A global review of online CSEA studies shows the top 3 identified forms of harm to be child sexual abuse material, grooming and sexual solicitation.**

As technology becomes a larger part of the daily lives of children, the separation between in-person and online abuse is lessening. Technological changes and the ways in which users have adapted to those changes have led to studies looking into the trends of online use among children and the harms it poses to them. This review analysed 82 quantitative studies from the last ten years related to online CSEA identified on peer-to-peer networks (P2P), social media, online chatrooms and the dark web, to better understand the nature of these harms for children.

From 82 studies, the top three identified online CSEA harms were:

1

Producing, sharing and/or viewing CSEA material

2

Online sexual solicitation

3

Online grooming

1. Child Sexual Abuse Material (CSAM)

From the evidence, most adult-perpetrated CSEA was found in relation to the sharing and distribution of CSAM. Most CSAM offenders are in possession of imagery of "pre-pubescent" children (13 years old or younger). This imagery also tends to depict acts of hands-on and penetrative child sexual abuse. Abuse imagery of older children 14-17 is less commonly in the possession of CSAM offenders. This type of material is often found in addition to the material of younger children. Studies discussed the networks used by offenders to distribute and exchange CSAM online, which included:

- file sharing / peer-to-peer networks
- dark and clear web forums
- private messaging

The evidence also highlighted that harmful sexual behaviour of children and young people towards other children online has increased the amount of abuse imagery of older children. A recent study found that youth produced images are more common, such as those produced in online sexual solicitation or sexual extortion between young people.

2. Sexual solicitation

The research showed that children are encountering adults online who are engaging them in sexual conversations, which can develop into further requests by the adult, exploitative situations or even abuse. The initial sexual communication from the adult appears to be the first step in online child exploitation and abuse and this was identified within 17 studies from the evidence base.

3. Online grooming

Online grooming was identified across studies globally as one of the frequently occurring harms towards children online. 'Grooming' in the context of online child sexual exploitation and abuse, is the term used to describe the acts by adult or young offenders engaging with children online. These specific acts are an effort to create trust and compliance in order to sexually abuse and exploit children. The term encompasses the strategies used by offenders, including gift giving, secret keeping and providing children with otherwise restricted items.

Grooming tactics have been historically used by offenders, but the invention of the internet provides them with a new level of anonymity and a new set of tactics. What the research has shown is that offenders are using one or more elements of deception (e.g., misrepresentations of age, gender, or identity) to encourage the child to feel more secure when communicating with the offender. Offenders can attempt to portray peers, be a potential romantic interest, or deceive child users into thinking they are a known individual or celebrity to encourage the child to comply with their sexual exploitation.

This review provides important priority areas across different types of online CSEA for prevention and response, whilst also identifying understudied areas, including online CSEA among younger children.
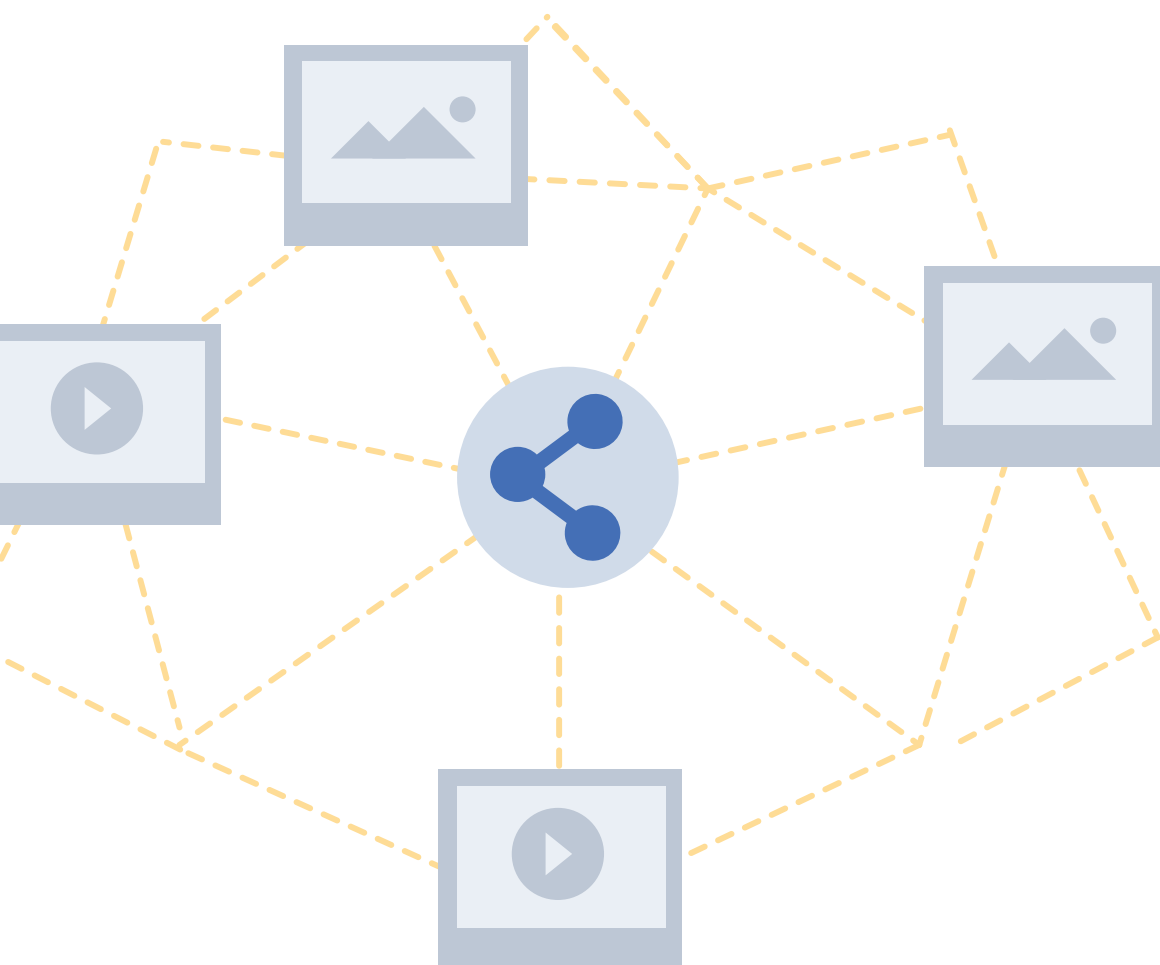
Understanding the Nature of CSEA from Violence Against Children and Youth Surveys

Analysis from comparable data across 16 countries shows that the majority of adolescents who have been sexually abused as children report the first occurrence of abuse to have happened before the age of 13.

Age of 13
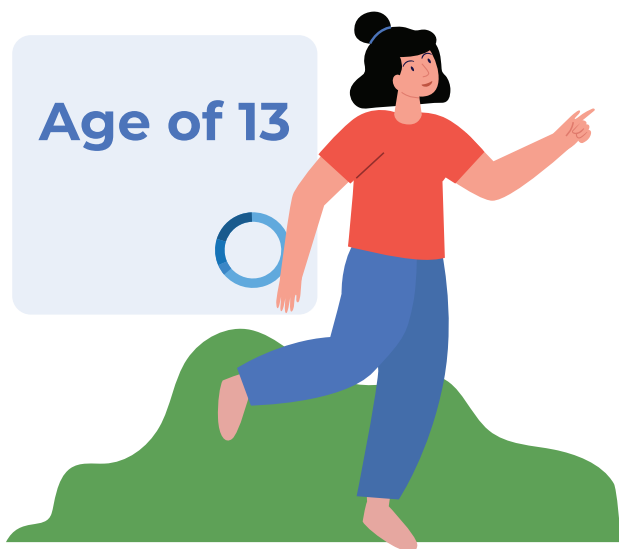
This study is the first to analyse comparable representative data from national Violence Against Children and Youth Surveys (VACS) to understand the nature of Child Sexual Exploitation and Abuse (CSEA) across 17 countries. The aim is to facilitate evidence-based policymaking and the development of targeted strategies to address CSEA effectively. By documenting the nature of CSEA we can take the first step in identifying patterns, risks and protective factors that shape early intervention and prevention measures to protect children from exploitation and abuse.

Research findings

Direct self-reports of adolescents ages 13 to 17 years old across 16 countries in Africa, Europe and Latin America found that 47% of girls and 53% of boys reported that their first experience of sexual abuse happened before age of 13.
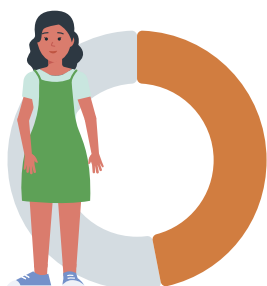
47% of girls reported that their first experience of sexual abuse happened before age of 13.
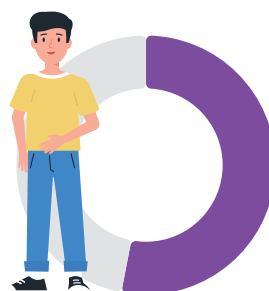
53% of boys reported that their first experience of sexual abuse happened before age of 13.

By reporting age group, VACYS

With a different sample of young adults aged 18 – 24 years, we see an increase in reporting later adolescent experiences, especially among boys. This shows that proximity to the event may increase self-report recall in surveys and that the most frequent occurrence of first experience of CSEA is reported by 13 to 17 year olds as occurring under the age of 13.

Lifetime child sexual abuse prevalence is in average very high in this sample of countries: 17.2% for women and 8.2% for men (as reported retrospectively by persons 18 to 24 years old). However, it is important to acknowledge the existing spread across nations.

Comparable and representative data for 15 17 countries (17 countries with female data and 15 countries with male data) show that lifetime prevalence of CSEA ranges from 3.1 % to 37.4% for females, and from 1% to 15.7% for males. Moreover, the simple averages for this group of countries are 17.2% and 8.2% for females and males, respectively.

♀ **17.2**%
♂ **8.2**%
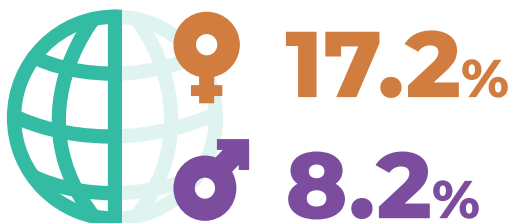
Lifetime child sexual abuse prevalence as reported by 18 to 24 years olds

The evidence provided by these surveys suggests sexual violence mostly happens in a private home. According to the data, 60 to 70% of CSEA victims report that the first event happened at their own home, the perpetrator's home, or someone else's home.

70%
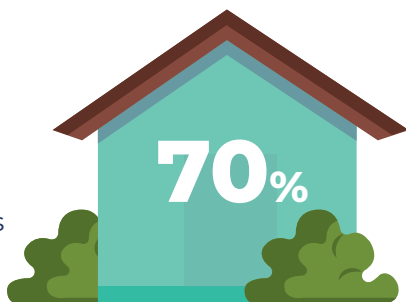
CSEA is also likely to co-occur with other forms of abuse. 1 in 3 girls and 1 in 5 boys who report CSEA also reported experiencing physical or emotional violence during childhood.

Girls

Boys
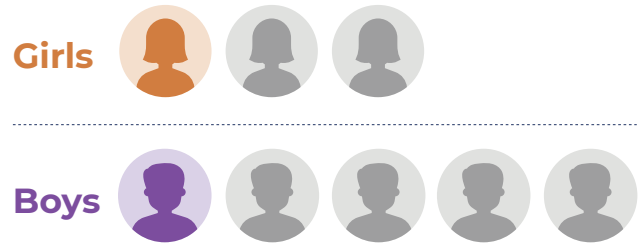
Proportion of male CSEA victims that suffered other type of violence (physical or emotional)

Suggested citation:

Harker Roa, A., Rodriguez, M.F., Rodriguez, J., Contreras, P., Marmolejo, M.P., Jaramillo, K., Lopez, J., Mendivelso, D., Vermeulen, I., and Fry, D. Understanding the Nature of CSEA from Violence Against Children Surveys. In Searchlight 2023 - Childlight's Annual Flagship Report. Childlight – Global Child Safety Institute: Edinburgh, 2023.

Researchers:
Prof Arturo Harker Roa, Maria Fernanda Rodríguez, Jorge Rodríguez, Paula Contreras, Maria Paula Marmolejo, Katherine Jaramillo, Julián Lopez, Daniel Mendivelso, Dr. Inga Vermeulen and Prof. Deborah Fry

Registered study protocol:
https://osf. kvz

Technical notes:
https://childlight.org/sites/default/files/2023-12/D-Understanding-the-Nature-of-CSEA-from-Violence-Against-Children-Surveys-Technical-Note.pdf

Ethics approval:
Universidad de los Andes and University of Edinburgh

Age of first perpetration for female victims, by reporting age group

13-17 year olds

Country	0-13	14-15	16-17
Cambodia	44.4	23.7	31.9
Colombia	46.3	48.4	5.3
Cote d' Ivoire	38.2	43.8	18.1
El Salvador	42.4	28.2	29.4
Haiti	44.5	44.1	11.4
Honduras	60.2	29.0	10.8
Kenya	39.4	43.8	16.8
Lesotho	32.7	41.3	26.0
Malawi	62.6	32.0	5.4
Moldova	38.0	45.5	16.5
Mozambique	47.5	38.3	14.2
Namibia	51.4	33.6	15.0
Nigeria	54.1	37.1	8.8
Eswatini	25.3	43.4	31.4
Tanzania	39.4	47.5	13.1
Zambia	39.4	49.7	10.9
Total	**47.4%**	**37.0%**	**15.6%**

18-24 year olds

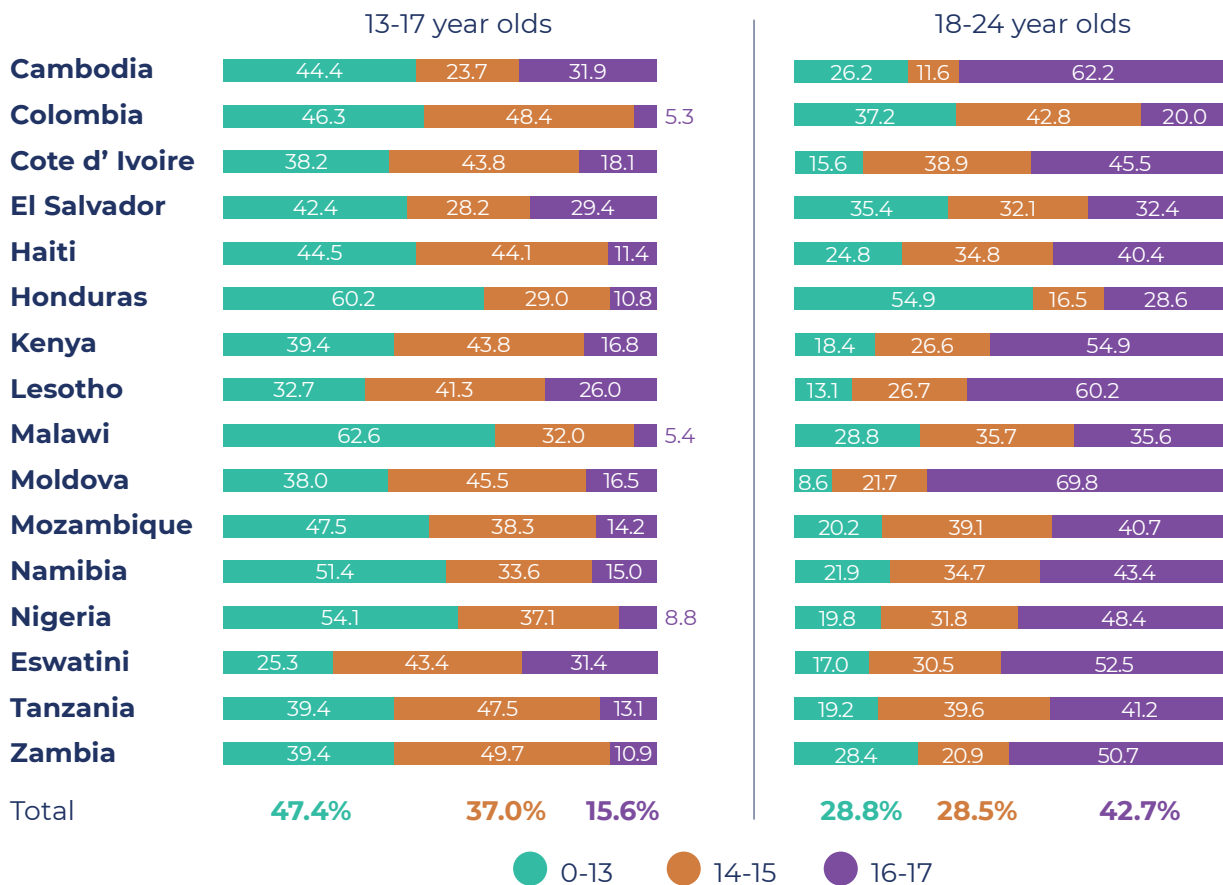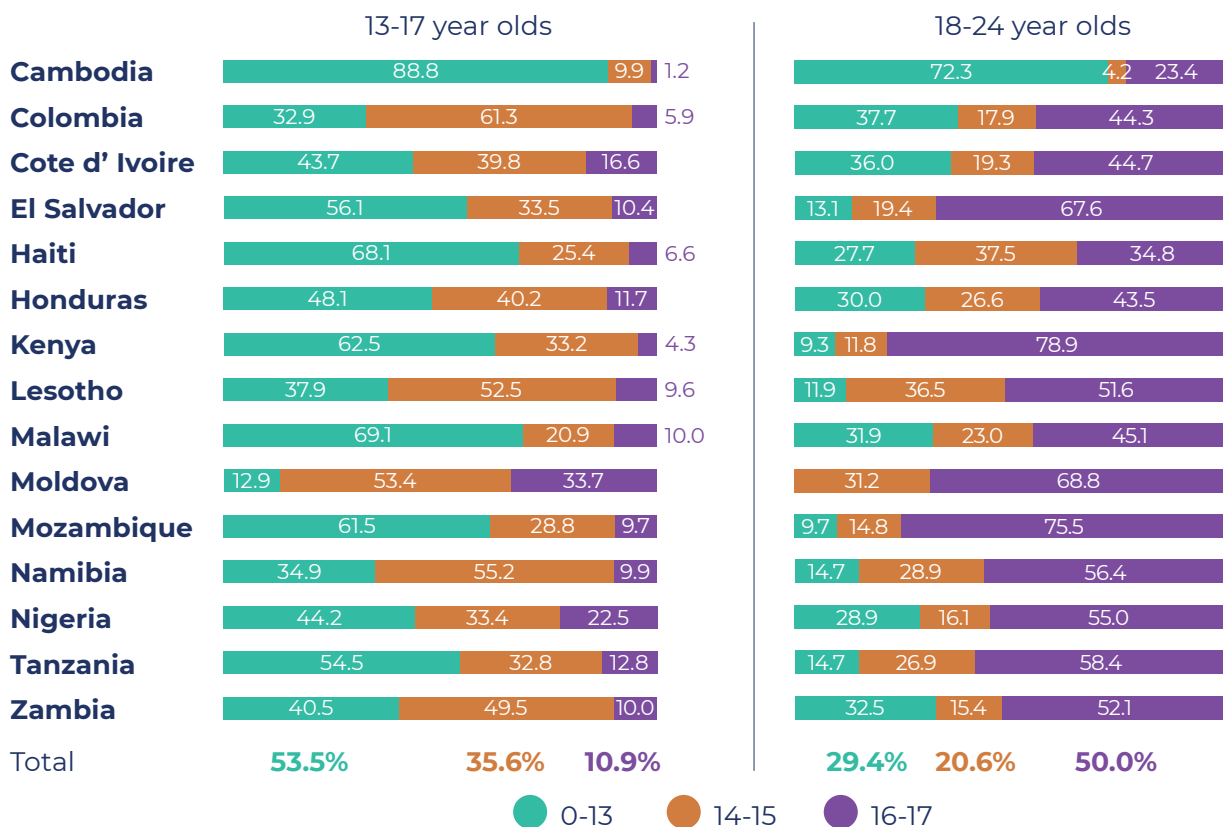| Country	0-13	14-15	16-17
Cambodia	26.2	11.6	62.2
Colombia	37.2	42.8	20.0
Cote d' Ivoire	15.6	38.9	45.5
El Salvador	35.4	32.1	32.4
Haiti	24.8	34.8	40.4
Honduras	54.9	16.5	28.6
Kenya	18.4	26.6	54.9
Lesotho	13.1	26.7	60.2
Malawi	28.8	35.7	35.6
Moldova	8.6	21.7	69.8
Mozambique	20.2	39.1	40.7
Namibia	21.9	34.7	43.4
Nigeria	19.8	31.8	48.4
Eswatini	17.0	30.5	52.5
Tanzania	19.2	39.6	41.2
Zambia	28.4	20.9	50.7
Total	**28.8%**	**28.5%**	**42.7%**

Legend: ● 0-13 ● 14-15 ● 16-17

Age of first perpetration for male victims, by reporting age group

13-17 year olds

Country	0-13	14-15	16-17
Cambodia	88.8	9.9	1.2
Colombia	32.9	61.3	5.9
Cote d' Ivoire	43.7	39.8	16.6
El Salvador	56.1	33.5	10.4
Haiti	68.1	25.4	6.6
Honduras	48.1	40.2	11.7
Kenya	62.5	33.2	4.3
Lesotho	37.9	52.5	9.6
Malawi	69.1	20.9	10.0
Moldova	12.9	53.4	33.7
Mozambique	61.5	28.8	9.7
Namibia	34.9	55.2	9.9
Nigeria	44.2	33.4	22.5
Tanzania	54.5	32.8	12.8
Zambia	40.5	49.5	10.0
Total	**53.5%**	**35.6%**	**10.9%**

18-24 year olds

Country	0-13	14-15	16-17
Cambodia	72.3	4.2	23.4
Colombia	37.7	17.9	44.3
Cote d' Ivoire	36.0	19.3	44.7
El Salvador	13.1	19.4	67.6
Haiti	27.7	37.5	34.8
Honduras	30.0	26.6	43.5
Kenya	9.3	11.8	78.9
Lesotho	11.9	36.5	51.6
Malawi	31.9	23.0	45.1
Moldova		31.2	68.8
Mozambique	9.7	14.8	75.5
Namibia	14.7	28.9	56.4
Nigeria	28.9	16.1	55.0
Tanzania	14.7	26.9	58.4
Zambia	32.5	15.4	52.1
Total	**29.4%**	**20.6%**	**50.0%**

Legend: ● 0-13 ● 14-15 ● 16-17

Nature of Online CSEA Among Children Living with Disabilities

Children living with disabilities may be at increased risk of online CSEA due to active targeting by perpetrators.

In the global context, Online Child Sexual Exploitation and Abuse (OCSEA) represents a significant concern, and children with disabilities, who are often in a more vulnerable position, are at an increased risk. This is the first study in the field that compiles the global evidence on OCSEA against children with disabilities.

Targeting younger children with disabilities

The data emphasises the vulnerability of this demographic, with children and adolescents primarily between the ages of 11 and 17 facing the greatest risk. This highlights the risks many children around the world are facing, and the urgent need for protective measures and awareness campaigns to safeguard children living with disabilities.

Perpetrator tactics and methods

Tactics and methods employed by online perpetrators against children with disabilities are most commonly reported as being:

Cyberthreats

Manipulation and harassment

Grooming including sexting

Social isolation and vulnerability are common risk factors

The isolation and vulnerability faced by children with disabilities significantly increase their susceptibility to online victimisation.

Challenges in establishing relationships, coupled with societal perceptions that may not take sexual exploitation of boys seriously, make them more susceptible to harm alongside unsupervised use of technology.

Social isolation and vulnerability should be recognised as crucial risk factors when designing interventions and support systems for all children with disabilities. Support for children with disabilities to report abuse as well as increased prevention programming is urgently needed.

Suggested citation:

Álvarez-Guerrero, G., Gaitis, K.K.., Lu, M., and Fry, D. Nature of Online CSEA Among Children Living with Disabilities. In Searchlight 2023 - Childlight's Annual Flagship Report. Childlight – Global Child Safety Institute: Edinburgh, 2023.

Researchers:
Dr Garazi Alvarez Guerrero, Dr Konstantinos Kosmas Gaitis, Dr Mengyao Lu, and Prof Deborah Fry

Registered study protocol:
https://osf.io/bq3gy

Technical notes:
https://childlight.org/sites/default/files/2023-12/E-Nature-of-Online-CSEA-Among-Children-Living-with-Disabilities-Technical-Note.pdf

Additional research on this topic area by Childlight researchers:

- Fang, Z., Cerna-Turoff, I., Zhang, C., Lu, M., Lachman, J.M., and Barlow, J. (2022) Global Estimates of Violence Against Children with Disabilities: An Updated Systematic Review and Meta-Analysis. *The Lancet Child & Adolescent Health* 6(5): 313–323. Access the article here

- Fry, D., Lannen, P., Vanderminden, J., Cameron, A., & Casey, T. (2017). Child Protection and Disability: *Practical Challenges for Research*. (Protecting Children and Young People Series). Dunedin Academic Press. Access the book here

Data Blueprint for Measuring the Prevalence of CSEA in the Early Years

CSEA among infants and toddlers appears to be increasing. This data blueprint provides a path for measuring CSEA prevalence among this hidden population.

Current measures of CSEA prevalence miss a key population – children under five years old. All the more concerning when online data suggests that sexual abuse against infants and toddlers may be increasing.
This data blueprint aims to inform efforts to better measure the prevalence of CSEA within this hidden and vulnerable population. Childlight will use this as a roadmap for our future work so that the global evidence base around prevalence truly covers all of childhood.

Research findings

The research team found no age disaggregated studies on the prevalence of CSEA in the early years from a recently completed global systematic review. This, however, does not mean this type of abuse is not happening. We conducted additional secondary analysis of big data from NGOs and police that track online child sexual abuse material globally and many URL links and dedicated websites to CSAM of infants and toddlers were discovered. The Internet Watch Foundation 2022 data shows that:

- 1,001 URL sites lead to material depicting children ages 0–2 years old
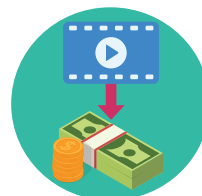- 11,351 URL sites lead to material depicting children 3–6 years old

We also know from data which focuses on online CSAM globally that:

This age group includes more severe abuse

There are concerns by those on the frontline response that this type of abuse is increasing

Child sexual abuse of infants and toddlers are present in more highly traded series of abuse images and videos

In many of these images and videos, the victims are still unidentified – meaning the abuse is still happening. Among a representative sample of unidentified victim images and videos from Interpol data, 60% of the unidentified victims were prepubescent (Interpol and ECPAT, 2018).

Early years prevalence data blueprint

Data provides the foundation for consolidated action by policymakers, practitioners, and the public. The lack of robust prevalence estimates on CSEA in the early years hampers our collective response and ultimately means that abuse against society's most vulnerable is allowed to continue.

The evidence shows us that survey estimates are not possible, and we must utilise both administrative and big online data to better understand the prevalence within this age group.

The biggest source of administrative data is police data. There will be significant overlaps between police data and online big data identified through NGOs. Where the location is identified within images and videos, this data is automatically handed over to local law enforcement. Some victims will be identifiable from policy records, and some won't be. To measure prevalence, we will need to know the overlap between infants and toddlers that can be identified from both lists.

Police data also has overlap with other administrative data systems. These data sources include a country's child protection data system (social welfare, child protection plans, etc), nursery and early childhood education referral data, child health and death data, as well as court data.

Big Data
- Online CSAM with infants and toddlers
- When location identified shared with local law enforcement

Muliple System Estimation:
Big Data + Law Enforcement Data + Other Admin Data

Other Administrative Data
- Child Protection Services
- Court Data
- Nursery and Early Years Data
- Health Data
- Court Data
- Child Death Review Data
- Other Sources

Law Enforcement Data
- Both identified and unidentified victims

Multiple System Estimation (MSE)

Based on this data blueprint, Childlight will utilise administrative datasets and a statistical method called Multiple Systems Estimation (MSE) to estimate the number of victims of sexual exploitation and abuse in the early years in the UK and overseas. This approach has been used previously to estimate the prevalence of modern slavery in the UK (Sharifi Far et al., 2021; Bird & King, 2018).

With MSE administrative data is collected in real time and does not rely on adult survivors' memories of childhood experiences. But there are challenges with MSE which include finding and accessing datasets that meet the requirements for analysis. Childlight is looking for administrative data owners who are interested in this approach and in estimating prevalence of CSEA in the early years to get in touch.

Suggested citation:

Fry, D., Lu, M., Vermeulen, I., and Stevenson, J. *Data Blueprint for Measuring the Prevalence of Child Sexual Exploitation and Abuse in the Early Years.* In Searchlight 2023 - Childlight's Annual Flagship Report. Childlight – Global Child Safety Institute: Edinburgh, 2023.

Researchers:
Prof Deborah Fry, Dr Mengyao Lu, Dr Inga Vermeulen and Mr James Stevenson

Registered study protocol:
https://osf.io/ztuep
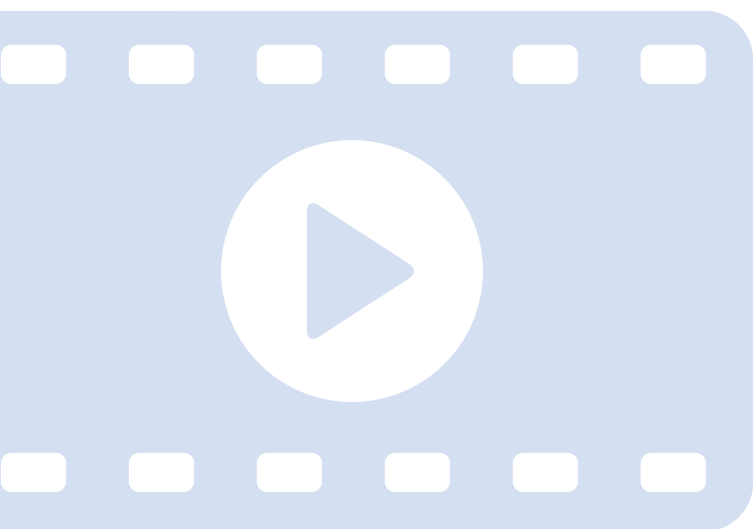
The impact of online distribution on child sexual abuse material survivors in Australia

> Historic child sexual abuse survivors whose abuse was captured on video and in pictures experience ongoing threats to safety due to inadequate removal of this content from continued circulation online.

This project documents the plight of three Australian survivors of child sexual abuse material (CSAM) whose content is being traded amongst online offenders. It aims to illustrate how ongoing failures to prevent the online distribution of CSAM impacts individual survivors and their families, with significant implications for child protection and public safety. The project is contributing to global pressure for the establishment of support, restitution and compensation for survivors of CSAM, recognising that ongoing distribution of their CSAM is an intolerable violation of their rights to privacy, safety, health and dignity.

Research findings

The project focused on three Australian CSAM survivors: 1) a boy whose photo-based series has been distributed online for over 15 years, 2) a girl whose video and photo-based series has been distributed for over 10 years, and 3) a girl who was coerced and recorded on webcam. Analysis of offender discourse identified multiple conversations of concern. These included:

The offender community maintained an ongoing and active interest in identifying the victims in the project, including asking for information about the victim's background, location, and life circumstances.

In one instance, offenders claimed to have identified the location and other personal information about the victim based on their CSAM.
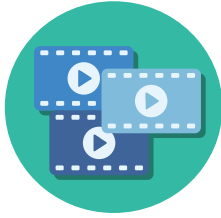
Some offenders claimed to have personal information about the victims, as well as contact with the CSAM producers.

In another instance, highly identifying information about one victim was shared online, not only exposing her but also her family and friends.

Drawing from the three case studies of Australian survivors, the project has documented the ongoing personal harms that may accrue to survivors due to online CSAM propagation. The project also highlights the lack of an integrated, survivor-focused policy response, in which CSAM removal is presently ad hoc and reactive rather than proactive and protective of victims and survivors. However, this is not unique to Australia. CSAM survivors globally experience ongoing threats to safety from inadequate removal of historic CSAM content.

The provision of restitution, compensation and support for survivors and their families, with measures to disrupt and prevent the ongoing distribution of their CSAM, would provide much-needed relief and assist in mitigating the impact on those victims and the community.

Suggested citation:

Salter, M. *The impact of online distribution on child sexual abuse material survivors in Australia.* In Searchlight 2023 - Childlight's Annual Flagship Report. Childlight – Global Child Safety Institute: Edinburgh, 2023.

Researchers:
Prof Michael Salter

Ethics approval:
University of New South Wales and University of Edinburgh

Technical notes:
https://childlight.org/sites/default/files/2023-12/G-The-impact-of-online-distribution-on-child-sexual-abuse-material-survivors-in-Australia-Technical-Note.pdf

Additional resources:
Project Arachnid
https://www.projectarachnid.ca/en/

Extended Reality: The Implications for Legislation & Policies

Child sexual abuse and exploitation is moving into new virtual environments and there are gaps in protecting children in these spaces as shown in our comprehensive legislative and policy review.

Through a scoping review, legislative review, as well as in-depth qualitative interviews with key stakeholders with expertise in relevant areas, this study examines to what extent legislation and policies across the United Kingdom (UK) are prepared for the risks emerging Extended Reality (XR) technologies bring with them in terms of technology-facilitated child sexual exploitation and abuse.

There are a few notable exceptions that require more focused attention:

1 **Definitions and the legal accommodation of CSEA in XR environments**

2 **Haptics and penalising Extended Reality CSEA**

3 **Avatars and criminalisation of artificial or AI-generated CSEA material**

4 **Encryption and privacy rights concerns**

5 **Child users' age considerations and standards**

1 Definitions: Legal accommodation of CSEA in XR environments

Currently, there is no legal provision within UK legislation that expressly and specifically defines XR within the context of CSEA offences. Current legislation accommodates XR environments through two perspectives:

1. Use of XR environments on online platforms that are subject to regulation, and
2. Use of XR as a means to commit CSEA offences

> **"** The risks are so much greater and children are always accessible online. They can be isolated in those worlds. And I think that's a real danger, definitely within this particular space. **"**
>
> (CSEA Policy Adviser)

2 Haptics and penalising Extended Reality CSEA

Haptic devices or teledildonics enable a more immersive experience in the perpetration of CSEA offences in simulated environments. The evolution of this technology has very real consequences for children. It allows such behaviour to be exercised on artificial representations of real or imaginary children or even on real children themselves from a distance.

> **"** It will basically allow people to do everything they do in the real world, just via an interface, with the added risk that they can record it, store it and duplicate it multiple times. **"**
>
> (Futures and Emerging Technology Analyst)
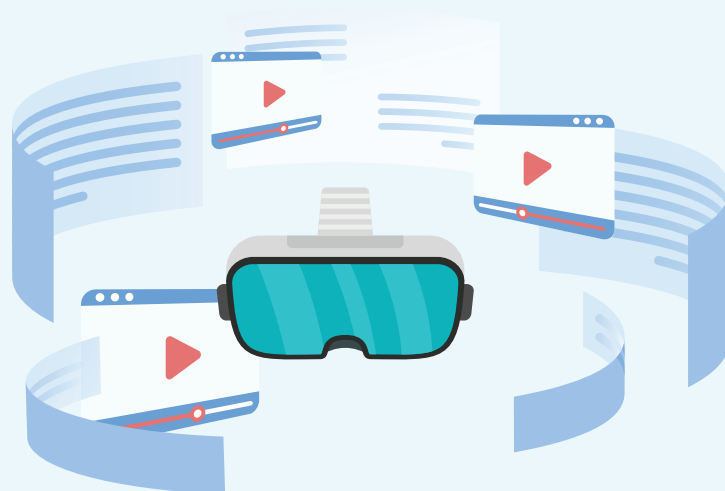
3 Avatars and criminalisation of artificial or AI-generated CSEA

Another concerning way to use XR is the application of CSEA behaviours on avatars which can take the form of a child or portray child-like characteristics. CSEA as an imagery offence includes the criminalisation of possession, making, and distribution of indecent pseudo-photographs of children, described to include computer-generated photographs.

However, there appears to be a gap with respect to the criminalisation of the making, distribution, or advertising of sexually explicit child avatars or generative-AI created CSAM that falls under the category of still or moving images. The Coroners and Justice Act 2003 criminalises only the possession of prohibited images, which are more extensively defined in that law. The term 'photographs' can be limited in scope, and appear to exclude avatars and images that do not take the nature of what we might deem conventional 'photographs'.

> I think potentially there is a risk that it will enable greater offending. Because, to all extents and purposes, something that is in a virtual world could look completely innocent.
>
> (CSEA Prosecutor bringing the example of a childlike avatar)

4 Encryption: Privacy rights concerns

The issue of encryption triggers conversations and debates with respect to the right to privacy and freedom of expression of the users of regulated platforms and how we balance this with the safety of users and children. This seems to be particularly applicable in section 121 of the Online Safety Act (OSA), which provides OFCOM with the power to require a regulated service to employ accredited technology to identify and swifty take down CSEA content communicated privately and prevent users from encountering such content. Technology will be accredited by OFCOM (or a third party appointed by OFCOM) as meeting minimum standards of accuracy approved and published by the Secretary of State, following advice from OFCOM. OFCOM can only require the use of accredited technology under section 121 if it considers it necessary and proportionate to do so. The OSA lists a number of matters which OFCOM must consider when deciding if it is necessary and proportionate in a particular case. Additionally, OFCOM would also need to be satisfied that the use of accredited technology by the service is technically feasible.

> The privacy of the child that is in the imagery, that is a privacy violation as well. So, for someone to take non-consensual image[s], sexual imagery of anyone, of a child and redistribute that, that is a privacy breach every single time. But even then... you can stop that from happening without impinging on anyone's privacy.
>
> (Chief Technology Officer at Child Protection Charity)

It is apparent that the OSA attempts to balance the regulation of illegal CSEA content on regulated services with the right to privacy of the users. However, there is a need to guide OFCOM on how it can apply the overarching OSA objective of providing a higher standard of protection for children than adults, when the safety interests and privacy rights of children clash with privacy rights claims of adult users.

5   Child users' age considerations

The lack of more sophisticated age verification mechanisms and processes creates risk for children accessing and utilising online environments. Arguably, where age verification strategies do exist that they are very easily bypassed. The implications include that children will have access to adult online spaces and virtual worlds which are not necessarily illegal but which may have sexual themes, thus posing harm to them."

Significant work is underway to develop age verification international standards with the Institute for Electrical and Electronics Engineers (IEEE) and the International Organisation for Standardization (ISO). ISO has also accepted a proposal from the UK, supported by the Department of Digital, Culture, Media and Sport (DCMS), to define an ISO standard for age verification.

> "So, if you can actually genuinely gatekeep those experiences to ensure that one is for only for adults, and one is applicable for children, that massively changes the safety measures that you require to make those safe spaces."
>
> (Child Protection Charity Chief Technology Officer)

This study is the first to comprehensively examine whether UK legislation is future-proofed for protection of children through new technologies. Only by addressing these key areas can we ensure a safe future-proofed environment for children to grow up in the UK.

Suggested citation:

Researchers:
Prof Deborah Fry, Dr Konstantinos Kosmas Gaitis, Maranatha Praise Landrigan, Dr Inga Vermeulen, Sarah Guthrie, James Stevenson, Maria Lamond, Sham-Una Yakubu and Carleigh Slater.

Ethics approval:
University of Edinburgh

Registered protocol:
https://osf.io/jhy95/

Technical notes:
https://childlight.org/sites/default/files/2023-12/H-Extended-Reality-The-implications-for-Legislation-Policies-Technical-Note.pdf

ONLINE CONTENT SHARING SERVICES TRANSPARENCY METRICS & REPORTING ON CSEA

The majority of online content-sharing service companies do not publish transparency metrics on child sexual abuse and exploitation.

A critical step in improving the response to and monitoring of online child sexual exploitation and abuse is to standardise the data that are collected, stored, and analysed, and to create uniform metrics that effectively measure change in online CSEA over time.

This review was undertaken with the specific objective of bridging the existing evidence gap on metrics. To accomplish this, we conducted a thorough examination of the metrics currently employed by online content sharing services in relation to CSEA. Content-sharing services can be categorised in three areas following the approach used by OECD and TVEC benchmarking:

1. Social media, video sharing services and online communications services
2. Cloud-based file sharing services
3. An "Other" category that includes popular digital services for content management and online reference

Transparency refers to the openness and accountability of the data, algorithms and decision-making processes used by these services when addressing online CSEA found in their services. Transparency is also important for trust.

Our responses to prevention and safeguarding for online CSEA are only as good as our evidence-base. Ensuring greater transparency across the metrics produced by these services will assist in improving data collection and improve our safeguarding of children at scale.

Most tech companies do not publish transparency metrics on child sexual abuse and exploitation data. Of those that do, differing metrics mean that data is often not directly comparable across all companies. A total of 20 technology companies provide transparency reporting on online CSEA. This study reviewed the metrics of 19 transparency reports. From those, only three provide any time-related metrics including:

Removal before any views

Removal within 24 hours

Reach of content deactivated for child sexual exploitation

Time-related metrics are incredibly important for understanding the potential reach and views prior to takedown and how quickly companies are taking down that content.

Furthermore, this study found that very little metadata was given by tech companies. Only one company provided detailed technical notes on the numerators and denominators of their metrics and the challenges they experienced with measurement. The authors recommend that all companies should include technical notes that detail the data points that go into the metric, how they are identified and any limitations reported.

Tech companies employ a number of different methods to detect and combat the sharing of abusive content. These methods include hash matching, AI algorithms, user reports, image analysis, collaboration with authorities, keyword filtering, and text analysis. The most recent E-Safety Commission report in Australia investigated the responses and actions to CSEA by five major tech companies, found variations on the approaches to detection and reporting, and emphasized the importance of human moderators as well as technological detection methods. The authors will further examine and assess the reporting and existing reporting gaps of various detection methods in transparency reports for identifying images related to child exploitation and abuse.

Overall, this study found there is an urgent need for harmonised metrics reporting that takes account of differing service functions, but allows for comparability across the industry. Without this, we do not have objective measures of progress and effectiveness for tackling online child sexual exploitation and abuse.

Suggested citation:

Lu, M., Lamond, M., and Fry, D. *A Scoping Review of Technology Companies Transparency Metrics & Reporting*. In Searchlight 2023 - Childlight's Annual Flagship Report. Childlight – Global Child Safety Institute: Edinburgh, 2023.

Cited references:

- OECD (2023), *"Transparency reporting on child sexual exploitation and abuse online"*, OECD Digital Economy Papers, No. 357, OECD Publishing, Paris, https://doi.org/10.1787/554ad91f-en.

- OECD (2020), *Current approaches to terrorist and violent extremist content among the global top 50 online content-sharing services,* OECD Publishing, https://doi.org/10.1787/68058b95-en.

- Tech Coalition (2023). https://www.technologycoalition.org/

- Australian Government, E-Safety Commissioner, Responses to Transparency Notices: https://www.esafety.gov.au/industry/basic-online-safety-expectations/responses-to-transparency-notices

Researchers:
Dr. Mengyao Lu, Ms Maria Lamond and Prof Deborah Fry

Registered protocol:

https://osf.io/fsp5n

Technical notes:

https://childlight.org/sites/default/files/2023-12/I-Online-Content-Sharing-Services-Transparency-Metrics-Reporting-on-CSEA--%2520Technical-Note.pdf

Open access dataset:
https://osf.io/j2ges/files/osfstorage/654e5f32253a74090da0e8fd