CHILDLIGHT
Global Child Safety Institute

INTO THE LIGHT

Companion Report to https://intothelight.childlight.org

Childlight global index of child sexual exploitation and abuse prevalence

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This narrative report forms part of the 2024 *Into the Light Index* (ILI) on the prevalence of Child Sexual Exploitation and Abuse (CSEA) globally conducted by Childlight – Global Child Safety Institute at the University of Edinburgh.

This narrative report accompanies a companion data website at https://childlight.org. The two pieces complement each other as the website contains the regional disaggregation and the data tables as well as graphics. This report covers the overall aggregated findings per indicator in the index.

The findings, interpretations and conclusions expressed in the 2024 *Into the Light Index* materials (website and report) are those of the authors and do not necessarily reflect the policies or views of the funders or the University of Edinburgh.

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CHILDLIGHT
Global Child Safety Institute

INTO THE LIGHT

Executive Summary to https://intothelight.childlight.org

Childlight global index of child sexual exploitation and abuse prevalence

established by

HUMAN DIGNITY FOUNDATION

THE UNIVERSITY of EDINBURGH

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Acronyms

Childlight	Global Child Safety Institute
C3P	The Canadian Centre for Child Protection
CSA	Child Sexual Abuse
CSAM/CSEM	Child Sexual Abuse Material/ Child Sexual Exploitation Material
CSEA	Child Sexual Exploitation and Abuse
CSV	Childhood Sexual Violence
ECPAT	End Child Prostitution and Trafficking
ESPs	Electronic Service Providers
ICSE	Interpol's International Child Sexual Exploitation database
INHOPE	The International Association of Internet Hotlines
NCMEC	The National Center for Missing and Exploited Children
OCSEA	Online Child Sexual Exploitation and Abuse
UNCRC	The UN Convention on the Rights of the Child
UNICEF	United Nations Children's Fund
UNODC	United Nations Office for Drugs and Crime
VAC	Violence Against Children

FOREWORD

Paul Stanfield
CEO Childlight

The fight to keep our young people safe and secure from harm has been hampered for too long by a data disconnect. Data on child sexual exploitation and abuse differs in quality around the world; data foundations are inconsistent, definitions differ and, frankly, transparency is not what it should be.

Our *Into The Light Index,* the world's first estimate of the scale of this haunting problem, is a preliminary attempt to produce a global picture based on what Childlight researchers have been able to discover in partnership with others leading the fields of data, law enforcement and safeguarding.

I am indebted to the research team, led by Professor Debi Fry, who bring a wealth of expertise from around the world to help children trapped in the darkness of sexual exploitation and abuse and turn data into action.

I am also deeply grateful to our many partners and supporters who have made this work possible, including the University of Edinburgh and the Human Dignity Foundation with whom we have signed a 10-year collaboration agreement.

Our assessment that at least 300 million children per year are subjected to sexual exploitation and abuse must serve as a wake-up call. Our evidence must also serve as a wake-up call, that as many as one in nine men in parts of the world have sexually offended online against children – and that many would also go on to commit sexual contact offences with children if they believed it could be kept secret.

And yet paradoxically, this coincides with deeply troubling moves to roll out end-to-end encryption on major file-sharing platforms that are increasingly used to share sexual images of children, giving perpetrators scope to commit heinous crimes with impunity. Just when more than ever we need to shine a light to protect our most vulnerable children, with reports of CSEA being made once every second, many big-tech companies are turning the lights off. So, we stand at a crossroads: a point where we must choose how best to balance privacy and safety rights, and decide whether the privacy rights of offenders abusing children should outweigh the privacy and safety rights of the children whom they abuse.

The crisis is compounded by resource limitations that prevent law enforcement in many countries from acting adequately on what data they do receive, and so this is also a moment for unprecedented global collaboration, reinforced by education and adequate regulation. Child sexual exploitation and abuse exists because it is allowed to exist. With sufficient will, it is preventable.

Independent Audit of the Childlight Into the Light Index – 2024

By Sir Bernard Silverman

Sir Bernard Silverman FRS
https://bernardsilverman.co.uk

I am delighted that Childlight have given me the opportunity to review the index. I would make a number of observations.

The process for selecting the surveys and other source data is properly set out in detail. The data obtained from these sources is tabulated and has been released in a form which, in principle, can allow the analysis to be reproduced or other analyses to be carried out. The algorithms and code for producing the final estimates have also been published.

The statistical accuracy or uncertainty of the various estimates has been assessed by finding confidence intervals, and these are included in the written account. It should be understood that these are conditional on the figures fed in from the original surveys and sources, and on the particular statistical model used to produce the estimates.

The report contains clear narrative caveats where appropriate. One example addressed is the variation of definitions between different jurisdictions, as well as in the surveys themselves. Another is an approach that combines incidents of varying severity in the estimates.

Also to be commended is the way that estimates are not given at an excessively granular level, thereby obviating the need for inappropriate extrapolation or the production of estimates with very wide error bars.

Overall the work has been carried out to a high professional standard.

Behind every number is a child. If you or someone you know needs support for child sexual exploitation and abuse, or if you are concerned that you might hurt a child, please visit Child Helpline International or brave movement or Stop it now.

If you see harmful imagery or content online concerning a child, please report it to NCMEC, INHOPE, IWF or C3P

Introduction

Data matters because it forms the foundation of a robust child protection sector, without which we cannot keep children safe or prevent violence from occurring in the first instance. Yet this sector is characterised by lack of data, multiple data sources, differing definitions and lack of data access, especially relating to child sexual exploitation and abuse (CSEA).

This is a major inhibitor to developing more effective and evidence-driven prevention and response strategies and policies. Without data and analysis, programmes are more difficult to design, deliver and evaluate; evidence is difficult to generate and credibly defend; narratives and definitions that frame the issue are difficult to construct; policy is difficult to advocate for and funding is difficult to access. Without high-quality data that can guide policy and programmes, children continue to be at risk for child sexual exploitation and abuse and perpetrators have impunity.

This challenge led to the establishment of Childlight, a fully-resourced global data institute anchored in academia at the University of Edinburgh.

Childlight is proud to introduce this first edition of the *Into the Light Index* (ILI), our inaugural index on the prevalence of CSEA globally. Our aim is to enhance the knowledge and understanding of the prevalence and nature of CSEA globally, providing policymakers and practitioners with reliable, relevant, and current data by which to make better-informed and focused decisions to safeguard children and prevent abuse from ever happening.

The first edition of the *Into the Light Index*

Childlight's first Index report explores the prevalence of Online Child Sexual Exploitation and Abuse (OCSEA)[1] – as a start – through three new indicators measuring victimisation, perpetration and the scale and nature of child sexual abuse material online globally. We chose to start with indicators that measure the online prevalence and nature as this represented the largest gap in synthesised and global knowledge. We intend in future iterations to expand our indicators to represent the totality of the CSEA data landscape (online and offline and the intersection between

[1] Throughout this report, we use the umbrella term 'Online Child Sexual Exploitation and Abuse' or 'OCSEA' to refer to the range of all types of sexually abuse and exploitative behaviours that occur either online or through the use of information and communication technologies (ICTs). We are also a part of the core team for the global work to update the Terminology Guidelines (commonly referred to as the Luxembourg Terminology Guidelines). Once these updated guidelines are complete, we will adopt the recommended terminology. In the meantime, we have used OCSEA as this is the term we have assessed to be used most frequently throughout the regions represented by data in this report. The current Terminology Guidelines can be found here: https://ecpat.org/luxembourg-guidelines/

the two). Data limitations have led us to present most figures at a global and UNICEF regional rather than country-by-country level at this stage. We chose UNICEF regional classifications to maximise impact as UNICEF is doing significant work on the ground in prevention and response, including child protection system strengthening. It is our intention to move to a full country-by-country level analysis within five years.

Indicator 1: Global Prevalence of OCSEA Victimisation measures the percentage of victims within the general population. It is based on a meta-analysis of 88 publications reporting results from 125 studies, covering 57 countries and published in three main UN languages (English, Chinese and Spanish)[2] between 1 January, 2010 and 30 September, 2023. All studies used surveys representative at the national or sub-national level. Data estimates show both lifetime prevalence (ever during childhood) and past year prevalence and where possible this is broken down by male and female prevalence estimates. In addition to an overall past year estimate, there are four main sub-categories of types of OCSEA victimisation that we were able to calculate from the data. These categories include online solicitation; non-consensual taking, sharing and exposure to sexual images and videos; online sexual exploitation; and sexual extortion (see the Indicator 1 chapter for more details regarding categorisation).

Indicator 2: Prevalence of OCSEA Perpetration measures the percentage of perpetrators in the general population. Indicator 2 is based on a cutting-edge study that has used a new survey with a representative sample of men over the age of 18 in Australia, the UK and the US to better understand the prevalence and nature of perpetration of OCSEA. Comparable data for other countries is currently not available, but we hope to extend the geographic reach of Indicator 2 in the future as the data and measurement on perpetration evolves.

Indicator 3: Global Scale and Nature of Child Sexual Abuse Material Online (CSAM) including images, image collections and videos that are shared online globally. It measures different aspects of the nature of CSAM globally, such as where across the world content is hosted, what we know about victim-survivors from the analysis of CSAM, and how long detected CSAM remains online after removal has been requested. Indicator 3 is based on data from five publicly available reports on CSAM published between 2018 and 2022 by organisations dedicated to detecting and removing CSAM, including the Internet Watch Foundation (IWF), the National Centre for Missing and Exploited Children (NCMEC), the Canadian Centre for Child Protection (C3P) and INHOPE, as well as a report presenting an analysis of data from Interpol's International Child Sexual Exploitation (ICSE) database. For Indicator 3, some categories were harmonised, and some numbers were combined across reports.

[2] Please note, the systematic review underpinning this indicator was conducted in all six UN languages (English, Arabic, Chinese, French, Spanish and Russian), however only three languages (English, Chinese and Spanish) provided studies that met the inclusion criteria, and we identified only one study in Russian language that that was also excluded. Thus, in the meta-analysis we used sources published in three UN languages, but the approach to the systematic review was undertaken in six languages.

Each of these indicators should be seen as **a baseline.** The field still has a long way to go – especially in the measurement of OCSEA – to improve our understanding of prevalence. This index is the first global effort that we are aware of that presents these three sources of data side by side (victimisation, perpetration and CSAM) which is incredibly important for having a more comprehensive picture of the scale of the risk to children as well as opportunities for prevention and intervention.

We have selected these three indicators based on feasibility of accessing or gathering data to complete the measures, the effort associated with this (both for the first baseline measure and then regular updates), and on our view that these will be a valuable data point that can be meaningfully used to inform and change CSEA prevention and response. Each indicator will lead to one or more calls to action through Childlight and our partners.

In identifying these indicators, we have faced the data challenges that Childlight has been established to remedy alongside others working in the field: CSEA data is fragmented, of poor quality, with no standardisation or consistency over time – and sometimes does not even exist. Our three indicators make use of both available data, as well as collecting primary data where possible, and use quantitative methods where feasible to identify estimates.

Main Index Findings

Our inaugural Into the Light Index brings these three Indicators and their respective data sources together, to see new insights emerging on the scale and nature of OCSEA that have been obscured previously by viewing data in silos.

Indeed, our findings are stark:

- OCSEA is prevalent in every country where it is measured
- 300 million+ children under the age of 18[3] have been affected by online child sexual exploitation and abuse in the last 12 months
- 1 in 8 children globally have been subjected to online solicitation in the last 12 months, such as unwanted sexual talk, which can include non-consensual sexting, unwanted sexual questions and unwanted sexual act requests by adults or other youths
- 1 in 8 children have experienced non-consensual taking, sharing and/or exposure to sexual images and videos in the last 12 months
- 11% of men in the United States, 7% of men in the UK and 7.5% of men in Australia report that they have engaged in online behaviours at some point in their lifetime that could be classed as online child sexual abuse offending

The numbers are huge. But behind every number is a child. Children across families, communities and schools, online and in person. Indeed, some of you reading this report are likely to be survivors of abuse yourselves.

Because of this scale, we believe that CSEA should be treated like a global pandemic. We see the change that can be made quickly, and how countries and organisations can come together, when there is a worldwide health emergency such as AIDS or COVID-19. A public health approach to not just responding to but preventing CSEA is required; we owe that to our children.

[3] See UNICEF for global population figures of children under the age of 18: https://data.unicef.org/how-many/howmany-children-under-18-are-in-the-world/

Key findings across our Indicators show:

- The Middle East and North Africa region receives the highest CSAM hosting notices/reports per population size, 9 per 1,000 people. This is more than any other region according to the limited data available, but it is lacking in all sources of OCSEA data overall.
- North America and Western Europe are two UNICEF regions where CSAM rate is also high, from multiple CSAM data sources, and is also where image-based CSEA victimisation and OCSEA perpetration prevalence estimates are higher.
- Eastern Europe and Central Asia reports one of the highest prevalence estimates of non-consensual taking, sharing and exposure to sexual images and videos than other UNICEF regions.
- Asia – specifically South Asia, and East Asia and Pacific regions – have the highest total number of CSAM reports when combining the four major global data sources. In addition, over 1 in 10 children in the East Asia and Pacific region report past year online sexual solicitation, whereas representative prevalence data is severely lacking in the South Asia region.
- The prevalence of online solicitation is highly reported by children in the East and Southern Africa and West and Central Africa regions and, with internet penetration lower in these regions, they represent potential future hotspots for growing OCSEA victimisation.
- There appears to be no statistically significant difference between the experiences of girls and boys with respect to online sexual victimisation from representative surveys. However, girls appear more in child sexual abuse material online according to all of the data sources which provided this analysis.
- Overall, there is a lack of report/removal notice data for CSAM for all parts of Africa and this, combined with lack of prevalence data for the Middle East and North Africa and Latin America and the Caribbean, suggests these are regions for further study and support.

If you create, collate or work with relevant data, we welcome your support to strengthen the data foundations of OCSEA victimisation prevalence data. This includes filling gaps in the data, as well as developing standardised reliable and valid instruments and minimum standards for reporting prevalence estimates. Specifically, we recommend that:

- More gender-disaggregated data is needed for all the sub-types of OCSEA
- There is a requirement for the data organisations to move towards more harmonised assessment categories and criteria in the analysis of CSAM
- More prevalence data is needed, specifically in regions where evidence is limited or non-existent
- More coordination and support is required between actors around removal of content online

This is not to say that data owners and users are complacent and not already aware of these challenges. For example, we know that there are significant efforts underway in North America and Western Europe to enhance legislation pertaining to OCSEA as well as primary prevention efforts. These efforts should be promoted as a priority.

Transparency, quality assurance and reproducibility represent key strategic areas for Childlight and for improving the rigour and robustness of data in this field. All our studies at Childlight have publicly registered protocols on the Open Science Framework (OSF) detailing the study methods, quality assurance processes and potential pathways to impact. Similarly, all our indicators include detailed technical notes on how the data was collected/synthesised, how the indicator was calculated and presented, as well as details on the quality assurance mechanisms. For reproducibility, we will archive full datasets as open access where possible for others to review, test, challenge and build on our research. We have made the Indicator 1 dataset open access in this manner (**see the dataset.**)

To improve data quality and minimise any bias, each of the indicators has been reviewed by senior technical advisors and data owners as well as the index advisory committee. We have had the index independently audited by a senior statistician (Sir Bernard Silverman), and his audit note accompanies the index publication. Confidence intervals accompany all prevalence data (e.g., Indicators 1 and 2) for the reader to understand the uncertainty around each estimate. For reproducibility, data tables underpinning graphics as well as the R code (i.e., programming code for data testing, manipulation, and analysis) for the meta-analysis have been made available as part of the index on the website and in the technical notes.

Developing the baseline – understanding the data limitations

This index is a preliminary attempt to gauge the extent of the problem. Much more work needs to be done to build a stronger global evidence base on OCSEA prevalence because data currently differs in quality around the world; data foundations are inconsistent; definitions differ; and these are compounded by data transparency and reporting issues.

These data limitations have led us to present most figures at a global and UNICEF regional rather than country-by-country level at this stage, although our more granular findings on the level of online sexual offending by men in the United States, Australia and the United Kingdom are particularly concerning. We chose UNICEF regional classifications to maximise impact as UNICEF is doing significant work on the ground in prevention and response, including child protection system strengthening.

Each country around the world also has different child protection systems and legislation, with differing definitions of age of sexual consent and parameters around the legality of online behaviours that constitute sexual offending. Like other major global data initiatives, Childlight takes a universalist rather than relativist approach. We believe in children's rights as identified in the UN Convention on the Rights of the Child (UNCRC) for all children, and that CSEA is always wrong and does not depend on cultural context or biological imperatives for justification. We define a child as under the age of 18 and we know that, particularly for presenting multi-country perpetration prevalence, specific countries may have differing legal definitions. We recognise this as a potential limitation and will work to support enhancement of this data over time as well as harmonisation of best practices for legislative reform. At the same time, Childlight is committed to promoting discourses on healthy adolescent sexuality and where possible we will use nuance to identify consensual vs non-consensual behaviours among adolescents, such as we have done with Indicator 1. We will work with others in the field to continue to improve our understanding of prevalence data around the older adolescent period and well as peer-to-peer abuse and harmful sexual behaviours perpetrated by children and young people towards other children.

Using the data to create pathways to impact

Challenges for moving data to impact abound. Yet we may be reaching a tipping point. Public concern about online safety appears to be rising, and, with it, media interest and political action, with high profile incidents like the Taylor Swift deepfakes controversy drawing widespread attention to a problem that has affected children for several years.

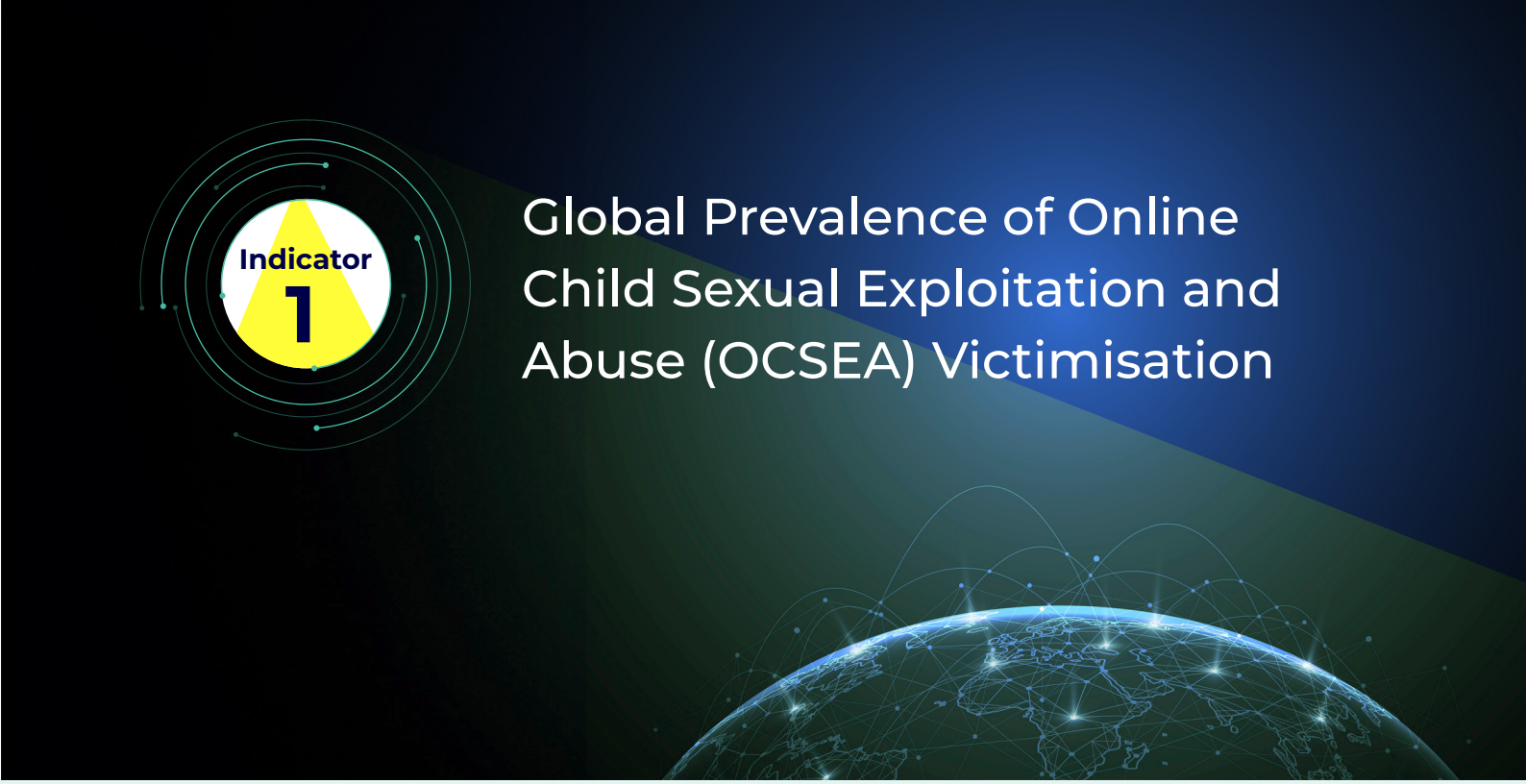
From the African Union to the European Union and the G7, authorities are also increasingly acting together to tackle a problem that is transnational: an abuser in one country can electronically transfer funds to another abuser to perpetrate that abuse in a second country, with the files stored in a data centre in a third country; and within a matter of minutes these files are shared around networks in dozens of other countries.

Some initiatives within the tech sector itself appear to show promise too, underlining that technology which assisted in creating the problem of OCSEA can be part of the solution. This, coupled with the growing support of survivor and child-led and grassroots prevention movements and increased awareness, points to greater opportunity now more than ever to turn data into change.

Conclusion

We recognise that we cannot do this work alone and that our partnerships are very important to ensure we can turn data into impact for children globally. It is time to recognise that CSEA is on a scale that requires us to treat it as a global health emergency, not to turn off the lights.

This is the start of the index; we are dedicated to deepening and expanding the number of indicators to help us get a better picture of the magnitude and nature of CSEA globally. We are also committed to helping improve the quality of the data landscape – from improving our measurement tools and increasing the number of countries with data, to harmonising and further disaggregating existing data. If you have data that can help safeguard our children and young people, we humbly ask you to work with us to improve successive editions of this index and help shine a spotlight on some of the world's darkest crimes. Because, as our mantra goes, **children can't wait.**



Global Prevalence of Online Child Sexual Exploitation and Abuse (OCSEA) Victimisation

Summary

- Indicator 1 presents prevalence estimates for online child sexual exploitation and abuse (OCSEA) victimisation, measuring the percentage of victims within the general population. This is based on a comprehensive systematic review conducted in six official UN languages and a meta-analysis of the findings.
- The meta-analysis found a high variability of prevalence estimates, highlighting that much more work is needed on accurately measuring and categorising victimisation experiences across studies.
- 1 in 8 children globally (12.6%) are estimated to have been victims of non-consensual taking, sharing and exposure to sexual images and video for the past year recall. Almost the same proportion (12.5%) was subject in the past year to online solicitation.
- An overall prevalence of OCSEA of 8.1%, based on a smaller number of studies (15) reporting past year recall, measures exposure to at least one type of violence when three or more types were measured from the same sample.
- More girls than boys were affected by OCSEA, 8.7% and 7.5% respectively. However, the difference was lower than in studies investigating offline child sexual abuse and is not statistically significant. More gender-disaggregated data is needed for all the sub-types of OCSEA.
- No significant differences were found between males and females in the prevalence of any of the subtypes of OCSEA, which can be attributed to the high variability of estimates reported across studies.
- Prevalence estimates for online solicitation and non-consensual taking, sharing and exposure to sexual images and videos were the most frequently reported subtypes of OCSEA.
- A limited number of studies reported prevalence estimates of online sexual exploitation and sexual extortion, and this is an area for future concentrated research efforts.

Introduction

Indicator 1 is an indicator for online child sexual abuse and exploitation (OCSEA) victimisation, including a range of online sexual harms, such as online solicitation, online grooming, unwanted/pressured sexting, exposure to pornography, image-based abuse, online commercial sexual exploitation, and online threats/blackmail. To ensure some degree of consistency and uniformity, this research proposed four terms that clustered this wide spectrum of OCSEA types, based on overlapping typology and terminology (see the **technical note.**)

Although a growing body of evidence on both offline and online child abuse and exploitation is published and widely disseminated, estimating the full extent of those 'hidden' crimes remains extremely challenging. Due to emerging new forms of OCSEA in the online environment and the fragmentation of the associated data, reliable prevalence data of OCSEA is difficult to collate and analyse. Therefore, to better understand the risks that children are facing in the online environment, the magnitude of victimisation, and what data is available and known and what is unavailable and unknown, it is crucial to estimate the scale of the victimisation and establish more precise and uniform typology on the nature of OCSEA.

The victimisation indicator is based on a comprehensive systematic review conducted in six official UN languages and a meta-analysis of the findings. This review also drew from other existing reviews including one on prevalence estimation methods, and a scoping review on both victim- and perpetrator-centric studies on OCSEA. This review aimed to contribute to filling the gap in our understanding of the prevalence and nature of OCSEA on a global scale. By analysing and synthesising the existing literature on online child sexual exploitation and abuse, this research provides crucial evidence that can complement the current knowledge of OCSEA by highlighting what is, and what is not known about victimisation; and inform policymaking and practice regarding the prevention of OCSEA.

This research revealed a great variability in the prevalence of online violence against children across data sources, potentially influenced by several methodological factors that have been shown to affect prevalence estimates in other surveys. These factors included the methods of data collection, sample type (household versus school), sample size, measures used (standardised versus self-designed), respondent type (parent, adult recall, young adult recall, child), response rate, survey administration mode, and use of standard definitions for violent behaviours, which is consistent with previous research (Andrews et al., 2004; Barth et al., 2012; Bolen & Scannapieco, 1999; Fang et al., 2015; Haugaard & Emery, 1989; Wynkoop, Capps, & Priest, 1995).

The meta-analysis found a high variability of the distributions of individual published prevalence estimates, highlighting that much more work is needed on accurately measuring and categorising victimisation experiences across studies. Due to the nascent stage of the field in victimisation prevalence and due to this high variability, the results should be interpreted with caution. The results, do, however, provide a perspective on where we are currently as a field in terms of OCSEA victimisation prevalence measurement from representative surveys in order for us to improve our estimates and understanding going forward.

For Indicator 1, reported country level data on OCSEA victimisation was combined into estimates for world regions using UNICEF regional classifications (2023), in line with previous work by Childlight and to discourage potentially misleading conclusions regarding particular countries. Reported prevalence estimates for individual countries varied across data sources and may depend on a wide range of factors that require careful consideration. A higher level of reported

OCSEA at the country level could be due to a combination of factors including greater internet access and use among children, as well as a lack of legislation and policies introduced to improve child online safety. Conversely, the lower estimates of OCSEA may reflect more extensive underreporting or differences in how the data was collected within some of the countries. Notably, Indicator 1 shows the geographic location where OCSEA prevalence data was collected. The areas that are not highlighted are simply where no representative prevalence surveys were found with OCSEA victimisation data. Much work still needs to be done to improve geographic coverage of prevalence surveys globally.

For more information about how data was collated and analysed as well as a reflection on data quality and limitations, please see the **technical note.**

Victimisation prevalence estimates

We conducted a random effects meta-analysis of the comprehensive data we collected through the systematic review. This means we searched all published studies in six languages, published between 1 January, 2010, and 30 September, 2023, where OCSEA victimisation prevalence was studied in nationally and sub-nationally representative samples. This data was then pooled and analysed through a statistical technique called meta-analysis for the overall prevalence, for each subtype, UNICEF region, and disaggregated by gender (where possible). Throughout this summary, we will be reporting findings from this meta-analysis.

It is important to note throughout that prevalence estimates tended to vary considerably between studies, which is not unusual for a new field of measurement. It should also be noted that regions with high numbers of studies reporting OCSEA are not necessarily an indication of the true prevalence of online sexual abuse and exploitation of children. The data may reflect political or systemic issues in those regions or a greater capacity in internet use/presence as well as participants' comfort in disclosing childhood experiences in a survey format. As regions vary in terms of their laws and services available, as well as culture in speaking about topics like OCSEA, this may also have had an impact on the number of studies conducted and prevalence itself.

Overall OCSEA victimisation

To date, only a limited number of studies reported an overall estimate for OCSEA prevalence, which was defined as measuring at least three of the different sub-types of OCSEA. In total, 15 studies with past year recall and two studies reporting lifetime childhood experiences of OCSEA were identified and analysed for the overall estimate. The data analysis revealed high variability (e.g., heterogeneity) in reported prevalence across studies, particularly for the past year recall period. Based on two studies, the estimate of the average prevalence of any form of OCSEA experienced within the child's lifetime was 16.6% (95% CI: 14.4, 19.0). With only two studies, the geographical coverage for this recall period was very limited.

An overall estimate for studies reporting the past year recall was approximately half the prevalence estimate than for the lifetime (e.g., 'ever experienced in childhood') estimate: 8.1% (95% CI: 4.9, 13.0). Two out of three geographical regions were relatively well represented by 12 studies (East Asia and Pacific, Eastern and Southern Africa), representing the significant data collection effort from the Disrupting Harm surveys.[4]

[4] Disrupting Harm | End Violence (end-violence.org)

Out of the 15 studies that reported an overall estimate for the past year recall, 11 studies provided complete data stratified by gender (three studies did not report sample size for males and females). In absolute terms, slightly more girls than boys were affected by online sexual exploitation and abuse (8.7% and 7.5% respectively), but this was not a statistically significant difference. This is an unusual finding as in most studies about sexual abuse and sexual victimisation, girls generally outnumber boys by a large amount. There are several issues to consider in interpreting this finding. A large number of the gender comparison statistics (9 out of the 11) come from one questionnaire design, that of the Disrupting Harm initiative (UNICEF Office of Research – Innocenti, 2022). According to their latest report summarising findings from 12 countries, the differences in reporting sexual abuse by girls and boys are relatively small, which may indicate that "girls and boys are experiencing online sexual exploitation and abuse in fairly equal proportions" (UNICEF Office of Research – Innocenti, 2022; p. 3).

It could be possible that some features of this questionnaire may recruit high numbers of male episodes. Several other surveys using different questionnaires show higher female victimisation. However, another hypothesis is that there may also be some new features of the online context that raise the victimisation rates for boys. For example, boys' more overt online sexual curiosity could bring them into contact with unwanted images and unwanted solicitations. Forms of bullying and online aggression that affect boys may get counted in questions about image exposure and non-consensual image taking.

This unusual finding about gender highlights again the caution required in interpreting the findings. It is not yet clear the range of gendered dynamics are being captured by the questionnaires in this new field of measurement. More studies are needed before we can conclusively say that gender rates are similar or different for online sexual exploitation and abuse. Please also note, due to the presence of very high variability in the distributions of published prevalence from studies, these results should be considered with caution.

It is important to note that the reason a few of the sub-types of violence (e.g. online solicitation and non-consensual taking, sharing and exposure to sexual images and videos) are higher than the overall prevalence is that these were measured in separate studies. The overall prevalence measures exposure to at least one type of violence when three or more types were measured from the same sample. Fewer studies included multiple measures and hence our data is more limited for the overall measure. More work needs to be done in the future to ensure studies that measure OCSEA include more than one sub-type of violence in their measurements.

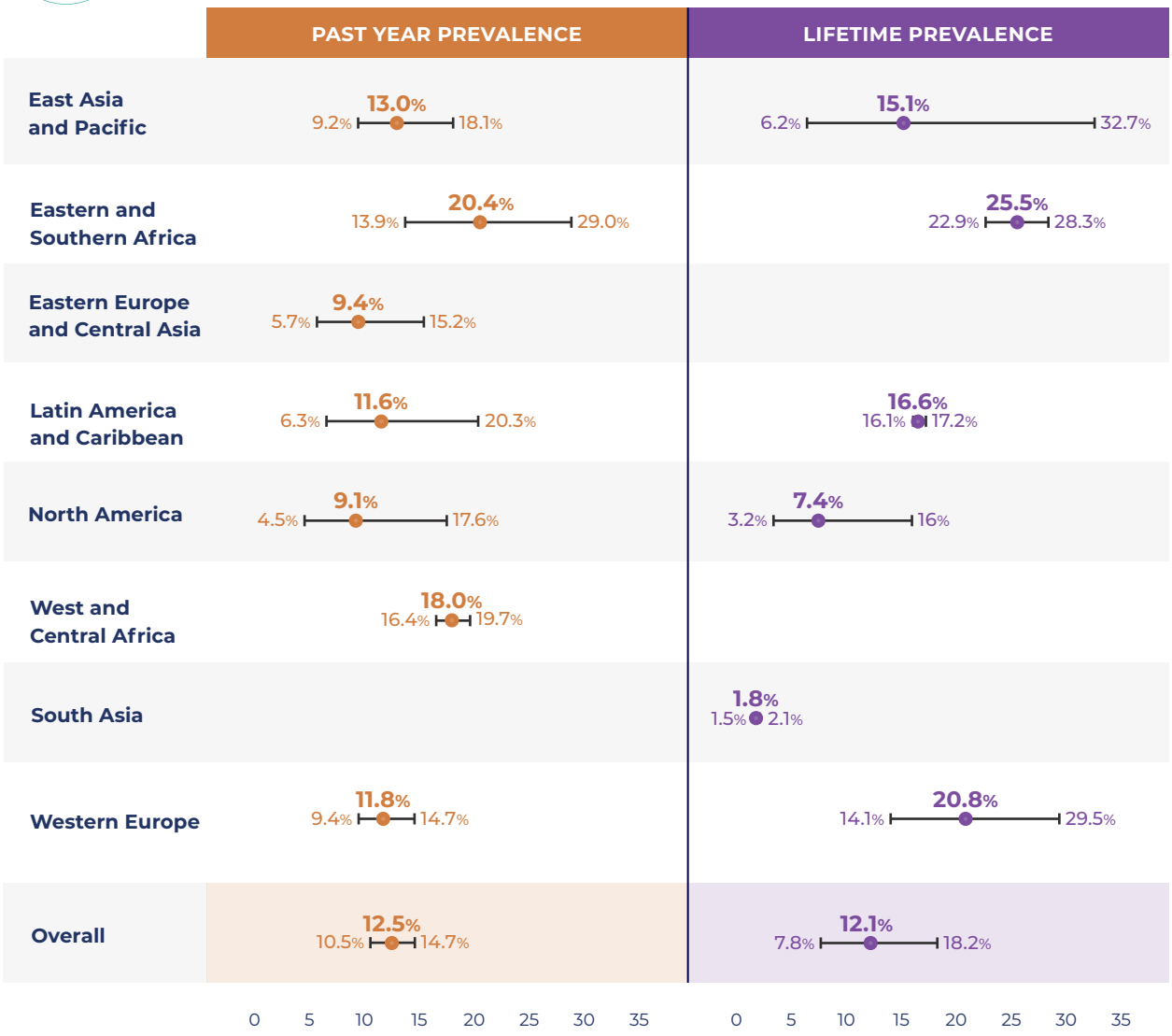
Online solicitation

Studies which measured the prevalence of any of the following behaviours were classified under the online solicitation sub-type: online grooming, online solicitation, online sexual harassment, pressure to obtain images, voluntarily provided images in a statutorily impermissible relationship, unwanted/non-consensual/pressured sexting, and unwanted sexual talk. It is important to note, that all these different types of online solicitation do not just indicate involvement of adult perpetrators. Large proportion of the episodes may involve peers and other youth (Finkelhor et al., 2022; UNICEF Office of Research – Innocenti, 2022). In the current review, the majority of included sources did not provide perpetrator's age, gender or relationship to victims, therefore it can be assumed that this includes both adults and other children and young people.

Graph 1 shows the variability of prevalence estimates of online solicitation based on results from 24 studies for lifetime recall (data collection years: 2008-2021), and 50 studies (37 publications) for past year recall (data collection years: 2008-2021), with the breakdown by world region.

Graph 1

Prevalence estimates of online solicitation, by recall period and UNICEF region



The error bars ⊢⊣ show the uncertainty around each point estimate (95% confidence interval).

Note: Estimates for individual studies in each region can vary considerably.
Source: Systematic review and meta-analysis of studies conducted 2008-2021.

The data analysis revealed high variability in prevalence across studies, ranging from 1% to 37% for lifetime (during childhood) and from 3% to 34% for the past year recall. A high level of variability was also found across the regions, with the highest estimates reported in Eastern and Southern Africa, and West and Central Africa for the past year recall; and in Eastern and Southern Africa and Western Europe for the lifetime (childhood) experiences. For studies reporting child lifetime exposure to online solicitation, an average prevalence of 12.1% (95% CI: 7.8, 18.2) was estimated – so more than 1 in 8 children globally self-report experiencing some form of online sexual solicitation at some point during their childhoods. The regional subgroup analysis of a larger number of studies allowed for better estimates for Western Europe and North America, whereas estimates for other regions were based on very low numbers of studies.

The estimate for studies reporting past year experiences of online solicitation was similar to the lifetime estimate – 12.5% (95% CI: 10.5, 14.7). The regional subgroup analysis showed a relatively large number of studies for Western Europe, East Asia and Pacific, Eastern and Southern Africa, and North America; with other regions less well represented (Eastern Europe and Central Asia, Latin America and Caribbean), and one unrepresented (West and Central Africa).

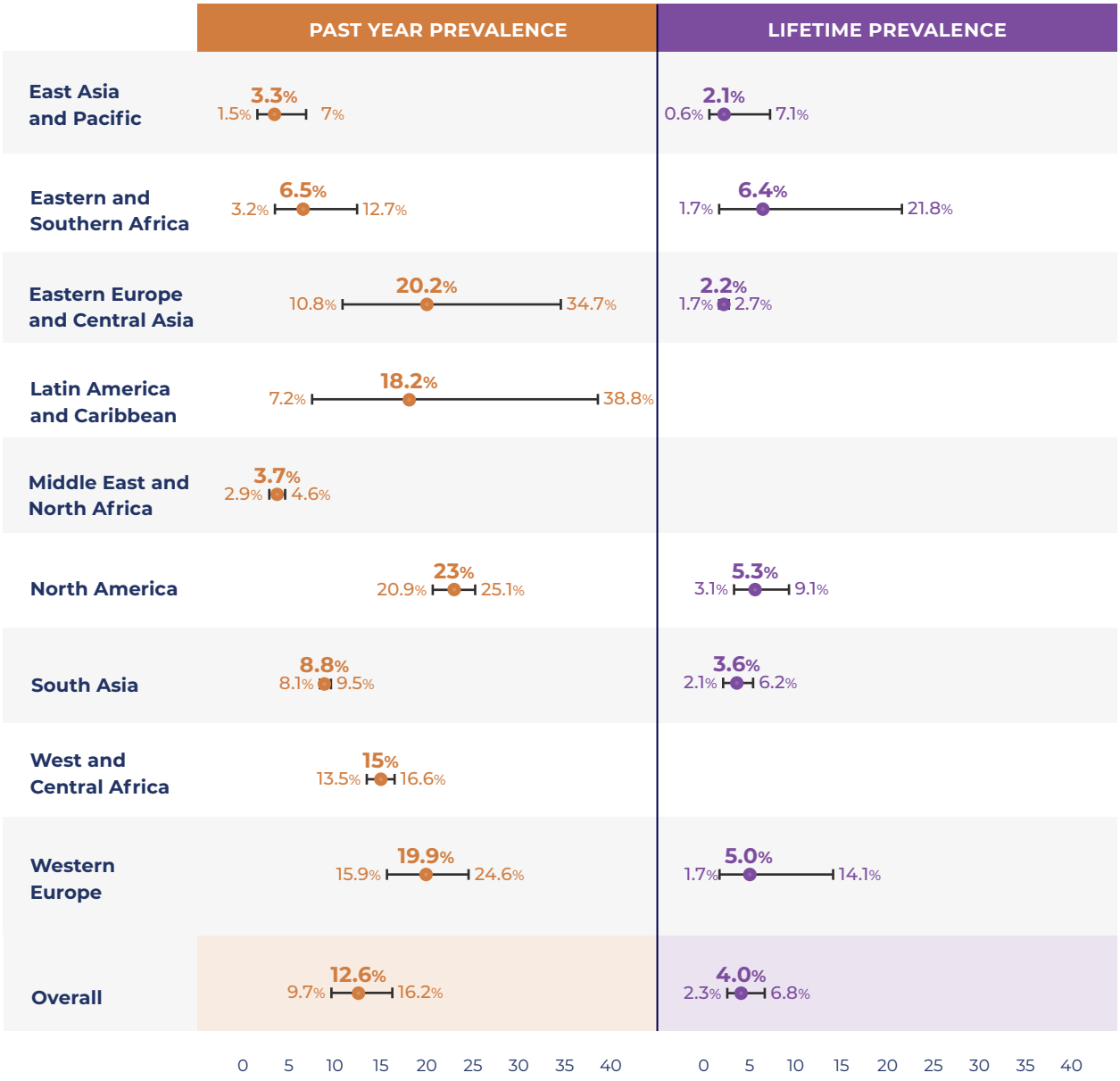
Non-consensual taking, sharing and exposure to sexual images and videos

Studies which measured the prevalence of any of the following behaviours were classified under the 'non-consensual taking, sharing and exposure to sexual images and videos' sub-type of OCSEA which is also used in a shorthand form of 'image-based CSA': non-consensual images or videos taking and distributing by an adult/peer or other youth; forced/unwanted exposure to pornographic content (adult content or CSAM (Child Sexual Abuse Material)). Please note, this subtype includes also unwanted exposure to sexual content that could occur while surfing or scrolling through social media.

Graph 2 shows the variability of prevalence estimates of non-consensual taking, sharing and exposure to sexual images and videos based on results from 21 studies for lifetime recall (data collection years: 2006-2021), and 73 studies (39 sources) for past year recall (data collection years: 2008-2021), with the breakdown by world region.

Graph 2

Prevalence estimates of non-consensual taking, sharing and exposure to sexual images and video, by recall period and UNICEF region



The error bars ⊢⊣ show the uncertainty around each point estimate (95% confidence interval).

Note: Estimates for individual studies in each region can vary considerably.
Source: Systematic review and meta-analysis of studies conducted 2006-2021 (lifetime recall) and 2008-2021 (past year recall).

The data analysis revealed again high variability in prevalence across studies, ranging from <1% to 51% for lifetime and from <1% and 50% for the past year recall. A high level of variability was also found across the regions for the past year recall, with the highest estimates reported in Eastern Europe and Central Asia, North America, Western Europe, and Latin America and Caribbean. For studies reporting lifetime exposure to non-consensual taking, sharing and exposure to sexual images and videos, an average prevalence of 4.0% (95% CI: 2.3, 6.8) was estimated. Six geographical regions were represented, but only two (East Asia and Pacific, Western Europe) had a reasonable number of studies (e.g., more than four); and Eastern Europe and Central Asia had only a single study. It is likely that this lifetime estimate is therefore underreporting of the true prevalence globally due to the limited number of studies.

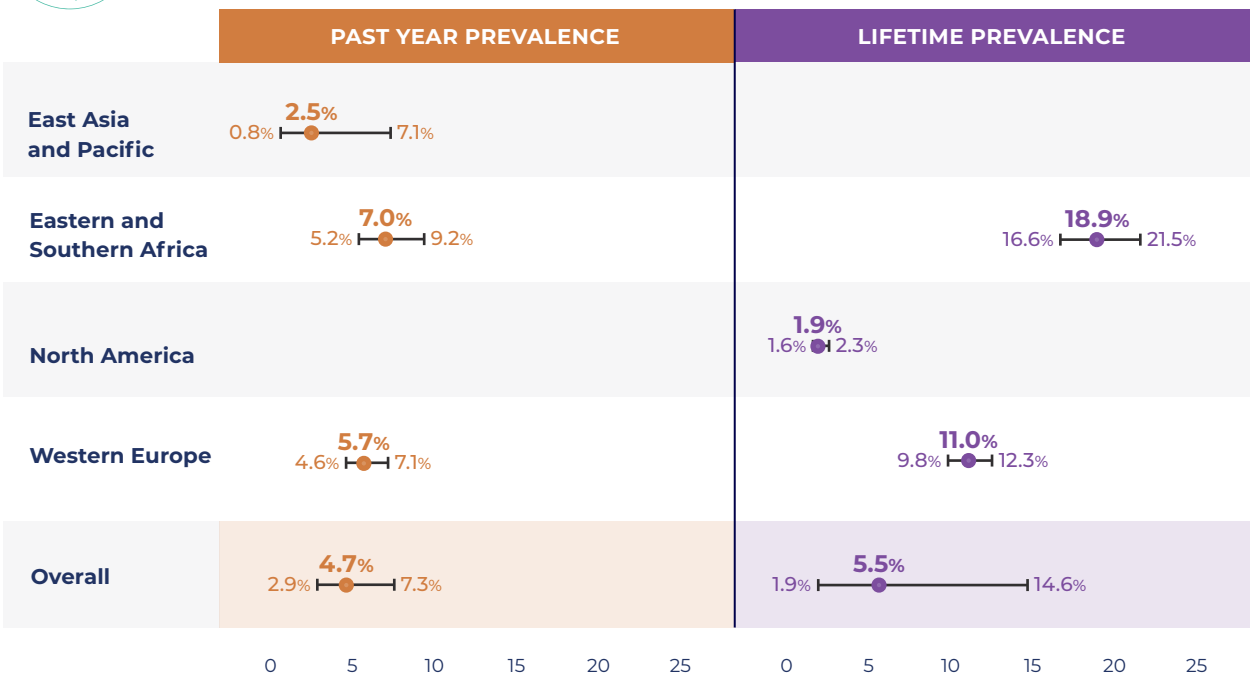
The overall estimate for studies reporting the past year prevalence was considerably higher than for the lifetime estimate: 12.6% (95% CI: 9.7, 16.2). We do not know why past year prevalence may be higher. It could be explained by the recall bias (i.e., information bias that occurs when respondents are asked to recall events in the past). For example, participants may remember these events better in a short-term period. Another explanation could be due to the study type and cohort effect. Studies mainly included cross-sectional data, which included both youth and adult respondents in lifetime prevalence studies. This type of research may confound age with cohort effects, such as limited access to internet in the childhood or different types of abuse experienced of earlier cohorts. More research is needed in this area. Four (East Asia and Pacific, Eastern Europe and Central Asia, Eastern and Southern Africa, Western Europe) of the nine region estimates were relatively well represented (between nine and 34 studies). However, prevalence estimates for four regions were based on only a single study.

Online sexual exploitation

Studies which measured the prevalence of any of the following behaviours were classified under the online sexual exploitation sub-type of OCSEA: commercial sexual talk, commercial sexual images or other commercial sexual activity, and sexual coercion (e.g., using threats to pose for sexually graphic pictures in front of the webcam or coerce into sex; may involve a promise of rewards, as well as using substances to make victims more compliant). In other words, those behaviours refer to sexual acts in exchange for the child or young person's unmet needs, via the provision of monetary or non-monetary resources (e.g., food, clothes, shelter, affection, protection, belonging, gifts and/or anything else of perceived value to the young person or child) on or offline. All but one study included in the meta-analysis defined this within their questionnaires as sexual activities in exchange for money and/or valuable gifts.

Graph 3 shows the variability of prevalence estimates of online sexual exploitation based on results from four studies for lifetime recall (data collection years: 2011-2021), and 15 studies for past year recall (data collection years: 2008-2021), with the breakdown by world region.

Graph 3 Prevalence estimates of online sexual exploitation, by recall period and UNICEF region



The error bars ⊢⊣ show the uncertainty around each point estimate (95% confidence interval).

Note: Estimates for individual studies in each region can vary considerably.

Source: Systematic review and meta-analysis of studies conducted 2011-2021 (lifetime recall) and 2008-2021 (past year recall).

Again, as with all the sub-types, the data analysis revealed high variability in prevalence across studies, ranging from 2% to 19% for lifetime and <1% and 12% for the past year recall. The highest prevalence was found in Eastern and Southern Africa, for both the past year and lifetime recall. For studies reporting lifetime exposure to online sexual exploitation, an average prevalence of 5.5% (95% CI: 1.9, 14.6) was estimated. Three geographical regions were represented, but the estimates were based on either a single study or two studies per region.

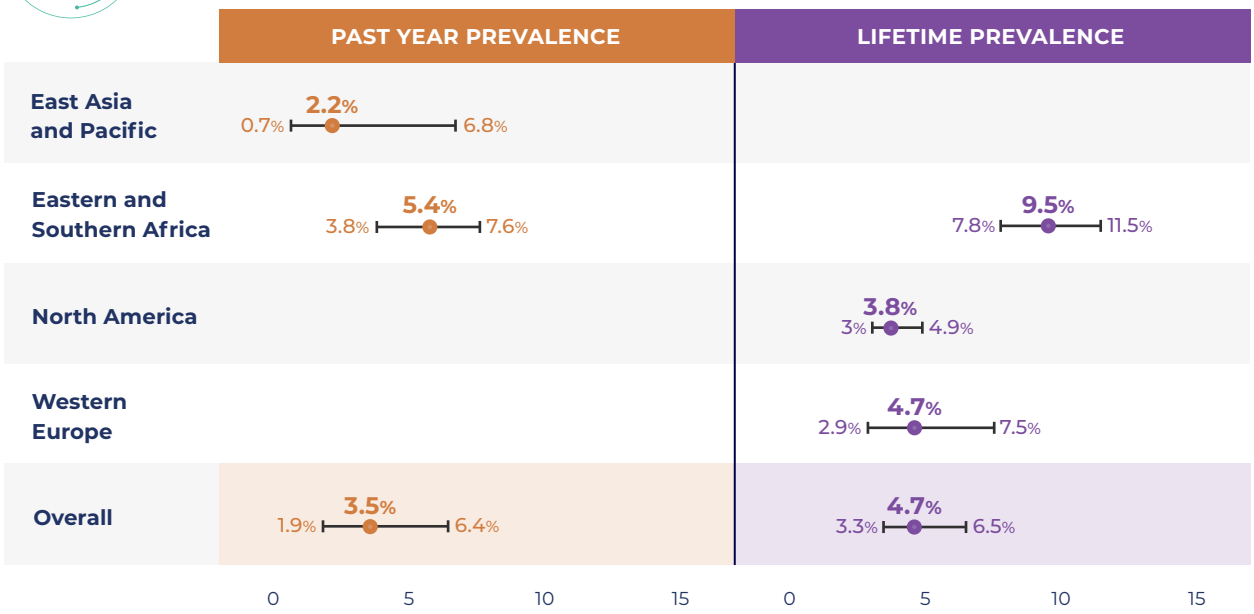
The overall estimate for studies reporting the past year recall was relatively lower than for the lifetime estimate: 4.7% (95% CI: 2.9, 7.3). Two (East Asia and Pacific, Eastern and Southern Africa) of the three region estimates were relatively well supported (i.e., by six to seven studies), whereas Western Europe's figure was based only on two studies.

Sexual extortion

Studies which measured the prevalence of making a threat to disseminate sexual images to obtain money, additional pictures, or other sexual activities, were classified under the sexual extortion sub-type of OCSEA. Sexual extortion is technically a sub-type of sexual exploitation, but we decided to calculate separate prevalence estimates given the desire to track this sub-type over time due to evidence from practitioners that it may be growing.

Graph 4 shows the variability of victim prevalence estimates of sexual extortion based on results from six studies for lifetime recall (data collection years: 2011-2021), and 12 studies for past year recall (data collection years: 2020-21), with the breakdown by world region.

Graph 4 Prevalence estimates of sexual extortion by recall period and UNICEF world region



The error bars ⊢⊣ show the uncertainty around each point estimate (95% confidence interval).

Note: Estimates for individual studies in each region can vary considerably.
Source: Systematic review and meta-analysis of studies conducted 2011-2021 (lifetime recall) and 2020-2021 (past year recall).

Studies varied in prevalence across studies, ranging from 3% to 10% for lifetime and <1% and 13% for the past year recall. For studies reporting lifetime exposure to sexual extortion, an average prevalence of 4.7% (95% CI: 3.3, 6.5) was estimated. Three geographical regions are represented, but the estimates are based on a very low number of studies.

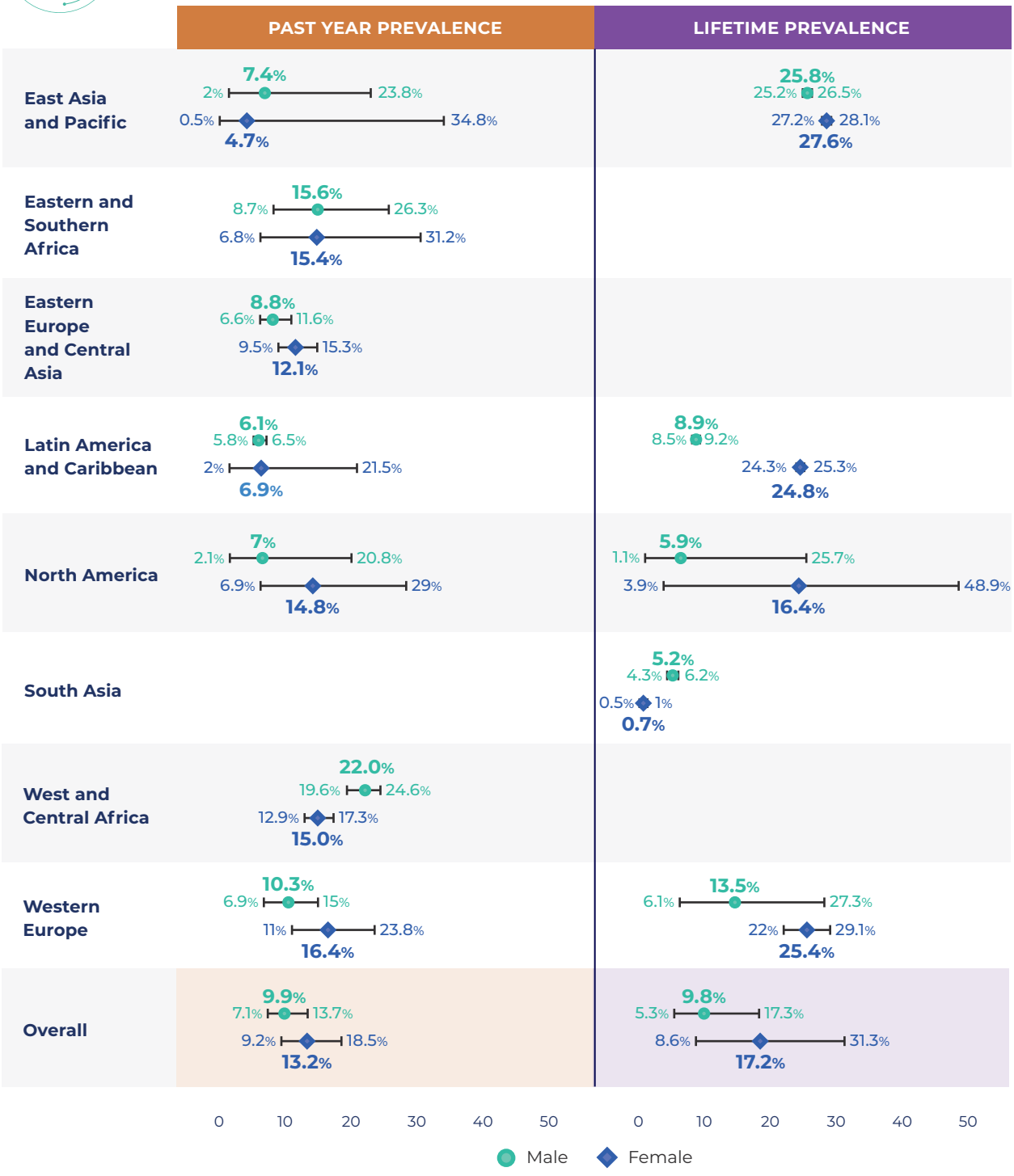
The overall estimate for studies reporting the past year recall was 3.5% (95% CI: 1.9, 6.4). Although only two regions were covered there, both were relatively well represented in terms of the number of studies reporting sexual extortion.

Gender disaggregation

For each of the sub-types of OCSEA, we calculated prevalence estimates separately for males and females where possible.

Graph 5 shows the variability of prevalence estimates of online solicitation based on results from 12 studies for lifetime recall (data collection years: 2011-2021), and 22 studies for past year recall (data collection years: 2008-2021), with the breakdown by gender and UNICEF world region.

Graph 5 Prevalence estimates of online solicitation, by gender, recall period and UNICEF region



The error bars ⊢⊣ show the uncertainty around each point estimate (95% confidence interval).

Note: Estimates for individual studies in each region can vary considerably.
Source: Systematic review and meta-analysis of studies conducted 2011-2021 (lifetime recall) and 2008-2021 (past year recall).

Similar to the other sources of data, studies which disaggregated by gender had a considerable amount of variability in their reported prevalence estimates. For lifetime recall, the variability ranged from 1% to 43% and from 1% to 57%, for males and females respectively. Lower variability was found for the past year recall period and ranged from 1% to 28% and 1% to 36%, for males and females respectively. High variability in prevalence estimates was observed across the regions for both gender. For boys, the highest estimate was found in West and Central Africa and for girls in Western Europe, for the past year recall. The lifetime prevalence of online solicitation was the highest in East Asia and Pacific, for both boys and girls. For studies reporting lifetime exposure to online solicitation, an average prevalence of 9.8% (95% CI: 5.3, 17.3) and 17.2% (95% CI: 8.6, 31.3) was estimated, for males and females respectively. Five regions were represented, however only a small number of studies (≤ 4) in each region were included in the analysis.

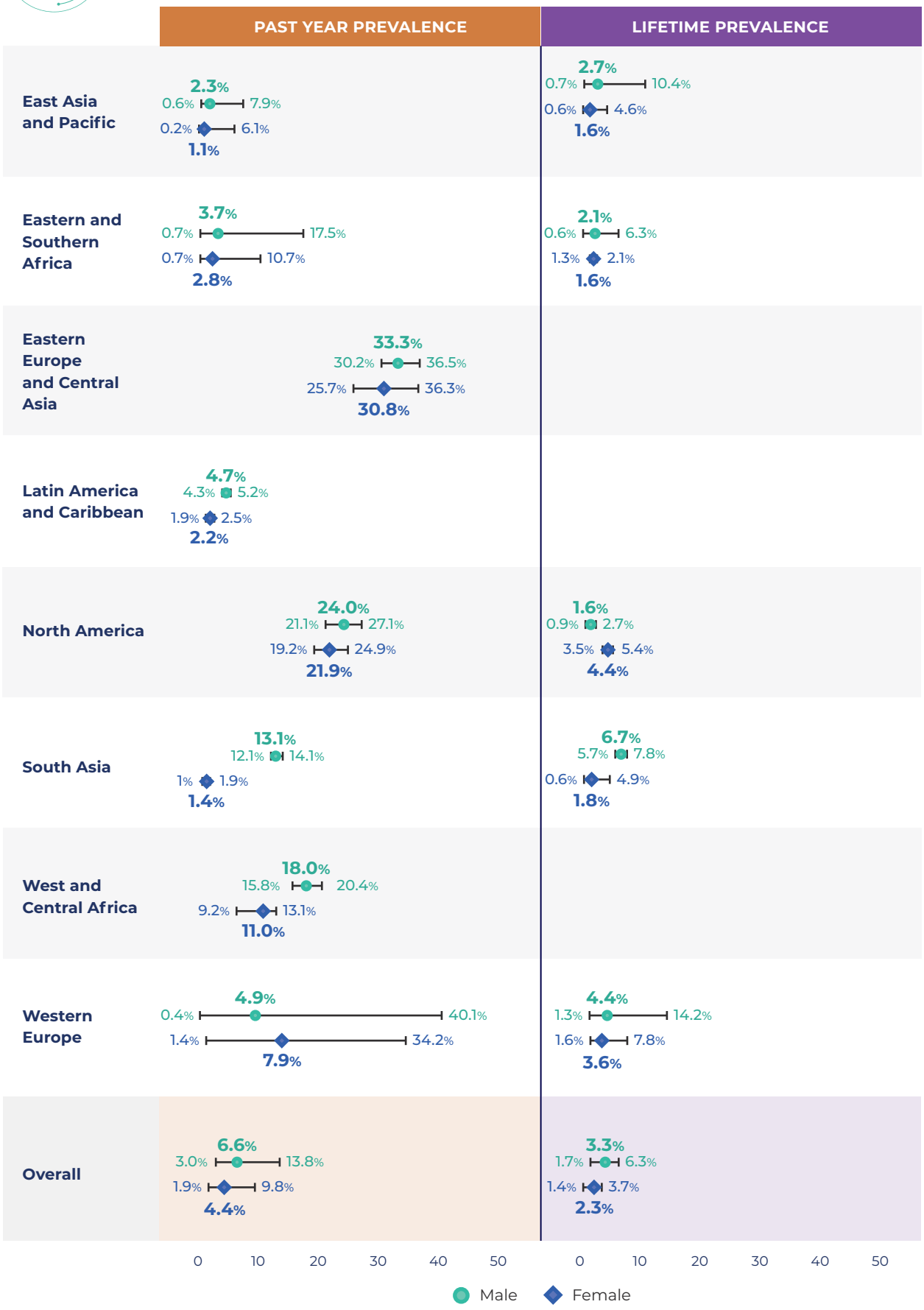
The prevalence estimate for studies reporting past year experiences of online solicitation was 9.9% (95% CI: 7.1, 13.7) and 13.2% (95% CI: 9.2, 18.5), for males and females respectively. The regional subgroup analysis showed a relatively large number of studies for Western Europe; with other regions less well represented (Eastern and Southern Africa, North America), and four unrepresented (East Asia and Pacific, Eastern Europe and Central Asia, Latin America and Caribbean, West and Central Africa).

We see a slightly different gendered pattern emerge with the non-consensual taking, share and exposure to sexual images and videos data.

Graph 6 shows the variability of prevalence estimates of non-consensual taking, sharing and/or exposure to sexual images and videos, based on results from 14 studies for lifetime recall (data collection years: 2006-2018), and 15 studies for past year recall (data collection years: 2008-2017), with the breakdown by gender and UNICEF world region.

Graph 6

Prevalence estimates of non-consensual taking, sharing and exposure to sexual images and video, by gender, recall period and UNICEF region



The error bars ⊢⊣ show the uncertainty around each point estimate (95% confidence interval).

Note: Estimates for individual studies in each region can vary considerably.

Source: Systematic review and meta-analysis of studies conducted 2006-2018 (lifetime recall) and 2008-2017 (past year recall).

The data analysis revealed high variability in prevalence across studies for past year recall period (from <1% to 35% for both males and females) and relatively lower variability for lifetime recall (from <1% to 24% and from <1% to 12%, for males and females respectively), except for two outliers (i.e., two studies reported considerably higher estimates). A high level of variability was found across regions for the the past year recall, for both boys and girls. The highest prevalence estimates were reported in Eastern Europe and Central Asia, followed by North America. For studies reporting lifetime exposure to the non-consensual taking, sharing and/or exposure to sexual images and videos, an average prevalence of 3.3% (95% CI: 1.7, 6.3) and 2.3% (95% CI: 1.4, 3.7) was estimated, for males and females respectively. Five geographical regions were represented, but only one (East Asia and Pacific) had a reasonable number of studies (i.e., more than four); and North America had only a single study.

The overall estimate for studies reporting the past year prevalence for this sub-type of OCSEA was 6.6% (95% CI: 3.0, 13.8) and 4.4% (95% CI: 1.9, 9.8). However, a small number of studies for all eight regions represented raises some uncertainty around estimate quality. More research is needed in this area.

Graph 6 depicts significantly lower overall prevalence estimates of non-consensual taking, sharing and exposure to sexual images when broken down by gender, compared with Graph 2 which does not capture break down by gender. The main reason for this discrepancy may be the number of sources/studies included in each analysis, with a more limited number of studies providing sufficient information for gender breakdown.

A limited number of studies reported prevalence estimates of online sexual exploitation and sexual extortion by gender breakdown. For child lifetime recall, only two studies were found for sexual extortion and one for online sexual exploitation, highlighting the need for more studies to provide prevalence disaggregation when publishing findings. Estimates for the past year were also based on a low number of studies which disaggregated findings by gender, two for sexual extortion and four for online sexual exploitation. The geographical stratification further increased the uncertainty around estimate quality. Therefore, those figures are not reported in this study.

Conclusion

This indicator provides global prevalence estimates for OCSEA victimisation based on a comprehensive synthesis of the available nationally and sub-nationally representative prevalence studies. A systematic review conducted in six UN languages was combined with a meta-analysis offering a more objective appraisal of the available data compared to the traditional narrative reviews.

A wide range of emerging technological modalities of abuse has been captured by the literature included in this research. However, this diversity of offences that have been labelled with various terms and often assembled into distinct conceptual categories, also revealed the need to refine and standardise the classification and terminology of OCSEA. Inconsistencies in definitions and measures used constituted a challenge in terms of comparability and estimating the global prevalence of OCSEA and individual subtypes of online victimisation.

For the purpose of this analysis, four broader subgroups have been defined to capture an array of different concepts based on conceptualisation in the literature (e.g., E-Safety Commissioner, 2021; ECPAT, 2016; Finkelhor et al., 2022; Laird et al., 2022), as well as definitions provided in the analysed sources. Based on this categorisation, online solicitation and image and video-based abuse were found to be the most prevalent forms of sexual harm reported in existing research. The proposed categorisation of OCSEA types as well as the results of this study can be used by future research as a starting point to discuss more consistent approaches to typology, data collection and outcome evaluation. All the data from Indicator 1 has been made publicly available for both reproducibility but also for other researchers to build on this work (**see the dataset.**)

Most importantly, this indicator has highlighted a need for more prevalence data, specifically in regions where the evidence is either limited or non-existent. Further work on strengthening the data foundations of OCSEA victimisation prevalence data is also needed, including developing standardised reliable and valid instruments and minimum standards for reporting prevalence estimates.

The Prevalence of Online Perpetration

Summary

Indicator 2 presents estimates for the prevalence of adult male perpetration of online child sexual exploitation and abuse (OCSEA) using data from a new population-based survey on OCSEA perpetration. Measuring the number of perpetrators in addition to the number of victims is important because it provides a more comprehensive picture of the scale of the risk to children as well as opportunities for prevention and intervention.

Indicator 2 shows that male perpetration of OCSEA is a considerable problem and that there are significant differences between and within countries in terms of the level of perpetration of different types of online abuse. The following key insights emerge from this indicator:

- Prevalence data on OCSEA perpetration is in its infancy. The estimates in the index are based on the first population-based survey with representative samples of men over 18 in the United Kingdom (UK), the United States (US) and Australia. Comparable data for other countries is currently not available but we hope to extend the geographic reach of Indicator 2 in the future.
- The US has a higher self-reported prevalence of OCSEA perpetration by men over 18 than the UK and Australia (10.9%, 7% and 7.5% respectively). This difference is statistically significant, which means that a higher prevalence is likely to be found in the overall population and not just in the sample of men who completed the survey.
- The higher overall prevalence of OCSEA perpetration by men over 18 in the US compared to the UK and Australia can be observed across all sub-types of online perpetration. This difference is statistically significant.
- The most frequently reported type of OCSEA for men over 18 in all three countries included in the research is to flirt or have sexual conversations with a person below the age of 18 online, followed by knowingly and deliberately viewing sexual material of a person below the age of 18.

Introduction

Indicator 2 is an indicator for OCSEA perpetration. It measures the number of adult male perpetrators of OCSEA as a proportion of the total population. Measuring the number of perpetrators in addition to the number of victims is important because it provides a more comprehensive picture of the scale of the risk to children as well as opportunities for prevention and intervention.

Notably, the size of the perpetrator population may not be equivalent to the numbers of victims since a perpetrator can offend against more than one victim and a victim can encounter more than one perpetrator. Such discrepancies are particularly likely in relation to OCSEA since child sexual abuse material (CSAM) files can be shared with a large number of perpetrators, perpetrators can consume a large range of CSAM files showing different victims and online platforms can facilitate contact between one offender and many children at once.

At present, the majority of information about OCSEA perpetrators is drawn from forensic samples, with relatively few community-based prevalence studies or studies with samples that are representative of the overall population.

Indicator 2 is based on a new survey with a representative sample of men over the age of 18 in Australia, the UK and the US to better understand the prevalence and nature of perpetration of OCSEA. Comparable data for other countries is currently not available, but we hope to extend the geographic reach of Indicator 2 in the future.

The remainder of this section will provide a commentary for each of the graphs shown as part of Indicator 2. Some additional graphs have been added to provide more detailed insights into some aspects.

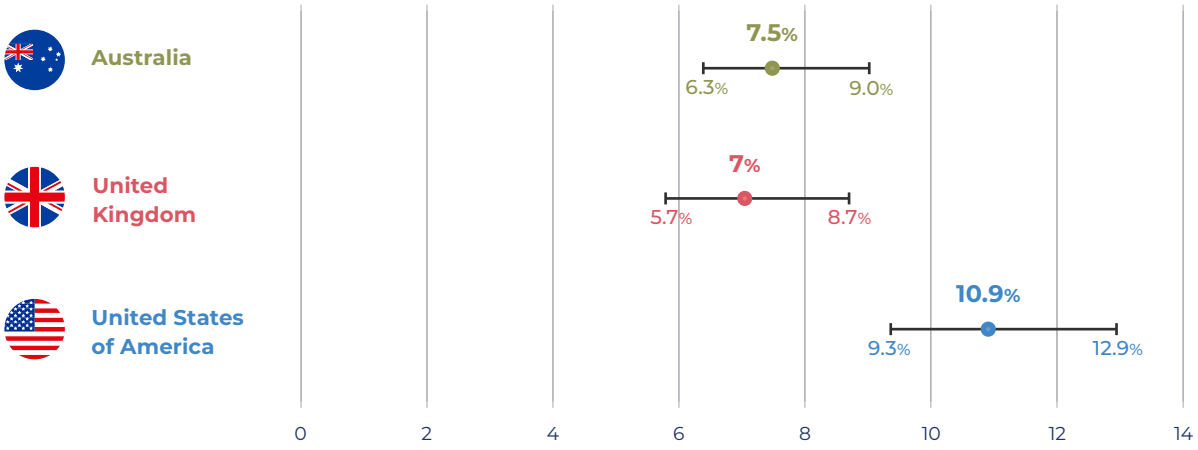
For more details on how the data for Indicator 2 was collected and analysed, and a reflection on data quality and limitations, please see the **technical note.**

Perpetration prevalence estimates by country

Graph 7

Percentage of men who have committed any form of online child sexual abuse, by country

Survey with a representative sample of 4,918 men over 18 living in Australia, the UK and the US,



Note: Error bars show the uncertainty around each estimate (95% confidence interval).
Source: Survey on the prevalence of child sexual exploitation and abuse offending 2022

Graph 7 shows the estimated percentage of men aged 18 years or older who have committed any form of online child sexual exploitation and abuse (OCSEA), for each of the three countries included in the study. Types of OCSEA measured include:

- Knowingly and deliberately viewing CSAM[5] (framed as pornography in this survey) of a person below the age of 18
- Flirting or having sexual conversations with a person below the age of 18 online
- Engaging in a sexually explicit webcam interaction with a person below the age of 18
- Paying for online sexual interactions, images or videos involving a person below the age of 18

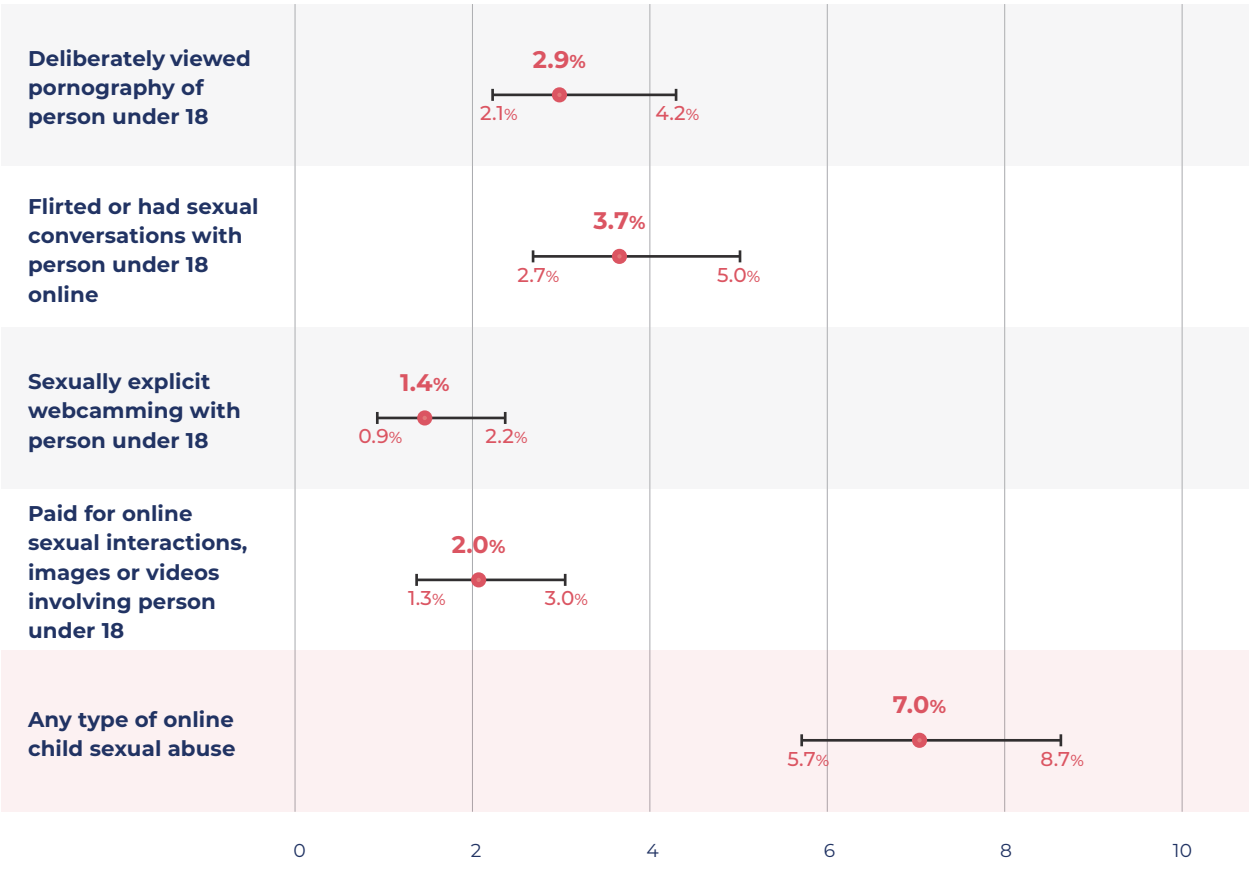
The error bars in Graph 7 show the uncertainty around each prevalence estimate for the overall population; in each graph presented in this document, the error bars are a 95% confidence interval based on the survey. The United States (US) have a higher self-reported prevalence of online perpetration than the United Kingdom (UK) and Australia. A statistical test shows that this difference is significant,[6] which means that a higher prevalence is likely to be found in the overall population and not just in the sample of men who completed the survey.

[5] Please note that the survey asked about 'pornography' and thus this term is used in various tables and graphs, however when referring to this type of behaviour, Childlight uses the term 'Child Sexual Abuse Material' as pornography is often seen to indicate a degree of mutual consent. We recognise that many jurisdictions, including countries in this study, still use the term 'child pornography' in their legislation and this was a term more commonly understood by a general population of men and hence used in this prevalence study.
[6] Wald Chi-Square 13.37; p=.001

Graph 8

United Kingdom: Percentage of men who have committed online child sexual abuse, by types of abuse

Survey with a representative sample of 1,506 men over 18 living in the UK



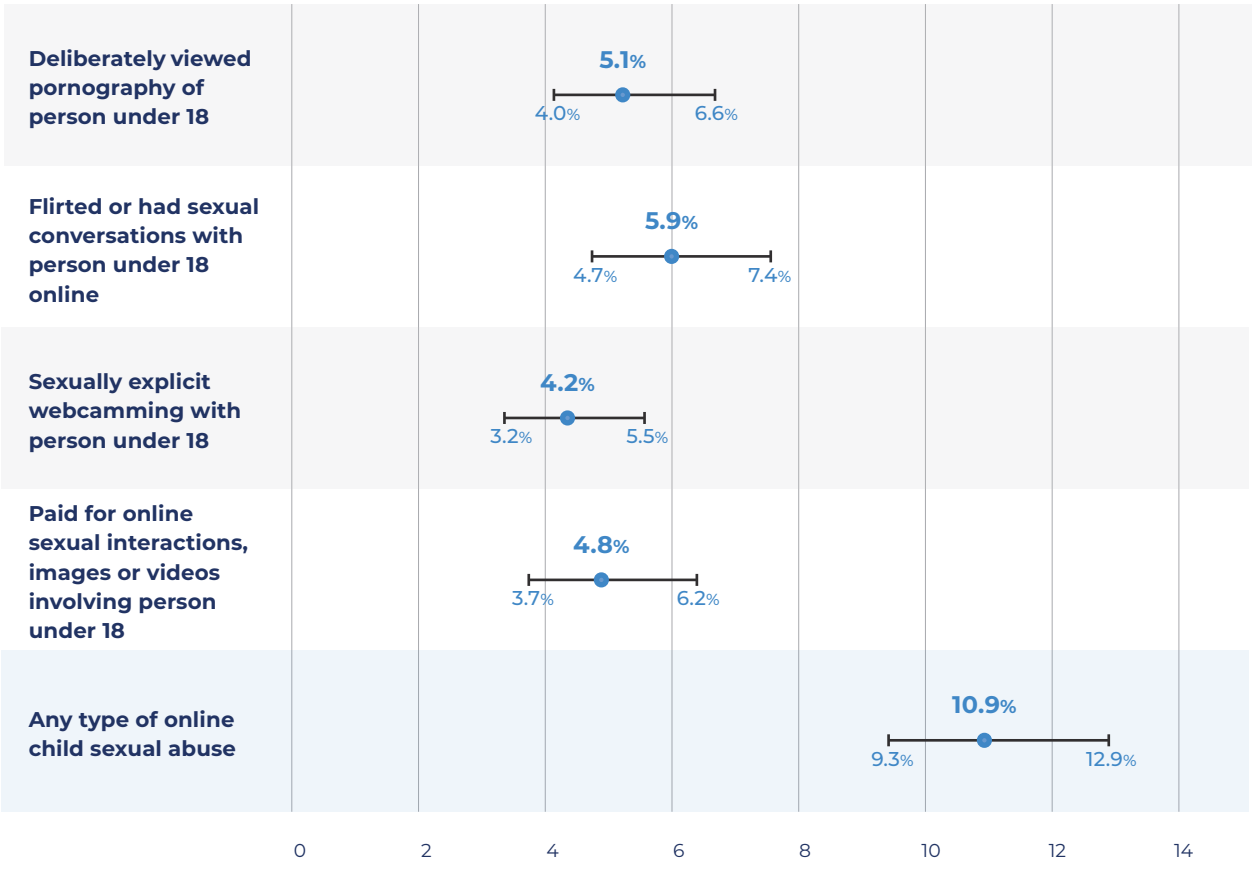
Note: Error bars show the uncertainty around each estimate (95% confidence interval).
Source: Data source: Survey on the prevalence of child sexual exploitation and abuse offending 2022

Graph 8 shows the estimated prevalence of different forms of OCSEA among men aged 18 years or older in the United Kingdom (UK). The most frequently reported type of OCSEA for men in the UK is to flirt or have sexual conversations with a person below the age of 18 online, at 3.7% with an uncertainty around this point estimate for the overall population of 2.7-5.0%.

Graph 9

United States: Percentage of men who have committed online child sexual abuse, by types of abuse

Survey with a representative sample of 1,473 men over 18 living in the US



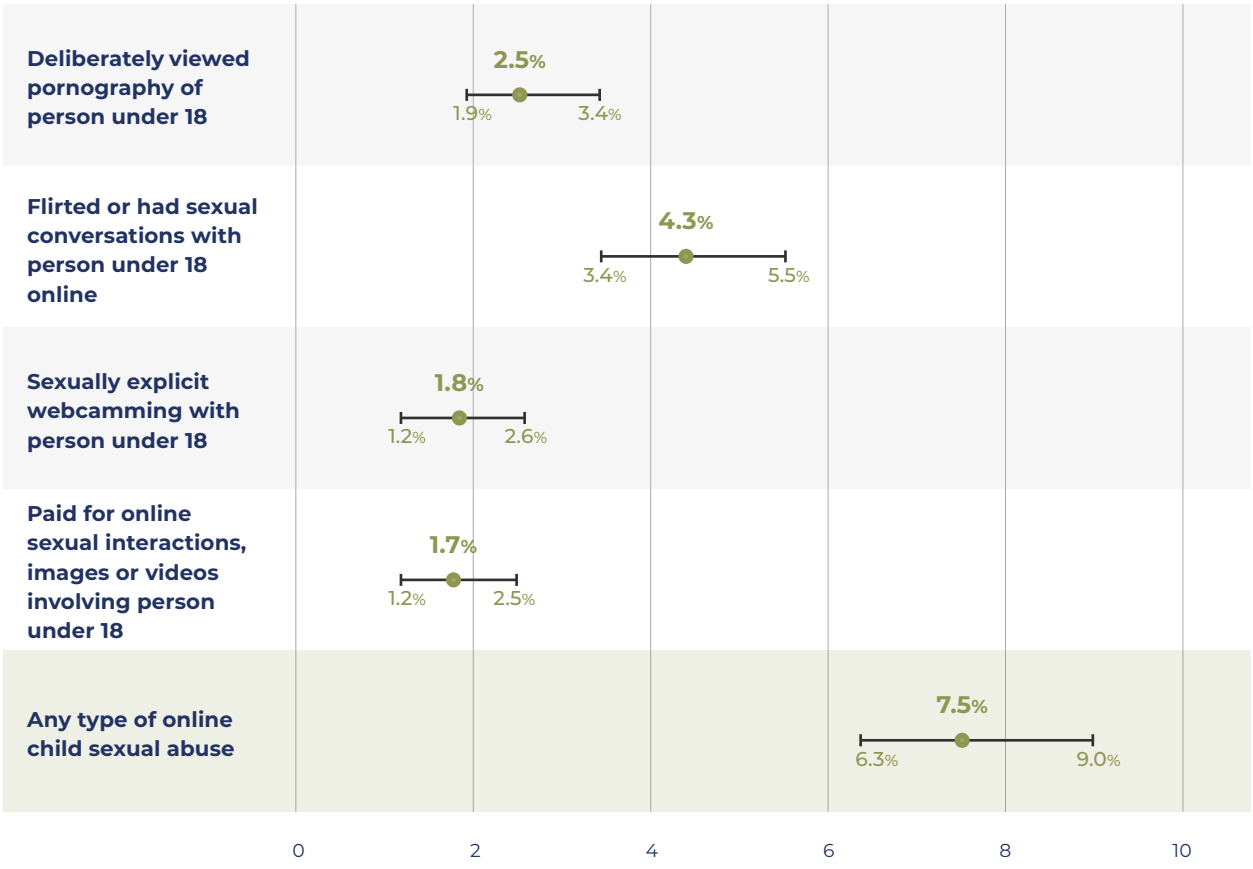
Note: Error bars show the uncertainty around each estimate (95% confidence interval).
Source: Data source: Survey on the prevalence of child sexual exploitation and abuse offending 2022

Graph 9 shows the estimated prevalence of different forms of OCSEA among men aged 18 years or older in the United States (US). Similar to the UK, the most frequently reported type of OCSEA for men in the US is to flirt or have sexual conversations with a person below the age of 18 online, at 5.9% with an uncertainty around this point estimate for the overall population of 4.7-7.4%. As was the case for the UK, we are at this point unable to establish whether the higher prevalence for this type of online perpetration reflects actual higher rates of perpetration or is due to higher rates of self-reporting for this type of abuse because it might be perceived as less severe.

Graph 10

Australia: Percentage of men who have committed online child sexual abuse, by types of abuse

Survey with a representative sample of 1,939 men over 18 living in Australia



Note: Error bars show the uncertainty around each estimate (95% confidence interval).
Source: Data source: Survey on the prevalence of child sexual exploitation and abuse offending 2022

Graph 10 shows the estimated prevalence of different forms of OCSEA among men aged 18 years or older in Australia. Similar to the UK and the US, the most frequently reported type of OCSEA for men in Australia is to flirt or have sexual conversations with a person below the age of 18 online, at 4.3% with an uncertainty around this point estimate for the overall population of 3.4-5.5%. The same caveat applies to the Australian data: it does not currently allow us to determine whether the higher prevalence for this type of online perpetration reflects actual higher rates of perpetration or is due to higher rates of self-reporting for this type of abuse because it might be perceived as less severe.

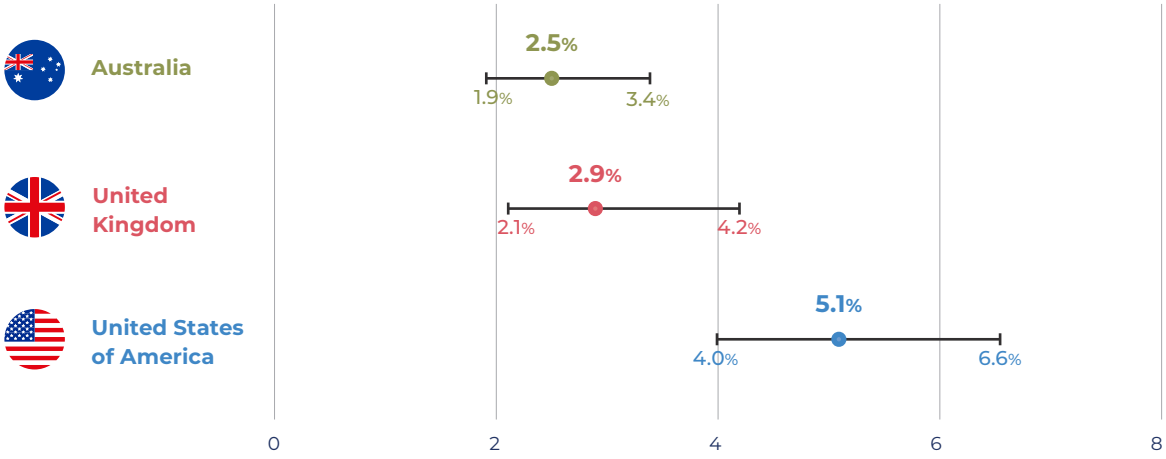
Perpetration prevalence estimates by types of abuse

Graphs 11–14 allow for a more detailed comparison of the prevalence of different types of online child sexual exploitation and abuse (OCSEA) across the three countries included in the study. These show that the higher overall prevalence of online perpetration in the US compared to the UK and Australia as seen in Graph 11 can be observed across all sub-types of online perpetration. As detailed below, statistical tests establish that these differences are significant, which means that a higher prevalence is likely to be found in the overall population and not just in the sample of men who completed the survey.

Graph 11

Percentage of men who have deliberately viewed pornography of person under 18, by country

Survey with a representative sample of 4,918 men over 18 living in Australia, the UK and the US



Note: Error bars show the uncertainty around each estimate (95% confidence interval).
Source: Survey on the prevalence of child sexual exploitation and abuse offending 2022

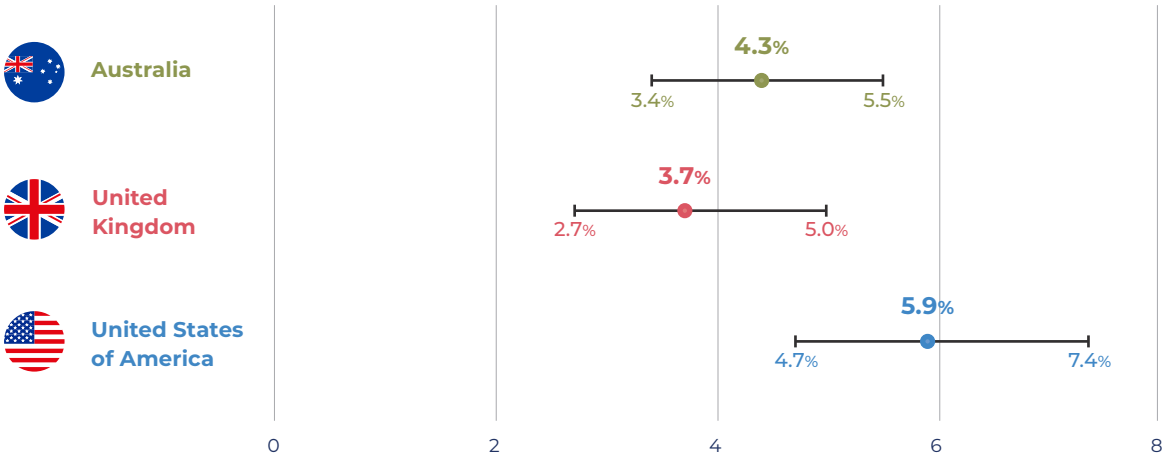
Graph 11 shows the estimated percentage of men aged 18 years or older who have knowingly and deliberately viewed child sexual abuse material (framed in this study as 'pornography') of a person below the age of 18, for each of the three countries included in the study. The United States (US) have a higher self-reported prevalence of this type of online perpetration than the United Kingdom (UK) and Australia. This difference is statistically significant.[7]

[7] Wald Chi-Square 13.99; p<.001

Graph 12

Percentage of men who have flirted or had sexual conversations with person under 18 online, by country

Survey with a representative sample of 4,918 men over 18 living in Australia, the UK and the US



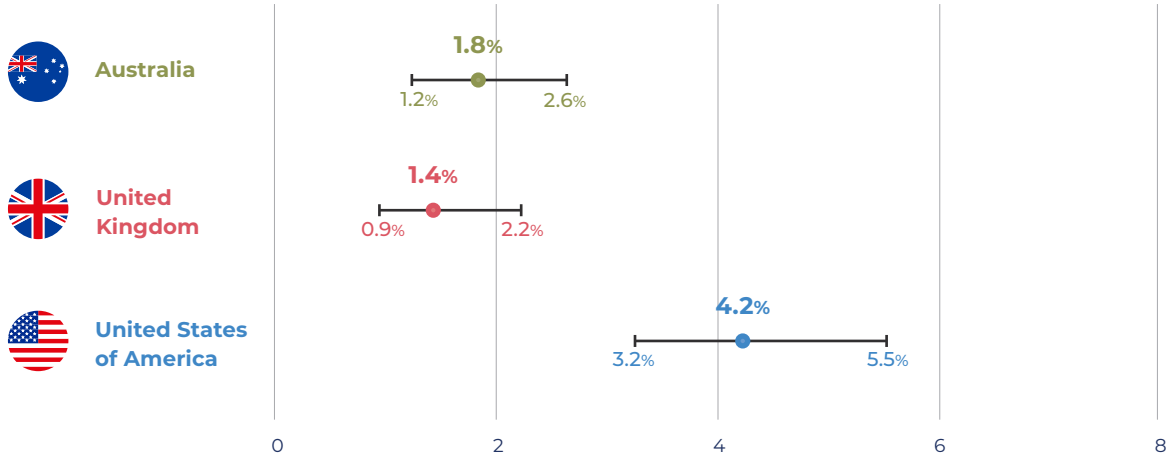
Note: Error bars show the uncertainty around each estimate (95% confidence interval).
Source: Survey on the prevalence of child sexual exploitation and abuse offending 2022

Graph 12 shows the estimated percentage of men aged 18 years or older who have flirted or had sexual conversations with a person below the age of 18 online, for each of the three countries included in the study. The United States (US) have a higher self-reported prevalence of this type of online perpetration than the United Kingdom (UK). This difference is statistically significant.[8]

Graph 13

Percentage of men who have engaged in sexually explicit webcamming with person under 18, by country

Survey with a representative sample of 4,918 men over 18 living in Australia, the UK and the US



Note: Error bars show the uncertainty around each estimate (95% confidence interval).
Source: Survey on the prevalence of child sexual exploitation and abuse offending 2022

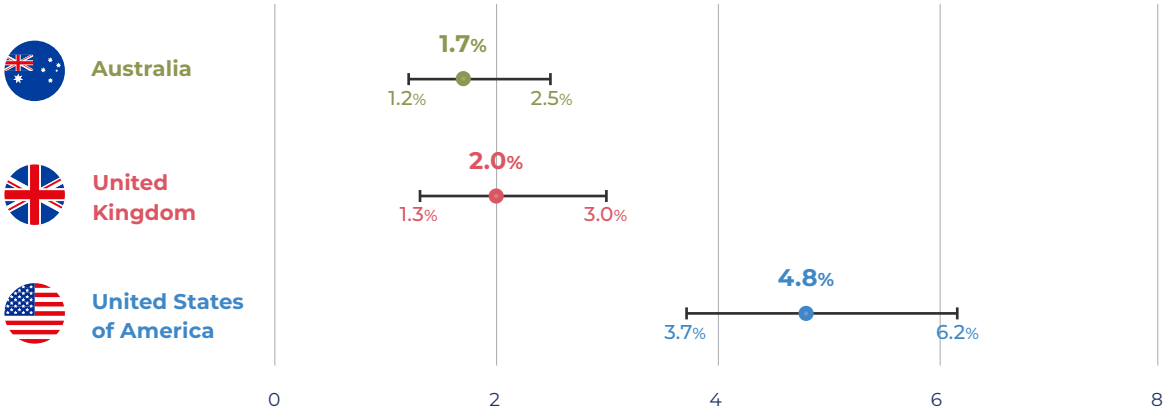
[8] Wald Chi-Square 6.74; p=.034

Graph 13 shows the estimated percentage of men aged 18 years or older who have engaged in a sexually explicit webcam interaction with a person below the age of 18, for each of the three countries included in the study. The United States (US) have a higher self-reported prevalence of this type of online perpetration than the United Kingdom (UK) and Australia. A statistical test shows that this difference is significant.[9]

Graph 14

Percentage of men who have paid for online sexual interactions, images or videos involving person under 18, by country

Survey with a representative sample of 4,918 men over 18 living in Australia, the UK and the US



Note: Error bars show the uncertainty around each estimate (95% confidence interval).
Source: Data source: Survey on the prevalence of child sexual exploitation and abuse offending 2022

Graph 14 shows the estimated percentage of men aged 18 years or over who have paid for online sexual interactions, images or videos involving a person below the age of 18, for each of the three countries included in the study. The United States (US) have a higher self-reported prevalence of this type of online perpetration than the United Kingdom (UK) and Australia. A statistical test shows that this difference is significant.[10]

Recommendations

Further work on strengthening the data foundations of OCSEA victimisation prevalence data is required, including developing standardised reliable and valid instruments and minimum standards for reporting prevalence estimates.

More gender-disaggregated data is needed for all the sub-types of OCSEA. There is a requirement for the data organisations to move towards more harmonised assessment categories and criteria in the analysis of CSAM. More prevalence data is needed, specifically in regions where evidence is limited or non-existent. More coordination and support is required between actors around removal of content online.

There are significant efforts underway in North America and Western Europe to enhance legislation pertaining to OCSEA as well as primary prevention efforts. These efforts should be promoted as a priority.

Childight is working in partnership with others to help close these data gaps, to increase understanding of the scale and nature of child sexual exploitation and abuse and to be a catalyst for global change to better protect vulnerable young people. If you have data, insights or expertise that could help please get in touch.

[9] Wald Chi-Square 6.74; p=.034
[10] Wald Chi-Square 24.38; p<.001

Conclusion

This indicator presents estimates for the prevalence of adult male perpetration of OCSEA using data from a new population-based survey on CSEA perpetration. Previous studies on perpetration have typically used either clinical samples of perpetrators who have been caught or convenience samples of perpetrators or those at risk who happen to come across the survey online. While all these data sources are highly valuable, only the population-based survey with a representative sample allows us to generalise findings to the overall population of men over 18 in each country and thus provide an estimate for the number of perpetrators in the overall population.

This indicator shows that male perpetration of OCSEA is a considerable problem and that there are significant differences between and within countries in terms of the level of perpetration of different types of online abuse. The numbers in this indicator provide highly relevant insights for policy and practice as to the scale of the risk to children and the level of need for prevention and intervention.

This is the first iteration of the indicator, and it will be further enhanced in the future using additional data and further methodological research. One aim is to provide OCSEA perpetration prevalence estimates for more countries as well as for contact perpetration that does not involve technology. We would also like to further test the survey instrument used for this indicator. Another aim is to triangulate population-based survey data with data from other sources, such as administrative data, and explore alternative methods to estimate prevalence. Each data source has different strengths and weaknesses and looking at estimates from each of them will provide a fuller, more robust understanding of the scale of OCSEA perpetration. Other avenues Childlight would like to explore include measuring peer perpetration, that is, perpetration by those who are younger than 18 themselves, and looking more closely at female perpetration.

Victim-survivors are at the heart of what we do and keeping children safe is our primary concern. Understanding the scale of the risk to children measured in terms of the number of perpetrators and potential perpetrators is in this context necessary to provide sufficient and appropriately targeted prevention and intervention on the perpetrator side.

The Global Scale and Nature of CSAM (Child Sexual Abuse Material) Online

Summary

Child sexual abuse material (CSAM) is a significant part of the sexual abuse of children online, as well as evidence of the ongoing harm to those who have been abused. This material has been described as stripping its victims of their 'dignity and humanity' and reducing their existence to the images of their abuse (Canadian Centre for Child Protection, 2018). This data often provides insights into groups that, due to methodological and ethical reasons, are not usually covered by population surveys. By investigating its nature and prevalence online, this can provide greater understanding into the long-term harms that victims of sexual abuse and exploitation face, casting light on a much-needed part of the landscape to understanding the nature and magnitude of child sexual exploitation and abuse.

When exploring the global nature of CSAM, data across multiple sources shows that the Middle East, Western Europe and North America are the regions where the most reports/removal notices are sent for law enforcement action according to population size of those countries. The data also shows a lack of report/removal notice data for all parts of Africa, the Middle East and North Africa and Latin America and the Caribbean regions, suggesting these are areas for further study and support. If we look at total number of reports across multiple data sources, South Asia and East Asia and Pacific Region receive the highest number of CSAM reports/referrals. And while East and Southern Africa and West and Central Africa receive fewer reports, these areas have lower internet penetration, and prevalence estimates reported in other parts of the index suggest these may become future hotspots as more countries come fully online.

Looking at the characteristics of CSAM, organisations found that CSAM/CSEM depicted more female victims than males, though there was disagreement as to the extent. Four out of five organisations showed data which all tended to portray younger victims.

In terms of what can be done moving forward, the first is addressing that a portion of identified CSAM remains available, as no data organisation could report that all the content they reported was taken down in the reported period. Take down of content requires effort on the part of multiple actors including those who identify the content, those who host the content and those investigating the content among others. There is a need for more coordination and support between actors around removal of content online. There is also evidence of the need for the sector to move towards more harmonised assessment categories and criteria in the analysis of CSAM.

Introduction

Indicator 3 is an indicator for online child sexual abuse material (CSAM) including images, image collections and videos that are shared online globally. It measures different aspects of the nature of CSAM globally, such as where across the world content is hosted, what we know about victim-survivors from the analysis of CSAM, and how long detected CSAM remains online after removal has been requested.

Understanding the nature of CSAM is a vital part of understanding the scale and nature of child sexual exploitation and abuse globally. More than 36 million online cases of CSAM were detected and reported between 2018 and 2022, which are included in this analysis, and they are not only lasting evidence of the sexual abuse of children but also a source of further abuse. Their existence is a continued violation of each victim-survivor's rights, and their distribution, production and monetisation represent further harm being caused to that person.

Indicator 3 is based on data from five publicly available reports on CSAM published between 2018 and 2022 by organisations dedicated to detecting and removing CSAM, including the Internet Watch Foundation (IWF), the National Centre for Missing and Exploited Children (NCMEC), the Canadian Centre for Child Protection (C3P) and INHOPE, as well as a report presenting an analysis of data from Interpol's International Child Sexual Exploitation (ICSE) database. For Indicator 3, some categories were harmonised, and some numbers were combined across reports. For a detailed description of the methods, please see the accompanying **technical note.**

While there was a unified goal across the five organisations to safeguard children and remove content, organisational and methodological differences and focus led to variation in the results of their reports. These differences should not be seen as any indication of inadequacy or inaccuracy in any of the reports; rather, they show that the different approaches look at the problem through different lenses, and that they all have something distinctive to offer in our quest to gain a better understanding.

INHOPE and IWF received reports from primarily public reporting and to a lesser extent partner companies. As IWF is a member of INHOPE network, their data is also included in the INHOPE annual report numbers. These reports consisted of concerns of OCSEA as well as the presence of CSAM online. NCMEC also received similar types of reports. However, a large majority of NCMEC's reports came from partner companies who agreed to report all online child sexual exploitation and abuse on their platform, rather than public reporting. While C3P receives reports from the public, primarily from actual victims and/or their parents, the vast majority of CSAM is discovered from search automation and drives an average of 20,000 removal notifications globally every day. Interpol is a policing organisation which has a law enforcement focus, but will also send notices to remove content to electronic service providers. Interpol's data is drawn from their archived files located in their international child sexual exploitation (ICSE) database, which houses data from Interpol's member organisations. These organisations all play a key role in safeguarding children and advocating for the removal of CSAM online. Together they have extensive coverage of the harms to children online, and are working to address the fallout as well as the ongoing risk.

For Indicator 3, reported country level data on CSAM was combined into estimates for world regions using UNICEF regional classifications in line with previous work by Childlight, discouraging potentially misleading conclusions regarding particular countries. Reported numbers for countries varied across data sources and the numbers for each country depend on a complex range of factors that require careful consideration. Thus, a higher number of reported CSAM could be due to a combination of factors including greater internet capacity and policies that facilitate detection whereas a lower number of reported CSAM could be due to factors such as the widespread use of privacy technologies, including end-to-end encryption. Notably, Indicator 3 shows the geographic location where CSAM is hosted or uploaded, which is not necessarily identical to the geographic location where the abuse has taken place or where the viewers of the image are located.

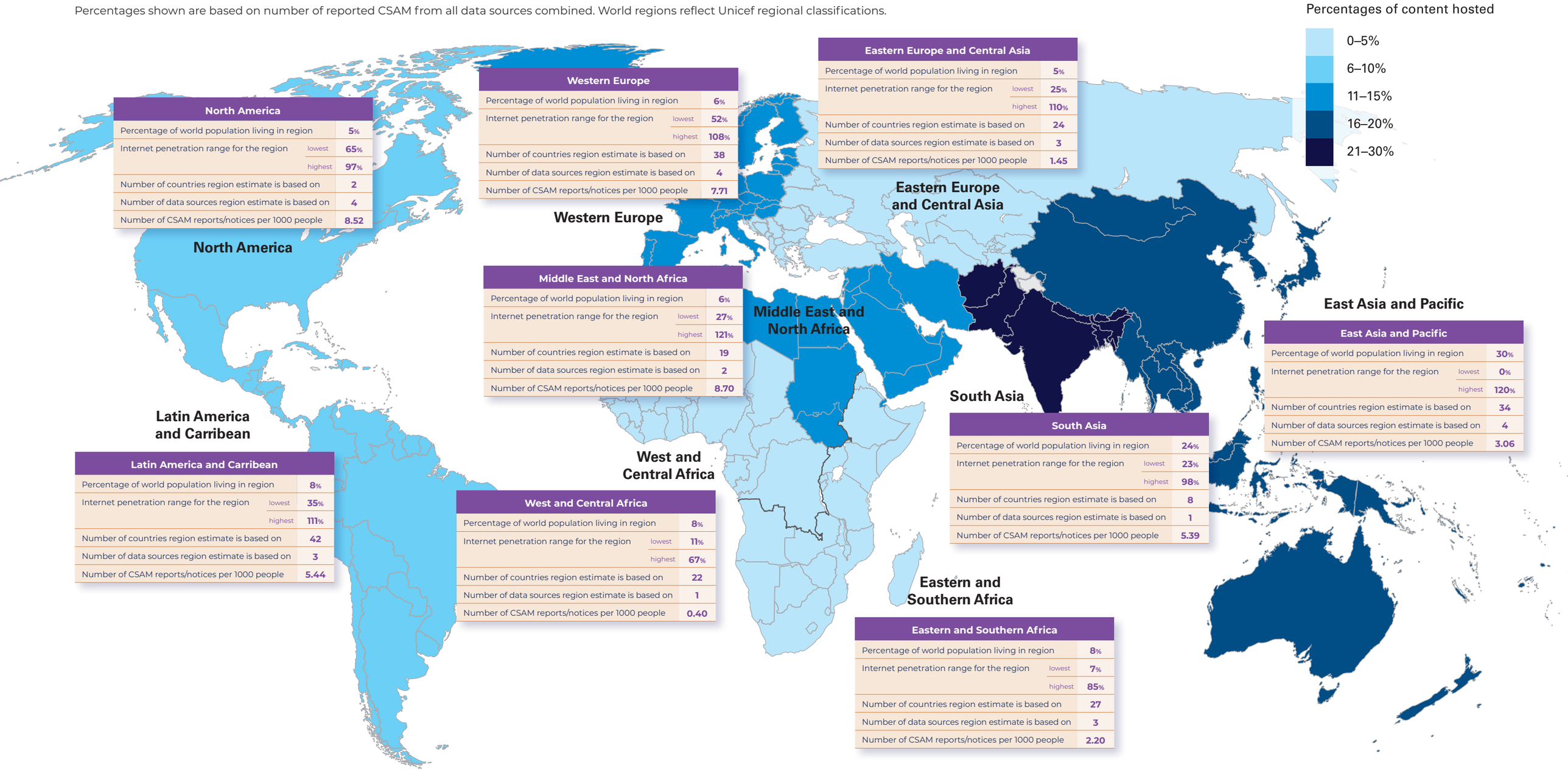
For more information about how data was collected and analysed, as well as a reflection on data quality and limitations, please see the **technical note.**

The scale and nature of CSAM

Graph 15a

Percentage of online child sexual abuse material (CSAM) hosted/uploaded across world regions

Percentages shown are based on number of reported CSAM from all data sources combined. World regions reflect Unicef regional classifications.



North America	
Percentage of world population living in region	5%
Internet penetration range for the region (lowest)	65%
Internet penetration range for the region (highest)	97%
Number of countries region estimate is based on	2
Number of data sources region estimate is based on	4
Number of CSAM reports/notices per 1000 people	8.52

Western Europe	
Percentage of world population living in region	6%
Internet penetration range for the region (lowest)	52%
Internet penetration range for the region (highest)	108%
Number of countries region estimate is based on	38
Number of data sources region estimate is based on	4
Number of CSAM reports/notices per 1000 people	7.71

Eastern Europe and Central Asia	
Percentage of world population living in region	5%
Internet penetration range for the region (lowest)	25%
Internet penetration range for the region (highest)	110%
Number of countries region estimate is based on	24
Number of data sources region estimate is based on	3
Number of CSAM reports/notices per 1000 people	1.45

Middle East and North Africa	
Percentage of world population living in region	6%
Internet penetration range for the region (lowest)	27%
Internet penetration range for the region (highest)	121%
Number of countries region estimate is based on	19
Number of data sources region estimate is based on	2
Number of CSAM reports/notices per 1000 people	8.70

East Asia and Pacific	
Percentage of world population living in region	30%
Internet penetration range for the region (lowest)	0%
Internet penetration range for the region (highest)	120%
Number of countries region estimate is based on	34
Number of data sources region estimate is based on	4
Number of CSAM reports/notices per 1000 people	3.06

South Asia	
Percentage of world population living in region	24%
Internet penetration range for the region (lowest)	23%
Internet penetration range for the region (highest)	98%
Number of countries region estimate is based on	8
Number of data sources region estimate is based on	1
Number of CSAM reports/notices per 1000 people	5.39

Latin America and Carribean	
Percentage of world population living in region	8%
Internet penetration range for the region (lowest)	35%
Internet penetration range for the region (highest)	111%
Number of countries region estimate is based on	42
Number of data sources region estimate is based on	3
Number of CSAM reports/notices per 1000 people	5.44

West and Central Africa	
Percentage of world population living in region	8%
Internet penetration range for the region (lowest)	11%
Internet penetration range for the region (highest)	67%
Number of countries region estimate is based on	22
Number of data sources region estimate is based on	1
Number of CSAM reports/notices per 1000 people	0.40

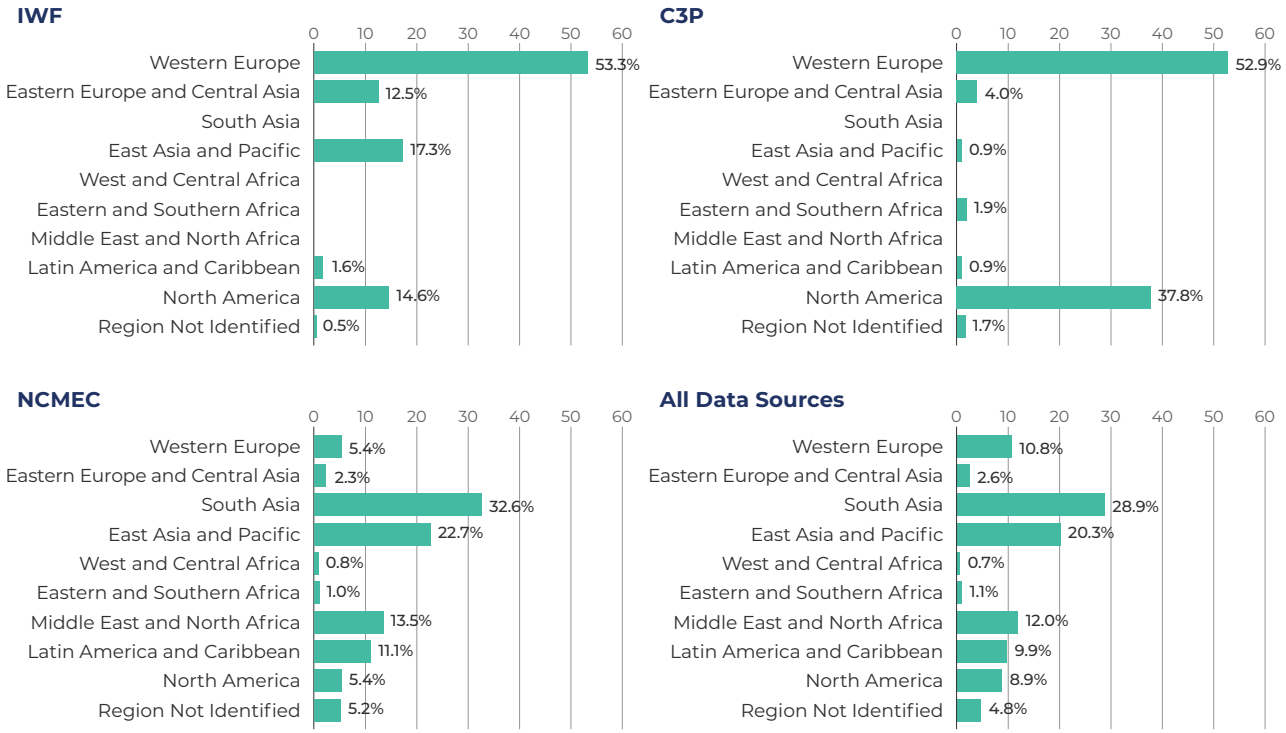
Eastern and Southern Africa	
Percentage of world population living in region	8%
Internet penetration range for the region (lowest)	7%
Internet penetration range for the region (highest)	85%
Number of countries region estimate is based on	27
Number of data sources region estimate is based on	3
Number of CSAM reports/notices per 1000 people	2.20

Note: Estimates for countries in each region can vary considerably. For 3.6% of detected CSAM, the hosting location could not be determined. Lower percentages reflect a lower level of detected CSAM; the level of undetected CSAM is unknown. The internet penetration range is impacted by users who misrepresent their physical location in order to appear to be accessing the internet from other countries; as such, the number of users may be greater than the population of a given country.

Source: IWF Annual Report 2022 | INHOPE Annual Report 2022 | C3P Project Arachnid Report 2021 | NCMEC 2022 CyberTipline Reports by Country
World Internet Usage and Population Statistics 2023 Year Estimates | United Nations, World Population Prospects 2022, Online Edition | Unicef regional classifications

Graph 15b

Percentage of online child sexual abuse material (CSAM) hosted/uploaded across world regions, by data source



Note: Estimates for countries in each region can vary considerably. Lower percentages reflect a lower level of detected CSAM; the level of undetected CSAM is unknown.
Source: IWF Annual Report 2022 | INHOPE Annual Report 2022 | C3P Project Arachnid Report 2021 | NCMEC 2022 CyberTipline Reports by Country | World Internet Usage and Population Statistics 2023 Year Estimates | United Nations, World Population Prospects 2022, Online Edition | Unicef regional classifications

Graph 15a shows a map of the world with the percentage of reports/notices of CSAM sent by each organisation to law enforcement in the countries falling within UNICEF world regions. Additionally, Graph 15b shows stacked bar graphs with the breakdown per world region by data source. Four of the five data sources provided country specific data concerning presumed or verified location of material/abuse. The assessed report locations varied across data sources, which is likely due to differences in how each organisation collects and analyses content. The difference may also be due to the physical location of the organisations which may receive more reports from their country and countries nearest to them due to awareness of their existence. This data was separated and collected when a location was included in at least two different data sources. As NCMEC reported figures for almost every country/jurisdiction across the world, the countries which did not appear in another data set were collected and reported solely from NCMEC data. Due to NCMEC's volume of cases it should be noted that their reports are sent based not only on the host location, but where geographic indicators suggested the CSAM was uploaded.

It should be noted that organisations varied in their reporting of countries and, as such, certain geographical areas were grouped together according to the United Nations assessment of world countries. This was to remain in line with other work published by Childlight and to present the regional data in a way that would be useful for programming.

Following data analysis, it was determined that South Asia and East Asia Pacific made up the largest portion of the total volume of reports which included data from IWF, C3P and NCMEC. Western Europe was the most common report/notice location when looking at the data sources excluding NCMECs 32 million reports. The least common regions were Western and Central Africa and Eastern and Southern Africa, which both have an average of 1% of reports/notices sent to these regions. An additional calculation was generated to produce a CSAM rate. This calculation showed when factoring in population the volume of reports received by regions, The Middle East and North Africa received almost 9 reports per 1000 people, with similar numbers for North America. Western Europe received close to 8 reports per 1000 people.

When looking at individual countries, in the IWF, C3P and INHOPE datasets, there was a tendency for CSAM notices to Electronic Service Providers (ESPs) to be sent to locations in either the Netherlands or the United States.

It should be noted that where countries have high numbers of reported CSAM notices or actionable reports, it is not necessarily an indication of the true prevalence of sexual abuse of children or collection of CSAM. The data may reflect political or systemic issues in those regions or a greater capacity in internet use/presence. As countries vary in terms of their infrastructure, laws and services available, this may also have had an impact on the number of reports that were labelled as actionable for law enforcement. However, this data is important to understand what data law enforcement may be receiving and thus be able to action.

Countries or regions with high numbers may not necessarily be places where people are making or viewing more CSAM. Rather differences in scale may reflect a variety of other regional factors like:

- Level of Internet penetration
- Location or cost of servers
- Laws that influence server location or CSAM reporting mandates
- Levels of law enforcement activity or public knowledge around CSAM
- Location of the agencies collecting or searching for images

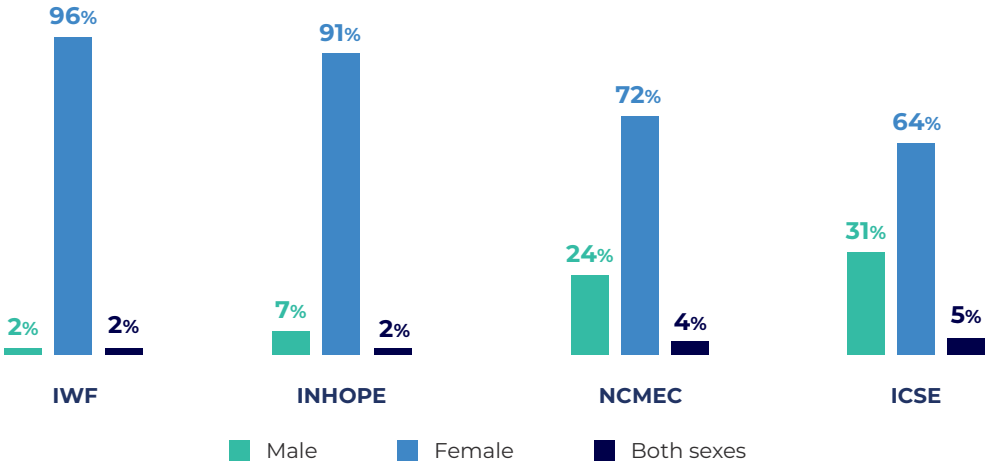
It is difficult with our current knowledge to say whether a larger rate is a relatively positive indicator, suggesting aggressive detection, or a negative indicator indicating a bigger problem. It may be both. The main point of maps like this is to highlight that countries in all regions of the world have activity relevant to the CSAM problem and its eradication.

More work is needed to develop a systematic and standardised method of how to apportion and interpret agency-collected counts of CSAM.

Graph 16

Percentage of sex of victims show in detected child sexual abuse material (CSAM) online, by data source

Percentage breakdown for each organisation reporting publicly on CSAM



Note: Showing sex of victims as identified by CSAM analyst.
Source: IWF Annual Report 2022 | INHOPE Annual Report 2022 | NCMEC 2022 CyberTipline Reports by Country | INTERPOL and ECPAT report on ICSE data 2018

Graph 16 shows a percentage breakdown of the sex of victims shown in detected CSAM for each dataset that contained this information. While there was agreement about the overall trends between the sex of victims depicted, there were notable differences in the percentages of each category of victim sex reported between the data sources. Across these data sets it was the universal that the most common sex for the victim(s) was assessed to be female-only. Another area of perceived agreement between organisational reports was in the similarity in the portion of media that depicted victims of both sexes. This content was found to make up between 1% and 5% of all CSAM assessed. The data showed variation in the numbers for male-only CSAM victims. Both the male-only and female-only percentage differences varied considerably between reports. The differences between data sources may be due to the fact that NCMEC and Interpol data was based on smaller sample analysis of identified victims only, which may point to a more equal depiction of both sexes in CSAM.

Sex differences based on source may have to do with factors including:

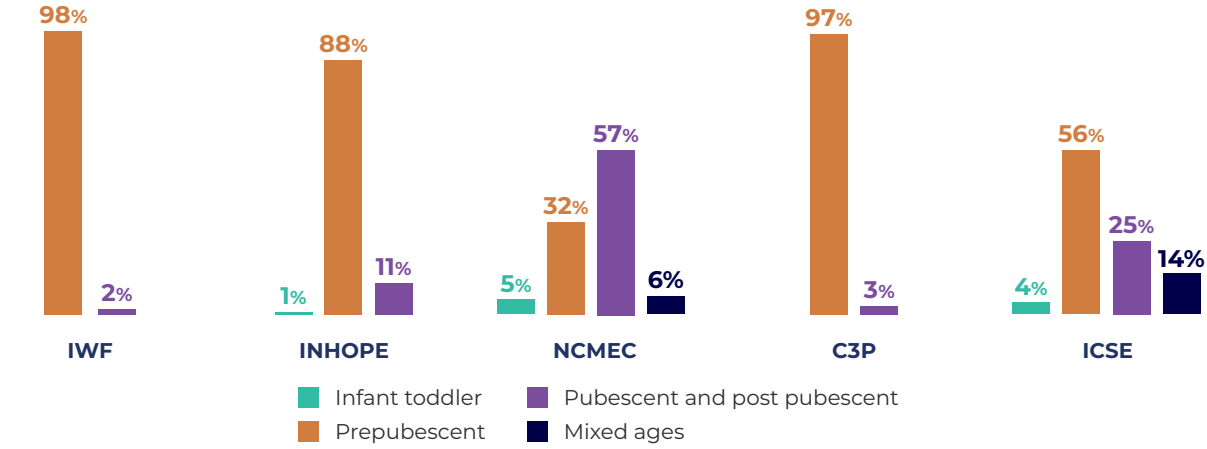
- In what places or servers boys may be more represented
- Law enforcement priorities in different agencies or regions
- Criteria for defining CSAM
- Changes over time in sex proportions due to new abuse dynamics

This difference suggests further research is required into understanding the characteristics of CSAM victims in terms of sex and the way in which CSAM victims' sex may differ by the method of their abuse.

Graph 17

Percentage of age of victims shown in detected child sexual abuse material (CSAM) online, by data source

Percentage breakdown for each organisation reporting publicly on CSAM



Note: Showing age of victims as identified by CSAM analyst. Age groups have been harmonised across data sources by Childlight.

Source: IWF Annual Report 2022 | INHOPE Annual Report 2022 | C3P Project Arachnid Report 2021 NCMEC 2022 CyberTipline Reports by Country | INTERPOL and ECPAT report on ICSE data 2018

Graph 17 shows a percentage breakdown of the age of victims in detected CSAM for each dataset that contained this information. It is notable that there were differences between the data organisations in terms of the percentage of content that fell into the two categories. Four of the datasets, produced by IWF, C3P, INHOPE and Interpol's ICSE database, indicated that there were more victims from the "prepubescent" stage compared with the "pubescent and post-pubescent" stage. Content depicting children who were "prepubescent" corresponds to an approximate age range of 0-13 years while those assessed to be in the "pubescent/post-pubescent" category were 14-17. This was in accordance with a study by Hamlin et al. (2022), which notes that puberty typically begins between the ages of 8-14 which suggests that having the outer age limit of "prepubescent" be up to 13 years of age while the remaining ages of 14-17 would be "pubescent and post-pubescent". It should be noted that the article indicates the age of onset of puberty which typically occurs over a period of years, though we recognise this will be different for every child. Four of the organisations provided a separate category for victims who appeared to be aged two and under. This is an important statistic as material depicting this age category is one of the only data sources available on OCSEA in the early years and Childlight is working on future indicators to highlight CSEA in the early years.

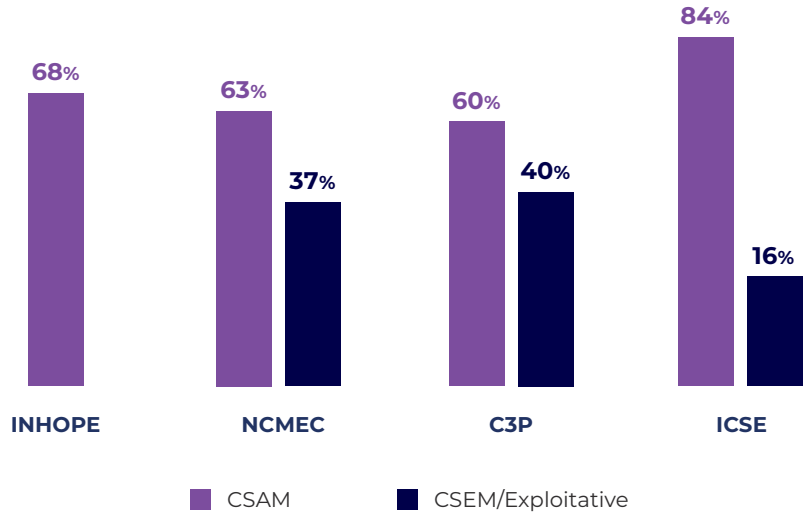
Victim age is one of the most difficult CSAM elements to assess. This is not just because victim age is difficult to judge from an image. The fundamental age verification problem is that post-pubescent minors cannot be reliably distinguished from young adults. Thus, the criminal status of post-pubescent images is difficult to confirm. As a consequence, many criminal images of post-pubescent minors are not reported, not classified as CSAM, and not counted in data collections.

Recent studies suggest that images of post-pubescent minors are widespread and rapidly increasing. But this reality and the associated trends may not be reflected in police and agency counts that must ascertain the illegality of an image.

The solution to this dilemma comes from looking at multiple sources of data together, such as through all the *Into the Light Index* indicators as each data source will have limitations to measurement in this area. Stronger data sources for adolescents will often be victim surveys, whereas strong data sources for victimisation of younger children may come from agency-reported CSAM detection.

Graph 18 Percentage of child sexual abuse material (CSAM) by severity of abuse shown, by data source

Percentage breakdown for each organisation reporting publicly on CSAM



Note: Showing severity of abuse as classified by CSAM analyst. Severity classifications have been harmonised across data sources by Childlight. Illegal CSAM meets the widely accepted definition of illegal child sexual abuse material whereas harmful material may not meet the international illegal threshold but is harmful to the specific child depicted or children in general.

Source: INHOPE Annual Report 2022 | C3P Project Arachnid Report 2021 | NCMEC 2022 CyberTipline Reports by Country | INTERPOL and ECPAT report on ICSE data 2018

Graph 18 shows a percentage breakdown of the severity of the abuse in detected CSAM. This was namely whether it was determined that the content was assessed to be illegal across most jurisdictions, coined as the Baseline by Interpol and used by INHOPE. Alternatively, content classified as CSEM (child sexual exploitation material which is often viewed as a form of CSAM) would include images of child nudity, as well as harmful or exploitative material involving children. This content may still be illegal in many jurisdictions. It should be noted that all the content reported or being subject to a sent notice depicts harm done to a child or children. As such, Childlight supports the removal all of content falling into both categories, regardless of illegality.

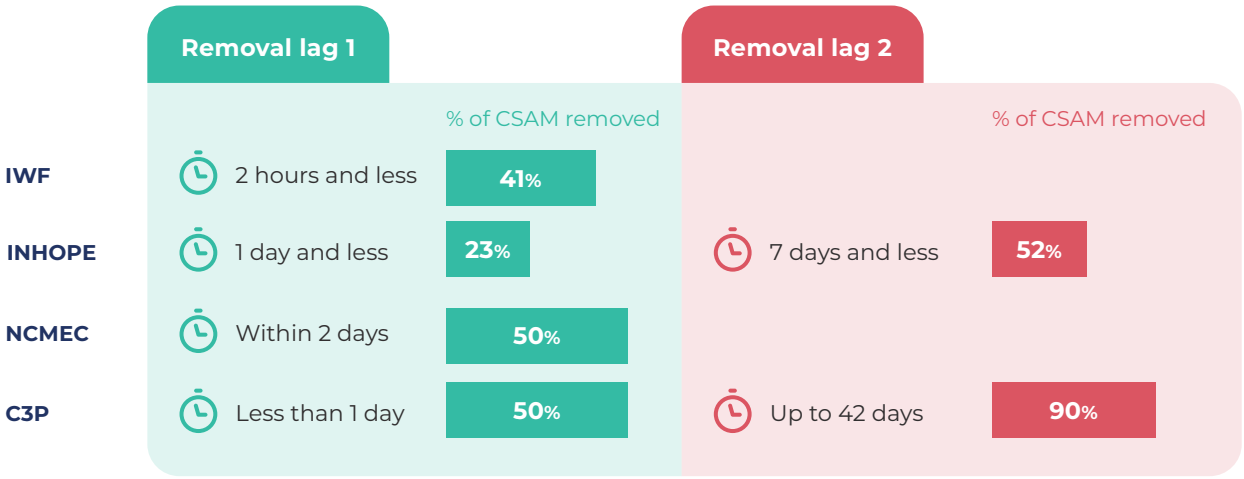
Classification of the abuse depicted in CSAM was categorised in different ways across data sources, making it difficult to compare the multiple sources of data. In the past year there has been a proposal for a global classification system to allow data across organisations to be more comparable (see INHOPE Universal Classification Schema, 2023). For this index, Childlight has grouped classifications into two categories:

- CSAM (notices and reports sent that meet the widely accepted definition of illegal child sexual abuse material), and
- CSEM, harmful and exploitative material (content that may not meet the understood international illegal threshold but may be illegal in certain countries and region and is nevertheless harmful to the specific child depicted or children in general).

IWF indicated that in the country in which they are based, the United Kingdom, all their reported content is considered illegal CSAM and would therefore be 100% of the reported content as CSAM. IWF is required to send any reports assessed to be from outside the UK (United Kingdom) to their partners through INHOPE.

Graph 19 Removal Lag: time taken between request to remove CSAM and CSAM actually being removed

Percentiles for each organisation publicly reporting CSAM removal times



Note: Reported removal time have been harmonised across data sources by Childlight.
Source: IWF Annual Report 2022 | INHOPE Annual Report 2022 | C3P Project Arachnid Report 2021
NCMEC 2022 CyberTipline Reports by Country

Graph 19 shows the removal times reported by the four organisations who are tasked with removal efforts. The removal time is the time it takes from when an organisation sends out a notice asking for CSAM content to be removed and the content actually being taken down. Removal notices differ by organisation but typically include reference to the location of the content online as well as which specific images meet the varying illegal thresholds for the various countries. These notices are typically sent to the host of the website or, at times, the listed owners of the webpage, which necessitates a level of cooperation between hotline organisations and electronic service providers.

Within a week over 50% of material (videos and pictures of child sexual abuse), from a total of over 36 million reports/notices, was removed across all datasets; two of the organisations reported that this occurred in under a day. It took between seven and 42 days for Electronic Service Providers (ESPs) and hosting providers to remove over 75% of the reported content by INHOPE and C3P from over 35 million reports/notices while a portion of the content continues to remain available. As none of the data sources was able to provide a specific indication of when all the reported content was removed, this reflects the reality that some CSAM may still be in the process of removal with the organisations when cited in their reports (2018-2022). It also reflects the constant nature of monitoring and responding to reported CSAM sightings and the subsequent tireless efforts to remove this content. It is important to note that this is not a result of ineffectiveness by the reporting organisations but is often due to other barriers within the system including legislative and law enforcement requirements, the responsiveness of the recipient electronic service providers and the coordination and working relationship between the various actors, among other factors.

Report times provided by IWF were measured in minutes rather than days as they only provided removal time for notices sent in the United Kingdom where IWF note there is a conscious effort by their organisation and the government to make the UK a “hostile place” for CSAM to be hosted. This, coupled with their multi-pronged approach to alerting service providers of content on their platform, could be the reasons that they are able to report significantly shorter removal times. The passing of the UK’s Online Safety Act in 2023 aims to protect users from exposure to CSAM through a variety of mechanisms.

Conclusion

This indicator is the first of its kind, bringing together the publicly available data concerning CSAM and, as such, providing the first central and comparable set of characteristics. It provides a comprehensive picture of the scope and nature of CSAM globally in 2023.

The data highlights the global nature of the problem as well as its relevance to all involved, whether it be policymakers, governments, social services, educators, caregivers and, most importantly, children. The hope is to encourage further investment in identifying the victims of the abuse/exploitation depicted and the removal of the content altogether. The data indicates there is child sexual abuse material being exchanged, stored, accessed and created in many regions and a large range of countries. It is evidence of children being sexually abused and exploited. As stated at the beginning, child sexual abuse material represents a continued violation of the rights of the children depicted and should be removed as quickly as possible, and those who produce and host such material to be held accountable.

This is the first iteration of this indicator which will continue to be enhanced by further analysis and additional data. Childlight is working with the data owners in this space and is exploring further indicators to track in this area. We will continue to work towards further cooperation to better represent the scale of this problem globally, regionally and at a country level using multiple sources of data. This indicator provides important insights into the nature of the problem and where there are gaps in support for the victims of child sexual abuse and exploitation.

CSAM exists online because it is allowed to exist. Together, we can work to create safe online environments where this content is no longer available, and towards primary prevention of CSEA and improved safeguarding for victims.

Discussion – Towards a holistic view of OCSEA prevalence

Our Index highlights that OCSEA is prevalent in every country where it is measured and that many data gaps still exist.

This first global index, with victimisation data based on 88 sources and 125 studies with representative samples from 57 countries, indicates that 1 in 8 children globally (12.6%) have been victims of non-consensual taking, sharing and exposure to sexual images and video when measuring the past year recall. Almost the same proportion (12.5%) was subject in the past year to online solicitation, such as unwanted sexual talk which can include non-consensual sexting, unwanted sexual questions and unwanted sexual act requests by adults or other youths. Based on the victimisation survey data and using global population figures of children under the age of 18,[11] that would point to at least 300 million children being affected by these abusive behaviours in the past year. Our data also shows that millions of men are engaging in online offending in just the three countries of USA, UK and Australia alone. We found that 1 in 9 men in the US (11%) and 1 in 14 men in each of the countries of the UK and Australia (7% and 7.5%) report that they have engaged in online behaviours that could be classed as online child sexual abuse offending at some point in their lifetime.

When we look at the data around abusive images and videos that are detected online, we see visual representations of abuse, with over 36 million reports/notices in our analysis of Child Sexual Abuse Material (CSAM) sent by key detection and content take-down organisations (e.g., Canadian Centre for Child Protection (C3P), the Internet Watch Foundation (IWF), INHOPE and the National Center for Missing and Exploited Children (NCMEC)) with what we know will be an exponentially larger number of people viewing and sharing this abusive content globally.

By bringing these three indicators and their respective data sources together, we can see new insights emerging on the scale and nature of OCSEA that have been obscured previously by viewing data in silos. This is because each data source has its own limitations. Victimisation prevalence survey data will naturally skew to adolescent populations because of what we know about recall and the ethical and methodological challenges of surveying younger children; perpetration data may be underreported because of the illegal nature of the behaviours; and big CSAM data will skew to younger populations because of the visual element of victim age identification that presents challenges with adolescents. **Each of these data sources represents only a piece of the puzzle – and the *Into the Light Index* brings these together for the first time globally.** We will also continue to track these indicators over time.

Some key findings across the indicators include:

Prevalence measurement of both OCSEA victimisation and perpetration is in its infancy. Most data previously about general CSEA perpetration has been drawn from forensic samples with relatively few community-based prevalence studies and studies with samples that are representative of the overall population. The estimates in the index are based on the first population-based survey with representative samples of men over 18 in the UK, the US and Australia. Much work still needs to be done in this area of measurement including testing survey instruments, understanding reporting behavioural patterns, as well as ways to ethically implement surveys in jurisdictions with very different child protection systems. To target prevention effectively, we need to know about perpetrator behaviours and thus representative

[11] See UNICEF for global population figures of children under the age of 18: https://data.unicef.org/how-many/how-many-children-under-18-are-in-the-world/

data in this field is needed. Future methodological and prevalence work in this area should be encouraged. Similarly, data on online victimisation is also in a nascent stage but there are several high-quality examples – many of which form the overall global prevalence estimate that we report in this index – including the Disrupting Harm Surveys,[12] as well as the work of Prof David Finkelhor and colleagues in the United States[13] which have set the stage for strong data foundations for online victimisation prevalence measurement.

There is a need for the data organisations to move towards more harmonised assessment categories and criteria in the analysis of CSAM. Several actors are working on detecting and taking down CSAM content in collaboration with law enforcement and other child protection professionals globally. Each of these organisations and agencies collects and classifies CSAM in different ways. More investment is needed to harmonise these data sources so that these are comparable to each other. Building on the good work of organisations like INHOPE with their Universal Classification Schema,[14] this is an area where future work could significantly enhance our understanding of the global picture on the magnitude and nature of child sexual abuse material online.

Middle East and North Africa region receives the highest CSAM hosting notices/reports per population size with 9 notices per 1,000 people (UN, 2022), more than any other region according to the limited data available but is lacking in all sources of OCSEA data overall. The CSAM rate compares the number of CSAM reports/notices sent by IWF, NCMEC and C3P to countries in each region with the estimated total population of each region in 2022, expressed as the number of CSAM reports per 1,000 people. For the population size, the Middle East and North Africa region is the highest for CSAM hosting. This is an important finding as all other data is lacking for the region and efforts should be made to enhance other data sources such as population surveys of both victimisation and perpetration prevalence.

North America and Western Europe are two UNICEF regions where CSAM rate is also high, from multiple CSAM data sources, and is also where image-based CSEA victimisation and OCSEA perpetration prevalence estimates are higher. Thus, while by sheer volume South Asia and East Asia and Pacific Region have the largest number of CSAM reports, these regions also hold 54% of the world population. When we standardise by population size, we see North America and Western Europe are in the top 3 regions (after Middle East and North Africa) for highest CSAM rate.

In representative surveys of victims, North America and Western Europe regions also report some of the highest prevalence estimates of non-consensual taking, sharing and exposure to sexual images and videos for children for past year recall; North America (and in this instance specifically the United States) 23% [95% CI: 20.9, 25.1]; followed closely by Eastern Europe and Central Asia 20.2% [95% CI: 10.8, 34.7]; Western Europe 19.9% [95% CI: 15.9, 24.6] and then Latin America and Caribbean region 18.2% [95% CI: 7.2, 38.8]. Men in the United States also report more frequent offending behaviours against children compared to the UK and Australia. There are significant efforts underway in both these regions to enhance legislation pertaining to OCSEA as well as primary prevention efforts; these efforts should be promoted as a priority.

Eastern Europe and Central Asia reports one of the highest prevalence estimates of non-consensual taking, sharing and exposure to sexual images and videos than other UNICEF regions. Based on six representative studies from Turkey, Bulgaria, Romania, Montenegro, Croatia and Serbia, the regional child victim prevalence estimate for past year image-based child sexual abuse was found to be 20.2%, second only to North America. However, it is important to note that the confidence interval was wider ranging from 10.8% to 34.7% suggesting there may be variation seen across countries in the region.

[12] See the Disrupting Harm Surveys body of work here: https://safeonline.global/disrupting-harm/
[13] Finkelhor D, Turner H, Colburn D. Prevalence of Online Sexual Offenses Against Children in the US. JAMA Netw Open. 2022;5(10):e2234471. doi:10.1001/jamanetworkopen.2022.34471
[14] See InHope's Universal Classification Schema here: https://inhope.org/EN/articles/what-is-the-universal-classification-schema

Asia – specifically South Asia, and East Asia and Pacific regions – have the highest total number of CSAM reports when combining the four major global data sources. In addition, over 1 in 10 children in the East Asia and Pacific region report past year online sexual solicitation, whereas representative prevalence data is severely lacking in the South Asia region.

Four of the major global data sources on CSAM (IWF, NCMEC, C3P, and INHOPE), when combined, show that the total number of CSAM reports detected/received are highest for South Asia followed by the East Asia and Pacific region. It is important to note that these two regions are also very large in terms of population size – housing 54% of the global population between the two.

In addition, eight studies that are representative at national or subnational population level in Australia, Malaysia, Philippines, Cambodia, Thailand, Indonesia, and Viet Nam found the past year prevalence for online sexual solicitation of children in the East Asia and Pacific region to be 13.0% (95% CI: 9.2, 18.1). By stark comparison to other regions, our systematic review found only one representative survey that reported any online victimisation questions for the South Asia region and further effort is urgently needed to fill the data gap in this region.

Prevalence of online solicitation is highly reported by children in the East and Southern Africa and West and Central Africa regions and, with internet penetration lower in these regions, they represent potential future hotspots for growing OCSEA victimisation in the future. Significant effort has been made through Disrupting Harm and other survey efforts to increase the number of representative studies of OCSEA in Africa. These studies have shown reported victimisation prevalence for online solicitation, which includes unwanted sexual talk which can include non-consensual sexting, unwanted sexual questions and unwanted sexual act requests by adults or other youth (known or unknown). What is interesting is that CSAM data is much less frequently detected and/or reported to and from the Africa subcontinent from all CSAM data sources compared to other regions. However, we also know these regions have lower internet penetration than other areas. This suggests that as these regions start to come online more, they may become hotspots for future OCSEA victimisation and CSAM.

Although, there is still very limited evidence on online sexual exploitation and sexual extortion coming from nationally representative surveys, the Eastern and Southern Africa region shows the highest prevalence of these two types of OCSEA for the past year recall, 7.0% (95% CI: 5.2, 9.2) and 5.4% (95% CI: 3.8, 7.6) respectively. These region prevalence estimates are based on the Disrupting Harm survey that asked children about experiences of monetary and/or non-monetary (e.g., gifts) offers in exchange for sexual images, videos or sexual acts; and the use of threats/blackmail to engage them in sexual activities.

There appears to be no statistically significant difference between the experiences of girls and boys with respect to online sexual victimisation from representative surveys. However, girls appear more in child sexual abuse material online according to all of the data sources which provided this analysis. Out of the 15 studies that reported an overall estimate measuring mulitple sub-types of OCSEA for past year recall, 11 studies provided complete data stratified by gender (three studies did not report sample size for males and females). In absolute terms, slightly more girls than boys were affected by online sexual exploitation and abuse (8.7% and 7.5% respectively), but this was not a statistically significant difference. This is an unusual finding as in most studies about sexual abuse and sexual victimisation, girls generally outnumber boys by a large amount. There are several issues to consider in interpreting this finding. A large number of the gender comparison statistics (9 out of the 11) come from one questionnaire design, that of the Disrupting Harm initiative (UNICEF Office of Research – Innocenti, 2022). According to their latest report summarising findings from 12 countries, the differences in reporting sexual abuse by girls and boys are relatively small, which may indicate that “girls and boys are experiencing online sexual exploitation and abuse in fairly equal proportions” (UNICEF Office of Research – Innocenti, 2022; p. 3). This finding is replicated by our global systematic review and meta-analysis however,

more gender-disaggregated data on types of online sexual victimisation and the various sub-types is needed globally before concluding the relationship between gender and OCSEA.

The analysis of the gender of CSAM victims is entirely based on the visible sexual characteristics of the victim as assessed by the analyst and does not consider a victim's gender identity. All data sets reported more female victims depicted in CSAM, although how marked the difference was varied across data sets. The two data sets that reported the smallest gender difference were those whose analysis was based on a sample of CSAM depicting known and identified victims. More analysis will be required to understand the reasons behind this variation and gender differences in the prevalence of OCSEA more generally.

Overall, there is a lack of report/removal notice data for CSAM for all parts of Africa and this, combined with lack of prevalence data for the Middle East and North Africa and Latin America and the Caribbean, suggests these are regions for further study and support. This inaugural index points us starkly to where the evidence gaps exist – for key global regions and for disaggregated levels of prevalence data (such as by age and sex/gender). As this index is a baseline, it is hoped that major data initiatives and Childlight's own work can help fill these gaps in future iterations of the index as every child, no matter where they live, deserves to live a life free from CSEA.

In summary, the *Into the Light Index* provides for the first time, a more holistic view of OCSEA prevalence globally. We see interesting differences emerge across regions that calls for further research and targeted prevention and response.

Graph 20 At a Glance Regional Prevalence Findings from Childlight's Into the Light Index

OCSEA

is prevalent in every country where it is measured.

300 million+

children under the age of 18 have been affected by online child sexual exploitation and abuse in the last 12 months.

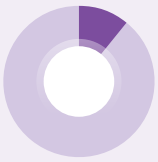
1 in 8

children globally have been subjected to online solicitation in the last 12 months, such as unwanted sexual talk, which can include non-consensual sexting, unwanted sexual questions and unwanted sexual act requests by adults or other youths.

1 in 8

children have experienced non-consensual taking, sharing and/or exposure to sexual images and videos in the last 12 months.

11%



of men in the United States, 7% of men in the UK and 7.5% of men in Australia report that they have engaged in online behaviours at some point in their lifetime that could be classed as online child sexual abuse offending.

Recommendations and Conclusion

Online child sexual exploitation and abuse is a global problem – prevalent in every country where it has been measured – and our response and prevention must also be globally enacted and locally informed.

This index is the result of the tireless efforts of over 30 researchers and data partners in over 10 countries globally to synthesise, analyse and produce the most up-to-date evidence. This edition of the *Into the Light* Index measures prevalence across three separate indicators covering victimisation, perpetration, and child sexual abuse material online. Each of these data sources represents only a piece of the puzzle – and the *Into the Light* Index brings these together for the first time globally.

Our data and communications for this index are equally diverse, with all 195 UN-recognised countries represented with data in this inaugural index, and researched in six languages; with the report and technical notes produced in a total of ten languages.

Transparency, quality assurance and reproducibility represent key strategic areas for Childlight and for improving the rigour and robustness of data in this field. The index has been independently audited by a senior statistician (Sir Bernard Silverman), and his audit note accompanies the index publication.

If you create, collate or work with relevant data, we welcome your support to strengthen the data foundations of OCSEA victimisation prevalence data. This includes filling gaps in the data, as well as , including developing standardised reliable and valid instruments and minimum standards for reporting prevalence estimates.

Specifically, we recommend:

- More gender-disaggregated data for all the sub-types of OCSEA
- That data organisations to move towards more harmonised assessment categories and criteria in the analysis of CSAM
- Closing the gaps in prevalence data, specifically in regions where evidence is limited or non-existent
- More data-driven coordination and support between actors around removal of content online

Childlight aims to ensure that; our data has impact; and actions to support this are reflected in every decision, every study and every partnership across Childlight, including this inaugural index. If you have data that can help safeguard our children and young people, we humbly ask you to work with us to improve successive editions of this index and to help shine a spotlight on some of the world's darkest crimes.

Appendix 1: Acknowledgments

This index represents a significant amount of work that would have not been possible without the support of our researchers, funders, and partners. Central to this is the core funding support from the Human Dignity Foundation which established Childlight as an independent data institute within the University of Edinburgh. The research team would also like to thank the funder for Indicator 2 work, WestPac.

A special thanks to our key Childlight research hub partnerships, including China Agricultural University, led by Professor Xiangming Fang (Indicator 1); Universidad de los Andes IMAGINA Centre, led by Professor Arturo Harker Roa (Indicator 1); and Childlight University of New South Wales Hub, led by Professor Michael Salter (Indicator 2). We also want to extend thanks to co-investigators and partners for Indicator 2 data, including Stop It Now! Australia and Jesuit Social Services. Special thanks to the data owners for Indicator 3 data who have contributed to conceptualising and reviewing this indicator, including the Canadian Centre for Child Protection (C3P), INHOPE, Interpol, the Internet Watch Foundation (IWF), and the National Center for Missing and Exploited Children (NCMEC). We are continuing to work with these partners, and others, for future iterations of the index.

None of this would have been possible without the core research team at the University of Edinburgh led by Prof Deborah (Debi) Fry including Dr Inga Vermeulen, Dr Anna Krzeczkowska, Dr Mengyao Lu, James Stevenson, Dr Ashleigh McFeeters and Sarah Guthrie. This work has been supported by the Senior Leadership Team of Childlight with unwavering commitment, advice and support led by Paul Stanfield, CEO and including Zoe Lambourne, the COO, Jason Allardyce, our Interim Director of Communications, and Kelvin Lay, the Director of Engagement and Risk.

A key hallmark of Childlight research is ensuring that global systematic reviews include data from non-English sources and that our index is also available in additional languages. For Indicator 1, we conducted reviews in Arabic, Chinese, French, Spanish and Russian. Many thanks to these additional language reviewers including Dr Zain Kurdi (Arabic), Jingru Ren, Wuwenhao Jin, Wei Liu, Yaoyue Lu, Shuangyue Shangguan, Yuchen Zhu, Jinjin Zhang, Xudong Gong, Jingxin Liu and Hanqing Zhu (Chinese), Dr Inga Vermeulen and Dr Louis Olié (French), Katherine Jaramillo, María Paula Marmolejo Lozano, and Prof Arturo Harker Roa (Spanish) and Dr Sabina Savadova (Russian). In addition, thank you to our translators, Global Language Services, who have made the index report available in 10 languages including Arabic, French, Russian, Spanish, Simplified Chinese, Urdu, Hindi, Bengali and Swahili as well as English.

Special thanks go to our Index Advisory Committee, chaired by Childlight board member Sophie Otiende, the Executive Director of the Global Fund to End Modern Slavery. Members include: Iain Drennan from We Protect Global Alliance, Marija Manojlovic and Serena Tommasino from Safe Online, Elise Gordon from Walk Free, Nana Hanson-Hall from the International Justice Mission, Grete Raidma from INHOPE and Beatrice Kivuva from the Global Fund to End Modern Slavery.

We would like to thank all our technical peer reviewers for this Index, our independent Childlight Ethics Review Committee, and the Childlight Steering Board for your ongoing support to Childlight in our goal of producing rigorous and robust data and reporting that data without fear or favour. Many thanks to the independent review by Sir Bernard Silverman and accompanying quality audit statement – which highlights the data landscape which this baseline draws from as well as highlighting the need for the role that Childlight plays in providing an independent, rigorous, and robust synthesis of global data to improve decision-making.

Thanks as well to global data initiatives such as the Disrupting Harm Surveys led by Safe Online with implementing partners UNICEF Office of Research, Innocenti, ECPAT and Interpol as well as the groundbreaking work by Childlight Professorial Fellow, David Finkelhor in building strong foundations for future online prevalence measurement.

Data from the *Into the Light Index* will form part of the evidence base used in the upcoming Lancet Commission on Violence Against Women and Children led by Dr Felicia Knaul and co-chaired by Flavia Bustreo. The authors would like to extend special thanks to the co-chairs, commissioners, and pillar leads for this important global evidence and learning Lancet commission.

We would also like to extend thanks to all our partners including the NGOs, global partnership organisations such as We Protect Global Alliance and Safe Online, survivor organisations, UNICEF and UNODC regional offices and government organisations who participated in our pre-launch briefings with the goal of moving data to impact and helping to support future index iterations.

Finally, we would like to thank other global index initiatives from which we have drawn inspiration and learning through several conversations, some of whom sit on our advisory committee including Walk Free the Global Slavery Index, Katharine Bryant and Elise Gordon and the Out of the Shadows Index, Rute Caldeira.

There are several ongoing CSEA global prevalence initiatives that we are coordinating and/or collaborating with including work led by the Institute for Health Metrics and Evaluation's Gender Equality Metrics Team at the University of Washington which is part of the Global Burden of Disease data efforts and the Lancet Commission, the global Violence Against Children (VAC) prevalence estimates initiative led by the World Health Organization of which Childlight is a part of the research team, the Together for Girls global prevalence estimates for Childhood Sexual Violence (CSV) of which many of our team at University of Edinburgh are a part, as well as UNICEF's global prevalence work through its data and analytics team. We look forward to working closely with these key indices and global prevalence data initiatives for future iterations of our index.

Appendix 2: Childlight's Index Technical Sub-Committee

Technical advice and guidance on the development and enhancement of the *Into The Light Index* is provided by a Childlight Technical Sub-Committee. It advises on conceptual frameworks, technical approaches, content and presentation of data across indicators; reviews proposals for expanding and improving indicators over time; provides insights into enhancing sustainability, transparency, and reproducibility of the indicators; and addresses ethical aspects of technical decisions related to the Index. New members joining in 2024 include Dr Meinck, Prof Gakidou and Dr Madrid.

Sir Bernard Silverman (C-TSC chair)

Emeritus Professor at the Universities of Oxford and Bristol and former chief scientific adviser to the UK Home Office

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*Please see accompanying technical notes for all the systematic review references