Violence Against Women Prevalence Estimates, 2018

Global, regional and national prevalence estimates for intimate partner violence against women and global and regional prevalence estimates for non-partner sexual violence against women

WHO, on behalf of the United Nations Inter-Agency Working Group on Violence Against Women Estimation and Data (VAW-IAWGED)

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ISBN xxxxxxx

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Suggested citation. Violence against women prevalence estimates, 2018. Global, regional and national prevalence estimates for intimate partner violence against women and global and regional prevalence estimates for non-partner sexual violence against women. Geneva: World Health Organization, on behalf of the United Nations Inter-Agency Working Group on Violence Against Women Estimation and Data (UNICEF, UNFPA, UNODC, UNSD, UNWomen); 2021. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

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Technical and copyediting: Green Ink (www.greenink.co.uk).

Design and layout: Lushomo

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Acknowledgements

This report was jointly prepared by Claudia Garcia-Moreno (Project Lead) and LynnMarie Sardinha (Technical Lead) of the UNDP-UNFPA-UNICEF-WHO-World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP) in the Department of Sexual and Reproductive Health and Research (SRH) at the World Health Organization (WHO). Mathieu Maheu-Giroux of McGill University, Canada, developed the methodology for modelling the estimates and contributed to the relevant section of the report. Heidi Stöckl of LSHTM and Sarah Meyer in WHO contributed to the development of the Global Database on Prevalence of Violence Against Women.

The United Nations Inter-Agency Working Group on Violence Against Women Estimation and Data (VAW-IAWGED) guided the process of developing the estimates, and reviewed the Technical Note for the country consultation and this report. The independent external Technical Advisory Group (TAG) to the VAW-IAWGED provided expert advice and input throughout the process of developing the methodology and the estimates.

From each of the constituent agencies, the following individuals were members of the VAW-IAWGED:

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- United Nations Entity for Gender Equality and the Empowerment of Women (UN Women): Juncal Plazaola-Castaño
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- United Nations Office on Drugs and Crime (UNODC): Enrico Bisogno and Luisa Sanchez Iriarte Mendoza
- United Nations Statistics Division (UNSD): Francesca Grum.

The following members of the TAG provided independent technical advice:

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- Eva Gisela Ramirez Rodriguez, National Institute of Statistics and Geography (INEGI), Mexico
- Charlotte Watts, London School of Hygiene and Tropical Medicine (LSHTM), United Kingdom of Great Britain and Northern Ireland
- İlknur Yüksel-Kaptanoğlu, Social Survey Methodology Department, Hacettepe University, Turkey.

The WHO Department of Governing Bodies and External Relations guided and supported the country consultation process for the estimates on intimate partner violence. WHO country and regional offices are all gratefully acknowledged for facilitating the country consultations. We also thank all government technical focal persons for the violence against women estimates and the Sustainable Development Goal (SDG) focal points who reviewed the preliminary estimates on intimate partner violence against women and provided valuable feedback and input.

Arnaud Godin of McGill University, Canada, supported the development of the country profiles; Ana Gabriela Ortega Avila and Ana Paola Ruiz contributed to data extraction and reviewing. Technical and copy-editing was provided by Jane Patten of Green Ink, United Kingdom. Design and layout was provided by Lushomo.

Financial support for this work was provided by the Foreign, Commonwealth and Development Office (formerly the Department for International Development, DfID) of the United Kingdom, through the UN Women–WHO Joint Programme on Strengthening Methodologies and Measurement and Building National Capacities for Violence against Women Data and by the HRP. The participation of VAW-IAWGED members was supported through their respective organizations.
For any further information relating to this report, you may contact vawestimates@who.int.

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Acronyms and abbreviations

DHS	Demographic and Health Survey
GBD	Global Burden of Disease (study)
IPV	intimate partner violence
LSHTM	London School of Hygiene and Tropical Medicine
MICS	Multiple Indicator Cluster Survey
NPSV	non-partner sexual violence
RHS	Reproductive Health Survey
SAR	Special Administrative Region
SAMRC	South African Medical Research Council
SDG	Sustainable Development Goal
TAG	Technical Advisory Group
UI	uncertainty interval
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
UNSD	United Nations Statistics Division
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
VAW	violence against women
VAW-IAWGED	United Nations Inter-Agency Working Group on Violence Against Women Estimation and Data
WHO	World Health Organization
WPP	World population prospects

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Executive summary

Violence against women is a major human rights violation and a global public health problem. This report provides updated estimates for two of the most common forms of violence against women:

INTIMATE PARTNER VIOLENCE	NON-PARTNER SEXUAL VIOLENCE
Violence by a husband or male intimate partner (physical, sexual or psychological) is the most widespread form of violence against women globally.	Sexual violence by perpetrators other than a current or former husband or partner – including male relatives, friends, acquaintances or strangers – referred to as non-partner sexual violence is another globally common form of violence against women.

Other forms of violence against women not included in this report are physical violence by relatives, employers or other individuals; femicide, including murders in the name of "honour"; and trafficking, among others.

This report is based on an analysis of available prevalence data from surveys and studies conducted between 2000 and 2018, obtained through a systematic and comprehensive review of all available data on the prevalence of these two forms of violence against women.

Violence against women has significant short-, medium- and long-term effects on the physical and mental health and well-being of women, children and families. It also has serious social and economic consequences for countries and societies.

Violence against women has been internationally recognized as a serious and pervasive phenomenon affecting women's lives and health, and a violation of their rights, for almost three decades. Calls for its elimination have been led by women's health and rights organizations for decades. At the global level, these calls most notably date back to the 1993 United Nations Declaration on the Elimination of Violence against Women and the 1995 Beijing Platform for Action, as well as various other global and regional conventions and consensus documents.[1]

1993 **United Nations Declaration on the Elimination of Violence against Women**

1995 **Beijing Declaration and Platform for Action** emerging from the Fourth World Conference on Women

2015 **The 2030 United Nations Agenda for Sustainable Development**, adopted by countries in 2015, included a global target to eliminate "all forms of violence against women and girls in the public and private spheres", as well as indicators for measuring progress towards this target (see Box 1)

2016 **Global plan of action to strengthen the role of the health system** within a national multisectoral response to address interpersonal violence, in particular against women and girls, and against children

[1] These include: the Committee on the Elimination of Discrimination against Women (CEDAW) General Recommendation No. 35 (in 2017) on gender-based violence against women, updating General Recommendation No. 19 (from 1979); the agreed conclusions of the 57th session of the Commission on the Status of Women in 2013; the 1994 Belém do Pará Convention (for the region of the Americas); the 2003 Maputo Protocol (for the African region); and the 2011 Istanbul Convention (for the European region).

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BOX 1.

5 GLOBAL EQUALITY

Sustainable Development Goal 5 (SDG 5): Achieve gender equality and empower all women and girls

TARGET 5.2

Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation

Indicator 5.2.1

Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age

Indicator 5.2.2

Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence

In 2016, the World Health Organization's (WHO's) Member States endorsed the *Global plan of action to strengthen the role of the health system within a national multisectoral response to address interpersonal violence, in particular against women and girls, and against children*, which includes improving the collection and use of robust data as one of its four strategic directions. Accurate and reliable statistics on violence against women are crucial to improve our understanding of the prevalence, nature and impact of this violence and how these may differ across settings and age cohorts, and to monitor changes over time.

The collection, analysis and reporting of these data also play an important role in informing targeted investments into the development of effective and sustainable intersectoral prevention and response policies and programmes for reducing violence against women. While progress has been made, challenges remain in the availability, quality and timely reporting of data on violence against women.

In 2020, the **Coronavirus Disease (COVID-19) pandemic** brought new attention to the importance of addressing violence against women as a public health priority. Measures taken to address the pandemic, such as lockdown and distancing rules, have led to an increase in reports of domestic violence – in particular intimate partner violence against women – to helplines, police forces and other service providers.

However, these data indicating a recent increase in violence against women rely on service use and are not representative of the overall prevalence, which can only be obtained through population-based surveys. The overall impact of COVID-19 (and other humanitarian crises) on prevalence rates of intimate partner violence and non-partner sexual violence can only be accurately ascertained as surveys and studies resume. The estimates presented in this report predate the COVID-19 pandemic, highlighting that violence against women was already highly prevalent globally.

The estimates in this report (also referred to as the "2018 estimates") update the global and regional prevalence estimates published by WHO in 2013 (the "2010 estimates"), and this report also presents cross-nationally comparable country-level prevalence estimates[2] of physical and/or sexual intimate partner violence, which were not produced in 2013.

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[2] In the context of this report, the terms "national" and "country" should be understood as referring to 161 countries and areas that provided data related to intimate partner violence and/or non-partner sexual violence. This designation and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

METHODS

The United Nations Inter-Agency Working Group on Violence Against Women Estimation and Data (VAW-IAWGED) was formed of representatives from WHO, the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), the United Nations Office on Drugs and Crime (UNODC) and the United Nations Statistics Division (UNSD).

THE VAW-IAWGED

The VAW-IAWGED was established in 2017 to improve the measurement of violence against women and strengthen its monitoring and reporting globally, including of the relevant SDG indicators.

TAG

For the production of these estimates, the VAW-IAWGED was supported by a Technical Advisory Group (TAG) comprising external, independent academic and technical experts.

World Health Organization

UN WOMEN

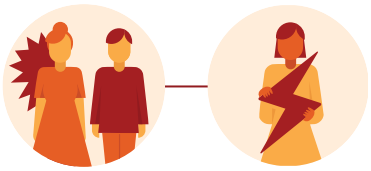
UNFPA

unicef for every child

UNODC United Nations Office on Drugs and Crime

United Nations Statistics Division

To provide the most accurate estimates of the prevalence of violence against women, the previous database has been greatly expanded and the estimation methods have been refined to optimize the use of country-level data.



Data were sought for all countries and territories, including – but not limited to – all 194 WHO Member States. A new and updated systematic review was conducted on the prevalence of violence against women.

Next, data were extracted and compiled in a Global Database on Prevalence of Violence Against Women (https://srhr.org/vaw-data).

This database includes data on physical, sexual and psychological intimate partner violence, sexual violence by any perpetrator (including husbands/ intimate partners), and non-partner sexual violence from all available prevalence surveys and studies.

2020

A consultation on the intimate partner violence estimates was conducted in early 2020 with all WHO Member States and one territory. During the consultation period, additional eligible studies and data were identified. Country engagement and generation of data demonstrated an expansion of in-country efforts to measure the prevalence of violence against women through population-based surveys using act-specific measures.

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The main sources of data on violence against women are:

(i) **specialized surveys on violence against women; and**

(ii) **modules on violence against women within larger national health surveys,** mainly the Demographic and Health Surveys (DHS).

For a handful of countries, data came from other surveys.

The variability in many factors between studies (e.g. the operational definitions of physical and sexual violence and non-partner sexual violence, the perpetrators of this violence, the time period covered and the differing age ranges used for disaggregation) affects comparability of data between countries. Data comparability is important in the production of global and regional aggregate statistics and for global monitoring of violence against women across countries and regions. Therefore, robust statistical models are needed to adjust for this heterogeneity and generate comparable estimates, which are also useful to strengthen national data collection. The statistical methods are explained in more detail in Section 3 of the full report.

Internationally comparable prevalence estimates for 2018 were derived for presentation in this report and its annexes, for two age groups (women aged 15-49 and women aged 15 and older), including:

(i) **global, regional and national estimates of lifetime (since age 15) and past 12 months physical and/or sexual intimate partner violence**

- The ***lifetime*** **prevalence** estimates of intimate partner violence draw on **307** studies from **154** countries and areas.
- The ***past 12 months*** **prevalence** estimates are informed by **332** studies from **159** countries and areas.
- These data, from across all global regions, represent 90% of the world's population of women and girls aged 15 and older.

(ii) **global and regional estimates of lifetime (since age 15) non-partner sexual violence**

- The ***lifetime*** **prevalence** estimates for non-partner sexual violence are based on **227** studies from **137** countries and areas.
- These data represent 88% of the world's population of women and girls aged 15 and older.

(iii) **combined global and regional prevalence estimates of lifetime (since age 15) intimate partner violence, non-partner sexual violence, or both**

The results presented in this report are the first available internationally comparable estimates for intimate partner violence in the SDG reporting period, which started in 2015. The new estimates presented in this report, based on data for the period 2000–2018, supersede all previously published WHO or United Nations estimates for years that fall within the same period. Due to modifications in methodology and data availability, changes in prevalence estimates between the 2010 estimates and these new 2018 estimates are not strictly comparable and should not be interpreted as representing time trends. The data profiles for each country are available upon request.

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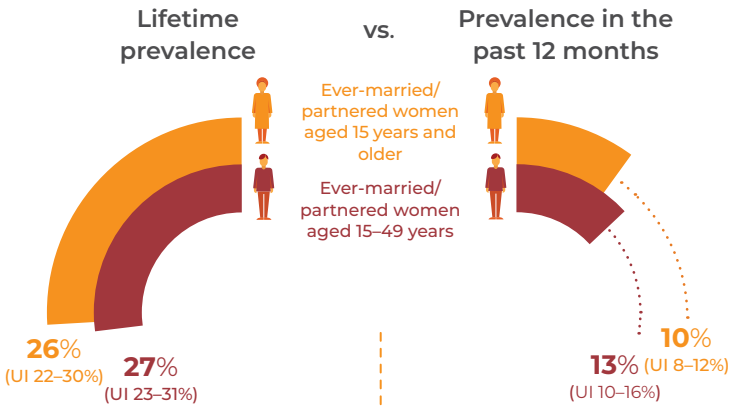
GLOBAL, REGIONAL AND NATIONAL PREVALENCE ESTIMATES OF INTIMATE PARTNER VIOLENCE

GLOBAL PREVALENCE ESTIMATES OF INTIMATE PARTNER VIOLENCE

The 2018 global estimates (based on data from 2000–2018) indicate that:



26% (UI 22–30%) **27%** (UI 23–31%) have been subjected to physical and/or sexual violence from a current or former husband or male intimate partner at least once in their *lifetime* (since the age of 15).

This indicates that

641 MILLION

and up to 753 million ever-married/partnered women aged 15 years and older had been subjected to physical and/or sexual intimate partner violence at least once since the age of 15.[3]

10% **13%** (UI 8–12%) (UI 10–16%) have been subjected to physical and/or sexual intimate partner violence at some point within the *past 12 months*.

This indicates that

245 MILLION

and up to 307 million ever-married/partnered women aged 15 years and older had been subjected to recent physical and/or sexual intimate partner violence.

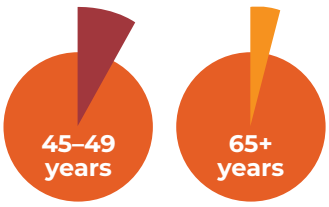
The estimated lifetime and past 12 months prevalence of this violence is highest for women between the ages of 20 and 44

26–28% of ever-married/partnered women in this age group have been subjected to physical and/or sexual violence from a current or former husband or male intimate partner at least once in their *lifetime*.

10–16% of women in this age group have been subjected to this violence in the *past 12 months*.

The prevalence of intimate partner violence is comparatively lower for women in later age groups, with *past 12 months* intimate partner violence ranging from:

8% to **4%**



However, the data on intimate partner violence in women aged 50 and older are limited (less than 10% of all the eligible data in this analysis were for this age group) and mainly from high-income countries, where overall prevalence rates are also comparatively lower.

Intimate partner violence starts early.

Almost **1 in 4** ever-married/partnered adolescent girls in the youngest age cohort (15–19 years old) is estimated to have already been subjected to physical and/or sexual violence from an intimate partner at least once in their *lifetime* (24%, UI 21–28%), and

16% of young women aged 15–24 experienced this violence within the *past 12 months*.

[3] These calculations are based on the 2018 country- and age-specific proportions from *World population prospects 2019*.

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REGIONAL PREVALENCE ESTIMATES OF INTIMATE PARTNER VIOLENCE

The 2018 regional estimates indicate that:

Lifetime prevalence

Using the United Nations SDG regional and subregion classifications, the lifetime prevalence of physical and/or sexual intimate partner violence among ever-married/partnered women aged 15–49 years was **highest** among the "Least Developed Countries", at 37% (UI 33–42%), and in the three subregions of Oceania: Melanesia, Micronesia and Polynesia:

The regions of Southern Asia (35%) and Sub-Saharan Africa (33%) have the **next highest** prevalence rates of lifetime intimate partner violence in this age range.

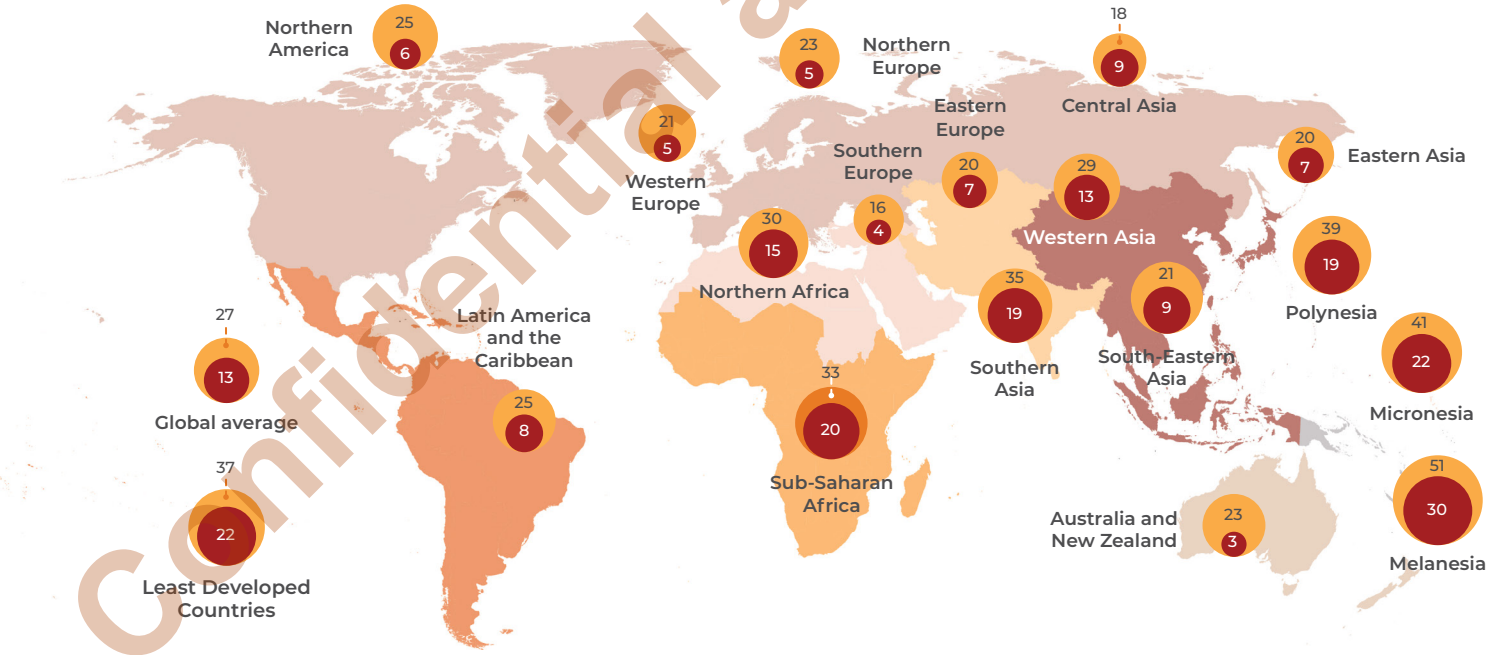
The **lowest** rates, meanwhile, were in the four subregions of Europe (16-23%) and also in Central (18%), Eastern (20%) and South-Eastern Asia (21%), and in Australia and New Zealand (23%).

Prevalence in the past 12 months

Estimates for prevalence of this type of violence among ever-married/partnered women in the past 12 months were also **highest** among the "Least Developed Countries" (22%, UI 19–26%) and in the three subregions of Oceania: Melanesia, Micronesia and Polynesia:

The regions of Sub-Saharan Africa (20%) and Southern Asia (19%) have the **next highest** prevalence rates of past 12 months intimate partner violence.

The **lowest** estimated rates of this category of violence were in Australia and New Zealand (3%), Northern America (6%) and the subregions of Europe (4–7%) – regions comprising mostly high-income countries



Lifetime prevalence of physical and/or sexual intimate partner violence (%)

Past 12 months prevalence of physical and/or sexual intimate partner violence (%)

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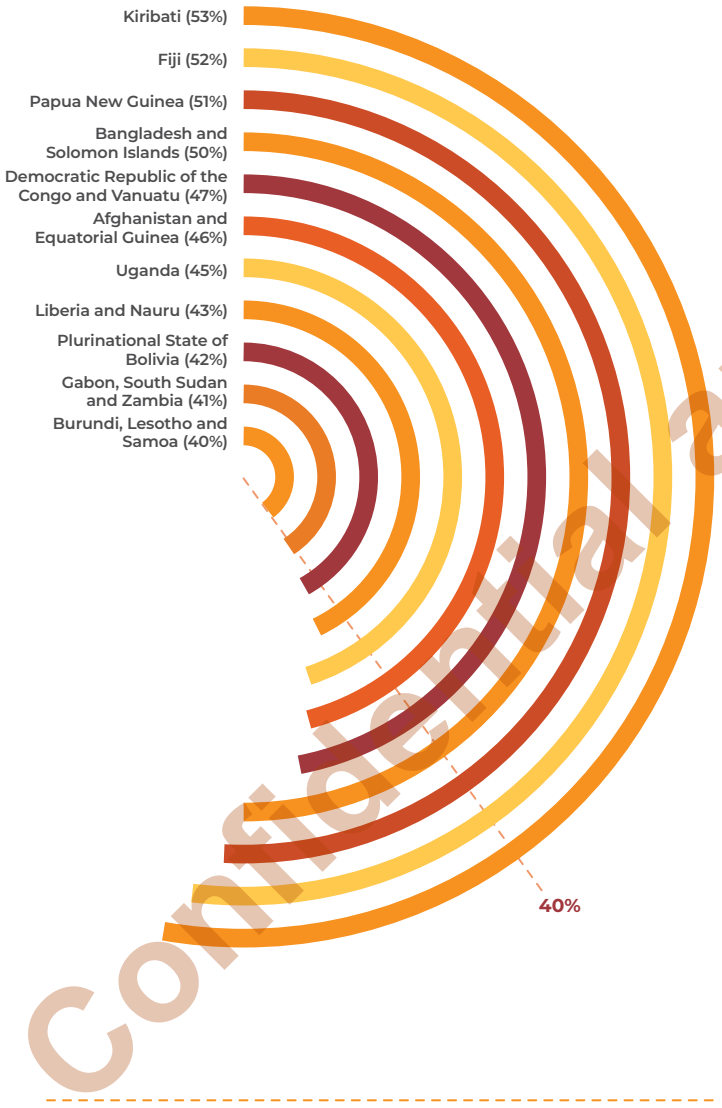
NATIONAL PREVALENCE ESTIMATES OF INTIMATE PARTNER VIOLENCE

Estimates were derived for 161 countries and areas (see Annex 6) that had at least one available data source that met the inclusion criteria for the analysis in this report: a population-based study representative at the national or subnational level, conducted between 2000 and 2018 and using acts-based measures of physical and/or sexual intimate partner violence.

The 2018 estimates indicate that:

Lifetime prevalence

The prevalence estimates for 19 countries fell within the **highest** range (40–53%) for lifetime physical and/or sexual intimate partner violence among ever-married/partnered women age 15–49 years.

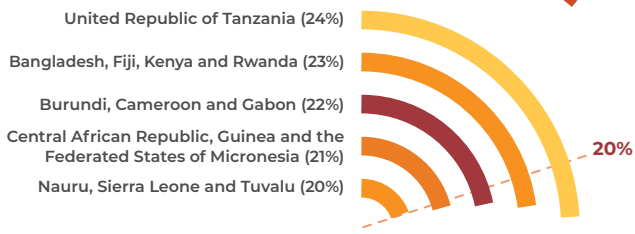


The **lowest** group of prevalence estimates for lifetime physical and/or sexual intimate partner violence among ever-married/partnered women aged 15–49 years (i.e. prevalence of 10–14%) includes 12 countries and 2 areas. Six of the 12 countries are in the subregions of Europe, three are in Western Asia and the remaining three are Cuba (14%), the Philippines (14%) and Singapore (11%).

Prevalence in the past 12 months

The prevalence estimates for 14 countries fell within the **highest** range (25% and higher) for past 12 months physical and/or sexual intimate partner violence. These countries are:

There are an **additional 14 countries** that had prevalence between 20% and 24%, mainly from the Sub-Saharan and Oceania SDG regions. These were:



The **lowest** group of prevalence estimates for past 12 months physical and/or sexual violence (up to 4%) includes 30 countries and one area, 24 of which are high-income. Twenty-three of the 30 are in Europe while the other 8 are: Australia, Japan, New Zealand, Singapore, Sri Lanka and Uruguay (all 4%), and Canada (3%).

There are wide variations in prevalence of intimate partner violence among countries and also among regions of the world, and this is more marked for the prevalence of past 12 months intimate partner violence. In most places, however, the prevalence of physical and/or sexual intimate partner violence remains unacceptably high.

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GLOBAL AND REGIONAL PREVALENCE ESTIMATES OF LIFETIME NON-PARTNER SEXUAL VIOLENCE

Non-partner sexual violence refers to acts of sexual violence against women, experienced since the age of 15 years, perpetrated by someone other than a current or former husband or male intimate partner (i.e. a male relative, friend, acquaintance or stranger). For this type of violence, all women are considered to be "at risk" and are thus included in the denominator for calculations (not only those who have ever been married or had an intimate partner). For this type of violence, only "lifetime" estimates are presented in this report.

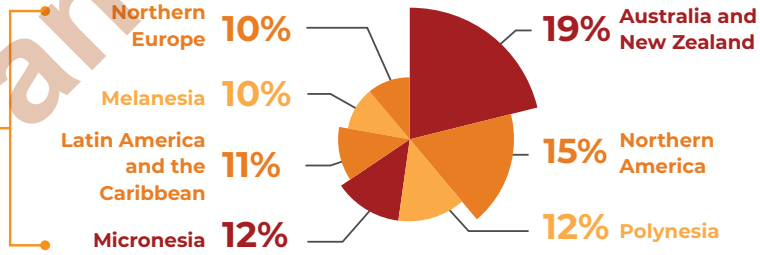
The 2018 **global** estimates indicate that:

Overall, an estimated **6%** (UI 4–9%) of women from both age groups (15–49 years, and 15 years and older) have been subjected to non-partner sexual violence at least once in their lifetime (since reaching the age of 15).

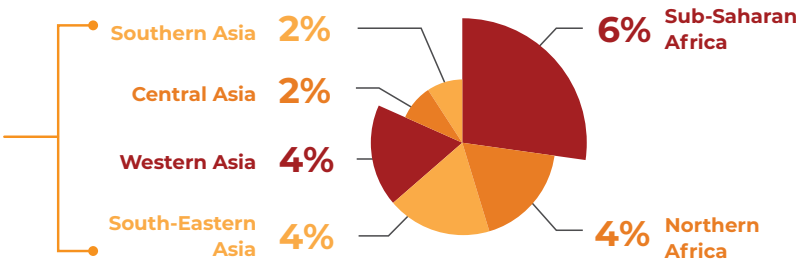
Disaggregated estimates of global non-partner sexual violence by age groups did not show any significant differences in the lifetime prevalence of non-partner sexual violence. Given the limitations of currently available data and low prevalence estimates of lifetime non-partner sexual violence overall, it is unlikely that any true differences in the experience of this type of violence across the different age groups would be detected.

The 2018 **regional** estimates indicate that:

Using the United Nations SDG regional and subregion classifications, the **highest** estimated prevalence of lifetime non-partner sexual violence is in high-income regions, including:



The **lowest** prevalence estimates, on the other hand, are in the regions of:



The overall estimate for Least Developed Countries was relatively lower at: 5%

* See Table 4.4 in Section 4 for uncertainty intervals.

These findings must be interpreted with caution, considering that this form of violence is particularly stigmatized globally and especially so in highly traditional and patriarchal societies, where disclosure is associated with fear of blame and often grave repercussions for the victim. With this in mind, in addition to the other challenges with current survey measures of non-partner sexual violence and quality of interviewer training, the true prevalence of non-partner sexual violence is likely to be much higher than the reported or estimated rates of this form of violence in low- and middle-income countries.

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COMBINED PREVALENCE ESTIMATES OF INTIMATE PARTNER VIOLENCE AND NON-PARTNER SEXUAL VIOLENCE

While there are many other forms of violence that women are exposed to, these two forms represent a large proportion of the violence that women experience globally. Having prevalence estimates for these two forms of violence combined provides a broader picture of the proportions and numbers of women subjected to violence during their lifetime, although this still does not represent the full extent of violence that women experience.

The 2018 **global combined** estimates indicate that overall:

31%
(UI 27–36%) of women aged 15–49 years

30%
(UI 26–34%) of women aged 15 years and older

have been subjected to physical and/or sexual violence from any current or former husband or male intimate partner, or to sexual violence from someone who is not a current or former husband or intimate partner, or to both these forms of violence at least once since the age of 15.

On average, **736 million** **and up to 852 million** women who were aged 15 years or older in 2018 (almost **1 in 3** women) have experienced one or both of these forms of violence at least once in their lifetime.

These estimates confirm that physical and sexual intimate partner violence and sexual violence more broadly remain pervasive in the lives of women and adolescent girls across the globe.

MEASUREMENT CHALLENGES AND RESEARCH GAPS

There has been an important increase in the number of countries with nationally representative surveys on violence against women that use acts-based measures. This is particularly the case for intimate partner violence.

2010 — **82** countries and areas with survey data

2018 — **161** countries and areas with at least one population-based survey

From 82 countries and territories that had a survey up to 2010 and were included in the estimates published by WHO in 2013, now 161 countries and areas have at least one population-based survey that was conducted between 2000 and 2018 with data on intimate partner violence. However, there are still a number of countries and areas with no population-based survey data on violence against women and some regional gaps persist. There is also room for improvement in how data are collected and reported, particularly when it comes to the measurement of non-partner sexual violence.

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Key remaining gaps and challenges to accurate prevalence estimation and comparability of data:

variations in case definitions and recall periods used in survey questions

lack of age-disaggregation or variation in age group ranges (e.g. 15–49 versus 15 and older, or 5-year age groups versus other age groupings)

need for standardization in measures and denominators used

lack of data on women aged 50 years and older to capture older women's experiences

lack of disaggregation by different forms of intimate partner violence (physical, sexual, psychological), and lack of agreed measures for and data on psychological intimate partner violence (including emotional abuse, controlling behaviours/coercive control)

lack of data on intimate partner violence against women by same-sex partners, to understand this form of violence against women

need for better understanding of economic/financial partner abuse and its relationship to psychological abuse and controlling behaviours

lack of data about the prevalence, magnitude and forms of violence against women living with intersecting forms of discrimination who may be at higher risk (e.g. women with disabilities, migrants, Indigenous and transgender women)

the low quality of data on non-partner sexual violence (especially from low- and middle-income countries), and the fact that the available data are skewed towards more severe forms like rape or attempted rape – better measures are needed for non-partner sexual violence

lack of data in some countries and areas, or too few data points, or most recent data are more than a decade old – key geographical data gaps include the South-East Asian and Eastern Mediterranean Regions for intimate partner violence, and the Eastern Mediterranean Region for non-partner sexual violence

differences in eligibility criteria for respondents to questions on intimate partner violence and/or non-partner sexual violence (e.g. different age ranges, or limited to never, ever or currently partnered women)

data remain scarce in humanitarian and conflict settings, and there is a need for such data to better reflect different perpetrators and the different forms, nature and magnitude of violence in these contexts

differences in types of perpetrators of intimate partner violence recorded (current/most recent/any previous partners), differences in definitions of "partner", and/or lack of disaggregation by intimate partner versus non-partner perpetrators for sexual violence

lack of information in study and survey reports on ethical and safety considerations such as specialized training of female interviewers and provision of referrals if necessary

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Collecting sound data on the magnitude and nature of the problem is a necessary first step to acknowledge and understand the problem and to initiate discussions on policies and strategies to address it. It will also provide a baseline against which countries can measure progress. For data to be reliable, surveys need to adhere to internationally agreed standards such as those in the United Nations Statistics Division *Guidelines for producing statistics on violence against women*.

All surveys underestimate the true prevalence of violence against women as there will always be women who do not disclose these experiences; however, a poorly designed or implemented survey will lead to even greater underestimation and potentially misleading figures.

This study has highlighted some of the data gaps and measurement challenges in relation to both intimate partner violence and non-partner sexual violence, and the need to improve the way in which results from surveys and studies of violence against women are reported.

ADDRESSING POLICY AND PROGRAMMATIC CHALLENGES

With up to 852 million women aged 15 and older estimated to have experienced physical and/or sexual intimate partner violence or non-partner sexual violence, or both, violence against women is clearly an enormous public health problem globally and in all regions; it leads to great human suffering and has important social and economic costs. These high numbers should raise awareness and a sense of urgency for all leaders to take the necessary actions.

The commitments made by governments to address all forms of violence against women need to be put into action and accelerated if we are to achieve the SDG targets set for 2030.

Addressing violence against women requires concerted action and dedicated public funding and investment across multiple sectors.

Financial support to the women's organizations and movements that have been at the forefront of addressing violence against women is also needed.

The variations in the prevalence of violence seen within and between countries and regions highlight the fact that this violence is not inevitable, and that it can be prevented. The regional and national variations also highlight the need to address this issue with policies and programmes at all levels, appropriate to each context and population.

There is an urgent need to implement prevention programmes and policies, while ensuring services for survivors. It is critical that we work simultaneously to prevent this violence from happening in the first place and to ensure that those suffering from it receive the support and services they need. Prevention requires addressing gender inequality and economic and social inequities, and changing discriminatory gender norms and institutions that foster and perpetuate violence against women. Promising prevention programmes exist, particularly for intimate partner violence, and need to be tested more widely and scaled up when appropriate.

Interventions for prevention need to include multilevel strategies that, for example:

challenge social norms that support masculinities based on power and control over women and that condone violence against women

reform discriminatory family laws

strengthen women's economic rights

eliminate gender inequalities in access to formal wage employment and secondary education

at an individual level, strategies that address attitudes that justify violence against women and reinforce gender-stereotypical roles within the family

reduce exposure to violence in childhood; and

address substance abuse.

Access to comprehensive, survivor-centred health care services, including for post-rape care, for survivors of violence against women is essential. This includes having a multisectoral referral pathway to other support services. This needs to be maintained and strengthened as part of essential services, particularly in the context of COVID-19.

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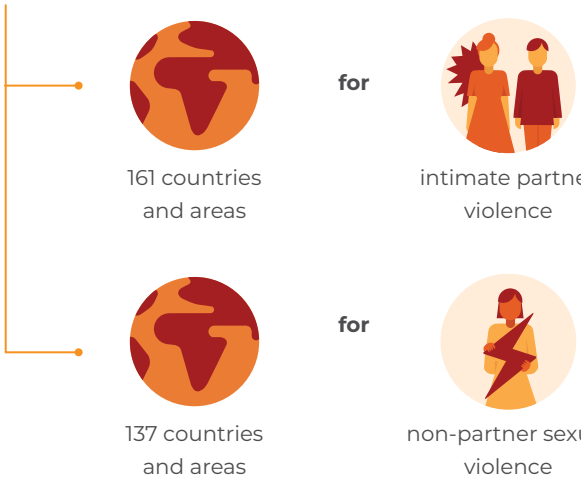
CONCLUSION

The estimates presented in this report were obtained through a systematic and comprehensive review of available prevalence data from the period 2000–2018.

These estimates are based on data from:



> ***"These estimates show unequivocally that violence against women is pervasive globally."***

They show unequivocally that violence against women is pervasive globally. It is not a small problem that only occurs in some pockets of society; rather, it is a global public health problem of pandemic proportions, affecting hundreds of millions of women and requiring urgent action. We must all work to make governments and policy-makers everywhere take notice that progress has been too slow, the prevalence of violence against women remains unacceptably high everywhere, and action to eliminate it must be accelerated. All sectors, including the health sector, need to take the necessary action in the context of a multisectoral approach to violence against women, as agreed in the WHO Plan of Action to address violence, in particular against women and girls, endorsed by the Sixty-ninth World Health Assembly in 2016 and in many United Nations resolutions and consensus documents. As we take stock of progress in the past 25 years since the Fourth World Conference on Women, in Beijing in 1995, it is time for the world to act with urgency to ensure that all women and girls live a life free from violence and coercion of any kind.

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1 Introduction

This section provides background information on violence against women as a public health problem and introduces the rationale for the development of this first set of prevalence estimates in the United Nations Sustainable Development Goal (SDG) reporting period.

Violence against women is a major human rights violation as well as a widespread public health concern. It has significant short-, medium- and long-term effects on the physical and mental health and well-being of women, children and families *(1–16)*. It is estimated that between 38% and 40% of murders of women are committed by intimate partners *(17,18)*. Violence against women also has serious social and economic consequences for countries and societies *(19–21)*. The previous global and regional estimates of violence against women, published in 2013, established that intimate partner violence against women is a globally pervasive public health problem – experienced by almost a third of all women worldwide – requiring urgent action *(22)*. This new report provides updated global and regional estimates of intimate partner violence and non-partner sexual violence, based on more and better quality data, and also presents country estimates[1] of intimate partner violence against women.

Article 1 of the 1993 United Nations Declaration on the Elimination of Violence against Women defines violence against women as "any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life" *(23)*. Violence against women takes many forms, including: spousal/intimate partner violence (physical, sexual and/or psychological); sexual violence by persons other than a spouse/partner, including other family members, friends, acquaintances or strangers (i.e. non-partner sexual violence); femicide, including murders in the name of "honour"; and trafficking of women. Violence by a husband or male intimate partner (or other male family member) is the most pervasive form of violence against women globally *(24,25)*.

Various global consensus documents and regional conventions over the last three decades have made strong calls for the elimination of violence against women.[2] In 2015, when countries adopted the 2030 United Nations Agenda for Sustainable Development,

1 In the context of this report, the term "country" should be understood as referring to 161 countries and areas that provided data related to intimate partner violence and/or non-partner sexual violence. This designation and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

2 These include: (i) Global consensus documents: the 1993 United Nations Declaration on the Elimination of Violence against Women *(23)*, the 1995 Beijing Platform for Action emerging from the Fourth World Conference on Women *(26)*, the agreed conclusions of the 57th session of the Commission on the Status of Women in 2013 *(27)*, the Committee on the Elimination of Discrimination against Women (CEDAW) General Recommendation No. 35 (in 2017) on gender-based violence against women, updating General Recommendation No. 19 *(28)*; and (ii) Regional conventions: the 1994 Belém do Pará Convention (the Inter-American Convention on the Prevention, Punishment, and Eradication of Violence against Women) *(29)*, the 2003 Maputo Protocol (the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa) which went into effect in 2005 *(30)* and the 2011 Istanbul Convention (the Council of Europe Convention on preventing and combating violence against women and domestic violence) which came into force in 2014 *(31)*.

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this included a target on the elimination of "all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation" (Target 5.2), under SDG 5: Achieve gender equality and empower all women and girls *(32)*.

The recognition of violence against women as a serious human rights violation and public health problem – and the related long-standing advocacy efforts by women's health and rights organizations urging governments and local and international institutions to engage seriously with the issue and take urgent action – have been underpinned by the growing body of scientific data that has established its widespread prevalence and impacts. Accurate and reliable statistics on violence against women are crucial to improve our understanding of the prevalence, nature and impact of this violence, and how these may differ across settings and age cohorts, and to monitor changes over time. The collection, analysis and reporting of these data also play an important role in informing targeted investments into the development of effective and sustainable intersectoral prevention and response policies and programmes for reducing violence against women *(33–36)*.

In 2005, WHO published the first-ever internationally comparable prevalence data on violence against women from the ground-breaking WHO Multi-country Study on Women's Health and Domestic Violence against Women *(24)*. Building on this, in 2013, WHO, the London School of Hygiene and Tropical Medicine (LSHTM) and the South African Medical Research Council (SAMRC) produced the first global and regional estimates on intimate partner violence and non-partner sexual violence against women, drawing on data for the years 1983 to 2010 *(22)*. In 2016, WHO Member States endorsed the *Global plan of action to strengthen the role of the health system within a national multisectoral response to address interpersonal violence, in particular against women and girls, and against children*, which includes improving the collection and use of robust data as one of its four strategic directions *(37)*.[3] While progress has been made, the accurate measurement and reporting of data on violence against women remains challenging, particularly in relation to sexual violence. Going forward, there is still a need to address these challenges and further improve the availability, comprehensiveness and timely reporting of data on different forms of violence against women.

In 2020, the Coronavirus Disease (COVID-19) pandemic brought new attention to the importance of addressing violence against women as a public health priority. Measures taken to address the pandemic, such as lockdown and distancing rules, have led to an increase in reports of domestic violence – in particular intimate partner violence against women – to helplines, police forces and other service providers *(39–41)*. However, these data indicating a recent increase in violence against women rely on service use and are not representative of the overall prevalence, which can only be measured through population-based surveys *(42,43)*. The overall impact of COVID-19 (and other humanitarian crises) on prevalence rates of intimate partner violence and non-partner sexual violence can only be accurately ascertained as surveys and studies resume *(44–46)*.

Based on a comprehensive review of data from studies conducted between 2000 and 2018, before the COVID-19 pandemic, this report presents prevalence estimates for two

3 The global plan of action recommends actions under four strategic directions: (i) strengthen health system leadership and governance; (ii) strengthen health service delivery and health workers'/providers' capacity to respond; (iii) strengthen programming to prevent interpersonal violence; and (iv) improve information and evidence *(37)*. It should also be noted that the WHO Global Programme of Work 13 (GPW13) includes "prevalence of intimate partner violence" as an indicator to assess progress *(38)*.

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forms of violence against women:[4] physical and/or sexual intimate partner violence (IPV) and non-partner sexual violence (NPSV). There have been significant improvements in the measurement, availability and quality of population-based survey data on intimate partner violence globally, especially data on physical and sexual violence perpetrated by a husband or male intimate partner. There has also been an increase in the number of countries collecting population-based survey data on sexual violence against women by perpetrators other than current or former intimate partners. The estimates in this report (also referred to as the "2018 estimates") update the global and regional prevalence estimates of intimate partner violence and non-partner sexual violence against women that were published by WHO in 2013 (also referred to as the "2010 estimates") *(22)*. This report also presents cross-nationally[5] comparable country-level prevalence estimates of physical and/or sexual intimate partner violence, which were not produced in 2013. These estimates serve to adjust for variations in how national surveys and studies measure these forms of violence against women, using statistical methods described in Section 3. These internationally comparable national, regional and global estimates are necessary for international monitoring purposes, and ensure that individual surveys and studies whose measures underestimate the prevalence are adjusted for. The estimates presented in this report are also the first estimates on violence against women produced during the United Nations SDG era (2015–2030).

The report is presented in five sections. After this introduction, Section 2 outlines the key concepts and operational definitions used in this report. Section 3 describes the evidence review, data sources and methodology used for calculating and modelling the estimates of physical and/or sexual intimate partner violence and of non-partner sexual violence. Section 4 presents the global, regional and national estimates of lifetime (since the age of 15 years) and past 12 months (i.e. recent or current) intimate partner violence, and the global and regional estimates of lifetime non-partner sexual violence against women. Finally, Section 5 summarizes these results and discusses measurement challenges, research gaps and the implications of the findings for policy and practice. Beyond the main report, there are also 17 annexes presenting additional information and data.

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4 The age of 15 years was set as the lower age limit for intimate partner violence and non-partner sexual violence because much of the data come from either Demographic and Health Surveys (DHS) *(47)* or Reproductive Health Surveys (RHS) *(48)*, which use this lower age cut-off. Therefore, while we refer to "violence against women" throughout the report, we recognize that adolescent girls are also included, and that violence experienced by adolescent girls aged 15–17 may also be considered child maltreatment or abuse.

5 In the context of this report, the term "national" should be understood as referring to 161 countries and areas that provided data related to intimate partner violence and/or non-partner sexual violence. This designation and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

2 Definitions and concepts

This section presents the conceptual and operational definitions for the forms of violence discussed in this report. It also explains the rationale behind the different indicators chosen and their relationship to the two official indicators for United Nations SDG Target 5.2, as presented here in Box 2.1.

BOX 2.1 Indicators for SDG Target 5.2: Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation

Indicator 5.2.1: Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age

Indicator 5.2.2: Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence

2.1 CONCEPTS AND MEASURES

This report focuses on two forms of violence against women: (i) physical and/or sexual intimate partner violence and (ii) non-partner sexual violence.

2.1.1 INTIMATE PARTNER VIOLENCE AGAINST WOMEN

Intimate partner violence refers to any behaviour by a current or former male intimate partner[6] within the context of marriage, cohabitation or any other formal or informal union, that causes physical, sexual or psychological harm.

Such behaviour includes: acts of physical aggression, such as slapping, hitting, kicking and beating; acts of sexual aggression, such as forced intercourse and other forms of sexual coercion; psychological violence/abuse such as intimidation, constant belittling and humiliating; and other "controlling behaviours" (also known as "coercive control") such as isolating a person from their family and/or friends, monitoring their movements, restricting their access to information and services, and not allowing them to work outside of the home *(25,49,50)*. Acts of psychological violence often coexist with acts of physical and/or sexual violence by intimate partners. Some surveys on violence against women measure controlling behaviours as a subset of psychological partner violence, while others consider controlling

6 This report focuses on intimate partner violence as perpetrated by men against women. While recognizing that women can also perpetrate violence against their partners, and that intimate partner violence also occurs in same-sex relationships, existing evidence shows that intimate partner violence is most commonly perpetrated by men against women *(24)*.

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behaviours separately. Economic/financial abuse and, less frequently, stalking by an intimate partner are also measured as separate forms of intimate partner violence in some surveys.

Table 2.1 summarizes the operational definitions used most frequently to measure intimate partner physical violence and intimate partner sexual violence[7] in specialized violence against women surveys or survey modules, such as the Domestic Violence Module of the Demographic and Health Surveys (DHS) *(51)*.

While recognizing the magnitude of psychological intimate partner violence[8] and its significant impacts on women's physical and mental health, there is currently limited agreement on standardized measures for it. There are wide variations in how this form of violence is conceptualized, the specific items used to construct measures for it, and the thresholds set for determining its prevalence *(53,54)*. Also, while some surveys/studies include controlling behaviours as part of psychological violence, others conceptualize it as a risk factor and measure them separately. Because of existing challenges in the measurement and reporting of psychological intimate partner violence, this form of intimate partner violence is not included in this report. However, it is included in SDG indicator 5.2.1 (Box 2.1), and we anticipate that ongoing work by WHO to improve its measurement will enable us to include psychological intimate partner violence alongside physical and sexual intimate partner violence in the next round of modelling and estimates on violence against women. The ongoing work focuses on standardization of measures to better capture the magnitude and levels of severity of psychological intimate partner violence, and to determine the most appropriate threshold to estimate its prevalence. This work is being undertaken as part of the Joint Programme on Strengthening Methodologies and Measurement and Building National Capacities for Violence against Women Data, a partnership between WHO and the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women).

There is also increasing discussion about how best to conceptualize and measure economic/financial partner abuse and how to understand its relationship to psychological violence and controlling behaviours. Current surveys do not consistently include questions on this, thus limiting the availability of data on this form of abuse in low- and middle-income contexts (e.g. the DHS surveys – a main source of data on violence against women in low- and middle-income countries – do not include questions on economic abuse in their module to date). There are also wide variations in the items used to capture this form of partner abuse and challenges with determining the denominators for the different items. All of these impede the consistent estimation of the prevalence of this form of violence across local contexts, countries and regions.

2.1.2 NON-PARTNER SEXUAL VIOLENCE AGAINST WOMEN

There has been steady growth in the number of countries with surveys documenting women's experiences of sexual violence perpetrated by non-partners such as other family members, friends, acquaintances or strangers. However, there are still significantly fewer studies on this compared with those on intimate partner violence. There is also growing

7 For a more detailed definition of physical, sexual and psychological violence against women, see *Guidelines for producing statistics on violence against women – statistical surveys (34)*.

8 The terms "psychological violence", "emotional violence" and "emotional abuse" are used interchangeably in different reports. The United Nations Statistics Division (UNSD) *Guidelines for producing statistics on violence against women* use "psychological violence" *(34)*, as do the SDGs, and we have also used this term in this report.

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consensus about the need to better measure a range of forms of sexual violence, but there remain wide variations in the definitions of non-partner sexual violence used in different studies and contexts. Table 2.2 presents the operational definitions of non-partner sexual violence used in the estimation process for this report.

Table 2.1. Operational definitions of forms of intimate partner violence (IPV) and indicators most frequently used in surveys included in this analysis

TERM	DEFINITION
Intimate partner[a] violence (IPV) (physical and/or sexual)	A woman's self-reported experience of one or more acts of physical or sexual violence, or both, by a current or former husband or male intimate partner since the age of 15 years.[b] "Physical IPV"[c] is operationalized as acts that can physically hurt the victim, including, but not limited to: being slapped or having something thrown at you that could hurt you; being pushed or shoved; being hit with a fist or something else that could hurt; being kicked, dragged or beaten up; being choked or burnt on purpose; and/or being threatened with or actually having a gun, knife or other weapon used on you. "Sexual IPV"[d] is operationalized as: being physically forced to have sexual intercourse when you do not want to; having sexual intercourse out of fear for what your partner might do or through coercion; and/or being forced to do something sexual that you consider humiliating or degrading. Note: Only women who reported being married, cohabiting or having an intimate partner at some point in their lives (i.e. ever-married/partnered) were included in the measure of intimate partner violence as they are considered "at risk" for this form of violence.
"Severe IPV"	Severe physical violence is defined based on the severity of the acts – the following are defined as severe: being beaten up, choked or burnt on purpose, and/or being threatened or having a weapon used against you. Any sexual violence is considered severe.
Lifetime prevalence[e] of IPV	The proportion of ever-married/partnered women who reported that they had been subjected to one or more acts of physical or sexual violence, or both, by a current or former husband or male intimate partner in their lifetime (defined as since the age of 15 years).
Past 12 months prevalence[e] of IPV (also referred to as recent or current IPV)	The proportion of ever-married/partnered women who reported that they had been subjected to one or more acts of physical or sexual violence, or both, by a current or former husband or male intimate partner within the 12 months preceding the survey.

a The definition of "intimate partner" varies between settings and includes formal partnerships, such as marriage, as well as informal partnerships, such as cohabitation or other regular intimate partnerships. It is important that the denominator is inclusive of all women who could be exposed to intimate partner violence. For the purposes of this analysis we accepted whatever definitions of "partner" were used in the surveys/studies that were included in this analysis (see Section 3), which includes current and former husbands, and current and former cohabiting and, in some instances, non-cohabiting male intimate partners.

b The age of 15 years was set as the lower age limit for the purposes of these estimates. Most surveys, including the Demographic and Health Surveys (DHS) and specialized surveys on violence against women, include girls and women aged 15 and older in the measure of IPV, to capture the experiences of girls and women in settings where marriage commonly occurs among girls from the age of 15 years.

c The Domestic Violence Module of the DHS, the WHO Multi-country study on Women's Health and Domestic Violence against Women, and other specialized surveys on violence against women that use the WHO instrument, draw on adapted versions of the Conflict Tactics Scale *(52)* to measure the prevalence of physical partner violence.

d As operationalized in the Domestic Violence Module of the DHS, the WHO Multi-country Study on Women's Health and Domestic Violence against Women, and other specialized surveys on violence against women that use the WHO instrument.

e Prevalence refers to the number of women who have been subjected to violence divided by the number of at-risk women in the study population.

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Table 2.2. Operational definitions of non-partner sexual violence (NPSV) and indicators most frequently used in surveys included in this analysis

TERM	DEFINITION
Non-partner sexual violence (NPSV)	A woman's self-reported experience of one or more acts of sexual violence by someone other than a current or former husband or male intimate partner since the age of 15 years.[a] "Sexual violence" refers to being forced, coerced or threatened to perform any unwanted sexual act; this could include rape, attempted rape, unwanted sexual touching or non-contact forms of sexual violence. Some surveys used "rape" or "attempted rape" as their only measure of NPSV. In order to avoid further underestimation of an already highly underreported form of violence, the statistical modelling adjusted for the use of this narrow definition (see Fig. 3.1 in Section 3, and Annex 11 for further details). Note: Sexual harassment was not included in the definition of sexual violence. Note: For this form of violence, all women (ever- and never-married/partnered women) can be considered "at risk" and are hence included in the denominator for this measure.
Lifetime prevalence[b] of NPSV	The proportion of women who reported that they had been subjected to one or more acts of sexual violence by someone other than a current or former husband or male intimate partner in their lifetime (defined as since the age of 15 years).[c]

a The age of 15 years was set as the lower age limit for the purposes of these estimates (as for intimate partner violence). Adolescent girls in the age group 15–17 years who have been subjected to NPSV are also considered to have been subjected to child sexual abuse.

b Prevalence refers to the number of women who have been subjected to sexual violence divided by the number of at-risk women (all women, in the case of NPSV) in the study population.

c As presented in section 4.2.1 (Global prevalence of non-partner sexual violence), NPSV from the Demographic and Health Survey (DHS) only captures (i) the experience if the perpetrator of the first act of sexual violence was a non-partner; (ii) sexual violence resulting from use of physical force only (which does not capture sexual violence involving the use of intimidation, threats or coercion); and (iii) women whose *first* sexual violence experience was since age 15 and hence filters out those who may have first experienced it before age 15 *and also* subsequently.

2.2 DIFFERENCES BETWEEN THE INDICATORS USED FOR THIS ANALYSIS AND THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS (SDG) INDICATORS

The estimates presented in this report are based on all available data from studies conducted during the period 2000–2018 (published by 2019) if they were population-based, nationally or subnationally representative, and used acts-based measures of intimate partner violence (see further information in section 3.1). The United Nations SDG database currently only includes unadjusted data from the "most recent" survey in a country rather than all available data points for a country *(55)*. The year of the "most recent" survey varies significantly among countries, and some countries have not conducted such a survey in over a decade, impeding comparability. The statistical methods employed for the estimates in this report adjust for survey years to adequately account for survey recency and quality and to optimize comparability (see sections 3.2–3.4). In addition, the SDG database mainly includes data from low- and middle-income countries (mainly from DHS surveys) where past 12 months prevalence of intimate partner violence is significantly higher than in high-income countries.

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2.2.1 TYPES OF INTIMATE PARTNER VIOLENCE REPORTED

SDG indicator 5.2.1 (see Box 2.1) calls for global reporting on three types of intimate partner violence: physical, sexual and psychological. As mentioned in section 2.1.1, while there is generally global consensus on how physical and sexual intimate partner violence are operationally defined and measured, psychological partner violence – which may be conceptualized differently across different cultures and contexts – requires further methodological work so it can be accurately measured and reported. This report therefore presents estimates on physical and/or sexual intimate partner violence only.

2.2.2 AGE RANGE OF WOMEN RESPONDENTS REPORTING EXPERIENCE OF VIOLENCE

Both SDG indicators 5.2.1 and 5.2.2 (see Box 2.1) suggest reporting the prevalence of violence experienced by women "aged 15 years and older". However, most data, especially from low- and middle-income countries, come from the Domestic Violence Module within the DHS or national adaptations of the DHS (especially in some countries in Latin America), which largely focus on women of reproductive age (i.e. women aged 15–49 years). Other specialized surveys on violence against women include a sample age range of 18–64 or 15–75 years, and a few others include respondents aged 15 years and older (without a defined upper limit), leading to significant heterogeneity in the analyses and reporting of violence against women by age range. Surveys that interview a sample of women from a different age group often report the prevalence of indicators, including violence, for the 15–49 age group, or these can be calculated from available microdata. This report therefore mainly presents estimates on violence experienced and reported by women and girls aged 15–49, while in some cases data are reported for the "15 years and older" age group.

While existing evidence indicates that younger women and women of reproductive age are at highest risk of intimate partner violence and sexual violence, the magnitude, patterns and forms of violence experienced by older women need to be better understood and researched, including through prevalence surveys. WHO is working on measures that capture additional forms of violence more specific to older women's experiences, for example: neglect, limitation of mobility and economic/financial abuse by adult children or caregivers (carers).

2.2.3 TIME FRAME FOR REPORTING OF NON-PARTNER SEXUAL VIOLENCE

Both SDG indicators 5.2.1 and 5.2.2 (see Box 2.1) call for the reporting of the prevalence of violence against women experienced "in the previous 12 months". This report presents both "lifetime" (since the age of 15) and "past 12 months" data for intimate partner violence and presents only lifetime data for non-partner sexual violence. This report does not present past 12 months prevalence of non-partner sexual violence; these estimates are in the process of being modelled, but it should be noted that this indicator is of limited value for monitoring and policy purposes. When restricting the time frame to the "previous 12 months" for an aggregate age group of women aged 15–49 years or 15 years and older, the prevalence of non-partner sexual violence is often zero or close to zero, for reasons discussed in section 2.3 below. This makes it difficult to provide a meaningful measurement or to detect change over time. It also makes disaggregation by age or any other variable difficult. Overall, marginally less data are available on non-partner sexual violence compared with intimate partner violence.

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2.2.4 DATA DISAGGREGATION BY RELEVANT SUBGROUPS OTHER THAN AGE

National data are useful to understand variations between subnational regions/districts or population groups in prevalence and risk factors, in order to better target prevention and response interventions. The SDGs encourage disaggregation of data on violence indicators by income/wealth, education, ethnicity (including Indigenous status), disability status, marital status, geographic location and frequency of violence *(34,56)*. Where available, data disaggregated by some of these variables have been extracted, and will be the subject of subsequent analyses.

2.3 CHALLENGES IN MEASUREMENT AND REPORTING OF VIOLENCE AGAINST WOMEN: RATIONALE FOR MODELLED ESTIMATES

Over the past two decades, there has been reassuring growth in the number and improvement in the quality of population-based studies and national surveys conducted globally that estimate the prevalence of violence against women. This is particularly true for intimate partner violence, with more surveys using the "gold standard" measurement approach that yields higher levels of disclosure about experiences of violence. This includes asking about a number of behaviour-specific acts of violence rather than using a single question like "have you ever experienced violence or abuse?" In addition, these studies follow internationally agreed ethical and safety standards *(34,44)*.

However, individual studies and surveys use different measures and methodologies, which makes it challenging to compare the prevalence of intimate partner violence and non-partner sexual violence across studies. Some of these differences and challenges are described below.

- Survey questions commonly exhibit variations in case definitions (e.g. definitions based on severity of acts or type of violence) and recall periods (i.e. lifetime versus past year/12 months – and different definitions of "lifetime").
- Lack of disaggregation by different forms of intimate partner violence (physical, sexual, psychological) and by different forms/severity of non-partner sexual violence impacts comparability across studies.
- There are differences in eligibility criteria for respondents to questions on intimate partner and/or non-partner sexual violence (e.g. all women [various age ranges], or only ever-married/partnered or currently married/partnered women are surveyed).
- In some studies on intimate partner violence, only violence by the woman's current or most recent partner is measured, while in other studies it extends to any previous partner.
- In studies on sexual violence, there is often a lack of disaggregation between sexual violence by (a) current or former spouse(s) or intimate partner(s) and (b) non-partner(s).
- Survey data are often not disaggregated by age group and, when they are, heterogeneous age-group definitions are often found; in addition, data for women aged 50 years and older are less available.

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- Some countries and areas still do not have any data and most of those with population-based data have only one or two data points, and some of these may be more than 10 years old.

- Violence against women, and especially sexual violence (whether by a partner or non-partner), remains strongly taboo and stigmatizing such that disclosure may be particularly challenging in societies where victims and survivors are likely to be blamed for it; this results in underreporting and therefore underestimation of the prevalence.

The following additional measurement issues specific to non-partner sexual violence, especially in low- and middle-income countries, should also be noted.

- Most data on non-partner sexual violence in low- and middle-income countries come from the Demographic and Health Surveys (DHS). The DHS instrument only measures and documents the prevalence of non-partner sexual violence if a woman's first experience of "forced sexual intercourse or unwanted acts" was from someone other than a current or former husband or intimate partner. This is likely to result in an underestimation of the prevalence of non-partner sexual violence as it excludes those girls and women whose first experience of sexual violence was from a husband or intimate partner but who were subsequently subjected to sexual violence by another perpetrator who had never been their husband or partner.

- All of the DHS surveys used in these analyses measured non-partner sexual violence only as a result of *physical force*; they did not capture any sexual violence that involved the use of threats and/or coercion.

- The DHS and some other surveys combine experiences of sexual violence during both childhood (before age 15, i.e. child sexual abuse) and adulthood in their measures of non-partner sexual violence.

These differences, gaps and overlaps in the measures of the prevalence of intimate partner violence and non-partner sexual violence used by studies mean that robust statistical models are required to adjust for the variations across studies. Data comparability is important in the production of global and regional aggregate statistics and for global monitoring of violence against women across countries and regions. These statistically adjusted estimates are also useful at the country level as some survey measures used by individual countries (e.g. using a narrow definition of violence) may result in underestimation of the problem in that country. Section 3 on data and methods describes in further detail the data sources, data processing and analytical techniques used in the production of the estimates presented in Section 4 and the annexes of this report.

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3 Data and methods

This section provides an overview of the methods for gathering all eligible data (and compiling a Global Database) on the prevalence of two forms of violence against women: intimate partner violence and non-partner sexual violence (section 3.1 and Box 3.1), followed by an overview of the statistical methods applied to the data gathered in the WHO Global Database to derive the prevalence estimates presented in this report and its annexes (sections 3.2–3.4).

The United Nations Inter-Agency Working Group on Violence Against Women Estimation and Data (VAW-IAWGED) was formed of representatives from WHO, the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), the United Nations Office on Drugs and Crime (UNODC) and the United Nations Statistics Division (UNSD). The VAW-IAWGED was established in 2017 to improve the measurement of violence against women and strengthen its global monitoring and reporting, including of the relevant SDG indicators (see Box 2.1, Section 2). The VAW-IAWGED was supported by a Technical Advisory Group (TAG) – an independent panel of external academic and technical experts and national statistics office representatives – in the production of this new round of estimates.

The methods described in this section were used to compile data and derive the estimates presented in this report: (i) global, regional and national estimates of lifetime (since age 15) and past 12 months physical and/or sexual intimate partner violence, and (ii) global and regional estimates of lifetime (since age 15) non-partner sexual violence.

The rationale for the use of statistical models to develop the adjusted estimates was presented in section 2.3. Further details of the estimation methods for intimate partner violence can be found in Maheu-Giroux et al. *(57)*. The full database will be available on the WHO Global Database on Prevalence of Violence against Women platform at https://srhr.org/vaw-data. The country profiles are available upon request.

3.1 DATA SOURCES, SYSTEMATIC REVIEW OF THE EVIDENCE AND COMPILATION OF THE DATABASE

The analyses presented in this report are based on data extracted and compiled by WHO in a Global Database on Prevalence of Violence Against Women (see Box 3.1). This database includes data from all available prevalence surveys/studies of physical, sexual and psychological intimate partner violence, sexual violence by any perpetrator (including current and former husbands and male intimate partners), and non-partner sexual violence. The surveys/studies were identified through the methods described below.

First, a systematic review was conducted to update and extend the systematic reviews previously conducted by WHO, the London School of Hygiene and Tropical Medicine (LSHTM) and the South Africa Medical Research Council (SAMRC) for the 2010 violence against women prevalence estimates published in 2013 *(2,22)*. For this new systematic review, comprehensive and extensive searches of electronic databases were carried out,

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including of CINAHL (Cumulative Index to Nursing and Allies Health Literature), Embase (Excerpta Medica database), the International Bibliography of the Social Sciences (IBSS), LILACS (Latin American and Caribbean Health Sciences Literature), MEDLINE, Global Health and PsycInfo *(58)*. Searches of webpages and metadata repositories of national statistics offices and international survey programmes (e.g. the Demographic and Health Surveys [DHS] *(47)*, Reproductive Health Surveys [RHS] *(48)* and Multiple Indicator Cluster Surveys [MICS] *(59)*) were also conducted to identify survey reports that were published outside academic journals. Targeted Google searches were also conducted with a focus on those countries for which no data had been found. We sought to include all published and unpublished studies that provided data on intimate partner violence or non-partner sexual violence and which met the inclusion criteria.

The inclusion criteria for the studies were:

- ✓ population-based
- ✓ representative at a national or subnational level
- ✓ conducted between 2000 and 2018, and available by 2019, and
- ✓ used acts-based measures.

A very small number of surveys did not use acts-based measures of violence and these were excluded as they are known to underestimate the prevalence of intimate partner violence *(60–63)*. While the Global Database includes all data available since 1983, the independent external Technical Advisory Group (TAG) to the VAW-IAWGED recommended that studies conducted prior to 2000 not be included in the modelling of these new estimates.

Next, in line with WHO's quality standards for data publication, a country consultation on the intimate partner violence estimates was conducted in early 2020 with all WHO Member States and one territory for which data were available: occupied Palestinian territory, including east Jerusalem. Annex 1 provides further details about the country consultation process. During this process, additional studies meeting the inclusion criteria were identified and/or data were provided by some national statistics offices and relevant ministries. The key objectives of the country consultation process were:

(i) to ensure that countries had the opportunity to review their national modelled intimate partner violence estimates and the data sources (surveys/studies) used in the production of these estimates;

(ii) to ensure the inclusion of any additional surveys/studies that met these inclusion criteria but which may not have been previously identified; and

(iii) to familiarize countries with the statistical modelling approach used to derive the global, regional and national estimates.

The main sources of data on violence against women are: (i) specialized surveys on violence against women, for example surveys using the WHO multi-country study instrument and methodology *(24)*, the European Union (EU)-wide survey on violence

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against women conducted by the Fundamental Rights Agency (FRA) *(64)*, International Violence against Women Surveys (IVAWS) *(65)*, and several national surveys; and (ii) modules on violence against women within larger national health surveys, such as the DHS and RHS. A small number of data points came from other surveys such as national crime victimization surveys or MICS.

BOX 3.1. Data extracted to the WHO Global Database on Prevalence of Violence Against Women

The following data were extracted to the WHO Global Database on Prevalence of Violence Against Women for each eligible survey/study/observation:

- country, author(s) and publication year;
- start and end years of data collection;
- type of violence: physical intimate partner violence (IPV), sexual IPV, physical and/or sexual IPV, psychological IPV, sexual violence by any perpetrator (including current or former husband or intimate partner) and non-partner sexual violence;
- type of perpetrator of IPV: current or most recent or any husband or other type of intimate partner;
- surveyed/sample population: all women, currently partnered/married women, ever-married/partnered women;
- age-specific prevalence estimates by five-year age groups (when available), estimates for the 15–49 year age group, and their respective denominators (design-adjusted);
- time period for prevalence ("lifetime" [defined as since age 15], past 12 months, other);
- geographical setting (national or subnational level, and urban, rural or mixed urban/rural setting), along with the corresponding point estimates and denominators;
- interviewer training.[9]

The Global Database can be accessed online at: https://srhr.org/vaw-data

The DHS surveys (by ICF International's DHS Program *(47)* in collaboration with national government and other partners), while among the main sources of data on non-partner sexual violence against women in low- and middle-income countries, do not present these

9 Existing evidence has established that interviewer training has a positive effect on enabling disclosure of sensitive issues like intimate partner violence and non-partner sexual violence, and this in turn impacts on reported prevalence levels *(63,66)*. Hence, where reported, the use of such training on how to safely and empathetically ask women about their experiences of violence was also recorded in the Global Database as a quality indicator.

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data in their main reports. Hence, in order to compute the global and regional estimates for non-partner sexual violence, in addition to the extensive searches of databases for published and unpublished reports, analyses were conducted of publicly available microdata from 75 DHS surveys and the relevant point estimates were calculated.[10]

3.2 PRE-PROCESSING OF DATA

Fig. 3.1 provides a conceptual overview of the data input, data pre-processing, data analyses and data post-processing methods used to obtain global, regional and national estimates of physical and/or sexual intimate partner violence, and global and regional estimates of non-partner sexual violence. The first step of the data pre-processing involved the imputation of missing survey sample sizes. In cases where design-adjusted standard errors or confidence intervals were available, the effective sample size was derived from these quantities. If only a confidence interval was available, Wilson's formula was used and applied to the upper limit of the confidence interval to obtain standard errors *(67)*. In the few instances where sample sizes could not be determined, it was conservatively assumed that nationally representative surveys and subnational surveys would have sample sizes of 3000 and 1000 respondents, respectively (based on the lowest tercile of survey sample size distribution), and an empirically derived design effect was applied *(57)*.

In data pre-processing, two data sets were created, as shown on the right of the "Data pre-processing" box in Fig. 3.1. The first data set was used to estimate adjustment factors to enable the combining of the raw point estimates from different studies. The second data set contains only the age-disaggregated observations and data belonging to the "optimal set" of observations, which used gold standard methods (i.e. self-reported experience of acts of physical and/or sexual violence, including severe and non-severe forms of violence, and inclusion of ever-partnered women and intimate partner violence perpetrated by any current or former husband or male intimate partner). This second data set was used to model the prevalence estimates.

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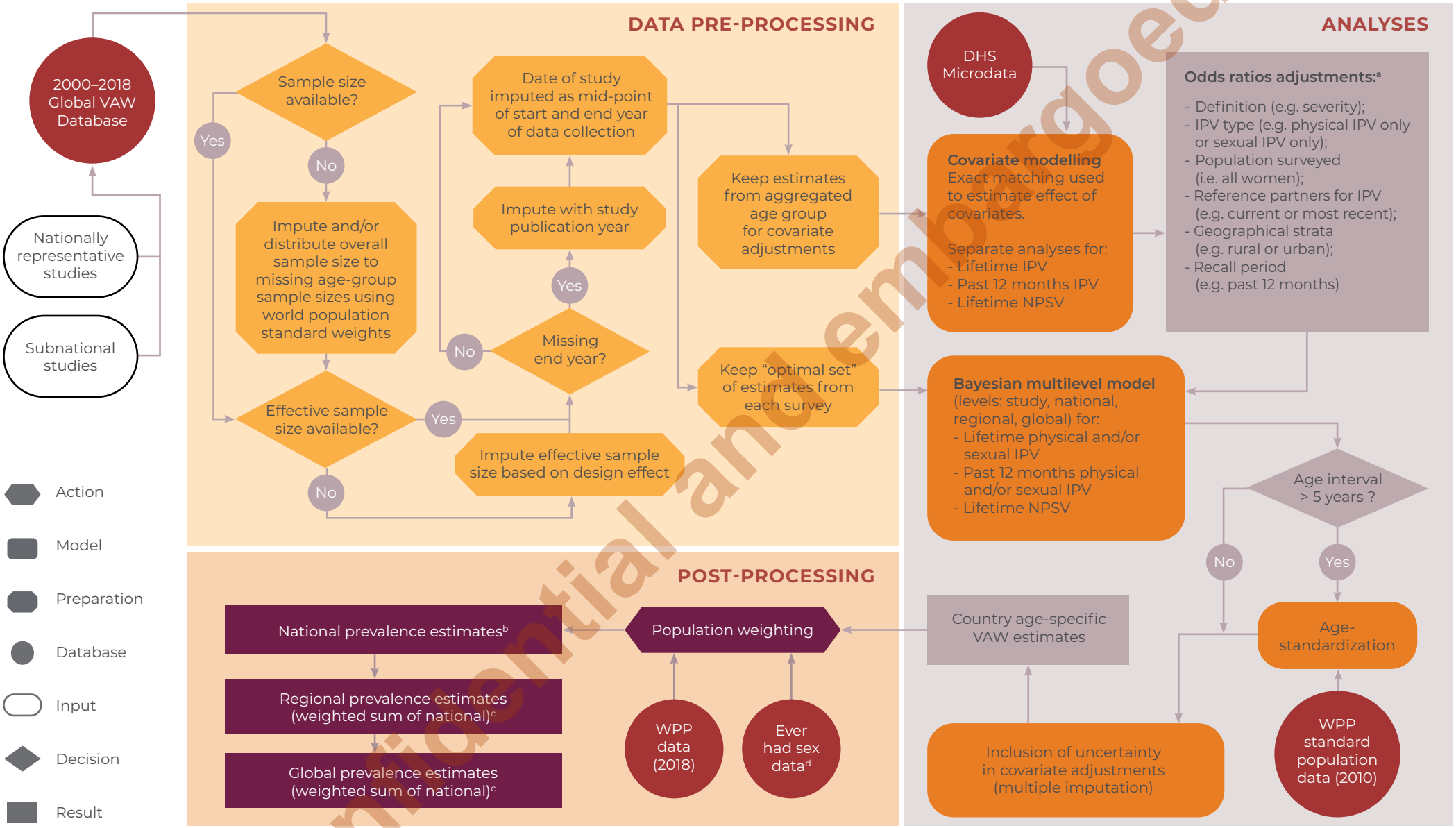
10 The DHS and some other surveys include experiences of sexual violence during both childhood (before age 15, i.e. child sexual abuse) and adulthood in their measures of non-partner sexual violence. In the analysis for this report, computations using "age of first forced sex" were conducted in order to disentangle child sexual abuse from non-partner sexual violence since age 15. However, this resulted in the exclusion of women who may have experienced non-partner sexual violence prior to age 15 years but also experienced it subsequently, since age 15. These were extremely low numbers, however, and unlikely to affect the estimated prevalence of non-partner sexual violence since age 15 (referred to in this report as "lifetime" prevalence).

Fig. 3.1. Conceptual overview of data inputs, data pre-processing, analysis and post-processing steps required to produce global, regional and national prevalence estimates on violence against women



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DHS: Demographic and Health Survey; IPV: intimate partner violence; NPSV: non-partner sexual violence; VAW: violence against women; WPP: *World population prospects* (a publication of population estimates and projections prepared by the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat).

Note: The data referred to were from the 2019 revision of WPP *(68)*. Given that the median year of data collection across all survey/studies was 2011, the 2010 population structure from WPP 2019 was applied.

a Adjustment factors for covariate adjustments vary as a function of VAW outcomes.
b Not included for NPSV.
c Countries and areas without data not reported.
d Countries and areas without data assigned regional prevalence.

3.3 DATA ANALYSIS: MULTILEVEL MODELLING FRAMEWORK

Multilevel modelling is the statistical approach that is best suited for use with hierarchical (or nested) data and to pool together observations from different sources *(69)*. The chosen model structure is based on similar meta-regressions of health indicators *(2,7,70–76)* and has five nested levels: (i) individual studies, (ii) countries, (iii) regions, (iv) super regions and (v) the world. Here, "regions" and "super regions" correspond to the classifications used by the Global Burden of Disease (GBD) study, which groups countries into 21 mutually exclusive regions and 7 super regions, based on their epidemiological profiles *(77)*. The regression model uses a binomial likelihood where y_{it} is the survey-adjusted number of women reporting violence for observation i at calendar year t, and N_{it} is the effective sample size for that observation.

$$y_{it} \sim Binomial(p_{it}, N_{it})$$

The logit-transformed prevalence estimate p_{it} is equal to the sum of the study-specific intercepts (i.e. the random effects, denoted by $\alpha_{s[i]}$), the country-specific age adjustments (denoted by $\gamma_{c[i]}$), the country-level time trend (denoted by $\delta_{c[i],t}$) and the sum of the log-odds ratios of the adjustment factors (i.e. the "cross-walk" or multiple imputation covariate modelling, denoted by $X_{s[i]}$). In its simplest form, the model can be described by the following equation:

$$logit(p_{it}) = \alpha_{s[i]} + \gamma_{c[i]} + \delta_{c[i],t} + X_{s[i]}$$

The four terms on the right-hand-side of this equation are explained in more detail in Annex 4.

3.3.1 CONSTRAINTS

Prevalence of intimate partner violence within the past 12 months should be lower or equal to the lifetime prevalence (since age 15). Hence, these two outcomes were jointly modelled to ensure that this constraint is respected. This was achieved by jointly performing the meta-regression described above and forcing model predictions for past 12 months intimate partner violence for a new country to be equal to or lower than those of their corresponding prediction for lifetime intimate partner violence. Such constraints were not required for the analysis of non-partner sexual violence in this report as only lifetime prevalence was estimated.

The difference between lifetime and past 12 months intimate partner violence should also be relatively small for the youngest age group of 15–19 years, as the risk of exposure to intimate partner violence for these girls and young women is relatively similar for both time periods. In preliminary analyses, models constraining the predicted prevalence ratio of lifetime versus past 12 months intimate partner violence among 15- to 19-year olds to be less than three improved out-of-sample predictions (this value was chosen because no empirical estimates recorded a higher ratio).

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3.3.2 COMPUTATIONS

A Bayesian framework was the preferred modelling approach. All model parameters and hyperparameters were given non-informative priors *(78)*. The posterior distributions of the parameters of interest were obtained using Markov chain Monte Carlo (MCMC) simulations implemented using the JAGS (Just Another Gibbs Sampler) software *(79)*. Inferences were based on four chains of 50 000 iterations (with an adaptation phase of 10 000 iterations and an additional 5000 used as warm up), thinned at every 20th iteration.

Uncertainty in the estimated adjustment factors was accounted for by sampling a total of 10 vectors from their estimated distributions using Latin hypercube sampling. For each set, the Bayesian model (as above) was fitted and then all draws from the posterior distributions for inferences were mixed *(80,81)*. All analyses were carried out using the STATA 16 *(82)* and R statistical software *(83)* and selected packages of R *(84–86)*.

3.3.3 MODEL VALIDATION

Model performance was assessed using posterior predictive checks *(87)*, in-sample comparison and out-of-sample predictions. This procedure was especially useful to understand the ways in which this multilevel model did not fit the observed statistics. By systematically identifying where model predictions were not congruent with the observed data, the estimates were improved through the iterative process of model building and refinement.

3.4 POST-PROCESSING OF DATA

Once the model's parameters were estimated, they were combined and aggregated upward to obtain the required national, regional and global estimates for physical and/or sexual intimate partner violence, and regional and global estimates for non-partner sexual violence. For each country with data, a single estimate was computed using all available data points. This was achieved by first weighting the country- and age-specific estimates by the corresponding population age structure using data from *World population prospects 2019* (WPP 2019) *(68)*. Since the denominator for intimate partner violence was all ever-married/partnered women, the proportion of women who had ever had sex was used as a proxy.[11]

Some countries did not have any eligible data (i.e. which met the inclusion criteria mentioned in section 3.1) to inform their estimates and so these were statistically imputed using estimates from countries with similar characteristics, leveraging the multilevel nature of the model, in order to inform the global and regional estimates. For regional estimates, the country-specific prevalence estimates were aggregated by summing the number of women subjected to intimate partner violence over the different geographical groupings, based on the GBD, WHO or United Nations SDG regional classifications, as well as globally. Annexes 2 and 3 list the countries included within each of the WHO and SDG regions, respectively.

11 The most recent estimates available for women who have ever had sex (data for 2010) were linearly extrapolated to 2018 using national age-specific 2005–2010 trends (on the logit scale).

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An estimate of the combined lifetime prevalence of physical and/or sexual intimate partner violence and non-partner sexual violence was calculated at the global and regional levels for the 15–49 age group (see Table 4.6) and the 15 and older age group (see Annex 17), using the following procedure:

a) First, intimate partner violence and non-partner sexual violence might not be independent events such that women reporting intimate partner violence might also be more (or less) likely to report non-partner sexual violence. The correlation between these two outcomes was quantified using 63 Demographic and Health Surveys (DHS) that collected individual-level information on both intimate partner violence and non-partner sexual violence. The correlation coefficient was calculated for each survey and these were subsequently pooled using a random effects meta-analysis (see Annex 14 and refer to the supplementary material available online).[12]

b) Second, the combined estimates were obtained using the country- and age-specific posterior distributions of intimate partner violence (IPV) and non-partner sexual violence (NPSV). For NPSV, it was assumed that prevalence did not differ between never- and ever-partnered women. IPV and NPSV were combined using the formula below, where *P(I)* and *P(N)* are the prevalence of IPV and NPSV, respectively, and where ρ_{IN} is the correlation between these two outcomes, from the meta-analysis described in (a) above. The estimates were finally aggregated using the country- and age-specific population weights.

$$P(I \vee N) = P(I) + P(N) - \left(P(I) \times P(N) + \rho_{IN} \sqrt{P(I) \times (1-P(I)) \times P(N) \times (1-P(N))} \right)$$

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12 Supplementary material is available at: www.srhr.org/vaw-data

4 Prevalence estimates of intimate partner violence and non-partner sexual violence, 2018

This section presents the global, regional and national prevalence estimates of physical and/or sexual intimate partner violence against ever-married/partnered women, and the global and regional prevalence estimates of non-partner sexual violence against all women.[13]

The estimates presented here are based on a comprehensive and rigorous systematic review of all eligible studies and surveys conducted between 2000 and 2018 (see Section 3), including those identified during the country consultation process and screened for inclusion (see Annex 1). The point estimates provided[14] are therefore the most accurate that could be derived from the available data on women's self-reported experience of being subjected to intimate partner violence and/or sexual violence by any perpetrator. The *lifetime* (since age 15) prevalence estimates of intimate partner violence draw on 307 studies from 154 countries and areas and the *past 12 months* prevalence estimates are informed by 332 studies from 159 countries and areas from across all global regions, representing 90% of the world's population of women and girls aged 15 and older *(57)*. The *lifetime* prevalence estimates for non-partner sexual violence are based on 227 studies from 137 countries and areas. The characteristics of the studies conducted between 2000 and 2018 measuring lifetime and past 12 months intimate partner violence are presented in Maheu-Giroux et al. *(57)*, and those for the studies on lifetime non-partner sexual violence are provided in Annex 11. Collectively the estimates presented in this report are referred to as the "2018 estimates" to differentiate them from the 2010 estimates published by WHO in 2013 *(2,22)*.

BOX 4.1. Accurately interpreting point estimates and uncertainty intervals

The 2018 estimates of the prevalence of intimate partner violence and non-partner sexual violence include a point estimate and a 95% uncertainty interval (UI). The median point estimate has been used as the mean is more affected by extreme values. Where only point estimates are reported in the text or tables, UIs can be obtained from the tables in the annexes to this report.

The 95% UIs computed for all the estimates provide the 2.5th and 97.5th percentiles of the posterior distributions. Both point estimates and 95% UIs should be taken into account when assessing estimates. Below is one example and how to interpret it.

13 For country estimates for non-partner sexual violence to be robust, the measurement of this form of violence needs to be strengthened significantly. The United Nations Inter-Agency Working Group on Violence Against Women Estimation and Data (VAW-IAWGED) will focus its efforts on this.

14 All point estimates are provided along with their 95% uncertainty intervals (UI), also known as "credible intervals" (CrI), to indicate the range within which an estimate's true value falls.

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BOX 4.1. *(continued)*

The estimated 2018 global prevalence of physical and/or sexual intimate partner violence among ever-married/partnered women aged 15–49 years is 27% (UI 23–31%). This means:

- The point estimate is 27% and the 95% UI ranges from 23% to 31%.
- There is an almost 50% chance that the true 2018 global prevalence of intimate partner violence lies between 23 and 27% or between 27 and 31%, with 27% the most probable value.
- There is a 95% chance that the true 2018 global prevalence of intimate partner violence lies between 23% and 31%.
- There is a 2.5% chance that the true 2018 global prevalence of intimate partner violence lies above 31%, and a 2.5% chance that the true value lies below 23%.

Other accurate interpretations include:

- We are 97.5% certain that the true 2018 global prevalence of intimate partner violence is at least 23%.
- We are 97.5% certain that the true 2018 global prevalence of intimate partner violence is 31% or less.

The amount and the quality of data available for estimating an indicator jointly determine the width of an indicator's UI. As data availability and quality improve, the certainty increases that an indicator's true value lies close to the point estimate.

4.1 GLOBAL, REGIONAL AND NATIONAL PREVALENCE ESTIMATES OF PHYSICAL AND/OR SEXUAL INTIMATE PARTNER VIOLENCE, 2018

4.1.1 GLOBAL PREVALENCE OF PHYSICAL AND/OR SEXUAL INTIMATE PARTNER VIOLENCE

Aggregate estimates of intimate partner violence for women ages 15–49 and ages 15 and older

Globally, 27% (UI 23–31%) of ever-married/partnered women of reproductive age (15–49 years) are estimated to have experienced physical and/or sexual intimate partner violence at least once in their *lifetime* (defined as since the age of 15, for the purposes of these estimates). Among ever-married/partnered women in a slightly different age range – aged 15 years and older – 26% (UI 22–30%) are estimated to have experienced intimate partner violence at least once in their *lifetime*. Applying this percentage to the 2018 population data from *World population prospects 2019* (WPP 2019) *(68)* indicates that on average 641 million and up to 753 million ever-married/partnered women aged 15 years and older had been subjected to physical and/or sexual violence from an intimate partner at least once since the age of 15.

Globally, it is estimated that 13% (UI 10–16%) of ever-married/partnered women aged 15–49 years have experienced recent physical and/or sexual violence from an intimate

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partner – defined as within the *past 12 months*, based on survey interview data using this time frame. Among ever-married/partnered women aged 15 years and older, an estimated 10% (UI 8–12%) have experienced recent (past 12 months) intimate partner violence. Again, using 2018 population data from WPP 2019 *(68)*, this indicates that up to 307 million ever-married/partnered women aged 15 years and older had been subjected to recent physical and/or sexual violence from an intimate partner.

BOX 4.2. Global estimates of lifetime and past 12 months intimate partner violence, 2018

Lifetime prevalence (since age 15 years):

Globally, 27% (UI 23–31%) of ever-married/partnered women **aged 15–49 years** have been subjected to physical and/or sexual intimate partner violence at least once in their lifetime.

Globally, 26% (UI 22–30%) of ever-married/partnered women **aged 15 years and older** have been subjected to physical and/or sexual intimate partner violence at least once in their lifetime.

Past 12 months prevalence:

Globally, 13% (UI 10–16%) of ever-married/partnered women **aged 15–49 years** have been subjected to physical and/or sexual intimate partner violence in the past 12 months.

Globally, 10% (UI 8–12%) of ever-married/partnered women **aged 15 years and older** have been subjected to physical and/or sexual intimate partner violence in the past 12 months.

Age-disaggregated estimates of intimate partner violence

Table 4.1 presents the global prevalence estimates of intimate partner violence among ever-married/partnered women disaggregated by age group, in addition to the aggregate age groups, which are listed at the top.

As shown in the *lifetime* columns of Table 4.1, intimate partner violence is already highly prevalent in the youngest age cohort (age 15–19 years). Almost one in four ever-married/partnered adolescent girls in that age group is estimated to have experienced physical and/or sexual violence from a current or former husband or male intimate partner at least once in their lives, since reaching the age of 15 (24%, UI 21–28%). The estimated lifetime prevalence of this violence remains high, at 26–28%, among ever-married/partnered women between the ages of 20 and 49 years. The estimated prevalence of this violence is comparatively lower among women aged 60 and older, at 23%, although the uncertainty intervals overlap, and this difference is not statistically significant.

An analysis of age-disaggregated prevalence of physical and/or sexual intimate partner violence experienced by ever-married/partnered women within the *past 12 months*, as shown in the right-hand columns of Table 4.1, indicates that again this violence starts relatively early in life and gradually declines with age. Reported prevalence in the past 12 months was highest among the youngest age cohorts: 16% among adolescent girls and young women aged 15-19 (UI 14–19%) and also 16% among young women age 20–24 (UI 13–19%). The estimated prevalence of this type of violence within the past

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12 months is significantly lower among ever-married/partnered women aged 50 years and older and was lowest among women aged 60–64 years (5%, UI 4–7%) and those aged 65 and older (4%, UI 3–7%).

Global prevalence estimates mask wider variations between regions and countries, particularly for the past 12 months prevalence (see Annexes 6–10).

Table 4.1. Global prevalence estimates of lifetime and past 12 months physical and/or sexual intimate partner violence (IPV) among ever-married/partnered women, by age group, 2018

AGE GROUP (YEARS)	*Lifetime* IPV point estimate and 95% uncertainty interval (UI)		*Past 12 months* IPV point estimate and 95% uncertainty interval (UI)	
	IPV point estimate (%)	Lower – upper UI (%)	IPV point estimate (%)	Lower – upper UI (%)
15–49	27	23–31	13	10–16
15 and older	26	22–30	10	8–12
15–19	24	21–28	16	14–19
20–24	26	23–30	16	13–19
25–29	27	23–32	15	12–18
30–34	28	24–33	13	11–17
35–39	28	24–33	12	10–15
40–44	27	23–32	10	8–13
45–49	26	22–31	8	6–11
50–54	25	21–30	7	5–9
55–59	24	20–30	6	5–8
60–64	23	19–31	5	4–7
65+	23	18–30	4	3–7

Note: "Lifetime" refers to events since the age of 15 years; "partner" refers to any current or former husband or male intimate partner.

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Less than 10% of the eligible data on prevalence of intimate partner violence against women were for women aged 50 years and older. Furthermore, these data are mainly from high-income countries where overall prevalence rates are also comparatively lower. The availability of data on intimate partner violence differs by age group and geographic region, as shown in the tables in Annex 5. Globally, 73% of all available data used for the analyses of the *lifetime* prevalence estimates of intimate partner violence (Table A5.1), and 72% of the data included to model *past 12 months* estimates of intimate partner violence (Table A5.2) were for women between 15 and 49 years of age.

4.1.2 REGIONAL PREVALENCE OF PHYSICAL AND/OR SEXUAL INTIMATE PARTNER VIOLENCE

Lifetime prevalence

As presented in Table 4.2, using the United Nations SDG regional classifications, the estimated lifetime prevalence of physical and/or sexual intimate partner violence among ever-married/partnered women aged 15–49 was highest among the Least Developed Countries, at 37% (UI 33–42%), and in the three subregions of Oceania. The latter include (i) Melanesia, where over half (51%, UI 38–63%) of ever-married/partnered women between the ages of 15 and 49 years are estimated to have been subjected to physical and/or sexual violence from an intimate partner at some point in their lives; (ii) Micronesia, where the lifetime prevalence estimate is 41% (UI 32–52%); and (iii) Polynesia, where it is 39% (UI 30–49%).

The regions of Southern Asia (35%, UI 26–45%) and Sub-Saharan Africa (33%, UI 29–38%) have the next highest prevalence rates of lifetime intimate partner violence in this age range, followed by Northern Africa (30%, UI 23–40%) and Western Asia (29%, UI 22–37%).

In other regions, the estimated lifetime prevalence of intimate partner violence is lower than the global average (27%). In Latin America and the Caribbean, and also in Northern America, one in four (25%) of ever-married/partnered women aged 15–49 years are estimated to have been subjected to physical and/or sexual intimate partner violence at some point in their lives, since age 15. This is slightly higher than the prevalence estimate for Australia and New Zealand, at 23% (UI 16–32%). South-Eastern, Eastern and Central Asia, meanwhile, have comparatively lower prevalence estimates, at 21% (UI 15–31%), 20% (UI 12–31%) and 18% (UI 13–25%), respectively. In each of the subregions of Europe, which mainly comprise high-income countries, the estimated lifetime prevalence of intimate partner violence ranges from 23% in Northern Europe (UI 16–33%) to 16% (UI 12–21%) in Southern Europe. Even the relatively low prevalence estimates in these subregions are still unacceptably high.

Past 12 months prevalence

Turning to the estimates for *past 12 months* physical and/or sexual intimate partner violence among ever-married/partnered women aged 15–49, again it is the Least Developed Countries (22%, UI 19–26%) and the subregions of Oceania (excluding Australia and New Zealand) that have the highest estimated prevalence. Almost one in three ever-married/partnered women in Melanesia (30%, UI 20–43%), and approximately one in five in Micronesia (22%, UI 15–31%) and in Polynesia (19%, UI 13–27%) are estimated to have experienced physical and/or sexual violence from an intimate partner within the past 12 months.

Sub-Saharan Africa (20%, UI 17–24%) and Southern Asia (19%, UI 13–27%) have the next highest prevalence rates of past 12 months intimate partner violence, followed by Northern Africa (15%, UI 11–20%) and Western Asia (13%, UI 10–19%). A similar proportion of ever-married/partnered women of reproductive age in Central Asia (9%, UI 6–13%), South-Eastern Asia (9%, UI 6–14%) and Eastern Asia (7%, UI 3–17%) are estimated to have been subjected to physical and/or sexual violence from an intimate partner within the past 12 months. Similarly, in Latin America and the Caribbean, 8% (UI 7–11%) of ever-married/partnered women aged 15–49 have experienced intimate partner violence at least once in the year preceding the survey.

Overall, Northern America, Europe and Australia and New Zealand (i.e. mostly high-income countries) have the lowest estimated prevalence rates of past 12 months physical

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and/or sexual intimate partner violence. In Europe, the prevalence estimates among women aged 15–49 range from 4–5% in Southern, Western and Northern Europe, to 7% in Eastern Europe. Meanwhile, in Northern America, the prevalence is estimated at 6% (UI 4–10%), just above Australia and New Zealand at 3% (UI 2–5%).

Differences in the prevalence of intimate partner violence between the largely higher-income regions and low- and middle-income regions are much more pronounced for prevalence in the past 12 months compared to lifetime prevalence (Table 4.2). These findings are consistent with current evidence on the risk and protective factors associated with women's ability to leave abusive relationships *(42,88)*.

Table 4.3 presents lifetime and past 12 months prevalence estimates of physical and/or sexual intimate partner violence by WHO region, with high-income countries and areas separated out.

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Table 4.2. Global and regional prevalence estimates of lifetime and past 12 months physical and/or sexual intimate partner violence (IPV) among ever-married/partnered women aged 15–49 years, by United Nations Sustainable Development Goal (SDG) super region and subregion, 2018[15]

SDG REGION	*Lifetime* IPV point estimate and 95% uncertainty interval (UI)		*Past 12 months* IPV point estimate and 95% uncertainty interval (UI)	
	IPV point estimate (%)	Lower – upper UI (%)	IPV point estimate (%)	Lower – upper UI (%)
World	**27**	23–31	**13**	10–16
Sub-Saharan Africa	**33**	29–38	**20**	17–24
Northern Africa and Western Asia				
Northern Africa	**30**	23–40	**15**	11–20
Western Asia	**29**	22–37	**13**	10–19
Central and Southern Asia				
Central Asia	**18**	13–25	**9**	6–13
Southern Asia	**35**	26–45	**19**	13–27
Eastern and South-Eastern Asia				
Eastern Asia	**20**	12 –31	**7**	3–16
South-Eastern Asia	**21**	15–31	**9**	6–14
Latin America and the Caribbean	**25**	21–30	**8**	7–11

15 Refer to Annex 7 for regional estimates by WHO region (for women aged 15–49 and women aged 15 and older), Annex 8 for regional estimates by Global Burden of Disease (GBD) region (for women aged 15–49), Annex 9 for regional estimates by UNFPA region (for women aged 15 and older) and Annex 10 for regional estimates by UNICEF region (for women aged 15 and older).

Table 4.2 *(continued)*

SDG REGION	*Lifetime* IPV point estimate and 95% uncertainty interval (UI)		*Past 12 months* IPV point estimate and 95% uncertainty interval (UI)	
	IPV point estimate (%)	Lower – upper UI (%)	IPV point estimate (%)	Lower – upper UI (%)
Oceania				
Australia and New Zealand	**23**	16–32	**3**	2–5
Oceania (excluding Australia and New Zealand)				
Melanesia	**51**	38–63	**30**	20–43
Micronesia	**41**	32–52	**22**	15–31
Polynesia	**39**	30–49	**19**	13–27
Europe and Northern America				
Eastern Europe	**20**	15–26	**7**	5–10
Northern Europe	**23**	16–33	**5**	3–8
Southern Europe	**16**	12–21	**4**	3–5
Western Europe	**21**	15–29	**5**	3–7
Northern America	**25**	14–41	**6**	4–9
Least Developed Countries	**37**	33–42	**22**	19–26
SDG super regions				
Asia	**27**	22–33	**13**	10–18
Africa	**33**	29–37	**19**	16–23
Oceania	**30**	24–37	**10**	7–13
Europe	**20**	16–24	**5**	4–7
Americas	**25**	20–32	**7**	6–9

Notes: "Lifetime" refers to events since the age of 15 years; "partner" refers to any current or former husband or male intimate partner.

Full listings of countries and areas by SDG regional and subregional groupings can be found at: https://unstats.un.org/sdgs/indicators/regional-groups/

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Table 4.3. **Regional prevalence estimates of lifetime and past 12 months physical and/or sexual intimate partner violence (IPV) among ever-married/partnered women aged 15–49 years, by World Health Organization (WHO) region, 2018[a]**

WHO REGION	*Lifetime* IPV point estimate and 95% uncertainty interval (UI)			*Past 12 months* IPV point estimate and 95% uncertainty interval (UI)		
	IPV point estimate (%)	Lower UI (%)	Upper UI (%)	IPV point estimate (%)	Lower UI (%)	Upper UI (%)
World	**27**	24	31	**13**	**10**	16
Low- and middle-income countries and areas in:						
African Region	**33**	29	38	**20**	**17**	24
Region of the Americas	**25**	21	31	**8**	**7**	11
Eastern Mediterranean Region	**31**	24	38	**17**	**13**	22
European Region	**22**	18	28	**8**	**6**	11
South-East Asia Region	**33**	25	43	**17**	**12**	24
Western Pacific Region	**20**	12	31	**8**	**4**	17
High-income countries and areas	**22**	17	29	**6**	**4**	7

WHO Member States in each WHO region can be found at:

African Region: https://www.afro.who.int/countries
Region of the Americas: https://www.paho.org/en/countries-and-centers
South-East Asia Region: http://www.searo.who.int/en/
European Region: http://www.euro.who.int/en/countries
Eastern Mediterranean Region: http://www.emro.who.int/countries.html
Western Pacific Region: https://www.who.int/westernpacific/about/where-we-work

a High-income countries and areas are classified by the World Bank based on Gross National Income per capita calculated using the World Bank Atlas method. Countries in each World Bank Group region and income group are listed at: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups. This grouping is mutually exclusive, and countries classified as "high income" are therefore not included in any of the other regional classifications listed above.

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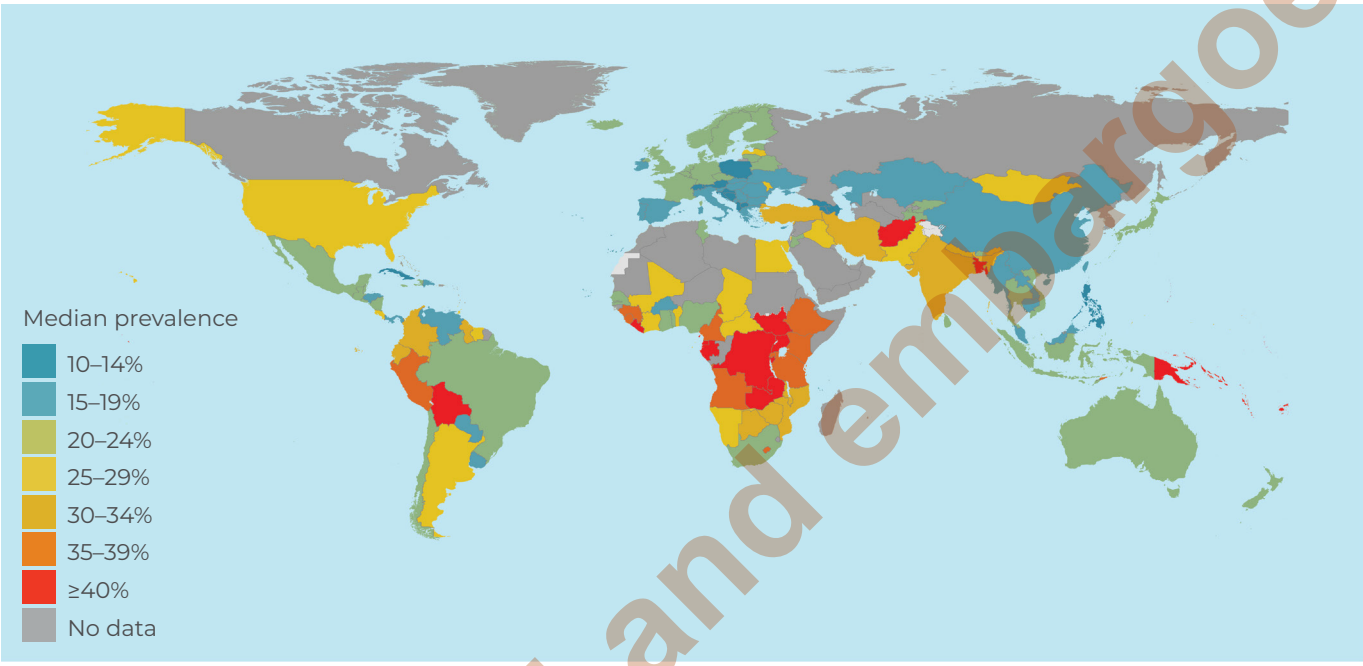
4.1.3 COUNTRY-LEVEL PREVALENCE OF PHYSICAL AND/OR SEXUAL INTIMATE PARTNER VIOLENCE

Annex 6 provides the 2018 point estimates and 95% uncertainty intervals for lifetime (since age 15) and past 12 months physical and/or sexual intimate partner violence among ever-married/partnered women aged 15–49, for 158 countries and 3 areas that had at least one available data source that met the inclusion criteria for this analysis (see section 3.1).

Lifetime prevalence

Fig. 4.1 displays a map with all countries and areas shaded according to their levels of lifetime prevalence of physical and/or sexual intimate partner violence. Those with no prevalence data that met the inclusion criteria are represented in grey.

Fig. 4.1. Map of prevalence estimates of lifetime[a] physical and/or sexual intimate partner violence (IPV) among ever-married/partnered women aged 15–49 years, 2018



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

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a "Lifetime" refers to events since the age of 15 years.

Eligible data were available for 154 countries and areas (see Annex 6). In 19 of these countries, between 40% and 53% of ever-married/partnered women aged 15–49 years are estimated to have been subjected to physical and/or sexual violence from a current or former husband or male intimate partner at least once in their lifetime (see Fig. 4.1). Using SDG regions, all except two of these countries are in the Oceania (excluding Australia and New Zealand), Sub-Saharan Africa or Southern Asia regions. These 19 countries are, in order from highest to lowest prevalence estimates: Kiribati (53%), Fiji (52%), Papua New Guinea (51%), Bangladesh and Solomon Islands (both 50%), the Democratic Republic of the Congo and Vanuatu (both 47%), Afghanistan and Equatorial Guinea (both 46%), Uganda (45%), Liberia and Nauru (both 43%), the Plurinational State of Bolivia (42%), Gabon, South Sudan and Zambia (all 41%), Burundi, Lesotho and Samoa (all 40%).

A further 16 countries fell within the second highest prevalence range, with 35–39% of ever-married/partnered women aged 15–49 experiencing physical and/or sexual violence from an intimate partner at least once in their lifetime (see Fig. 4.1). These countries are: Cameroon and Tuvalu (both 39%), Angola, Kenya, Marshall Islands, Peru, Rwanda, Timor-Leste and the United Republic of Tanzania (all 38%), Ethiopia, Guinea and Tonga (all 37%), Sierra Leone (36%), and India, the Federated States of Micronesia and Zimbabwe (all 35%).

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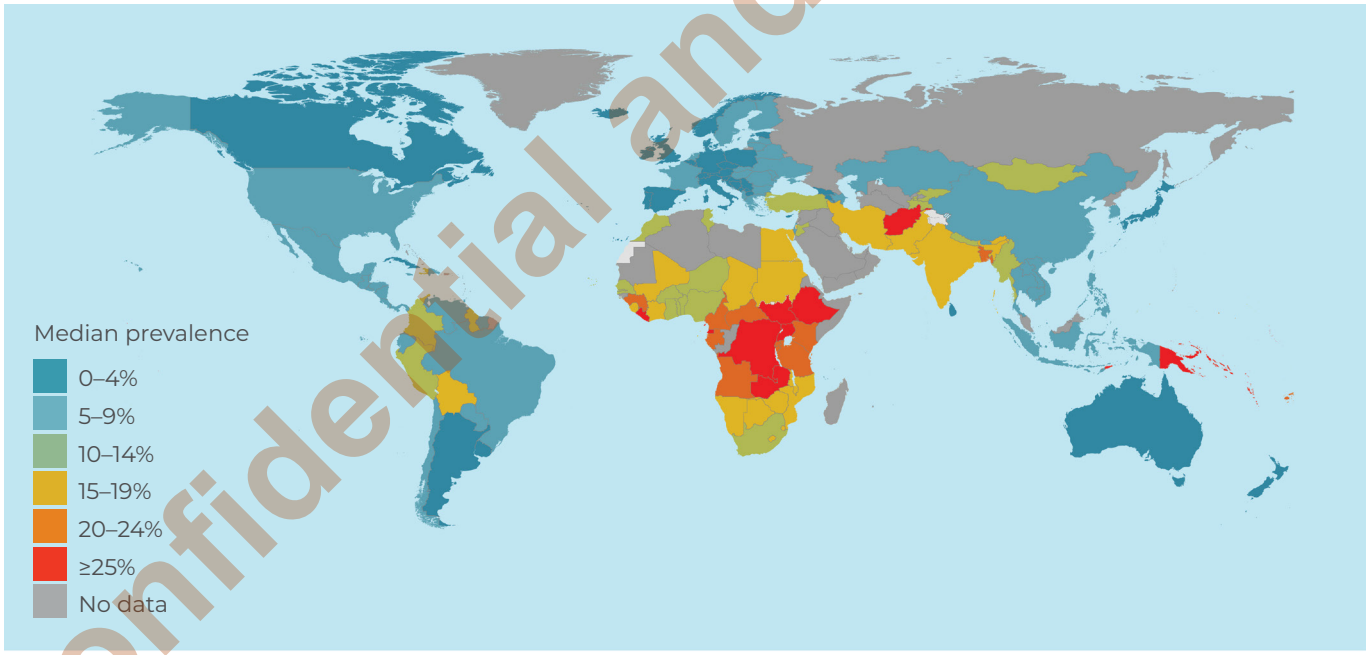
Twelve countries and two areas fell into the group with the lowest prevalence estimates for lifetime physical and/or sexual intimate partner violence among ever-married/partnered women aged 15–49 (i.e. prevalence of 10–14%; see Fig. 4.1). The areas are Hong Kong Special Administrative Region (China) and Kosovo (both 13%).[16] Six of the 12 countries are in the subregions of Europe (Albania, Bosnia and Herzegovina, and Switzerland [all 12%], Croatia, North Macedonia and Poland [all 13%]), three are in Western Asia (Armenia and Georgia [both 10%] and Azerbaijan [14%]), and the remaining three are Cuba (14%), the Philippines (14%) and Singapore (11%).

Six additional countries in the subregions of Europe (Austria, Cyprus, Ireland, Italy, Montenegro and Spain), one in Central Asia (Kazakhstan) and the Comoros and Panama all have relatively low prevalence, in the range of 15–16%.

Past 12 months prevalence

Fig. 4.2 presents the map of past 12 months physical and/or sexual intimate partner violence experienced by ever-married/partnered women aged 15–49 for all countries and areas with eligible data (see Annex 6 for the list of all countries and areas, and their estimates). Those with no data that met the inclusion criteria for this form of violence are represented in grey.

Fig. 4.2. Map of prevalence estimates of past 12 months physical and/or sexual intimate partner violence (IPV) among ever-married/partnered women aged 15–49 years, 2018



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

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The 14 countries with the highest past 12 months prevalence estimates of physical and/or sexual intimate partner violence (i.e. 25% and higher; see Fig. 4.2) are in the Sub-Saharan Africa, Oceania (excluding Australia and New Zealand), Southern Asia and South-Eastern

16 All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999). It is included because it had data that met the inclusion criteria.

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> ***"Overall, there were 54 countries where the estimates of past 12 months physical and/or sexual intimate partner violence among ever-married/partnered women were above the world average of 13% (UI 10–16%)."***

Asia regions. These countries are, in order the highest to lowest prevalence: the Democratic Republic of the Congo (36%), Afghanistan (35%), Papua New Guinea (31%), Vanuatu and Equatorial Guinea (both 29%), Solomon Islands, Timor-Leste and Zambia (all 28%), Ethiopia, Liberia and South Sudan (all 27%), Uganda (26%), Angola and Kiribati (both 25%).

There were 14 additional countries that had prevalence between 20% and 24%, mainly from the Sub-Saharan Africa and Oceania regions. These were: the United Republic of Tanzania (24%), Bangladesh, Fiji, Kenya and Rwanda (all 23%), Burundi, Cameroon and Gabon (all 22%), Central African Republic, Guinea and the Federated States of Micronesia (21%), Nauru, Sierra Leone and Tuvalu (20%).

Overall, there were 54 countries where the estimates of past 12 months physical and/or sexual intimate partner violence among ever-married/partnered women were above the world average of 13% (UI 10–16%).

Twenty-four of the 30 countries, and one area, with the lowest prevalence estimates for past 12 months physical and/or sexual violence (i.e. up to 4%; see Fig. 4.2) are high income. Twenty-three of the 30 countries are in Europe, while the other seven are: Australia, Japan, New Zealand, Singapore, Sri Lanka and Uruguay (all 4%) and Canada (3%). In addition, the area Hong Kong Special Administrative Region (China) fell into this range, at 3%.

4.2 GLOBAL AND REGIONAL PREVALENCE ESTIMATES OF LIFETIME NON-PARTNER SEXUAL VIOLENCE AGAINST WOMEN, 2018

4.2.1 GLOBAL PREVALENCE OF NON-PARTNER SEXUAL VIOLENCE

Globally, it is estimated that 6% (UI 4–9%) of women aged 15–49 have been subjected to sexual violence from someone other than a current or former husband or male intimate partner at least once in their lifetime, since age 15 (Box 4.3). The estimated prevalence and the uncertainty intervals are the same for women aged 15 years and older, reflecting the paucity of data in the older age groups. These estimates draw on data from 137 countries and areas and 227 nationally or subnationally representative population-based studies, representing 88% of the global population of women. The true prevalence of non-partner sexual violence is likely to be much higher than the reported and estimated prevalence as a result of the high levels of societal stigma and repercussions attached to disclosure of sexual violence and the significant measurement challenges that exist for this form of violence. These issues are discussed in more detail in section 2.3 above and section 4.2.2 below.

BOX 4.3. Global prevalence estimates of lifetime non-partner sexual violence, by age group, 2018

Globally, 6% (UI 4–9%) of women **aged 15–49 years** report they have been subjected to non-partner sexual violence at least once in their lifetime.

Globally, 6% (UI 4–9%) of women **aged 15 years and older** report they have been subjected to non-partner sexual violence at least once in their lifetime.

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Disaggregated estimates of global non-partner sexual violence by age groups did not show any significant differences in the lifetime prevalence of non-partner sexual violence. Given the limitations of currently available data and low prevalence estimates of lifetime non-partner sexual violence overall, it is unlikely that any true differences in the experience of this type of violence across the different age groups would be detected. This limitation is even more pronounced when looking at past 12 months prevalence, which is very low (not included in this report).

4.2.2 REGIONAL PREVALENCE OF NON-PARTNER SEXUAL VIOLENCE

Table 4.4 presents the lifetime prevalence estimates of non-partner sexual violence by United Nations SDG region. The highest estimated prevalence of non-partner sexual violence since age 15 is in high-income regions including Australia and New Zealand (19%, UI 9–36%) and Northern America (15%, UI 5–40%), although estimates are also high in Polynesia (12%, UI 8–20%), Micronesia (12%, UI 7–19%) and Latin America and the Caribbean (11%, UI 7–16%), followed by Melanesia (10%, UI 5–22%) and Northern Europe (10%, UI 6–16%).

The regions of Sub-Saharan Africa (6%, UI 5–8%), Northern Africa (4%, UI 2–9%), South-Eastern Asia (4%, UI 2–8%), Western Asia (4%, UI 2–9%), Central Asia (2%, UI 1–4%) and Southern Asia (2%, UI 1–3%) had the lowest prevalence estimates among regions.

These regional variations in the estimated prevalence of non-partner sexual violence, and the higher estimated prevalences in some high-income countries, need to be interpreted with caution. There are multiple gaps and challenges in the currently available data, due to variations in measurement and reporting of non-partner sexual violence (see section 2.3).

While there are real differences in the prevalence of non-partner sexual violence across geographical regions and heterogeneity in measures, sexual violence remains one of the most taboo and stigmatizing forms of violence in all settings and hence it is persistently underreported globally. These estimates reflect the varying levels of underreporting in different regions and cultural contexts. Disclosure of this form of violence may be particularly challenging in those societies where victims and survivors are more likely to be blamed for sexual violence perpetrated against them, resulting in even lower reported rates.

Thus, the perceived societal stigma, the comprehensiveness of interviewer training, and the quality and robustness of survey measures of sexual violence all play a critical and combined role in supporting or suppressing women's disclosure of their experiences of this form of violence *(34,66)*. The higher estimated prevalence of non-partner sexual violence in high-income countries (as presented in Table 4.4) may be partly explained by these interrelated factors that contribute to higher disclosure during interview and thus higher prevalence in survey reports.

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Table 4.4. **Global and regional prevalence estimates of lifetime non-partner sexual violence (NPSV) among women aged 15–49 years, by United Nations Sustainable Development Goal (SDG) super region and subregion, 2018**[17]

SDG REGION	Lifetime NPSV point estimate and 95% uncertainty interval (UI)	
	NPSV point estimate (%)	Lower – upper UI (%)
World	**6**	4–9
Sub-Saharan Africa	**6**	5–8
Northern Africa and Western Asia		
Northern Africa	**4**	2–10
Western Asia	**4**	2–9
Central and Southern Asia		
Central Asia	**2**	1–4
Southern Asia	**2**	1–3
Eastern and South-Eastern Asia		
Eastern Asia	**7**	2–21
South-Eastern Asia	**4**	2–8
Latin America and the Caribbean	**11**	7–16
Oceania		
Australia and New Zealand	**19**	9–36
Oceania (excl. Australia and New Zealand)		
Melanesia	**10**	5–22
Micronesia	**12**	7–19
Polynesia	**12**	8–20

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17 Refer to Annex 15 for global and regional prevalence estimates of lifetime NPSV by the World Health Organization (WHO) region (women aged 15 and older) and Annex 16 for the same data by Global Burden of Disease (GBD) region (women aged 15–49 years).

Table 4.4 *(continued)*

SDG REGION	Lifetime NPSV point estimate and 95% uncertainty interval (UI)	
	NPSV point estimate (%)	Lower – upper UI (%)
Europe and Northern America		
Eastern Europe	**6**	4–11
Northern Europe	**10**	6–16
Southern Europe	**7**	5–12
Western Europe	**8**	5–14
Northern America	**15**	5–40
Least Developed Countries	**5**	4–7
SDG super regions		
Asia	**4**	2–9
Africa	**6**	4–7
Oceania	**16**	9–29
Europe	**8**	6–10
Americas	**13**	8–21

Notes:
"Lifetime" refers to events since the age of 15 years; "partner" refers to any current or former husband or male intimate partner.

Full listings of countries and areas by SDG regional and subregional groupings can be found at: https://unstats.un.org/sdgs/indicators/regional-groups/

Table 4.5 presents the estimated lifetime prevalence of non-partner sexual violence among women aged 15–49 by WHO region, showing estimates similar to those for the SDG regions in Table 4.4. This table also illustrates the availability and gaps in current data on this form of violence by WHO region and by income level.[18] The largest proportion of studies on non-partner sexual violence are from Africa – 64 studies representing 28% of all the studies included in the analysis that included non-partner sexual violence data. These data were mainly from the DHS Domestic Violence Module. There were 58 studies from high-income countries (25% of the included studies). There were very few studies and countries with data on non-partner sexual violence from the Eastern Mediterranean Region (two studies from two countries representing 1% of all studies included in these modelled estimates). There were 20 studies (9%) from the South-East Asia Region and 22 (10%) from the Western Pacific Region. As previously explained, data availability and quality are important factors when it comes to the accuracy and comparability of the modelling of global and regional estimates, so they need to be taken into account when interpreting the estimated prevalence rates presented here.

18 Refer to Annex 12 to see countries and areas with eligible data on lifetime prevalence of non-partner sexual violence among women aged 15 years and older, by WHO region and income level.

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Table 4.5. **Global and regional prevalence estimates of lifetime non-partner sexual intimate partner violence (NPSV) among women aged 15–49 years and data availability, by World Health Organization (WHO) region, 2018**[a]

WHO REGION	Lifetime NPSV point estimate and 95% uncertainty interval (UI)		Number of studies included (% of total studies)	Number of countries and areas with NPSV data
	NPSV point estimate (%)	Lower – upper UI (%)		
World	**6**	4–9	225	135
Low- and middle-income countries and areas in:				
African Region	**6**	5–7	64 (28%)	33
Region of the Americas	**11**	7–16	33 (15%)	20
Eastern Mediterranean Region	**3**	1–7	2 (1%)	2
European Region	**5**	3–8	26 (12%)	14
South-East Asia Region	**2**	1–4	20 (9%)	7
Western Pacific Region	**6**	2–19	22 (10%)	17
High-income countries and areas	**10**	7–18	58 (26%)	42

Note: "Lifetime" refers to events since the age of 15 years; "partner" refers to any current or former husband or male intimate partner.

WHO Member States in each WHO region can be found at:

African Region: https://www.afro.who.int/countries
Region of the Americas: https://www.paho.org/hq/index.php?option=com_wrapper&view=wrapper&Itemid=2005
South-East Asia Region: http://www.searo.who.int/en/
European Region: http://www.euro.who.int/en/countries
Eastern Mediterranean Region: http://www.emro.who.int/countries.html
Western Pacific Region: https://www.who.int/westernpacific/about/where-we-work

a High-income countries and areas are classified by the World Bank based on Gross National Income per capita calculated using the World Bank Atlas method. Countries in each World Bank Group region and income group are listed at: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups. This grouping is mutually exclusive, and countries classified as "high income" are therefore not included in any of the other regional classifications listed above.

4.3 GLOBAL AND REGIONAL COMBINED PREVALENCE ESTIMATES OF INTIMATE PARTNER VIOLENCE AND NON-PARTNER SEXUAL VIOLENCE, 2018

Developing prevalence estimates for these two forms of violence combined provides a broader picture of the proportions and numbers of women subjected to violence, although this still does not represent the full extent of violence that women experience. Globally, 31% (UI 27–36%) of women aged 15–49 and 30% (UI 26–34%) of women aged 15 years and older have been subjected to physical and/or sexual violence from any current or former husband or male intimate partner, or to sexual violence from someone who is not a current or former husband or intimate partner, or to both these forms of violence at least once since the age of 15. These estimates are very similar to the 2010 estimates published by WHO in 2013 *(22)*, and fall within their uncertainty intervals. These findings suggest that on average 736 million and up to 852 million women who were aged 15 years or older in 2018 have experienced one or both of these forms of violence at least once in their lifetimes.[19]

19 Calculated by applying the percentage (30%) to the 2018 population data from *World population prospects 2019* for women in this age group *(68)*.

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While there are many other forms of violence that women are exposed to, these two forms – for which global and regional estimates have been generated – represent a large proportion of the violence that women experience globally. The actual prevalence of violence against women would likely be much higher if the full range of experiences, including physical violence by non-partners, cyberviolence and others, were included. Sexual harassment is also not included in current measures. Nevertheless, the global combined estimate highlights how physical and sexual violence remain pervasive in the lives of women and adolescent girls across the globe. The size of this combined estimate – one woman in every three – is mainly driven by the prevalence of intimate partner violence (as presented in section 4.1 above).

As presented in Table 4.6, the combined prevalence estimates of women aged 15–49 who have experienced intimate partner violence and/or non-partner sexual violence during their lives ranged from 25% (UI 16–38%) in the Western Pacific Region to 36% (UI 32–41%) in the African Region among low- and middle-income countries in each of these WHO regions. In the world's high-income countries, 30% (UI 24–37%) of women aged 15–49 have experienced intimate partner violence or non-partner sexual violence (or both) at least once since the age of 15, which is similar to the global prevalence. See Annex 17 for the prevalence estimates for women aged 15 years and older who have experienced intimate partner violence and/or non-partner sexual violence in their lifetimes (since the age of 15).

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Table 4.6. Global and regional prevalence estimates of lifetime physical and/or sexual intimate partner violence (IPV) or non-partner sexual violence (NPSV) or both among all women aged 15–49 years, by World Health Organization (WHO) region, 2018[a]

WHO REGION	Intimate partner violence and/or non-partner sexual violence (%)	Lower – upper UI (%)
World	**31**	27–36
Low- and middle-income countries and areas in:		
African Region	**36**	32–41
Region of the Americas	**33**	27–38
Eastern Mediterranean Region	**33**	26–40
European Region	**26**	21–31
South-East Asia Region	**34**	26–43
Western Pacific Region	**25**	16–38
High-income countries and areas	**30**	24–37

UI: uncertainty interval.

Note: "Lifetime" refers to events since the age of 15 years; "partner" refers to any current or former husband or male intimate partner.

WHO Member States in each WHO region can be found at:

African Region: https://www.afro.who.int/countries
Region of the Americas: https://www.paho.org/hq/index.php?option=com_wrapper&view=wrapper&Itemid=2005
South-East Asia Region: http://www.searo.who.int/en/
European Region: http://www.euro.who.int/en/countries
Eastern Mediterranean Region: http://www.emro.who.int/countries.html
Western Pacific Region: https://www.who.int/westernpacific/about/where-we-work

a High-income countries and areas are classified by the World Bank based on Gross National Income per capita calculated using the World Bank Atlas method. Countries in each World Bank Group region and income group are listed at: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups. This grouping is mutually exclusive, and countries classified as "high income" are therefore not included in any of the other regional classifications listed above.

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5 Policy implications and next steps

This section provides discussion of the significance of the estimates presented in this report, the measurement challenges and research gaps, and the implications of the findings for policy and programming, followed by brief conclusions.

This report on the prevalence of physical and/or sexual intimate partner violence and non-partner sexual violence against women is an important milestone in the understanding of violence against women and for public health programming. This report presents the first global, regional and national prevalence estimates of physical and/or sexual intimate partner violence against women, as well as the first global and regional estimates of non-partner sexual violence against women, within the United Nations Sustainable Development Goals (SDGs) reporting period (2015–2030). It uses evidence from all eligible prevalence studies conducted between 2000 and 2018 gathered through a comprehensive and systematic review of publicly available prevalence data, and additional data provided by countries. The findings confirm that both these forms of violence against women – intimate partner violence and non-partner sexual violence – remain a concern of pandemic proportions affecting up to 852 million women throughout the world. The majority of this represents violence perpetrated by an intimate male partner.

Despite this evidence, women's experiences of violence from their husbands or partners continue to be seen as taking place within the private sphere of people's intimate relationships and therefore beyond the reach of policy-makers, health-care and other service providers. Women themselves are often blamed for being subjected to violence if they are perceived as deviating from socially prescribed gender roles and norms. In many settings, intimate partner violence is often justified as "disciplining" or "chastising" wives or girlfriends for talking to another man, refusing sexual intercourse, not asking for permission to go out, or for visiting their family or not conforming to their role as wives/partners in some other way *(89–98)*. In the case of non-partner sexual violence, women are often blamed for being in the wrong place at the wrong time, for wearing the wrong clothes or not fighting back *(89,99,100)*.

Multiple reports and studies have documented that partner violence and sexual violence against women are a major contributor to women's mental health problems (particularly depression and suicidality), sexual and reproductive health problems, and to injuries and other chronic health conditions *(5,101,102)*. The health and social impacts of this violence can last for years. Intimate partner violence against women also affects their children, starting with low weight at birth as well as child health and development problems *(103)*. Furthermore, children exposed to violence against their mothers are more likely to experience or perpetrate partner violence in later life, thus sustaining a vicious cycle of violence against women *(104–106)*. Sexual violence can also impact a survivor's physical and mental health profoundly in both the short and long term *(107)*. Experience of sexual violence is strongly associated with increased risk of suicide and suicide attempts, post-traumatic stress disorder, depression and many other health problems *(7,101,108,109)*.

Progress has been made in terms of the recognition and awareness of intimate partner violence by both policy-makers and the general public. Movements like #metoo,

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#niunamas and other local examples have brought attention to the many forms of sexual violence and abuse that women and girls experience, although accountability of perpetrators remains elusive. There has also been an increase in the number of countries with laws and policies aimed at responding to and preventing violence against women *(110)*. However, the new and updated numbers in this report show that violence against women persists at unacceptably high levels.

5.1 SUMMARY OF KEY FINDINGS

To summarize, globally, 31% of women aged 15–49 have been subjected to physical and/or sexual violence from a current or former husband or intimate partner, or sexual violence from a non-partner, or both in their lifetime (defined as since the age of 15). That is almost one in every three women, or up to 852 million women worldwide. Intimate partner violence accounts for the largest proportion of this violence: an estimated 27% of ever-married/partnered women aged 15–49 experience physical and/or sexual intimate partner violence in their lifetime.

These 2018 combined and lifetime intimate partner violence prevalence estimates paint a similar picture to the 2010 estimates published by WHO in 2013, based on data from 1983 to 2010 *(2,22)*. While slightly lower, these new estimates mostly fall within the confidence intervals of the previous estimates and do not represent a statistically significant reduction in the lifetime prevalence of these two forms of violence against women. It should be noted that there are differences in the methodology used to develop the 2010 estimates and these 2018 estimates, so they are not strictly comparable. There has also been an increase in data availability and improvements in the quality of the measures used and in the implementation of surveys on violence against women.

Looking at women's recent (past 12 months) experience of intimate partner violence, as opposed to lifetime experience, **13% (UI 10–16%) of ever-married/partnered women aged 15–49 have experienced physical and/or sexual intimate partner violence in the past 12 months.** Differences in the prevalence of intimate partner violence between the largely higher-income countries and regions and low- and middle-income countries and regions are much more pronounced for prevalence in the past 12 months compared with lifetime prevalence (see Table 4.2). A possible explanation is that women in high-income countries are less likely to remain in an abusive relationship, given greater access to economic resources, social services and supportive divorce and family law – all factors that affect a woman's ability to leave an abusive relationship.

This new global estimate for physical and/or sexual intimate partner violence in the past 12 months (13%) differs notably from data for the same indicator presented in the United Nations SDG database, which is 18% *(55)*. This aggregate SDG estimate is based on a smaller number of data points, largely from low- and middle-income countries where prevalence is higher, and was not adjusted for variations in the measures of violence used or the year the survey was conducted (see section 2.2). The estimates developed for this report, by contrast, are based on data from a larger number of countries and areas, a wider range of population-based studies and are modelled to adjust for variations across studies.

The lifetime prevalence estimate of non-partner sexual violence is 6% (UI 4–9%). While this is much lower than the estimates for intimate partner violence, this does

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not mean that this form of violence warrants less attention or has a less serious impact compared with other forms of violence against women. As discussed in this report, given how highly stigmatized sexual violence remains, these estimates are likely to be a substantial underestimate of the actual prevalence of non-partner sexual violence (see section 4.2.2). Disclosure of sexual violence can lead to social isolation, being ostracized, and other negative social and health consequences for the survivor.

5.2 ADDRESSING MEASUREMENT CHALLENGES AND RESEARCH GAPS

This report and the WHO Global Database on Prevalence of Violence Against Women highlight several research gaps that should inform future studies on violence against women.

There has been an important increase in the number of countries with nationally representative acts-based surveys on violence against women, particularly with data on intimate partner violence, and several countries have implemented more than one survey in the period covered by these estimates *(57)*. One hundred and sixty one countries and areas now have at least one population-based survey conducted between the start of 2000 and the end of 2018 with data on either intimate partner violence or non-partner sexual violence, or both. A few more countries have conducted studies in 2019/2020, which are not included yet in the estimates reported here. This is a significant improvement from 83 countries and areas that had conducted a survey by 2010 *(2,22)*. However, some countries and areas still do not have any data and others only have one or two data points, which may be more than 10 years old. Challenges also remain in terms of the standardization, measurement and reporting of the data on intimate partner violence, and these are even greater with non-partner sexual violence data. For example, some surveys use a single question to measure non-partner sexual violence, and some even combine asking about experiences of sexual violence during both childhood and adulthood in a single question.

Going forward, it is necessary to further improve the availability and quality of data on violence against women, including through giving higher priority to the collection and use of robust data, allocating more resources to it, building capacity of those collecting and reporting on these data in countries and carrying out methodological work to strengthen the quality and standardization of data collection internationally.

As countries carry out national surveys on violence against women or implement the DHS Domestic Violence Module, and as they do so more regularly, it will be easier to conduct meaningful trend analyses. Analysis and interpretation of trends in the prevalence of intimate partner violence will need to take into account contextual factors that may increase the likelihood of reporting, such as awareness-raising campaigns, new or revised legislation and improved access to services, as well as the quality and implementation of surveys, which impacts the likelihood of disclosure.

There is broad agreement among researchers and others doing surveys on violence against women on the measures used to assess the prevalence of intimate partner violence against women, particularly physical and, to a lesser degree, sexual partner violence. For psychological intimate partner violence, there are challenges with measurement and standardization of a threshold for determining prevalence in a way that is comparable across countries (see section 2.1.1). The intimate partner violence estimates

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in this report, therefore, were limited to physical and sexual intimate partner violence. Research shows that for many women psychological violence is particularly disabling and results in serious ill health *(50,111–113)*. To address this gap, revisions have been made to the questionnaire for the WHO Multi-country Study on Women's Health and Domestic Violence against Women and the DHS Domestic Violence Module *(24,51)*, which will improve measurement of psychological intimate partner violence and can serve as a model for other surveys on violence against women. Further work is under way by WHO and the VAW-IAWGED to develop consensus on how to better measure, analyse and report on psychological partner violence.

The questions currently used to capture experiences of non-partner sexual violence do not adequately capture the range of these experiences. In general, they are skewed towards documenting more severe forms, like rape or attempted rape, while not capturing and thus underestimating the myriad other forms of sexual violence that women and girls frequently experience. The questions on sexual violence need improvement and further validation, to capture multiple experiences and multiple perpetrators over different time periods. Reports need to present data on sexual violence disaggregated by different types of perpetrators (e.g. family member other than a partner, acquaintance, friend, stranger) and by type of sexual violence (e.g. rape, attempted rape, whether physically forced or coerced, other sexual contact, non-contact sexual abuse), in order to be able to make meaningful comparisons and to pool national data to develop global and regional estimates. With more comprehensive measures, the prevalence rates of sexual violence experienced by women and girls would likely be much higher than those presented in this report.

Looking at regional data availability in more detail (see Annex 2), the WHO regions with the lowest availability of data on intimate partner violence were the South-East Asia and Eastern Mediterranean Regions. For non-partner sexual violence, the number of countries and areas with data has increased but data remain very sparse for the Eastern Mediterranean Region (see Annex 12). This highlights that some geographical gaps persist in the availability of population-based prevalence data on violence against women.

The gold standard for valid prevalence data on violence against women is a stand-alone dedicated survey, such as the WHO Multi-country Study on Women's Health and Domestic Violence against Women *(24)* or similar, with adequate measures taken to address the ethical and safety issues that are unique to this type of research. These measures include, for example, specialized training of female interviewers to collect data in a private space, in a non-judgemental manner and in the absence of male partners; provision of referrals to support services if necessary; and interviewing only one woman per household to protect confidentiality *(44,46,66)*.

Surveys rely on self-report and women are more likely to disclose their experiences of violence, and are more likely to feel supported in their disclosure, when interviewers are well trained and adequate safety measures are in place *(66)*. Most survey reports do not include information on these variables, making it challenging to assess the quality of the interview data. In general, violence modules embedded within other surveys tend to achieve lower levels of disclosure, thereby reducing the overall prevalence rates documented. The DHS, however, has greatly strengthened the way they implement the Domestic Violence Module to address ethical and safety considerations. Embedding a single question or a short set of questions on violence against women in a larger survey is in general not recommended as this tends to greatly underestimate the prevalence *(34,91)*.

While the global and regional prevalence estimates presented in this report are an important step in documenting the epidemiology of this public health problem, more

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information is needed to understand and document sexual violence and other forms of violence against women more accurately in a range of contexts.

In addition to strengthening and standardizing the existing prevalence measures and the reporting of intimate partner violence and non-partner sexual violence, there is a need to develop reliable and comprehensive measures to capture emerging forms of violence such as cyber violence and the different online forms of sexual harassment. There is also a notable gap in the evidence about the prevalence, magnitude and forms of violence against particular groups of women including those with complex and multiple forms of overlapping discrimination, for example, older women, those with disabilities, migrants, Indigenous and ethnic minorities, and transgender women who may be at higher risk of violence *(114–126)*. In humanitarian settings, data remain scarce. In the context of conflict, for example, in addition to intimate partner violence, new forms of sexual violence and different types of perpetrators need to be captured in the data. It is also important to understand the impacts of humanitarian crises, including epidemics, on the magnitude and the nature of the violence experienced by women.

Surveys on violence against women need to collect data on the different indicators of gender inequality and social and economic determinants and inequities to better inform effective prevention interventions without contributing to further stigma or discrimination.

“Collecting sound data on the magnitude and nature of the problem is a necessary first step to acknowledge and understand the problem and to initiate discussions on policies and strategies to address it. It will also provide a baseline against which countries can measure progress.”

It is important to note that estimates are useful for the purposes of comparability across countries and regions. The variations in methodologies and measurement across studies from different countries mean that in some cases adjustments are needed to ensure such comparability. Statistically adjusted estimates will facilitate global monitoring, optimizing measures and also contributing to strengthening the quality of surveys at the national level, and will avoid underestimation. However, regional- and country-level estimates hide important inter- and intra-country variations, such as between urban and rural locations, by income and education status, ethnicity, or other social determinants. Individual countries also need to collect data that reflect the relevant socioeconomic, political and cultural risk and protective factors associated with the prevalence of violence against women, and data on subpopulations that might be at higher risk, in order to inform appropriate policy responses and programmatic decision-making. These and other data can also aid the understanding of how different forms of violence interact and impact women’s health and lives.

Collecting sound data on the magnitude and nature of the problem is a necessary first step to acknowledge and understand the problem and to initiate discussions on policies and strategies to address it. It will also provide a baseline against which countries can measure progress.

For data to be reliable, surveys need to adhere to internationally agreed standards such as those in the United Nations Statistics Division guidelines for documenting violence against women *(34)*. All surveys underestimate the true prevalence of violence against women as there will always be women who do not disclose these experiences; however, a poorly designed or implemented survey will lead to even greater underestimation and potentially misleading figures.

This report has highlighted some of the data gaps and measurement challenges in relation to both intimate partner violence and non-partner sexual violence, and the need to improve the way in which results from surveys and studies of violence against women are reported.

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5.3 ADDRESSING POLICY AND PROGRAMMATIC CHALLENGES

The data in this report indicate that globally up to an estimated 852 million women aged 15 and older have experienced physical and/or sexual intimate partner violence and/or non-partner sexual violence at least once in their lifetimes. The numbers reiterate the message of the 2010 estimates *(2,22)*: that violence against women is a public health problem of pandemic proportions. It puts the health and well-being of women and their children at risk, all over the world, while also having a substantial negative social and economic impact on individuals and countries.

The COVID-19 pandemic has exacerbated the risks for women living in abusive situations due to the lockdown measures that may increase exposure to an abusive partner or other perpetrator. In addition, economic instability, threatened livelihoods and increased levels of stress, coupled with closure of or more limited access to support services, have further heightened the risks *(127–129)*. Much of the reporting on increases in violence during the pandemic has come from helplines, police, health or other service use data. While these administrative data are useful, they generally underestimate violence against women because they only capture those women who reached out to services, disclosed violence, consented to have their information registered and whose information has actually been recorded. Therefore, they are not representative in the same way that survey/study data would be and do not necessarily reflect the full impact of this pandemic on the prevalence and severity of violence against women. This will only be captured fully over time through prevalence surveys. As countries emerge from lockdowns, it is important to document the impact of COVID-19 (and measures to address it) on intimate partner/domestic violence, ensure that women have access to the essential services they need and put preventive measures in place. Violence against women is a persistent and significant public health concern that preceded the pandemic, as these estimates clearly show, and which will continue long after it. It is critical that governments invest in and strengthen sustainable and long-term measures to prevent violence against women and girls.

The SDGs clearly identify the elimination of violence against women and girls as critical to achieving gender equality and women's empowerment (SDG 5). It is also critical to the achievement of all other SDG targets, including those related to health (SDG 3) and a just and peaceful society (SDG 16). The findings on the prevalence of intimate partner violence and non-partner sexual violence against women highlight that the commitments made by governments to address all forms of violence against women need to be put into action and accelerated if we are to achieve the SDG targets set for 2030. Addressing violence against women requires concerted action and dedicated public funding and investment across multiple sectors.

We know more than ever before about what works to prevent violence against women and girls, but more research and better documentation are still needed to identify effective interventions and how to scale them up *(130)*. Promising prevention programmes exist, particularly for intimate partner violence, and need to be tested more widely and scaled up when appropriate. The multiagency-endorsed *RESPECT women: a framework for prevention of violence against women (131)* provides policy-makers with a framework and process for designing prevention programmes, identifying entry points and evidence-based strategies, and monitoring progress. It also emphasizes the importance of strengthening the enabling environment through ensuring that legal and policy frameworks promoting gender equality are implemented, as well as support to women's organizations, funding for programmes and a system to ensure accountability of governments to the women they should be serving.

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Interventions for prevention need to include multilevel strategies that, for example: challenge social norms that support masculinities based on power and control over women and that condone violence against women; reform discriminatory family laws; strengthen women's economic rights; eliminate gender inequalities in access to formal wage employment and secondary education; and, at an individual level, strategies that address attitudes that justify violence against women and reinforce gender-stereotypical roles within the family; reduce exposure to violence in childhood; and address substance abuse *(89,100,130,132)*.

Access to comprehensive health care, including post-rape care, and services for survivors of violence is essential. The WHO guidelines and tools such as *Clinical management of rape and intimate partner violence survivors (133,134)* and *Health care for women subjected to intimate partner violence or sexual violence: a clinical handbook (135)* describe a survivor-centred approach including: identification through non-judgemental clinical-based enquiry (for intimate partner violence); first-line psychological/emotional support; treatment and care for underlying conditions; and short- and long-term mental health support. For rape this also includes: emergency contraception, post-exposure prophylaxis for HIV, and diagnosis and treatment for other sexually transmitted infections. This should also include access to collection and analysis of forensic evidence for those women who may choose to take legal action. A multisectoral referral pathway to other support services also needs to be developed and strengthened, particularly in the context of COVID-19. The United Nations *Essential services package for women and girls subject to violence* aims to provide basic guidance to countries on a coordinated set of essential services, including in the health, social services, police and justice sectors *(136)*.

The high prevalence of intimate partner violence and non-partner sexual violence against women globally, and in all regions, highlights the need to work simultaneously on preventing this violence from happening in the first place while ensuring access to services for survivors. The evidence in this report highlights the need to address the economic and sociocultural factors, and discriminatory gender norms and institutions that foster and perpetuate violence against women. Financial support to the women's organizations and movements that have been at the forefront of addressing violence against women is also necessary. The variations in the prevalence of violence seen between countries and regions highlight the fact that violence is not inevitable, and that it can be prevented.

5.3 CONCLUSION

The estimates presented in this report are based on data from 161 countries and areas for intimate partner violence and 137 for non-partner sexual violence, obtained through a systematic and comprehensive review of all available prevalence data from studies conducted between 2000 and 2018. They show unequivocally that violence against women is pervasive globally. It is not a small problem that only occurs in some pockets of society; rather, it is a global public health problem of pandemic proportions, affecting hundreds of millions of women and requiring urgent action. We must all work to make governments and policy-makers everywhere take notice that progress has been too slow, the prevalence of violence against women remains unacceptably high, and action to eliminate it must be accelerated. All sectors, including the health sector, need to take the necessary actions in the context of

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a multisectoral approach to violence against women, as agreed in the WHO Plan of Action to address violence, in particular against women and girls, endorsed by the Sixty-ninth World Health Assembly in 2016 *(137)* and many United Nations resolutions and consensus documents *(27,138,139)*. As we take stock of progress in the past 25 years since the Fourth World Conference on Women, in Beijing in 1995 *(26)*, it is time for the world to act with urgency to ensure that all women and girls live a life free from violence and coercion of any kind.

CALL TO ACTION

WHO and partners are calling for a renewed commitment to SDG Target 5.2 to eliminate violence against women by 2030.

WHO and partners call for increased political will and active leadership from governments, sound gender-transformative and inclusive policies and laws that reinforce gender equality, a strengthened health system response and targeted investment in sustainable and effective violence against women prevention strategies at global, regional, national and local levels.

There is hope that we can reach this target, but only if we act together now. Governments, civil society and national and international organizations should show commitment to addressing violence against women, including by working with and supporting women's rights organizations to:

- raise their voices, increase awareness, and reduce the stigma, taboos and misconceptions surrounding violence against women;
- strengthen health, judicial, social and other relevant systems to better respond to and prevent violence against women;
- advocate for a joined-up multisectoral response to violence against women;
- support nationalized and localized programmes and strategies for prevention of violence against women, including school-based programmes, to challenge discriminatory attitudes and beliefs, to promote gender equality and relationships based on equality, and to address all forms of gender-based discrimination/exclusion in every country;
- strengthen data collection, invest in high-quality surveys on violence against women and improve measurement of the different forms of violence that women are subjected to, including among those women who are most marginalized; and
- ensure that post COVID-19 reconstruction efforts keep women at the centre, strengthen their access to safe and paid employment, and aim for a world where no woman or girl is denied her basic human rights and where every woman and girl can live a life free of violence.

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Annexes

ANNEX 1. Summary description of the 2019–2020 country consultations on prevalence estimates of intimate partner violence against women

BACKGROUND AND OBJECTIVES OF THE COUNTRY CONSULTATIONS

As part of the World Health Organization (WHO) and United Nations Entity for Gender Equality and the Empowerment of Women (UN Women) Joint Programme on Strengthening Methodologies and Measurement and Building National Capacities for Violence against Women Data, WHO is leading the production of internationally comparable global, regional and national estimates on violence against women in collaboration with UN Women as well as the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), the United Nations Office on Drugs and Crime (UNODC) and the United Nations Statistics Division (UNSD).

In 2001, the WHO Executive Board endorsed a resolution (EB.107.R8) that included the proposal to "establish a technical consultation process bringing together personnel and perspectives from Member States in different WHO regions".[1] A key objective of this country consultation process is "to ensure that each Member State is consulted on the best data to be used" for international estimation and reporting purposes. In line with WHO's quality standards for data publication, the consultation with countries is an integral part of the development and production of estimates. Consultation with national focal points is also a United Nations Sustainable Development Goals (SDG) requirement.[2]

This was the first time a country consultation process with all 194 WHO Member States (and one territory for which data were available)[3] was conducted on global, regional and national estimates for violence against women. The aims of the consultation process were to:

- ensure that countries had the opportunity to review their national modelled intimate partner violence estimates and the data sources (i.e. surveys/studies) used in the production of these estimates;
- ensure the inclusion of any additional surveys/studies that meet the inclusion criteria (i.e. they were published before 2000 and/or did not use acts-based measures of intimate partner violence and/or measured psychological partner violence only) but which may not have been previously identified; and
- familiarize countries with the statistical modelling approach used to derive the global, regional and national estimates.

1 Executive Board of the World Health Organization. Resolution: Health systems performance assessment. Geneva: WHO; 19 January 2001 (EB.107.R8: http://apps.who.int/gb/archive/pdf_files/EB107/eer8.pdf, accessed 27 November 2020).

2 National focal points for the SDGs are contact persons within national statistics offices who facilitate discussions with countries in relation to the reporting for SDGs. Reference: Inter-Agency and Expert Group on Sustainable Development Goal Indicators. Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators: Items for discussion and decision: data and indicators for the 2030 Agenda for Sustainable Development. United Nations Economic and Social Council; 2018 (E/CN.3/2018/2: https://unstats.un.org/unsd/statcom/49th-session/documents/2018-2-SDG-IAEG-E.pdf, accessed 27 November 2020).

3 Occupied Palestinian territory, including east Jerusalem; hereinafter referred to as "occupied Palestinian territory".

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NATIONAL VIOLENCE AGAINST WOMEN DATA FOCAL POINT NOMINATIONS AND DOCUMENTATION FOR REVIEW

A dedicated email address (vawestimates@who.int) was set up for the country consultation process. Member States were requested to nominate technical focal person(s) to engage on their behalf about national data on violence against women by the end of February 2020. One hundred and ten Member States responded with at least one nominated focal person (the majority were from ministries of health and/or national statistics offices). For those Member States that did not nominate a technical focal person, the SDG focal point was the designated point of contact. All 114 SDG focal points were copied in on the correspondence.

The following documents were sent to all Member States for their critical review and feedback.

(i) **Summary of statistical methods (translated into all six United Nations languages):** This technical note detailed the concepts and definitions, data, Bayesian hierarchical (nested) modelling approach, and model fits.

(ii) **Country profile:** This document provided each country and territory with the following information in tabular form:

- available data sources (2000–2018) for lifetime (i.e. since age 15) and past 12 months physical and/or sexual intimate partner violence against women that were used to compute the national, regional and global estimates – theses data included prevalence point estimates, denominators, geographic level (national/subnational), residence area types (rural/urban), study title, study author(s) and survey year;
- population-based surveys/studies that were excluded due to not meeting the inclusion criteria;
- covariates for adjustment for lifetime and past 12 months intimate partner violence, and the odds ratios for the adjustments (if any) along with their 95% confidence intervals;
- model fits for lifetime and past 12 months prevalence of physical and/or sexual intimate partner violence among ever-married/partnered women aged 15–49 years and aged 15 years and older;
- modelled national estimates of lifetime and past 12 months physical and/or sexual intimate partner violence among ever-married/partnered women aged 15–49 years and aged 15 years and older, 2018.

WEBINARS ON VIOLENCE AGAINST WOMEN ESTIMATES: DATA AND METHODS

WHO's Department of Sexual and Reproductive Health and Research (SRH) also organized two interactive regional webinars with question and answer (Q&A) sessions in order to proactively engage with and facilitate feedback from the national focal persons/points and their teams based in ministries of health, national statistics offices and other relevant institutions and ministries.

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The two webinars focused on:

- construction of the WHO Global Database on Prevalence of Violence Against Women and inclusion of data into it;
- statistical methods used to generate the national, regional and global estimates on intimate partner violence;
- challenges with existing measures used in violence against women surveys and how findings are reported;
- outlining the rationale and process for the country consultations on these estimates;
- overview of the WHO–UN Women Joint Programme on Strengthening Methodologies and Measurement and Building National Capacities for Violence against Women Data.

These two webinars were attended by a combined total of 129 participants from across all six WHO regions of the globe. The discussions and Q&A sessions focused on the different types of data on violence against women in different countries (e.g. service/administrative data versus population-based prevalence data, crime victimization surveys, generic or broader health-focused surveys like the Demographic and Health Surveys [DHS] and Reproductive Health Surveys [RHS], and specialized violence against women surveys), methodological and measurement queries, and recommendations of previously unidentified surveys/studies for potential inclusion. There were requests for future webinars providing guidance on good practice for violence against women survey reporting.

INPUT, FEEDBACK AND OUTCOMES

The country consultation process formally concluded on 30 May 2020, although exchanges regarding data and information continued with some countries until 15 July 2020. Seventy-two countries responded by engaging in in-depth email discussions to confirm the data sources included to model their national estimates, suggest additional surveys/studies for review (52 studies), provide data on missing/unclear denominators, discuss the methodology applied in the modelling of estimates and/or to express interest in conducting dedicated violence against women surveys in their countries. In addition to the correspondence by email, four country teams requested virtual meetings to discuss their country-specific queries on the methods and the inclusion/exclusion of particular data sources. These discussions focused on the limitations of service data versus the use of population-based survey data to establish prevalence, and the limitations of crime victimization surveys. Several focal points from national statistics offices and/or ministries of health liaised with WHO to provide previously missed data and reports from unpublished surveys/studies to be reviewed against the inclusion criteria, and some computed the raw estimates required from survey microdata that were not available in the public domain. At the end of the country consultation process 13 more countries were confirmed as having eligible prevalence survey/study data than pre-consultation.

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Member States provided positive feedback on the country consultation process, which gave them the opportunity to participate in discussion on the violence against women estimates. Several have expressed interest in continued engagement in capacity-strengthening around the production and reporting of robust high-quality prevalence data on violence against women. The country consultation process also served to highlight the importance of population-based prevalence data on violence against women, especially among countries and regions with limited or no data on intimate partner violence.

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ANNEX 2. Countries[1] with eligible data on prevalence of physical and/or sexual intimate partner violence (IPV) among ever-married/partnered women aged 15 years and older, by World Health Organization (WHO) region, 2018

Table A2.1. Countries and areas with eligible data on *lifetime* prevalence of IPV among ever-married/partnered women aged 15 years and older, by WHO region, 2018[a]

WHO REGION	Countries and areas	Number of countries/ areas
Low- and middle-income countries and areas		
African Region	Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Kenya, Lesotho, Liberia, Malawi, Mali, Mozambique, Namibia, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe	37
Region of the Americas	Argentina, Belize, Bolivia (Plurinational State of), Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Paraguay, Peru, Suriname, Venezuela (Bolivarian Republic of)	22
South-East Asia Region	Bangladesh, Bhutan, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, Timor-Leste	10
European Region	Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo,[2] Kyrgyzstan, Montenegro, North Macedonia, Republic of Moldova, Serbia, Tajikistan, Turkey, Ukraine	16
Eastern Mediterranean Region	Afghanistan, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Morocco, occupied Palestinian territory, Pakistan, Tunisia	9
Western Pacific Region	Cambodia, China, Cook Islands, Fiji, Kiribati, Lao People's Democratic Republic, Marshall Islands, Micronesia (Federated States of), Mongolia, Papua New Guinea, Philippines, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu, Viet Nam	17

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1 In the context of this report, the term "country" should be understood as referring to 161 countries and areas that provided data related to intimate partner violence or non-partner sexual violence. This designation and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

2 All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999). It is included in this table because it had data that met the inclusion criteria.

Table A2.1. ***(continued)***

WHO REGION	Countries and areas	Number of countries/ areas
High-income countries and areas		
	Australia, Austria, Belgium, Bulgaria, Chile, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong Special Administrative Region (China), Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, Nauru, Netherlands, New Zealand, Norway, Palau, Panama, Poland, Portugal, Romania, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Trinidad and Tobago, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay	43
Total		154

WHO Member States in each WHO region can be found at:

African Region: https://www.afro.who.int/countries
Region of the Americas: https://www.paho.org/en/countries-and-centers
South-East Asia Region: http://www.searo.who.int/en/
European Region: http://www.euro.who.int/en/countries
Eastern Mediterranean Region: http://www.emro.who.int/countries.html
Western Pacific Region: https://www.who.int/westernpacific/about/where-we-work

a High-income countries and areas are classified by the World Bank based on Gross National Income per capita calculated using the World Bank Atlas method (July 2020). Countries in each World Bank Group region and income group are listed at: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups. This grouping is mutually exclusive, and countries classified as "high income" are therefore not included in any of the other regional classifications listed above.

Table A2.2. Countries and areas with eligible data on *past 12 months* prevalence of intimate partner violence (IPV) among ever-married/partnered women aged 15 years and older, by WHO region, 2018[a]

WHO REGION	Countries and areas	Number of countries/ areas
Low- and middle-income countries and areas		
African Region	Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Kenya, Lesotho, Liberia, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, South Africa, South Sudan, Sudan, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe	40
Region of the Americas	Argentina, Belize, Bolivia (Plurinational State of), Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Paraguay, Peru, Suriname, Venezuela (Bolivarian Republic of)	22
South-East Asia Region	Bangladesh, Bhutan, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, Timor-Leste	10

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Table A2.2. *(continued)*

WHO REGION	Countries and areas	Number of countries/ areas
European Region	Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo,[3] Kyrgyzstan, Montenegro, North Macedonia, Republic of Moldova, Serbia, Tajikistan, Turkey, Ukraine	16
Eastern Mediterranean Region	Afghanistan, Egypt, Iran (Islamic Republic of), Jordan, Morocco, occupied Palestinian territory, Pakistan, Tunisia	8
Western Pacific Region	Cambodia, China, Cook Islands, Fiji, Kiribati, Lao People's Democratic Republic, Marshall Islands, Micronesia (Federated States of), Mongolia, Papua New Guinea, Philippines, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu, Viet Nam	17
High-income countries and areas		
	Australia, Austria, Belgium, Bulgaria, Canada, Chile, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong Special Administrative Region (China), Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, Nauru, Netherlands, New Zealand, Norway, Palau, Panama, Poland, Portugal, Republic of Korea, Romania, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Trinidad and Tobago, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay	46
Total		159

WHO Member States in each WHO region can be found at:

African Region: https://www.afro.who.int/countries
Region of the Americas: https://www.paho.org/en/countries-and-centers
South-East Asia Region: http://www.searo.who.int/en/
European Region: http://www.euro.who.int/en/countries
Eastern Mediterranean Region: http://www.emro.who.int/countries.html
Western Pacific Region: https://www.who.int/westernpacific/about/where-we-work

a High-income countries and areas are classified by the World Bank based on Gross National Income per capita calculated using the World Bank Atlas method (July 2020). Countries in each World Bank Group region and income group are listed at: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups. This grouping is mutually exclusive, and countries classified as "high income" are therefore not included in any of the other regional classifications listed above.

3 All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999). It is included in this table because it had data that met the inclusion criteria.

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ANNEX 3. Countries with eligible data on prevalence of physical and/or sexual intimate partner violence (IPV) among ever-married/partnered women aged 15 years and older, by United Nations Sustainable Development Goal (SDG) region, 2018

Table A3.1. Countries and areas with eligible data on *lifetime* prevalence of IPV among ever-married/partnered women aged 15 years and older, by SDG region, 2018

SDG REGION	Countries and areas	Number of countries/ areas
Sub-Saharan Africa	Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Kenya, Lesotho, Liberia, Malawi, Mali, Mozambique, Namibia, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe	37
Northern Africa and Western Asia		
Northern Africa	Egypt, Tunisia	2
Western Asia	Armenia, Azerbaijan, Cyprus, Georgia, Iraq, Jordan, occupied Palestinian territory, Turkey	8
Central and Southern Asia		
Central Asia	Kazakhstan, Kyrgyzstan, Tajikistan	3
Southern Asia	Afghanistan, Bangladesh, Bhutan, India, Iran (Islamic Republic of), Maldives, Nepal, Pakistan, Sri Lanka	9
Eastern and South-Eastern Asia		
Eastern Asia	China, Hong Kong SAR (China), Japan, Mongolia	4
South-Eastern Asia	Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, Viet Nam	10
Latin America and the Caribbean	Argentina, Belize, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, Venezuela (Bolivarian Republic of)	26

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Table A3.1. ***(continued)***

SDG REGION	Countries and areas	Number of countries/ areas
Oceania		
Australia and New Zealand	Australia, New Zealand	2
Oceania (excl. Australia and New Zealand)		
Melanesia	Fiji, Papua New Guinea, Solomon Islands, Vanuatu	4
Micronesia	Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, Palau	5
Polynesia	Cook Islands, Samoa, Tonga, Tuvalu	4
Europe and Northern America		
Eastern Europe	Bulgaria, Belarus, Czech Republic, Hungary, Poland, Republic of Moldova, Romania, Slovakia, Ukraine	9
Northern Europe	Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Norway, Sweden, United Kingdom of Great Britain and Northern Ireland	10
Southern Europe	Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Kosovo,[1] Malta, Montenegro, Portugal, North Macedonia, Serbia, Slovenia, Spain	13
Western Europe	Austria, Belgium, France, Germany, Luxembourg, Netherlands, Switzerland	7
Northern America	United States of America	1
Total		**154**
Least Developed Countries	Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Ethiopia, Gambia, Guinea, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Malawi, Mali, Mozambique, Myanmar, Nepal, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, South Sudan, Timor-Leste, Togo, Uganda, United Republic of Tanzania, Zambia	36

Note: Countries and areas included in the analysis are listed by SDG regional and subregional grouping; full listings by SDG regional and subregional groupings can be found at: https://unstats.un.org/sdgs/indicators/regional-groups/

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1 All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999). It is included in this table because it had data that met the inclusion criteria.

Table A3.2. Countries and areas with eligible data on past 12 months prevalence of IPV among ever-married/ partnered women aged 15 years and older, by SDG region, 2018

SDG REGION	Countries and areas	Numbers of countries/ areas
Sub-Saharan Africa	Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Côte d'Ivoire, Democratic Republic of the Congo, Eswatini, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Kenya, Lesotho, Liberia, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe	39
Northern Africa and Western Asia		
Northern Africa	Egypt, Morocco, Sudan, Tunisia	4
Western Asia	Azerbaijan, Armenia, Cyprus, Georgia, Israel, Jordan, occupied Palestinian territory, Turkey	8
Central and Southern Asia		
Central Asia	Kazakhstan, Kyrgyzstan, Tajikistan	3
Southern Asia	Afghanistan, Bangladesh, Bhutan, India, Iran (Islamic Republic of), Maldives, Nepal, Pakistan, Sri Lanka	9
Eastern and South-Eastern Asia		
Eastern Asia	China, Hong Kong SAR (China), Japan, Mongolia, Republic of Korea	5
South-Eastern Asia	Cambodia, Indonesia, Lao People's Democratic Republic, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, Viet Nam	9
Latin America and the Caribbean	Argentina, Belize, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, Venezuela (Bolivarian Republic of)	26
Oceania		
Australia and New Zealand	Australia, New Zealand	2
Oceania (excl. Australia and New Zealand)		
Melanesia	Fiji, Papua New Guinea, Solomon Islands, Vanuatu	4
Micronesia	Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, Palau	5
Polynesia	Cook Islands, Samoa, Tonga, Tuvalu	4

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Table A3.2. ***(continued)***

SDG REGION	Countries and areas	Numbers of countries/ areas
Europe and Northern America		
Eastern Europe	Bulgaria, Belarus, Czech Republic, Hungary, Poland, Republic of Moldova, Romania, Slovakia, Ukraine	9
Northern Europe	Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Norway, Sweden, United Kingdom of Great Britain and Northern Ireland	10
Southern Europe	Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Kosovo,[2] Malta, Montenegro, North Macedonia, Portugal, Serbia, Slovenia, Spain	13
Western Europe	Austria, Belgium, France, Germany, Luxembourg, Netherlands, Switzerland	7
Northern America	Canada, United States of America	2
Total		**159**
Least Developed Countries	Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Ethiopia, Gambia, Guinea, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Malawi, Mali, Mozambique, Myanmar, Nepal, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, South Sudan, Sudan, Timor-Leste, Togo, Uganda, United Republic of Tanzania, Zambia	38

Note: Countries and areas included in the analysis are listed by SDG regional and subregional grouping; full listings by SDG regional and subregional groupings can be found at: https://unstats.un.org/sdgs/indicators/regional-groups/

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2 All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999). It is included in this table because it had data that met the inclusion criteria.

ANNEX 4. Statistical analyses: multilevel modelling framework used to construct the violence against women estimates

As mentioned in section 3.3 of the report, the regression model used, in its simplest form, can be described by the following equation:

$$logit(p_{it}) = \alpha_{s[i]} + \gamma_{c[i]} + \delta_{c[i],t} + X_{s[i]}$$

The four terms on the right-hand-side of this equation are explained in more detail in the following sections.

RANDOM EFFECTS TO ACCOUNT FOR STUDY VARIABILITY

Random effects can account for unobserved heterogeneity and a hierarchy can be imposed on these study-specific intercepts. Specifically, we assume that (i) each study, conducted within a selected country, should yield a prevalence estimate closer to the average prevalence of *that* country than to the average prevalence of *other* countries, and (ii) countries in one region of the world should have prevalence of intimate partner violence and non-partner sexual violence that is more similar to other countries in the *same* region than to that of countries in the *other* regions. Nesting these effects within clear geographical units (i.e. study, country, region, super region and world) is statistically advantageous because it enables borrowing strength from other geographical units to improve estimates in data-sparse settings. To model this hierarchy, the following equation was used for the intercept ($\alpha_{s[i]}$) of observation *i*:

$$\alpha_{s[i]} = u_g + u_{z[i]} + u_{r[i]} + u_{c[i]} + u_{s[i]}$$

where u_g is the overall global intercept, u_z is the super-region effect, u_r is the regional effect, u_c is the country effect, and u_s is the study effect. We also consider that subnational studies are inherently more variable than if they had been nationally representative. Because of this increased variability, they should be given less weight than nationally representative surveys. This is achieved by modelling the standard deviation of the study-level random effect as a function of its representativeness,[1] where subnational studies have equal or more variability than nationally representative studies.

AGE MODELLING

The relationship between violence against women and age is not linear.[2] Age was therefore modelled using spline functions that are based on piecewise polynomials.[3] As data in the age groups above 65 years became very sparse, the splines were modified such that violence prevalence remains constant above that age. Age groups are not standardized across surveys and are often heterogeneous: some observations refer to five-year age groups (at best), others to much wider age groups (e.g. simply “15 years and older”).

1 Gelman A, Hill J. Data analysis using regression and multilevel/hierarchical models. New York (NY): Cambridge University Press; 2007.

2 Finucane MM, Paciorek CJ, Danaei G, Ezzati M. Bayesian estimation of population-level trends in measures of health status. Statistical Science. 2014;29(1):18–25.

3 Danaei G, Finucane MM, Lin JK, Singh GM, Paciorek CJ, Cowan MJ, et al. National, regional, and global trends in systolic blood pressure since 1980: systematic analysis of health examination surveys and epidemiological studies with 786 country-years and 5.4 million participants. Lancet. 2011;377(9765):568–77.

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For the model to include observations from all these age-heterogeneous categories, an age-standardizing approach was adopted,[4] where the age distributions specific to each Global Burden of Disease (GBD) region are used as the standard.[5] Age-standardization was applied to all age groups for which the width of the age interval was larger than five years.

Because the relationship between intimate partner violence and age could exhibit regional and national variations, age was modelled using a multilevel approach. Specifically, each country has its own age pattern, but this pattern is assumed to be more similar within regions and super regions. In practice, this means that country-specific coefficients (random slopes) were included for the natural cubic spline, denoted by $\lambda_{c[i],k}$:

$$\lambda_{c[i],k} = \eta_{g,k} + \eta_{z[i],k} + \eta_{r[i],k} + \eta_{c[i],k}$$

where $\eta_{g,k}$ is a vector that contains the coefficients for the global age-prevalence pattern common to all studies, and $\eta_{z[i],k}$, $\eta_{r[i],k}$ and $\eta_{c[i],k}$ contain the super region, region and country-specific deviations from this overall pattern, respectively.

A similar model was used for non-partner sexual violence with the difference that the relative stability of age patterns across countries from the same region did not require modelling country-specific deviations from the regional age pattern (i.e. the $\eta_{c[i],k}$ are not included in the non-partner sexual violence model).

ADJUSTMENT FOR YEAR OF SURVEY

Prevalence of intimate partner violence could have changed over the 19-year period covered by the systematic review. To allow for potential non-linear changes in prevalence, spline functions were also used here and the country-specific time trends ($\delta_{c[i],t}$) were modelled hierarchically, as described in this equation:

$$\delta_{c[i],t} = \sum_{k=1}^{K} (\varphi_{gk} + \varphi_{z[i],k} + \varphi_{r[i],k} + \varphi_{c[i],k}) \times T_{tk}$$

where φ_{gk}, $\varphi_{z[i],k}$, $\varphi_{r[i],k}$ and $\varphi_{c[i],k}$ contain the spline's K coefficients for the global, super-regional, regional and country-specific time trends. T_{tk} contains the basis matrix for the natural cubic spline curves for calendar year t.

For non-partner sexual violence, this adjustment was not modelled due to the lower number of observations included in the meta-analysis for this type of violence. The non-partner sexual violence estimates thus correspond to a period prevalence measure for 2000–2018 and the term above ($\delta_{c[i],t}$) is equal to zero for the non-partner sexual violence model.

COVARIATE MODELLING

Surveys often use different case definitions and/or eligibility criteria. When such differences exist, combining prevalence estimates from different surveys requires adjustments. Preliminary analyses including indicators within the same regression

4 Moller AB, Petzold M, Chou D, Say L. Early antenatal care visit: a systematic analysis of regional and global levels and trends of coverage from 1990 to 2013. Lancet Glob Health. 2017;5(10):e977–e83.

5 Flaxman AD, Vos T, Murray CJL. An integrative metaregression framework for descriptive epidemiology. Seattle: University of Washington Press; 2015.

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model suggested that the resulting estimates could be affected by composition bias. For example, if all observations requiring a specific adjustment are concentrated in regions with higher (or lower) prevalence of violence against women, the resulting adjustment could be biased. This issue was circumvented by using a robust exact-matching identification strategy[6] where observations with and without the adjustment factor have the same distribution of other characteristics. After performing matching by survey, the odds ratio was calculated for a given adjustment factor for each match. These were then pooled using a random-effects meta-analysis,[7] stratifying by the seven GBD super regions to account for potential geographical heterogeneity in these adjustment factors. A similar approach was used to adjust for whether a study was conducted only in a rural or urban subnational area versus a national-level study. Because the outcome is trichotomous (rural area only, urban area only, nationwide), we used a random-effects logistic regression model with one random intercept per survey and random slopes that vary by the seven GBD super regions for the "rural" and "urban" areas (the referent was "national"). Once the adjustment factors were estimated, a vector, $X_{s[i]}$, was created, summarizing adjustments required for each observation. The adjustment factors for each outcome are presented in Table A4.1 below.

Table A4.1. List of estimated adjustment factors using exact matching for covariate modelling: intimate partner violence (IPV) and non-partner sexual violence (NPSV)

Adjustment factors	Lifetime IPV	Past 12 months IPV	Lifetime NPSV	Past 12 months NPSV
"Severe IPV"	✓	✓	NA	NA
Physical IPV only	✓	✓	NA	NA
Sexual IPV only	✓	✓	NA	NA
Denominator: all women	✓	✓	NA	NA
Denominator: currently partnered women	✓	✓	NA	NA
Partner perpetrating IPV is current or most recent	✓	✓	NA	NA
Rape and attempted rape ("Severe NPSV")			✓	✓
Urban areas only	✓	✓	✓	✓
Rural areas only	✓	✓	✓	✓
Past 12 months NPSV only	NA	NA	✓	✓

Note: "Lifetime" refers to events since the age of 15 years; "partner" refers to any current or former male intimate partner or husband.

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6 Maheu-Giroux M, Filippi V, Samadoulougou S, Castro MC, Maulet N, Meda N, et al. Prevalence of symptoms of vaginal fistula in 19 sub-Saharan Africa countries: a meta-analysis of national household survey data. Lancet Glob Health. 2015;3(5):e271–8.

7 Say L, Chou D, Gemmill A, Tunçalp Ö, Moller AB, Daniels J, et al. Global causes of maternal death: a WHO systematic analysis. Lancet Glob Health. 2014;2(6):e323–33.

ANNEX 5. Number of estimates included in the modelling of the prevalence of physical and/or sexual intimate partner violence, by World Health Organization (WHO) region and age group

Table A5.1. Number of data points included in analysis of *lifetime*[a] prevalence of physical and/or sexual intimate partner violence, by World Health Organization (WHO) region and age group, 2000–2018

AGE GROUP	WHO region, n (%)							
	African Region	Region of the Americas	Eastern Mediterranean Region	European Region	South-East Asia Region	Western Pacific Region	High-income countries/ areas[b]	Global
15–24	114 (31)	92 (27)	20 (26)	32 (19)	37 (29)	35 (22)	30 (10)	360 (23)
25–34	88 (24)	83 (24)	15 (20)	31 (18)	29 (22)	36 (22)	25 (8)	307 (20)
35–49	119 (32)	123 (36)	21 (28)	44 (26)	41 (32)	51 (31)	62 (20)	461 (30)
50–64	2 (1)	15 (4)	4 (5)	16 (10)	6 (5)	19 (12)	51 (17)	113 (7)
65+	2 (1)	1 (0)	1 (1)	2 (1)	0 (0)	1 (1)	12 (4)	19 (1)
Other[c] (< 50)	36 (10)	14 (4)	10 (13)	21 (12)	14 (11)	15 (9)	60 (20)	170 (11)
Other (> 49)	0 (0)	3 (1)	1 (1)	11 (7)	2 (2)	0 (0)	30 (10)	47 (3)
Any other	10 (3)	11 (3)	4 (5)	11 (7)	0 (0)	5 (3)	33 (11)	74 (5)

a "Lifetime" refers to events since the age of 15 years.

b This grouping is mutually exclusive, and countries/areas classified as "high income" (World Bank classification based on Gross National Income per capita) are therefore not included in any of the other regional classifications listed.

c The "Other" categories were used to capture the large heterogeneity in the age groupings reported in surveys and studies (e.g. 18–24, 15–19 or 50–74). Generation of the comparable modelled estimates therefore used the age-standardization approach (see Annex 4).

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Table A5.2. Number of data points included in analysis of *past 12 months* prevalence of physical and/or sexual intimate partner violence (IPV), by World Health Organization (WHO) region and age group, 2000–2018

AGE GROUP	WHO region, n (%)							
	African Region	Region of the Americas	Eastern Mediterranean Region	European Region	South-East Asia Region	Western Pacific Region	High-income countries/ areas[a]	Global
15–24	115 (28)	83 (26)	19 (26)	30 (22)	39 (27)	30 (21)	32 (8)	348 (22)
25–34	103 (25)	76 (24)	16 (22)	30 (22)	34 (23)	32 (22)	30 (8)	321 (20)
35–49	149 (37)	111 (35)	22 (30)	37 (27)	50 (34)	46 (32)	73 (19)	488 (31)
50–64	2 (0)	15 (5)	5 (7)	8 (6)	9 (6)	19 (13)	56 (15)	114 (7)
65+	2 (0)	1 (0)	1 (1)	2 (1)	2 (1)	1 (1)	28 (7)	37 (2)
Other[b] (< 50)	21 (5)	11 (3)	7 (10)	7 (5)	9 (6)	14 (10)	76 (20)	145 (9)
Other (> 49)	0 (0)	5 (2)	0 (0)	3 (2)	2 (1)	0 (0)	36 (10)	46 (3)
Any other	15 (4)	13 (4)	3 (4)	18 (13)	1 (1)	3 (2)	46 (12)	99 (6)

a This grouping is mutually exclusive, and countries/areas classified as "high income" (World Bank classification based on Gross National Income per capita) are therefore not included in any of the other regional classifications listed.

b The "Other" categories were used to capture the large heterogeneity in the age groupings reported in surveys and studies (e.g. 18–24, 15–19 or 50–74). Generation of the comparable modelled estimates therefore used the age-standardization approach (see Annex 4).

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ANNEX 6. Country[1] prevalence estimates of lifetime and past 12 months physical and/or sexual intimate partner violence (IPV) among ever-married/partnered women aged 15–49 years, 2018

COUNTRY/AREA	Lifetime IPV point estimate (%) and 95% uncertainty interval (UI)	Past 12 months IPV point estimate (%) and 95% uncertainty interval (UI)
Afghanistan	46 (32–61)	35 (22–50)
Albania	13 (9–17)	6 (4–9)
Algeria	-	-
Andorra	-	-
Angola	38 (25–53)	25 (14–39)
Antigua and Barbuda	-	-
Argentina	27 (16–41)	4 (2–8)
Armenia	10 (6–17)	5 (2–9)
Australia	23 (16–32)	3 (2–5)
Austria	15 (8–25)	4 (2–7)
Azerbaijan	14 (8–22)	5 (3–9)
Bahamas	-	-
Bahrain	-	-
Bangladesh	50 (37–62)	23 (15–34)
Barbados	-	-
Belarus	21 (13–33)	6 (3–12)
Belgium	22 (13–34)	5 (3–9)
Belize	24 (12–43)	8 (3–17)
Benin	26 (16–38)	15 (8–24)
Bhutan	22 (14–33)	9 (5–14)
Bolivia (Plurinational State of)	42 (32–53)	18 (11–28)
Bosnia and Herzegovina	12 (7–18)	3 (2–6)
Botswana	34 (20–52)	17 (10–28)
Brazil	23 (15–34)	6 (4–10)
Brunei Darussalam	-	-
Bulgaria	19 (11–32)	6 (3–12)
Burkina Faso	19 (10–31)	11 (6–20)

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1 In the context of this report, the term "country" should be understood as referring to 161 countries and areas that provided data related to intimate partner violence and/or non-partner sexual violence. This designation and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

COUNTRY/AREA	Lifetime IPV point estimate (%) and 95% uncertainty interval (UI)	Past 12 months IPV point estimate (%) and 95% uncertainty interval (UI)
Burundi	40 (27–55)	22 (13–35)
Cabo Verde	19 (12–28)	11 (6–18)
Cambodia	19 (13–27)	9 (6–14)
Cameroon	39 (27–53)	22 (15–32)
Canada	-	3 (2–4)
Central African Republic	29 (17–44)	21 (12–35)
Chad	29 (18–43)	16 (9–27)
Chile	21 (14–30)	6 (3–10)
China	19 (11–33)	8 (3–18)
China, Hong Kong Special Administrative Region	13 (7–24)	3 (1–5)
Colombia	30 (22–40)	12 (6–21)
Comoros	16 (8–28)	8 (4–16)
Congo	-	-
Cook Islands	33 (20–50)	14 (7–25)
Costa Rica	27 (16–41)	7 (4–14)
Côte d'Ivoire	27 (16–41)	16 (9–28)
Croatia	13 (7–23)	4 (2–8)
Cuba	14 (8–23)	5 (2–9)
Cyprus	16 (10–26)	3 (1–6)
Czechia	22 (14–31)	4 (2–7)
Democratic People's Republic of Korea	-	-
Democratic Republic of the Congo	47 (34–61)	36 (23–50)
Denmark	23 (14–34)	3 (2–5)
Djibouti	-	-
Dominica	-	-
Dominican Republic	19 (13–29)	10 (6–15)
Ecuador	33 (21–49)	8 (5–14)
Egypt	30 (21–40)	15 (10–23)
El Salvador	21 (15–29)	6 (4–9)
Equatorial Guinea	46 (30–63)	29 (16–46)
Eritrea	-	-
Estonia	21 (12–33)	4 (2–9)

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COUNTRY/AREA	Lifetime IPV point estimate (%) and 95% uncertainty interval (UI)	Past 12 months IPV point estimate (%) and 95% uncertainty interval (UI)
Eswatini	-	18 (10–30)
Ethiopia	37 (25–50)	27 (17–38)
Fiji	52 (35–69)	23 (13–39)
Finland	23 (14–35)	8 (6–11)
France	22 (13–36)	5 (2–10)
Gabon	41 (27–58)	22 (12–36)
Gambia	25 (15–38)	10 (5–18)
Georgia	10 (6–18)	3 (1–6)
Germany		
Ghana	24 (14–38)	10 (6–17)
Greece	18 (10–30)	5 (2–10)
Grenada	28 (18–42)	8 (4–15)
Guatemala	21 (13–30)	7 (4–12)
Guinea	37 (24–51)	21 (12–33)
Guinea-Bissau	-	-
Guyana	31 (20–45)	10 (6–19)
Haiti	23 (16–32)	12 (8–18)
Honduras	17 (10–26)	7 (4–12)
Hungary	19 (11–31)	6 (3–11)
Iceland	21 (12–36)	3 (2–4)
India	35 (23–47)	18 (11–28)
Indonesia	22 (11–40)	9 (4–20)
Iran (Islamic Republic of)	31 (16–52)	18 (7–36)
Iraq	26 (16–39)	-
Ireland	16 (9–25)	3 (2–6)
Israel	-	6 (3–10)
Italy	16 (10–24)	4 (2–6)
Jamaica	24 (16–35)	7 (4–12)
Japan	20 (10–38)	4 (1–10)
Jordan	24 (16–34)	13 (9–20)
Kazakhstan	16 (9–26)	6 (3–11)
Kenya	38 (27–50)	23 (15–33)
Kiribati	53 (35–70)	25 (14–423)

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COUNTRY/AREA	Lifetime IPV point estimate (%) and 95% uncertainty interval (UI)	Past 12 months IPV point estimate (%) and 95% uncertainty interval (UI)
Kosovo[1]	13 (8–22)	5 (2–11)
Kuwait	-	-
Kyrgyzstan	23 (14–36)	13 (7–24)
Lao People's Democratic Republic	19 (11–30)	8 (4–15)
Latvia	25 (15–40)	6 (3–12)
Lebanon	-	-
Lesotho	40 (21–62)	16 (8–30)
Liberia	43 (30–56)	27 (17–40)
Libya	-	-
Lithuania	22 (14–33)	5 (2–11)
Luxembourg	20 (11–33)	4 (2–7)
Madagascar	-	-
Malawi	30 (21–41)	17 (11–24)
Malaysia	19 (10–34)	-
Maldives	19 (12–28)	6 (4–11)
Mali	29 (21–39)	18 (12–26)
Malta	17 (10–27)	4 (2–8)
Marshall Islands	38 (25–53)	19 (11–32)
Mauritania	-	-
Mauritius	-	-
Mexico	24 (16–35)	10 (6–15)
Micronesia (Federated States of)	35 (21–51)	21 (12–36)
Monaco	-	-
Mongolia	27 (17–40)	12 (6–20)
Montenegro	16 (10–25)	4 (2–8)
Morocco	-	10 (6–18)
Mozambique	30 (21–41)	16 (11–24)
Myanmar	19 (11–30)	11 (6–19)
Namibia	27 (16–41)	16 (10–25)
Nauru	43 (27–60)	20 (10–35)
Nepal	27 (18–39)	11 (7–19)

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1 All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999). It is included in this table because it had data that met the inclusion criteria.

COUNTRY/AREA	Lifetime IPV point estimate (%) and 95% uncertainty interval (UI)	Past 12 months IPV point estimate (%) and 95% uncertainty interval (UI)
Netherlands	21 (12–35)	5 (3–10)
New Zealand	23 (11–44)	4 (2–11)
Nicaragua	23 (15–35)	6 (4–11)
Niger	-	13 (8–21)
Nigeria	24 (17–33)	13 (9–20)
Niue	-	-
North Macedonia	13 (8–22)	4 (2–8)
Norway	20 (12–33)	4 (2–9)
Occupied Palestinian territory	29 (18–45)	19 (10–33)
Oman	-	-
Pakistan	29 (19–40)	16 (10–25)
Palau	31 (18–47)	14 (7–26)
Panama	16 (10–25)	8 (4–13)
Papua New Guinea	51 (36–65)	31 (19–46)
Paraguay	18 (11–29)	6 (3–10)
Peru	38 (31–47)	11 (8–15)
Philippines	14 (10–21)	6 (4–9)
Poland	13 (8–20)	3 (2–6)
Portugal	18 (10–29)	4 (2–9)
Qatar	-	-
Republic of Korea	-	8 (5–14)
Republic of Moldova	27 (17–39)	9 (5–15)
Romania	18 (10–30)	7 (4–12)
Russian Federation	-	-
Rwanda	38 (27–50)	23 (16–33)
Saint Kitts and Nevis	-	-
Saint Lucia	-	-
Saint Vincent and the Grenadines	-	-
Samoa	40 (25–57)	18 (9–32)
San Marino	-	-
Sao Tome and Principe	27 (16–41)	18 (10–31)
Saudi Arabia[a]	-	-
Senegal	24 (15–36)	12 (7–21)

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COUNTRY/AREA	Lifetime IPV point estimate (%) and 95% uncertainty interval (UI)	Past 12 months IPV point estimate (%) and 95% uncertainty interval (UI)
Serbia	17 (10–26)	4 (2–7)
Seychelles	-	-
Sierra Leone	36 (23–51)	20 (11–32)
Singapore	11 (5–22)	2 (1–6)
Slovakia	18 (10–30)	6 (3–12)
Slovenia	18 (11–28)	3 (2–7)
Solomon Islands	50 (33–67)	28 (16–46)
Somalia[a]	-	-
South Africa	24 (14–36)	13 (7–23)
South Sudan	41 (23–61)	27 (13–48)
Spain	15 (10–23)	3 (2–5)
Sri Lanka	24 (14–38)	4 (2–9)
Sudan	-	17 (9–30)
Suriname	28 (18–42)	8 (4–14)
Sweden	21 (12–32)	6 (3–11)
Switzerland	12 (6–21)	2 (1–4)
Syrian Arab Republic	-	-
Tajikistan	24 (16–34)	14 (9–22)
Thailand	24 (12–42)	9 (4–20)
Timor-Leste	38 (27–50)	28 (19–40)
Togo	25 (15–38)	13 (7–22)
Tonga	37 (23–55)	17 (9–31)
Trinidad and Tobago	28 (18–42)	8 (4–14)
Tunisia	25 (14–40)	10 (5–20)
Turkey	32 (22–45)	12 (8–19)
Turkmenistan	-	-
Tuvalu	39 (24–56)	20 (10–35)
Uganda	45 (34–57)	26 (18–36)
Ukraine	18 (12–25)	9 (5–13)
United Arab Emirates	-	-
United Kingdom of Great Britain and Northern Ireland	24 (14–38)	4 (2–8)
United Republic of Tanzania	38 (28–50)	24 (16–35)

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COUNTRY/AREA	Lifetime IPV point estimate (%) and 95% uncertainty interval (UI)	Past 12 months IPV point estimate (%) and 95% uncertainty interval (UI)
United States of America	26 (15–43)	6 (4–9)
Uruguay	18 (10–32)	4 (2–9)
Uzbekistan	-	-
Vanuatu	47 (31–64)	29 (16–48)
Venezuela (Bolivarian Republic of)	19 (11–31)	8 (4–16)
Viet Nam	25 (15–38)	10 (5–17)
Yemen	-	-
Zambia	41 (29–55)	28 (19–39)
Zimbabwe	35 (24–47)	18 (12–26)

Note: The analysis was based on the Global Burden of Disease (GBD) study regional classifications. For further information see http://ghdx.healthdata.org/countries

a Survey data are available now, but the survey was conducted after 2018 and will be included in future estimates.

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ANNEX 7. Regional prevalence estimates of lifetime and past 12 months physical and/or sexual intimate partner violence (IPV) among ever-married/partnered women aged 15 years and older, by World Health Organization (WHO) region, 2018[a]

WHO REGION	Lifetime IPV point estimate % and 95% uncertainty interval (UI)	Past 12 months IPV point estimate % and 95% uncertainty interval (UI)
World	26 (22–30)	10 (8–12)
Low- and middle-income countries and areas in:		
African Region	32 (28–37)	18 (15–21)
Region of the Americas	26 (22–32)	7 (5–9)
Eastern Mediterranean Region	30 (24–37)	15 (11–19)
European Region	24 (19–29)	7 (5–9)
South-East Asia Region	32 (24–42)	14 (10–21)
Western Pacific Region	19 (11–32)	6 (3–13)
High-income countries and areas	21 (167–27)	4 (3–5)

WHO Member States in each WHO region can be found at:

African Region: https://www.afro.who.int/countries
Region of the Americas: https://www.paho.org/en/countries-and-centers
South-East Asia Region: http://www.searo.who.int/en/
European Region: http://www.euro.who.int/en/countries
Eastern Mediterranean Region: http://www.emro.who.int/countries.html
Western Pacific Region: https://www.who.int/westernpacific/about/where-we-work

a High-income countries and areas are classified by the World Bank based on Gross National Income per capita calculated using the World Bank Atlas method (July 2020). Countries in each World Bank Group region and income group are listed at: https://datahelpdesk.worldbank.org/knowledgebase/ articles/906519-world-bank-country-and-lending-groups. This grouping is mutually exclusive, and countries classified as "high income" are therefore not included in any of the other regional classifications listed above.

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ANNEX 8. Regional prevalence estimates of lifetime and past 12 months physical and/or sexual intimate partner violence (IPV) among ever-married/partnered women aged 15–49 years, by Global Burden of Disease (GBD) region, 2018

GBD REGION	Lifetime IPV point estimate % and 95% uncertainty interval (UI)	Past 12 months IPV point estimate % and 95% uncertainty interval (UI)
World	27 (23–31)	13 (10–16)
Central Europe, Eastern Europe and Central Asia		
Central Asia	18 (13–24)	8 (6–12)
Central Europe	16 (12–21)	5 (3–6)
Eastern Europe	21 (15–29)	7 (5–11)
High-income regions		
High-income Asia Pacific	21 (12–35)	5 (3–10)
Australasia	23 (16–32)	3 (2–5)
Western Europe	20 (15–26)	4 (3–6)
Southern Latin America	25 (17–35)	5 (3–8)
High-income North America	25 (14–41)	6 (4–9)
Latin America and the Caribbean		
Caribbean	21 (17–26)	9 (7–12)
Andean Latin America	38 (31–46)	12 (9–15)
Central Latin America	24 (19–31)	10 (7–14)
Tropical Latin America	23 (15–34)	6 (4–10)
North Africa and Middle East	31 (24–40)	16 (12–22)
South Asia	35 (26–46)	19 (12–27)
South-East Asia, East Asia and Oceania		
East Asia	19 (11–32)	8 (3–17)
South-East Asia	21 (15–31)	9 (6–14)
Oceania	49 (38–61)	29 (19–40)
Sub-Saharan Africa		
Central Sub-Saharan Africa	44 (33–55)	32 (22–43)
Eastern Sub-Saharan Africa	38 (31–44)	24 (19–29)
Southern Sub-Saharan Africa	27 (19–37)	14 (9–22)
Western Sub-Saharan Africa	27 (22–33)	15 (12–19)

Countries and areas in each GBD region are listed at: http://ghdx.healthdata.org/countries; GBD regions and super regions are listed at: https://www.iapb.org/learn/vision-atlas/about/definitions-and-regions/

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ANNEX 9. Regional prevalence estimates of lifetime and past 12 months physical and/or sexual intimate partner violence (IPV) among ever-married/partnered women aged 15 years and older, by United Nations Population Fund (UNFPA) region, 2018

UNFPA REGION AND SUBREGION	Lifetime IPV point estimate % and 95% uncertainty interval (UI)	Past 12 months IPV point estimate % and 95% uncertainty interval (UI)
World	26 (22–30)	10 (8–12)
Arab States	30 (23–38)	13 (10–17)
Asia and the Pacific	26 (20–34)	11 (8–15)
East and Southern Africa	37 (31–43)	22 (17–26)
Eastern Europe and Central Asia	24 (20–29)	8 (6–10)
Latin America and the Caribbean	26 (22–31)	7 (5–9)
West and Central Africa	26 (21–32)	14 (11–17)

Countries and areas in each UNFPA region are listed at: https://www.unfpa.org/worldwide

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ANNEX 10. Regional prevalence estimates of lifetime and past 12 months physical and/or sexual intimate partner violence (IPV) among ever-married/partnered women aged 15 years and older, by United Nations Children's Fund (UNICEF) region, 2018

UNICEF REGION AND SUBREGION	Lifetime IPV point estimate % and 95% uncertainty interval (UI)	Past 12 months IPV point estimate % and 95% uncertainty interval (UI)
World	26 (22–30)	10 (8–12)
East Asia and the Pacific	19 (13–29)	6 (4–12)
Europe and Central Asia	20 (17–24)	5 (4–6)
Eastern Europe and Central Asia	23 (19–29)	7 (5–9)
Western Europe	17 (13–22)	3 (2–4)
Latin America and the Caribbean	26 (22–31)	7 (5–9)
Middle East and North Africa	29 (22–38)	13 (9–19)
North America	27 (17–39)	4 (3–6)
South Asia	35 (25–45)	16 (11–23)
Sub-Saharan Africa	33 (28–37)	18 (15–21)
Eastern and Southern Africa	35 (30–41)	20 (16–24)
West and Central Africa	30 (25–35)	17 (13–21)
Least developed countries	37 (33–42)	20 (17–23)

Countries and areas in each UNICEF region are listed at: https://data.unicef.org/regionalclassifications/

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ANNEX 11. Characteristics of included studies on lifetime non-partner sexual violence (NPSV experienced since age 15), conducted between 2000 and 2018

Characteristics	Lifetime NPSV
Sample characteristics and representativeness	
Number of women interviewed	1 266 758
Number of age-specific observations	1 291
Number of studies	227
Nationally representative studies (% of all studies)	197 (87%)
Number of countries and areas represented	**137**
Distribution of countries by number of studies representing those countries	
Countries with 1 study only (% of the countries with data)	76 (57%)
Countries with 2 studies (% of the countries with data)	36 (26%)
Countries with 3 studies (% of the countries with data)	17 (12%)
Countries with 4 or more studies (% of the countries with data)	6 (4%)
Number of Global Burden of Disease regions represented	**21 (100%)**
Median date of data collection	**2012**
Distribution of dates of data collection among studies	
Studies conducted 2000–2004 (% of the eligible studies)	47 (21%)
Studies conducted 2005–2009 (% of the eligible studies)	42 (18%)
Studies conducted 2010–2014 (% of the eligible studies)	77 (34%)
Studies conducted 2015–2018 (% of the eligible studies)	61 (27%)
Country-years of observations	**222**
Study types	
Studies requiring adjustments	
Violence definition: "*rape and attempted rape only*" (% of the eligible studies)	41 (18%)
Geographical strata: "*rural only*" (% of the eligible studies)	6 (3%)
Geographical strata: "*urban only*" (% of the eligible studies)	9 (4%)
Recall period: "*past 12 months*" (% of the eligible studies)	5 (2%)
Observations not requiring any adjustments	**973 (75%)**

Note: All estimates encompass experiences of both severe and non-severe NPSV.

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ANNEX 12. Countries with eligible data on lifetime prevalence of non-partner sexual violence (NPSV) among all women aged 15 years and older, by World Health Organization (WHO) region, 2018[a]

WHO REGION	Countries and areas	Number of countries/ areas
Low- and middle-income countries and areas		
African Region	Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Chad, Comoros, Democratic Republic of the Congo, Ethiopia, Gabon, Gambia, Ghana, Kenya, Lesotho, Liberia, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe	33
Region of the Americas	Argentina, Belize, Bolivia (Plurinational State of), Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Paraguay, Peru, Suriname	19
South-East Asia Region	Bhutan, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, Timor-Leste	9
European Region	Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo,[1] Kyrgyzstan, Montenegro, North Macedonia, Republic of Moldova, Serbia, Tajikistan, Turkey, Ukraine	16
Eastern Mediterranean Region	Bangladesh, Egypt, Pakistan	3
Western Pacific Region	Cambodia, China, Cook Islands, Fiji, Kiribati, Lao People's Republic, Marshall Islands, Micronesia (Federated Sates of), Mongolia, Papua New Guinea, Philippines, Samoa, Solomon Islands, Tonga, Vanuatu, Viet Nam	16
High-income countries and areas		
	Australia, Austria, Belgium, Bulgaria, Canada, Chile, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong Special Administrative Region (China), Hungary, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, Nauru, Netherlands, New Zealand, Palau, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Trinidad and Tobago, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay	41
Total		137

WHO Member States in each WHO region can be found at:

African Region: https://www.afro.who.int/countries
Region of the Americas: https://www.paho.org/en/countries-and-centers
South-East Asia Region: http://www.searo.who.int/en/
European Region: http://www.euro.who.int/en/countries
Eastern Mediterranean Region: http://www.emro.who.int/countries.html
Western Pacific Region: https://www.who.int/westernpacific/about/where-we-work

a High-income countries and areas are classified by the World Bank based on Gross National Income per capita calculated using the World Bank Atlas method (July 2020). Countries in each World Bank Group region and income group are listed at: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups. This grouping is mutually exclusive, and countries classified as "high income" are therefore not included in any of the other regional classifications listed above.

1 All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999). It is included in this table because it had data that met the inclusion criteria.

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ANNEX 13. Countries with eligible data on lifetime prevalence of non-partner sexual violence (NPSV) among all women aged 15 years and older, by United Nations Sustainable Development Goal (SDG) region, 2018

SDG REGION	Countries and areas	Number of countries/ areas
Sub-Saharan Africa	Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Chad, Comoros, Democratic Republic of Congo, Ethiopia, Gabon, Gambia, Ghana, Kenya, Lesotho, Liberia, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe	33
Northern Africa and Western Asia		
Northern Africa	Egypt	1
Western Asia	Armenia, Azerbaijan, Cyprus, Georgia, Turkey	5
Central and Southern Asia		
Central Asia	Kazakhstan, Kyrgyzstan, Tajikistan	3
Southern Asia	Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka	7
Eastern and South-Eastern Asia		
Eastern Asia	China, Hong Kong SAR (China), Japan, Mongolia	4
South-Eastern Asia	Cambodia, Indonesia, Lao People's Democratic Republic, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, Viet Nam	9
Latin America and the Caribbean	Argentina, Belize, Bolivia (Plurinational State of), Brazil, Colombia, Costa Rica, Chile, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay	22
Oceania		
Australia and New Zealand	Australia, New Zealand	2
Oceania (excl. Australia and New Zealand)		
Melanesia	Fiji, Papua New Guinea, Solomon Islands, Vanuatu	4
Micronesia	Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, Palau	5
Polynesia	Cook Islands, Samoa, Tonga	3

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SDG REGION	Countries and areas	Number of countries/ areas
Europe and Northern America		
Eastern Europe	Bulgaria, Belarus, Czech Republic, Hungary, Poland, Republic of Moldova, Romania, Slovakia, Ukraine	9
Northern Europe	Denmark, Estonia, Finland, United Kingdom of Great Britain and Northern Ireland, Ireland, Latvia, Lithuania, Sweden	8
Southern Europe	Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Kosovo,[1] Malta, Montenegro, North Macedonia, Portugal, Serbia, Slovenia, Spain	13
Western Europe	Austria, Belgium, France, Germany, Luxembourg, Netherlands, Switzerland	7
Northern America	Canada, United States of America	2
Total		**137**
Least Developed Countries	Angola, Bangladesh, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Cambodia, Cameroon, Chad, Comoros, Democratic Republic of Congo, Ethiopia, Gambia, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Malawi, Mali, Mozambique, Myanmar, Nepal, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, South Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Zambia	36

Note: Countries and areas included in the analysis are listed by SDG regional and subregional grouping; full listings by SDG regional and subregional groupings can be found at: https://unstats.un.org/sdgs/indicators/regional-groups/

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1 All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999). It is included in this table because it had data that met the inclusion criteria.

ANNEX 14. Results of random effects meta-analysis for different adjustment factors, lifetime non-partner sexual violence (NPSV), by Global Burden of Disease (GBD) super region

Adjustment factors by super regions (and overall)	Lifetime NPSV odds ratio (95% CI)
Rape and/or attempted rape (ref. all forms of sexual violence)	
Central Europe, Eastern Europe and Central Asia	0.3 (0.2–0.5)
High income	NA
Latin America and the Caribbean	0.5 (0.3–0.7)
North Africa and Middle East	NA
South Asia	NA
South-East Asia, East Asia and Oceania	0.4 (0.2–0.7)
Sub-Saharan Africa	NA
Overall	0.4 (0.3–0.5)
Geographical urban strata (ref. nationally representative)	
Central Europe, Eastern Europe and Central Asia	1.2 (1.1–1.3)
High income	NA
Latin America and the Caribbean	1.1 (1.01–1.2)
North Africa and Middle East	1.1 (1.0–1.2)
South Asia	1.0 (0.9–1.1)
South-East Asia, East Asia and Oceania	1.0 (0.9–1.1)
Sub-Saharan Africa	1.2 (1.1–1.3)
Overall	1.1 (1.0–1.2)
Geographical rural strata (ref. nationally representative)	
Central Europe, Eastern Europe and Central Asia	0.8 (0.7–0.9)
High income	NA
Latin America and the Caribbean	0.8 (0.8–0.9)
North Africa and Middle East	0.8 (0.8–1.0)
South Asia	1.0 (0.9–1.1)
South-East Asia, East Asia and Oceania	1.0 (0.9–1.1)
Sub-Saharan Africa	0.9 (0.8–1.0)
Overall	0.9 (0.8–1.0)

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Adjustment factors by super regions (and overall)	Lifetime NPSV odds ratio (95% CI)
Past 12 months (ref. lifetime, since age 15)	
Central Europe, Eastern Europe and Central Asia	0.1 (0.1–0.2)
High income	0.1 (0.1–0.1)
Latin America and the Caribbean	0.1 (0.1–0.1)
North Africa and Middle East	NA
South Asia	NA
South-East Asia, East Asia and Oceania	0.3 (0.2–0.4)
Sub-Saharan Africa	NA
Overall	0.1 (0.1–0.2)

Countries and areas in each GBD region are listed at: http://ghdx.healthdata.org/countries; GBD regions and super regions are listed at: https://www.iapb.org/learn/vision-atlas/about/definitions-and-regions/

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ANNEX 15. Regional prevalence estimates of lifetime non-partner sexual violence (NPSV) among women aged 15 years and older, by World Health Organization (WHO) region, 2018[a]

WHO REGION	Lifetime NPSV point estimate % and 95% uncertainty interval (UI)
World	6 (4–9)
Low- and middle-income countries and areas in:	
African Region	5 (4–7)
Region of the Americas	10 (7–15)
Eastern Mediterranean Region	3 (1–6)
European Region	4 (3–7)
South-East Asia Region	2 (1–3)
Western Pacific Region	6 (2–18)
High-income countries and areas	9 (6–16)

WHO Member States in each WHO region can be found at:

African Region: https://www.afro.who.int/countries
Region of the Americas: https://www.paho.org/en/countries-and-centers
South-East Asia Region: http://www.searo.who.int/en/
European Region: http://www.euro.who.int/en/countries
Eastern Mediterranean Region: http://www.emro.who.int/countries.html
Western Pacific Region: https://www.who.int/westernpacific/about/where-we-work

a High-income countries and areas are classified by the World Bank based on Gross National Income per capita calculated using the World Bank Atlas method (July 2020). Countries in each World Bank Group region and income group are listed at: https://datahelpdesk.worldbank.org/knowledgebase/ articles/906519-world-bank-country-and-lending-groups. This grouping is mutually exclusive, and countries classified as "high income" are therefore not included in any of the other regional classifications listed above.

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ANNEX 16. Regional prevalence estimates of lifetime non-partner sexual violence (NPSV) among women aged 15–49 years, by Global Burden of Disease (GBD) region, 2018

GBD REGION	Lifetime NPSV point estimate % and 95% uncertainty interval (UI)
World	6 (4–9)
Central Europe, Eastern Europe and Central Asia	
Central Asia	2 (1–4)
Central Europe	6 (4–9)
Eastern Europe	6 (3–13)
High-income regions	
High-income Asia Pacific	6 (2–16)
Australasia	19 (9–36)
Western Europe	9 (6–12)
Southern Latin America	6 (2–16)
High-income North America	15 (5–40)
Latin America and the Caribbean	
Caribbean	9 (5–14)
Andean Latin America	8 (4–17)
Central Latin America	17 (10–27)
Tropical Latin America	5 (2–14)
North Africa and Middle East	4 (2–9)
South Asia	1 (1–2)
South-East Asia, East Asia and Oceania	
East Asia	7 (2–22)
South-East Asia	4 (2–8)
Oceania	10 (5–21)
Sub-Saharan Africa	
Central Sub-Saharan Africa	10 (5–20)
Eastern Sub-Saharan Africa	6 (4–8)
Southern Sub-Saharan Africa	4 (2–7)
Western Sub-Saharan Africa	5 (3–8)

Countries and areas in each GBD region are listed at: http://ghdx.healthdata.org/countries

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ANNEX 17. Regional prevalence estimates of lifetime physical and/or sexual intimate partner violence (IPV) and/or lifetime non-partner sexual violence (NPSV) among women aged 15 years and older, by World Health Organization (WHO) region, 2018[a]

WHO REGION	Intimate partner violence and/or non-partner sexual violence (%)
World	30 (26–34)
Low- and middle-income countries and areas in:	
African Region	35 (31–40)
Region of the Americas	33 (28–39)
Eastern Mediterranean Region	32 (26–39)
European Region	26 (22–32)
South-East Asia Region	33 (26–43)
Western Pacific Region	24 (15–38)
High-income countries and areas	28 (23–34)

WHO Member States in each WHO region can be found at:

African Region: https://www.afro.who.int/countries
Region of the Americas: https://www.paho.org/en/countries-and-centers
South-East Asia Region: http://www.searo.who.int/en/
European Region: http://www.euro.who.int/en/countries
Eastern Mediterranean Region: http://www.emro.who.int/countries.html
Western Pacific Region: https://www.who.int/westernpacific/about/where-we-work

a High-income countries and areas are classified by the World Bank based on Gross National Income per capita calculated using the World Bank Atlas method (July 2020). Countries in each World Bank Group region and income group are listed at: https://datahelpdesk.worldbank.org/knowledgebase/ articles/906519-world-bank-country-and-lending-groups. This grouping is mutually exclusive, and countries classified as "high income" are therefore not included in any of the other regional classifications listed above.

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