COMPARING SEXUAL ASSAULT INTERVENTIONS

Models of intervention for women who have been sexually assaulted in Europe:

A review of the literature

This project has received financial support from the European Union Directorate-General Justice DAPHNE III Programme 2007-2013: Combating violence towards children, adolescents and women *(Just/2010/DAP3/AG/1395)*

This publication has been produced with financial support from the European Union DAPHNE III Programme 2007-2013.

This programme is managed by the European Commission Directorate-General for Justice. The Daphne III programme aims to contribute to the protection of children, young people and women against all forms of violence and attain a high level of health protection, well-being and social cohesion. Its specific objective is to contribute to the prevention of, and the fight against all forms of violence occurring in the public or the private domain, including sexual exploitation and trafficking of human beings. It aims to take preventive measures and provide support and protection for victims and groups at risk. For more information see:
http://ec.europa.eu/justice/grants/programmes/daphne/index_en.htm

This work is largely based on the research conducted by Martha Perry with support from Liza Cragg. We are grateful for the work of Maggie Davies and Bryony Lloyd from HAPI. We also gratefully acknowledge the insight and expertise of Karen Hughes, Katherine Hardcastle and Sara Wood from Liverpool John Moores University, Egija Lepina from the Latvian Association of Gynaecologists and Obstetricians, Androulla Michael and Claire Phillips from the Department of Health, England, Ivana Plšková from the Educational Institute for Child Protection, Czech Republic, and Dinesh Sethi from WHO Regional Office for Europe. Thank you as well to Lucy Gouder from Victim Support Malta and Mihai Horga from the East European Institute for Reproductive Health.

Published by the Comparing Sexual Assault Interventions (COSAI) project, March 2012.

This document is also available online at **www.cosai.eu**

Comparing Sexual Assault Interventions (COSAI) project partners:
East European Institute for Reproductive Health (Romania)
Educational Institute for Child Protection (Czech Republic)
Latvian Association of Gynaecologists and Obstetricians (Latvia)
Liverpool John Moores University (UK)
Victim Support (Malta)

Associate project partners:
Department of Health (England)
European Regional Office of the World Health Organization (WHO-EURO)

This project is coordinated by
National Heart Forum/ Health Action Partnership International (HAPI)

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This literature review was undertaken as part of the project *Comparing Sexual Assault Interventions* which is funded by the European Union through the DAPHNE III Programme 2007-2013. The project goal is to improve the effectiveness, appropriateness and humanity of sexual assault services by reviewing current practice and taking on board user attitudes to interventions following sexual assault, and therefore decrease the social, mental and health harm caused to the victims of sexual assault. The scope of the project is limited to women aged over 16.

The purpose of the literature review was to identify models of intervention for women who have experienced sexual assault across European Union Member States, EFTA, EEA and ascension countries

Methodology for the literature review

The literature review included peer reviewed articles in academic and scientific journals and grey literature. The literature search was undertaken for peer reviewed articles in English, French and Spanish using specific keywords. Grey literature was identified through survey questionnaire and telephone interviews carried out by the project, searches of specific websites, project partners and publication references. Only articles and documents that fulfilled the defined inclusion criteria were examined.

Key findings of the literature review

What the literature tells us about the prevalence of sexual assault:

- Legal definitions, rape myths and public perceptions all impact on sexual assault reporting levels.
- There are different methodologies for estimating prevalence levels, including those based on self-reporting in population-based surveys and those based on official crime statistics.
- All methodologies are likely to underestimate the real numbers as many assaults are unreported and some forms of sexual violence may be not be perceived by victims or perpetrators as an offence.
- Studies included in this review in various European countries and using different methodologies found lifetime prevalence rates for sexual assault of between 6.8% and 33.2%.

What the literature tells us about vulnerability to sexual assault:

- There is some evidence that certain population groups are more vulnerable to sexual assault. These include adolescents, young women, those with disabilities, homeless, sex workers, women on low incomes, women who were previously victims of sexual abuse or assaults, and lesbian, gay, bisexual, transgender and intersex people.
- The evidence on ethnicity as a factor that increases vulnerability to sexual assault is not conclusive.

What the literature tells us about services for women who have experienced sexual assault:

- Responding to sexual assault requires addressing multiple dimensions of care from medical, psycho-social and legal sectors.
- Various models are used to meet forensic, medical, psychosocial and criminal justice needs in different countries and regions within countries.
- How service providers respond to women can have profound consequences for receiving appropriate care and later adjustment and recovery.
- Centralised or co-ordinated models (e.g. Sexual Assault Referral Centres) offer services for health, forensic and psychological needs in a single location.
- Integrated models offer services for women who have suffered sexual assault together with services for other forms of violence against women and children.
- Most of the literature focuses on understanding urban patterns of sexual assault and services.
- When designing models for intervention, 'one-size-fits-all' models are not recommended.

Results of the review and areas for further action:

- There is little systematic evaluation of sexual assault services.
- Sexual assault requires a multifaceted response to medical, psychological and legal needs, which complicates measuring the effectiveness of services globally and, instead, services should be evaluated against multiple domains.
- Given the lack of systematic evaluation and the different types of evidence available, it is not possible to develop a methodologically sound hierarchy or framework which directly compares the effectiveness of different interventions and service models.
- Individual evaluations on the effectiveness of strategies in terms of their impact on reducing the incidence of sexual assault were not found.
- There is evidence that having service providers in one location and training and specialisation in sexual assault reduced the risk of secondary victimisation of women by professionals when reporting sexual assault.
- Findings from the United States support specialisation and training in forensic examinations for sexual assault cases.
- Evidence shows negative experiences are related to long waits for the examination and the examiner appearing to disbelief.
- There is evidence that training and specialisation in sexual assault, either in the form of specialised service provision or by specialised professionals, will be more likely to offer victims thorough medical care.
- There is evidence of the benefits of cognitive behavioural therapies, especially in terms of PTSD outcomes.

- This review did not find evidence on whether sexual assault services delivered in services which also cover a range of other forms of violence against women and children are more or less effective than those services that only specialise on sexual assault.
- More evaluations should be conducted in lower resource settings.

About this literature review

Background

The *Comparing Sexual Assault Interventions* project is funded by the European Union (EU) as part of the DAPHNE III Programme 2007-2013, which aims to contribute to the protection of children, young people and women against all forms of violence.

The goal of the *Comparing Sexual Assault Interventions* project is to improve the effectiveness, appropriateness and humanity of sexual assault services by reviewing current practice and taking on board user attitudes to interventions following sexual assault, and therefore decrease the social, mental and health harm caused to the victims of sexual assault. The project objectives are to:

1. Define the evidence base of policies and programmes for dealing with sexual assault by reviewing the international literature.
2. Explore what models of intervention for victims of sexual assault exist in EU Member States and EFTA/EEA countries.
3. Examine the positive and negative impacts of these models of intervention on the health, social and criminal justice outcomes of victims of sexual assault, from the point of view of the victims.
4. Compare the acceptability, transferability, effectiveness and efficacy in achieving their outcomes, including by seeking women's views of services provided.
5. Develop recommendations on good practice, and tools and training materials to build capacity and promote excellence.

The project is coordinated by the National Heart Forum / Health Action Partnership International (HAPI) and is supported by a steering group of project partners including Liverpool John Moores University (UK), Victim Support (Malta), the Latvian Association of Gynaecologists and Obstetricians (Latvia), the East European Institute for Reproductive Health (Romania), the Educational Institute for Child Protection (Czech Republic), the Department of Health (England) and the European Regional Office of the World Health Organization. The project has four workstreams as follows:

- Workstream 1: Mapping the current situation
- Workstream 2: Developing a research & evaluation tool
- Workstream 3: Dissemination of findings
- Workstream 4: Developing training materials and trainers

The aim of workstream 1 of the project is to map the current situation in the EU in terms of models of intervention for victims of sexual assault and to identify key stakeholders across the EU. The outcomes of this will be used to develop and inform workstreams 2, 3 and 4.

Workstream 1 includes three activities:

- A literature review;
- A survey of WHO health ministry violence prevention focal points; and
- Telephone interviews with key stakeholders.

This report presents the findings of the literature review.

Purpose

The purpose of the literature review as defined in the project's description of work was:

> *To identify models of intervention for women who have experienced sexual assault across European Union Member States, EFTA, EEA and ascension countries.*

Primary research questions in this review were to explore sexual assault interventions for women in Europe and to assess any evidence available of effectiveness.

Scope

The scope of the *Comparing Sexual Assault Interventions* project is limited to women aged over 16. This is because there are particular issues involved in criminal cases, medical treatment and other services for young women and girls aged under 16. In addition, while the project recognises that sexual assault also affects men and boys, their needs for services are in some respects different from those of women. Therefore, this project is limited to exploring services for women.

This literature review reflects the scope of the project and consequently focuses on models of intervention for women aged over 16.

Methodology

Research questions

The following research questions were defined for the literature review:

- What is the prevalence of sexual assault in Europe?
- Are there any factors that increase women's vulnerability to sexual assault and if so what are these?
- What models of interventions and services are in place for women aged over 16 who have been sexually assaulted?
- What evidence is there about the effectiveness of different service models and how is effectiveness measured?

Search methods and inclusion criteria

The literature review included peer reviewed articles in academic and scientific journals and grey literature. Grey literature was defined as:

- Reports published by international agencies including the UN and the European Commission;
- Reports and strategies issued by national and regional government agencies;
- Reports issued by NGOs.

The literature search was undertaken for peer reviewed articles in English, French and Spanish. Search criteria for each of these languages was as follows:

- For literature in English the *PubMed* database was searched using the criteria article titles and keywords containing: *sexual offence; sexual violence; sexual assault; sexual exploitation*; or *rape.*
- For literature in French *PubMed* and *Cairn* databases were searched using the criteria article titles and keywords containing: *agression sexuelle, violence sexuelle* or *viol.*
- For literature in Spanish *PubMed* and *ScieLo* databases were searched using the criteria article titles and keywords containing: *agresión sexual*, *violencia sexual* or *violación.*

General search engines, such as Google, were not used to identify documents for inclusion in the literature review because of the unfeasible number of hits generated by essential key words *sexual violence; sexual assault; sexual exploitation*[1]. Instead grey literature was identified through:

- Survey questionnaires completed by national WHO violence prevention focal points as part of the project mapping;
- Telephone interviews with key informants;
- Searches of UN and Europa webistes;
- References and citation in other documents included in the review;
- Project partner and associate partners.

Criteria for inclusion in the literature review were defined as:

- Articles published after 1995;
- Full-text accessible;
- Related to women over the age of 16;
- All studies on sexual assault from a European country, including those that analysed sexual assault together with intimate partner violence/domestic violence;

[1] For example, almost 500,000 results are identified by Google for "rape and sexual assault"

- Systematic reviews and national population-based surveys on sexual assault, rape, sexual violence and sexual offence from countries outside the EU.

Quality of the evidence

Different types of documents provide evidence of varying quality. While peer reviewed articles in academic journals have findings based on robust methodologies and verifiable data, grey literature is often less verifiable and more descriptive. This means information and data taken from different types of literature are not directly comparable and, therefore, cannot be reliably aggregated. Consequently, it is not possible to develop a methodologically sound hierarchy or framework which compares the effectiveness of different intervention and service models. This limitation is discussed in more detail in the chapter on effectiveness.

Wherever possible the literature review explains the nature of the evidence that has been used to draw particular conclusions and any limitations. In general, grey literature has been used for descriptive purposes to identify and explain how sexual assault is dealt with in different countries.

Definitions

The *Comparing Sexual Assault Interventions* project uses the WHO's definition of sexual violence as:

> *any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed, against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting, including but not limited to home and work.*[2]

Unless specifically indicated, sexual assault, rape, sexual abuse and sexual violence generally mean the same and are used interchangeably in the literature. This review includes all the dimensions of the WHO definition of sexual violence, except trafficking which was not addressed explicitly by any literature identified.

Sexual assault does not exist in isolation, but within a larger societal problem of violence against women. Increasingly national action plans and services include sexual assault within the general scope of violence against women. One manifestation of violence against women is intimate partner violence (also referred to as domestic violence) which is defined as:

> *the physical, sexual and/or psychological assault by a spouse or partner* (Neroien & Schei 2008, p.161).

[2] http://www.who.int/mediacentre/factsheets/fs239/en/

Many women who suffer intimate partner violence also experience sexual violence. However, the two terms are not synonymous. Women who suffer intimate partner violence are not necessarily victims of sexual violence as part of that experience. Additionally, many women suffer sexual violence outside a relationship with an intimate partner.

Prevalence

Sexual assault legislation and its impact on prevalence

The literature illustrates that countries have different legislative definitions of sexual assault. This has an impact on levels of reporting and prosecution, as well as on victims' and offenders' legal dealings and the long-term effects of the process (Kelly & Lovett 2009).

Diesen & Diesen (2010) make a distinction between what they call traditional rape legislation, which are based on coercion and the use of violence to obtain a sexual act from a woman, and modern sexual assault laws based on victim's non-consent. Some of the different legal definitions in Europe are included below to illustrate the differences.

In Denmark rape law is based on the traditional approach as it narrowly defines rape as "forced penile-vaginal intercourse obtained with violence or threats of violence as well as placing the victim in a condition where he or she cannot object or resist (e.g. drugging the victim)" (Bramsen et al. 2009, p.889). Other sections and sub-sections within the article refer to forced oral or anal sex, any type of forced or unwanted oral or anal penetration, and any type of forced or unwanted sexual contact, but they do not include it explicitly in the definition. Furthermore, the law does not classify as rape "if the victim is in a position where he or she cannot object or resist because of the victim's own deliberate actions (e.g. having consumed too much alcohol or having taken illegal substances voluntarily)" (*Op. Cit.*, p.889).

French and Spanish law distinguish between sexual assault and rape within their definitions of sexual violence, but they also refer to coercion and violence. According to their legal definitions, sexual assault is "any sexual act committed with violence, constraint or intimidation" (Ministry of Health, Social Policy and Equality 2007, p.19) and rape is "any sexual act involving penetration of whatever nature, committed on another person using violence, threat or surprise" (Saint-Martin et al. 2007, p.315). Furthermore, Spain also makes a distinction between sexual assault, rape and sexual abuse, where the latter refers to non-consensual sexual acts, but where there is no violence or intimidation.

In the UK the definition of rape is based on consent. Before 1994 the definition only considered non-consensual vaginal intercourse as rape, but since then it has been widened in scope to also recognise male victims and forced anal and/or vaginal penetration (by a penis) as rape. It also recognises rape by spouses. According to the UK's Sexual Offenses Act "rape occurs when someone intentionally penetrates the vagina, anus or mouth of another person with his penis; that other person does not consent to the penetration, and the perpetrator does not reasonably believe that the other person consents…whether the

people involved know each other or not, have had a previous relationship with each other or not, or are married to each other" (Diesen & Diesen 2010, p.330).

Belgium also suggests a definition within the framework of consent, instead of violence. Accordingly, rape is defined as "non-consenting penetration of any kind with any means. Non-consenting being when violence, compulsion or deception is involved and/or the victim is considered to lack capacity (i.e. mental disease, minor under the age of 14 or under the influence of mind-altering substances, e.g. anaesthetics)" (De Munnynck et al. 2006, p.214)

In Germany they include in the definition of sexual assault acts like kissing or touching against a woman's will, but these acts are seldom reported; if they are, the legal and even the victim's responses to these advancements are not always favourable to supporting victim's rights (Kury et al. 2004).

Drug Facilitated Sexual Assault (DFSA), which is the administration for criminal purposes of psychoactive product without the victim's knowledge, is also a common occurrence, but there is no medical or legal consensus at the European or international level about the legal consequences of DFSA. Dorandeu et al. (2006) looked at this issue in different European countries, the United States, Canada, New Zealand and Mexico. They found that despite the incidence of DFSA, only US, Canada and New Zealand consider it as a legally aggravating circumstance and even a separate crime. In Europe, only Italy included it in their criminal code.

Diesen & Diesen's (2010) study found that rape law which is based on coercion has anti-therapeutic effects on victims. By having violence and coercion as the defining factor, a woman's testimony of being assaulted could only be trusted if there was resistance on her part and she could show injuries. Instead, the authors suggest that rape law should be based on the victim's lack of consent, which implies that the woman has been violated of her rights. The Council of Europe's Convention on preventing and combating violence against women and domestic violence also supports criminalising intentional sexual aggressions based on lack of consent (CAHVIO 2011).

Rape myths and public perceptions

Several studies suggest sexual assault perpetrators are generally known to the victim, they are likely to be a partner or ex-partner, they occur in private and injuries are uncommon (Montoiro Cerrato et al. 2000; Payne 2009; Stern 2010; HM Government 2011b). The literature reviewed describes a number of rape myths, prejudices and biased attitudes towards victims. These often serve to protect offenders and castigate victims. There is also a lack of information about what constitutes sexual offenses, such as sexual violence, sexual assault, rape and intimate partner violence, and what the effects are on victims. These rape myths and the lack of information have impacts on how victims respond to the attack and, therefore, levels of reporting.

A woman's attitude can play an important role in defining sexual acts. It is common for different sectors of the population, including police and victims themselves, to blame sexual assault on the victim's behaviour (Payne 2009). In a large-scale survey in Germany, Kury et al. (2004) found that the public's definition of rape was dependent on the victim's response, that is, the more a victim tried to defend herself, the higher the probability that the event was defined as rape.

Others consider a criminal offence has been committed when the situation resembles the classic rape myth where the assailant is a stranger, there is use of physical force and it results in physical injuries (Montorio Cerrato et al. 2000; Payne 2009).

Payne (2009) conducted focus group interviews with adult women either sexual assault survivors or relatives of survivors on their experiences with the criminal justice system. The report found that one of the most common reasons why women did not report an assault was for fear of not being believed by the police or other statutory agencies. Secondly, there was lack of confidence that the justice system could keep women safe from the perpetrator.

Other studies have looked at attitudes with regard to the use of alcohol or illicit drugs at the time of a sexual assault in both the perpetrator and the victim, and found two general attitudes towards victims: the sceptics and the blame culture (Horvath & Brown 2006). The first are those who doubt the victim's rape allegations (these often include police), while the second believe that women under the influence of alcohol or drugs are partially or totally responsible for being sexually assaulted. The same attitude is often reproduced in jury responses to rapes, which leads to acquittal of assailants.

The relationship with the perpetrator and gender-role images can influence recognising sexual assaults as such. Women who believe in traditional gender-role stereotypes are less likely to define non-consensual sexual act by partners, friends or colleagues as rape than those with the view of a less traditional role (Montorio Cerrato et al. 2000; Kury et al. 2004). Furthermore, some studies have also found that more severe sexual offenses are committed by men known to the victim than those unknown, whose acts will be less violent (Kury et al. 2004). In this sense, intimate partner violence is more likely to be accepted by women who see their role is to agree to their husband's sexual requirements (Fellmeth et al. 2011).

Other literature has also found that the better acquainted that the victim is to the offender, the less likely victims are to report the event (Montorio Cerrato et al. 2000; Alsaker et al. 2011). In Montoiro Cerrato's (2000) survey of female university students, only 39.2% of rape or attempted rape victims sought professional help. The explanation they found with more empirical support for not reporting was the victim's acquaintance to the assailant. Doroszewicz & Forbes (2008) find similar results among a smaller sample of Polish female university students, but their account for this is the high levels of domestic violence in Polish society, which has normalised other forms of violence, especially if the offender is known to the victim.

In this respect, change needs to occur on different levels. The legal and public definitions of sexual assaults need to support and protect victims. The law can play an important role in deterring sexual assaults, but there is not enough evidence that their sanctions are sufficient

prevention (WHO & LSHTM 2010). Other strategies are needed to target potential perpetrators and make victims aware of both unacceptable sexual behaviour from people known or unknown to them, and of the services available to care and protect them (*Op. Cit.*).

Prevalence estimates

Sexual assault does not exist in isolation, but within a larger societal problem of violence against women. As the literature shows, sexual assault and other forms of violence against women are prevalent in European societies. However, the true extent of this phenomenon is unknown and reported levels across and within countries depend not only on how they define sexual assault (Campbell & Wasco 2005), but also on the methodology that is used to report prevalence levels (Kelly & Regan 2001; Regan & Kelly 2003; Fellmeth et al. 2011). In all cases, these rates are likely to underestimate the real numbers as many assaults are unreported and some forms of sexual violence, especially those that include non-physical force or verbal sexual degradation, have higher incidence rates, but may not be perceived by victims or perpetrators as an offence (Kury et al. 2004; Kelly & Lovett 2009).

Prevalence refers to the percentage of persons who have been sexually assaulted and incidence refers to the number of sexual assaults occurring during a given period of time. At the national level, these are generally assessed through population-based surveys based on self-reporting. Official crime statistics are also used but these only record crimes actually reported to the police. Academic research and evaluations use national population-based surveys or surveys within a specific population group and setting (e.g. university students, service users) to analyse the prevalence of specific dimensions of sexual assault (e.g. mental and physical effects).

Some studies provide international data, including Garcia-Moreno et al. (2005) large-scale survey in 10 low- and middle-income countries, which revealed that sexual violence by a partner at some point in life was reported by 6-59% of interviewees and by a non-partner by 0.3-11.5%. Fellmeth et al.'s (2011) recent review of international literature on relationship violence, including rape and sexual assault, found varying reports of prevalence between countries, where one study indicated that 3-52% of women had experienced some form of violence at some point in the previous year (Heise in Fellmeth et al.'s 2011), and the other that 10-50% of women had experienced it at some point in their lives (Watts in Fellmeth et al.'s 2011).

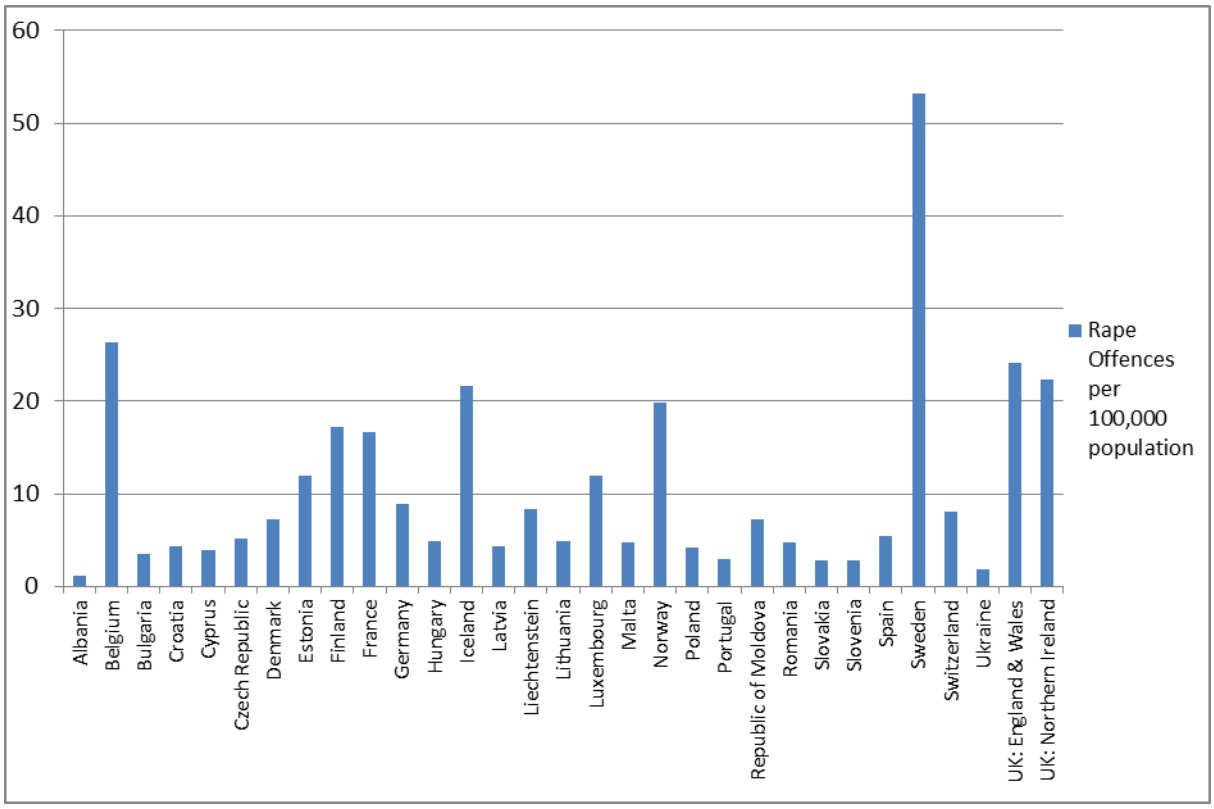
At the European-level, data on sexual assault prevalence is recorded by the Statistical Office of the European Commission under the crime and criminal justice section based on police recorded statistics[3]. In addition, the UN conducts annual Surveys of Crime Trends and Operations of Criminal Justice Systems (UN-CTS). However, countries do not use the same standard definitions to classify different sexual offences as crimes, which makes it

[3] Data available at http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Crime_trends_in_detail

problematic to compare countries or to understand the similarities and differences in the extent, patterns, and factors associated with violence in different settings.

To illustrate, ***Table 1*** includes the results from the 2007-2008 UN-CTS on police recorded statistics of rape reported cases, where rape was defined as "*sexual intercourse without valid consent*" (UN-CTS 2010). They note some variations to this definition; in particular, Sweden defines rape as 'a person who by violence involves; or appears to threatened person to involve imminent danger; forces another person to have sexual intercourse or to engage in a comparable sexual act; that having regard to the nature of the violence and the circumstances in general; is comparable to enforced sexual intercourse'. In Switzerland they only considered forced male-female vaginal penetration. Other countries did not indicate whether the definition was the same or different to the standard proposed, namely, Denmark, Ireland, Luxembourg, Malta and Slovakia. Nonetheless, it is not possible to use variation in definitions as explaining factors to differences in reported cases; for instance, the high reporting in Sweden.

Table 1: National level police Recorded Rape Offences per 100,000 population in 2008



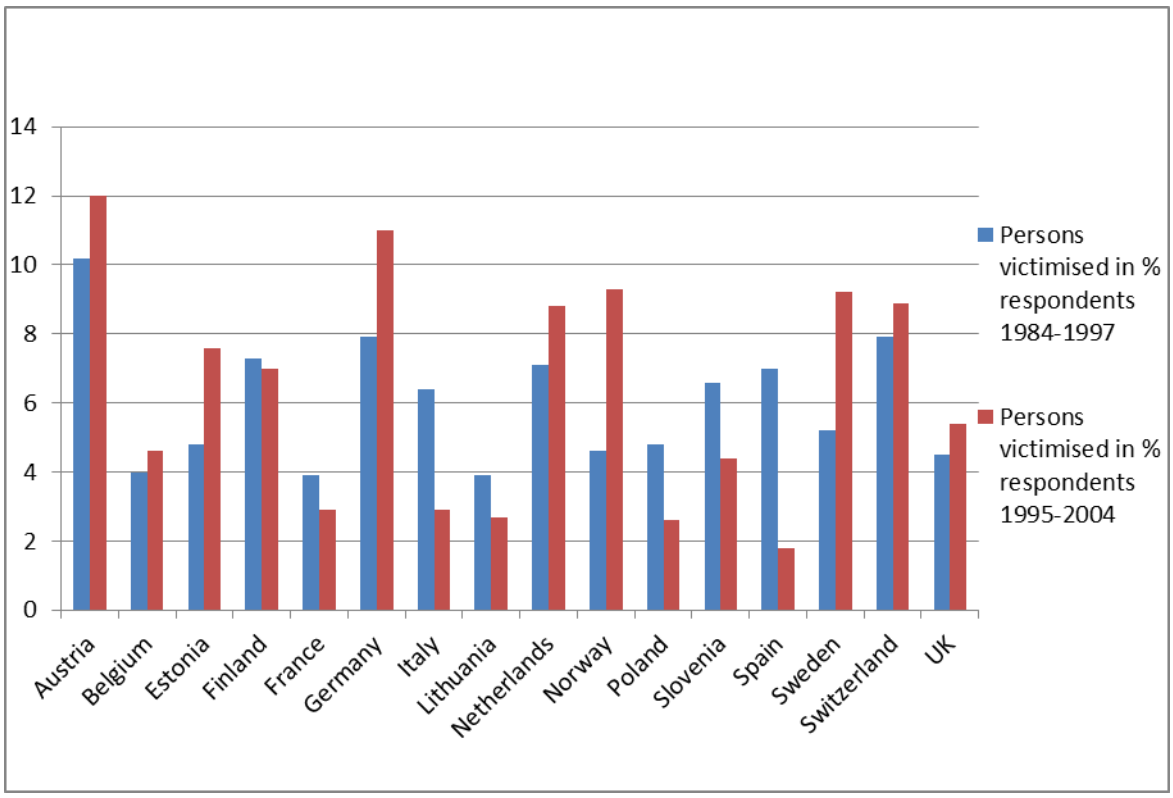
Source: The Eleventh United Nations Survey of Crime Trends and Operations of Criminal Justice Systems (UN-CTS) 2007-2008 (UN-CTS 2010).

For cross-country comparisons, population-based surveys are instead preferred. ***Table 2*** has the results from the International Crime Victims Survey (ICVS) on sexual assault offences. This survey so far has been performed in 1989, 1992, 1996, 2000 and 2005. The survey's focus is on reflecting trends, which is why the results only show countries that participated

in at least one of the first three ICVS and at least one of the last two. The result compares trends in the period 1984-1997 and 1995-2004. The trends reflect the percentage of sexual assaults as reported by the victims according to the following question: "People sometimes grab, touch or assault others for sexual reasons in a really offensive way. This can happen either at home, or elsewhere, for instance in a pub, the street, at school, on public transportation, in cinemas, on the beach, or at one's work-place. Over the past five years, has anyone done this to you?" (Aebi et al. 2010).

It should be noted that is not possible to directly compare the rates in Table 1 and Table 2 because the latter covers five year periods, not one. To illustrate how some individual countries collect data on sexual assault and rape prevalence, some examples are included hereafter.

Table 2: International Crime Victims Survey: Persons victimised in the last five years (in % of respondents) of sexual assault offences 1984-2004



Source: European Sourcebook of Crime and Criminal Justice Statistics (Aebi et al. 2010).

In England and Wales data on sexual assault is recorded in police statistics and the annual British Crime Survey (BCS), which includes survey results from interviews with a nationally representative sample of the population resident in households. The 2009/10 survey results (based on more than 45,000 respondents) indicate approximately two per cent of women aged 16 to 59 had experienced a sexual assault (including attempts) in the previous 12 months, of which 0.4 per cent of women had been the victim of a serious sexual assault (i.e. rape and assault by penetration, including attempts) (Flatley et al. 2010). Police statistics

reported 43,579 serious sexual offences (i.e. rape, sexual assault, and sexual activity with children), with the most serious sexual offences accounting for 80% of all sexual offences (54,509) and one percent of recorded crime. Within this total, 13,991 were recorded rapes of a female (*Op. Cit.*). Analysis of the 2009/10 BCS showed that only 11 per cent of victims of serious sexual assault told the police about the incident (Smith et al., 2011 in Chaplin et al. 2011). The figures from 2010/11 show 14,624 rapes were recorded in England and Wales, which is an increase in 5% of recorded rapes from the previous year (Chaplin et al. 2011). Walby et al. (2004) in their evaluation of the BCS in relation to sexual offences suggested that the number of reported rapes was lower than prevalence rates, since rape is one of the most under-reported crimes.

In France national level data is recorded either through the National Observatory on Crime and Criminal Justice Responses (ONDRP) or Inserm's surveys on sexual behaviour among the French population (*L'enquête Contexte de la sexualité en France, (CSF)*). The ONDRP section on sexual violence found that, in 2010, 1 in 6 women interviewed had been a victim of rape or attempted rape (ONDRP 2011). The last CSF in 2006 interviewed over 12,000 people between the ages of 18-69 and found that 6.8% of women declared being victims of sexual assault at one point of their life and 9.1% had been subject to attempted sexual assault, which doubled the reported cases from the previous survey in 2000 (Bajos & Bozon 2008). The author's analysis suggests, however, that the increase in reporting was not due to an increase in the number of sexual assault cases, but to a greater public acknowledgment of this form of violence.

In terms of population specific surveys, no national random surveys were found from Europe. Campbell & Wasco (2005) report one such study among university students in the U.S. which found that 1 in 4 women had experienced rape or attempted rape in their lifetimes and 84% of women knew their attacker. Montorio Cerrato et al. (2000) performed a cross-sectional study of students in a Spanish unversity and found that of the 223 female students surveyed, 33.2% had experienced some form of unwanted sexual activity, of which 7.7% reported an attempted or completed rape at one point of their life.

In addition to the reports that study prevalence levels, the literature focuses on documenting prevalence of other aspects of sexual assault, such as the mental health effects (Marx et al. 2001; Cybulska 2007; Taylor & Harvey 2009; Vickerman & Margolin 2009) and physical health effects, including injuries or contracting HIV and other diseases (Lamba & Murphy 2000; Kelly & Regan 2003; K. M. Forbes et al. 2008; Adlington & Browne 2011).

Vulnerable groups

Factors that increase vulnerability

Anyone can experience a sexual assault at any point in their life, but it is well documented in the literature reviewed and widely accepted that they are more prevalent among women than men, and that women appear to be equally at risk of being sexually assaulted as

children and as adults; while men have greater reported prevalence of sexual victimisation in their childhood (Balsam et al. 2011).

There are factors that increase the vulnerability of women to sexual assaults. Certain vulnerable groups include adolescents, young women, those with disabilities, homeless, sex workers (Welch & Mason 2007; Luce et al. 2010) and women on low incomes (Walby 2009). Specific contexts also appear to increase sexual violence, such as conflict and economic transition (Kelly 2005).

There is also a higher likelihood of being a victim of sexual assault for women who were previously victims of sexual abuse or assaults, especially in their childhood (Breitenbecher 2001; Hughes et al. 2001; Balsam et al. 2005; Luce et al. 2010; Balsam et al. 2011). The literature refers to this as sexual revictimisation. Reviews of publications on revictimisation have found that two out of three individuals who have been sexually assaulted will be revictimised in the future and that childhood abuse constitutes the best predictor of sexual revictimisation (Breitenbecher 2001).

In addition, lesbian, gay, bisexual, transgender and intersex (LGBTI) people are reported to face an increased incidence of childhood sexual abuse and adult rape compared to their heterosexual counterparts (Hughes et al. 2001; Balsam et al. 2005). The factors that explain this include their higher rates of sexual and/or physical abuse in the home (Tyler 2008) and stressors associated with their sexual orientation (Todahl et al. 2009; Balsam et al. 2011). The UNHCR's (2011) strategy against sexual and gender-based violence also points to the sexual nature of violence against LGBTI, including punishment through forms of sexual violence for their sexual orientation and the so-called 'corrective rape', where assailants seek to challenge their sexual orientation or gender identity.

Ethnic minority women

The literature reviewed suggests that establishing a causal relationship of ethnicity as a factor that increases vulnerability to sexual assault is not straightforward and the social movements advocating on behalf of survivors have been consistent in supporting that rape and sexual assault are present across all sectors of society (Humphreys 2007).

In the UK, for instance, many minority ethnic groups are over-represented as groups living in poverty and, therefore, Humphreys (2007) suggests that, because low income is a risk factor, it would be expected that minority ethnic women would be over-represented in the prevalence data on domestic violence and sexual assault. However, the largest UK study by Walby & Allen (2004) found that black, Asian and white women showed similar rates of domestic violence. A smaller study by Lovett, Regan & Kelly (2004) found that ethnic minority women represented a third of complainants in their study sites (34%; n=120), which was partly explained by the area's demography. However, when they compared the percentage of reporting by these groups to their representation within the local population, they found the level of reports was low.

A problematic factor is that rape and sexual assault amongst ethnic minorities is more stigmatised and generally underreported (McLean 2007; BASHH 2011; Davidson 2011). Izzidien (2008) found that ethnic minority women tend to suffer from gender-based violence, especially domestic violence, for longer periods before they report it, with estimates showing that it will take them on average 10 years to leave a violent relationship.

Ethnic minority women may be vulnerable as a result of isolation factors, such as language barriers, lack of access to services, fear of racism and immigration problems (Humphreys 2007; Izzidien 2008). However, isolation factors can increase the risks to all women, independently of their ethnic background and they are related to barriers to seeking help rather than levels of violence towards ethnic minority groups (Humphreys 2007).

Studies that evaluate service delivery for victims of sexual assault do not tend to distinguish between race, ethnicity or disadvantage (Macy et al. 2011), making it difficult to determine prevalence levels in different groups and to assess measures needed to serve these groups.

Overview of the effects of sexual assault on health

The literature reviewed indicates that sexual assault survivors can suffer from a number of mental and physical health problems. The most reported psychological consequences on victims is Post Traumatic Stress Disorder (PTSD) and an array of related symptoms, including sleeping difficulties, poor appetite, flashbacks, feelings of numbness, anger, shame and denial, avoidance behaviour, and relationship and sexual difficulties. In the most severe cases, depression has been reported to lead in some instances to suicidal ideation and suicide (Cybulska 2007; Bramsen et al. 2009).

In terms of physical health consequences, these include injuries, gynaecological complications (e.g. chronic pelvic pain, vaginal bleeding, urinary tract infections), sexually transmitted infections (STIs), HIV/AIDS and unwanted pregnancies. Physical injuries can be severe, sometimes even life-threatening, but this is rare and most physical injuries resolve within several days. Instead, fear of STIs and pregnancy are two common reasons for seeking help at different medical settings immediately after being sexually assaulted (Cybulska 2007; Linden 2011).

Furthermore, the effects of sexual assault do not stop with the survivors' health and well-being. The consequences of sexual assaults can also span beyond the individual to also have substantial negative impacts on the victim's partners or family (Campbell & Ahrens 1998; Nectoux et al. 2010). Research indicates that coping with the aftermath of rape can cause significant stress for the family, friends, and significant others of sexual assault survivors.

Services for women who have been sexually assaulted

Health and social services

Women who have been victims of sexual assault report worse health outcomes and higher risk behaviours than women who have never experienced an assault, which alone creates health inequalities (Humphreys 2007). Other vulnerability factors, like income, disability and age are also determinants of inequalities. Therefore, sexual assault interventions alone are not sufficient to deal with the problem and protect victims. Tackling these inequalities involves addressing wider social and economic determinants through upstream actions (WHO & LSHTM 2010). These would include primary prevention measures such as legal, educational and employment strategies which tackle income levels, poverty and women's access to education, as well as cultural shifts which delegitimise men's power over women and promotes non-tolerance of any forms of violence (Colombini et al. 2008; WHO & LSHTM 2010).

Heath services are part of the multi-sectoral effort to foster societal and culture change to empower women, reduce health inequalites and ensure their access to health care. However, the health services dealing with sexual assault under study focus primarily on detecting current or past victimisation, as well as providing immediate and long-term care.

The literature reviewed shows that violence against women is increasingly considered a public health problem, in addition to a criminal and social one (Coll-Vinent et al. 2008). Detecting indicators of violence against women, including sexual violence, in a health care facility is one important means to intervene in this public health problem (UNFPA 2001). Health care professionals are uniquely positioned to screen for victimisation not only because evidence suggest that sexual assault victims use health services more frequently (Soler et al. 2005), but also because they are a first point of entry for women who do not report being victims of violence. Survivors are more likely to visit their General Practitioner or another health service (e.g. gynaecology) than specialised facilities in sexual or other forms of violence, especially if they don't sustain injuries (Larrión Zugasti & de Paúl Ochotorena 2000; Ortiz Fernández et al. 2004; Elklit & Shevlin 2010). Indicators of sexual violence are generally included in protocols to screen for all forms of gender-based violence and include inflicted injuries, health-related problems (e.g. chronic cervical, pelvic and lumbar pain, digestive-related complications and irritable bowel syndrome) and psychological problems (e.g. depression, anxiety, PTSD and low self-esteem) (Soler et al. 2005). Women may be current victims of sexual assault or experienced it in the past, in which case they may still be experiencing long-term effects. The general protocol is to perform clinical interviews to either confirm or rule out present or past victimisation and take measures to deal with effects both immediate and long-term (UNFPA 2001).

In the aftermath of a rape or sexual assault women have include three main care needs: forensic, medical and psychosocial (R. Campbell & Ahrens 1998; De Munnynck et al. 2006; Cybulska 2007; Jina et al. 2010; Luce et al. 2010). Various models are used to meet these care needs in different countries and regions within countries.

The forensic examination is carried out as soon as possible after the assault, unless medical reasons take precedence, to gather forensic DNA evidence and document injuries. Women should be advised about preserving forensic evidence if possible by avoiding bathing,

washing clothes, brushing teeth or drinking liquids before the examinations, as well as preserving clothes (particularly underwear) worn at the time of the assault and immediately after the assault. Depending on the country and protocol, collecting forensic evidence is done either in a police station special facility, Emergency hospital departments, genitourinary medicine clinics and other services. They are not always performed by forensic doctors, but also by physicians on call, gynaecologists or other. A common protocol is to use what is called a 'rape kit', which provides instructions and equipment to collect forensic evidence.

Medical needs include in the first instance dealing with injuries, offering emergency contraception, and prophylaxis against and screening for STIs, including HIV, but also follow-up services should be facilitated for screening for STIs. It is difficult to determine with certainty that the STI is a result of the assault and screening is unable to distinguish if the infection was pre-existing, except in some cases, e.g. if victims were virgins. Because many STIs have a long period of incubation, follow-up screening is particularly encouraged. In general, medical staff provide information on symptoms of STIs and encourage to return to the centre if these manifest, they should advise the victim to abstain from sexual intercourse until the prophylactic treatment is complete and, in the case of risk of HIV, to use condoms until the infection is excluded (Lamba & Murphy 2000; K. M. Forbes et al. 2008; Adlington & Browne 2011).

Automatic screening for HIV is not always part of the medical protocol, mainly because of HIV treatment costs (Adlington & Browne 2011). When it is performed, the medical protocol recommends providing medication where it is known or suspected that the perpetrator is HIV positive, and to be effective it is prescribed within 72 hours of the assault (Kelly & Regan 2003).

Psychosocial services consist of counselling and, in some cases, further referral to social services or other organisations, which can offer support after the assault (e.g. women shelters). Furthermore, psychological sequelae subsequent to sexual assault not only span a diverse range of problems, but also these problems change over time (Vickerman & Margolin 2009). Follow-up care is needed in the weeks and months subsequent to being assaulted (Cybulska 2007). This longer-term support can be offered within the health services, but generally victims are referred to local organisations for individual or group counselling.

The range of third sector organisations which assist sexual assault victims is diverse and are different in every country, but can include emergency hotlines, rape crisis centres, women associations, faith-based organisations, shelters and specialised services for domestic violence, prostitution, Female Genital Mutilation and alcohol/drug abuse. These organisations provide different types of psychosocial support, but will refer victims to health or criminal justice services for clinical and forensic care (Coy et al. 2011).

Given the need for continuity of care for victims, some countries have Sexual Assault Nurse Examiners (SANE), which are specially trained forensic nurses who provide 24 hours a day, first-response care to sexual assault victims in either hospital settings or stand-alone community sites (Fehler-Cabral et al. 2011). These nurses are trained not only on medical

and legal aspects of care (i.e. forensic exams, treatment/prevention of STIs and pregnancy), but also on crisis intervention, that is, on responding appropriately to the victim's emotional needs and providing referrals for counselling and medical follow-up. In the US, SANE can also be used as experts in a court both with regard to evidence collection and facts about the case and about objective opinion and conclusions drawn from the evidence (Campbell et al. 2005).

Criminal justice services

Criminal justice services are generally the responsibility of the police and the legal sector, including judges and lawyers. The role of the criminal justice system in sexual assault is both to enforce the law, which involves identifying perpetrators, ascertaining guilt and ensuring appropriate sentencing, and to prevent sexual assaults by relying on incarceration, punishment and rehabilitation of perpetrators (WHO & LSHTM 2010). In addition, they are responsible to protect victims' rights and ensure their safety and referral to appropriate services. The documentation reviewed indicates that mechanisms by which criminal justice functions are carried out varies between countries.

In some countries, such as Spain and Belgium, courts are responsible for assessing reported cases of sexual assault in hospital and assigning forensic doctors and prosecutors to the case (Cancelo-Hidalgo et al. 1998; Ministry of Health, Social Policy and Equality 2007; De Munnynck et al. 2006). Furthermore, protocols suggest legal counselling and representation to women should be free of charge or at a low cost, and should ensure judicial proceedings are private, respectful and safe for victims (Ministry of Justice 2009).

Police are also active in dealing with both victims and perpetrators of sexual assault. In the UK, for instance, specialist Sapphire Units were put in place in each London borough with officers skilled and trained in rape investigation using the Sexual Offences Investigative Technique (SOIT)[4]. The Sapphire strategy includes intelligence, investigation, targeting, diversification and forensics. The creation of these units was the result of criticism to London police for low conviction rates and poor treatment of victims (Cybulska 2007). This criticism together with the recommendations put forth in the 2002 Rape Action Plan, led to the development of facilities for forensic examination (Victim Examination Suites), training for police officers, specialist rape prosecutors, guidance to barristers and special measures for victims in court.

Coordinated sexual assault services

Victims of sexual assault can be affected by emotional distress when they report their experience and the literature suggests that how service providers respond can have very

[4] Detailed information is available at http://www.met.police.uk/sapphire/

profound consequences for receiving appropriate care and later adjustment and recovery (Campbell et al. 2011; Campbell & Wasco 2005). In order to reduce the impact of accessing different services in different locations, a paradigm shift began in the US in the 1970s towards centralised models of management, where professionals from different fields offered collaborative treatment in a single location. Their objective was not only to coordinate care under one roof, but also to create a common understanding about the multi-dimensional context of care among the professionals involved in providing, designing and funding sexual assault interventions and programmes. This coordinated model of care has since been reproduced internationally.

Campbell & Ahrens (1998) identified three types of coordinated approaches. First, coordinated service delivery programmes (e.g. Sexual Assault Response Teams (SARTs) in hospital emergency rooms) bring police, prosecutors, doctors, nurses, hospital social workers, and rape victim advocates together in one location. By streamlining the response from all aspects, this service capitalises on the unique skills of each provider and distributes the responsibility of care. Because some victims do not report to emergency rooms after an assault, another aspect developed by these programmes focuses on forming partnerships with services working with victims, such as, drug and alcohol treatment centres, churches, or domestic violence centres to ensure victims are referred to SARTs.

The second approach is interagency training programmes. These either incorporate diverse learning formats and reach a wide variety of audiences, or they follow traditional lecture-styles and only include a limited number of participating agencies. Their aim is to create a common understating among health, social and criminal justice services on sexual assault by raising awareness and developing knowledge on all areas of care.

The third approach is community-level reform groups advocating for change through public education, legislative reform, and public demonstrations. The focus of these is not on service delivery, but rather they aim to change the climate in which service delivery occurs.

In line with its purpose and research questions, this review has focussed on service delivery, rather than on training or advocacy/awareness-raising programmes. The coordinated models below are based on either structural interventions, where the government supports and provides guidelines for the implementation of sexual assault interventions, or others which are community-level responses.

In the UK, coordinated service models are known as Sexual Assault Referral Centres (SARC). The first SARC was set up at St. Mary's Hospital in Manchester in 1986. The Home Office report published in March 2011 reports 36 active SARCs across the UK and 14 in development (HM Government 2011b). Funding for SARCs comes either solely from the police or from the police and health care organisations (e.g. Primary Care Trusts). For some of them, other sources include the Home Office, Department of Health, non-statutory organisations and charitable donations (Welch & Mason 2007). A key feature of the process of setting up a SARC is the collaboration between police, health services and voluntary sector, in particular if they bid for government funds (Pillai & Paul 2006). This collaboration also ensures appropriate referral and follow-up mechanisms.

SARCs address the forensic, evidential and aftercare needs of victims of sexual violence through multi-agency partnerships, which aim to improve both health outcomes as well as criminal justice outcomes for victims of rape and sexual assault (Pillai & Paul 2006). SARC services include a dedicated secure facility within the hospital services; availability of forensic examination 24 hours a day and within four hours of disclosure; facilities for non-police referrals; crisis workers to support the victim; immediate aftercare, such as emergency contraception and prophylaxis against infections; follow-up services, including screening for STIs; and psychosocial support (Cybulska 2007).

In addition to SARCs, the UK government strongly endorses Independent Sexual Violence Advisers (ISVAs) to work with victims to support them and enable access to the services they need. They provide impartial advice to the victim on all options open to them, throughout and beyond the criminal justice process, such as accessing a SARC, reporting to the police, seeking support from specialist sexual violence organisations and other services, such as housing or benefits (HM Government 2011b).

A service like SARC is a hospital based provision, but other countries have implemented community based options, which work in collaboration with a partner hospital. The Australian model (termed Sexual Assault Services, SAS) has existed since the 1970s, but it was only in the late 1980s that they were institutionalised and started to receive government funding. SAS emphasise longer-term continuity of care and advocacy, rather than crisis intervention and forensic examination, which is done in hospital (Astbury 2006). Although they operate under national standards, they do not have to function within the bureaucratic rules of a large institution.

In Nordic countries (namely Norway, Iceland, Sweden and Denmark) the model is referred to as a centre of excellence. These multidisciplinary and victim-focussed centres started as early as 1986, they are always hospital-based and often developed through the vision and leadership of a committed woman doctor, but because of their positive evidence, governments also endorse and fund these (Kelly & Regan 2003; Bramsen et al. 2009).

The centres operate under a series of standards and specialise in the emergency response to recent rape and sexual assault through the provision of core services for emergency medical treatment and care, forensic examination and crisis counselling through referral to a psychologist, who treats the victim immediately after the assault and in the follow-up. Furthermore, they can also provide treatment for people around the victim emotionally affected or secondarily traumatised by the assault. Victim outcome assessments are ensured through a follow-up questionnaire six months after the assault, which may also involve a phone call if the person does not respond to the survey. In addition, they have to provide options for the victim to spend the night in a safe environment.

These centres have highly skilled and trained staff on dealing with sexual assault, including the availability of trained nurses, similar to the SANE model, to accompany the victim through the entire process, including questioning by police and ensuring medical, psychological and legal procedures in the aftermath and follow-up of the assault.

Key distinguishing features of the centres is their focus on research and evaluation, which includes service satisfaction surveys with victims and treatment assessment outcomes in terms of PTSD symptoms, psychological and relational readjustment and family coping.

Services integrated with other services for women

Another model of service provision described in the literature is where services for women who have been sexually assaulted are integrated within other services for women. While coordinated models have aspects of integration in that they provide multidisciplinary services, they are dedicated to the needs of women who have experienced sexual violence. Integrated service models also cover a range of other forms of violence against women and children. The services offered include health, legal, welfare and counselling services in one location and they are often located in the accident and emergency department of urban hospitals (Colombini et al. 2008).

These models are found most commonly in developing countries, especially Asia, but also the US and Canada. Kelly & Regan (2003) explain this prevalence with a need to maximise scarce resources.

Urban vs rural services

Most of the literature identified by this review focuses on understanding urban patterns of sexual assault and the police, medical and judicial interventions that exist to support these. However, sexual assault is not a phenomenon unique to urban settings. It also occurs in rural and more secluded areas with different or limited legal, medical and social infrastructures and resources. In these contexts services can occur in a variety of settings, e.g. emergency room or local clinic, law enforcement agency or private homes (Averill et al. 2007). In some remote areas, accessing services could involve having to travel long distances to seek assistance and public transportation may be scarce or inexistent (Lamont 2006).

The literature on sexual assault in rural areas identifies some reported commonalities in terms of victim and perpetrator relations and prevalent victim-blaming attitudes (Annan 2006; Annan 2008). The main differences identified include availability and accessibility of services, and confidentiality with regard to the victim's and/or assailant's public image or connections in the community, which contributes to low reporting and handling of the assault (Lamont 2006; Annan 2011).

There are other factors that are unique to rural and remote areas, including variations in population density, geographic setting, health and social resources, and local voice in the shaping of victim and offender service networks (Lamont 2006; Averill et al. 2007). It is outside the scope of this review to map these factors in detail. However, mapping exercises can serve to document underrepresented geographic areas and help policy makers and advocates to lobby for development of services and sustainable funding schemes (Coy et al. 2011). However, when designing models for intervention, 'one-size-fits-all' models are not recommended. Instead, the services need to be adapted to local needs and local capacities, but maintain a consistent approach in terms of ensuring victims have support from both the

criminal justice system and welfare sectors (Stern 2010; HM Government 2011b). These efforts must be made in parallel to those that seek to improve basic access to health care and culturally-appropriate social services, which are indicators of health disparities in rural communities (Averill et al. 2007).

Identifying the needs of particular groups

The literature reviewed identifies that certain population groups have specific needs in relation to services for sexual assault. Despite evidence identified that lesbian, gay, bisexual, transgender and intersex (LGBTI) people are reported to face an increased incidence of childhood sexual abuse and adult rape compared to their heterosexual counterparts (Hughes et al. 2001; Balsam et al. 2005), no study was found that presented and assessed interventions specifically addressed at LGTBI. Some of the recommendations found in the literature suggest raising awareness about the obligation to act inclusively and without discrimination (UNHCR 2011) and training and implementing sexual minority-sensitive protocols for social and health service delivery systems (Todahl et al. 2009). However, studies also recognise that a lot of the change is structural and has to begin with eliminating discrimination and violence against sexual minorities.

Other needs of particular groups may be context-specific, for instance, the WHO/UNHCR's (2004) provide a guide on clinical management of refugees and internally displaced persons who have been raped in emergency situations. In the UK, gang rape is an emerging problem among young women, which the government recognised and aims to address within their strategy to combat gang violence (Home Office 2011). Here again there are other structural factors to address in order to reduce and deal with this particular vulnerability to sexual assault.

Economic impact of sexual assaults

Most of the literature that looks at sexual assault focuses on the epidemiology and prevalence of the problem and strategies to address and care for victims. The array of services needed to deal with sexual assault, both in terms of victims and perpetrators, means there are implications and costs for a society as a whole.

One way to analyse the costs has been by looking at health service usage by victims of sexual assault. Even in systems where health care has no cost to the victim, it does involve a cost to governments. Overall in developed countries there has been an increase in accessing health care facilities, but different research has documented sustained increased usage of medical care in the two years following a sexual assault (Kelly & Regan 2003) with rape victims being the most frequent users (Elklit & Shevlin 2010).

The multi-dimensional nature of sexual assault also translates into costs. Gemzell et al. (2005) categorised these costs as: i) direct costs (to the health care sector, social sector, criminal justice system and other costs); ii) indirect costs (production loss caused by sick leave or imprisonment); iii) intangible costs (psychological costs and morbidity); and iv) multiplier effects (the intergenerational transmission of violence).

More evaluations are available that look at the costs of gender-based and intimate partner violence than sexual assault. For example, in Sweden direct costs of gender-based violence were estimated at 947.4 million SEK (close to 104 million Euro) and the sum of other costs more than doubled direct costs (Gemzell et al. 2005). In Finland a study on physical and sexual violence or threats against women found the costs mounted to 48 million Euro (direct annual costs in the health sector 6,7 million Euro, in the social sector 14,8 million Euro and in law enforcement and criminal justice sector 26,6 million Euro) (Piispa & Heiskanen 2004).

In terms of sexual assault, the Department of Health in the UK reports that each adult rape has been estimated to cost over £76 000 (close to 91 000 Euro) in its emotional and physical impact on the victim, lost economic output due to convalescence, early treatment costs to the health services and costs incurred in the criminal justice system. The overall cost to society of sexual offences in 2003-04 was estimated at £8.5 billion (around €9.5 billion) (Department of Health et al. 2009).

Effectiveness

How to measure effectiveness

Measuring the effectiveness of services for sexual assault should be done through robust and systematic evidence collection as part of rigorous research designs. These can be randomized-control trials or quasi-experimental studies, where outcomes can be compared between experimental groups and other groups receiving standard care (WHO & LSHTM 2010), through longitudinal studies that can observe service outcomes through time (Campbell et al. 2005) or studies that compare different types of services based on objective criteria (Kelly & Regan 2003). In all cases, alternative explanations have to be ruled out for any recorded changes in outcomes (WHO & LSHTM 2010). However, there is little systematic evaluation of sexual assault services. In particular this review found there are few such studies from Europe. Most studies are cross-sectional reports and case studies, which study one dimension of sexual assault at one point of time or one specific setting or population group.

Furthermore, sexual assault requires a multi-sectoral response to medical, social and legal needs, which further complicates measuring effectiveness. Studies are more likely to evaluate the service effectiveness and impact on one of these needs, but less on the entire process.

Different types of documents included in the literature review provide evidence of varying quality. Because of this, information and data taken from different types of literature are not directly comparable and, therefore, cannot be reliably aggregated. This means it is not possible to develop a methodologically sound hierarchy or framework which directly compares the effectiveness of different intervention and service models.

However, evidence examined as part of this review does include some conclusions about factors that contribute to the effectiveness of different aspects of service provision. These are discussed in the following section. The aspects of service provision discussed are based on available evidence and include the following:

- Screening for potential sexual assault victimisation;
- Avoiding secondary victimisation;
- Performing forensic examinations and documenting evidence;
- Providing comprehensive medical care;
- Providing psychosocial care; and
- Integrating sexual assault within the framework of violence against women.

In doing so, the following section also assesses coordinated service models for their effectiveness in these different aspects of service provision as compared to separate and non-specialised services, where evidence is available.

Key messages about effectiveness

Effectiveness in screening for potential sexual assault victimisation

Detecting indicators of present or past sexual assault victimisation is common in health service protocols (e.g. UNFPA 2001; Lacroix & Offermans 2004; Clemensen & Theil Nielsen 2006; Ministry of Health, Social Policy and Equality 2007; Ministry of Integration and Gender Equality 2009; Institute for Equality of Women and Men 2010; HM Government 2011a; Ministry of Social Affairs and Health 2011). The review found no studies which had examined the effectiveness of screening.

Instead, there are studies with evidence on common indicators found in sexual assault survivors (Soler et al. 2005), but they do not refer to which of these are the best predictors of victimisation. On whether women would disclose victimisation to health care professionals, in a cross-sectional survey to patients (n=164), Friedman et al. (in UNFPA 2001) found that 69% of them favoured routine inquiry on sexual assault and 70% would disclose. This is not sufficient evidence that women are more likely to report present or past experiences of sexual assault in a health setting, but it should not prevent health services from providing the tools to recognise indicators of victimisation.

Effectiveness in avoiding secondary victimisation

Secondary victimisation (also referred to as second rape) refers to "victim-blaming attitudes, behaviours, and practices of community service providers that result in additional trauma for rape survivors" (Bramsen et al. 2009, p.890). As a principle of care and safety to victims, medical, legal and therapeutic professionals should avoid secondary victimisation either in their behaviour or by neglecting to care for victims.

Campbell & Ahrens (1998) compared communities that had coordinated services for sexual assault with those that did not in a longitudinal multi-method study. The study found two principal factors that reduced the risk of secondary victimisation. These were, firstly, having service providers (i.e. police, prosecutors, doctors, nurses, social workers) in one location decreased the number of exposures to explain the assault and access the range of services. Secondly, training and specialisation in sexual assault contributed to questioning provider's beliefs and raising awareness of victim's emotional distress.

Effectiveness in performing forensic examinations and documenting evidence

Studies assessing forensic examinations look into different aspects of the process, which includes that evidence is appropriately collected, that the examination is sensitive to the victim's emotional state and whether the evidence has an impact on the legal system.

Forensic examinations are performed by different health professionals who are not always a qualified forensic doctor. One of the most comprehensive assessments of forensic effectiveness is Campbell et al's (2005) literature review of SANE programmes in the US. Their results suggest that because of specialisation and training, SANEs perform better than other professionals with no training. This finding is based on two studies (one case study audit and one large-scale survey testing differences) comparing SANE and non-SANE rape kits results.

Although rape kits are a common protocol explaining the examination, De Munnynck's (2006) cross-sectional study of this service in a health facility in Belgium, raises the problem of inappropriate evidence collection due to the lack of training and experience on this process by professionals other than forensic doctors. Kelly & Regan's (2003) findings from their review on attrition in rape cases in Europe also highlight the same problem among forensic doctors who are not trained specifically on sexual assault examinations. Furthermore, other research indicates that a 'one size fits all' rape examination kit and protocol fails to reflect the different evidential issues likely to be at stake when the offender is a stranger or known (McGregor et al. 2002). In light of the recognition that most sexual assaults are committed by known assailants, Kelly & Regan's (2003) review points to relatively little reassessment of the process of gathering forensic evidence, as well as limited investment across Europe in both the training of examiners and ensuring access to the most up to date tools for gathering evidence.

One key aspect of SANE training is that it covers sexual assault evidence collection and crisis intervention. Undergoing internal and external forensic examinations following an assault is a daunting prospect, and research shows they can be experienced as a 'second assault' at worst, and uncomfortable and invasive at best (Campbell et al. 2005). In this regard, case study research and reviews propose some recommendations of what good practice entails, which includes addressing both women's immediate needs and concerns, and the justice system's needs for rigorous evidence collection, and a preference (by both women and men) for female examiners (Kelly & Regan 2003; Pillai & Paul 2006). Negative experiences are related to long waits for the examination and the examiner appearing to disbelief (Kelly & Regan 2003).

Forensic examination may provide vital evidence that identifies the assailant, and/or supports the complainants account in court. Conviction rates, nonetheless, vary greatly within and between countries and they have been found to oscillate from 10% to 69% (Ingemann-Hansen et al. 2008). Ingemann-Hansen et al.'s (2008) analysis of 307 reported cases of alleged sexual assault in Denmark between 1999-2004 found significant associations between successful prosecution and evidence of trauma, use of weapons and severe coercion, and young age. In a systematic review by De Mont & White (2007) on the impact of evidence in convictions, the findings suggest that documentation of injury was the largest predictor of positive legal outcome, in comparison with anogenital trauma, the

presence of semen and the victim's emotional state. However, they were unable to determine if these same elements were the most effective in specific circumstances (e.g. rapes by acquaintances) or groups (e.g. children, adolescents and adults). Kelly & Regan (2003) and Kelly & Lovett (2009) advise against taking full medical history as part of the forensic examination, especially in countries with adversarial legal systems. For instance, records of previous abortions, previous sexual assaults or number of sexual partners have provided arguments against victims. Instead, they suggest good practice is to separate the information needed for forensic examinations (and most importantly recorded on forms), which includes pertinent recent medical history (e.g. last prior consensual sex and stage of menstrual cycle) from that gathered for health and medical screening purposes.

Given most courts will accept forensic evidence if it has been appropriately collected, stored and analysed, services should provide suitable facilities and equipment for the examinations and professionals performing them should have specialised training in sexual assault.

Effectiveness in providing comprehensive medical and psychological care.

The literature evaluates medical care in terms of rates of comprehensive service delivery, that is, whether medical services offer emergency contraception and prophylaxis against, screening and follow-up for STIs and HIV. Pillai & Paul (2006) conducted a survey of 12 SARC and 58 non-SARC services in the UK in 2005 and found that SARC's reported performing routine medical treatment for pregnancy, STIs and HIV, while non-SARC services only did at some hospital emergency departments, but not in police victim suites, which only perform forensic examinations. Campbell et al.'s (2005) analysis of national surveys on SANEs and studies comparing SANE and pre-SANE programmes in the US, find that the data suggests victims seen by SANEs receive more consistent and broad based medical care. In this sense, training and specialisation in sexual assault, either in the form of specialised service provision or professional, will be more likely to offer victims thorough medical care.

Effectiveness in providing psychosocial care

The evidence on psychosocial effectiveness assesses treatment outcomes for sexual assault victims experiencing PTSD or rape trauma symptoms. The treatments generally include cognitive processing therapy, prolonged exposure, stress inoculation training and eye movement desensitisation and reprocessing. Taylor & Harvey (2009) in an analysis of available literature find that overall receiving psychological treatment is beneficial for victims.

According to Vickerman & Margolin's (2009) review, the interventions which yield greater benefits were cognitive behavioural therapies, especially in terms of improving PTSD outcomes. However, the studies also suggested that PTSD symptoms remained even after treatment. Women that have been sexually assaulted are at higher risk of deleterious outcomes than those who have been victims of other crimes. Elapsed time since assault is an important factor in the design of treatments. Most studies focus on victims at least three months post-assault to target women with chronic symptoms, but findings indicate more evidence is needed on effective ways to treat sexually assaulted women with substance abuse problems as well as to analyse the effectiveness of interventions on the immediate aftermath of rape (*Op. Cit.*).

In addition to treatment therapies, some interventions offer secondary prevention programmes, which aim is to reduce the incidence of negative sequelae, such as sexual revictimisation or mental health problems (Marx et al. 2001). According to Taylor & Harvey (2009), these types of programmes have developed building on findings that women who have been sexually assaulted are at greater risk to be subsequently assaulted and that rape survivors constitute the largest group of persons with PTSD. Secondary prevention programmes include psycho-education and skills training. However, Vickerman & Margolin (2009) found evaluations of this type of programmes are scarce and yield mixed results. They suggest further research is still needed in this area.

Effectiveness of integrated services

As this review has already discussed, national action plans and protocols and legal, health and welfare service providers often include sexual assault service provision and crisis intervention within the framework of violence against women and children. This review did not find any evidence on the effectiveness of this level of service integration in comparison with those services that only specialise on sexual assault.

Colombini et al.'s (2008) review analyses integrating responses to gender-based violence into the health sector in low- and middle-income countries, but they compare different levels of integration in terms of providers, facilities and systems with each other, rather than with non-integrated services. Their findings raise different challenges and opportunities, but none provides sufficient evidence to make conclusions about the effectiveness of integration.

Kelly & Lovett (2005) make the case for the UK government to design and implement an integrated national policy and action plan on violence against women, instead of the range of forms of violence (e.g. rape, domestic violence, female genital mutilation, etc.) acting in silos. The study includes case examples of national statutory, local authority and service provision sectors, which point to benefits of an integrated approach, such as effective use of limited financial resources or better knowledge transfer between sectors.

Key findings

What the literature tells us about the prevalence of sexual assault:

- Countries have different legislative definitions of sexual assault and this has an impact on levels of reporting.
- Common rape myths, misinformation and lack of information also affect levels of reporting.
- It is common for individuals, including police and victims themselves, to blame sexual assault on the victim's behaviour and this has an impact on reporting.
- There are different methodologies for estimating prevalence levels, including those based on self-reporting in population-based surveys and those based on official crime statistics. All methodologies are likely to underestimate the real numbers as many assaults are unreported and some forms of sexual violence may be not be

perceived by victims or perpetrators as an offence. Population-based surveys are recommended as better estimate predictors.

- Countries do not use the same standard definitions and methodologies in estimating prevalence. This makes it problematic to compare countries or aggregate figures.
- Studies included in this review in various European countries and using different methodologies found lifetime prevalence rates for sexual assault of between 6.8% and 33.2%.

What the literature tells us about vulnerability to sexual assault:

- Anyone can experience a sexual assault at any point in their life, but it is well documented that they are more prevalent among women than men, and that women appear to be equally at risk of being sexually assaulted as children and as adults, while men have greater reported prevalence of sexual victimisation in their childhood.
- There is some evidence that certain groups are more vulnerable to sexual assault. These include adolescents, young women, those with disabilities, homeless, sex workers, women on low incomes, women who were previously victims of sexual abuse or assaults, and lesbian, gay, bisexual, transgender and intersex people.
- The evidence of ethnicity as a factor that increases vulnerability to sexual assault is not conclusive.

What the literature tells us about the effects of sexual assault on health:

- Sexual assault survivors can suffer from a number of mental and physical health problems. The most reported psychological consequences on victims is Post Traumatic Stress Disorder.
- Physical health consequences include gynaecological complications, sexually transmitted infections, HIV/AIDS and unwanted pregnancies. Physical injuries can be severe, sometimes even life-threatening, but this is rare and most physical injuries resolve within several days.
- Fear of STIs and pregnancy are two common reasons for seeking help at different medical settings immediately after being sexually assaulted.

What the literature tells us about economic impact of sexual assaults:

- Most of the literature that looks at sexual assault focuses on prevalence, impacts and services. There is less research on the implications and costs for a society as a whole.
- Research by the Department of Health in the UK reports that each adult rape has been estimated to cost over £76 000 (around 91 000 Euro) in its emotional and

physical impact on the victim, lost economic output due to convalescence, early treatment costs to the health services and costs incurred in the criminal justice system.

What the literature tells us about services for women who have experienced sexual assault:

- Responding to sexual assault requires addressing multiple dimensions of care from medical, psycho-social and legal sectors.
- Various models are used to meet forensic, medical, psychosocial and criminal justice needs in different countries and regions within countries.
- The range of third sector organisations which assist sexual assault victims is diverse and are different in every country.
- The role of the criminal justice system in sexual assault is to enforce the law, to prevent sexual assaults by relying on incarceration, punishment and rehabilitation of perpetrators and to ensure survivors are directed towards appropriate services. Mechanisms by which criminal justice functions are carried out vary between countries.
- How service providers respond to women can have profound consequences for receiving appropriate care and later adjustment and recovery.
- In the United States in the 1970s a shift began towards centralised models of management, where professionals from different sectors offered collaborative treatment in a single location. Their objectives were to coordinate care under one roof and to create a common understanding about the multi-dimensional context of care among the professionals involved in providing, designing and funding sexual assault interventions and programmes. This coordinated model of care has since been reproduced internationally.
- Another model of service provision described in the literature is where services for women who have been sexually assaulted are integrated within other services for women including those for other forms of gender-based violence.
- Most of the literature focuses on understanding urban patterns of sexual assault and services. However, sexual assault is not a phenomenon unique to urban settings. It also occurs in rural and more secluded areas with different or limited legal, medical and social infrastructures and resources.
- When designing models for intervention, 'one-size-fits-all' models are not recommended. Instead, the services need to be adapted to local needs and local capacities, but maintain a consistent approach in terms of ensuring victims have adequate support from all the sectors responsible to provide sexual assault services.

Results of the review and areas of further action:

- There is little systematic evaluation of sexual assault services.

- Sexual assault requires a multi-sectoral response to medical, psychological and legal needs, which complicates measuring the effectiveness of services.
- Given the lack of systematic evaluation and the different types of evidence available, it is not possible to develop a methodologically sound hierarchy or framework which directly compares the effectiveness of different intervention and service models.
- Sufficient evidence that women are more likely to report present or past experiences of sexual assault when asked by a health professional, such as their General Practitioner, in a health setting is lacking.
- There is evidence of two factors that reduced the risk of secondary victimisation of women by professionals when reporting sexual assault. Firstly, having service providers in one location decreased the number of exposures to explaining the assault and accessing the range of services. Secondly, training and specialisation in sexual assault contributed to questioning provider's beliefs and raising awareness of victim's emotional distress.
- Studies assessing forensic examinations have explored whether evidence is appropriately collected, that the examination is sensitive to the victim's emotional state and whether the evidence has an impact on the legal system.
- Findings from the United States support specialisation and training in forensic examinations for sexual assault cases.
- Evidence shows negative experiences are related to long waits for the examination and the examiner appearing to disbelief.
- Conviction rates vary greatly within and between countries from 10% to 69%.
- There is evidence that victims seen by specialised sexual assault nurse examiners (SANE) receive more consistent and broad based medical care. Training and specialisation in sexual assault, either in the form of specialised service provision or by specialised professionals, will be more likely to offer victims thorough medical care.
- There is evidence of the benefits of cognitive behavioural therapies, especially in terms of PTSD outcomes. However, the studies also suggest that PTSD symptoms remain even after treatment.
- This review did not find evidence on whether sexual assault services delivered in services which also cover a range of other forms of violence against women and children are more or less effective than those services that only specialise on sexual assault.
- There are few evaluations conducted specifically on sexual assault interventions in Europe. However, evidence and studies from elsewhere suggest that service provision must recognise the range of needs that women who have been sexually assaulted experience. This means that services need to be evaluated for effectiveness on multiple domains.
- More evaluations should be conducted in lower resource settings to test the effectiveness of interventions and also identify new evidence in these contexts.

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