What are the key findings?
Adopting a holistic combination approach that addresses the underlying drivers of the epidemic for female sex workers (FSWs) will be most effective in preventing HIV and have numerous other economic, social and health benefits.

What are the key recommendations?
Community empowerment should be at the centre of the combination prevention approach and focus should be given to:

- Decriminalising sex work
- Addressing violence against sex workers
- Encouraging community-led outreach and health services

More research is needed to better understand the drivers of HIV and structural determinants among female sex workers from Sub-Saharan Africa.
Female sex workers are affected by HIV more than any other group

One study estimated that globally, in 2011, between 11.5% and 18.6% of HIV infections in women could be attributed to sex work.¹

In low and middle income countries (LMICs) HIV prevalence among sex workers is 11.8%.² FSWs are 13.5 times more likely to be living with HIV than other women.³

16 countries that have an HIV prevalence rate among sex workers greater than 37% are in Sub-Saharan Africa (SSA).⁴

In South Africa, HIV prevalence among sex workers was 71.8% in Johannesburg, 39.7% in Cape Town and 53.5% in Durban.⁵ (2015 data)

However, despite sex workers’ disproportionate risk of acquiring HIV, HIV prevention programmes among them account for a meagre share of overall HIV prevention funding worldwide.⁶

Less than 1% of overall HIV prevention funding worldwide
WHAT MAKES SEX WORKERS PARTICULARLY VULNERABLE?

Factors that impact upon female sex workers’ vulnerability to HIV

MACRO/SOCIETAL LEVEL
Criminalisation of sex work, harmful law enforcement practices, impunity for violence against sex workers, stigma and discrimination, gender inequality.

COMMUNITY LEVEL
Stigma and discrimination related to both sex work and HIV, sex-worker friendly services (protective), voluntary counselling and testing (protective), harmful gender norms.

WORK LEVEL/RELATIONSHIP LEVEL
Unsafe working conditions, sexual violence, intimate partner violence, access to supportive peer-led organisations (protective), collectivisation (protective).

INDIVIDUAL LEVEL
Multiple concurrent sexual partners, unprotected anal and vaginal sex, barriers to the negotiation of consistent condom use, gender-based violence, age, socio-economic status, alcohol and drug misuse, HIV and rights knowledge, fear and experiences of stigma and discrimination which limit testing, treatment and adherence, lack of agency.
Direct and indirect causal pathways between violence against FSWs and HIV risk

How was this evidence review conducted?

The literature for this review was sourced through multiple electronic databases and grey literature. Literature deemed eligible for review included systematic reviews, reviews and intervention evaluations of specific HIV/STI interventions conducted worldwide, and focused on female sex workers. In total, seven systematic reviews were found and summarised (including two from Low and Middle Income Countries, including Sub-Saharan Africa and South Africa between 2005 and 2015) and a total of 28 papers were included in this evidence review. An annex presenting more details about the methodology and a table presenting the details of the studies included in this review are available on http://bit.ly/ESAROHIVBrief.

What does the evidence tell us?

POLICE VIOLENCE AND HARASSMENT

- Sexual violence poses a direct HIV risk, especially because it can lead to genital and anal injuries and STIs which increase risk of transmission
- Threats and violence are used to extort sex (usually unprotected)
- Fear of arrest is a barrier to HIV testing and treatment
- Police seizure of condoms undermines condom use

INTIMATE PARTNER VIOLENCE

- Sexual violence (direct HIV risk)
- Male perpetrators of violence are more likely to be HIV+
- Reduces ability to negotiate condom use
- Increases other risk taking behaviours
- Higher risk of violence revictimisation

STIGMA AND DISCRIMINATION

- Prevents access to HIV testing, treatment and adherence and other health services
- Prevents seeking timely medical attention following rape including Post-exposure prophylaxis (PEP)

CLIENT VIOLENCE

- Forced sex is often unprotected
- Sexual violence (direct HIV risk)
- Sometimes violence includes high-risk anal and gang rape
- Physical violence used to coerce unprotected or unsafe sex
### Summary of the evidence: what works, what are the challenges to implementation and strategies to overcome barriers?

<table>
<thead>
<tr>
<th>IMPACT</th>
<th>INTERVENTION DESCRIPTION</th>
<th>IMPACTS SEEN ON HIV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EFFECTIVE (STRONG EVIDENCE)</strong></td>
<td>Community empowerment approach</td>
<td>Reductions in HIV and STIs among FSWs and general population (in 11 reviews and/or studies from 3 different regions). In Kenya, 10,000 FSW and 20,000 adult infections have been averted through this approach.</td>
</tr>
<tr>
<td><strong>EFFECTIVE (LIMITED EVIDENCE)</strong></td>
<td>Combination HIV prevention</td>
<td>Reduction in HIV and STIs among FSWs and general population, in 8 reviews and/or studies from 5 different regions, and significant reduction of HIV transmission among FSWs and clients in 2 of the studies.</td>
</tr>
<tr>
<td><strong>EFFECTIVE (IN COMBINATION WITH OTHER INTERVENTIONS – LIMITED EVIDENCE)</strong></td>
<td>HIV testing and counselling</td>
<td>Reduction in HIV and STIs among FSWs in 5 reviews and/or studies covering more than 2,000 participants in 3 different regions.</td>
</tr>
<tr>
<td><strong>EFFECTIVE (LIMITED EVIDENCE)</strong></td>
<td>Condom promotion and distribution</td>
<td>Increase in condom use, reduction in HIV and STI prevalence among FSWs in 7 reviews and/or studies, across 5 different regions. A model simulation based on the South African heterosexual epidemic suggests that condom promotion and distribution programmes in South Africa have already reduced HIV incidence in sex workers and their clients by more than 70 per cent.</td>
</tr>
<tr>
<td><strong>NOT EFFECTIVE AS STAND-ALONE ACTIVITY (LIMITED EVIDENCE)</strong></td>
<td>Biomedical approaches/treatment as prevention</td>
<td>There were 3 reviews and 1 study that indicated that biomedical approaches/treatment as prevention is a promising approach to HIV prevention. The impact of ART coverage in the FSW population is yet to be proven, as the evidence is limited. PEP was well accepted by urban FSWs in Kenya, and was regularly accessed, but did not lead to reduction in HIV acquisition. Combined with other approaches however it is likely to result in reductions in HIV prevalence.</td>
</tr>
</tbody>
</table>

**Community HIV testing and prevention approaches/**establishing community groups; vocational rights. Activities often include: peer-led outreach education; distributing condoms, syringes etc.; establishing community groups; vocational training; referrals to health services and empowerment of the sex worker community.

**Combination** HIV prevention is the concurrent implementation of a package of structural, behavioural and biomedical approaches. These include community empowerment, male and female condom and lubricant distribution and HIV communication, provision of services, PrEP treatment, ART, cash transfers, and harm-reduction strategies.

It can be on-site or clinic based VCT and includes distribution of condoms and pamphlets, and provision of medical care. HIV testing is a part of most existing prevention approaches and is seen as a gateway to HIV treatment.

It is included in the majority of interventions. The focus is on encouraging use of condoms and also condom negotiation and self-efficacy. Programmes have included counselling and motivational activities; skill-building training sessions; condom distribution, education and efficacy training; social marketing; condom negotiation.

Female condoms are seen as less cost-effective than male condoms, however are deemed a viable alternative when male condoms are not available.

Biomedical approaches use antiretroviral drugs as prevention methods. Antiretroviral drugs can protect uninfected individuals from acquiring HIV through Pre-exposure prophylaxis (PrEP). Post-exposure prophylaxis (PEP) can reduce infectiousness of infected partners.

Interventions include the application of PrEP and PEP, ART, counselling and motivational activities, HIV and condom education, empowerment activities.
### Other Types of Impacts

- Improvement in education and health outcomes
- Improvement in empowerment
- Improvement in treatment-seeking behaviour
- Increase in VCT uptake and condom use
- Reduction in violence, stigma and discrimination

### Barriers to Implementation and Scale-Up

- Difficult to reach street-based FSWs
- GBV, criminalisation and stigma restrict ability of FSWs to organise
- Human rights violations and harassment of outreach workers
- Violence and trauma can compromise adherence to treatment (see Figure 2)

### Recommended Strategies

- Feasible to implement and take to scale – highly acceptable to FSWs and safe
- Should include economic strengthening activities
- HIV interventions conducted at health clinics, such as HCT, ART, PrEP, condom distribution are more likely to be more accessed by sex workers
- The specific needs of different types of FSWs must be considered
- Should collaborate with advocates for the SRHR of women, young people and adolescents

### Increase in condom use, HCT and HIV/STI knowledge

- Reduction in stigma, discrimination and violence
- Improvement in VCT, community empowerment
- Increase in syringe safety

### Barriers to Implementation and Scale-Up

- Difficulties reaching the poorest and most marginalised FSWs
- Criminalisation of sex work and police brutality impede implementation
- Inadequate financing

### Recommended Strategies

- Feasible to implement and take to scale
- Ideally, SRH and HIV services should be integrated
- Must consider environmental and policy factors such as violence and work conditions
- Different interventions must be developed for street-based FSWs and venue-based FSWs

### Increase in testing

- Increase in treatment initiation
- Increase in adherence

### Barriers to Implementation and Scale-Up

- Poor awareness of services and accessibility
- Fear of authorities
- Confidentiality concerns
- Discrimination and poor quality of care

### Recommended Strategies

- WHO recommends at least annual voluntary testing for sex workers
- Testing must be voluntary, affordable, and sex-worker friendly to be effective
- Supportive networks are associated with willingness of FSWs to engage in testing, care and treatment

### Improvement in condom negotiation between regular partners and paying clients

- Improvement in consistent condom use and harm-reduction in drug-injecting FSWs
- Reduction in condom breakage
- Increase in knowledge about, and intention to use condoms

### Barriers to Implementation and Scale-Up

- Cost and access to condoms, especially female condoms
- Condom carriage as evidence of sex work used by police in places where sex work is criminalised
- Bonded FSWs are often unable to enforce or negotiate condom use
- Male clients and regular male partners may refuse to use condoms and/or become violent when the FSW proposes a condom

### Recommended Strategies

- Provision of water-based lubricants with condoms is recommended
- Some studies suggest higher acceptability of female condoms among FSWs. Improving access to and reducing the cost of female condoms could increase their use
- Condom distribution and promotion efforts should be accompanied by strategies to reduce barriers to use such as violence and criminalisation
- Interventions should also promote increased HIV knowledge for male clients and partners of sex workers

### Increase in condom use

- Decrease in STI infection
- Improvement in personal health prognosis and may protect clients from acquiring HIV
- Improvement in adherence and viral suppression

### Barriers to Implementation and Scale-Up

- Absence of support from family members and partners for adhering to treatment strategies
- Concerns raised by FSWs of using PEP, regarding STI risk, privacy, side-effects and cost
- Detention and reluctance to carry pills which may be stigmatising or criminalising
- Public awareness of PrEP could increase demand for unprotected sex

### Recommended Strategies

- PrEP should be integrated with combination HIV prevention interventions
- PEP is not scalable, practical or sustainable as a sole intervention for FSWs. However it is useful in situations of sexual assault and other unanticipated unprotected sex
- Biomedical interventions under development such as longer-acting vaginal rings and long-acting injectable PrEP could facilitate adherence
- Expansion of voluntary, effective early treatment together with PrEP could further reduce HIV incidence among FSWs and their clients
UNFPA and HIV prevention among sex workers in Zimbabwe

HIV incidence is among the highest for FSWs in Zimbabwe. As a result of cultural and legal prejudice, comprehensive programmes aimed at reducing HIV prevalence have been fragmented and ill-coordinated.

Between 2012 and 2015, the Sisters with a Voice programme has seen a total of 52,574 FSWs at dedicated sites.

- 4.7 million male condoms have been distributed
- 8,000+ HIV tests have been performed

Between 2012 and 2015, the Sisters with a Voice programme has seen a total of 52,574 FSWs at dedicated sites, and reached 80,001 FSWs with sexual and reproductive and HIV prevention health education messages delivered by peer educators. Approximately 4.7 million male condoms have been distributed and more than 8,000 HIV tests performed.

Lastly, important research is being conducted. The Sisters Antiretroviral Therapy Programme for Prevention of HIV – an Integrated Response, is a cluster randomised trial of ART for prevention. SAPPH-IRe is being implemented at 14 Sisters outreach sites. Baseline data has been collected and the endline survey for the SAPPH-IRe trial will occur from April – June 2016. In addition, CeSHHAR is conducting a national size estimation of FSW combining data from the SAPPH-IRe online survey. The Sisters program is also involved in several HIV self-testing research projects as well as an acceptability study for the new Cupid Female Condom.

CONCLUSION

Gaps in the evidence

- Overall there is a dearth information
- Large gaps on the drivers of HIV and structural determinants among female sex workers from Sub-Saharan Africa, even though it is where the largest burden is (research is disproportionately from Asia); structural determinants, such as stigma, have not been well defined or understood in terms of their relationship to HIV risk in specific contexts
- Lack of rigorous research across settings to clarify the burden, determinants, and effect on HIV of human rights violations against sex workers
- Most data are drawn from cross-sectional studies that are not able to explore the non-linear, dynamic, and iterative HIV transmission pathways
- Many evaluation studies do not include biomarkers of HIV or STIs so it is difficult to conclude effectiveness
- Paucity of information on the effectiveness of new biomedical technologies for FSWs
- Lack of sex-worker-led, practice-based evidence
- There is an absence of internationally agreed-upon ethical guidelines for research with sex workers
**Recommended strategies/interventions**

- Legal reform to decriminalise sex work and remove punitive measures.¹
- Awareness raising and communications campaign
- Training/advocacy with police, judges and others
- Promoting gender equality
- Increasing access to and reducing cost of condoms

- Community empowerment initiatives
- Stigma reduction programmes
- Building capacities of and accessibility of SRHR services,
- Broad condom and lubricant programmes
- Preventing violence against sex workers¹
- Economic and community empowerment
- Drug use programmes

- HIV education for clients, FSWs and brothel/venue owners (especially to discourage unprotected sex)
- Behaviour change communication to encourage condom use among clients and regular partners
- Peer education programmes
- IDU networks

- HIV education, voluntary HIV testing, counselling and access to HCT
- Condom distribution and education
- Treatment as prevention
- Harm reduction in FSWs who inject drugs
- Biomedical interventions to reduce exposure, transmission, infection

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**Guiding principles for a combination approach:**

- Be tailored to female sex workers according to age, ethnic origin, marital status, citizenship status, migration, type of sex work, drug use, socio-demographic factors; and the epidemic context in which sex work occurs;
- Combination of long-term, coordinated structural, biomedical and behavioural approaches to address the risks at the different levels;
- Actively involve female sex workers in the design and implementation of programmes, with a focus on social justice and human rights;
- Have a clear theory of change and be clear about the pathways of risk being addressed;
- Address the multiple vulnerabilities of female sex worker risk identities (IPV, drug and alcohol abuse, bonded FSWs, street-based FSWs).