

Pan London HIV Prevention Programme Needs Assessment Evidence Review

*Prepared by Inner North West London Primary Care
Trusts and Public Health Action Support Team on
behalf of the Pan London HIV Commissioning Group*

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1. Executive Summary

A rapid needs assessment has been conducted to inform commissioning of the Pan London HIV Prevention Programme. All components of the programme aim to improve knowledge and understanding of HIV prevention as well as improving access to HIV/STI test and treatment and access to safer sex promoting interactive services. The work has been overseen by a steering group with representation from public health, commissioning, clinicians and academia. The rapid needs assessment includes three work streams: epidemiology, evidence, and engagement. Each work stream has produced a report to enable the commissioners to make informed evidence based decisions in relation to HIV interventions in London.

There are almost 30,000 people with HIV accessing care in London. There is approximately a 5% increase annually, although this is slowing. Approximately 26% of people with HIV are undiagnosed. HIV treatment costs approx £500,000,000 per year in London. The major risk groups are: MSM and Black African.

This report provides a summary of the evidence workstream; it is a pragmatic review of the best available local and national literature and evidence on the effectiveness and cost-effectiveness for HIV prevention interventions, to inform commissioning decision-making for the HIV Pan London Needs Assessment.

The report presents an overview of the key messages emerging from national and international review of systematic review level evidence plus local information gathered from the Grey Literature regarding the effectiveness of HIV interventions in London.

Assessment of the current commissioning programme in relation to the evidence base

The current programme is supported by evidence although in some areas this is very thin. There is no definitive evidence that any components of the PLHPP programme are ineffective. Evidence for condom distribution specific to target populations is very limited. There is also a particular paucity of evidence around media campaigns and websites although there is grey literature that indicates local impact on knowledge measures. The strongest evidence base supports:

- For Men who have Sex with Men (MSM): VCT, individual, group and community level interventions including targeted minorities.
- Black African: VCT, community specific intervention, linkage to broader determinants of health.
- People Living With HIV (PLWHIV): Behavioural intervention and partner notification.

Evidence based interventions not included in the current programme

There is good evidence for the effectiveness of intervention with IDUs. This is not currently commissioned within the PLHPP. The engagement exercise drew attention particularly to injecting sex workers as a small group with very high risk.

Cost effectiveness

Cost effectiveness evidence is very limited. Targeting of intervention is likely to be a significant driver of cost effectiveness.

Key Findings

The review has identified the importance of defining clear outcome indicators in relation to every intervention and the importance of rigorous monitoring and evaluation of the

effectiveness and cost-effectiveness of future interventions, ensuring the results are published. This will help to ensure best value and encourage future effective practice.

- Review level evidence for some interventions is either sparse or absent, there is limited information about cost effectiveness and recent developments in HIV treatment as prevention have not yet been subject to review.
- Testing, prevention and treatment services need to be integrated locally and regionally to maximise access and effectiveness.
- A broad range of interventions are required ranging from individual/ group delivery up to population level; these can be delivered in a variety of settings by a range of facilitators and include multiple features such as targeted information, skills development, interpersonal communication skills, support/ counselling and service promotion.

2. Evidence Review

2.1 Background

There are almost 30,000 people with HIV accessing care in London. There is approximately a 5% increase annually, although this is slowing. Approximately 26% of people with HIV are undiagnosed. HIV treatment costs approx £500,000,000 per year in London. The major risk groups are: MSM and Black African.

This evidence reviews on effective interventions for HIV prevention commissioned by the Pan London Commissioners. It is one of three pieces of work aimed at strengthening evidence-informed action on HIV prevention in London. The Pan London Prevention Programme (PLHPP) has been directed by a Pan London Commissioners group and commissioned through Kensington and Chelsea PCT.

The rapid needs assessment has been conducted guided by a steering group with cluster level representation from public health as well as the HPA, clinicians, academia and commissioning.

2.2 Aim and Questions

2.2.1 Aim of Review

- 1. To undertake a pragmatic review of the best available local and national literature and evidence on the effectiveness and cost-effectiveness for HIV prevention interventions, to inform commissioning decision-making for the HIV Pan London Needs Assessment.**
- 2. To identify areas for cost comparison and to provide a cost analysis of interventions with a view to delivering economies of scale across London.**

2.2.2 Review Questions

There are 2 key questions to be answered in the scope of this literature review

- 3. What is the evidence of effectiveness for HIV prevention interventions?**
- 4. What is the evidence of cost-effectiveness of HIV prevention interventions?**

2.3 Scope of review

The Evidence Review is a pragmatic review of the evidence and comprised two separate searches

- Review literature. The review identified high-level evidence-review of systematic reviews.
- Grey literature. The grey literature review has drawn on the local experience to contribute to the evidence base, and will be restricted to evidence gathered within the Engagement Workstream; the key Monitoring and Evaluation reports provided by Ergo Consulting for the Pan London Commissioners; and the House of Lords Select Committee on HIV and AIDS in the UK.

-The review includes an analysis of costs effectiveness based on information received from the review of reviews.

2.4 Evidence Review Methodology

To achieve the September deadline the evidence review is not a systematic review, but follows a robust and systematic process to provide a summary of the best available evidence on this topic.

2.4.1 Inclusion criteria

Research which evaluates the efficacy or cost-effectiveness of HIV prevention interventions. These are identified as behavioural interventions to reduce or modify risk; structural/population interventions (e.g. social and environmental interventions); and biomedical interventions (such as antiretroviral therapy) which play a role in reducing HIV transmission.

Primary and secondary prevention interventions to be included

International literature where it is relevant and generalisable i.e. largely this will be research conducted in 'Western-style' countries and not from developing countries.

Evidence published since 2001 (last 10 years)

For pragmatic reasons grey literature is defined as follows:

- evidence returns from the provider engagement
- the Ergo Consulting Monitoring and Evaluation reports;
- the House of Lords Select Committee on HIV and AIDS in the UK

Where costs and activity data are available for London prevention intervention programmes/providers these will be compared with similar programmes/providers at a local and national level.

2.4.2 Exclusion criteria

English language only

Do not include contract management information

Additional interventions for may be identified following this review report. They may include further details regarding: condom distribution schemes; group work (face-to-face and online); outreach work/health trainers; counselling and CBT; mentoring; mass media (TV/radio, websites, health promotion literature); antiretroviral therapy; and HIV testing and early diagnosis.

2.5 Sources searched

Databases - Cochrane Library; MEDLINE; PSYCINFO; EMBASE; CINAHL; HMIC; EPPI-Centre

Other Sources - NICE; London-based and national organisations; experts in the field

5.

2.6 Summary Evidence Statements

The summary evidence statements are mainly derived from the review of systematic reviews evidence; where there is a paucity of evidence the grey literature has also been discussed. Each section has been summarised in the following way.

Evidence Statement	- Statement(s)
Evidence supports:	❖ Details
Comment	<i>Basis for prioritisation</i>
	❖

2.7 Report Structure

The report structure is as follows.

- Background
- Methods used to identify relevant literature
- General population review
- Population groups reviews
- Summary findings
- Research future consideration.
-

3. Pan London HIV - Evidence Review

3.1 Sexual health intervention definition

Sexual health interventions are actions or a series of actions intended to change the knowledge, attitudes, beliefs, behaviours or practices of individuals, groups or populations to reduce their sexual health risk. Sexual health interventions are usually categorised as being targeted at: individuals; groups or communities:

6. **Individual level interventions focus on one individual at a time; the aim is to help change behaviour through ongoing appraisal of behaviour and skills, linkages to services etc.**
7. **Group level interventions focus on delivery of interventions to groups of varying sizes. Group level interventions may use peer and non-peer models that involving a range of skills, information, education and support.**
8. **Community level interventions aim to improve the risk conditions and behaviours through a focus on the community as a whole, often by attempting to alter social norms, policies or characteristics of the environment.**
- 9.

3.2 Classification of interventions

- All intervention features (secondary intervention categories) were classified under five major intervention sub types (primary intervention categories): Education, Preventative Services, Support, Media and Bio Medical.
- Education encompasses secondary categories such as knowledge and skills training.
- Preventative Services covers features such as Testing and Condom Distribution Schemes.
- Support includes secondary categories such as counselling, peer group support and mentoring.
- Media covers features such as Mass media, Leaflets/ Posters, Websites/Internet.
- Bio-medical features drug therapies such as ART, OST, PrEP or PEP.

3.3 Search Strategy - detailed search terms

3.3.1 MEDLINE Search Strategy

* = truncation

ti = title

ab = abstract

/ut = utilization subheading

/pc = prevention and control subheading

3.3.2 Population

HIV/AIDS/STDs MeSH

1	HIV Infections/pc	
2	AIDS/pc	
3	Sexually Transmitted Diseases/pc	
4	Sexually Transmitted Diseases, bacterial/	
5	Sexually Transmitted diseases, viral/	
6	OR/ 1-5	

3.3.3 Intervention

Prevention/Intervention MeSH and Keywords

7	Primary Prevention/	MeSH
8	Secondary prevention/	MeSH
9	Preventive Health Services/	MeSH
10	Health Promotion/	MeSH
11	Health Education/	MeSH
12	Health Knowledge/	MeSH
13	education*	ti,ab
14	Program Evaluation/	MeSH
15	Contact Tracing/	MeSH
16	(partner notification)	ti,ab
17	(partner* adj4 contact* adj4 referral*)	ti,ab
18	(notif* adj4 partner*)	ti,ab
19	(contact tracing)	ti,ab
20	Case Management/	MeSH
21	(case management)	ti,ab
22	Needle Exchange Programs/	MeSH
23	(needle exchang*)	ti,ab
24	(syringe exchang*)	ti,ab
25	Social Support/	MeSH
26	(counseling or counselling)	ti,ab
27	group* adj4 work*	ti,ab
28	peer adj4 group	ti,ab
29	peer adj4 support	ti,ab
30	preven* adj4 intervention*	ti,ab
31	prevention*	ti,ab
32	program*	ti,ab
33	network*	ti,ab
34	outreach*	ti,ab
35	mentor*	ti,ab
36	coach*	ti,ab
37	training	ti,ab
38	Condoms/	MeSH
39	condom* adj4 distribut*	ti,ab
40	Cognitive therapy/	MeSH
41	CBT	ti,ab
42	Cognitive adj4 therap*	ti,ab
43	Hotlines/	MeSH
44	Helpline*	ti,ab
45	(health trainer*)	ti,ab
46	lay adj4 worker*	ti,ab
47	Mass media/	MeSH
48	newspaper*	ti,ab
49	magazine*	ti,ab
50	periodical*	ti,ab
51	TV or television	ti,ab
52	radio	ti,ab
53	website*	ti,ab
54	internet*	ti,ab
55	(social media)	ti,ab
56	(social network*)	ti,ab
57	(drug* adj4 treatment*)	ti,ab
58	(antiretroviral therapy)	ti,ab
59	ART	ti,ab
60	test*	ti,ab
61	OR/ 7-60	

3.3.4 Outcomes

Outcomes MeSH and Keywords

62	(effect or effects or effective or effectiveness)	Ti.ab
63	efficacy	ti,ab
64	evaluation*	ti,ab
65	impact*	ti,ab
66	incidence	ti,ab
67	infect* adj4 (new* or rate* or increase or decline* or reduc* or prevent* or lower* or decrease*)	ti,ab
68	Behavior/	MeSH
69	Health Behavior/	MeSH
70	Risk Reduction Behavior/	MeSH
71	Risk-Taking/	MeSH
72	Contraception Behavior/	MeSH
73	Coitus/	MeSH
74	Sexual Abstinence/	MeSH
75	Sexual Behavior/	MeSH
76	Sexual Partners/	MeSH
77	Safe Sex/	MeSH
78	Unsafe Sex/	MeSH
79	Condoms/ut	MeSH
80	Condoms, female/ut	MeSH
81	Contraceptive devices, male/ut	MeSH
82	Contraceptive devices, female/ut	MeSH
83	contracept*	ti,ab
84	disclos*	ti,ab
85	partner*	ti,ab
86	sex*	ti,ab
87	Unprotected adj4 (sex or intercourse)	Ti.ab
88	Substance abuse, intravenous/pc	MeSH
89	Substance-related disorders/pc	MeSH
90	Cocaine-related disorders/pc	MeSH
91	heroin	ti,ab
92	cocaine	ti,ab
93	opiate*	ti,ab
94	opium	ti,ab
95	(treatment* adj2 entry)	ti,ab
96	(treatment* adj2 enter*)	ti,ab
97	(abstin* or abstain*)	ti,ab
98	drug*	ti,ab
99	substance	ti,ab
100	(idu or idus or ivdu or ivdus)	ti,ab
101	Heroin Dependence/pc	MeSH
102	Needle Sharing/	MeSH
103	syring*	ti,ab
104	inject*	ti,ab
105	needle*	ti,ab
106	seroconver*	ti,ab
107	test*	ti,ab
108	Health Services/ut	MeSH
109	OR/ 62-109	
110	6 AND 61 AND 109	

3.3.5 Limits:

English language

Review articles

Date limits: 2001 to present

3.4 Review of Reviews - Search Strategy Results

- 58 publications met the search criteria
- 46 publications (2005- present)
- 12 publications (2001- 2004)
- Of the 58 summaries, 38 full publications have been electronically resourced and linked into the database;
- The other 20 were sourced via library requests for paper versions – some are still outstanding
- Additional evidence (NICE, Cochrane etc) has been identified and entered into the database

3.5 Grey Literature - Search Strategy Results

The public health action support team (PHAST) have been forwarded all the material from the engagement returns. This data has been entered into the database in summary format.

We have received 49 separate submissions that included material from:

- AGI African Getting Involved
- BASHH/BHIVA
- Body and Soul
- Community Services Ealing
- GMFA
- House of Lords
- Individual Responses
- Living Well
- Metro Centre
- NAM
- PACE
- Positive Catholics
- Rain Trust
- Sigma
- THT
- Widows and Orphans

4. Pan London HIV - Evidence Review: Summary Results

These summary results include evidence from the review of systematic reviews and review and the grey literature

4.1 Source

- Review of Reviews predominantly considered North America based interventions. Almost all grey literature considered England based interventions.

4.2 Type of Evidence

- Review of Review evidence predominantly fell into two categories: 2++ and 1+
- Grey Literature was predominantly classified as 4
-

The evidence was classified according to the Cochrane levels of evidence

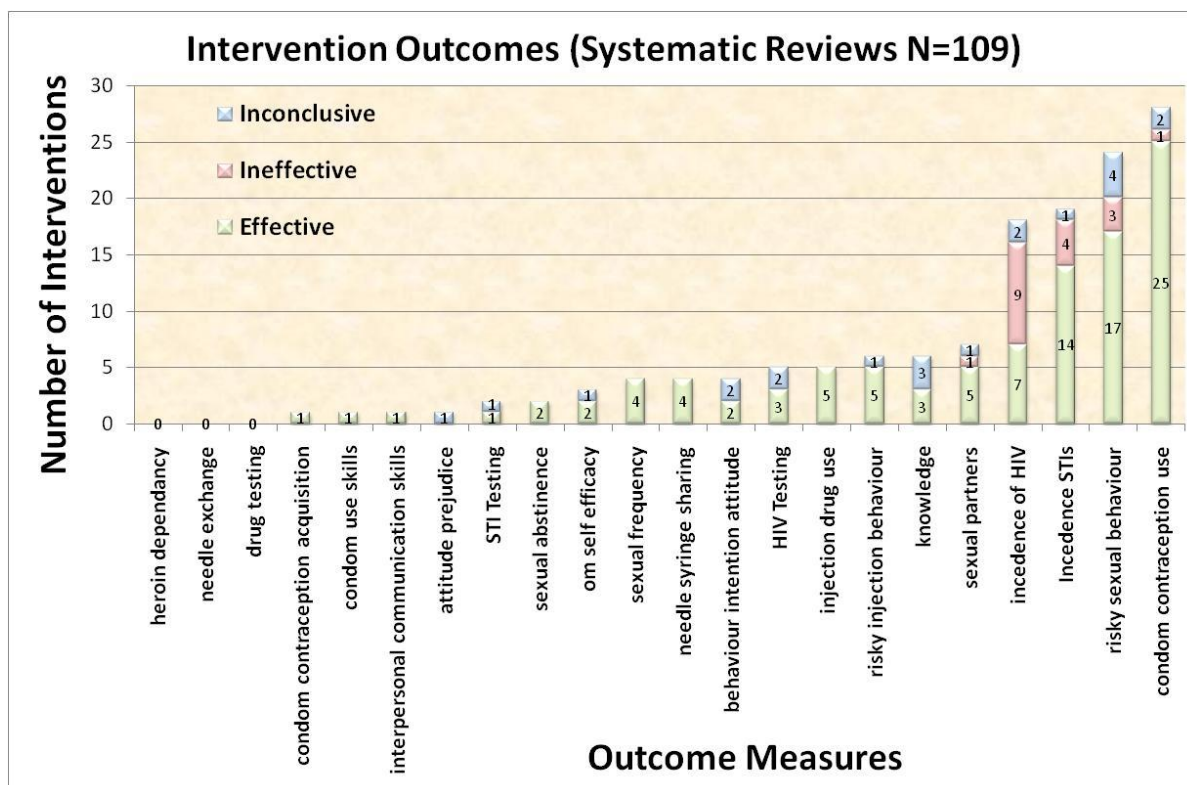
Level of evidence	Type of evidence
1 ⁺⁺	High-quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias
1 ⁺	Well-conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias
1 ⁻	Meta-analyses, systematic reviews of RCTs, or RCTs with a high risk of bias*
2 ⁺⁺	High-quality systematic reviews of case-control or cohort studies High-quality case-control or cohort studies with a very low risk of confounding, bias or chance and a high probability that the relationship is causal
2 ⁺	Well-conducted case-control or cohort studies with a low risk of confounding, bias or chance and a moderate probability that the relationship is causal
2 ⁻	Case-control or cohort studies with a high risk of confounding bias, or chance and a significant risk that the relationship is not causal*
3	Non-analytic studies (for example, case reports, case series)
4	Expert opinion, formal consensus
*Studies with a level of evidence '-' should not be used as a basis for making a recommendation (see section 7.4)	

4.3 Type of Intervention

- The majority of the interventions identified address primary prevention alone. Around two thirds of all interventions considered contained behavioural intervention features. Preventative services and education accounts for the majority of the interventions. The main preventative services reviewed were screening/ testing. The main Education intervention features reviewed were Information/ Knowledge and Skill development.
- The majority of interventions were delivered in a group setting, one-to-one or community wide. The type of support most frequently described was Peer Group Support and Counselling. The type of media intervention most frequently described was Website site/ Internet communications and Mass media.
- The majority of interventions were non-gender specific. Single sex interventions were more frequently targeted at men. Where interventions were targeted at a key population the most frequently described were MSM, Individuals who are HIV positive and injection drug users. Where interventions were targeted at a single ethnic group, black was the most frequently described.
- Most interventions took place within the community, clinics and primary care were the most popular venues specified beyond this. The majority of interventions described were not specifically targeted in terms of deprivation

4.4 Outcome measures

Although a wide number of outcome measures are described in the Review of Reviews the most frequently used are condom use/protected sex and risky sexual behavior (general). The most frequently used outcome measures of interventions described in the Grey Literature were Knowledge, condom/contraceptive use and reduced risky sexual behaviour.



- The majority of the interventions within Review of Systematic Reviews were described as effective. The degree of effectiveness is not clearly described in many papers.

4.5 Reported Effectiveness of Interventions

- More Review of Systematic Reviews described ineffective interventions compared to the Grey Literature

4.5.1 Within Review of reviews, where Intervention outcome has been classified as effective, not effective / inconclusive / not assessed:

- Education intervention features occurred the most frequently (within 40 interventions) of these 60% were considered to be effective and 15% ineffective.
- 27 interventions featured Preventative Services, around 40% of these were considered to be effective and 11% ineffective.
- 17 interventions featured Support services, 53% of these were described as effective whilst 18% were described as ineffective.
- 9 interventions contained Media features, 56% of these were considered effective, 22% ineffective.

4.5.2 Within the Grey Literature, where Intervention outcome has been classified:

- Education intervention features occurred the most frequently (within 50 interventions) of these 70% were considered to be effective and only 4% ineffective.

- 31 interventions featured Preventative Services, around 58% of these were considered to be effective and 3% ineffective.
- 38 interventions featured Support services, 58% of these were described as effective whilst 5% were described as ineffective.
- 20 interventions contained Media features, 65% of these were considered effective, 0% ineffective.
- Overall, where Intervention outcome has been classified:
- Education intervention features occurred the most frequently (within 90 interventions) of these 66% were considered to be effective and 9% ineffective.
- 58 interventions featured Preventative Services, 50% of these were considered to be effective and 7% ineffective.
- 55 interventions featured Support services, 56% of these were described as effective whilst 9% were described as ineffective.
- 9 interventions contained Media features, 63% of these were considered effective, 7% ineffective.
- 34 interventions contained Bio Medical features, for over 40% of these outcomes were not assessed so only 38% were described as effective and 12% ineffective.
- Overall, where Intervention Outcome has been classified, 55% were described as effective.

5. Findings relevant to general population groups

5.1 Characteristics associated with successful HIV interventions.

Key messages relevant to all population groups in terms of characteristics associated with successful interventions are summarised by Fullerton and Burtney in a review of reviews¹.

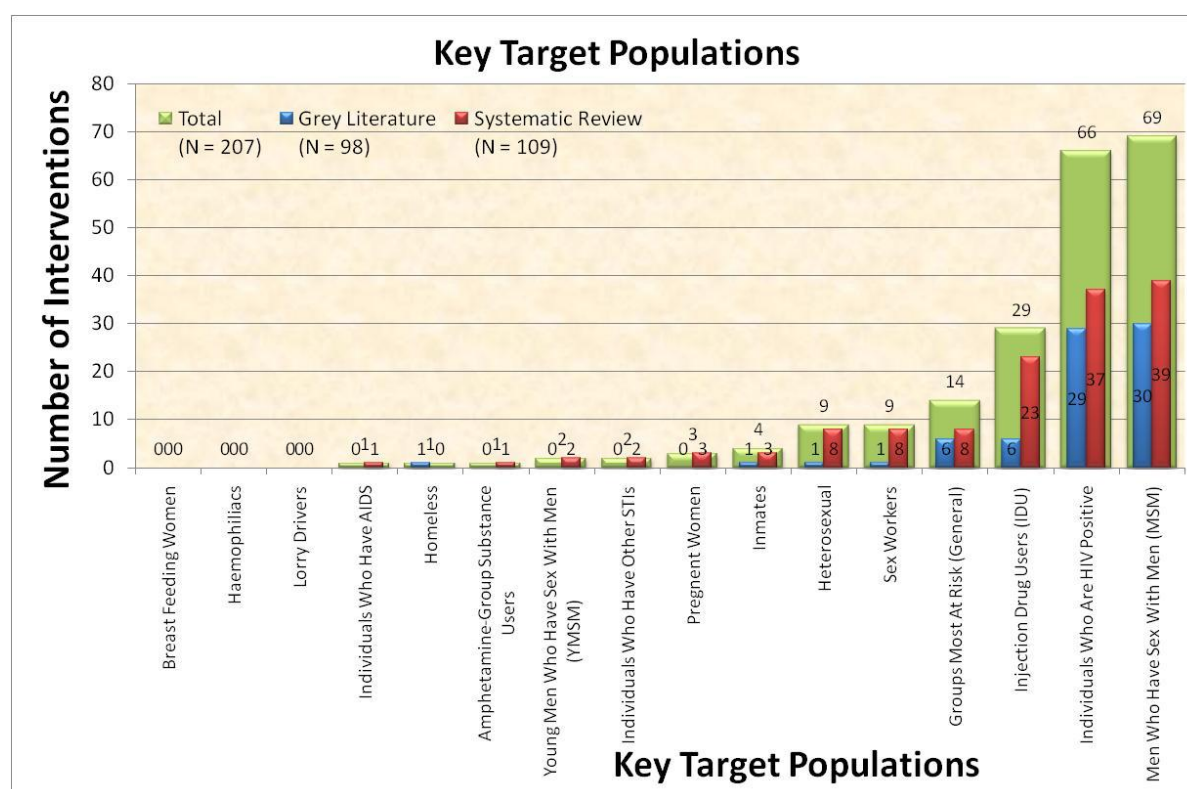
- Clear and articulated theoretical approach underpinning interventions (although there is some evidence that different theory bases are required for different population groups)
- Targeted and tailored interventions in terms of age, gender, ethnicity, culture and social surroundings
- Needs assessment and formative research to inform programme development interventions with clear messages and emphasis on risk reduction
- Integration of skills training
- Involvement of peers and community leaders where appropriate
- Sufficient opportunities to practise skills or absorb information on offer
- Interventions that are multi-component e.g. Skills training, role play, information sessions etc.
- Training and support for those delivering programmes
- Further evaluation and replication research is required to assess the transferability and translation of evidence-based programmes from the USA to the UK context.

¹ Deirdre Fullerton, Elizabeth Burtney - NHS Health Scotland: An overview of the effectiveness of sexual health improvement interventions
FINAL REPORT - 40330 - Source Grey Literature

5.2 Adult population

There is limited information on interventions targeted at a general adult population level. From the limited evidence, there appeared to be more support for small-group work with heterosexual adults compared with individual-level counselling. Interventions set in the community, have identified evidence for condom negotiation skills and negotiation training. (Neumann et al 2002).²

- Much of the evidence on the effectiveness of prevention and treatment services for adult populations is described in the context of targeted population groups. Where interventions were targeted at a key population the most frequently described were Men who have sex with men (MSM), People living with HIV (PLWHIV) and Injection drug users (IDUs).



5.3 Male adult population

Most adult male interventions described in research studies were delivered to high-risk males, eg drug users and men who purchase sex. Few reviews specifically address interventions targeted at the adult male population who were not identified as at risk. Interventions that were effective included condom negotiation skills and negotiation training (Elwy et al. 2002³, Downing et al. 2006,⁴ Ellis and Grey 2004⁵).

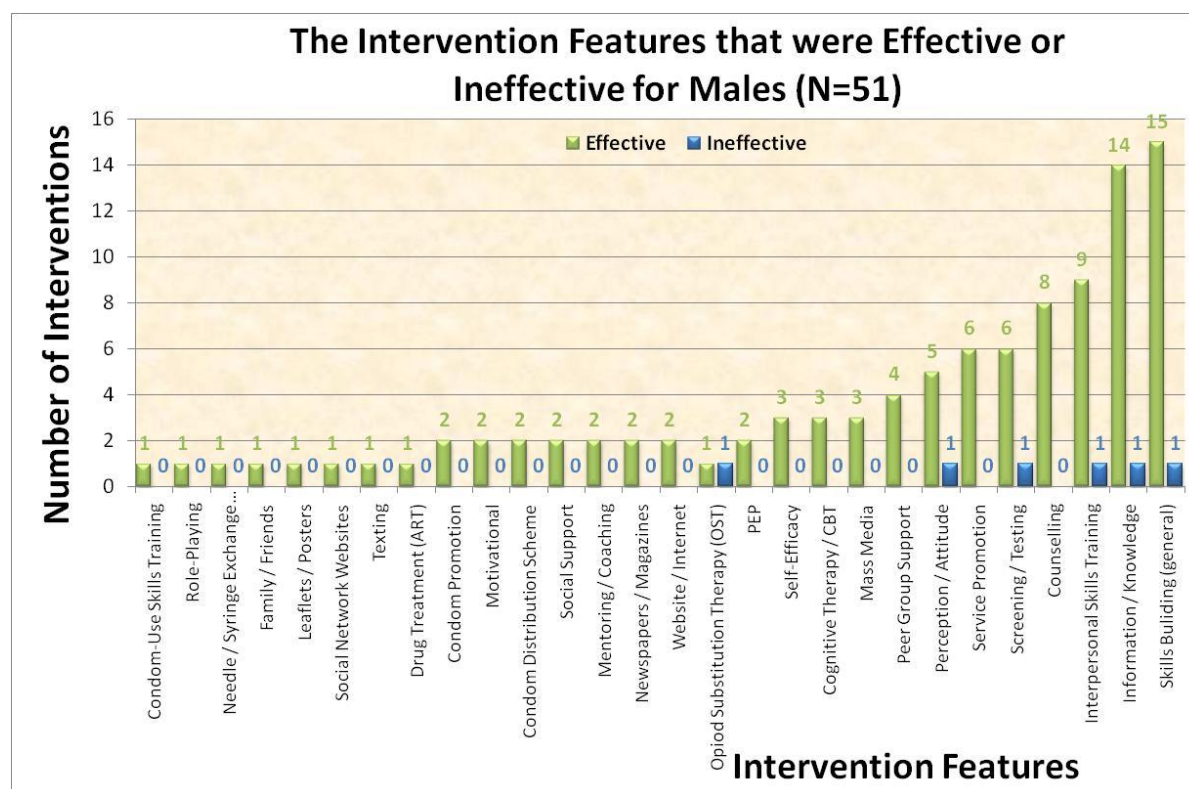
² Neumann MS, Johnson WD, Semaan S, Flores SA, Peersman G, Hedges LV, Sogolow E - Review and meta-analysis of HIV prevention intervention research for heterosexual adult populations in the United States. - *Journal of Acquired Immune Deficiency Syndromes: JAIDS*, July 2002, vol./is. 30 Suppl 1/(S106-17), 1525-4135;1525-4135 (2002 Jul 1) - 37438 - Source - Review of Systematic Reviews

³ Elwy AR, Hart GJ, Hawkes S, Petticrew M - Effectiveness of interventions to prevent sexually transmitted infections and human immunodeficiency virus in heterosexual men: a systematic review. - *Archives of Internal Medicine*, September 2002, vol./is. 162/16(1818-30), 0003-9926;0003-9926 (2002 Sep 9) - 37500 - Source - Review of Systematic Reviews

⁴ Jennifer Downing, Lisa Jones, Penny A. Cook, and Mark A. Bellis - HIV prevention: a review of reviews assessing the effectiveness of interventions to reduce the risk of sexual transmission: Evidence Briefing Update 2006 - 38718 - Source - Review of Systematic Reviews

⁵ Ellis, S., Barnett-Page, E., Morgan, A. Et al (2003). HIV prevention: a review of reviews assessing the effectiveness of interventions to reduce the risk of sexual transmission. London: HDA - 37622 - Source - Review of Systematic Reviews

5.3.1 Interventions that were effective or ineffective for males



- Across all reviews, the most frequently described effective male targeted interventions were: skills building (general), information/ knowledge, interpersonal skills training, counselling, testing/ screening, service promotion and peer group support.

Primary	Effective	Ineffective	Secondary	Effective	Ineffective
Education	28	2	Information / Knowledge	14	1
			Skills Building (general)	15	1
			Perception / Attitude	5	1
			Interpersonal Skills Training	9	1
			Condom-Use Skills Training	1	0
			Self-Efficacy	3	0
			Role-Playing	1	0
			Condom Promotion	2	0
			Service Promotion	6	0
			Motivational	2	0
Preventative Services	8	1	Needle / Syringe Exchange Program	1	0
			Condom Distribution Scheme	2	0
			Contact Tracing / Partner Notification	0	0
			Screening / Testing	6	1
Support	15	0	Counselling	8	0
			Peer Group Support	4	0
			Social Support	2	0
			Support Network	0	0
			Mentoring / Coaching	2	0
			Cognitive Therapy / CBT	3	0
			Helpline / Hotlines	0	0
			Case Management	0	0
			Community Support Group	0	0
			Family / Friends	1	0
Media	10	0	Mass Media	3	0
			Newspapers / Magazines	2	0
			Leaflets / Posters	1	0
			TV	0	0
			Radio	0	0
			Website / Internet	2	0
			Advertising	0	0
			Social Network Websites	1	0
			Texting	1	0
			Multi-Media	0	0
Bio Medical	4	3	Drug Treatment (ART)	1	0
			Opioid Substitution Therapy (OST)	1	1
			PrEP	0	0
			PEP	2	0

- The intervention sub-category (primary classification) seen to be most effective in male targeted interventions was education, followed by support, media and preventative services.

5.4 Female adult population

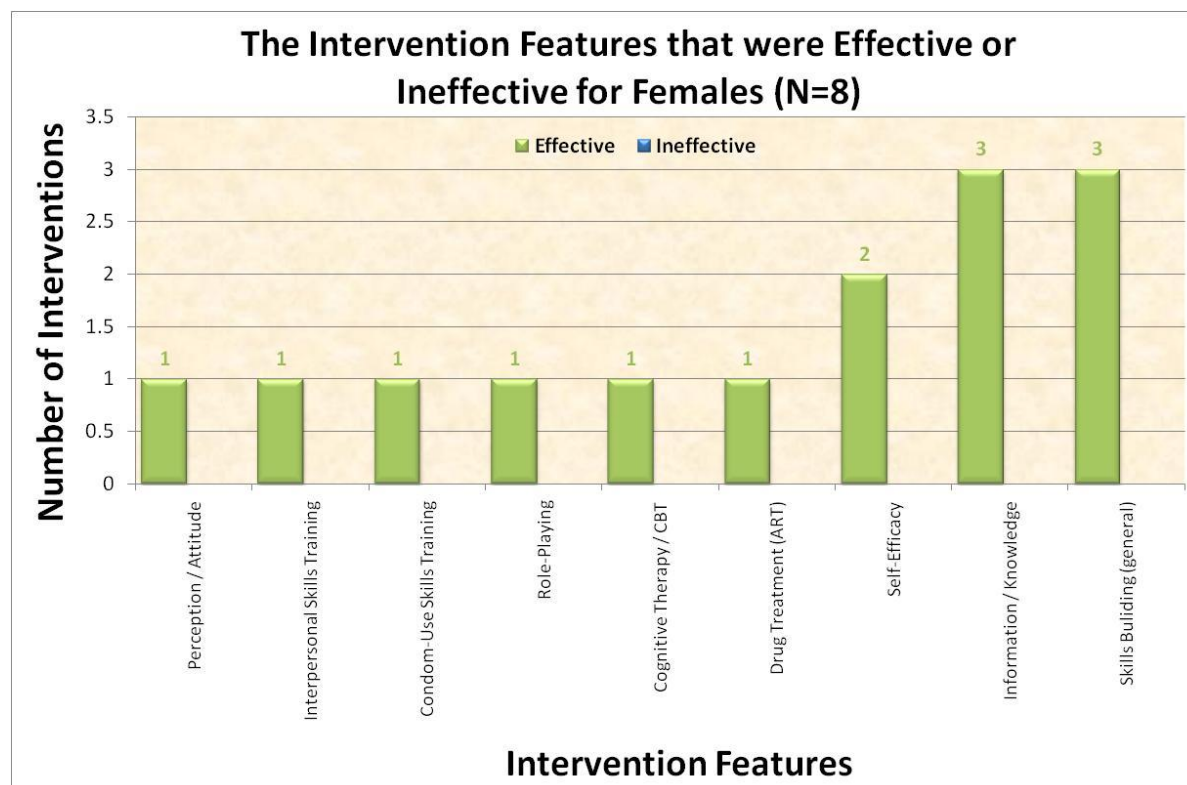
Interventions aimed at reducing STI transmission among the female adult population generally focused on wider determinants of sexual health, e.g. housing, socio-economic status and drug use. Logan and colleagues (2002)⁶

- Programmes with a targeted female ethnic groups were more effective than those without, however this may reflect the high numbers of minority ethnic group women in the evaluations of the reviewed studies
- HIV prevention programmes directed at women in drug-user services and within low income housing schemes had a significant effect on condom use
- STI clinic programmes identified a significant positive impact on the numbers of partners but not on condom use

Future programmes should address factors associated with greater risk of HIV infection for women, which include substance use, victimisation and mental health problems within a broader context and using individualised interventions.⁶

5.4.1 Interventions that were effective or ineffective for Females

- Across all reviews, intervention features most frequently occurring within successful interventions targeting women were: Information/ Knowledge, Skills building (general) and Interpersonal Skills Training.
- The intervention sub-category (primary classification) seen to be most effective in female targeted interventions was Education.



⁶ Logan, TK, Cole, Jennifer, Leukefeld, Carl - Women, sex, and HIV: Social and contextual factors, meta-analysis of published interventions, and implications for practice and research. - *Psychological Bulletin*, November 2002, vol./is. 128/6(851-885), 0033-2909;1939-1455 (Nov 2002) - 37561 - Source - Review of Systematic Reviews

- Across all reviews, the most frequently described effective female targeted interventions were: Skills building (general), Information/ Knowledge and self-efficacy.

The Intervention Features That Were Effective or Ineffective For - Females (N=8)					
Primary	Effective	Ineffective	Secondary	Effective	Ineffective
Education	6	0	Information / Knowledge	3	0
			Skills Building (general)	3	0
			Perception / Attitude	1	0
			Interpersonal Skills Training	1	0
			Condom-Use Skills Training	1	0
			Self-Efficacy	2	0
			Role-Playing	1	0
			Condom Promotion	0	0
			Service Promotion	0	0
			Motivational	0	0
Preventative Services	1	0	Needle / Syringe Exchange Program	0	0
			Condom Distribution Scheme	0	0
			Contact Tracing / Partner Notificaiton	0	0
			Screening / Testing	0	0
Support	2	0	Counselling	0	0
			Peer Group Support	0	0
			Social Support	0	0
			Support Network	0	0
			Mentoring / Coaching	0	0
			Cognitive Therapy / CBT	1	0
			Helpline / Hotlines	0	0
			Case Management	0	0
			Community Support Group	0	0
			Family / Friends	0	0
Media	1	0	Mass Media	0	0
			Newspapers / Magazines	0	0
			Leaflets / Posters	0	0
			TV	0	0
			Radio	0	0
			Website / Internet	0	0
			Advertising	0	0
			Social Network Websites	0	0
			Texting	0	0
			Multi-Media	0	0
Bio Medical	1	0	Drug Treatment (ART)	1	0
			Opioid Substitution Therapy (OST)	0	0
			PrEP	0	0
			PEP	0	0

- The intervention sub-categories (primary classifications) seen to be most effective in female targeted interventions were: Education and Support.

6. Interventions that specifically target MSM

6.1 Group Interventions that specifically target MSM

Evidence Statement	<ul style="list-style-type: none"> - There is evidence to support Group Interventions targeted at MSM - Behavioural interventions administered at group level appear to reduce risky sexual behaviour associated with HIV/ STI transmission. - Multiple intervention features impact efficacy of group interventions.
Evidence supports	<ul style="list-style-type: none"> ➤ Group-level work ➤ Multi-component group-level work ➤ Multiple sessions of group-level work ➤ Cost effectiveness of group-level interventions ➤ Greater effectiveness of group interventions that include Risk Reduction Education ➤ Greater effectiveness of group interventions that include Negotiation/ Communication Skills ➤ Greater effectiveness of group interventions that include Personal Skills (e.g. keeping condoms available, behavioural self-management) ➤ Greater effectiveness of group interventions that include Peer Support ➤ Greater effectiveness of group interventions that encourage Self Efficacy ➤ Greater effectiveness of small group interventions that focus on losses rather than gains ➤ Greater effectiveness of group interventions that include MSM minority populations ➤ Group behavioural interventions reduce risky sexual behaviour associated with HIV/ STI transmission. ➤ Increased condom use (2 MSM studies: OR=1.64 range 1.27-1.13 and OR=1.61 range 1.16-2.22) ➤ Decreased unprotected sex (4 meta-analysis, OR range= .65–.78)
	<ul style="list-style-type: none"> ➤
Comment	<ul style="list-style-type: none"> ❖ Group Interventions currently being Commissioned are supported by the evidence^{7,8,9, 10,11, 12,13,14}

⁷ Mustanski, Brian S, Newcomb, Michael E, Du Bois, Steve N, Garcia, Steve C, Grov, Christian - HIV in young men who have sex with men: A review of epidemiology, risk and protective factors, and interventions - *Journal of Sex Research*, March 2011, vol./is. 48/2-3(218-253), 0022-4499;1559-8519 (Mar 2011) - 40603 - Source - Review of Systematic Reviews

⁸ Herbst, Jeffrey H, Beeker, Carolyn, Mathew, Anita, McNally, Tarra, Passin, Warren F, Kay, Linda S, Crepaz, Nicole, Lyles, Cynthia M, Briss, Peter, Chattopadhyay, Sajal, Johnson, Robert L, Task Force on Community Preventive Services - The effectiveness of individual-, group-, and community-level HIV behavioral risk-reduction interventions for adult men who have sex with men: A systematic review. - *American Journal of Preventive Medicine*, April 2007, vol./is. 32/4, Suppl 1(S38-S67), 0749-3797 (Apr 2007) - 39173 - Source - Review of Systematic Reviews

⁹ Task Force on Community Preventive Services - Recommendations for use of behavioral interventions to reduce the risk of sexual transmission of HIV among men who have sex with men. - *American Journal of Preventive Medicine*, April 2007, vol./is. 32/4, Suppl 1(S36-S37), 0749-3797 (Apr 2007) - 39173 - Source - Review of Systematic Reviews

¹⁰ Lyles CM, Kay LS, Crepaz N, Herbst JH, Passin WF, Kim AS, Rama SM, Thadiparthi S, DeLuca JB, Mullins MM, HIV/AIDS Prevention Research Synthesis Team - Best-evidence interventions: findings from a systematic review of HIV behavioral interventions for US populations at high risk, 2000-2004. - *American Journal of Public Health*, January 2007, vol./is. 97/1(133-43), 0090-0036;1541-0048 (2007 Jan) - 39083 - Source - Review of Systematic Reviews

6.2 Education via Media targeted at MSM

Evidence Statement	- Only tentative review level evidence to support education via Media among MSM. The evidence that does exist on campaigns using media targeted at MSM is mixed and not of high quality.
Evidence supports:	<ul style="list-style-type: none"> ➤ Evidence on campaigns using specialist media targeted at MSM is mixed and not of high quality. ➤ Tentative review level evidence to support the effectiveness of mass media interventions in influencing the uptake of HIV VCT in MSM (Downing et al)¹⁵ ➤ There is some evidence that web-based campaigns may be a promising way of increasing HIV testing in high-risk MSM. (NICE)¹⁶ ➤ Internet is a potentially effective tool as it is cost effective and can be used to reach wider and less accessible populations Mustanski 2001.¹⁷ ➤ Evidence to support community-level interventions involving popular opinion leaders. (Downing et al) Popular people who endorse innovations (e.g., HIV risk reduction) can help to refine behavioural norms and standards. Herbst et al¹⁸
Comment	<p>❖ Education via media targeted at MSM has low evidence</p> <p><i>There is paucity of evidence to support MSM specific small media and magazines currently being commissioned. There is tentative review level evidence to support the effectiveness of mass media interventions.</i></p> <p><i>Only limited evidence to support website/internet based media however with newer technologies there is inevitably a lag time for quality evidence studies to be included in systematic reviews.</i></p> <p><i>Education via the Media Interventions currently commissioned are not supported by the evidence.</i></p>

6.3 Counselling (including CBT & Mentoring) targeted at MSM

Evidence Statement	- There is evidence to support Counselling & CBT ^{19,20} Interventions targeted at MSM
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¹¹ Johnson WD, Holtgrave DR, McClellan WM, Flanders WD, Hill AN, Goodman M - HIV intervention research for men who have sex with men: a 7-year update. - *AIDS Education & Prevention*, December 2005, vol./is. 17/6(568-89), 0899-9546;0899-9546 (2005 Dec) - 38687 - Source - Review of Systematic Reviews

¹² Herbst JH, Sherba RT, Crepaz N, DeLuca JB, Zohrabyan L, Stall RD, Lyles CM, HIV/AIDS Prevention Research Synthesis Team - A meta-analytic review of HIV behavioral interventions for reducing sexual risk behavior of men who have sex with men. - *Journal of Acquired Immune Deficiency Syndromes: JAIDS*, June 2005, vol./is. 39/2(228-41), 1525-4135;1525-4135 (2005 Jun 1) - 38504 - Source - Review of Systematic Reviews

¹³ Jennifer Downing, Lisa Jones, Penny A. Cook, and Mark A. Bellis - HIV prevention: a review of reviews assessing the effectiveness of interventions to reduce the risk of sexual transmission: Evidence Briefing Update 2006 - 38718 - Source - Review of Systematic Reviews

¹⁴ Johnson WD, Diaz RM, Flanders WD, Goodman M, Hill AN, Holtgrave D, Malow R, McClellan WM - Behavioral interventions to reduce risk for sexual transmission of HIV among men who have sex with men. - *Cochrane Database of Systematic Reviews*, 2008, vol./is. /3(CD001230), 1361-6137;1469-493X (2008) - 39448 - Source - Review of Systematic Reviews

¹⁵ Jennifer Downing, Lisa Jones, Penny A. Cook, and Mark A. Bellis - HIV prevention: a review of reviews assessing the effectiveness of interventions to reduce the risk of sexual transmission: Evidence Briefing Update 2006 - 38718 - Source - Review of Systematic Reviews

¹⁶ "Theo Lorenc, Isaac Marrero, Alexis Llewellyn, Chris Cooper, Angela Lehmann, Catriona Lindsay, Peter Aggleton - NICE: Preventing and reducing HIV transmission among men who have sex with men (MSM): interventions to increase the uptake of HIV testing

¹⁷ 17 Mustanski, Brian S, Newcomb, Michael E, Du Bois, Steve N, Garcia, Steve C, Grov, Christian - HIV in young men who have sex with men: A review of epidemiology, risk and protective factors, and interventions - *Journal of Sex Research*, March 2011, vol./is. 48/2-3(218-253), 0022-4499;1559-8519 (Mar 2011) - 40603 - Source - Review of Systematic Reviews

¹⁸ Herbst JH, Sherba RT, Crepaz N, DeLuca JB, Zohrabyan L, Stall RD, Lyles CM, HIV/AIDS Prevention Research Synthesis Team - A meta-analytic review of HIV behavioral interventions for reducing sexual risk behavior of men who have sex with men. - *Journal of Acquired Immune Deficiency Syndromes: JAIDS*, June 2005, vol./is. 39/2(228-41), 1525-4135;1525-4135 (2005 Jun 1) - 38504 - Source - Review of Systematic Reviews

¹⁹ Lyles CM, Kay LS, Crepaz N, Herbst JH, Passin WF, Kim AS, Rama SM, Thadiparthi S, DeLuca JB, Mullins MM, HIV/AIDS Prevention Research Synthesis Team - Best-evidence interventions: findings from a systematic review of HIV behavioral interventions for US

Evidence supports:	<ul style="list-style-type: none"> ➤ Small-group & individual-level interventions that address perception of risk & losses ('unsafe sex puts you at risk') rather than gains ('safer sex protects you') (Johnson et al.)²¹ ➤ Review-level evidence to suggest HIV prevention interventions can be cost-effective and cost-saving when aimed at MSM (Downing et al). ➤ Effectiveness of cognitive behavioural individual-level interventions; cognitive-behavioural group work focusing upon risk education (Downing et al)²²
Comment	<ul style="list-style-type: none"> ❖ Counselling & CBT Interventions currently being Commissioned are supported by the evidence ❖ There is a paucity of evidence to support mentoring for MSM ❖ No evidence was identified in the systematic reviews to support MSM targeted telephone support <p><i>Focus on interventions addressing risk education/ losses rather than gains.</i></p>

6.4 Condom Distribution targeted at MSM

Evidence Statement	- There is Insufficient review-level evidence to support or reject condom promotion and distribution approaches targeted at MSM
Evidence supports:	➤ There is a paucity of systematic review evidence to support Condom Distribution targeted at MSM.
Comment	<ul style="list-style-type: none"> ❖ There is a paucity of systematic review evidence to support Condom Distribution specifically among MSM in a UK setting ❖ The Condom Distribution Interventions targeted at MSM currently being Commissioned are supported by the grey literature evidence <p><i>Grey evidence indicates that condom distribution plays an important role in sexual health improvement but further evaluations of existing schemes targeting MSM are required in UK.</i></p> <p><i>Consider factors associated with more successful condom distribution programmes aimed at general population: link to promotional activities, offer condoms free, link to broader skills training/education programmes, connected with community mobilisation and parents when targeting young people.</i></p>

populations at high risk, 2000-2004. - American Journal of Public Health, January 2007, vol./is. 97/1(133-43), 0090-0036;1541-0048 (2007 Jan) - 39083 - Source - Review of Systematic Reviews

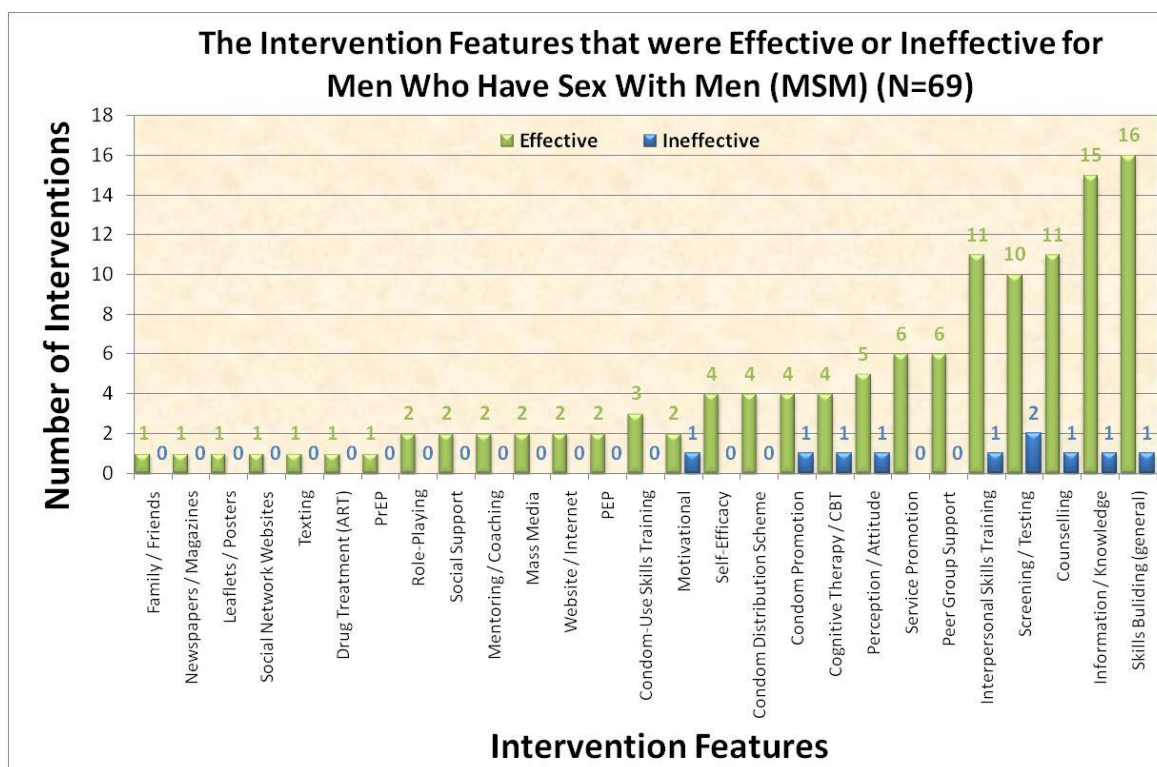
20 Rees R, Kavanagh J, Burchett H, Shepherd J, Brunton G, Harden A, Thomas J, Oliver S, Oakley A (2004) HIV Health promotion and men who have sex with men (MSM): a systematic review of research relevant to the development and implementation of effective and - 37987 - Source - Review of Systematic Reviews

21 Johnson WD, Diaz RM, Flanders WD, Goodman M, Hill AN, Holtgrave D, Malow R, McClellan WM - Behavioral interventions to reduce risk for sexual transmission of HIV among men who have sex with men. - Cochrane Database of Systematic Reviews, 2008, vol./is. /3(CD001230), 1361-6137;1469-493X (2008) - 39448 - Source - Review of Systematic Reviews

22 Jennifer Downing, Lisa Jones, Penny A. Cook, and Mark A. Bellis - HIV prevention: a review of reviews assessing the effectiveness of interventions to reduce the risk of sexual transmission: Evidence Briefing Update 2006 - 38718 - Source - Review of Systematic Reviews

6.5 NICE Guidance – recommendations to increase uptake of HIV testing among MSM

<p>❖</p> <p>Evidence Statement</p>	<ul style="list-style-type: none"> - NICE Guidance -Increasing the uptake of HIV testing among men who have sex with men - http://www.nice.org.uk/guidance/PH34
<p>NICE Evidence supports the following recommendations</p>	<ul style="list-style-type: none"> ❖ Planning services – assessing local need and developing a strategy ❖ Promoting HIV testing among men who have sex with men ❖ Specialist sexual health services: offering and recommending an HIV test ❖ Primary and secondary care: offering and recommending an HIV test ❖ Outreach: providing rapid point-of-care tests ❖ Repeat testing ❖ HIV referral pathways
<p>Level of evidence</p>	<ul style="list-style-type: none"> ❖ “The absence of recommendations on any particular activities in this NICE guidance is a result of a lack of evidence that could be included in the evidence reviews. It does not reflect a judgement on the effectiveness or cost effectiveness of such interventions.”NICE
<p>Comment</p>	<p><i>The Guidance is designed for NHS and other commissioners, managers and practitioners who have a direct or indirect role in, and responsibility for, increasing the uptake of HIV testing among men who have sex with men. This includes those working in local authorities and the wider public, private, voluntary and community sectors. It will also be of interest to members of the public, in particular men who have sex with men.</i></p>



- Across all reviews, the most frequently described effective interventions targeted at MSM groups and individuals were: information/knowledge, testing/ screening, interpersonal skills training, skills building (general), counselling, peer support and service promotion.



The Intervention Features That Were Effective or Ineffective For - Men Who Have Sex With Men (N=69)					
Primary	Effective	Ineffective	Secondary	Effective	Ineffective
Education	28	3	Information / Knowledge	15	1
			Skills Building (general)	16	1
			Perception / Attitude	5	1
			Interpersonal Skills Training	11	1
			Condom-Use Skills Training	3	0
			Self-Efficacy	4	0
			Role-Playing	2	0
			Condom Promotion	4	1
			Service Promotion	6	0
			Motivational	2	1
Preventative Services	12	3	Needle / Syringe Exchange Program	0	0
			Condom Distribution Scheme	4	0
			Contact Tracing / Partner Notification	0	0
Support	19	1	Screening / Testing	10	2
			Counselling	11	1
			Peer Group Support	6	0
			Social Support	2	0
			Support Network	0	0
			Mentoring / Coaching	2	0
			Cognitive Therapy / CBT	4	1
			Helpline / Hotlines	0	0
			Case Management	0	0
			Community Support Group	0	0
Family / Friends	1	0			
Media	8	0	Mass Media	2	0
			Newspapers / Magazines	1	0
			Leaflets / Posters	1	0
			TV	0	0
			Radio	0	0
			Website / Internet	2	0
			Advertising	0	0
			Social Network Websites	1	0
			Texting	1	0
			Multi-Media	0	0
Bio Medical	4	1	Drug Treatment (ART)	1	0
			Opioid Substitution Therapy (OST)	0	0
			PrEP	1	0
			PEP	2	0

- The intervention sub-category (primary classification) seen to be most effective in MSM targeted interventions was Education, followed by Support and then Preventative Services.

6.6 What basis is there to prioritise particular interventions targeted at MSM within the programme?

MSM Summary:

MSM Review-level Evidence Supports Interventions that include:

- Individual, Group & Community level setting
- Counselling
- CBT
- Risk reduction education
- Interpersonal skills training (Negotiation/communication skills)
- Personal skills
- Peer support
- Self efficacy
- Interventions targeting minority MSM groups
- Interventions focusing on younger populations
- Group and Community level interventions found to be cost effective
- Importance of adapting behavioural interventions to needs & resources of community
- Theory based interventions
- Multiple delivery methods
- Multiple sessions

There is a Lack of MSM Review-level Evidence to Support:

- Education via Media
- Telephone Support
- Mentoring
- Condom Distribution

Two areas currently not being commissioned for MSM where there is a good evidence base of effectiveness:

- Individual & Community level interventions
- Interventions targeting MSM minority groups: HIV positive MSM, Young MSM, (YMSM), MSM who do not openly identify as gay and black MSM

Evidence Based Recommendations:

- ***Continue to commission group-level interventions for MSM that include evidence based intervention features (listed above).***
- ***Continue to commission counselling and CBT interventions.***
- ***Potential for diversification of intervention delivery methods to include individual and community level interventions as well as the group level intervention delivery.***
- ***Expansion of services currently commissioned to include focus on MSM minority groups such as HIV positive MSM, Young MSM (YMSM), MSM who do not openly identify as gay and black MSM.***
- ***Consider whether interventions currently commissioned that are not supported by review level evidence impact positively on local MSM populations and should be re-commissioned.***
-

7. Interventions that specifically target African communities

Black African and Black Caribbean communities are amongst those who are at ‘highest risk’ of STIs.

In England, of all other ethnic groups, Black Africans are at greatest risk of HIV, the majority of whom will have acquired their infection heterosexually, in Africa.

7.1 Mass Media

Evidence Statement	- There is a paucity of evidence to support mass media interventions targeted at African communities
Evidence supports:	- <i>Paucity of review level evidence to support mass media targeted at African communities.</i> ²³
Comment	❖ Mass Media Interventions currently being Commissioned are not supported by the evidence
	❖ With newer technologies and there is inevitable a lag time for quality evidence studies to be include in systematic reviews. <i>Consider carefully whether mass media interventions are the most effective way of increasing knowledge about HIV and the uptake of HIV testing.</i>

7.2 Condom distribution

Evidence Statement	- There is limited evidence to support condom distribution interventions targeted at African communities. ^{24, 25}
Evidence supports:	- Paucity of review level evidence to support condom distribution targeted at African communities.
Comment	❖ The Condom Distribution Interventions currently being Commissioned are supported by evidence relating to general populations
	<i>Consider carefully how Condom Distribution interventions are implemented in BME groups.</i>

²³ Ross DA - Behavioural interventions to reduce HIV risk: what works? - AIDS, October 2010, vol./is. 24 Suppl 4/(S4-14), 0269-9370;1473-5571 (2010 Oct) - 40452 - Source - Review of Systematic Reviews

²⁴ Johnson BT, Scott-Sheldon LA, Smoak ND, Lacroix JM, Anderson JR, Carey MP - Behavioral interventions for African Americans to reduce sexual risk of HIV: a meta-analysis of randomized controlled trials. - Journal of Acquired Immune Deficiency Syndromes: JAIDS, August 2009, vol./is. 51/4(492-501), 1525-4135;1525-4135 (2009 Aug 1) - 40026 - Source - Review of Systematic Reviews

²⁵ Smoak, Natalie D, Scott-Sheldon, Lori A.J, Johnson, Blair T, Carey, Michael P, SHARP Research Team - Sexual Risk Reduction Interventions Do Not Inadvertently Increase the Overall Frequency of Sexual Behavior: A Meta-analysis of 174 Studies With 116,735 Participants. - JAIDS Journal of Acquired Immune Deficiency Syndromes, March 2006, vol./is. 41/3(374-384), 1525-4135;1077-9450 (Mar 2006) - 38777 - Source - Review of Systematic Reviews

7.3 Small Media Interventions

Evidence Statement	<ul style="list-style-type: none"> - No systematic reviews described website interventions, Banner or Radio advertisements targeted at African groups - There is no evidence in the systematic reviews identified to support Small Media Interventions targeted at African Communities
Evidence supports:	<ul style="list-style-type: none"> ➤ - Paucity of review level evidence to support small media targeted at African communities.
Comment	<ul style="list-style-type: none"> ❖ The Small Media Interventions currently being Commissioned are not supported by the evidence ❖ With newer technologies there is inevitable a lag time for quality evidence studies to included in systematic reviews. <p><i>Consider carefully whether small media interventions are appropriately designed and targeted at BME in London. Some Websites are designed to promote effective HIV Interventions and programs see the Website described below.</i></p>

7.4 NICE HIV Testing Guidelines –

Evidence Statement	<ul style="list-style-type: none"> - NICE has recently published detailed guidance to increase the uptake of HIV testing to reduce undiagnosed infection and prevent transmission among black African communities living in England.
Evidence supports:	<ul style="list-style-type: none"> ➤ Community engagement and involvement ➤ Planning services – assessing local need ➤ Planning services – developing a strategy and commissioning services in areas of identified need ➤ Promoting HIV testing for black African communities ➤ Reducing barriers to HIV testing for black African communities ➤ Healthcare settings: offering and recommending an HIV test ➤ HIV referral pathways - Ensure there are clear referral pathways for people with positive and negative HIV test results. <p>http://www.nice.org.uk/nicemedia/live/13417/53595/53595.pdf</p>
Comment	<p><i>Commissioners should consider prioritising interventions to increase the uptake of HIV testing among black African communities living in England This guidance represents the views of NICE and was arrived at after careful consideration of the evidence available. Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to avoid unlawful discrimination and to have regard to promoting equality of opportunity. Nothing in this guidance should be interpreted in a way which would be inconsistent with compliance with those duties.</i></p>

7.5 Knowledge – Health Promotion Interventions

Evidence Statement	<ul style="list-style-type: none"> - Evidence supports Health Promotion HIV risk reduction interventions targeted at African Communities. 26,27,28,29,30,31,32, 33 - Interventions that specifically target African females using gender- or culture-specific materials and female deliverers are recommended - Specific features were identified which frequently occurred within successful interventions
Evidence supports:	<ul style="list-style-type: none"> - There is evidence to support Health Promotion HIV risk reduction interventions targeted at African Communities. - Interventions that are designed specifically targeted at African females using gender- or culture-specific materials and female deliverers are recommended - Across all reviews, intervention features most frequently occurring within successful interventions targeting people of black ethnic origin were: information/knowledge, skills building (general) and interpersonal skills training, testing and use of magazines to inform.
Comment	<ul style="list-style-type: none"> ❖ The Knowledge / Health Promotion Interventions currently being Commissioned are supported by the limited evidence that exists ❖ Culture specific materials to support the health promotion interventions are recommended <p>Consider carefully whether given the cultural differences to the UK's African populations (compared to US) some findings may not be transferable to the UK's African population.</p>

²⁶ Johnson BT, Scott-Sheldon LA, Huedo-Medina TB, Carey MP - Interventions to reduce sexual risk for human immunodeficiency virus in adolescents: a meta-analysis of trials, 1985-2008. - Archives of Pediatrics & Adolescent Medicine, January 2011, vol./is. 165/1(77-84), 1072-4710;1538-3628 (2011 Jan) - 40544 - Source - Review of Systematic Reviews

²⁷ Ross DA - Behavioural interventions to reduce HIV risk: what works? - AIDS, October 2010, vol./is. 24 Suppl 4/(S4-14), 0269-9370;1473-5571 (2010 Oct) - 40452 - Source - Review of Systematic Reviews

²⁸ Crepaz N, Marshall KJ, Aupont LW, Jacobs ED, Mizuno Y, Kay LS, Jones P, McCree DH, O'Leary A - The efficacy of HIV/STI behavioral interventions for African American females in the United States: a meta-analysis. - American Journal of Public Health, November 2009, vol./is. 99/11(2069-78), 0090-0036;1541-0048 (2009 Nov) - 40118 - Source - Review of Systematic Reviews

²⁹ Johnson BT, Scott-Sheldon LA, Smoak ND, Lacroix JM, Anderson JR, Carey MP - Behavioral interventions for African Americans to reduce sexual risk of HIV: a meta-analysis of randomized controlled trials. - Journal of Acquired Immune Deficiency Syndromes: JAIDS, August 2009, vol./is. 51/4(492-501), 1525-4135;1525-4135 (2009 Aug 1) - 40026 - Source - Review of Systematic Reviews

30 Prost A, Elford J, Imrie J, Petticrew M, Hart GJ - Social, behavioural, and intervention research among people of Sub-Saharan African origin living with HIV in the UK and Europe: literature review and recommendations for intervention. - AIDS & Behavior, March 2008, vol./is. 12/2(170-94), 1090-7165;1090-7165 (2008 Mar) - 39508 - Source - Review of Systematic Reviews

³¹ Smoak, Natalie D, Scott-Sheldon, Lori A.J, Johnson, Blair T, Carey, Michael P, SHARP Research Team - Sexual Risk Reduction Interventions Do Not Inadvertently Increase the Overall Frequency of Sexual Behavior: A Meta-analysis of 174 Studies With 116,735 Participants. - JAIDS Journal of Acquired Immune Deficiency Syndromes, March 2006, vol./is. 41/3(374-384), 1525-4135;1077-9450 (Mar 2006) - 38777 - Source - Review of Systematic Reviews

³² Mize SJ, Robinson BE, Bocking WO, Scheltema KE - Meta-analysis of the effectiveness of HIV prevention interventions for women. - AIDS Care, April 2002, vol./is. 14/2(163-80), 0954-0121;0954-0121 (2002 Apr) - 37347 - Source - Review of Systematic Reviews

³³ Jennifer Downing, Lisa Jones, Penny A. Cook, and Mark A. Bellis - HIV prevention: a review of reviews assessing the effectiveness of interventions to reduce the risk of sexual transmission: Evidence Briefing Update 2006 - 38718 - Source - Review of Systematic Reviews

7.6 Review of the effectiveness of behavioural interventions with Africans living in the UK and Europe.

Evidence Statement	<ul style="list-style-type: none"> - There is limited local literature to support Health Promotion HIV risk reduction interventions targeted at African Communities
Evidence supports:	<p>A review commissioned by Local authorities in UK was published in 2008 by Prost et al.³⁴, focused on evidence from the UK and Europe. This included a review of the effectiveness of behavioural interventions with Africans living in the UK and Europe. The authors were unable to draw any evidence points from the available literature due to methodological limitations. Although intervention outcomes were not addressed the following recommendations were made.</p> <ul style="list-style-type: none"> ➤ Comprehensive preparatory research, community involvement, and the use of findings from sexual health ‘needs and attitudes’ surveys can help guide the development, piloting, and evaluation of interventions to ensure their sustainability. ➤ Involving community-based organisations and informal African networks remains the key to designing effective interventions with Africans living with HIV. ➤
Comment	<p><i>The learning that did emerge from the broader review of the grey literature could be useful in directing future work: voluntary counselling and testing (VCT) remains the most effective method of reducing high levels of undiagnosed HIV infection and promotion should continue; interventions must be culturally acceptable; HIV prevention initiatives should focus on young people, heterosexual African men and African MSM; secondary prevention programmes must work towards understanding and meeting the psychosocial needs of African parents and children; primary care practitioners must be involved in distribution of HIV prevention materials and carrying out HIV testing; given that poverty remains the overriding issue of Africans living with HIV in Europe, interventions that encourage entry into the workforce are a priority.</i></p>

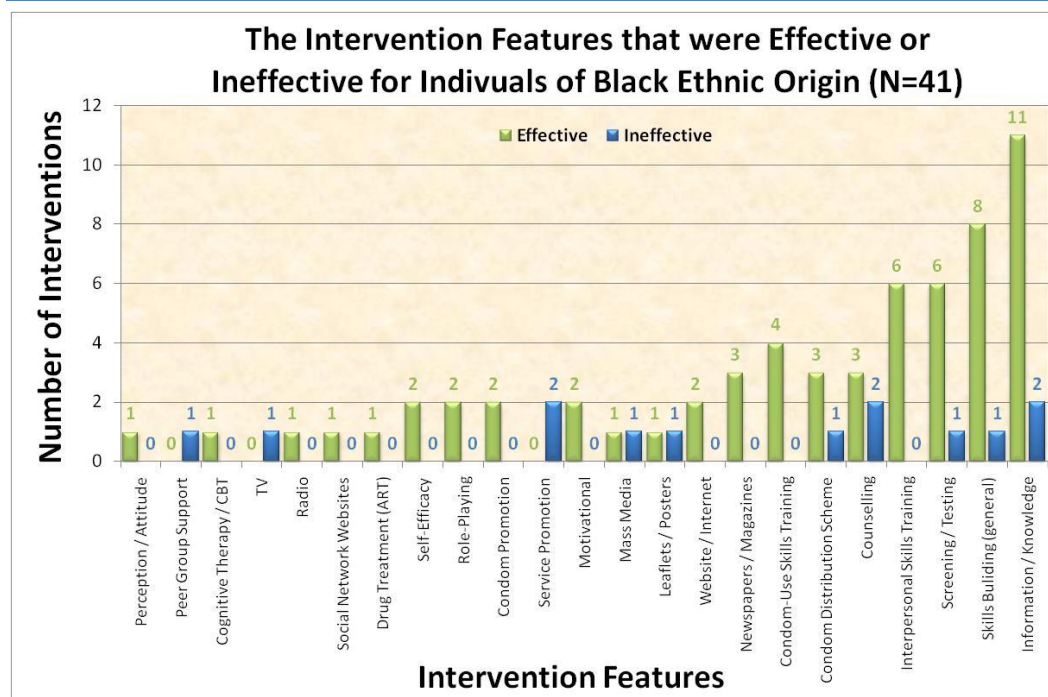
³⁴ Prost A, Elford J, Imrie J, Petticrew M, Hart GJ - Social, behavioural, and intervention research among people of Sub-Saharan African origin living with HIV in the UK and Europe: literature review and recommendations for intervention. - AIDS & Behavior, March 2008, vol./is. 12/2(170-94), 1090-7165;1090-7165 (2008 Mar) - 39508 - Source - Review of Systematic Reviews

7.7 If there is a clear & sound rationale for the prevention activity commissioned at a Pan London rather than local level?

Evidence Statement	❖ Targeting interventions at different black communities that include culture specific materials to support the health promotion interventions are recommended by the review.
Evidence supports:	➤ Targeting interventions at different black communities that include culture specific materials to support the health promotion interventions ³⁵
Comment	<p>❖ Targeting interventions at different black communities that include culture specific materials to support the health promotion interventions are recommended by the review.</p> <p>❖ The debate for commissioners will be whether these materials will be commissioned to be developed locally or developed for black groups from different ethnic origins on a Pan London basis.</p>

³⁵ Crepaz N, Marshall KJ, Aupont LW, Jacobs ED, Mizuno Y, Kay LS, Jones P, McCree DH, O'Leary A - The efficacy of HIV/STI behavioral interventions for African American females in the United States: a meta-analysis. - American Journal of Public Health, November 2009, vol./is. 99/11(2069-78), 0090-0036;1541-0048 (2009 Nov) - 40118 - Source - Review of Systematic Reviews

7.8 Interventions that were effective or ineffective for Individuals of Black Ethnic Origin



- Across all reviews, the most frequently described effective interventions targeted at people of black ethnic origin were: information/ knowledge, skills building, screening/testing, and interpersonal skills training counselling, condom distribution and use of magazines to inform.

The Intervention Features That Were Effective or Ineffective For - Individuals of Black Ethnic Origin (N=41)					
Primary	Effective	Ineffective	Secondary	Effective	Ineffective
Education	12	3	Information / Knowledge	11	2
			Skills Building (general)	8	1
			Perception / Attitude	1	0
			Interpersonal Skills Training	6	0
			Condom-Use Skills Training	4	0
			Self-Efficacy	2	0
			Role-Playing	2	0
			Condom Promotion	2	0
			Service Promotion	0	2
			Motivational	2	0
Preventative Services	7	3	Needle / Syringe Exchange Program	0	0
			Condom Distribution Scheme	3	1
			Contact Tracing / Partner Notification	0	0
Support	5	2	Screening / Testing	6	1
			Counselling	3	2
			Peer Group Support	0	1
			Social Support	0	0
			Support Network	0	0
			Mentoring / Coaching	0	0
			Cognitive Therapy / CBT	1	0
			Helpline / Hotlines	0	0
			Case Management	0	0
			Community Support Group	0	0
Family / Friends	0	0			
Media	4	2	Mass Media	1	1
			Newspapers / Magazines	3	0
			Leaflets / Posters	1	1
			TV	0	1
			Radio	1	0
			Website / Internet	2	0
			Advertising	0	0
			Social Network Websites	1	0
			Texting	0	0
			Multi-Media	0	0
Bio Medical	1	1	Drug Treatment (ART)	1	0
			Opioid Substitution Therapy (OST)	0	0
			PrEP	0	0
			PEP	0	0

- The intervention sub-category (primary classification) seen to be most effective in interventions targeting people of black ethnic origin was Education, followed by Preventative Services and Media.

7.9 African Communities Summary:

Review-level Evidence Supports Interventions for African Communities that:

- Specifically targeted African American females, MSM, HIV positives
- Used gender- or culture-specific materials
- Used female deliverers for female groups
- Include Knowledge / Health Promotion for female groups
- Addressed empowerment issues for female groups
- Provided skills training in condom use and negotiation of safer sex for female groups
- Used role-playing to teach negotiation skills for female groups
- Provided intensive content across multiple sessions
- Provided intensive interpersonal skills training
- HIV Testing

Grey Literature Supports:

- Voluntary counselling and testing (VCT)
- Focus on young people, heterosexual African men and African MSM
- Secondary prevention programmes meet psychosocial needs of African parents & children
- Primary care practitioners distributing HIV prevention materials & carrying out HIV Testing
- Interventions that encourage entry into the workforce (to combat poverty)

There is a Lack of Review-level Evidence to Support Interventions for African Communities:

- Mass Media
- Small Media
- Condom Distribution

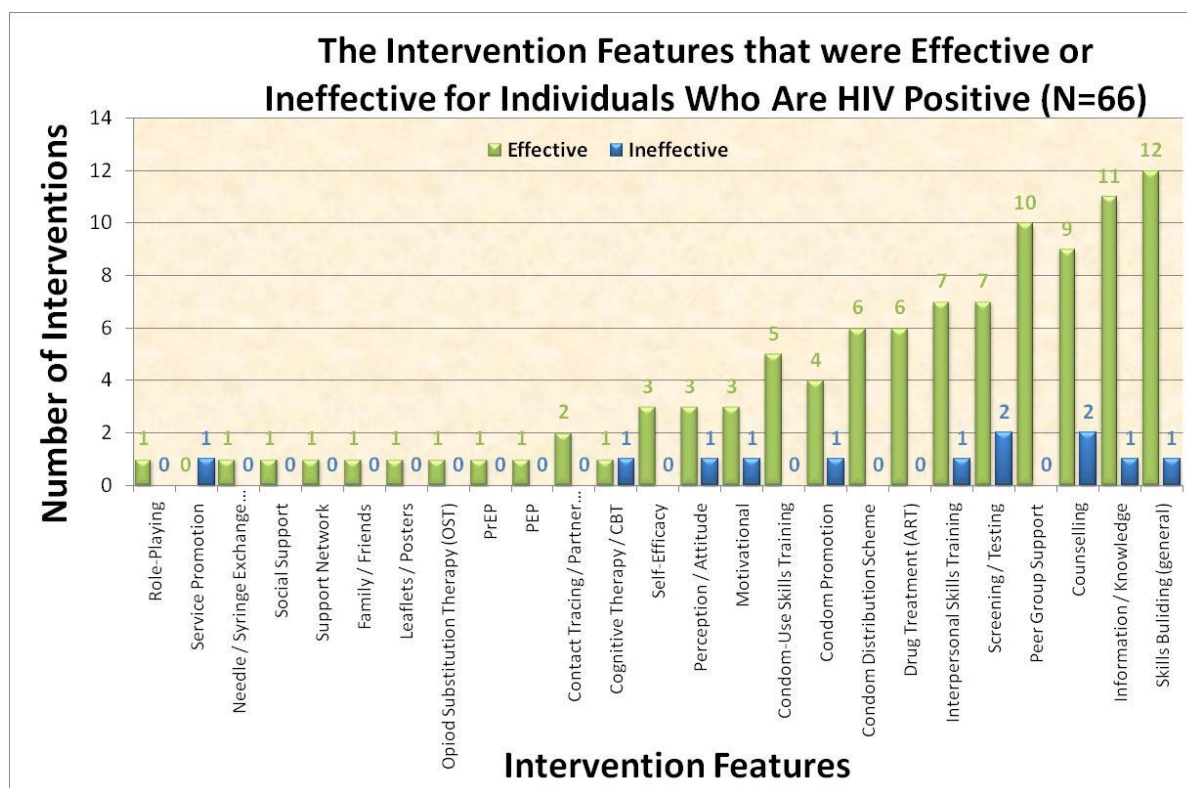
Evidence Based Recommendations:

- Continue to commission Knowledge- Health Promotion Interventions, include features supported by evidence as listed above
- Continue to commission HIV Testing (NICE guidance)
 - Expansion of services currently commissioned to include focus on BME minority groups
- Consider whether interventions currently commissioned that are not supported by review level evidence impact positively on local BME populations and should be re-commissioned.

8. Interventions for People Living with HIV

Evidence Statement	<ul style="list-style-type: none"> - There is tentative review-level evidence to support the effectiveness of behavioural interventions in increasing condom use and decreasing unprotected sex and STI acquisition³⁶ - There is tentative review-level evidence to support partner notification in influencing the sexual risk behaviours of people living with HIV
Evidence supports:	<ul style="list-style-type: none"> - Behavioural intervention increase condom use and decreasing unprotected sex and STI acquisition - Partner notification influences the sexual risk behaviours of people living with HIV
Comment	<p>Commissioners should consider prioritising interventions that include behavioural interventions and partner notification.</p> <p>Involving community-based organisations and informal African networks remains the key to designing effective interventions for Africans living with HIV.</p>

8.1 Review Evidence for people living with HIV



³⁶ Deirdre Fullerton, Elizabeth Burtney - NHS Health Scotland: An overview of the effectiveness of sexual health improvement interventions FINAL REPORT - 40330 - Source Grey Literature

Across all reviews, the most frequently described effective interventions targeted at HIV Positives were: Skills building (general) Information/ Knowledge, peer group support, screening interpersonal skills training, ART and condom- distribution /skills training / promotion.



The Intervention Features That Were Effective or Ineffective For - Individuals Who Are HIV Positive (N=66)					
Primary	Effective	Ineffective	Secondary	Effective	Ineffective
Education	17	3	Information / Knowledge	11	1
			Skills Building (general)	12	1
			Perception / Attitude	3	1
			Interpersonal Skills Training	7	1
			Condom-Use Skills Training	5	0
			Self-Efficacy	3	0
			Role-Playing	1	0
			Condom Promotion	4	1
			Service Promotion	0	1
			Motivational	3	1
Preventative Services	12	3	Needle / Syringe Exchange Program	1	0
			Condom Distribution Scheme	6	0
			Contact Tracing / Partner Notificaiton	2	0
			Screening / Testing	7	2
Support	16	2	Counselling	9	2
			Peer Group Support	10	0
			Social Support	1	0
			Support Network	1	0
			Mentoring / Coaching	0	0
			Cognitive Therapy / CBT	1	1
			Helpline / Hotlines	0	0
			Case Management	0	0
			Community Support Group	0	0
			Family / Friends	1	0
Media	2	0	Mass Media	0	0
			Newspapers / Magazines	0	0
			Leaflets / Posters	1	0
			TV	0	0
			Radio	0	0
			Website / Internet	0	0
			Advertising	0	0
			Social Network Websites	0	0
			Texting	0	0
Multi-Media	0	0			
Bio Medical	9	0	Drug Treatment (ART)	6	0
			Opioid Substitution Therapy (OST)	1	0
			PrEP	1	0
			PEP	1	0

- The intervention sub-category (primary classification) seen to be most effective in HIV Positive targeted interventions was Education, followed by Support and Preventative Services.

9. Evidence to Support HIV Prevention Interventions that target Injection Drug Users (IDUs)

The majority are US based studies targeted either Young People (12-25 yrs) or Adults (20-64 yrs). They are often inclusive of MSM, HIV Positives or Ethnicity: Black.^{37,38, 39,40,41, 42,43, 44, 45}

Intervention outcomes

- Reduced injection drug use (IDU)
- Reduced non-IDU
- Increased drug treatment entry
- Increased condom use
- Reduced trading sex for drugs/ money
- Number of sexual partners

Features of successful behavioural interventions

- Addressing sex-related risk behaviours
- Addressing injection-related risk behaviours
- Focus on both sexual and drug related risk behaviours in equal measure
- Include behavioural skills components
- Include interpersonal skills training specific for safer needle use
- Included non- Caucasians
- Two facilitators used instead of one

³⁷ Wagner KD, Unger JB, Bluthenthal RN, Andreeva VA, Pentz MA - Cognitive behavioral theories used to explain injection risk behavior among injection drug users: a review and suggestions for the integration of cognitive and environmental models. - *Education & Behavior*, August 2010, vol./is. 37/4(504-32), 1090-1981;1552-6127 (2010 Aug) - 40391 - Source - Review of Systematic Reviews
38 Mathers BM, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick RP, Myers B, Ambekar A, Strathdee SA, 2009 Reference Group to the UN on HIV and Injecting Drug Use - HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. - *Lancet*, March 2010, vol./is. 375/9719(1014-28), 0140-6736;1474-547X (2010 Mar 20) - 40238 - Source - Review of Systematic Reviews

³⁹ Johnson BT, Scott-Sheldon LA, Smoak ND, Lacroix JM, Anderson JR, Carey MP - Behavioral interventions for African Americans to reduce sexual risk of HIV: a meta-analysis of randomized controlled trials. - *Journal of Acquired Immune Deficiency Syndromes: AIDS*, August 2009, vol./is. 51/4(492-501), 1525-4135;1525-4135 (2009 Aug 1) - 40026 - Source - Review of Systematic Reviews

40 Noar SM - Behavioral interventions to reduce HIV-related sexual risk behavior: review and synthesis of meta-analytic evidence. - *AIDS & Behavior*, May 2008, vol./is. 12/3(335-53), 1090-7165;1090-7165 (2008 May) - 39569 - Source - Review of Systematic Reviews

⁴¹ Lyles CM, Kay LS, Crepaz N, Herbst JH, Passin WF, Kim AS, Rama SM, Thadiparthi S, DeLuca JB, Mullins MM, HIV/AIDS Prevention Research Synthesis Team - Best-evidence interventions: findings from a systematic review of HIV behavioral interventions for US populations at high risk, 2000-2004. - *American Journal of Public Health*, January 2007, vol./is. 97/1(133-43), 0090-0036;1541-0048 (2007 Jan) - 39083 - Source - Review of Systematic Reviews

⁴² Copenhagen MM, Johnson BT, Lee IC, Harman JJ, Carey MP, SHARP Research Team - Behavioral HIV risk reduction among people who inject drugs: meta-analytic evidence of efficacy. - *Journal of Substance Abuse Treatment*, September 2006, vol./is. 31/2(163-71), 0740-5472;0740-5472 (2006 Sep) - 38961 - Source - Review of Systematic Reviews

⁴³ Strathdee, Steffanie A, Patterson, Thomas L - Behavioral Interventions for HIV-Positive and HCV-Positive Drug users. - *AIDS and Behavior*, March 2006, vol./is. 10/2(115-130), 1090-7165;1573-3254 (Mar 2006) - 38777 - Source - Review of Systematic Reviews

44 Semaan S, Des Jarlais DC, Sogolow E, Johnson WD, Hedges LV, Ramirez G, Flores SA, Norman L, Sweat MD, Needle R - A meta-analysis of the effect of HIV prevention interventions on the sex behaviors of drug users in the United States. - *Journal of Acquired Immune Deficiency Syndromes: AIDS*, July 2002, vol./is. 30 Suppl 1/(S73-93), 1525-4135;1525-4135 (2002 Jul 1) - 37438 - Source Grey Literature

⁴⁵ Linda R. Gowing, Michael Farrell, Reinhard Bornemann, Lynn E. Sullivan, Robert L. Ali - BRIEF REPORT: Methadone Treatment of Injecting Opioid Users for Prevention of HIV Infection - 38718 - Source - Review of Systematic Reviews

Drug treatment therapy, substitution therapy, detoxification programmes

- Research shows associations between enrolment in substance abuse treatment & reductions in HIV transmission risk behaviours, attributed to reductions in injection drug use.
- The longer the duration of substance abuse treatment, the greater the protective effects.
- Methadone maintenance treatment is associated with statistically significant reductions in injecting use and sharing of injecting equipment. It is also associated with reductions in numbers of injecting drug users reporting multiple sex partners or exchanges of sex for drugs or money, but has little effect on condom use. Reduction in these risk behaviours translates into fewer cases of HIV infection.
- There is insufficient evidence to determine whether other forms of oral substitution treatment also reduce the risk of HIV transmission.

Needle Exchange Programmes (NEPs)

- Studies provide strong evidence of the effectiveness of NEPs in reducing high risk injection behaviours among both HIV-negative and HIV-positive IDUs.
- NEP has been associated with reductions in the incidence of HIV, decreased needle sharing among HIV-negative and HIV-positive persons, decreases in syringe re-use, and increased rates of entry into drug treatment programs.

Directly Administered Antiretroviral Therapies (DAART)

- DAART improves adherence among HIV-infected persons who are drug users or marginally housed.
- In one study, preference for DAART delivery site of mobile NEPs (83%) suggesting that substance abuse treatment & treatment for HIV can be successfully integrated.

Network-Oriented Interventions (relationship between drug use and peer influence)

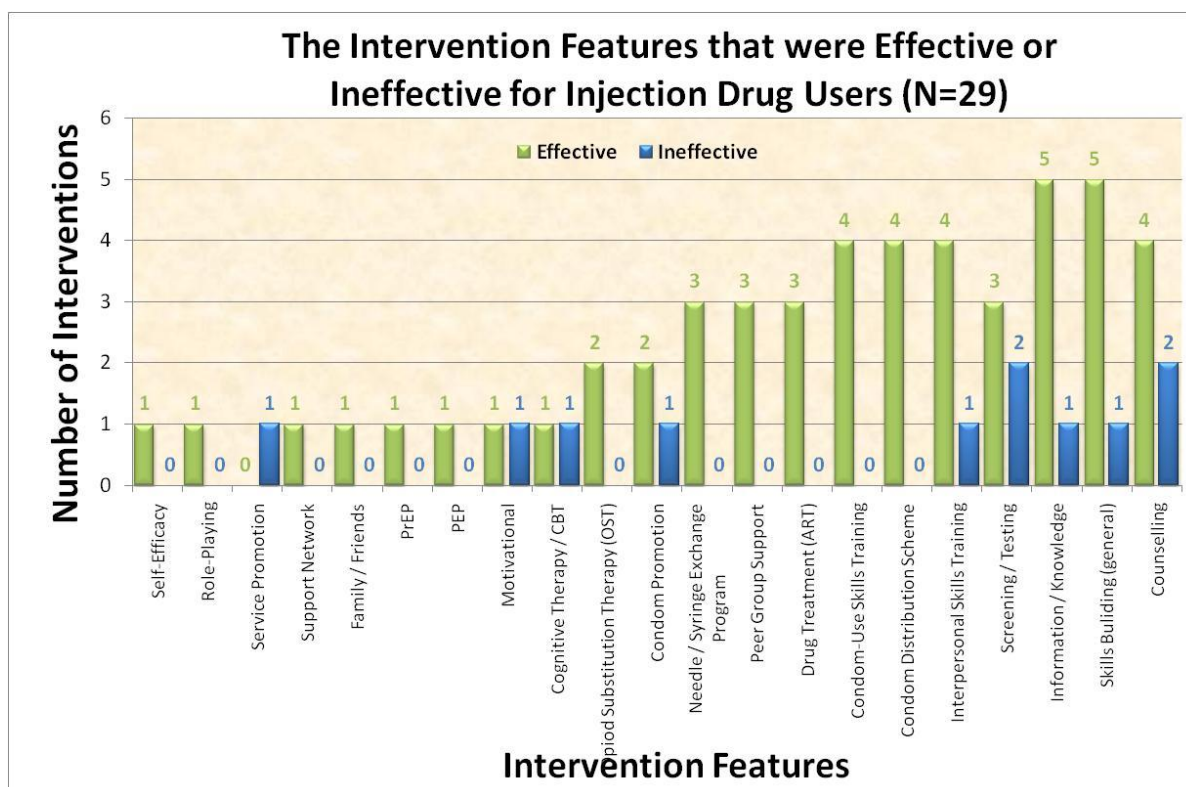
- One study found that talking about AIDS with drug using friends was associated with reductions in self-reported risk behaviours.

MSM IDUs

- Studies that focused on unprotected sex achieved an average risk reduction of 26% among men engaging in UAI.
- Interventions that promoted interpersonal skills, which were delivered in community-level formats, focused on younger populations, or those focused on individuals with higher behavioural risk, were most successful.

HIV Positive IDUs

- One study found that counselling session targeting problem areas identified by the participant (i.e., condom use, negotiation, disclosure) with problem solving exercises, decreased the median number of unprotected sex acts over one-year.



- Across all reviews, the most frequently described effective interventions targeted at IDU groups and individuals were information / knowledge interpersonal skills training & condom skills training, condom distribution, peer support and ART.



The Intervention Features That Were Effective or Ineffective For - Injection Drug Users (N=29)					
Primary	Effective	Ineffective	Secondary	Effective	Ineffective
Education	8	3	Information / Knowledge	5	1
			Skills Building (general)	5	1
			Perception / Attitude	0	1
			Interpersonal Skills Training	4	1
			Condom-Use Skills Training	4	0
			Self-Efficacy	1	0
			Role-Playing	1	0
			Condom Promotion	2	1
			Service Promotion	0	1
			Motivational	1	1
Preventative Services	6	2	Needle / Syringe Exchange Program	3	0
			Condom Distribution Scheme	4	0
			Contact Tracing / Partner Notification	0	0
			Screening / Testing	3	2
Support	6	2	Counselling	4	2
			Peer Group Support	3	0
			Social Support	0	0
			Support Network	1	0
			Mentoring / Coaching	0	0
			Cognitive Therapy / CBT	1	1
			Helpline / Hotlines	0	0
			Case Management	0	0
			Community Support Group	0	0
			Family / Friends	1	0
Media	0	0	Mass Media	0	0
			Newspapers / Magazines	0	0
			Leaflets / Posters	0	0
			TV	0	0
			Radio	0	0
			Website / Internet	0	0
			Advertising	0	0
			Social Network Websites	0	0
			Texting	0	0
			Multi-Media	0	0
Bio Medical	6	0	Drug Treatment (ART)	3	0
			Opioid Substitution Therapy (OST)	2	0
			PrEP	1	0
			PEP	1	0

- The intervention sub-category (primary classification) seen to be most effective in IDU targeted interventions was education, preventative services, support and biomedical.

9.1 Efficacy of interventions targeted at IDU's

Behavioural HIV risk reduction among people who inject drugs: meta-analytic evidence of efficacy.

Drug risk related outcomes:

Decrease in IDU (d= 0.08; 95% CI= 0.03, 0.13)

Decreased non-IDU (d= 0.18; 95% CI= 0.06, 0.30)

Increased entry into drug treatment (d= 0.11; 95% CI= 0.02, 0.21)

Sexual risk related outcomes:

Increased condom use (d=0.19; 95% CI=0.11, 0.26)

Reduced trading of sex for drugs (d=0.33; 95% CI=0.10,0.57)

Behavioural interventions to reduce HIV-related sexual risk behaviour: review and synthesis of meta-analytic evidence.

Study 1 (Prendergast): Sexual risk composite OR= 0.65 (0.53, 0.78)

Study 2 (Semaan): Sexual risk composite OR = 0.86 (0.76, 0.98)

Study 3 (Copenhaver): Condom use OR= 1.37 (1.22, 1.54);

Unprotected sex OR= 0.93 (0.82, 1.06)

Behavioural interventions for African Americans to reduce sexual risk of HIV: a meta-analysis of randomized controlled trials.

Intervention Impact on Condom Use among African American IDUs:

Short Term: 0% IDUs d+= 0.17; 100% IDUs d+= 0.40 (b=0.11,P=0.43, k=36)

Intermediate Term: 0% IDUs d+= 0.13; 100% IDUs d+= 0.05 (b=-0.26,P=<0.001, k=30)

Long Term: 0% IDUs d+= 0.14; 100% IDUs d+= 0.14 (b=0.01,P=0.94, k=12)

A meta-analysis of the effect of HIV prevention interventions on the sex behaviors of drug users in the United States.

Interventions compared with no interventions were strong and significant (k = 3; odds ratio [OR], 0.60; 95% confidence interval [CI], 0.43-0.85).

Interventions compared with other HIV interventions showed a modest additional benefit (k = 30; OR, 0.91; 95% CI, 0.81-1.03).

When extrapolated result (an OR of 0.60) to a population with a 72% prevalence of risk behavior, the proportion of drug users who reduced their risk behaviours was 12.6% greater in the intervention groups than in the comparison groups.

BRIEF REPORT: Methadone Treatment of Injecting Opioid Users for Prevention of HIV Infection

Drug related risk:

6 studies reported on injection use, found significant decrease in injecting.

8 studies reported on frequency of injecting, all showed significant decrease.

4 studies indicate significantly less injecting use for those in methadone treatment.

7 studies reported on sharing of injecting equipment, before and after period of methadone treatment, showed a reduction (difference significant for 6 /7 studies).

4 studies provided data on sharing of equipment for participants engaged in methadone treatment compared with those receiving no/ limited methadone treatment, in 3 studies those receiving treatment were significantly less likely to report sharing.

3 of 4 studies that reported rating scale scores of drug-related HIV risk behaviour before and after a period of methadone treatment found significant decrease.

Sex related risk:

3 of 4 studies reported data on multiple sex partners or exchanges of sex for drugs/ money, significantly fewer reported these following methadone treatment.

2 studies provided data on exchange of sex for drugs/ money among drug users receiving or not receiving methadone treatment. One found significantly fewer of the cohort in treatment reported exchanges; the other reported a significantly lower frequency of exchanges for those in treatment.

4 of 6 studies reported statistically significant reductions in exposure to unprotected sex (use of condoms on half or less of occasions). 2 studies comparing cohorts of IDU in or out of methadone treatment found no significant difference in condom use.

2 studies reported scores of sex-related risk from scales of HIV risk behaviours found a significant reduction from baseline to follow-up. A third study reported nonstatistically significant reduction. One study found no difference in sex-related risk scores.

Effect on Seroconversion:

Metzger et al found that over 18 month period, odds of seroconversion among an untreated group, compared with a group in methadone treatment, were 7.63 (CI 1.99, 29.27, $P < 0.01$).

Moss et al. reported that 11 of 145 (7.6%) with less than 12 lifetime months in methadone maintenance seroconverted, compared with 11 of 536 (2.1%) with 12 or more lifetime months of methadone maintenance ($P = .002$).

Williams et al. reported a seroconversion rate of 0.7 per 100 person years for those in continuous methadone treatment (mean 29 months), compared with 4.3 per 100 person years for those with interrupted treatment (over a mean 53 months).

Serpelloni et al. found that the risk of HIV infection increased 1.5 times for every 3 months out of methadone treatment in the 12 months prior to seroconversion.

10. Evidence to Support HIV Prevention Interventions that target Adolescents

10.1 Results

In total 13 reports identified in the search of publications met the criteria for review and reporting.^{46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58}

- The majority were US based studies
- The majority targeted both males & females
- The majority were delivered in a group format
- Delivery sites included: Schools, Community sites, STI clinics, Primary Care
- There was limited mention of MSM, HIV Positives, Sex Workers and Ethnicity: Black

10.1.1 Intervention Outcomes

- Reduced risky sexual behaviour (general)
- Increased Condom Use
- Reduced STI incidence

⁴⁶ Johnson BT, Scott-Sheldon LA, Huedo-Medina TB, Carey MP - Interventions to reduce sexual risk for human immunodeficiency virus in adolescents: a meta-analysis of trials, 1985-2008. - *Archives of Pediatrics & Adolescent Medicine*, January 2011, vol./is. 165/1(77-84), 1072-4710;1538-3628 (2011 Jan) - 40544 - Source - Review of Systematic Reviews

⁴⁷ Shepherd J, Kavanagh J, Picot J, Cooper K, Harden A, Barnett-Page E, Jones J, Clegg A, Hartwell D, Frampton GK, Price A - The effectiveness and cost-effectiveness of behavioural interventions for the prevention of sexually transmitted infections in young people aged 13-19: a systematic review and economic evaluation. - *Health Technology Assessment (Winchester, England)*, February 2010, vol./is. 14/7(1-206, iii-iv), 1366-5278;1366-5278 (2010 Feb) - 40210 - Source - Review of Systematic Reviews

⁴⁸ Lazarus JV, Sihvonen-Riemenschneider H, Laukamm-Josten U, Wong F, Liljestrand J - Source - Review of Systematic Reviews of interventions to prevent the spread of sexually transmitted infections, including HIV, among young people in Europe. - *Croatian Medical Journal*, February 2010, vol./is. 51/1(74-84), 0353-9504;1332-8166 (2010 Feb) - 40210 - Source - Review of Systematic Reviews
49 Kennedy CE, Spaulding AB, Brickley DB, Almers L, Mirjahangir J, Packel L, Kennedy GE, Mbizvo M, Collins L, Osborne K - Linking sexual and reproductive health and HIV interventions: a systematic review. - *Journal of the International AIDS Society*, 2010, vol./is. 13/(26), 1758-2652;1758-2652 (2010) - 40179 - Source - Review of Systematic Reviews

⁵⁰ Crepaz N, Marshall KJ, Aupont LW, Jacobs ED, Mizuno Y, Kay LS, Jones P, McCree DH, O'Leary A - The efficacy of HIV/STI behavioral interventions for African American females in the United States: a meta-analysis. - *American Journal of Public Health*, November 2009, vol./is. 99/11(2069-78), 0090-0036;1541-0048 (2009 Nov) - 40118 - Source - Review of Systematic Reviews

⁵¹ Lin JS, Whitlock E, O'Connor E, Bauer V - Behavioral counseling to prevent sexually transmitted infections: a systematic review for the U.S. Preventive Services Task Force. - *Annals of Internal Medicine*, October 2008, vol./is. 149/7(497-508, W96-9), 0003-4819;1539-3704 (2008 Oct 7) - 39722 - Source - Review of Systematic Reviews

⁵² Noar SM - Behavioral interventions to reduce HIV-related sexual risk behavior: review and synthesis of meta-analytic evidence. - *AIDS & Behavior*, May 2008, vol./is. 12/3(335-53), 1090-7165;1090-7165 (2008 May) - 39569 - Source - Review of Systematic Reviews

⁵³ Morrison-Beedy D, Nelson LE - HIV prevention interventions in adolescent girls: what is the state of the science - *Worldviews on Evidence-Based Nursing*, 2004, vol./is. 1/3(165-75), 1545-102X;1545-102X (2004) - 37987 - Source - Review of Systematic Reviews

^{54,54} Mullen PD, Ramirez G, Strouse D, Hedges LV, Sogolow E - Meta-analysis of the effects of behavioral HIV prevention interventions on the sexual risk behavior of sexually experienced adolescents in controlled studies in the United States. - *Journal of Acquired Immune Deficiency Syndromes: JAIDS*, July 2002, vol./is. 30 Suppl 1/(S94-S105), 1525-4135;1525-4135 (2002 Jul 1) - 37438 - Source - Review of Systematic Reviews

⁵⁵ Jennifer Downing, Lisa Jones, Penny A. Cook, and Mark A. Bellis - HIV prevention: a review of reviews assessing the effectiveness of interventions to reduce the risk of sexual transmission: Evidence Briefing Update 2006 - 38718 - Source - Review of Systematic Reviews

⁵⁶ Ross DA - Behavioural interventions to reduce HIV risk: what works? - *AIDS*, October 2010, vol./is. 24 Suppl 4/(S4-14), 0269-9370;1473-5571 (2010 Oct) - 40452 - Source - Review of Systematic Reviews

⁵⁷ Malow RM, Kershaw T, Sipsma H, Rosenberg R, Devieux JG - HIV preventive interventions for adolescents: a look back and ahead. - *Current HIV/AIDS Reports*, December 2007, vol./is. 4/4(173-80), 1548-3568;1548-3568 (2007 Dec) - 39417 - Source - Review of Systematic Reviews

⁵⁸ Templeton DJ - Sexually transmitted infection and blood-borne virus screening in juvenile correctional facilities: a review of the literature and recommendations for Australian centres. - *Journal of Clinical Forensic Medicine*, January 2006, vol./is. 13/1(30-6), 1353-1131;1353-1131 (2006 Jan) - 38718 - Source - Review of Systematic Reviews

- Reduced HIV incidence
- Increased uptake of testing
- Increased adherence to STI treatment recommendations
- Reduced number of sexual partners
- Reduced pregnancy
- Improved knowledge
- Increased self-efficacy

10.1.2 Features of Successful Behavioural Interventions

- Interventions are most successful to the extent that they deliver intensive content
- Reduced frequency of sexual behaviour when no focus on abstinence as a goal
- Reduced frequency of sexual behaviour when greater numbers of sessions
- Increased condom use when greater amount of condom skills training
- Increased condom use when motivational training included in each session
- Young people more accepting of peer-led than teacher-led interventions
- Peer-led interventions more successful in improving sexual knowledge
- Behavioural counselling interventions with multiple sessions conducted in STI clinics and primary care effective among 'at risk' adolescents
- More success was seen with African/ African American groups
- Reduced frequency of sexual behaviour among institutionalized adolescents
- Tentative evidence to conclude that community-level interventions effective for adolescents

10.1.3 Studies that specifically targeted Adolescent Females

- A combination of providing information and behavioural skills training, as well as enhancing motivation to reduce risk within these interventions. (*HIV prevention interventions in adolescent girls: what is the state of the science*)
- Behavioural counselling can lead to a decrease in nonsexual risky behaviour and pregnancy in sexually active female adolescents (*Behavioural counselling to prevent sexually transmitted infections: a systematic review for the U.S. Preventive Services Task Force.*)

10.1.4 Successful intervention features for African American Adolescent Females include:

- gender- or culture-specific materials
- female deliverers
- addressed empowerment issues
- provided skills training in condom use and negotiation of safer sex
- used role-playing to teach negotiation skills

(The efficacy of HIV/STI behavioural interventions for African American females in the United States: a meta-analysis)

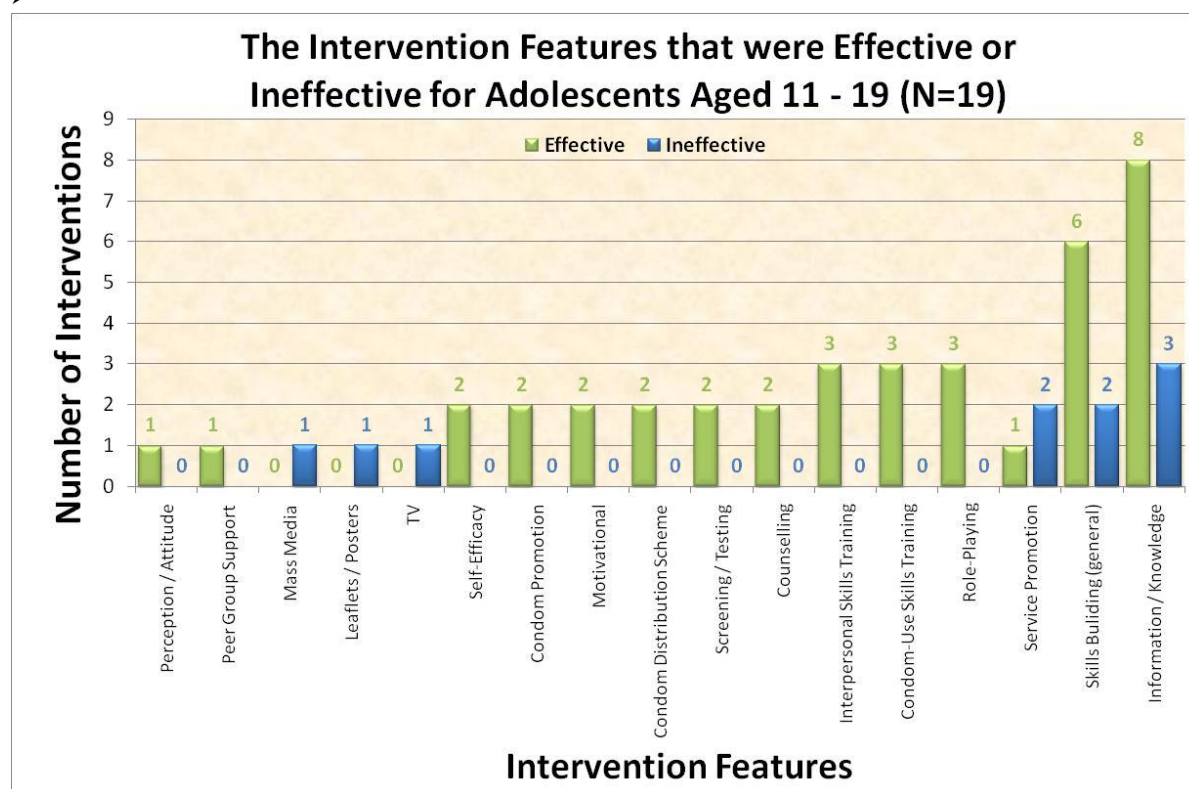
10.1.5 Sexual & Reproductive Health (SRH) -HIV linkage interventions

- SRH-HIV linkage interventions generally considered beneficial and feasible
- The majority of studies showed improvements in all outcomes measured
- While there were some mixed results, there were very few negative findings
- Positive effects were shown for key outcomes including: HIV incidence, STI incidence, condom use, contraceptive use, uptake of HIV testing and quality of services.
- Factors promoting effective linkages included stakeholder involvement, capacity building, positive staff attitudes, non-stigmatizing services, and engagement of key populations.

(Linking sexual and reproductive health and HIV interventions: a systematic review.)

10.1.6 Intervention Features effective or ineffective for young people aged 12-25 years

➤



- Across all reviews, the most frequently described effective interventions targeted at adolescents (age 11-19 years) were: information/ knowledge and skills based, including skills building (general), interpersonal skills training, condom-use skills training and role playing.

The Intervention Features That Were Effective or Ineffective For - Adolescents Aged 11 - 19 (N=19)					
Primary	Effective	Ineffective	Secondary	Effective	Ineffective
Education	8	4	Information / Knowledge	8	3
			Skills Building (general)	6	2
			Perception / Attitude	1	0
			Interpersonal Skills Training	3	0
			Condom-Use Skills Training	3	0
			Self-Efficacy	2	0
			Role-Playing	3	0
			Condom Promotion	2	0
			Service Promotion	1	2
			Motivational	2	0
Preventative Services	2	1	Needle / Syringe Exchange Program	0	0
			Condom Distribution Scheme	2	0
			Contact Tracing / Partner Notification	0	0
			Screening / Testing	2	0
Support	3	0	Counselling	2	0
			Peer Group Support	1	0
			Social Support	0	0
			Support Network	0	0
			Mentoring / Coaching	0	0
			Cognitive Therapy / CBT	0	0
			Helpline / Hotlines	0	0
			Case Management	0	0
			Community Support Group	0	0
			Family / Friends	0	0
Media	0	2	Mass Media	0	1
			Newspapers / Magazines	0	0
			Leaflets / Posters	0	1
			TV	0	1
			Radio	0	0
			Website / Internet	0	0
			Advertising	0	0
			Social Network Websites	0	0
			Texting	0	0
			Multi-Media	0	0
Bio Medical	0	0	Drug Treatment (ART)	0	0
			Opioid Substitution Therapy (OST)	0	0
			PrEP	0	0
			PEP	0	0

- The intervention sub-categories (primary classification) seen to be effective in adolescent (age 11-19 yrs) targeted interventions was education, support and preventative services.

10.2 Efficacy of interventions targeted at adolescents

Interventions to reduce sexual risk for human immunodeficiency virus in adolescents: a meta-analysis of trials, 1985-2008.

Compared to comparison group interventions succeeded at:

- Reducing incident STIs (d=0.33, OR=1.72)
- Increasing condom use (d=0.13, OR=1.24)
- Reducing/ delaying intercourse (d=0.11, OR=1.20)
- Increasing skills to negotiate safer sex (d=0.36, OR=1.24)
- Acquire prophylactic protection (d=0.43, OR=2.03)
- (Where d is weighted mean effect size and OR is odds ratio)

Many studies used a diluted HIV risk-reduction intervention as a comparison condition, it is therefore likely that the findings reported under estimate the magnitude of sexual change that interventions prompt.

Behavioural interventions to reduce HIV-related sexual risk behaviour: review and synthesis of meta-analytic evidence.

Condom use found a statistically significant increase (median effect: OR = 1.34, range 1.13–1.64), suggesting that typical interventions produced a 34% increase in the odds of condom use.

9/11 for reducing unprotected sex (median effect: OR = .76)

3/8 for reducing numbers of sexual partners (median effect: OR = .87, range .74–1.54), suggesting a 15% reduction ($1/.87 = 1.15$)

4/6 for reduction of STDs (median effect: OR = .74)

5/5 for reducing composite sexual risk (median effect: OR = .78)

MSM outcomes:

Condom use: The strongest effects were seen in MSM, 2 studies: 1.64 (range 1.27-1.13) and 1.61 (range 1.16-2.22).

Meta-analysis of the effects of behavioural HIV prevention interventions on the sexual risk behaviour of sexually experienced adolescents in controlled studies in the United States.

Summary ORs and 95% CIs:

Overall effect on sexually experienced adolescents (k, 16; OR, 0.65; CI, 0.50 - 0.85)

Significantly less sex without condoms (k, 13; OR, 0.66; CI, 0.55-0.79)

Lower behavioral risk (k, 2; OR, 0.66; CI, 0.50-0.88)

No difference in number of partners (k, 8; OR, 0.89; CI, 0.76-1.05)

No difference on STDs (k, 2; OR, 1.18; CI, 0.48-2.86).

The efficacy of HIV/STI behavioural interventions for African American females in the United States: a meta-analysis.

Reductions in HIV-risk sex behaviours (OR=0.63; 95% CI=0.54, 0.75; n=11239) and STIs (OR=0.81; 95% CI=0.67, 0.98; n=8760).

11. Evidence to Support HIV Prevention Interventions that target Sex Workers

In an overview of the effectiveness of sexual health improvement interventions 2010 Fullerton and Burtney⁵⁹, identified two Review of Reviews (Downing et al. 2006⁶⁰, Ellis and Grey 2003⁶¹) that considered the effectiveness of interventions aimed at sex workers as part of a broader review of STI prevention.

Evidence Statement	<ul style="list-style-type: none"> - Only a small number of the interventions aimed at sex workers have been evaluated using robust designs, making it difficult to draw conclusions. - There is insufficient evidence to draw conclusions about group-level interventions - They did not find any review-level evidence to support or reject the effectiveness of individual-level interventions for sex workers. Ellis and Grey (2003)⁶²
Evidence supports:	<ul style="list-style-type: none"> - There is tentative review-level evidence that interventions delivered at community level (particularly peer to peer) can be effective in reducing the sexual risk behaviour of sex workers. Ellis and Grey (2003)⁶² and Downing et al. (2006a)⁶¹
Comment	<p><i>There was insufficient evidence to draw conclusions on the effectiveness of enhanced VCT.</i></p> <p><i>There was insufficient evidence on the effectiveness of mass media and its influence on the uptake of HIV VCT among sex workers. Downing et al. (2006)⁶¹</i></p>

⁵⁹ Deirdre Fullerton, Elizabeth Burtney - NHS Health Scotland: An overview of the effectiveness of sexual health improvement interventions FINAL REPORT - 40330 - Source Grey Literature

⁶⁰ Jennifer Downing, Lisa Jones, Penny A. Cook, and Mark A. Bellis - HIV prevention: a review of reviews assessing the effectiveness of interventions to reduce the risk of sexual transmission: Evidence Briefing Update 2006 - 38718 - Source - Review of Systematic Reviews

⁶¹ Ellis, S., Barnett-Page, E., Morgan, A. Et al (2003). HIV prevention: a review of reviews assessing the effectiveness of interventions to reduce the risk of sexual transmission. London: HDA - 37622 - Source - Review of Systematic Reviews

12. Review of Cost Effectiveness

12.1 Results of Literature Search

In total ten reports identified in the search of publications and grey literature met the criteria for consideration. Of these, four studies met the inclusion criteria for review and reporting.

These concerned the following types of interventions:

- Peer HIV test recruitment
- Extended health settings for HIV testing
- School education programmes
- Community-based behaviour change & risk reduction

Two of the studies are UK based and two are from the USA. The applicability of the latter to the UK setting is uncertain.

The findings are reported below.

12.2 Findings

A NICE⁶² review of interventions to increase HIV testing in men who have sex with men⁶¹ identified just one relevant study. The publication (Golden et al. 2006) reported a costing study of an observational evaluation of a peer HIV test recruitment campaign in Washington state, USA, 2002 – 2004, for men who have sex with men. Both recruiters and recruits were of low socio-economic status, and included a high proportion of minority ethnic individuals and people with a history of injecting drug use. Overall, 438 peers were recruited, and 22 (5%) were HIV positive, 18 of whom received their test results. The total cost of the programme was US\$103,752. However, excluding the costs associated with other STIs, the HIV-associated costs alone were US\$59,142. The total cost per new case of HIV infection identified was US\$4929, and per person receiving a positive test result, US\$5377. The authors considered these costs to compare favourably with those observed for bathhouse testing programmes and for programmes working with community-based organisations to promote testing, in the USA.

A UK HTA systematic review and economic evaluation⁶³ reported on the effectiveness and cost effectiveness of school-based skills building behavioural interventions to adopt and maintain safer sexual behaviour to prevent STIs. The evidence demonstrated that the intervention can bring about improvements in knowledge and increased self-efficacy, but no significant influence on sexual risk-taking behaviour or infection rates was found. Due to the extent of uncertainty over the effect of the intervention on behaviour, the economic evaluation was only able to deliver 'illustrative' results. The costs of teacher-led and peer-led interventions were £4.30 and £15 per pupil, respectively. Teacher-led interventions were more cost effective due to the less frequent need for training. The incremental cost effectiveness of the teacher-led and peer-led interventions was £20,223 and £80,782 per quality adjusted life year again, respectively.

⁶² NICE/Matrix Preventing & reducing HIV transmission among men who have sex with men (MSM): interventions to increase the uptake of HIV testing. Systematic reviews of effectiveness, cost effectiveness & qualitative evidence. 2010

⁶³ Shepherd J et al. 'The effectiveness & cost effectiveness of behavioural interventions for the prevention of STIs in young people aged 13-19: a systematic review & economic evaluation.' Health Technology Assessment. 2010; Vol 14: No. 7

A review of studies examined the cost effectiveness of community-based behaviour change and risk reduction interventions (i.e. sexual & injecting drug use)⁶⁴. The interventions considered included peer advocacy programs to change risk taking norms in the community, outreach to high risk individuals (e.g. condom, bleach, & syringe distribution programs), and media programs. The review included peer reviewed publications before 1999. Twelve studies from the USA were reviewed, five concerned sexual risks and seven injecting drug use. None concerned community-based media interventions. The authors summarised their findings as follows (P17):

A conference poster presentation by UK HPA staff⁶⁵ presents the interim results of an evaluation of a collection of pilot projects in UK cities examining the expansion of HIV testing non-specialist (i.e. non GUM) health care settings. Despite not including any formal health economic analysis the authors make the following relevant comment:

The majority of pilot projects exceeded the American cost effectiveness threshold of one new diagnosis per 1000 tests. However, further economic analysis is required to establish a UK threshold.

⁶⁴ . Pinkerton S D et al. 'Cost-effectiveness of community-level approaches to HIV prevention: A review.' *The Journal of Primary Prevention*. Vol. 23, No. 2, Winter 2002

⁶⁵ Thornton A et al. *Gathering evidence for expanding HIV testing in England: an overview of 8 pilot projects*. Conference Poster: BHIVA 2011

13. Conclusion

This report presents an overview of the key messages emerging from national and international review of systematic review level evidence plus local information gathered from the Grey Literature regarding the effectiveness of HIV interventions in London.

Evidence for condom distribution specific to target populations is very limited. There is also a particular paucity of evidence around media campaigns and websites although there is grey literature that indicates local impact on knowledge measures. The strongest evidence base supports:

- 1. For Men who have Sex with Men (MSM): VCT, individual, group and community level interventions including targeted minorities.**
- 2. Black African: VCT, community specific intervention, linkage to broader determinants of health.**
- 3. People Living With HIV (PLWHIV): Behavioural intervention and partner notification.**

The current programme is supported by evidence although in some areas this is very limited. There is no definitive evidence that any components of the PLHPP programme are ineffective. There is good evidence for the effectiveness of intervention with IDUs. This is not currently commissioned within the PLHPP. The engagement exercise drew attention particularly to injecting sex workers as a small group with very high risk.

The review has identified the importance of defining clear outcome indicators in relation to every intervention and the importance of rigorous monitoring and evaluation of the effectiveness and cost-effectiveness of future interventions, ensuring the results are published. This will help to ensure best value and encourage future effective practice.

- 1. Review level evidence for some interventions is either sparse or absent, there is limited information about cost effectiveness and recent developments in HIV treatment as prevention have not yet been subject to review.**
- 2. Testing, prevention and treatment services need to be integrated locally and regionally to maximise access and effectiveness.**
- 3. A broad range of interventions are required ranging from individual/ group delivery up to population level; these can be delivered in a variety of settings by a range of facilitators and include multiple features such as targeted information, skills development, interpersonal communication skills, support/ counselling and service promotion.**

A very limited evidence base exists regarding the cost effectiveness of interventions to prevent HIV; the fact that two recent high quality systematic reviews^{61, 62} on key relevant topics found such little work eligible for review confirms this finding. Also, the uncertainty surrounding the economic findings of the school based education review was clearly stated by the authors. It is also important to acknowledge the uncertainties regarding the UK

applicability of studies undertaken in the USA. Bearing these comments in mind, the following conclusions can be drawn:

- 1. There is limited quality evidence that peer HIV testing recruitment in MSM is relatively cost effective compared to other methods of encouraging HIV testing.**
- 2. There is tentative evidence that teacher-led school-based sexual behaviour interventions are cost effective compared to conventional cost per QALY thresholds.**
- 3. There is moderate quality evidence that a range of community-based initiatives (i.e. both sexual behaviour change & injecting drug use risk reduction) are cost saving.**
- 4. Extending HIV testing to non-specialist health care settings was cost effective according to US thresholds.**

Recommended areas for future research

13.1 Africans groups living in UK

African UK sub-groups where there is very little information include

- African Women
- Young Africans
- African IDU
- African MSM –especially when this group do not acknowledge their sexuality due to cultural conflicts
- African PLWHIV – stigmatisation
- Future research should provide an understanding what educational materials are relevant and understanding the type of trainers / educators / peer support required.
- Action research should clarify whether materials and interventions designed and developed for some communities e.g. Somali Communities in London are generalisable to other London Somali communities

13.2 MSM subgroups

The MSM subgroups where there is less evidence for interventions include -

- MSM from black and ethnic minorities
- MSM who do not identify with the gay scene
- YMSM
- MSM IDU

13.3 Risk behaviours linked to sexual health risk

Risk behaviours such as drug/alcohol use are associated with increased sexual health risk across population groups. There is limited evidence on individual-based programmes but less evidence on the effectiveness of group or community-based interventions that address these risks.

13.4 Social marketing

Further research is required to identify the advantages of adopting a social marketing framework. There is increasing interest in social marketing as an approach to health improvement. Little research has been carried out to evaluate the benefits of applying the principles of social marketing to health promotion initiatives prospectively rather than retrospectively.

13.5 Cost effectiveness of HIV interventions

Another area of research requiring further development and evaluation research is around cost effectiveness of different types of interventions.

- Individual-based e.g. Counselling, outreach work
- Group-based e.g. Skills based training)
- Community-based e.g. Peer involvement, community outreach

Cost-effectiveness research is generally sparse and this is particularly true for research in a UK health and social context.

13.6 New technologies

New technologies for communication and prevention interventions

- Websites
- Text messaging / PDA communications
- Social marketing / networking internet sites
- General Mass Media Interventions

13.7 Gaps identified in the review-level evidence literature

Gaps identified in the review-level evidence literature on the effectiveness of interventions which address the specific needs of vulnerable groups include⁶⁶:

- Asylum seekers
- Migrant workers
- Sex workers
- People with psychiatric or mental illness
- People with physical, sensory disabilities
- People with learning disabilities
- Prisoners and young offenders
- Homeless young people and adults
- Bisexuals
- Lesbians

13.8 Future research should address methodological quality

Any future research should address carefully the methodological quality, including

- Reliable indicators to monitor behaviour change that are relevant to the stakeholder group, easy to collect and audit
- Realistic follow-up intervals
- Protective and predictive factors associated with positive sexual health behaviours

⁶⁶ Deirdre Fullerton, Elizabeth Burtney - NHS Health Scotland: An overview of the effectiveness of sexual health improvement interventions FINAL REPORT - 40330 - Source Grey Literature

14. Evidence Review Limitations

There are limitations to this evidence review. It aims to present an overview of the key messages emerging from national and international systematic review-level evidence on the effectiveness of sexual health improvement interventions. Given the scope of this task and the short timescales, the most appropriate research approach was decided with the lead of the work stream to undertake a review of systematic reviews.

While this approach permits a rapid assessment of the current available evidence on a broad range of topics, its reliance on secondary analysis of material has limitations. Some of the evidence has been summarised, which means that it is not always possible to present details on the effectiveness of the interventions or to draw out clear practice messages without going back to the primary studies.

We have attempted to include the most recent reviews (published in the last decade), there is a time lag between studies being published and their incorporation in a systematic review. This means that many of the later systematic reviews after 2007 do not include all of the most recent eligible studies. It was not possible within the available timescales to include primary studies conducted since the most recent review.

Appendix I - Interventions Currently Commissioned

- All components of the programme the same aim unless otherwise stated: to improve knowledge or understanding of HIV prevention and improve access to HIV/STI testing and treatment and access to safer sex promoting interactive services.
- There are 3 target groups: MSM, African communities and people living with HIV. The service components are summarised below for each target group noting the scale or reach of intervention noted where specified in the contracts.

14.1 MSM

- 650 hours of psychotherapeutic group work (152.8k)
- 500 hours of group work (96.9K)
- 2 mass media campaigns (77.9K)
- 1 small media booklet with email notification and alerts to no less than 4,000 (87.9K)
- 6 x 25,000 copies of magazine (98.5K).
- 1 web site (30.9K)
- Telephone switchboard service and website (59.2K)
- Responding to betw 1,500-2,800 calls of 10 mins or less & 1,500-2,800 calls of 10 mins or more.
- Sexual health counselling (163.7K)
- 28 completing CBT
- 20 completing sexual health counselling
- 14 completing a course of mentoring
- 32 completing a course of long-term counselling
- 80 completing a course of counselling
- Sexual health trainers (290.1K)
- 3950 short Contacts and 1580 in-depth Contacts all completing BASKS inventory
- 11160 resources distributed
- Condom distribution service to enable men to use condoms and lubricant.
- Distributing 1,099,192 condoms and 1,024,400 sachets of lubricant

14.2 African communities

- 1 mass media campaign (105.8K)
- Including distribution of 10,000 Condoms and condoms packs
- Small media (39.1K) including:
 - 1 web site.
 - Banner ads
 - 3 booklets
 - 3 radio ads
- 1 to 1 Information and advice -500 Sessions, 2000 people
- Group information and advice -8 sessions, 80 people
- Distribution of resources
- -300 sessions , 24,340 resources distributed + 1500 via membership
- Organisational development to assist communities in providing HIV health promotion (90K) including:
 - 10 days of needs assessment for between 10 and 20 organisations
 - 40 days of training

- 20 days of consulting
- 2 days of sector development workshops
- Health promotion skills and practice service with the aim of providing group and individual skills training/mentoring (21.4K).
- Health promotion training (34.5K)
- 36 sessions, 120 participants
- 1 half day session, 60 participants

14.3 PLWHIV

- Small media to improve knowledge and understanding of HIV(and STIs), treatment, adherence and the maintenance of good health. (169.4K)
- Summary Resource 4000
- Fact Sheets 12000
- Patient Information Booklets 6000
- Newsletter 24000
- Information Events 50
- HIV Treatments Directory 120
- Website 269222
- Health trainers (170.6K)
- No activity targets yet

Appendix II - Public Health INWL Evidence Gathering

As part of the rapid needs assessment of HIV prevention Public Health INWL will be conducting an evidence review. The key questions addressed by the evidence review are:

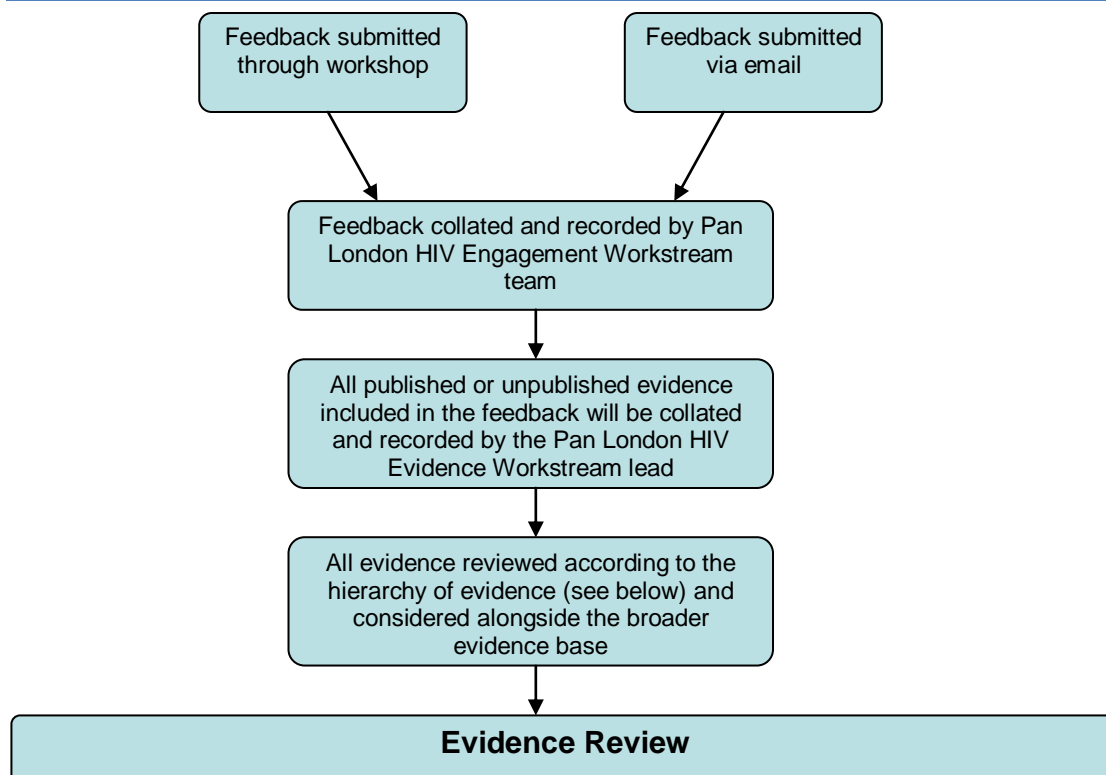
What is the evidence of effectiveness for HIV prevention interventions?

What is the evidence of cost-effectiveness of HIV prevention interventions?

The review will include published literature and 'grey' literature identified through the engagement workshops and completed returns submitted to the engagement team.

This protocol outlines how we will gather and use the evidence provided in this process.

14.4 Evidence Gathering Flowchart



Appendix III - Hierarchy of Evidence

Published and unpublished literature identified in this process was considered according to the hierarchy (or level) of evidence for intervention studies as defined in the NICE Guidelines Manual 2007 (see table below).

Level of evidence	Type of evidence
1 ⁺⁺	High-quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias
1 ⁺	Well-conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias
1 ⁻	Meta-analyses, systematic reviews of RCTs, or RCTs with a high risk of bias*
2 ⁺⁺	High-quality systematic reviews of case-control or cohort studies High-quality case-control or cohort studies with a very low risk of confounding, bias or chance and a high probability that the relationship is causal
2 ⁺	Well-conducted case-control or cohort studies with a low risk of confounding, bias or chance and a moderate probability that the relationship is causal
2 ⁻	Case-control or cohort studies with a high risk of confounding bias, or chance and a significant risk that the relationship is not causal*
3	Non-analytic studies (for example, case reports, case series)
4	Expert opinion, formal consensus
*Studies with a level of evidence '-' should not be used as a basis for making a recommendation (see section 7.4)	

It should be noted that it is not always possible to find the highest level of evidence to answer a particular question. Indeed certain types of study methodology are appropriate to different types of question (please see methodology table below). In the absence of the evidence which best fits the question, it is important to consider moving down the level of evidence to other types of studies.

In this context all literature which addresses the key questions of the evidence review will be given relative weight and in the absence of meta-analysis, reviews or randomised control trials (RCTs) other evidence will be duly considered.⁶⁷

This information has been taken from the guide to evidence-based medicine at <http://www.hsl.unc.edu/services/tutorials/ebm/Supplements/QuestionSupplement.htm> (accessed 06/07/2011)

⁶⁷ This information has been taken from the guide to evidence-based medicine at <http://www.hsl.unc.edu/services/tutorials/ebm/Supplements/QuestionSupplement.htm> (accessed 06/07/2011)

Appendix IV – Reviews Identified by the Literature Searches

1. The Lancet Volume 378 Number 9787 Pages 199-288 (July 2011) - The Lancet Volume 378 Number 9787 Pages 199-288 (July 2011) - 40740 -- Source - Review of Systematic Reviews
2. Albarracin D, Gillette JC, Earl AN, Glasman LR, Durantini MR, Ho MH - A test of major assumptions about behavior change: a comprehensive look at the effects of passive and active HIV-prevention interventions since the beginning of the epidemic. - Psychological Bulletin, November 2005, vol./is131/6(856-97), 0033-2909;0033-2909 (2005 Nov) - 38657 - Source - Review of Systematic Reviews
3. Anglemeyer A, Rutherford GW, Egger M, Siegfried N - Antiretroviral therapy for prevention of HIV transmission in HIV-discordant couples (Review) - 40544 - Source - Review of Systematic Reviews
4. Berg R - The effectiveness of behavioural and psychosocial HIV/STI prevention interventions for MSM in Europe: A systematic review. - Euro Surveillance: Bulletin European sur les Maladies Transmissibles = European Communicable Disease Bulletin, 2009, vol./is. 14/48, 1025-496X;1560-7917 (2009) - 39814 -- Source - Review of Systematic Reviews
5. Burton J, Darbes LA, Operario D - Couples-focused behavioral interventions for prevention of HIV: systematic review of the state of evidence. - AIDS & Behavior, February 2010, vol./is. 14/1(1-10), 1090-7165;1573-3254(2010 Feb) 40210 Source - Review of Systematic Reviews
6. Colfax G, Santos GM, Chu P, Vittinghoff E, Pluddemann A, Kumar S, Hart C - Amphetamine-group substances and HIV. - Lancet, August 2010, vol./is. 376/9739(458-74), 0140-6736;1474-547X (2010 Aug 7) - 40391 - Source - Review of Systematic Reviews
7. Copenhaver MM, Johnson BT, Lee IC, Harman JJ, Carey MP, SHARP Research Team - Behavioral HIV risk reduction among people who inject drugs: meta-analytic evidence of efficacy. - Journal of Substance Abuse Treatment, September 2006, vol./is. 31/2(163-71), 0740-5472;0740-5472 (2006 Sep) - 38961 - Source - Review of Systematic Reviews
8. Crepaz N, Marshall KJ, Aupont LW, Jacobs ED, Mizuno Y, Kay LS, Jones P, McCree DH, O'Leary A - The efficacy of HIV/STI behavioral interventions for African American females in the United States: a meta-analysis. - American Journal of Public Health, November 2009, vol./is. 99/11(2069-78), 0090-0036;1541-0048 (2009 Nov) - 40118 - Source - Review of Systematic Reviews
9. Crepaz, Nicole, Hart, Trevor A, Marks, Gary - Highly Active Antiretroviral Therapy and Sexual Risk Behavior A Meta-analytic Review. - JAMA: Journal of the American Medical Association, July 2004, vol./is. 292/2(224-236), 0098-7484 (Jul 2004) - 38169 - Source - Review of Systematic Reviews
10. DiClemente R.J., Milhausen R., McDermott Sales J., Salazar L.F., Crosby R.A. - A programmatic and methodologic review and synthesis of clinic-based risk-reduction interventions for sexually transmitted infections: Research and practice implications - Seminars in Pediatric Infectious Diseases, July 2005, vol./is. 16/3(199-218), 1045-1870 (Jul 2005) - 38534 - Source - Review of Systematic Reviews
11. Ellis, S., Barnett-Page, E., Morgan, A. Et al (2003). HIV prevention: a review of reviews assessing the effectiveness of interventions to reduce the risk of sexual transmission. London: HDA - 37622 - Source - Review of Systematic Reviews
12. Elwy AR, Hart GJ, Hawkes S, Petticrew M - Effectiveness of interventions to prevent sexually transmitted infections and human immunodeficiency virus in heterosexual men: a systematic review. - Archives of Internal Medicine, September 2002, vol./is. 162/16(1818-30), 0003-9926;0003-9926 (2002 Sep 9) - 37500 - Source - Review of Systematic Reviews
13. Fisher JD, Smith L - Secondary prevention of HIV infection: the current state of prevention for positives. - Current Opinion in HIV & AIDS, July 2009, vol./is. 4/4(279-87), 1746-630X;1746-6318 (2009 Jul) - 39995 - Source - Review of Systematic Reviews
14. Gordon C.M., Forsyth A.D., Stall R., Cheever L.W. - Prevention interventions with persons living with HIV/AIDS: State of the science and future directions - AIDS Education and Prevention, 2005, vol./is. 17/SUPPL. A(6-20), 0899-9546 (2005) - 38353 - Source - Review of Systematic Reviews

15. Graham SM, Shah PS, Aesch ZC, Beyene J, Bayoumi AM - A systematic review of the quality of trials evaluating biomedical HIV prevention interventions shows that many lack power. - *HIV Clinical Trials*, November 2009, vol./is. 10/6(413-31), 1528-4336;1528-4336 (2009 Nov-Dec) - 40118 - Source - Review of Systematic Reviews
16. Gregorio A. Millett, Stephen A. Flores, Gary Marks, J. Bailey Reed, Jeffrey H. Herbst - Circumcision Status and Risk of HIV and Sexually Transmitted Infections Among Men Who Have Sex With Men: A Meta-analysis - 39699 - Source - Review of Systematic Reviews
17. Herbst JH, Sherba RT, Crepaz N, Deluca JB, Zohrabyan L, Stall RD, Lyles CM, HIV/AIDS Prevention Research Synthesis Team - A meta-analytic review of HIV behavioral interventions for reducing sexual risk behavior of men who have sex with men. - *Journal of Acquired Immune Deficiency Syndromes: JAIDS*, June 2005, vol./is. 39/2(228-41), 1525-4135;1525-4135 (2005 Jun 1) - 38504 - Source - Review of Systematic Reviews
18. Herbst, Jeffrey H, Beeker, Carolyn, Mathew, Anita, McNally, Tarra, Passin, Warren F, Kay, Linda S, Crepaz, Nicole, Lyles, Cynthia M, Briss, Peter, Chattopadhyay, Sajal, Johnson, Robert L, Task Force on Community Preventive Services - The effectiveness of individual-, group-, and community-level HIV behavioral risk-reduction interventions for adult men who have sex with men: A systematic review. - *American Journal of Preventive Medicine*, April 2007, vol./is. 32/4, Suppl 1(S38-S67), 0749-3797 (Apr 2007) - 39173 - Source - Review of Systematic Reviews
19. Jennifer Downing, Lisa Jones, Penny A. Cook, and Mark A. Bellis - HIV prevention: a review of reviews assessing the effectiveness of interventions to reduce the risk of sexual transmission: Evidence Briefing Update 2006 - 38718 - Source - Review of Systematic Reviews
20. Johnson BT, Scott-Sheldon LA, Huedo-Medina TB, Carey MP - Interventions to reduce sexual risk for human immunodeficiency virus in adolescents: a meta-analysis of trials, 1985-2008. - *Archives of Pediatrics & Adolescent Medicine*, January 2011, vol./is. 165/1(77-84), 1072-4710;1538-3628 (2011 Jan) - 40544 - Source - Review of Systematic Reviews
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