

Reducing sexually transmitted infections

Search strategies

NICE guideline <number>

Search strategies

December 2021

*Commissioned by the National Institute for
Health and Care Excellence*

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5.9 Website searching

Review questions 1.1-1.2

1. Review question details

Topic: Reducing STIs

Review 1: Interventions that aim to reduce or prevent STI acquisition and transmission (including HIV)

1.1 What interventions designed to reduce or prevent the acquisition and transmission of STIs, including HIV, are effective and cost effective at preventing STIs in higher risk groups:

- 1.1a Gay, bisexual and other men who have sex with men
- 1.1b Young people aged 16 to 24 years
- 1.1c People of black minority ethnicity
- 1.1d Trans people
- 1.1e Migrant communities
- 1.1f People who are homeless
- 1.1g Asylum seekers

Review 2: Acceptability of interventions for reducing or preventing the acquisition and transmission of STIs in people at risk

2.1 What is the acceptability of interventions for reducing or preventing the acquisition and transmission of STIs in:

- 1.1a Gay, bisexual and other men who have sex with men
- 1.1b Young people aged 16 to 24 years
- 1.1c People of black minority ethnicity
- 1.1d Trans people
- 1.1e Migrant communities
- 1.1f People who are homeless
- 1.1g Asylum seekers

2. Database strategy outline

2.1 Overview

A NICE information specialist conducted the literature searches for the evidence review. The searches for the effectiveness evidence were run on 3 March 2020. The searches for the cost effectiveness evidence were run on 23 June 2021.

The principal search strategy was developed in MEDLINE (Ovid interface) and adapted, as appropriate, for use in the other sources listed in the protocol, taking into account their size, search functionality and subject coverage.

Originally the review protocol for this search was very broad in scope, with a population of anyone over 16 years of age and included a wide range of interventions. This made the number of results unmanageable (30,000+ in Medline alone). Focusing the search on specific at-risk population groups (lines 1-46) made the volume of results manageable.

This approach was consistent with the NICE guidelines development manual (PMG20, 2014), which states that:

“NICE encourages the use of search methods that balance recall and precision. The aim is to identify the best available evidence to address a particular question without producing an unmanageable volume of results”.

The gay, bisexual and other men who have sex with men population set and the trans people population set were updated at a later date, following consultation with the committee. It was agreed that searches with the original set of terms would not be re-run, but all searches post-consultation (including all update searches) would use the revised set of terms.

2.2 Filters and limits

The initial search was developed in Medline. Line references below refer to the original Medline strategy.

English language limits were applied in adherence to standard NICE practice and the review protocol.

Limits to exclude letters, editorials, news and conferences were applied in adherence to standard NICE practice and the review protocol.

The search was limited from 2009 to current as defined in the review protocol. The limit to remove animal studies in the searches was the standard NICE practice, which has been adapted from: Dickersin, K., Scherer, R., & Lefebvre, C. (1994). [Systematic Reviews: Identifying relevant studies for systematic reviews](#). *BMJ*, 309(6964), 1286.

Lines 123-134 are a novel filter designed to exclude non-OECD studies. This filter was developed at NICE and is currently “in press” with the *Journal of the Medical Library Association*. In practice it retains >99% of relevant studies.

The following search filter was applied to the search strategies in MEDLINE and Embase to identify cost-effectiveness studies:

- 1 Economics/ or exp "Costs and Cost Analysis"/ or Economics, Dental/ or exp Economics, Hospital/ or exp Economics, Medical/ or Economics, Nursing/ or Economics, Pharmaceutical/ or Budgets/ or exp Models, Economic/ or Markov Chains/ or Monte Carlo Method/ or Decision Trees/
- 2 (Economic* or cost or costs or costly or costing or costed or price or prices or pricing or pharmacoeconomic* or pharmaco economic* or budget*).ti,ab.
- 3 ((monte adj carlo) or markov or (decision adj2 (tree\$ or analys\$))).ti,ab.
- 4 (value adj2 (money or monetary)).ti,ab.
- 5 Quality of Life/ or Health Status Indicators/ or Quality-Adjusted Life Years/ or Value of Life/
- 6 (quality of life or quality adjusted life or qaly* or qald* or qale* or qtime* or quality of wellbeing or quality of well-being or willingness to pay or standard gamble* or time trade off* or time tradeoff*).ti,ab.
- 7 (disability adjusted life or daly).ti,ab.
- 8 health* year* equivalent*.ti,ab.
- 9 (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab.
- 10 (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).ti,ab.
- 11 (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab.
- 12 (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab.
- 13 (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab.
- 14 (euroqol or euro qol or eq5d or eq 5d).ti,ab.
- 15 or/1-14
- 16 (((energy or oxygen) adj cost*) or (metabolic adj cost*) or ((energy or oxygen) adj expenditure*)).ti,ab.
- 17 Animals/ not humans/
- 18 (comment or editorial or letter or news).pt.
- 19 or/16-18
- 20 15 not 19

Source: Glanville J et al. (2009) [Development and Testing of Search Filters to Identify Economic Evaluations in MEDLINE and EMBASE](#). Alberta: Canadian Agency for Drugs and Technologies in Health (CADTH).

Several modifications have been made to these filters over the years that are standard NICE practice.

2.3 Quality assurance

The Information Services team at NICE quality assured the principal search strategy and peer reviewed the strategies for the other databases according to the standard NICE checklist that was adapted from the 2015 Peer review of electronic search strategies (PRESS) checklist.

2.4 Review management

The search results were managed in EPPI-Reviewer v5. Duplicates were removed in EPPI-R5 using a two-step process. First, automated deduplication is performed using a high-value algorithm. Second, manual deduplication is used to assess 'low-probability' matches. All decisions made for the review can be accessed via the deduplication history.

3. Search dates

Database name	Date searched	Database Platform	Database segment or version
Cochrane Central Register of Controlled Trials (CENTRAL) / Cochrane Database of Systematic Reviews (CDSR)	Original searches 03/03/20	Wiley	Issue 3 of 12, March 2020
	Rerun searches 23/06/21		
Econlit	Original searches 11/03/20	Ovid	Econlit 1886 to March 05, 2020
	Rerun searches 23/06/21		Econlit 1886 to June 17, 2021
Embase	Original searches 03/03/20	Ovid	Embase 1996 to 2020 March 03
	Rerun searches 23/06/21		Embase 1996 to 2021 June 22
Emcare	Original searches 03/03/20	Ovid	Ovid Emcare 1995 to 2020 week 09
	Rerun searches 23/06/21		Emcare 1995 to 2021 Week 24
HTA	Original searches 11/03/20	CRD	-
INAHTA	Rerun searches 23/06/21	-	-

Medline	Original searches 03/03/20	Ovid	Ovid MEDLINE(R) 1946 to March 03, 2020
	Rerun searches 03/03/20		Ovid MEDLINE(R) 1996 to June 22, 2021
MEDLINE-in-Process (including Epub Ahead-of-Print)	Original searches 03/03/20	Ovid	Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations 1946 to March 03, 2020
	Rerun searches 23/06/21		MEDLINE(R) In-Process & In-Data-Review Citations 1946 to June 22, 2021
Medline Epub Ahead-of-Print	Original searches	Ovid	Original search: Epub Ahead-of-Print was searched as part of MEDLINE-in-Process
	Rerun searches 23/06/21		MEDLINE(R) Epub Ahead of Print June 22, 2021
NHS EED / HTA	Original searches 11/03/20	CRD	-
PsycINFO	Original searches 03/03/20	Ovid	PsycINFO 2002 to March Week 1 2020
	Rerun searches 23/06/21		PsycInfo 2002 to June Week 2 2021

4. Number of records retrieved

4.1 Question 1.1-1.2

Search source	No. of records retrieved (original searches)	No. of records retrieved (rerun searches)	Results	De-duplicated
Cochrane Central Register of Controlled Trials (CENTRAL)	3,547	317	39,583	20,228
Cochrane Database of Systematic Reviews (CDSR)	208	6		
Embase	10,266	1,626		
Emcare	5,528	788		
Medline	8,427	1,135		
MEDLINE-in-Process (including Epub Ahead-of-Print)	1,013			
MEDLINE-in-Process		214		
Medline Epub ahead of print		154		
PsycINFO	5,915	439		
Cost effective searches				

Reducing sexually transmitted infections

Econlit	50	4		
Embase	1,400	189		
HTA	54	-		
INAHTA	-	6		
Medline ALL	1,088	127		
NHS EED	0	-		

5. Database search strategies

5.1 Cochrane Central Register of Controlled Trials (CENTRAL) / Cochrane Database or Systematic Reviews (CDSR)

5.1.1 Original searches

- #1 ((gay near/3 (male* or men))):ti,ab,kw (Word variations have been searched)
- #2 MeSH descriptor: [Homosexuality, Male] this term only
- #3 MeSH descriptor: [Sexual and Gender Disorders] this term only
- #4 MeSH descriptor: [Bisexuality] this term only
- #5 MeSH descriptor: [Transgender Persons] this term only
- #6 MeSH descriptor: [Homosexuality] this term only
- #7 (men who have sex with men):ti,ab,kw
- #8 ((same sex or non heterosexual* or non-heterosexual* or nonheterosexual*)):ti,ab,kw
- #9 (MSM):ti,ab,kw
- #10 ((transgender* or transexual* or transsexual* or trans man or trans men or trans masculine or (gender NEAR (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois or heteroflexible* or bicurious* or bi-curious* or transpeople* or transperson*)):ti,ab,kw
- #11 ((bisexual* or homosexual* or lgbt)):ti,ab,kw
- #12 ((male near/3 (sex work* or prostitut* or transactional sex or escort*))):ti,ab,kw
- #13 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12
- #14 ((rough sleep* or runaway*)):ti,ab,kw
- #15 MeSH descriptor: [Homeless Persons] explode all trees
- #16 (((temporary or emergency) near/2 (shelter* or accommodation*)):ti,ab,kw
- #17 ((homeless* near/2 (household* or primary or secondary or unshelter* or unhoused or institut*)):ti,ab,kw
- #18 ((homelessness or encampment* or makeshift shelter*)):ti,ab,kw
- #19 ((squatter* or beggar*)):ti,ab,kw
- #20 (((homeless* or street or destitut*) near/2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*)):ti,ab,kw
- #21 #14 or #15 or #16 or #17 or #18 or #19 or #20
- #22 ((teen* or youth* or adolescen* or juvenile*)):ti,ab,kw
- #23 ((young near/2 (adult* or person* or individual* or people* or population* or man or men or wom?n or male* or female* or subject*)):ti,ab,kw
- #24 (student*):ti,ab,kw
- #25 MeSH descriptor: [Students] this term only
- #26 ((under near/2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or 25 or 24 or 23 or 22 or 21 or 20 or 19 or 18))):ti,ab,kw
- #27 ((over near/2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") near/2 (year or years or age or ages or aged))):ti,ab,kw
- #28 MeSH descriptor: [Adolescent] this term only
- #29 MeSH descriptor: [Adolescent Behavior] this term only
- #30 MeSH descriptor: [Adolescent Health] this term only
- #31 MeSH descriptor: [Adolescent Development] this term only
- #32 MeSH descriptor: [Young Adult] this term only
- #33 #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32
- #34 ((black* or Afrocaribbean* or caribbean* or african* or African American*)):ti,ab,kw
- #35 MeSH descriptor: [African Continental Ancestry Group] this term only
- #36 MeSH descriptor: [African Americans] this term only
- #37 #34 or #35 or #36
- #38 MeSH descriptor: [Emigrants and Immigrants] this term only
- #39 MeSH descriptor: [Emigration and Immigration] this term only
- #40 MeSH descriptor: [Human Migration] this term only
- #41 MeSH descriptor: [Refugees] this term only
- #42 MeSH descriptor: [Transients and Migrants] this term only
- #43 MeSH descriptor: [Undocumented Immigrants] this term only
- #44 ((foreigner* or migrant* or immigrant* or emigrant* or refugee*)):ti,ab,kw
- #45 ((asylum seek* or seeking asylum or asylee*)):ti,ab,kw
- #46 (((displaced or alien*) near/2 (people* or person*)):ti,ab,kw

- #47 ((born near/2 overseas)):ti,ab,kw
- #48 (foreign born):ti,ab,kw
- #49 (((marginal* or transient or undocumented) near/1 (people* or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph*)):ti,ab,kw
- #50 #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49
- #51 #21 or #50
- #52 #13 or #33 or #37
- #53 MeSH descriptor: [Herpes Genitalis] this term only
- #54 MeSH descriptor: [Herpes Simplex] this term only
- #55 (((genital* or simplex*) near/3 herpes*)):ti,ab,kw
- #56 (chlamydia*):ti,ab,kw
- #57 MeSH descriptor: [Chlamydia Infections] this term only
- #58 MeSH descriptor: [Chlamydia] this term only
- #59 MeSH descriptor: [Chlamydia trachomatis] this term only
- #60 (((genital* or anogenital* or ano-genital* or venereal*) near/3 wart*)):ti,ab,kw
- #61 [mh "Condylomata Acuminata"] or [mh "Papillomavirus Infections"] or [mh "Gonorrhoea"] or [mh "Syphilis"] or [mh "Lymphogranuloma Venereum"] or [mh "Trichomonas vaginalis"] or [mh "Trichomonas Infections"] or [mh "HIV Infections"] or [mh "HIV"] or [mh "Mycoplasma genitalium"] or [mh "Sexually Transmitted Diseases"]
- #62 ("condylomata acuminata"):ti,ab,kw
- #63 ((papillomavirus near (human* or infect*)):ti,ab,kw
- #64 (hpv.ti,ab.):ti,ab,kw
- #65 ((Gonorrhoea* or Gonorrhoea*)):ti,ab,kw
- #66 (syphilis*):ti,ab,kw
- #67 ((lymphogranuloma venereum or lgv)):ti,ab,kw
- #68 ((trichomonas vaginali* or Trichomoniasi*)):ti,ab,kw
- #69 ((hiv or human Immunodeficiency Virus*)):ti,ab,kw
- #70 ((mycoplasma genitalium or Mgen)):ti,ab,kw
- #71 (((sexually near/2 transmit* near/2 (disease* or infection*)) or sti or std)):ti,ab,kw
- #72 ((venereal* near/2 (disease* or infection*)):ti,ab,kw
- #73 #53 or #54 or #55 or #56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72
- #74 [mh "peer group"] or [mh "peer influence"] or [mh "counseling"] or [mh "sex counseling"] or [mh "Motivational Interviewing"] or [mh "Cognitive Behavioral Therapy"] or [mh "Social Support"] or [mh "Risk Reduction Behavior"] or [mh "Health Promotion"] or [mh "Patient Education as Topic"] or [mh "Government Publications as Topic"] or [mh "persuasive communication"] or [mh "information dissemination"] or [mh "Public Health"] or [mh "Health Knowledge, Attitudes, Practice"] or [mh "Text Messaging"] or [mh "Electronic Mail"] or [mh "Social Media"]
- #75 (((peer or peers) near/2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*)):ti,ab,kw
- #76 (role model*):ti,ab,kw
- #77 ((counselling or counseling)):ti,ab,kw
- #78 ((motivat* near/2 (interview* or incentive*)):ti,ab,kw
- #79 (((cognitive or behavio*) near/2 therap*)):ti,ab,kw
- #80 (((One to one or 1 to 1) near/2 intervention*)):ti,ab,kw
- #81 (social support*):ti,ab,kw
- #82 ((self near/2 (belief* or aware*)):ti,ab,kw
- #83 ((covert near/2 learn*)):ti,ab,kw
- #84 ((reward* near/2 threat*)):ti,ab,kw
- #85 (Contingency management):ti,ab,kw
- #86 ((repetition* near/2 substitut*)):ti,ab,kw
- #87 ((compar* near/2 (outcome* or behaviour* or behavior*)):ti,ab,kw
- #88 ((natural* near/2 consequence*)):ti,ab,kw
- #89 ((shap* near/2 knowledge*)):ti,ab,kw
- #90 ((feedback near/2 monitor*)):ti,ab,kw
- #91 ((goal* near/2 (plan* or set*)):ti,ab,kw
- #92 (skill* build*):ti,ab,kw
- #93 (((behavior* or behaviour* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):ti
- #94 (((behavior* or behaviour* or lifestyle* or "life style*") near/2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):ab (Word variations have been searched)
- #95 (((behavior* or behaviour* or lifestyle* or "life style*") near/2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):kw (Word variations have been searched)

- #96 ((risk reduc* near/2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)):ti,ab,kw
- #97 (((monogam* or safe*) near/2 (agreement* or contract* or strateg*)):ti,ab,kw
- #98 (((selective* or negotiat* or normalis* or normaliz*) near/2 condom*)):ti,ab,kw
- #99 (((partner* or sex*) near/2 concurren*)):ti,ab,kw
- #100 ((relation* near/2 (dynamic* or focus* or power* or control*)):ti,ab,kw
- #101 ((educat* near/2 (session* or lesson*)):ti,ab,kw
- #102 ((pleasur* near/2 approach*)):ti,ab,kw
- #103 (((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) near/4 (promotion* or campaign* or intervention* or toolkit* or strateg*)):ti,ab,kw
- #104 ((rais* near/2 awareness near/4 (promotion* or campaign* or intervention* or toolkit* or strateg*)):ti,ab,kw
- #105 (((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) near/2 (public health or health promot*)):ti,ab,kw
- #106 #74 or #75 or #76 or #77 or #78 or #79 or #80 or #81 or #82 or #83 or #84 or #85 or #86 or #87 or #88 or #89 or #90 or #91 or #92 or #93 or #94 or #95 or #96 or #97 or #98 or #99 or #100 or #101 or #102 or #103 or #104 or #105
- #107 #51 and #73 and #106
- #108 (clinicaltrials or trialsearch):so
- #109 #107 not #108
- #110 "conference":pt
- #111 #109 not #110 with Publication Year from 2009 to 2020, in Trials
- #112 #51 and #73 and #106 with Cochrane Library publication date Between Jan 2009 and Feb 2020, in Cochrane Reviews, Cochrane Protocols
- #113 #52 and #73 and #106
- #114 (clinicaltrials or trialsearch):so
- #115 #113 not #114
- #116 "conference":pt
- #117 #115 not #116 with Publication Year from 2009 to 2020, in Trials
- #118 #52 and #73 and #106 with Cochrane Library publication date Between Jan 2009 and Feb 2020, in Cochrane Reviews, Cochrane Protocols

Notes

Line 115: downloaded as CENTRAL results

Line 118: downloaded as CDSR results

5.1.2 Rerun searches

- #1 (gay*):ti,ab,kw (Word variations have been searched)
- #2 MeSH descriptor: [Homosexuality, Male] this term only
- #3 MeSH descriptor: [Sexual and Gender Minorities] this term only
- #4 MeSH descriptor: [Bisexuality] this term only
- #5 MeSH descriptor: [Transgender Persons] this term only
- #6 MeSH descriptor: [Homosexuality] this term only
- #7 (men who have sex with men):ti,ab,kw
- #8 [mh ^"Transgender Persons"] or [mh ^"Transsexualism"] or [mh ^"Health Services for Transgender Persons"]
- #9 ((same sex or non heterosexual* or non-heterosexual* or nonheterosexual*)):ti,ab,kw
- #10 (MSM):ti,ab,kw
- #11 (((transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender near (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*)):ti,ab,kw
- #12 ((bisexual* or homosexual* or lgbt)):ti,ab,kw
- #13 (((male or man or men or boy*) near/3 (sex work* or prostitut* or transactional sex or escort*)):ti,ab,kw

- #14 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #9 or #10 or #11 or #12 or #13
- #15 ((rough sleep* or runaway*)):ti,ab,kw
- #16 MeSH descriptor: [Homeless Persons] explode all trees
- #17 (((temporary or emergency) near/2 (shelter* or accommodation*)):ti,ab,kw
- #18 ((homeless* near/2 (household* or primary or secondary or unshelter* or unhoused or institut*)):ti,ab,kw
- #19 ((homelessness or encampment* or makeshift shelter*)):ti,ab,kw
- #20 ((squatter* or beggar*)):ti,ab,kw
- #21 (((homeless* or street or destitut*) near/2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*)):ti,ab,kw
- #22 #15 or #16 or #17 or #18 or #19 or #20 or #21
- #23 ((teen* or youth* or adolescen* or juvenile*)):ti,ab,kw
- #24 ((young near/2 (adult* or person* or individual* or people* or population* or man or men or wom?n or male* or female* or subject*)):ti,ab,kw
- #25 (student*):ti,ab,kw
- #26 MeSH descriptor: [Students] this term only
- #27 ((under near/2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or 25 or 24 or 23 or 22 or 21 or 20 or 19 or 18)):ti,ab,kw
- #28 ((over near/2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") near/2 (year or years or age or aged)):ti,ab,kw
- #29 MeSH descriptor: [Adolescent] this term only
- #30 MeSH descriptor: [Adolescent Behavior] this term only
- #31 MeSH descriptor: [Adolescent Health] this term only
- #32 MeSH descriptor: [Adolescent Development] this term only
- #33 MeSH descriptor: [Young Adult] this term only
- #34 #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33
- #35 ((black* or Afrocaribbean* or caribbean* or african* or African American*)):ti,ab,kw
- #36 MeSH descriptor: [African Continental Ancestry Group] this term only
- #37 MeSH descriptor: [African Americans] this term only
- #38 #35 or #36 or #37
- #39 MeSH descriptor: [Emigrants and Immigrants] this term only
- #40 MeSH descriptor: [Emigration and Immigration] this term only
- #41 MeSH descriptor: [Human Migration] this term only
- #42 MeSH descriptor: [Refugees] this term only
- #43 MeSH descriptor: [Transients and Migrants] this term only
- #44 MeSH descriptor: [Undocumented Immigrants] this term only
- #45 ((foreigner* or migrant* or immigrant* or emigrant* or refugee*)):ti,ab,kw
- #46 ((asylum seek* or seeking asylum or asylee*)):ti,ab,kw
- #47 (((displaced or alien*) near/2 (people* or person*)):ti,ab,kw
- #48 ((born near/2 overseas)):ti,ab,kw
- #49 (foreign born):ti,ab,kw
- #50 (((marginal* or transient or undocumented) near/1 (people* or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph*)):ti,ab,kw
- #51 #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49 or #50
- #52 #22 or #51
- #53 #14 or #34 or #38
- #54 MeSH descriptor: [Herpes Genitalis] this term only
- #55 MeSH descriptor: [Herpes Simplex] this term only
- #56 (((genital* or simplex*) near/3 herpes*)):ti,ab,kw
- #57 (chlamydia*):ti,ab,kw
- #58 MeSH descriptor: [Chlamydia Infections] this term only
- #59 MeSH descriptor: [Chlamydia] this term only
- #60 MeSH descriptor: [Chlamydia trachomatis] this term only
- #61 (((genital* or anogenital* or ano-genital* or venereal*) near/3 wart*)):ti,ab,kw
- #62 [mh ^"Condylomata Acuminata"] or [mh ^"Papillomavirus Infections"] or [mh ^"Gonorrhoea"] or [mh ^"Syphilis"] or [mh ^"Lymphogranuloma Venereum"] or [mh ^"Trichomonas vaginalis"] or [mh ^"Trichomonas Infections"] or [mh ^"HIV Infections"] or [mh ^"HIV"] or [mh ^"Mycoplasma genitalium"] or [mh ^"Sexually Transmitted Diseases"]
- #63 ("condylomata acuminata"):ti,ab,kw
- #64 ((papillomavirus near (human* or infect*)):ti,ab,kw
- #65 (hpv):ti,ab,kw
- #66 ((Gonorrhoea* or Gonorrhoea*)):ti,ab,kw
- #67 (syphilis*):ti,ab,kw
- #68 ((lymphogranuloma venereum or lgv)):ti,ab,kw
- #69 ((trichomonas vaginali* or Trichomoniasi*)):ti,ab,kw
- #70 ((hiv or human Immunodeficiency Virus*)):ti,ab,kw
- #71 ((mycoplasma genitalium or Mgen)):ti,ab,kw

- #72 (((sexually near/2 transmit* near/2 (disease* or infection*)) or sti or std)):ti,ab,kw
- #73 ((venereal* near/2 (disease* or infection*)):ti,ab,kw
- #74 #54 or #55 or #56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72 or #73
- #75 [mh ^"peer group"] or [mh ^"peer influence"] or [mh ^"counseling"] or [mh ^"sex counseling"] or [mh ^"Motivational Interviewing"] or [mh ^"Cognitive Behavioral Therapy"] or [mh ^"Social Support"] or [mh ^"Risk Reduction Behavior"] or [mh ^"Health Promotion"] or [mh ^"Patient Education as Topic"] or [mh ^"Government Publications as Topic"] or [mh ^"persuasive communication"] or [mh ^"information dissemination"] or [mh ^"Public Health"] or [mh ^"Health Knowledge, Attitudes, Practice"] or [mh ^"Text Messaging"] or [mh ^"Electronic Mail"] or [mh ^"Social Media"]
- #76 (((peer or peers) near/2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*)):ti,ab,kw
- #77 (role model*):ti,ab,kw
- #78 ((counselling or counseling)):ti,ab,kw
- #79 ((motivat* near/2 (interview* or incentive*)):ti,ab,kw
- #80 (((cognitive or behavio*) near/2 therap*)):ti,ab,kw
- #81 (((One to one or 1 to 1) near/2 intervention*)):ti,ab,kw
- #82 (social support*):ti,ab,kw
- #83 ((self near/2 (belief* or aware*)):ti,ab,kw
- #84 ((covert near/2 learn*)):ti,ab,kw
- #85 ((reward* near/2 threat*)):ti,ab,kw
- #86 (Contingency management):ti,ab,kw
- #87 ((repetition* near/2 substitut*)):ti,ab,kw
- #88 ((compar* near/2 (outcome* or behaviour* or behavior*)):ti,ab,kw
- #89 ((natural* near/2 consequence*)):ti,ab,kw
- #90 ((shap* near/2 knowledge*)):ti,ab,kw
- #91 ((feedback near/2 monitor*)):ti,ab,kw
- #92 ((goal* near/2 (plan* or set*)):ti,ab,kw
- #93 (skill* build*):ti,ab,kw
- #94 (((behavior* or behaviour* or lifestyle* or "life style") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):ti
- #95 (((behavior* or behaviour* or lifestyle* or "life style") near/2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):ab (Word variations have been searched)
- #96 (((behavior* or behaviour* or lifestyle* or "life style") near/2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)):kw (Word variations have been searched)
- #97 ((risk reduc* near/2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)):ti,ab,kw
- #98 (((monogam* or safe*) near/2 (agreement* or contract* or strateg*)):ti,ab,kw
- #99 (((selective* or negotiat* or normalis* or normaliz*) near/2 condom*)):ti,ab,kw
- #100 (((partner* or sex*) near/2 concurren*)):ti,ab,kw
- #101 ((relation* near/2 (dynamic* or focus* or power* or control*)):ti,ab,kw
- #102 ((educat* near/2 (session* or lesson*)):ti,ab,kw
- #103 ((pleasur* near/2 approach*)):ti,ab,kw
- #104 (((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) near/4 (promotion* or campaign* or intervention* or toolkit* or strateg*)):ti,ab,kw
- #105 ((rais* near/2 awareness near/4 (promotion* or campaign* or intervention* or toolkit* or strateg*)):ti,ab,kw
- #106 (((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) near/2 (public health or health promot*)):ti,ab,kw
- #107 #75 or #76 or #77 or #78 or #79 or #80 or #81 or #82 or #83 or #84 or #85 or #86 or #87 or #88 or #89 or #90 or #91 or #92 or #93 or #94 or #95 or #96 or #97 or #98 or #99 or #100 or #101 or #102 or #103 or #104 or #105 or #106
- #108 #52 or #53
- #109 #74 and #107 and #108 with Cochrane Library publication date Between Mar 2020 and Jun 2021, in Cochrane Reviews
- #110 #74 and #107 and #108

- #111 (clinicaltrials or trialsearch):so
- #112 #110 not #111
- #113 "conference":pt
- #114 #112 not #113 with Publication Year from 2020 to 2021, in Trials

5.2 Econlit

5.2.1 Original searches

1	(gay adj3 (male* or men)).ti,ab.	135
2	men who have sex with men.ti,ab.	13
3	(same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.	339
4	MSM.ti,ab.	73
5	(transgender* or transexual* or transsexual* or trans man or trans men or trans masculine or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois or heteroflexible* or bicurious* or bi-curious* or transpeople* or transperson*).ti,ab.	138
6	(bisexual* or homosexual* or lgbt).ti,ab.	307
7	(male adj3 (sex work* or prostitut* or transactional sex or escort*).ti,ab.	13
8	or/1-7	843
9	(rough sleep* or runaway*).ti,ab.	102
10	((homeless* or street or destitut*) adj2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*).ti,ab.	261
11	((temporary or emergency) adj2 (shelter* or accommodation*).ti,ab.	29
12	(homeless* adj2 (household* or primary or secondary or unshelter* or unhoused or institut*).ti,ab.	23
13	(homelessness or encampment* or makeshift shelter*).ti,ab.	450
14	(squatter* or beggar*).ti,ab.	451
15	or/9-14	1141
16	(teen* or youth* or adolescen* or juvenile*).ti,ab.	8929
17	(young adj2 (adult* or person* or individual* or people* or population* or man or men or wom?n or male* or female* or subject*).ti,ab.	4856
18	student*.ti,ab.	20419
19	(under adj2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or "25" or "24" or "23" or 22 or 21 or 20 or 19 or 18)).ti,ab.	71
20	(over adj2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") adj2 (year or years or age or ages or aged)).ti,ab.	195
21	((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-22) adj2 (year or years or age or ages or aged)).ti,ab.	78
22	or/16-21	31908
23	(black* or Afrocaribbean* or caribbean* or african* or African American*).ti,ab.	27871
24	(foreigner* or migrant* or immigrant* or emigrant* or refugee*).ti,ab.	15032
25	(asylum seek* or seeking asylum or asylee*).ti,ab.	168
26	((displaced or alien*) adj2 (people* or person*).ti,ab.	155
27	(born adj2 overseas).ti,ab.	11
28	foreign born.ti,ab.	689
29	((marginal* or transient or undocumented) adj1 (people* or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph*).ti,ab.	484
30	or/24-29	15890
31	15 or 30	16983
32	8 or 22 or 23	58917
33	((genital* or simplex*) adj3 herpes*).ti,ab.	4
34	chlamydia*.ti,ab.	22
35	((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.	5
36	"condylomata acuminata".ti,ab.	0
37	(papillomavirus adj (human* or infect*).ti,ab.	1
38	hpv.ti,ab.	36
39	(Gonorrhoea* or Gonorrhoea*).ti,ab.	33
40	syphilis*.ti,ab.	32
41	(lymphogranuloma venereum or lgv).ti,ab.	6
42	(trichomonas vaginali* or Trichomoniasi*).ti,ab.	4
43	(hiv or human Immunodeficiency Virus*).ti,ab.	1894
44	(mycoplasma genitalium or Mgen).ti,ab.	0
45	((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.	305
46	(venereal* adj2 (disease* or infection*).ti,ab.	7
47	or/33-46	2193
48	((peer or peers) adj2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*).ti,ab.	1064
49	role model*.ti,ab.	432

50	(counselling or counseling).ti,ab.	555
51	(motivat* adj2 (interview* or incentive*)),ti,ab.	192
52	((One-to-one or one to one or 1-1) adj2 intervention*).ti,ab.	0
53	((cognitive or behavior*) adj2 therap*).ti,ab.	45
54	social support*.ti,ab.	504
55	(self adj2 (belief* or aware*)),ti,ab.	266
56	(covert adj2 learn*).ti,ab.	0
57	(reward* adj2 threat*).ti,ab.	9
58	Contingency management.ti,ab.	9
59	(repetition* adj2 substitut*).ti,ab.	1
60	(compar* adj2 (outcome* or behaviour* or behavior*)),ti,ab.	1442
61	(natural* adj2 consequence*).ti,ab.	131
62	(shap* adj2 knowledge*).ti,ab.	73
63	(feedback adj2 monitor*).ti,ab.	13
64	(goal* adj2 (plan* or set*)),ti,ab.	631
65	skill* build*.ti,ab.	30
66	((behavior?r* or lifestyle* or "life style**") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)),ti.	1420
67	((behavior?r* or lifestyle* or "life style**") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)),ab,kw.	4607
68	(risk reduc* adj2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)),ti,ab.	62
69	((monogam* or safe*) adj2 (agreement* or contract* or strateg*)),ti,ab.	139
70	((selective* or negotiat* or normalis* or normaliz*) adj2 condom*).ti,ab.	4
71	((partner* or sex*) adj2 concurren*).ti,ab.	21
72	(relation* adj2 (dynamic* or focus* or power* or control*)),ti,ab.	3247
73	(educat* adj2 (session* or lesson*)),ti,ab.	71
74	(pleasur* adj2 approach*).ti,ab.	0
75	((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)),ti,ab.	6666
76	(rais* adj2 awareness adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)),ti,ab.	21
77	((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) adj2 (public health or health promot*)),ti,ab.	103
78	or/48-77 21108	
79	31 or 32 74005	
80	47 and 78 and 79 74	
81	limit 80 to yr="2009 -Current"	50

5.2.2 Rerun searches

1	gay*.ti,ab.	559
2	men who have sex with men.ti,ab.	14
3	(same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.	402
4	MSM.ti,ab.	82
5	(transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.	185
6	(bisexual* or homosexual* or lgbt).ti,ab.	359
7	((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*)),ti,ab.	17
8	or/1-7 1238	
9	(rough sleep* or runaway*).ti,ab.	110
10	((homeless* or street or destitut*) adj2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*)),ti,ab.	293

11	((temporary or emergency) adj2 (shelter* or accommodation*)).ti,ab.	38
12	(homeless* adj2 (household* or primary or secondary or unshelter* or unhoused or institut*)).ti,ab.	26
13	(homelessness or encampment* or makeshift shelter*).ti,ab.	520
14	(squatter* or beggar*).ti,ab.	471
15	or/9-14	1242
16	(teen* or youth* or adolescen* or juvenile*).ti,ab.	9666
17	(young adj2 (adult* or person* or individual* or people* or population* or man or men or wom?n or male* or female* or subject*)).ti,ab.	5383
18	student*.ti,ab.	22506
19	(under adj2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or "25" or "24" or "23" or "22" or "21" or "20" or "19" or "18")).ti,ab.	290
20	(over adj2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") adj2 (year or years or age or ages or aged)).ti,ab.	222
21	((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-22) adj2 (year or years or age or ages or aged)).ti,ab.	91
22	or/16-21	35168
23	(black* or Afrocaribbean* or caribbean* or african* or African American*).ti,ab.	29977
24	(foreigner* or migrant* or immigrant* or emigrant* or refugee*).ti,ab.	16615
25	(asylum seek* or seeking asylum or asylee*).ti,ab.	201
26	((displaced or alien*) adj2 (people* or person*)).ti,ab.	175
27	(born adj2 overseas).ti,ab.	11
28	foreign born.ti,ab.	779
29	((marginal* or transient or undocumented) adj1 (people* or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph*)).ti,ab.	574
30	or/24-29	17606
31	15 or 30	18792
32	8 or 22 or 23	64499
33	((genital* or simplex*) adj3 herpes*).ti,ab.	5
34	chlamydia*.ti,ab.	23
35	((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.	5
36	"condylomata acuminata".ti,ab.	0
37	(papillomavirus adj (human* or infect*)).ti,ab.	1
38	hpv.ti,ab.	44
39	(Gonorrhoea* or Gonorrhoea*).ti,ab.	36
40	syphilis*.ti,ab.	33
41	(lymphogranuloma venereum or lgv).ti,ab.	7
42	(trichomonas vaginali* or Trichomoniasi*).ti,ab.	4
43	(hiv or human Immunodeficiency Virus*).ti,ab.	1966
44	(mycoplasma genitalium or Mgen).ti,ab.	2
45	((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.	338
46	(venereal* adj2 (disease* or infection*)).ti,ab.	7
47	or/33-46	2311
48	((peer or peers) adj2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*)).ti,ab.	1189
49	role model*.ti,ab.	493
50	(counselling or counseling).ti,ab.	612
51	(motivat* adj2 (interview* or incentive*)).ti,ab.	212
52	((One-to-one or one to one or 1-1) adj2 intervention*).ti,ab.	0
53	((cognitive or behavio*) adj2 therap*).ti,ab.	49
54	social support*.ti,ab.	565
55	(self adj2 (belief* or aware*)).ti,ab.	290
56	(covert adj2 learn*).ti,ab.	0
57	(reward* adj2 threat*).ti,ab.	10
58	Contingency management.ti,ab.	10
59	(repetition* adj2 substitut*).ti,ab.	1
60	(compar* adj2 (outcome* or behaviour* or behavior*)).ti,ab.	1604
61	(natural* adj2 consequence*).ti,ab.	134
62	(shap* adj2 knowledge*).ti,ab.	76
63	(feedback adj2 monitor*).ti,ab.	15
64	(goal* adj2 (plan* or set*)).ti,ab.	717
65	skill* build*.ti,ab.	31
66	((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti.	1539

- 67 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw. 5132
- 68 (risk reduc* adj2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)).ti,ab. 70
- 69 ((monogam* or safe*) adj2 (agreement* or contract* or strateg*)).ti,ab. 149
- 70 ((selective* or negotiat* or normalis* or normaliz*) adj2 condom*).ti,ab. 4
- 71 ((partner* or sex*) adj2 concurren*).ti,ab. 21
- 72 (relation* adj2 (dynamic* or focus* or power* or control*)).ti,ab. 3565
- 73 (educat* adj2 (session* or lesson*)).ti,ab. 74
- 74 (pleasur* adj2 approach*).ti,ab. 0
- 75 ((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab. 7278
- 76 (rais* adj2 awareness adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab. 27
- 77 ((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) adj2 (public health or health promot*).ti,ab. 116
- 78 or/48-77 23238
- 79 31 or 32 81179
- 80 47 and 78 and 79 78
- 81 limit 80 to yr="2020 -Current" 4

5.3 Embase

5.3.1 Original searches

- 1 (gay adj3 (male* or men)).ti,ab.
- 2 male homosexuality/
- 3 "sexual and gender minority"/
- 4 bisexuality/
- 5 men who have sex with men/ or "men who have sex with men and women"/
- 6 bisexual male/
- 7 exp transgender/
- 8 transsexualism/
- 9 homosexuality/
- 10 men who have sex with men.ti,ab.
- 11 (same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.
- 12 MSM.ti,ab.
- 13 (transgender* or transexual* or transsexual* or trans man or trans men or trans masculine or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois or heteroflexible* or bicurious* or bi-curious* or transpeople* or transperson*).ti,ab.
- 14 (bisexual* or homosexual* or lgbt).ti,ab.
- 15 (male adj3 (sex work* or prostitut* or transactional sex or escort*).ti,ab.
- 16 or/1-15
- 17 (rough sleep* or runaway*).ti,ab.
- 18 ((homeless* or street or destitut*) adj2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*).ti,ab.
- 19 exp homeless person/
- 20 ((temporary or emergency) adj2 (shelter* or accommodation*).ti,ab.
- 21 homelessness/
- 22 (homeless* adj2 (household* or primary or secondary or unshelter* or unhoused or institut*).ti,ab.
- 23 (homelessness or encampment* or makeshift shelter*).ti,ab.
- 24 (squatter* or beggar*).ti,ab.
- 25 or/17-24
- 26 (teen* or youth* or adolescen* or juvenile*).ti,ab.

- 27 (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom?n or male* or female* or subject*)).ti,ab.
- 28 student*.ti,ab.
- 29 college student/ or university student/ or undergraduate student/ or student/
- 30 (under adj2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or "25" or "24" or "23" or 22 or 21 or 20 or 19 or 18")).ti,ab.
- 31 (over adj2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") adj2 (year or years or age or ages or aged)).ti,ab.
- 32 ((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-22) adj2 (year or years or age or ages or aged)).ti,ab.
- 33 adolescent behavior/ or adolescent health/ or adolescent/ or adolescent development/ or adolescent sexual behavior/
- 34 young adult/
- 35 or/26-34
- 36 (black* or Afrocaribbean* or caribbean* or african* or African American*).ti,ab.
- 37 black person/ or african american/ or african caribbean/
- 38 or/36-37
- 39 migrant/ or emigrant/ or immigrant/ or refugee/
- 40 asylum seeker/
- 41 undocumented immigrant/
- 42 (foreigner* or migrant* or immigrant* or emigrant* or refugee*).ti,ab.
- 43 (asylum seek* or seeking asylum or asylee*).ti,ab.
- 44 ((displaced or alien*) adj2 (people* or person*)).ti,ab.
- 45 (born adj2 overseas).ti,ab.
- 46 foreign born.ti,ab.
- 47 ((marginal* or transient or undocumented) adj1 (people* or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph*)).ti,ab.
- 48 or/39-47
- 49 genital herpes/
- 50 herpes simplex/
- 51 ((genital* or simplex*) adj3 herpes*).ti,ab.
- 52 chlamydia*.ti,ab.
- 53 Chlamydia trachomatis/ or Chlamydia/
- 54 chlamydiasis/
- 55 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
- 56 condyloma acuminatum/
- 57 "condylomata acuminata".ti,ab.
- 58 papillomavirus infection/
- 59 (papillomavirus adj (human* or infect*)).ti,ab.
- 60 hpv.ti,ab.
- 61 gonorrhea/
- 62 (Gonorrhea* or Gonorrhoea*).ti,ab.
- 63 syphilis/
- 64 syphilis*.ti,ab.
- 65 (lymphogranuloma venereum or lgv).ti,ab.
- 66 lymphogranuloma venereum/
- 67 Trichomonas vaginalis/
- 68 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
- 69 trichomoniasis/
- 70 Human immunodeficiency virus infection/
- 71 (hiv or human Immunodeficiency Virus*).ti,ab.
- 72 (mycoplasma genitalium or Mgen).ti,ab.
- 73 Mycoplasma genitalium/
- 74 sexually transmitted disease/
- 75 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
- 76 (venereal* adj2 (disease* or infection*)).ti,ab.
- 77 or/49-76
- 78 ((peer or peers) adj2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*)).ti,ab.
- 79 role model*.ti,ab.
- 80 peer counseling/ or peer group/
- 81 peer pressure/
- 82 or/78-81
- 83 (counselling or counseling).ti,ab.
- 84 (motivat* adj2 (interview* or incentive*)).ti,ab.
- 85 counseling/ or sexual counseling/

- 86 motivational interviewing/
 87 ((One-to-one or one to one or 1-1) adj2 intervention*).ti,ab.
 88 ((cognitive or behavio*) adj2 therap*).ti,ab.
 89 cognitive behavioral therapy/
 90 or/83-89
 91 social support*.ti,ab.
 92 (self adj2 (belief* or aware*)).ti,ab.
 93 (covert adj2 learn*).ti,ab.
 94 (reward* adj2 threat*).ti,ab.
 95 Contingency management.ti,ab.
 96 (repetition* adj2 substitut*).ti,ab.
 97 (compar* adj2 (outcome* or behaviour* or behavior*)).ti,ab.
 98 (natural* adj2 consequence*).ti,ab.
 99 (shap* adj2 knowledge*).ti,ab.
 100 (feedback adj2 monitor*).ti,ab.
 101 (goal* adj2 (plan* or set*)).ti,ab.
 102 skill* build*.ti,ab.
 103 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or
 modifying or therapy or therapies or program* or intervention* or technique* or establish* or
 individual*)).ti.
 104 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or
 modifying or therapy or therapies or program* or intervention* or technique* or establish* or
 individual*)).ab,kw.
 105 social support/
 106 self concept/
 107 behavior change/
 108 lifestyle modification/
 109 or/91-108
 110 (risk reduc* adj2 (strateg* or counsel* or practice* or agreement* or behaviour* or
 behavior*)).ti,ab.
 111 ((monogam* or safe*) adj2 (agreement* or contract* or strateg*)).ti,ab.
 112 ((selective* or negotiat* or normalis* or normaliz*) adj2 condom*).ti,ab.
 113 ((partner* or sex*) adj2 concurren*).ti,ab.
 114 (relation* adj2 (dynamic* or focus* or power* or control*)).ti,ab.
 115 (educat* adj2 (session* or lesson*)).ti,ab.
 116 (pleasur* adj2 approach*).ti,ab.
 117 risk reduction/
 118 or/110-117
 119 ((universal or population or national* or public health or nationwide* or statewide* or
 countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city
 wide* or government*) adj4 (promotion* or campaign* or intervention* or toolkit* or
 strateg*).ti,ab.
 120 (rais* adj2 awareness adj4 (promotion* or campaign* or intervention* or toolkit* or
 strateg*).ti,ab.
 121 ((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert*
 or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card*
 or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social
 market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or
 email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or
 remote or communit* or inform*) adj2 (public health or health promot*).ti,ab.
 122 health promotion/
 123 patient education/ or patient guidance/
 124 persuasive communication/
 125 information dissemination/
 126 public health/
 127 attitude to health/
 128 text messaging/
 129 e-mail/
 130 social media/
 131 or/119-130
 132 82 or 90 or 109 or 118 or 131
 133 25 or 48
 134 77 and 132 and 133
 135 16 or 35 or 38
 136 77 and 132 and 135
 137 exp angola/ or exp benin/ or exp botswana/ or exp burkina faso/ or exp burundi/ or exp
 cameroon/ or exp cape verde/ or exp central africa/ or exp central african republic/ or exp chad/

- or exp comoros/ or exp congo/ or exp cote d'ivoire/ or exp democratic republic congo/ or exp djibouti/ or exp equatorial guinea/ or exp eritrea/ or exp ethiopia/ or exp gabon/ or exp gambia/ or exp ghana/ or exp guinea/ or exp guinea-bissau/ or exp kenya/ or exp lesotho/ or exp liberia/ or exp madagascar/ or exp malawi/ or exp mali/ or exp mayotte/ or exp mozambique/ or exp namibia/ or exp niger/ or exp nigeria/ or exp rwanda/ or exp sahel/ or exp senegal/ or exp sierra leone/ or exp somalia/ or exp south sudan/ or exp sudan/ or exp swaziland/ or exp tanzania/ or exp togo/ or exp uganda/ or exp zambia/ or exp zimbabwe/ or Central Africa/ or exp north africa/ or exp kazakhstan/ or exp kyrgyzstan/ or exp tajikistan/ or exp turkmenistan/ or exp uzbekistan/ or korea/ or exp north korea/ or exp mongolia/ or exp philippines/ or exp taiwan/ or exp borneo/ or exp brunei darussalam/ or exp cambodia/ or exp indonesia/ or exp laos/ or exp malaysia/ or exp myanmar/ or exp papua new guinea/ or exp singapore/ or exp thailand/ or exp timor-leste/ or exp viet nam/ or exp bahrain/ or exp iran/ or exp iraq/ or exp jordan/ or exp kuwait/ or exp lebanon/ or exp oman/ or exp qatar/ or exp saudi arabia/ or exp syrian arab republic/ or exp united arab emirates/ or exp yemen/ or exp afghanistan/ or exp bangladesh/ or exp bhutan/ or exp nepal/ or exp pakistan/ or exp sri lanka/ or exp argentina/ or exp bolivia/ or exp colombia/ or exp ecuador/ or exp guyana/ or exp paraguay/ or exp peru/ or exp suriname/ or exp uruguay/ or exp venezuela/ or exp China/ or exp Brazil/ or exp Russian Federation/ or exp South Africa/ or exp India/
138 exp "australia and new zealand"/ or exp "western europe"/ or exp "North America"/ or exp Chile/ or exp "Czech Republic"/ or exp Scandinavia/ or exp "Baltic States"/ or exp Greece/ or exp Hungary/ or exp Israel/ or exp Italy/ or exp Japan/ or exp Korea/ or exp "South Korea"/ or exp Portugal/ or exp Slovakia/ or exp Slovenia/ or exp Spain/ or exp "Turkey (republic)"/
139 exp "Organisation for Economic Co-operation and Development"/
140 oecd*.ti,ab.
141 "Organisation for Economic Co-operation and Development".ti,ab.
142 "Organisation for Economic Cooperation and Development".ti,ab.
143 "Organization for Economic Co-operation and Development".ti,ab.
144 "Organization for Economic Cooperation and Development".ti,ab.
145 European Union/
146 developed country/
147 europe/
148 or/138-147
149 137 not (137 and 148)
150 134 not 149
151 limit 150 to english language
152 (letter or editorial).pt.
153 151 not 152
154 nonhuman/ not (human/ and nonhuman/
155 153 not 154
156 (conference abstract or conference paper or conference proceeding or "conference review").pt.
157 155 not 156
158 limit 157 to yr="2009 -Current"
159 136 not 149
160 limit 159 to english language
161 (letter or editorial).pt.
162 160 not 161
163 nonhuman/ not (human/ and nonhuman/
164 162 not 163
165 (conference abstract or conference paper or conference proceeding or "conference review").pt.
166 164 not 165
167 limit 166 to yr="2009 -Current"

5.3.2 Rerun searches

- 1 gay*.ti,ab.
- 2 male homosexuality/
- 3 "sexual and gender minority"/
- 4 bisexuality/
- 5 men who have sex with men/ or "men who have sex with men and women"/
- 6 bisexual male/
- 7 transgender/
- 8 transsexualism/
- 9 homosexuality/
- 10 men who have sex with men.ti,ab.
- 11 (same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.
- 12 MSM.ti,ab.

- 13 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 14 (bisexual* or homosexual* or lgbt).ti,ab.
- 15 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*).ti,ab.
- 16 or/1-15
- 17 (rough sleep* or runaway*).ti,ab.
- 18 ((homeless* or street or destitut*) adj2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*).ti,ab.
- 19 exp homeless person/
- 20 ((temporary or emergency) adj2 (shelter* or accommodation*).ti,ab.
- 21 homelessness/
- 22 (homeless* adj2 (household* or primary or secondary or unshelter* or unhoused or institut*).ti,ab.
- 23 (homelessness or encampment* or makeshift shelter*).ti,ab.
- 24 (squatter* or beggar*).ti,ab.
- 25 or/17-24
- 26 (teen* or youth* or adolescen* or juvenile*).ti,ab.
- 27 (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom?n or male* or female* or subject*).ti,ab.
- 28 student*.ti,ab.
- 29 college student/ or university student/ or undergraduate student/ or student/
- 30 (under adj2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or "25" or "24" or "23" or "22" or "21" or "20" or "19" or "18").ti,ab.
- 31 (over adj2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") adj2 (year or years or age or ages or aged)).ti,ab.
- 32 ((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-22) adj2 (year or years or age or ages or aged)).ti,ab.
- 33 adolescent behavior/ or adolescent health/ or adolescent/ or adolescent development/ or adolescent sexual behavior/
- 34 young adult/
- 35 or/26-34
- 36 (black* or Afrocaribbean* or caribbean* or african* or African American*).ti,ab.
- 37 black person/ or african american/ or african caribbean/
- 38 or/36-37
- 39 migrant/ or emigrant/ or immigrant/ or refugee/
- 40 asylum seeker/
- 41 undocumented immigrant/
- 42 (foreigner* or migrant* or immigrant* or emigrant* or refugee*).ti,ab.
- 43 (asylum seek* or seeking asylum or asylee*).ti,ab.
- 44 ((displaced or alien*) adj2 (people* or person*).ti,ab.
- 45 (born adj2 overseas).ti,ab.
- 46 foreign born.ti,ab.
- 47 ((marginal* or transient or undocumented) adj1 (people* or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph*).ti,ab.
- 48 or/39-47
- 49 genital herpes/
- 50 herpes simplex/
- 51 ((genital* or simplex*) adj3 herpes*).ti,ab.
- 52 chlamydia*.ti,ab.
- 53 Chlamydia trachomatis/ or Chlamydia/
- 54 chlamydia/
- 55 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
- 56 condyloma acuminatum/
- 57 "condylomata acuminata".ti,ab.
- 58 papillomavirus infection/
- 59 (papillomavirus adj (human* or infect*).ti,ab.
- 60 hpv.ti,ab.
- 61 gonorrhoea/
- 62 (Gonorrhoea* or Gonorrhoea*).ti,ab.
- 63 syphilis/
- 64 syphilis*.ti,ab.
- 65 (lymphogranuloma venereum or lgv).ti,ab.
- 66 lymphogranuloma venereum/

- 67 Trichomonas vaginalis/
68 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
69 trichomoniasis/
70 Human immunodeficiency virus infection/
71 (hiv or human Immunodeficiency Virus*).ti,ab.
72 (mycoplasma genitalium or Mgen).ti,ab.
73 Mycoplasma genitalium/
74 sexually transmitted disease/
75 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
76 (venereal* adj2 (disease* or infection*)).ti,ab.
77 or/49-76
78 ((peer or peers) adj2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*)).ti,ab.
79 role model*.ti,ab.
80 peer counseling/ or peer group/
81 peer pressure/
82 or/78-81
83 (counselling or counseling).ti,ab.
84 (motivat* adj2 (interview* or incentive*)).ti,ab.
85 counseling/ or sexual counseling/
86 motivational interviewing/
87 ((One-to-one or one to one or 1-1) adj2 intervention*).ti,ab.
88 ((cognitive or behavio*) adj2 therap*).ti,ab.
89 cognitive behavioral therapy/
90 or/83-89
91 social support*.ti,ab.
92 (self adj2 (belief* or aware*)).ti,ab.
93 (covert adj2 learn*).ti,ab.
94 (reward* adj2 threat*).ti,ab.
95 Contingency management.ti,ab.
96 (repetition* adj2 substitut*).ti,ab.
97 (compar* adj2 (outcome* or behaviour* or behavior*)).ti,ab.
98 (natural* adj2 consequence*).ti,ab.
99 (shap* adj2 knowledge*).ti,ab.
100 (feedback adj2 monitor*).ti,ab.
101 (goal* adj2 (plan* or set*)).ti,ab.
102 skill* build*.ti,ab.
103 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti.
104 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw.
105 social support/
106 self concept/
107 behavior change/
108 lifestyle modification/
109 or/91-108
110 (risk reduc* adj2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)).ti,ab.
111 ((monogam* or safe*) adj2 (agreement* or contract* or strateg*)).ti,ab.
112 ((selective* or negotiat* or normalis* or normaliz*) adj2 condom*).ti,ab.
113 ((partner* or sex*) adj2 concurren*).ti,ab.
114 (relation* adj2 (dynamic* or focus* or power* or control*)).ti,ab.
115 (educat* adj2 (session* or lesson*)).ti,ab.
116 (pleasur* adj2 approach*).ti,ab.
117 risk reduction/
118 or/110-117
119 ((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
120 (rais* adj2 awareness adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
121 ((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card*

- or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) adj2 (public health or health promot*).ti,ab.
- 122 health promotion/
 123 patient education/ or patient guidance/
 124 persuasive communication/
 125 information dissemination/
 126 public health/
 127 attitude to health/
 128 text messaging/
 129 e-mail/
 130 social media/
 131 or/119-130
 132 82 or 90 or 109 or 118 or 131
 133 16 or 25 or 35 or 38 or 48
 134 77 and 132 and 133
 135 afghanistan/ or africa/ or "africa south of the sahara"/ or albania/ or algeria/ or andorra/ or angola/ or argentina/ or "antigua and barbuda"/ or armenia/ or exp azerbaijan/ or bahamas/ or bahrain/ or bangladesh/ or barbados/ or belarus/ or belize/ or benin/ or bhutan/ or bolivia/ or borneo/ or exp "bosnia and herzegovina"/ or botswana/ or exp brazil/ or brunei darussalam/ or bulgaria/ or burkina faso/ or burundi/ or cambodia/ or cameroon/ or cape verde/ or central africa/ or central african republic/ or chad/ or exp china/ or comoros/ or congo/ or cook islands/ or cote d'ivoire/ or croatia/ or cuba/ or cyprus/ or democratic republic congo/ or djibouti/ or dominica/ or dominican republic/ or ecuador/ or el salvador/ or egypt/ or equatorial guinea/ or eritrea/ or eswatini/ or ethiopia/ or exp "federated states of micronesia"/ or fiji/ or gabon/ or gambia/ or exp "georgia (republic)"/ or ghana/ or grenada/ or guatemala/ or guinea/ or guinea-bissau/ or guyana/ or haiti/ or honduras/ or exp india/ or exp indonesia/ or iran/ or exp iraq/ or jamaica/ or jordan/ or kazakhstan/ or kenya/ or kiribati/ or kosovo/ or kuwait/ or kyrgyzstan/ or laos/ or lebanon/ or liechtenstein/ or lesotho/ or liberia/ or libyan arab jamahiriya/ or madagascar/ or malawi/ or exp malaysia/ or maldives/ or mali/ or malta/ or mauritania/ or mauritius/ or melanesia/ or moldova/ or monaco/ or mongolia/ or "montenegro (republic)"/ or morocco/ or mozambique/ or myanmar/ or namibia/ or nauru/ or nepal/ or nicaragua/ or niger/ or nigeria/ or niue/ or north africa/ or oman/ or exp pakistan/ or palau/ or palestine/ or panama/ or papua new guinea/ or paraguay/ or peru/ or philippines/ or polynesia/ or qatar/ or "republic of north macedonia"/ or romania/ or exp russian federation/ or russia/ or sahel/ or "saint kitts and nevis"/ or "saint lucia"/ or "saint vincent and the grenadines"/ or saudi arabia/ or senegal/ or exp serbia/ or seychelles/ or sierra leone/ or singapore/ or "sao tome and principe"/ or solomon islands/ or exp somalia/ or south africa/ or south asia/ or south sudan/ or exp southeast asia/ or sri lanka/ or sudan/ or suriname/ or syrian arab republic/ or taiwan/ or tajikistan/ or tanzania/ or thailand/ or timor-leste/ or togo/ or tonga/ or "trinidad and tobago"/ or tunisia/ or turkmenistan/ or tuvalu/ or uganda/ or exp ukraine/ or exp united arab emirates/ or uruguay/ or exp uzbekistan/ or vanuatu/ or venezuela/ or viet nam/ or western sahara/ or yemen/ or zambia/ or zimbabwe/
- 136 exp "organisation for economic co-operation and development"/
 137 exp australia/ or "australia and new zealand"/ or austria/ or baltic states/ or exp belgium/ or exp canada/ or chile/ or colombia/ or costa rica/ or czech republic/ or denmark/ or estonia/ or europe/ or exp finland/ or exp france/ or exp germany/ or greece/ or hungary/ or iceland/ or ireland/ or israel/ or exp italy/ or japan/ or korea/ or latvia/ or lithuania/ or luxembourg/ or exp mexico/ or netherlands/ or new zealand/ or north america/ or exp norway/ or poland/ or exp portugal/ or scandinavia/ or sweden/ or slovakia/ or slovenia/ or south korea/ or exp spain/ or switzerland/ or exp united kingdom/ or exp united states/ or western europe/
- 138 european union/
 139 developed country/
 140 or/136-139
 141 135 not 140
 142 134 not 141
 143 limit 142 to english language
 144 (letter or editorial).pt.
 145 143 not 144
 146 nonhuman/ not (human/ and nonhuman/)
 147 145 not 146
 148 (conference abstract or conference paper or conference proceeding or "conference review").pt.
 149 147 not 148
 150 limit 149 to dc=20200305-20210623

5.4 Emcare

5.4.1 Original searches

- 1 (gay adj3 (male* or men)).ti,ab.
- 2 male homosexuality/
- 3 "sexual and gender minority"/
- 4 bisexuality/
- 5 men who have sex with men/ or "men who have sex with men and women"/
- 6 bisexual male/
- 7 exp transgender/
- 8 transsexualism/
- 9 homosexuality/
- 10 men who have sex with men.ti,ab.
- 11 (same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.
- 12 MSM.ti,ab.
- 13 (transgender* or transexual* or transsexual* or trans man or trans men or trans masculine or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois or heteroflexible* or bicurious* or bi-curious* or transpeople* or transperson*).ti,ab.
- 14 (bisexual* or homosexual* or lgbt).ti,ab.
- 15 (male adj3 (sex work* or prostitut* or transactional sex or escort*).ti,ab.
- 16 or/1-15
- 17 (rough sleep* or runaway*).ti,ab.
- 18 ((homeless* or street or destitut*) adj2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*).ti,ab.
- 19 exp homeless person/
- 20 ((temporary or emergency) adj2 (shelter* or accommodation*).ti,ab.
- 21 homelessness/
- 22 (homeless* adj2 (household* or primary or secondary or unshelter* or unhoused or institut*).ti,ab.
- 23 (homelessness or encampment* or makeshift shelter*).ti,ab.
- 24 (squatter* or beggar*).ti,ab.
- 25 or/17-24
- 26 (teen* or youth* or adolescen* or juvenile*).ti,ab.
- 27 (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom?n or male* or female* or subject*).ti,ab.
- 28 student*.ti,ab.
- 29 college student/ or university student/ or undergraduate student/ or student/
- 30 (under adj2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or "25" or "24" or "23" or 22 or 21 or 20 or 19 or 18)).ti,ab.
- 31 (over adj2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") adj2 (year or years or age or ages or aged)).ti,ab.
- 32 ((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-22) adj2 (year or years or age or ages or aged)).ti,ab.
- 33 adolescent behavior/ or adolescent health/ or adolescent/ or adolescent development/ or adolescent sexual behavior/
- 34 young adult/
- 35 or/26-34
- 36 (black* or Afrocaribbean* or caribbean* or african* or African American*).ti,ab.
- 37 black person/ or african american/ or african caribbean/
- 38 or/36-37
- 39 migrant/ or emigrant/ or immigrant/ or refugee/
- 40 asylum seeker/
- 41 undocumented immigrant/
- 42 (foreigner* or migrant* or immigrant* or emigrant* or refugee*).ti,ab.
- 43 (asylum seek* or seeking asylum or asylee*).ti,ab.
- 44 ((displaced or alien*) adj2 (people* or person*).ti,ab.

- 45 (born adj2 overseas).ti,ab.
 46 foreign born.ti,ab.
 47 ((marginal* or transient* or undocumented) adj1 (people* or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph*)).ti,ab.
 48 or/39-47
 49 genital herpes/
 50 herpes simplex/
 51 ((genital* or simplex*) adj3 herpes*).ti,ab.
 52 chlamydia*.ti,ab.
 53 Chlamydia trachomatis/ or Chlamydia/
 54 chlamydiasis/
 55 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
 56 condyloma acuminatum/
 57 "condylomata acuminata".ti,ab.
 58 papillomavirus infection/
 59 (papillomavirus adj (human* or infect*)).ti,ab.
 60 hpv.ti,ab.
 61 gonorrhea/
 62 (Gonorrhea* or Gonorrhoea*).ti,ab.
 63 syphilis/
 64 syphilis*.ti,ab.
 65 (lymphogranuloma venereum or lgv).ti,ab.
 66 lymphogranuloma venereum/
 67 Trichomonas vaginalis/
 68 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
 69 trichomoniasis/
 70 Human immunodeficiency virus infection/
 71 (hiv or human Immunodeficiency Virus*).ti,ab.
 72 (mycoplasma genitalium or Mgen).ti,ab.
 73 Mycoplasma genitalium/
 74 sexually transmitted disease/
 75 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
 76 (venereal* adj2 (disease* or infection*)).ti,ab.
 77 or/49-76
 78 ((peer or peers) adj2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*)).ti,ab.
 79 role model*.ti,ab.
 80 peer counseling/ or peer group/
 81 peer pressure/
 82 or/78-81
 83 (counselling or counseling).ti,ab.
 84 (motivat* adj2 (interview* or incentive*)).ti,ab.
 85 counseling/ or sexual counseling/
 86 motivational interviewing/
 87 ((One-to-one or one to one or 1-1) adj2 intervention*).ti,ab.
 88 ((cognitive or behavio*) adj2 therap*).ti,ab.
 89 cognitive behavioral therapy/
 90 or/83-89
 91 social support*.ti,ab.
 92 (self adj2 (belief* or aware*)).ti,ab.
 93 (covert adj2 learn*).ti,ab.
 94 (reward* adj2 threat*).ti,ab.
 95 Contingency management.ti,ab.
 96 (repetition* adj2 substitut*).ti,ab.
 97 (compar* adj2 (outcome* or behaviour* or behavior*)).ti,ab.
 98 (natural* adj2 consequence*).ti,ab.
 99 (shap* adj2 knowledge*).ti,ab.
 100 (feedback adj2 monitor*).ti,ab.
 101 (goal* adj2 (plan* or set*)).ti,ab.
 102 skill* build*.ti,ab.
 103 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti.
 104 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw.

- 105 social support/
 106 self concept/
 107 behavior change/
 108 lifestyle modification/
 109 or/91-108
 110 (risk reduc* adj2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)).ti,ab.
 111 ((monogam* or safe*) adj2 (agreement* or contract* or strateg*)).ti,ab.
 112 ((selective* or negotiat* or normalis* or normaliz*) adj2 condom*).ti,ab.
 113 ((partner* or sex*) adj2 concurren*).ti,ab.
 114 (relation* adj2 (dynamic* or focus* or power* or control*)).ti,ab.
 115 (educat* adj2 (session* or lesson*)).ti,ab.
 116 (pleasur* adj2 approach*).ti,ab.
 117 risk reduction/
 118 or/110-117
 119 ((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
 120 (rais* adj2 awareness adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
 121 ((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) adj2 (public health or health promot*)).ti,ab.
 122 health promotion/
 123 patient education/ or patient guidance/
 124 persuasive communication/
 125 information dissemination/
 126 public health/
 127 attitude to health/
 128 text messaging/
 129 e-mail/
 130 social media/
 131 or/119-130
 132 82 or 90 or 109 or 118 or 131
 133 25 or 48
 134 77 and 132 and 133
 135 16 or 35 or 38
 136 77 and 132 and 135
 137 exp angola/ or exp benin/ or exp botswana/ or exp burkina faso/ or exp burundi/ or exp cameroon/ or exp cape verde/ or exp central africa/ or exp central african republic/ or exp chad/ or exp comoros/ or exp congo/ or exp cote d'ivoire/ or exp democratic republic congo/ or exp djibouti/ or exp equatorial guinea/ or exp eritrea/ or exp ethiopia/ or exp gabon/ or exp gambia/ or exp ghana/ or exp guinea/ or exp guinea-bissau/ or exp kenya/ or exp lesotho/ or exp liberia/ or exp madagascar/ or exp malawi/ or exp mali/ or exp mayotte/ or exp mozambique/ or exp namibia/ or exp niger/ or exp nigeria/ or exp rwanda/ or exp sahel/ or exp senegal/ or exp sierra leone/ or exp somalia/ or exp south sudan/ or exp sudan/ or exp swaziland/ or exp tanzania/ or exp togo/ or exp uganda/ or exp zambia/ or exp zimbabwe/ or Central Africa/ or exp north africa/ or exp kazakhstan/ or exp kyrgyzstan/ or exp tajikistan/ or exp turkmenistan/ or exp uzbekistan/ or korea/ or exp north korea/ or exp mongolia/ or exp philippines/ or exp taiwan/ or exp borneo/ or exp brunei darussalam/ or exp cambodia/ or exp indonesia/ or exp laos/ or exp malaysia/ or exp myanmar/ or exp papua new guinea/ or exp singapore/ or exp thailand/ or exp timor-leste/ or exp viet nam/ or exp bahrain/ or exp iran/ or exp iraq/ or exp jordan/ or exp kuwait/ or exp lebanon/ or exp oman/ or exp qatar/ or exp saudi arabia/ or exp syrian arab republic/ or exp united arab emirates/ or exp yemen/ or exp afghanistan/ or exp bangladesh/ or exp bhutan/ or exp nepal/ or exp pakistan/ or exp sri lanka/ or exp argentina/ or exp bolivia/ or exp colombia/ or exp ecuador/ or exp guyana/ or exp paraguay/ or exp peru/ or exp suriname/ or exp uruguay/ or exp venezuela/ or exp China/ or exp Brazil/ or exp Russian Federation/ or exp South Africa/ or exp India/
 138 exp "australia and new zealand"/ or exp "western europe"/ or exp "North America"/ or exp Chile/ or exp "Czech Republic"/ or exp Scandinavia/ or exp "Baltic States"/ or exp Greece/ or exp Hungary/ or exp Israel/ or exp Italy/ or exp Japan/ or exp Korea/ or exp "South Korea"/ or exp Portugal/ or exp Slovakia/ or exp Slovenia/ or exp Spain/ or exp "Turkey (republic)"/
 139 exp "Organisation for Economic Co-operation and Development"/

140 oecd*.ti,ab.
 141 "Organisation for Economic Co-operation and Development".ti,ab.
 142 "Organisation for Economic Cooperation and Development".ti,ab.
 143 "Organization for Economic Co-operation and Development".ti,ab.
 144 "Organization for Economic Cooperation and Development".ti,ab.
 145 European Union/
 146 developed country/
 147 europe/
 148 or/138-147
 149 137 not (137 and 148)
 150 134 not 149
 151 limit 150 to english language
 152 (letter or editorial).pt.
 153 151 not 152
 154 nonhuman/ not (human/ and nonhuman/
 155 153 not 154
 156 (conference abstract or conference paper or conference proceeding or "conference review").pt.
 157 155 not 156
 158 limit 157 to yr="2009 -Current"
 159 136 not 149
 160 limit 159 to english language
 161 (letter or editorial).pt.
 162 160 not 161
 163 nonhuman/ not (human/ and nonhuman/
 164 162 not 163
 165 (conference abstract or conference paper or conference proceeding or "conference review").pt.
 166 164 not 165
 167 limit 166 to yr="2009 -Current"

5.4.2 Rerun searches

1 gay*.ti,ab.
 2 male homosexuality/
 3 "sexual and gender minority"/
 4 bisexuality/
 5 men who have sex with men/ or "men who have sex with men and women"/
 6 bisexual male/
 7 transgender/
 8 transsexualism/
 9 homosexuality/
 10 men who have sex with men.ti,ab.
 11 (same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.
 12 MSM.ti,ab.
 13 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or
 trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or
 transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or
 nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender
 or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
 14 (bisexual* or homosexual* or lgbt).ti,ab.
 15 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or
 escort*).ti,ab.
 16 or/1-15
 17 (rough sleep* or runaway*).ti,ab.
 18 ((homeless* or street or destitut*) adj2 (population or person* or people* or group* or
 individual* or adult* or shelter* or hostel* or accommodation* or sleep*).ti,ab.
 19 exp homeless person/
 20 ((temporary or emergency) adj2 (shelter* or accommodation*).ti,ab.
 21 homelessness/
 22 (homeless* adj2 (household* or primary or secondary or unshelter* or unhoused or
 institut*).ti,ab.
 23 (homelessness or encampment* or makeshift shelter*).ti,ab.
 24 (squatter* or beggar*).ti,ab.
 25 or/17-24
 26 (teen* or youth* or adolescen* or juvenile*).ti,ab.
 27 (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom?n
 or male* or female* or subject*).ti,ab.

- 28 student*.ti,ab.
 29 college student/ or university student/ or undergraduate student/ or student/
 30 (under adj2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or
 31 nineteen or eighteen or "25" or "24" or "23" or "22" or "21" or "20" or "19" or "18")).ti,ab.
 32 (over adj2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") adj2
 33 (year or years or age or ages or aged)).ti,ab.
 34 ((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-
 22) adj2 (year or years or age or ages or aged)).ti,ab.
 35 adolescent behavior/ or adolescent health/ or adolescent/ or adolescent development/ or
 36 adolescent sexual behavior/
 37 young adult/
 38 or/26-34
 39 (black* or Afrocaribbean* or caribbean* or african* or African American*).ti,ab.
 40 black person/ or african american/ or african caribbean/
 41 or/36-37
 42 migrant/ or emigrant/ or immigrant/ or refugee/
 43 asylum seeker/
 44 undocumented immigrant/
 45 (foreigner* or migrant* or immigrant* or emigrant* or refugee*).ti,ab.
 46 (asylum seek* or seeking asylum or asylee*).ti,ab.
 47 ((displaced or alien*) adj2 (people* or person*)).ti,ab.
 48 (born adj2 overseas).ti,ab.
 49 foreign born.ti,ab.
 50 ((marginal* or transient or undocumented) adj1 (people* or population* or communit* or
 51 neighbourhoood* or neighborhood* or group* or area* or demograph*)).ti,ab.
 52 or/39-47
 53 genital herpes/
 54 herpes simplex/
 55 ((genital* or simplex*) adj3 herpes*).ti,ab.
 56 chlamydia*.ti,ab.
 57 Chlamydia trachomatis/ or Chlamydia/
 58 chlamydiasis/
 59 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
 60 condyloma acuminatum/
 61 "condylomata acuminata".ti,ab.
 62 papillomavirus infection/
 63 (papillomavirus adj (human* or infect*)).ti,ab.
 64 hpv.ti,ab.
 65 gonorrhea/
 66 (Gonorrhoea* or Gonorrhoea*).ti,ab.
 67 syphilis/
 68 syphilis*.ti,ab.
 69 (lymphogranuloma venereum or lgv).ti,ab.
 70 lymphogranuloma venereum/
 71 Trichomonas vaginalis/
 72 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
 73 trichomoniasis/
 74 Human immunodeficiency virus infection/
 75 (hiv or human Immunodeficiency Virus*).ti,ab.
 76 (mycoplasma genitalium or Mgen).ti,ab.
 77 Mycoplasma genitalium/
 78 sexually transmitted disease/
 79 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
 80 (venereal* adj2 (disease* or infection*)).ti,ab.
 81 or/49-76
 82 ((peer or peers) adj2 (led or support* or intervention* or deliver* or educat* or influenc* or
 83 group* or network* or program* or programme* or counsellor* or counselor* or advocate* or
 84 behaviour* or behavior* or educat* or base* model*)).ti,ab.
 85 role model*.ti,ab.
 86 peer counseling/ or peer group/
 87 peer pressure/
 88 or/78-81
 89 (counselling or counseling).ti,ab.
 90 (motivat* adj2 (interview* or incentive*)).ti,ab.
 91 counseling/ or sexual counseling/
 92 motivational interviewing/
 93 ((One-to-one or one to one or 1-1) adj2 intervention*).ti,ab.

- 88 ((cognitive or behavio*) adj2 therap*).ti,ab.
89 cognitive behavioral therapy/
90 or/83-89
91 social support*.ti,ab.
92 (self adj2 (belief* or aware*)).ti,ab.
93 (covert adj2 learn*).ti,ab.
94 (reward* adj2 threat*).ti,ab.
95 Contingency management.ti,ab.
96 (repetition* adj2 substitut*).ti,ab.
97 (compar* adj2 (outcome* or behaviour* or behavior*)).ti,ab.
98 (natural* adj2 consequence*).ti,ab.
99 (shap* adj2 knowledge*).ti,ab.
100 (feedback adj2 monitor*).ti,ab.
101 (goal* adj2 (plan* or set*)).ti,ab.
102 skill* build*.ti,ab.
103 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti.
104 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw.
105 social support/
106 self concept/
107 behavior change/
108 lifestyle modification/
109 or/91-108
110 (risk reduc* adj2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)).ti,ab.
111 ((monogam* or safe*) adj2 (agreement* or contract* or strateg*)).ti,ab.
112 ((selective* or negotiat* or normalis* or normaliz*) adj2 condom*).ti,ab.
113 ((partner* or sex*) adj2 concurren*).ti,ab.
114 (relation* adj2 (dynamic* or focus* or power* or control*)).ti,ab.
115 (educat* adj2 (session* or lesson*)).ti,ab.
116 (pleasur* adj2 approach*).ti,ab.
117 risk reduction/
118 or/110-117
119 ((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
120 (rais* adj2 awareness adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
121 ((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) adj2 (public health or health promot*).ti,ab.
122 health promotion/
123 patient education/ or patient guidance/
124 persuasive communication/
125 information dissemination/
126 public health/
127 attitude to health/
128 text messaging/
129 e-mail/
130 social media/
131 or/119-130
132 82 or 90 or 109 or 118 or 131
133 16 or 25 or 35 or 38 or 48
134 77 and 132 and 133
135 afghanistan/ or africa/ or "africa south of the sahara"/ or albania/ or algeria/ or andorra/ or angola/ or argentina/ or "antigua and barbuda"/ or armenia/ or exp azerbaijan/ or bahamas/ or bahrain/ or bangladesh/ or barbados/ or belarus/ or belize/ or benin/ or bhutan/ or bolivia/ or borneo/ or exp "bosnia and herzegovina"/ or botswana/ or exp brazil/ or brunei darussalam/ or bulgaria/ or burkina faso/ or burundi/ or cambodia/ or cameroon/ or cape verde/ or central africa/ or central african republic/ or chad/ or exp china/ or comoros/ or congo/ or cook islands/

- or cote d'ivoire/ or croatia/ or cuba/ or cyprus/ or democratic republic congo/ or djibouti/ or dominica/ or dominican republic/ or ecuador/ or el salvador/ or egypt/ or equatorial guinea/ or eritrea/ or eswatini/ or ethiopia/ or exp "federated states of micronesia"/ or fiji/ or gabon/ or gambia/ or exp "georgia (republic)"/ or ghana/ or grenada/ or guatemala/ or guinea/ or guinea-bissau/ or guyana/ or haiti/ or honduras/ or exp india/ or exp indonesia/ or iran/ or exp iraq/ or jamaica/ or jordan/ or kazakhstan/ or kenya/ or kiribati/ or kosovo/ or kuwait/ or kyrgyzstan/ or laos/ or lebanon/ or liechtenstein/ or lesotho/ or liberia/ or libyan arab jamahiriya/ or madagascar/ or malawi/ or exp malaysia/ or maldives/ or mali/ or malta/ or mauritania/ or mauritius/ or melanesia/ or moldova/ or monaco/ or mongolia/ or "montenegro (republic)"/ or morocco/ or mozambique/ or myanmar/ or namibia/ or nauru/ or nepal/ or nicaragua/ or niger/ or nigeria/ or niue/ or north africa/ or oman/ or exp pakistan/ or palau/ or palestine/ or panama/ or papua new guinea/ or paraguay/ or peru/ or philippines/ or polynesia/ or qatar/ or "republic of north macedonia"/ or romania/ or exp russian federation/ or rwanda/ or sahel/ or "saint kitts and nevis"/ or "saint lucia"/ or "saint vincent and the grenadines"/ or saudi arabia/ or senegal/ or exp serbia/ or seychelles/ or sierra leone/ or singapore/ or "sao tome and principe"/ or solomon islands/ or exp somalia/ or south africa/ or south asia/ or south sudan/ or exp southeast asia/ or sri lanka/ or sudan/ or suriname/ or syrian arab republic/ or taiwan/ or tajikistan/ or tanzania/ or thailand/ or timor-leste/ or togo/ or tonga/ or "trinidad and tobago"/ or tunisia/ or turkmenistan/ or tuvalu/ or uganda/ or exp ukraine/ or exp united arab emirates/ or uruguay/ or exp uzbekistan/ or vanuatu/ or venezuela/ or viet nam/ or western sahara/ or yemen/ or zambia/ or zimbabwe/
- 136 exp "organisation for economic co-operation and development"/
- 137 exp australia/ or "australia and new zealand"/ or austria/ or baltic states/ or exp belgium/ or exp canada/ or chile/ or colombia/ or costa rica/ or czech republic/ or denmark/ or estonia/ or europe/ or exp finland/ or exp france/ or exp germany/ or greece/ or hungary/ or iceland/ or ireland/ or israel/ or exp italy/ or japan/ or korea/ or latvia/ or lithuania/ or luxembourg/ or exp mexico/ or netherlands/ or new zealand/ or north america/ or exp norway/ or poland/ or exp portugal/ or scandinavia/ or sweden/ or slovakia/ or slovenia/ or south korea/ or exp spain/ or switzerland/ or exp united kingdom/ or exp united states/ or western europe/
- 138 european union/
- 139 developed country/
- 140 or/136-139
- 141 135 not 140
- 142 134 not 141
- 143 limit 142 to english language
- 144 (letter or editorial).pt.
- 145 143 not 144
- 146 nonhuman/ not (human/ and nonhuman/)
- 147 145 not 146
- 148 (conference abstract or conference paper or conference proceeding or "conference review").pt.
- 149 147 not 148
- 150 limit 149 to dc=20200305-20210623

5.5 Health Technology Assessment (HTA) / NHS EED

5.5.1 Original searches

1	((gay near3 (male* or men)))
2	MeSH descriptor Homosexuality, Male
3	MeSH descriptor Sexual and Gender Disorders
4	MeSH descriptor Bisexuality
5	MeSH descriptor Transgender Persons
6	MeSH descriptor Homosexuality
7	(men who have sex with men)
8	((same sex or non heterosexual* or non-heterosexual* or nonheterosexual*))
9	(MSM)
10	((transgender* or transexual* or transsexual* or trans man or trans men or trans masculine or (gender NEAR (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois or heteroflexible* or bicurious* or bi-curious* or transpeople* or transperson*))

11	((bisexual* or homosexual* or lgbt))
12	((male near3 (sex work* or prostitut* or transactional sex or escort*)))
13	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12
14	((rough sleep* or runaway*))
15	MeSH descriptor Homeless Persons explode all trees
16	((temporary or emergency) near2 (shelter* or accommodation*))
17	((homeless* near2 (household* or primary or secondary or unshelter* or unhoused or institut*))
18	((homelessness or encampment* or makeshift shelter*))
19	((squatter* or beggar*))
20	((homeless* or street or destitut*) near2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*))
21	#14 or #15 or #16 or #17 or #18 or #19 or #20
22	((teen* or youth* or adolescen* or juvenile*))
23	((young near2 (adult* or person* or individual* or people* or population* or man or men or woman or women or male* or female* or subject*))
24	(student*)
25	MeSH descriptor Students
26	((under near2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or 25 or 24 or 23 or 22 or 21 or 20 or 19 or 18)))
27	((over near2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") near2 (year or years or age or ages or aged)))
28	MeSH descriptor Adolescent
29	MeSH descriptor Adolescent Behavior
30	MeSH descriptor Adolescent Health
31	MeSH descriptor Adolescent Development
32	MeSH descriptor Young Adult
33	((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-22) near2 (year or years or age or ages or aged)))
34	#22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33
35	((black* or Afrocaribbean* or caribbean* or african* or African American*))
36	MeSH descriptor African Continental Ancestry Group
37	MeSH descriptor African Americans
38	#35 or #36 or #37
39	MeSH descriptor Emigrants and Immigrants
40	MeSH descriptor Emigration and Immigration
41	MeSH descriptor Human Migration
42	MeSH descriptor Refugees
43	MeSH descriptor Transients and Migrants
44	MeSH descriptor Undocumented Immigrants
45	((foreigner* or migrant* or immigrant* or emigrant* or refugee*))
46	((asylum seek* or seeking asylum or asyle*))
47	((displaced or alien*) near2 (people* or person*))
48	((born near2 overseas))
49	(foreign born)
50	((marginal* or transient or undocumented) near1 (people* or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph*))

51	#39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49 or #50
52	#21 or #51
53	#13 or #34 or #38
54	MeSH descriptor Herpes Genitalis
55	MeSH descriptor Herpes Simplex
56	((genital* or simplex*) near3 herpes*)
57	(chlamydia*)
58	MeSH descriptor Chlamydia Infections
59	MeSH descriptor Chlamydia
60	MeSH descriptor Chlamydia trachomatis
61	((genital* or anogenital* or ano-genital* or venereal*) near3 wart*)
62	("condylomata acuminata")
63	((papillomavirus near (human* or infect**)))
64	(hpv.ti.ab.)
65	((Gonorrhoea* or Gonorrhoea**))
66	(syphilis*)
67	((lymphogranuloma venereum or lgv))
68	((trichomonas vaginali* or Trichomoniasis**))
69	((hiv or human Immunodeficiency Virus**))
70	((mycoplasma genitalium or Mgen))
71	((sexually NEAR2 transmit* near2 (disease* or infection*)) or sti or std)
72	((venereal* near2 (disease* or infection**)))
73	MeSH descriptor Condylomata Acuminata
74	MeSH descriptor Papillomavirus Infections
75	MeSH descriptor Gonorrhoea
76	MeSH descriptor Syphilis
77	MeSH descriptor Lymphogranuloma Venereum
78	MeSH descriptor Trichomonas vaginalis
79	MeSH descriptor Trichomonas Infections
80	MeSH descriptor HIV Infections
81	MeSH descriptor HIV
82	MeSH descriptor Mycoplasma genitalium
83	MeSH descriptor Sexually Transmitted Diseases
84	#54 or #55 or #56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72 or #73 or #74 or #75 or #76 or #77 or #78 or #79 or #80 or #81 or #82 or #83
85	MeSH descriptor peer group
86	MeSH descriptor peer influence
87	MeSH descriptor counseling
88	MeSH descriptor sex counseling
89	MeSH descriptor Motivational Interviewing
90	MeSH descriptor Cognitive Behavioral Therapy
91	MeSH descriptor Social Support
92	MeSH descriptor Risk Reduction Behavior
93	MeSH descriptor Health Promotion
94	MeSH descriptor Patient Education as Topic

95	MeSH descriptor Government Publications as Topic
96	MeSH descriptor persuasive communication
97	MeSH descriptor information dissemination
98	MeSH descriptor Public Health
99	MeSH descriptor Health Knowledge, Attitudes, Practice
100	MeSH descriptor Text Messaging
101	MeSH descriptor Electronic Mail
102	MeSH descriptor Social Media
103	((peer or peers) near2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*))
104	(role model*)
105	((counselling or counseling))
106	((motivat* near2 (interview* or incentive*)))
107	((cognitive or behavio*) near2 therap*)
108	((One to one or 1 to 1) near2 intervention*)
109	(social support*)
110	((self near2 (belief* or aware*)))
111	((covert near2 learn*))
112	((reward* near2 threat*))
113	(Contingency management)
114	((repetition* near2 substitut*))
115	((compar* near2 (outcome* or behaviour* or behavior*)))
116	((natural* near2 consequence*))
117	((shap* near2 knowledge*))
118	((feedback near2 monitor*))
119	((goal* near2 (plan* or set*)))
120	(skill* build*)
121	((risk reduc* near2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)))
122	((monogam* or safe*) near2 (agreement* or contract* or strateg*))
123	((selective* or negotiat* or normalis* or normaliz*) near2 condom*)
124	((partner* or sex*) near2 concurren*))
125	((relation* near2 (dynamic* or focus* or power* or control*)))
126	((educat* near2 (session* or lesson*)))
127	((pleasur* near2 approach*))
128	((rais* near2 awareness near4 (promotion* or campaign* or intervention* or toolkit* or strateg*)))
129	((behavior* or behaviour* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*))
130	((behavior* or behaviour* or lifestyle* or "life style*") near2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*))
131	((behavior* or behaviour* or lifestyle* or "life style*") near2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*))

132	((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) near4 (promotion* or campaign* or intervention* or toolkit* or strateg*))
133	((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) near2 (public health or health promot*))
134	#85 OR #86 OR #87 OR #88 OR #89 OR #90 OR #91 OR #92 OR #93 OR #94 OR #95 OR #96 OR #97 OR #98 OR #99 OR #100 OR #101 OR #102 OR #103 OR #104 OR #105 OR #106 OR #107 OR #108 OR #109 OR #110 OR #111 OR #112 OR #113 OR #114 OR #115 OR #116 OR #117 OR #118 OR #119 OR #120 OR #121 OR #122 OR #123 OR #124 OR #125 OR #126 OR #127 OR #128 OR #129 OR #130 OR #131 OR #132 Or #133
135	#13 OR #21 OR #34 OR #38 OR #51
136	#84 AND #135 AND #134
137	(#136) IN NHSEED, HTA FROM 2009 TO 2020

5.5.2 Rerun searches

Note: no new content has been added to NHS EED since 2015, so this was outside the remit of a rerun search.

5.6 INAHTA

5.6.1 Rerun searches

(Note: This strategy was adjusted because the original HTA strategy used in March 2020 was too complicated for use in INAHTA)

((venereal* AND (disease* or infection*)) OR (sti or std) OR ((sexually AND transmit* AND (disease* or infection*)) OR ((Sexually Transmitted Diseases)[mh]) OR ((Mycoplasma genitalium)[mh]) OR ("mycoplasma genitalium" or Mgen)) OR ((hiv or "human Immunodeficiency Virus*") OR ((HIV Infections)[mh]) OR (HIV)[mh]) OR ((Trichomonas Infections)[mh]) OR ((trichomonas vaginali* or Trichomoniasi*) OR ((Trichomonas vaginalis)[mh]) OR ((Lymphogranuloma Venereum)[mh]) OR ((lymphogranuloma venereum or lgv) OR (syphilis*) OR ((Syphilis)[mh]) OR ((Gonorrhea* or Gonorrhoea*)) OR ((Gonorrhea)[mh]) OR (hvp) OR ((papillomavirus AND (human* or infect*)) OR ((Papillomavirus Infections)[mh]) OR ("condylomata acuminata") OR ((Condylomata Acuminata)[mh]) OR (((genital* or anogenital* or ano-genital* or venereal*) AND wart*)) OR ((Chlamydia Infections)[mh]) OR (Chlamydia)[mh] OR (Chlamydia trachomatis)[mh]) OR (chlamydia*) OR (((genital* or simplex*) AND herpes*)) OR ((Herpes Genitalis)[mh] OR (Herpes Simplex)[mh])) AND (((behavior* or behaviour* or lifestyle* or "life style*") AND (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)) OR (((behavior* or behaviour* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)) OR ((rais* AND awareness AND (promotion* or campaign* or intervention* or toolkit* or strateg*)) OR ((pleasur* AND approach*)) OR ((educat* AND (session* or lesson*)) OR ((relation* AND (dynamic* or focus* or power* or control*)) OR (((partner* or sex*) AND concurren*)) OR (((selective* or negotiat* or normalis* or normaliz*) AND condom*)) OR (((monogam* or safe*) AND (agreement* or contract* or strateg*)) OR ((risk reduc* AND (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)) OR (skill* build*) OR (skill* build*)) OR ((goal* AND (plan* or set*)) OR ((feedback AND monitor*)) OR ((shap* AND knowledge*)) OR ((natural* AND consequence*)) OR ((compar* AND (outcome* or behaviour* or behavior*)) OR ((repetition* AND substitut*)) OR (Contingency management) OR ((reward* AND threat*)) OR ((covert AND learn*)) OR ((self AND

(belief* or aware*)) OR (social support*) OR (((One to one or 1 to 1) AND intervention*)) OR (((cognitive or behavior*) AND therap*)) OR ((motivat* AND (interview* or incentive*)) OR ((counselling or counseling)) OR (role model*) OR (((peer or peers) AND (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*))) OR ((Patient Education as Topic)[mh] OR (Government Publications as Topic)[mh] OR (persuasive communication)[mh] OR (information dissemination)[mh] OR (Public Health)[mh] OR (Health Knowledge, Attitudes, Practice)[mh] OR (Text Messaging)[mh] OR (Electronic Mail)[mh] OR (Social Media)[mh]) OR ((peer group)[mh] OR (peer influence)[mh] OR (counseling)[mh] OR (sex counseling)[mh] OR (Motivational Interviewing)[mh] OR (Cognitive Behavioral Therapy)[mh] OR (Social Support)[mh] OR (Risk Reduction Behavior)[mh] OR (Health Promotion)[mh])) OR (((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or "t-shirt*" or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) AND (public health or health promot*)) OR (((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) AND (promotion* or campaign* or intervention* or toolkit* or strateg*))))

5.7 Medline

5.7.1 Original searches

- 1 (gay adj3 (male* or men)).ti,ab.
- 2 Homosexuality, Male/
- 3 "Sexual and Gender Minorities"/
- 4 Bisexuality/
- 5 Transgender Persons/
- 6 Homosexuality/
- 7 men who have sex with men.ti,ab.
- 8 (same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.
- 9 MSM.ti,ab.
- 10 (transgender* or transexual* or transsexual* or trans man or trans men or trans masculine or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois or heteroflexible* or bicurious* or bi-curious* or transpeople* or transperson*).ti,ab.
- 11 (bisexual* or homosexual* or lgbt).ti,ab.
- 12 (male adj3 (sex work* or prostitut* or transactional sex or escort*).ti,ab.
- 13 or/1-12
- 14 (rough sleep* or runaway*).ti,ab.
- 15 ((homeless* or street or destitut*) adj2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*).ti,ab.
- 16 exp Homeless Persons/
- 17 ((temporary or emergency) adj2 (shelter* or accommodation*).ti,ab.
- 18 (homeless* adj2 (household* or primary or secondary or unshelter* or unhoused or institut*).ti,ab.
- 19 (homelessness or encampment* or makeshift shelter*).ti,ab.
- 20 (squatter* or beggar*).ti,ab.
- 21 or/14-20
- 22 (teen* or youth* or adolescen* or juvenile*).ti,ab.
- 23 (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom?n or male* or female* or subject*).ti,ab.
- 24 student*.ti,ab. or Students/
- 25 (under adj2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or "25" or "24" or "23" or 22 or 21 or 20 or 19 or 18")).ti,ab.
- 26 (over adj2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") adj2 (year or years or age or ages or aged)).ti,ab.

- 27 ((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-22) adj2 (year or years or age or ages or aged)).ti,ab.
- 28 Adolescent/ or Adolescent Behavior/ or Adolescent Health/ or Adolescent Development/
29 Young Adult/
30 or/22-29
31 (black* or Afrocaribbean* or caribbean* or african* or African American*).ti,ab.
32 African Continental Ancestry Group/
33 African Americans/
34 or/31-33
35 "Emigrants and Immigrants"/
36 "Emigration and Immigration"/
37 Refugees/
38 "Transients and Migrants"/
39 Undocumented Immigrants/
40 Human Migration/
41 (foreigner* or migrant* or immigrant* or emigrant* or refugee*).ti,ab.
42 (asylum seek* or seeking asylum or asylee*).ti,ab.
43 ((displaced or alien*) adj2 (people* or person*)).ti,ab.
44 (born adj2 overseas).ti,ab.
45 foreign born.ti,ab.
46 ((marginal* or transient or undocumented) adj1 (people* or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph*)).ti,ab.
47 or/35-46
48 13 or 21 or 30 or 34 or 47
49 Herpes Genitalis/ or Herpes Simplex/
50 ((genital* or simplex*) adj3 herpes*).ti,ab.
51 chlamydia*.ti,ab.
52 Chlamydia Infections/ or Chlamydia/ or Chlamydia trachomatis/
53 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
54 Condylomata Acuminata/
55 "condylomata acuminata".ti,ab.
56 Papillomavirus Infections/
57 (papillomavirus adj (human* or infect*)).ti,ab.
58 hpv.ti,ab.
59 Gonorrhoea/
60 (Gonorrhoea* or Gonorrhoea*).ti,ab.
61 Syphilis/
62 syphilis*.ti,ab.
63 (lymphogranuloma venereum or lgv).ti,ab.
64 Lymphogranuloma Venereum/
65 Trichomonas vaginalis/
66 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
67 Trichomonas Infections/
68 HIV Infections/ or HIV/
69 (hiv or human Immunodeficiency Virus*).ti,ab.
70 (mycoplasma genitalium or Mgen).ti,ab.
71 Mycoplasma genitalium/
72 Sexually Transmitted Diseases/
73 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
74 (venereal* adj2 (disease* or infection*)).ti,ab.
75 or/49-74
76 48 and 75
77 ((peer or peers) adj2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*)).ti,ab.
78 role model*.ti,ab.
79 peer group/ or peer influence/
80 or/77-79
81 (counselling or counseling).ti,ab.
82 (motivat* adj2 (interview* or incentive*)).ti,ab.
83 counseling/ or sex counseling/ or Motivational Interviewing/
84 ((One-to-one or one to one or 1-1) adj2 intervention*).ti,ab.
85 ((cognitive or behavio*) adj2 therap*).ti,ab.
86 Cognitive Behavioral Therapy/
87 or/81-86
88 social support*.ti,ab.
89 (self adj2 (belief* or aware*)).ti,ab.

- 90 (covert adj2 learn*).ti,ab.
 91 (reward* adj2 threat*).ti,ab.
 92 Contingency management.ti,ab.
 93 (repetition* adj2 substitut*).ti,ab.
 94 (compar* adj2 (outcome* or behaviour* or behavior*)).ti,ab.
 95 (natural* adj2 consequence*).ti,ab.
 96 (shap* adj2 knowledge*).ti,ab.
 97 (feedback adj2 monitor*).ti,ab.
 98 (goal* adj2 (plan* or set*)).ti,ab.
 99 skill* build*.ti,ab.
 100 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti.
 101 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw.
 102 Social Support/
 103 or/88-102
 104 (risk reduc* adj2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)).ti,ab.
 105 ((monogam* or safe*) adj2 (agreement* or contract* or strateg*)).ti,ab.
 106 ((selective* or negotiat* or normalis* or normaliz*) adj2 condom*).ti,ab.
 107 ((partner* or sex*) adj2 concurren*).ti,ab.
 108 (relation* adj2 (dynamic* or focus* or power* or control*)).ti,ab.
 109 (educat* adj2 (session* or lesson*)).ti,ab.
 110 (pleasur* adj2 approach*).ti,ab.
 111 Risk Reduction Behavior/
 112 or/104-111
 113 ((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
 114 (rais* adj2 awareness adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
 115 ((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) adj2 (public health or health promot*).ti,ab.
 116 Health Promotion/
 117 Patient Education as Topic/ or Government Publications as Topic/ or persuasive communication/ or information dissemination/
 118 Public Health/
 119 Health Knowledge, Attitudes, Practice/ or Text Messaging/ or Electronic Mail/ or Social Media/
 120 or/113-119
 121 80 or 87 or 103 or 112 or 120
 122 76 and 121
 123 afghanistan/ or exp africa/ or albania/ or andorra/ or antarctic regions/ or argentina/ or exp asia, central/ or exp asia, northern/ or exp asia, southeastern/ or exp atlantic islands/ or bahrain/ or bangladesh/ or Bhutan/ or bolivia/ or borneo/ or "bosnia and Herzegovina"/ or brazil/ or bulgaria/ or exp central america/ or exp china/ or colombia/ or "Commonwealth of Independent States"/ or croatia/ or "Democratic People's Republic of Korea"/ or ecuador/ or gibraltar/ or guyana/ or exp india/ or indonesia/ or iran/ or iraq/ or jordan/ or kosovo/ or kuwait/ or lebanon/ or liechtenstein/ or macau/ or "macedonia (republic)"/ or exp melanesia/ or moldova/ or monaco/ or mongolia/ or montenegro/ or nepal/ or Netherlands Antilles/ or New Guinea/ or oman/ or pakistan/ or paraguay/ or peru/ or philippines/ or qatar/ or "republic of Belarus"/ or romania/ or exp russia/ or saudi arabia/ or serbia/ or sri lanka/ or suriname/ or syria/ or taiwan/ or exp transcaucasia/ or ukraine/ or uruguay/ or united arab emirates/ or exp ussr/ or venezuela/ or yemen/
 124 "Organisation for Economic Co-Operation and Development"/
 125 oecd*.ti,ab.
 126 "Organisation for Economic Co-operation and Development".ti,ab.
 127 "Organisation for Economic Cooperation and Development".ti,ab.
 128 "Organization for Economic Co-operation and Development".ti,ab.
 129 "Organization for Economic Cooperation and Development".ti,ab.

- 130 australasia/ or exp australia/ or austria/ or exp Baltic States/ or belgium/ or exp canada/ or chile/ or czech republic/ or europe/ or exp france/ or exp germany/ or greece/ or hungary/ or ireland/ or Israel/ or exp italy/ or exp japan/ or korea/ or luxembourg/ or mexico/ or netherlands/ or new zealand/ or north america/ or poland/ or portugal/ or exp "republic of korea"/ or exp "Scandinavian and Nordic Countries"/ or slovakia/ or slovenia/ or spain/ or switzerland/ or turkey/ or exp united kingdom/ or exp united states/
- 131 European Union/
- 132 Developed Countries/
- 133 or/124-132
- 134 123 not (123 and 133)
- 135 21 or 47
- 136 122 and 135
- 137 136 not 134
- 138 limit 137 to english language
- 139 limit 138 to yr="2009 -Current"
- 140 limit 139 to (letter or historical article or comment or editorial or news or case reports)
- 141 139 not 140
- 142 Animals/ not (Humans/ and Animals/)
- 143 141 not 142
- 144 13 or 30 or 34
- 145 122 and 144
- 146 145 not 134
- 147 limit 146 to english language
- 148 limit 147 to yr="2009 -Current"
- 149 limit 148 to (letter or historical article or comment or editorial or news or case reports)
- 150 148 not 149
- 151 Animals/ not (Humans/ and Animals/)
- 152 150 not 151

5.7.2 Rerun searches

- 1 gay*.ti,ab.
- 2 Homosexuality, Male/
- 3 "Sexual and Gender Minorities"/
- 4 Bisexuality/
- 5 Transgender Persons/ or Transsexualism/ or Transgender/ or Health Services for Transgender Persons/
- 6 Homosexuality/
- 7 men who have sex with men.ti,ab.
- 8 (same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.
- 9 MSM.ti,ab.
- 10 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 11 (bisexual* or homosexual* or lgbt).ti,ab.
- 12 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*).ti,ab.
- 13 or/1-12
- 14 (rough sleep* or runaway*).ti,ab.
- 15 ((homeless* or street or destitut*) adj2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*).ti,ab.
- 16 exp Homeless Persons/
- 17 ((temporary or emergency) adj2 (shelter* or accommodation*).ti,ab.
- 18 (homeless* adj2 (household* or primary or secondary or unshelter* or unhoused or institut*).ti,ab.
- 19 (homelessness or encampment* or makeshift shelter*).ti,ab.
- 20 (squatter* or beggar*).ti,ab.
- 21 or/14-20
- 22 (teen* or youth* or adolescen* or juvenile*).ti,ab.
- 23 (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom?n or male* or female* or subject*).ti,ab.
- 24 student*.ti,ab. or Students/
- 25 (under adj2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or "25" or "24" or "23" or "22" or "21" or "20" or "19" or "18").ti,ab.

- 26 (over adj2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") adj2 (year or years or age or ages or aged)).ti,ab.
- 27 ((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-22) adj2 (year or years or age or ages or aged)).ti,ab.
- 28 Adolescent/ or Adolescent Behavior/ or Adolescent Health/ or Adolescent Development/
- 29 Young Adult/
- 30 or/22-29
- 31 (black* or Afrocaribbean* or caribbean* or african* or African American*).ti,ab.
- 32 African Continental Ancestry Group/
- 33 African Americans/
- 34 or/31-33
- 35 "Emigrants and Immigrants"/
- 36 "Emigration and Immigration"/
- 37 Refugees/
- 38 "Transients and Migrants"/
- 39 Undocumented Immigrants/
- 40 Human Migration/
- 41 (foreigner* or migrant* or immigrant* or emigrant* or refugee*).ti,ab.
- 42 (asylum seek* or seeking asylum or asylee*).ti,ab.
- 43 ((displaced or alien*) adj2 (people* or person*)).ti,ab.
- 44 (born adj2 overseas).ti,ab.
- 45 foreign born.ti,ab.
- 46 ((marginal* or transient or undocumented) adj1 (people* or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph*)).ti,ab.
- 47 or/35-46
- 48 13 or 21 or 30 or 34 or 47
- 49 Herpes Genitalis/ or Herpes Simplex/
- 50 ((genital* or simplex*) adj3 herpes*).ti,ab.
- 51 chlamydia*.ti,ab.
- 52 Chlamydia Infections/ or Chlamydia/ or Chlamydia trachomatis/
- 53 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
- 54 Condylomata Acuminata/
- 55 "condylomata acuminata".ti,ab.
- 56 Papillomavirus Infections/
- 57 (papillomavirus adj (human* or infect*)).ti,ab.
- 58 hpv.ti,ab.
- 59 Gonorrhea/
- 60 (Gonorrhea* or Gonorrhoea*).ti,ab.
- 61 Syphilis/
- 62 syphilis*.ti,ab.
- 63 (lymphogranuloma venereum or lgv).ti,ab.
- 64 Lymphogranuloma Venereum/
- 65 Trichomonas vaginalis/
- 66 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
- 67 Trichomonas Infections/
- 68 HIV Infections/ or HIV/
- 69 (hiv or human Immunodeficiency Virus*).ti,ab.
- 70 (mycoplasma genitalium or Mgen).ti,ab.
- 71 Mycoplasma genitalium/
- 72 Sexually Transmitted Diseases/
- 73 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
- 74 (venereal* adj2 (disease* or infection*)).ti,ab.
- 75 or/49-74
- 76 48 and 75
- 77 ((peer or peers) adj2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*)).ti,ab.
- 78 role model*.ti,ab.
- 79 peer group/ or peer influence/
- 80 or/77-79
- 81 (counselling or counseling).ti,ab.
- 82 (motivat* adj2 (interview* or incentive*)).ti,ab.
- 83 counseling/ or sex counseling/ or Motivational Interviewing/
- 84 ((One-to-one or one to one or 1-1) adj2 intervention*).ti,ab.
- 85 ((cognitive or behavio*) adj2 therap*).ti,ab.
- 86 Cognitive Behavioral Therapy/
- 87 or/81-86

- 88 social support*.ti,ab.
 89 (self adj2 (belief* or aware*)).ti,ab.
 90 (covert adj2 learn*).ti,ab.
 91 (reward* adj2 threat*).ti,ab.
 92 Contingency management.ti,ab.
 93 (repetition* adj2 substitut*).ti,ab.
 94 (compar* adj2 (outcome* or behaviour* or behavior*)).ti,ab.
 95 (natural* adj2 consequence*).ti,ab.
 96 (shap* adj2 knowledge*).ti,ab.
 97 (feedback adj2 monitor*).ti,ab.
 98 (goal* adj2 (plan* or set*)).ti,ab.
 99 skill* build*.ti,ab.
 100 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti.
 101 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw.
 102 Social Support/
 103 or/88-102
 104 (risk reduc* adj2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)).ti,ab.
 105 ((monogam* or safe*) adj2 (agreement* or contract* or strateg*)).ti,ab.
 106 ((selective* or negotiat* or normalis* or normaliz*) adj2 condom*).ti,ab.
 107 ((partner* or sex*) adj2 concurren*).ti,ab.
 108 (relation* adj2 (dynamic* or focus* or power* or control*)).ti,ab.
 109 (educat* adj2 (session* or lesson*)).ti,ab.
 110 (pleasur* adj2 approach*).ti,ab.
 111 Risk Reduction Behavior/
 112 or/104-111
 113 ((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
 114 (rais* adj2 awareness adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
 115 ((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) adj2 (public health or health promot*)).ti,ab.
 116 Health Promotion/
 117 Patient Education as Topic/ or Government Publications as Topic/ or persuasive communication/ or information dissemination/
 118 Public Health/
 119 Health Knowledge, Attitudes, Practice/ or Text Messaging/ or Electronic Mail/ or Social Media/
 120 or/113-119
 121 80 or 87 or 103 or 112 or 120
 122 76 and 121
 123 afghanistan/ or exp africa/ or albania/ or andorra/ or antarctic regions/ or argentina/ or exp asia, central/ or exp asia, northern/ or exp asia, southeastern/ or exp atlantic islands/ or bahrain/ or bangladesh/ or Bhutan/ or bolivia/ or borneo/ or "bosnia and Herzegovina"/ or brazil/ or bulgaria/ or exp central america/ or exp china/ or "Commonwealth of Independent States"/ or croatia/ or "Democratic People's Republic of Korea"/ or ecuador/ or gibraltar/ or guyana/ or exp india/ or indonesia/ or iran/ or iraq/ or jordan/ or kosovo/ or kuwait/ or lebanon/ or liechtenstein/ or macau/ or "macedonia (republic)"/ or exp melanesia/ or moldova/ or monaco/ or mongolia/ or montenegro/ or nepal/ or Netherlands Antilles/ or New Guinea/ or oman/ or pakistan/ or paraguay/ or peru/ or philippines/ or qatar/ or "republic of Belarus"/ or romania/ or exp russia/ or saudi arabia/ or serbia/ or sri lanka/ or suriname/ or syria/ or taiwan/ or exp transcaucasia/ or ukraine/ or uruguay/ or united arab emirates/ or exp ussr/ or venezuela/ or yemen/
 124 "Organisation for Economic Co-Operation and Development"/
 125 oecd*.ti,ab.
 126 "Organisation for Economic Co-operation and Development".ti,ab.
 127 "Organisation for Economic Cooperation and Development".ti,ab.
 128 "Organization for Economic Co-operation and Development".ti,ab.
 129 "Organization for Economic Cooperation and Development".ti,ab.

- 130 australasia/ or exp australia/ or austria/ or exp Baltic States/ or belgium/ or exp canada/ or chile/ or colombia/ or costa rica/ or czech republic/ or europe/ or exp france/ or exp germany/ or greece/ or hungary/ or ireland/ or Israel/ or exp italy/ or exp japan/ or korea/ or luxembourg/ or mexico/ or netherlands/ or new zealand/ or north america/ or poland/ or portugal/ or exp "republic of korea"/ or exp "Scandinavian and Nordic Countries"/ or slovakia/ or slovenia/ or spain/ or switzerland/ or turkey/ or exp united kingdom/ or exp united states/
 131 European Union/
 132 Developed Countries/
 133 or/124-132
 134 123 not 133
 135 122 not 134
 136 limit 135 to english language
 137 limit 136 to ed=20200304-20210623
 138 Animals/ not (Humans/ and Animals/)
 139 137 not 138
 140 limit 139 to (letter or historical article or comment or editorial or news or case reports)
 141 139 not 140

5.8 Medline-in-Process / Epub Ahead-of-Print

5.8.1 Original searches

- 1 (gay adj3 (male* or men)).ti,ab.
 2 men who have sex with men.ti,ab.
 3 (same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.
 4 MSM.ti,ab.
 5 (transgender* or transexual* or transsexual* or trans man or trans men or trans masculine or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois or heteroflexible* or bicurious* or bi-curious* or transpeople* or transperson*).ti,ab.
 6 (bisexual* or homosexual* or lgbt).ti,ab.
 7 (male adj3 (sex work* or prostitut* or transactional sex or escort*)).ti,ab.
 8 or/1-7
 9 (rough sleep* or runaway*).ti,ab.
 10 ((homeless* or street or destitut*) adj2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*)).ti,ab.
 11 ((temporary or emergency) adj2 (shelter* or accommodation*)).ti,ab.
 12 (homeless* adj2 (household* or primary or secondary or unshelter* or unhoused or institut*)).ti,ab.
 13 (homelessness or encampment* or makeshift shelter*).ti,ab.
 14 (squatter* or beggar*).ti,ab.
 15 or/9-14
 16 (teen* or youth* or adolescen* or juvenile*).ti,ab.
 17 (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom?n or male* or female* or subject*)).ti,ab.
 18 student*.ti,ab.
 19 (under adj2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or "25" or "24" or "23" or 22 or 21 or 20 or 19 or 18)).ti,ab.
 20 (over adj2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") adj2 (year or years or age or ages or aged)).ti,ab.
 21 ((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-22) adj2 (year or years or age or ages or aged)).ti,ab.
 22 or/16-21
 23 (black* or Afrocaribbean* or caribbean* or african* or African American*).ti,ab.
 24 (foreigner* or migrant* or immigrant* or emigrant* or refugee*).ti,ab.
 25 (asylum seek* or seeking asylum or asylee*).ti,ab.
 26 ((displaced or alien*) adj2 (people* or person*)).ti,ab.
 27 (born adj2 overseas).ti,ab.
 28 foreign born.ti,ab.
 29 ((marginal* or transient or undocumented) adj1 (people* or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph*)).ti,ab.
 30 or/24-29
 31 15 or 30
 32 8 or 22 or 23
 33 ((genital* or simplex*) adj3 herpes*).ti,ab.

- 34 chlamydia*.ti,ab.
 35 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
 36 "condylomata acuminata".ti,ab.
 37 (papillomavirus adj (human* or infect*)).ti,ab.
 38 hpv.ti,ab.
 39 (Gonorrhea* or Gonorrhoea*).ti,ab.
 40 syphilis*.ti,ab.
 41 (lymphogranuloma venereum or lgv).ti,ab.
 42 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
 43 (hiv or human Immunodeficiency Virus*).ti,ab.
 44 (mycoplasma genitalium or Mgen).ti,ab.
 45 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
 46 (venereal* adj2 (disease* or infection*)).ti,ab.
 47 or/33-46
 48 ((peer or peers) adj2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*)).ti,ab.
 49 role model*.ti,ab.
 50 (counselling or counseling).ti,ab.
 51 (motivat* adj2 (interview* or incentive*)).ti,ab.
 52 ((One-to-one or one to one or 1-1) adj2 intervention*).ti,ab.
 53 ((cognitive or behavio*) adj2 therap*).ti,ab.
 54 social support*.ti,ab.
 55 (self adj2 (belief* or aware*)).ti,ab.
 56 (covert adj2 learn*).ti,ab.
 57 (reward* adj2 threat*).ti,ab.
 58 Contingency management.ti,ab.
 59 (repetition* adj2 substitut*).ti,ab.
 60 (compar* adj2 (outcome* or behaviour* or behavior*)).ti,ab.
 61 (natural* adj2 consequence*).ti,ab.
 62 (shap* adj2 knowledge*).ti,ab.
 63 (feedback adj2 monitor*).ti,ab.
 64 (goal* adj2 (plan* or set*)).ti,ab.
 65 skill* build*.ti,ab.
 66 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti.
 67 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw.
 68 (risk reduc* adj2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)).ti,ab.
 69 ((monogam* or safe*) adj2 (agreement* or contract* or strateg*)).ti,ab.
 70 ((selective* or negotiat* or normalis* or normaliz*) adj2 condom*).ti,ab.
 71 ((partner* or sex*) adj2 concurren*).ti,ab.
 72 (relation* adj2 (dynamic* or focus* or power* or control*)).ti,ab.
 73 (educat* adj2 (session* or lesson*)).ti,ab.
 74 (pleasur* adj2 approach*).ti,ab.
 75 ((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
 76 (rais* adj2 awareness adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
 77 ((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) adj2 (public health or health promot*)).ti,ab.
 78 or/48-77
 79 31 and 47 and 78
 80 limit 79 to english language
 81 limit 80 to (letter or historical article or comment or editorial or news or case reports)
 82 80 not 81
 83 limit 82 to yr="2009 -Current"
 84 32 and 47 and 78

- 85 limit 84 to english language
- 86 limit 85 to (letter or historical article or comment or editorial or news or case reports)
- 87 85 not 86
- 88 limit 87 to yr="2009 -Current"

5.8.2 Rerun searches

- 1 gay*.ti,ab.
- 2 men who have sex with men.ti,ab.
- 3 (same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.
- 4 MSM.ti,ab.
- 5 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 6 (bisexual* or homosexual* or lgbt).ti,ab.
- 7 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*).ti,ab.
- 8 or/1-7
- 9 (rough sleep* or runaway*).ti,ab.
- 10 ((homeless* or street or destitut*) adj2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*).ti,ab.
- 11 ((temporary or emergency) adj2 (shelter* or accommodation*).ti,ab.
- 12 (homeless* adj2 (household* or primary or secondary or unshelter* or unhoused or institut*).ti,ab.
- 13 (homelessness or encampment* or makeshift shelter*).ti,ab.
- 14 (squatter* or beggar*).ti,ab.
- 15 or/9-14
- 16 (teen* or youth* or adolescen* or juvenile*).ti,ab.
- 17 (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom?n or male* or female* or subject*).ti,ab.
- 18 student*.ti,ab.
- 19 (under adj2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or "25" or "24" or "23" or "22" or "21" or "20" or "19" or "18").ti,ab.
- 20 (over adj2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") adj2 (year or years or age or ages or aged)).ti,ab.
- 21 ((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-22) adj2 (year or years or age or ages or aged)).ti,ab.
- 22 or/16-21
- 23 (black* or Afrocaribbean* or caribbean* or african* or African American*).ti,ab.
- 24 (foreigner* or migrant* or immigrant* or emigrant* or refugee*).ti,ab.
- 25 (asylum seek* or seeking asylum or asylee*).ti,ab.
- 26 ((displaced or alien*) adj2 (people* or person*).ti,ab.
- 27 (born adj2 overseas).ti,ab.
- 28 foreign born.ti,ab.
- 29 ((marginal* or transient or undocumented) adj1 (people* or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph*).ti,ab.
- 30 or/24-29
- 31 15 or 30
- 32 8 or 22 or 23
- 33 ((genital* or simplex*) adj3 herpes*).ti,ab.
- 34 chlamydia*.ti,ab.
- 35 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
- 36 "condylomata acuminata".ti,ab.
- 37 (papillomavirus adj (human* or infect*).ti,ab.
- 38 hpv.ti,ab.
- 39 (Gonorrhoea* or Gonorrhoea*).ti,ab.
- 40 syphilis*.ti,ab.
- 41 (lymphogranuloma venereum or lgv).ti,ab.
- 42 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
- 43 (hiv or human Immunodeficiency Virus*).ti,ab.
- 44 (mycoplasma genitalium or Mgen).ti,ab.
- 45 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
- 46 (venereal* adj2 (disease* or infection*).ti,ab.
- 47 or/33-46

- 48 ((peer or peers) adj2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*)).ti,ab.
- 49 role model*.ti,ab.
- 50 (counselling or counseling).ti,ab.
- 51 (motivat* adj2 (interview* or incentive*)).ti,ab.
- 52 ((One-to-one or one to one or 1-1) adj2 intervention*).ti,ab.
- 53 ((cognitive or behavio*) adj2 therap*).ti,ab.
- 54 social support*.ti,ab.
- 55 (self adj2 (belief* or aware*)).ti,ab.
- 56 (covert adj2 learn*).ti,ab.
- 57 (reward* adj2 threat*).ti,ab.
- 58 Contingency management.ti,ab.
- 59 (repetition* adj2 substitut*).ti,ab.
- 60 (compar* adj2 (outcome* or behaviour* or behavior*)).ti,ab.
- 61 (natural* adj2 consequence*).ti,ab.
- 62 (shap* adj2 knowledge*).ti,ab.
- 63 (feedback adj2 monitor*).ti,ab.
- 64 (goal* adj2 (plan* or set*)).ti,ab.
- 65 skill* build*.ti,ab.
- 66 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti.
- 67 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab,kw.
- 68 (risk reduc* adj2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)).ti,ab.
- 69 ((monogam* or safe*) adj2 (agreement* or contract* or strateg*)).ti,ab.
- 70 ((selective* or negotiat* or normalis* or normaliz*) adj2 condom*).ti,ab.
- 71 ((partner* or sex*) adj2 concurren*).ti,ab.
- 72 (relation* adj2 (dynamic* or focus* or power* or control*)).ti,ab.
- 73 (educat* adj2 (session* or lesson*)).ti,ab.
- 74 (pleasur* adj2 approach*).ti,ab.
- 75 ((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
- 76 (rais* adj2 awareness adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
- 77 ((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) adj2 (public health or health promot*)).ti,ab.
- 78 or/48-77
- 79 31 or 32
- 80 47 and 78 and 79
- 81 limit 80 to english language
- 82 limit 81 to (letter or historical article or comment or editorial or news or case reports)
- 83 81 not 82
- 84 limit 83 to dt=20200305-20210623

5.9 PsycINFO

5.9.1 Original searches

- 1 (gay adj3 (male* or men)).ti,ab.
- 2 male homosexuality/
- 3 bisexuality/
- 4 Sexual Minority Groups/
- 5 exp Transsexualism/ or Transgender/
- 6 same sex intercourse/
- 7 homosexuality/

8 Same Sex Couples/
9 men who have sex with men.ti,ab.
10 (same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.
11 MSM.ti,ab.
12 (transgender* or transexual* or transsexual* or trans man or trans men or trans masculine or
(gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or
genderless or agender or bi-gender or bi gender or neutrois).ti,ab.
13 (bisexual* or homosexual* or lgbt).ti,ab.
14 (male adj3 (sex work* or prostitut* or transactional sex or escort*).ti,ab.
15 lgbtq/
16 or/1-15
17 (rough sleep* or runaway*).ti,ab.
18 ((homeless* or street or destitut*) adj2 (population or person* or people* or group* or
individual* or adult* or shelter* or hostel* or accommodation* or sleep*).ti,ab.
19 homeless/
20 ((temporary or emergency) adj2 (shelter* or accommodation*).ti,ab.
21 (homeless* adj2 (household* or primary or secondary or unshelter* or unhoused or
institut*).ti,ab.
22 (homelessness or encampment* or makeshift shelter*).ti,ab.
23 (squatter* or beggar*).ti,ab.
24 or/17-23
25 (teen* or youth* or adolescen* or juvenile*).ti,ab.
26 (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom?n
or male* or female* or subject*).ti,ab.
27 student*.ti,ab.
28 students/ or college students/ or graduate students/
29 (under adj2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or
nineteen or eighteen or "25" or "24" or "23" or 22 or 21 or 20 or 19 or 18)).ti,ab.
30 (over adj2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") adj2
(year or years or age or ages or aged)).ti,ab.
31 ((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-
22) adj2 (year or years or age or ages or aged)).ti,ab.
32 exp Adolescent Behavior/ or exp Adolescent Attitudes/ or exp Adolescent Development/
33 or/25-32
34 (black* or Afrocaribbean* or caribbean* or african* or African American*).ti,ab.
35 african cultural groups/ or blacks/
36 or/34-35
37 human migration/ or refugees/ or immigration/
38 (foreigner* or migrant* or immigrant* or emigrant* or refugee*).ti,ab.
39 (asylum seek* or seeking asylum or asylee*).ti,ab.
40 ((displaced or alien*) adj2 (people* or person*).ti,ab.
41 (born adj2 overseas).ti,ab.
42 foreign born.ti,ab.
43 ((marginal* or transient or undocumented) adj1 (people* or population* or communit* or
neighbourhood* or neighborhood* or group* or area* or demograph*).ti,ab.
44 or/37-43
45 Herpes Genitalis/ or Herpes Simplex/
46 ((genital* or simplex*) adj3 herpes*).ti,ab.
47 chlamydia*.ti,ab.
48 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
49 "condylomata acuminata".ti,ab.
50 Human Papillomavirus/
51 (papillomavirus adj (human* or infect*).ti,ab.
52 hpv.ti,ab.
53 gonorrhoea/
54 (Gonorrhoea* or Gonorrhoea*).ti,ab.
55 Syphilis/
56 syphilis*.ti,ab.
57 (lymphogranuloma venereum or lgv).ti,ab.
58 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
59 hiv/
60 (hiv or human Immunodeficiency Virus*).ti,ab.
61 (mycoplasma genitalium or Mgen).ti,ab.
62 sexually transmitted diseases/
63 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
64 (venereal* adj2 (disease* or infection*).ti,ab.
65 or/45-64

- 66 ((peer or peers) adj2 (led or support* or intervention* or deliver* or educat* or influenc* or group* or network* or program* or programme* or counsellor* or counselor* or advocate* or behaviour* or behavior* or educat* or base* model*)).ti,ab.
- 67 role model*.ti,ab.
- 68 peer relations/ or peer counseling/ or peer evaluation/
69 or/66-68
- 70 (counselling or counseling).ti,ab.
- 71 (motivat* adj2 (interview* or incentive*)).ti,ab.
- 72 Counseling/
73 Sex Therapy/
74 Motivational Interviewing/
75 ((One-to-one or one to one or 1-1) adj2 intervention*).ti,ab.
- 76 ((cognitive or behavio*) adj2 therap*).ti,ab.
77 exp Cognitive Behavior Therapy/
78 or/70-77
- 79 social support*.ti,ab.
- 80 (self adj2 (belief* or aware*)).ti,ab.
- 81 (covert adj2 learn*).ti,ab.
- 82 (reward* adj2 threat*).ti,ab.
- 83 Contingency management.ti,ab.
- 84 (repetition* adj2 substitut*).ti,ab.
- 85 (compar* adj2 (outcome* or behaviour* or behavior*)).ti,ab.
- 86 (natural* adj2 consequence*).ti,ab.
- 87 (shap* adj2 knowledge*).ti,ab.
- 88 (feedback adj2 monitor*).ti,ab.
- 89 (goal* adj2 (plan* or set*)).ti,ab.
- 90 skill* build*.ti,ab.
- 91 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ti.
- 92 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or modifying or therapy or therapies or program* or intervention* or technique* or establish* or individual*)).ab.
- 93 Social Support/
94 exp Self-Concept/
95 Contingency Management/
96 Behavior Change/ or exp Decision Making/
97 exp Knowledge Transfer/
98 or/79-97
- 99 ((universal or population or national* or public health or nationwide* or statewide* or countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city wide* or government*) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*).ti,ab.
- 100 (rais* adj2 awareness adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*).ti,ab.
- 101 ((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or remote or communit* or inform*) adj2 (public health or health promot*).ti,ab.
- 102 Health Promotion/
103 exp Health Education/
104 Persuasive Communication/
105 Information Dissemination/
106 Public Health/
107 Health Knowledge/ or Health Attitudes/
108 Text Messaging/
109 Computer Mediated Communication/
110 Social Media/
111 or/99-110
- 112 (risk reduc* adj2 (strateg* or counsel* or practice* or agreement* or behaviour* or behavior*)).ti,ab.
- 113 ((monogam* or safe*) adj2 (agreement* or contract* or strateg*).ti,ab.
- 114 ((selective* or negotiat* or normalis* or normaliz*) adj2 condom*).ti,ab.
- 115 ((partner* or sex*) adj2 concurren*).ti,ab.
- 116 (relation* adj2 (dynamic* or focus* or power* or control*)).ti,ab.

- 117 (educat* adj2 (session* or lesson*)).ti,ab.
- 118 (pleasur* adj2 approach*).ti,ab.
- 119 exp Choice Behavior/
- 120 or/112-119
- 121 69 or 78 or 98 or 111 or 120
- 122 24 or 44
- 123 65 and 121 and 122
- 124 limit 123 to english language
- 125 Animals/ not (Humans/ and Animals/)
- 126 124 not 125
- 127 limit 126 to yr="2009 -Current"
- 128 16 or 33 or 36
- 129 65 and 121 and 128
- 130 limit 129 to english language
- 131 Animals/ not (Humans/ and Animals/)
- 132 130 not 131
- 133 limit 132 to yr="2009 -Current"

5.9.2 Rerun searches

- 1 gay*.ti,ab.
- 2 male homosexuality/
- 3 bisexuality/
- 4 Sexual Minority Groups/
- 5 exp Transsexualism/ or Transgender/
- 6 same sex intercourse/
- 7 homosexuality/
- 8 Same Sex Couples/
- 9 men who have sex with men.ti,ab.
- 10 (same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.
- 11 MSM.ti,ab.
- 12 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans person* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 13 (bisexual* or homosexual* or lgbt).ti,ab.
- 14 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*).ti,ab.
- 15 lgbtq/
- 16 or/1-15
- 17 (rough sleep* or runaway*).ti,ab.
- 18 ((homeless* or street or destitut*) adj2 (population or person* or people* or group* or individual* or adult* or shelter* or hostel* or accommodation* or sleep*).ti,ab.
- 19 homeless/
- 20 ((temporary or emergency) adj2 (shelter* or accommodation*).ti,ab.
- 21 (homeless* adj2 (household* or primary or secondary or unshelter* or unhoused or institut*).ti,ab.
- 22 (homelessness or encampment* or makeshift shelter*).ti,ab.
- 23 (squatter* or beggar*).ti,ab.
- 24 or/17-23
- 25 (teen* or youth* or adolescen* or juvenile*).ti,ab.
- 26 (young adj2 (adult* or person* or individual* or people* or population* or man or men or wom?n or male* or female* or subject*).ti,ab.
- 27 student*.ti,ab.
- 28 students/ or college students/ or graduate students/
- 29 (under adj2 (twenty five or twenty four or twenty three or twenty two or twenty one or twenty or nineteen or eighteen or "25" or "24" or "23" or "22" or "21" or "20" or "19" or "18")).ti,ab.
- 30 (over adj2 (sixteen* or "16" or eighteen* or "18" or twenty one* or twenty-one* or "21") adj2 (year or years or age or ages or aged)).ti,ab.
- 31 ((15-25 or 16-25 or 17-25 or 18-25 or 19-25 or 20-25 or 21-25 or 22-25 or 23-25 or 24-25 or 16-22) adj2 (year or years or age or ages or aged)).ti,ab.
- 32 exp Adolescent Behavior/ or exp Adolescent Attitudes/ or exp Adolescent Development/
- 33 or/25-32
- 34 (black* or Afrocaribbean* or caribbean* or african* or African American*).ti,ab.
- 35 african cultural groups/ or blacks/

- 36 or/34-35
 37 human migration/ or refugees/ or immigration/
 38 (foreigner* or migrant* or immigrant* or emigrant* or refugee*).ti,ab.
 39 (asylum seek* or seeking asylum or asylee*).ti,ab.
 40 ((displaced or alien*) adj2 (people* or person*)).ti,ab.
 41 (born adj2 overseas).ti,ab.
 42 foreign born.ti,ab.
 43 ((marginal* or transient or undocumented) adj1 (people* or population* or communit* or
 neighbourhood* or neighborhood* or group* or area* or demograph*)).ti,ab.
 44 or/37-43
 45 Herpes Genitalis/ or Herpes Simplex/
 46 ((genital* or simplex*) adj3 herpes*).ti,ab.
 47 chlamydia*.ti,ab.
 48 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
 49 "condylomata acuminata".ti,ab.
 50 Human Papillomavirus/
 51 (papillomavirus adj (human* or infect*)).ti,ab.
 52 hpv.ti,ab.
 53 gonorrhoea/
 54 (Gonorrhoea* or Gonorrhoea*).ti,ab.
 55 Syphilis/
 56 syphilis*.ti,ab.
 57 (lymphogranuloma venereum or lgv).ti,ab.
 58 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
 59 hiv/
 60 (hiv or human Immunodeficiency Virus*).ti,ab.
 61 (mycoplasma genitalium or Mgen).ti,ab.
 62 sexually transmitted diseases/
 63 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
 64 (venereal* adj2 (disease* or infection*)).ti,ab.
 65 or/45-64
 66 ((peer or peers) adj2 (led or support* or intervention* or deliver* or educat* or influenc* or
 group* or network* or program* or programme* or counsellor* or counselor* or advocate* or
 behaviour* or behavior* or educat* or base* model*)).ti,ab.
 67 role model*.ti,ab.
 68 peer relations/ or peer counseling/ or peer evaluation/
 69 or/66-68
 70 (counselling or counseling).ti,ab.
 71 (motivat* adj2 (interview* or incentive*)).ti,ab.
 72 Counseling/
 73 Sex Therapy/
 74 Motivational Interviewing/
 75 ((One-to-one or one to one or 1-1) adj2 intervention*).ti,ab.
 76 ((cognitive or behavio*) adj2 therap*).ti,ab.
 77 exp Cognitive Behavior Therapy/
 78 or/70-77
 79 social support*.ti,ab.
 80 (self adj2 (belief* or aware*)).ti,ab.
 81 (covert adj2 learn*).ti,ab.
 82 (reward* adj2 threat*).ti,ab.
 83 Contingency management.ti,ab.
 84 (repetition* adj2 substitut*).ti,ab.
 85 (compar* adj2 (outcome* or behaviour* or behavior*)).ti,ab.
 86 (natural* adj2 consequence*).ti,ab.
 87 (shap* adj2 knowledge*).ti,ab.
 88 (feedback adj2 monitor*).ti,ab.
 89 (goal* adj2 (plan* or set*)).ti,ab.
 90 skill* build*.ti,ab.
 91 ((behavio?r* or lifestyle* or "life style*") and (change* or changing or modification or modify or
 modifying or therapy or therapies or program* or intervention* or technique* or establish* or
 individual*)).ti.
 92 ((behavio?r* or lifestyle* or "life style*") adj2 (change* or changing or modification or modify or
 modifying or therapy or therapies or program* or intervention* or technique* or establish* or
 individual*)).ab.
 93 Social Support/
 94 exp Self-Concept/
 95 Contingency Management/

- 96 Behavior Change/ or exp Decision Making/
 97 exp Knowledge Transfer/
 98 or/79-97
 99 ((universal or population or national* or public health or nationwide* or statewide* or
 countrywide* or citywide* or national* or nation wide* or state wide* or country wide* or city
 wide* or government*) adj4 (promotion* or campaign* or intervention* or toolkit* or
 strateg*).ti,ab.
 100 (rais* adj2 awareness adj4 (promotion* or campaign* or intervention* or toolkit* or
 strateg*).ti,ab.
 101 ((poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or advert*
 or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card*
 or postcard* or banner* or t-shirt* or blog* or website* or online or social media or social
 market* or facebook or twitter or instagram or snapchat or pinterest* or video* or messag* or
 email* or text* or sms or smartphone* or mobile* or "tablet computer*" or workshop* or train* or
 remote or communit* or inform*) adj2 (public health or health promot*).ti,ab.
 102 Health Promotion/
 103 exp Health Education/
 104 Persuasive Communication/
 105 Information Dissemination/
 106 Public Health/
 107 Health Knowledge/ or Health Attitudes/
 108 Text Messaging/
 109 Computer Mediated Communication/
 110 Social Media/
 111 or/99-110
 112 (risk reduc* adj2 (strateg* or counsel* or practice* or agreement* or behaviour* or
 behavior*).ti,ab.
 113 ((monogam* or safe*) adj2 (agreement* or contract* or strateg*).ti,ab.
 114 ((selective* or negotiat* or normalis* or normaliz*) adj2 condom*).ti,ab.
 115 ((partner* or sex*) adj2 concurren*).ti,ab.
 116 (relation* adj2 (dynamic* or focus* or power* or control*).ti,ab.
 117 (educat* adj2 (session* or lesson*).ti,ab.
 118 (pleasur* adj2 approach*).ti,ab.
 119 exp Choice Behavior/
 120 or/112-119
 121 69 or 78 or 98 or 111 or 120
 122 16 or 24 or 33 or 36 or 44
 123 65 and 121 and 122
 124 limit 123 to english language
 125 Animals/ not (Humans/ and Animals/
 126 124 not 125
 127 limit 126 to up=20200305-20210623

6. Website browsing

Website	
Name	Sigma Research
URL	http://sigmaresearch.org.uk/
Date searched	05/03/20
Search terms (including any specific sections browsed)	Browsed: Projects; Reports; HIV Prevention tag
Results	<p>State of Play: findings from the England Gay Men's Sex Survey 2014 (2016) "As well as exploring HIV prevention opportunities, capabilities and motivations using a range of indicators about unmet prevention need, the report also looks at a number of risk and precaution behaviours related to sex and drugs, and examines data about the performance of HIV prevention interventions."</p> <p>African Health & Sex Survey 2013-2014: findings (2014)</p> <p>Bass Line 2008-09: Assessing the sexual HIV prevention needs of African people in England (2009)</p> <p>My Care, I Care: a study of what people with HIV value about NHS HIV services across London (2013)</p> <p>Plus One: HIV sero-discordant relationships among black African people in England (NAHIP): Sex and risk within the relationship (2011)</p> <p>Making it Count: A collaborative planning framework to minimise the incidence of HIV infection (2011)</p> <p>African HIV prevention Handbook: putting The Knowledge, The Will and The Power into practice (2009)</p>

Website	
Name	Public Health England
URL	https://www.gov.uk/government/organisations/public-health-england
Date searched	05/03/20
Search terms (including any specific sections browsed)	Searched: STI intervention
Results	<p>Health promotion for sexual and reproductive health and HIV: strategic action plan, 2016 to 2019 (2015)</p> <p>Towards elimination of HIV transmission, AIDS and HIV-related deaths in the UK: 2017 report (2017)</p> <p>Addressing the increase in syphilis in England: PHE Action Plan (2019)</p>

	<p>A Framework for Sexual Health Improvement in England (2013) Department of Health and Social Care</p> <p>Overview of the sexual health collaborative commissioning evaluation (2020)</p> <p>Making it work A guide to whole system commissioning for sexual health, reproductive health and HIV (2015 update)</p>
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Website	
Name	Terrence Higgins Trust
URL	http://www.tht.org.uk
Date searched	05/03/20
Search terms (including any specific sections browsed)	Browsed: Blog / Evidence and guidance
Results	<p>Sexually Transmitted Infections in England: The State of the Nation (2020)</p> <p>HIV Prevention England Faith Engagement Strategy 2019/20 (2019)</p> <p>'It Starts With Me' 2016 campaign evaluation (2017) Kantar Public The 'It Starts with Me' (ISWM) campaign, launched in 2013, is part of the wider PHE-funded HIV prevention programme: HIV Prevention England (HPE). Since 2013 ISWM has provided targeted HIV health promotion to Men who have sex with Men (MSM) and Black African (BA) groups.</p> <p>HIV Prevention England GP Engagement Strategy (2018)</p>

Website	
Name	Evidence Search
URL	https://www.evidence.nhs.uk/
Date searched	05/03/20
Search terms (including any specific sections browsed)	STI prevent Sexually transmitted infection prevent
Results	<p>Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender people (2011) World Health Organization "Although the focus of this guidance is on low- and middle-income countries, WHO recommends that this guidance be available for MSM and transgender people in high-income countries as well"</p> <p>2016 United Kingdom national guideline on the sexual health care of men who have sex with men (2018) British Association for Sexual Health and HIV</p>

	<p>UK National Guidelines on safer sex advice (2012) British Association for Sexual Health and HIV</p> <p>Review of the evidence for the UK national guidelines on safer sex advice (2012) British Association for Sexual Health and HIV</p> <p>HIV prevention in England's high prevalence local authorities: 2013/14 and 2014/15. Examining spending on primary HIV prevention and additional HIV testing (2015) National AIDS Trust</p> <p>National guidelines for the prevention and control of gonorrhoea and for minimising the impact of antimicrobial resistance in <i>Neisseria gonorrhoeae</i> (2016) Health Protection Surveillance Centre (Ireland)</p> <p>Priority interventions: HIV/AIDS prevention, treatment and care in the health sector (2010) World Health Organization</p> <p>Recommendations for HIV prevention with adults and adolescents with HIV in the United States, 2014 : Summary for clinical providers (2016 update) Centers for Disease Control and Prevention</p> <p>Practice guidance : supporting young people with HIV testing and prevention (2016) National Children's Bureau</p> <p>Sexual and reproductive health: time to act (2017) Royal College of General Practitioners</p>
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Website	
Name	Google.co.uk
URL	www.google.co.uk
Date searched	05/03/20
Search terms (including any specific sections browsed)	STI prevention
Results	<p>Pipeline for Gonorrhoea, Chlamydia, and Syphilis (2019) Treatment Action Group "A new report on the sexually transmitted infection (STI) treatment and prevention research "pipeline" points to serious gaps in the development of new tools to address a growing epidemic in the U.S. The report, released today by Treatment Action Group (TAG), provides an assessment of the current research pipeline and calls for a major new investment in STI research."</p> <p>UK investment in HIV prevention 2015/16 and 2016/17: Examining UK expenditure on primary HIV prevention and HIV testing (2017) National Aids Trust</p> <p>HIV Prevention Needs Assessment for London (2013) Future Commissioning of London HIV Prevention Services (London Councils)</p> <p>Combination HIV Prevention: Tailoring and Coordinating Biomedical, Behavioural and Structural Strategies 10 to</p>

	<p>Reduce New HIV Infections. A UNAIDS Discussion Paper (2010) United Nations Programme on HIV/AIDS</p> <p>Implementation of the HIV Prevention 2020 Road Map (2018) United Nations Programme on HIV/AIDS</p>
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Review questions 1.3-1.4

7. Review question details

Topic: Reducing STIs

Review 1: Effective and cost-effective interventions to increase uptake of hepatitis A, hepatitis B and HPV vaccination in MSM

Review 1.3a What interventions are effective and cost effective at increasing uptake of hepatitis A and hepatitis B vaccination in MSM?

Review 1.3b What interventions are effective and cost effective at increasing uptake of HPV vaccination in MSM?

Review 2: Barriers to, and facilitators for, uptake of hepatitis A, hepatitis B or HPV vaccination in MSM

Review 2.4a What are the barriers to, and facilitators for, uptake of hepatitis A, or hepatitis B vaccination in MSM?

Review 2.4b What are the barriers to, and facilitators for, uptake of HPV vaccination in MSM?

8. Database strategy outline

8.1 Overview

A NICE information specialist conducted the literature searches for the evidence review. The searches for the effectiveness evidence were run on 18 December 2019. The searches for the cost effectiveness evidence were run on 8 January 2021.

The principal search strategy was developed in MEDLINE (Ovid interface) and adapted, as appropriate, for use in the other sources listed in the protocol, taking into account their size, search functionality and subject coverage.

The gay, bisexual and other men who have sex with men population set and the trans people population set were updated at a later date, following consultation with the committee. It was agreed that searches with the original set of terms would not be re-run, but all searches post-consultation (including all update searches) would use the revised set of terms.

8.2 Filters and limits

The initial search was developed in Medline. Line references below refer to the original Medline strategy.

English language limits were applied in adherence to standard NICE practice and the review protocol.

Limits to exclude letters, editorials, news and conferences were applied in adherence to standard NICE practice and the review protocol.

The search was limited from 2009 to current as defined in the review protocol. The limit to remove animal studies in the searches was the standard NICE practice, which has been adapted from: Dickersin, K., Scherer, R., & Lefebvre, C. (1994). [Systematic Reviews: Identifying relevant studies for systematic reviews](#). *BMJ*, 309(6964), 1286.

The following search filter was applied to the search strategies in MEDLINE and Embase to identify cost-effectiveness studies:

- 1 Economics/ or exp "Costs and Cost Analysis"/ or Economics, Dental/ or exp Economics, Hospital/ or exp Economics, Medical/ or Economics, Nursing/ or Economics, Pharmaceutical/ or Budgets/ or exp Models, Economic/ or Markov Chains/ or Monte Carlo Method/ or Decision Trees/
- 2 (Economic* or cost or costs or costly or costing or costed or price or prices or pricing or pharmaco-economic* or pharmaco economic* or budget*).ti,ab.
- 3 ((monte adj carlo) or markov or (decision adj2 (tree\$ or analys\$))).ti,ab.
- 4 (value adj2 (money or monetary)).ti,ab.
- 5 Quality of Life/ or Health Status Indicators/ or Quality-Adjusted Life Years/ or Value of Life/
- 6 (quality of life or quality adjusted life or qaly* or qald* or qale* or qtime* or quality of wellbeing or quality of well-being or willingness to pay or standard gamble* or time trade off* or time tradeoff*).ti,ab.
- 7 (disability adjusted life or daly).ti,ab.
- 8 health* year* equivalent*.ti,ab.

- 9 (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab.
- 10 (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).ti,ab.
- 11 (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab.
- 12 (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab.
- 13 (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab.
- 14 (euroqol or euro qol or eq5d or eq 5d).ti,ab.
- 15 or/1-14
- 16 (((energy or oxygen) adj cost*) or (metabolic adj cost*) or ((energy or oxygen) adj expenditure*)).ti,ab.
- 17 Animals/ not humans/
- 18 (comment or editorial or letter or news).pt.
- 19 or/16-18
- 20 15 not 19

Source: Glanville J et al. (2009) [Development and Testing of Search Filters to Identify Economic Evaluations in MEDLINE and EMBASE](#). Alberta: Canadian Agency for Drugs and Technologies in Health (CADTH).

Several modifications have been made to these filters over the years that are standard NICE practice.

8.3 Quality assurance

The Information Services team at NICE quality assured the principal search strategy and peer reviewed the strategies for the other databases according to the standard NICE checklist that was adapted from the 2015 Peer review of electronic search strategies (PRESS) checklist.

8.4 Review management

The search results were managed in EPPI-Reviewer v5. Duplicates were removed in EPPI-R5 using a two-step process. First, automated deduplication is performed using a high-value algorithm. Second, manual deduplication is used to assess 'low-probability' matches. All decisions made for the review can be accessed via the deduplication history.

9. Search dates

Database name	Date searched	Database Platform	Database segment or version
Cochrane Central Register of Controlled Trials (CENTRAL) / Cochrane Database of Systematic Reviews (CDSR)	Original searches 18/12/19	Wiley	Issue 12 of 12, December 2019
	Rerun searches 14/06/21		Issue 6 of 12, June 2021
Econlit	Original searches 08/01/20	Ovid	Econlit 1886 to December 26, 2019
	Rerun searches 14/06/21		Econlit 1886 to June 10, 2021
Embase	Original searches 18/12/19	Ovid	Embase 1996 to 2019 December 17
	Rerun searches 14/06/21		Embase 1996 to 2021 June 11
Emcare	Original searches 18/12/19	Ovid	Ovid Emcare 1995 to 2019 week 50
	Rerun searches 14/06/21		Ovid Emcare 1995 to 2021 Week 23
Health Technology Assessment (HTA)	Original searches 08/01/20	CRD	-
	Rerun searches 14/06/21		

Medline	Original searches 18/12/19	Ovid	Ovid MEDLINE(R) 1996 to December 17, 2019
	Rerun searches 14/06/21		Ovid MEDLINE(R) 1996 to June 11, 2021
MEDLINE-in-Process	Original searches 18/12/19	Ovid	Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations 1946 to December 17, 2019
	Rerun searches 14/06/21		Ovid MEDLINE(R) In-Process & In-Data-Review Citations 1946 to June 11, 2021
Medline Epub Ahead-of-Print	Original searches 18/12/19	Ovid	Ovid MEDLINE(R) Epub Ahead of Print December 17, 2019
	Rerun searches 14/06/21		Ovid MEDLINE(R) Epub Ahead of Print June 11, 2021
NHS EED	Original searches 08/01/20	CRD	-
PsycINFO	Original searches 18/12/19	Ovid	PsycINFO 2002 to December Week 2 2019
	Rerun searches 14/06/21		PsycInfo 2002 to June Week 1 2021

10. Number of records retrieved

10.1 Question 1.3-1.4

Search source	No. of records retrieved (original searches)	No. of records retrieved (rerun searches)	Results	De-duplicated
Cochrane Central Register of Controlled Trials (CENTRAL)	42	10	1,877	858
Cochrane Database of Systematic Reviews (CDSR)	3	1		
Embase	642	143		
Emcare	276	45		
Medline	372	121		
MEDLINE-in-Process	80	32		
Medline Epub ahead of print	23	19		
PsycINFO	59	9		
Cost effective searches				

Reducing sexually transmitted infections

Econlit	0	0	228	146
Embase	121	20		
HTA	0	0		
Medline ALL	68	16		
NHS EED	3			

11. Database search strategies

11.1 Cochrane Central Register of Controlled Trials (CENTRAL) / Cochrane Database or Systematic Reviews (CDSR)

11.1.1 Original searches

#1	MeSH descriptor: [Papillomavirus Infections] this term only	672
#2	(hpv*):ti,ab,kw (Word variations have been searched)	2689
#3	((papillomavirus near (human* or infect*)):ti,ab,kw (Word variations have been searched)	2090
#4	MeSH descriptor: [Hepatitis A] explode all trees	1057
#5	MeSH descriptor: [Hepatitis B] explode all trees	2495
#6	((hepatitis or hep) near (B or A)):ti,ab,kw (Word variations have been searched)	14974
#7	((HBV or HAV)):ti,ab,kw (Word variations have been searched)	4597
#8	#1 or #2 or #3 or #4 or #5 or #6 or #7	18542
#9	MeSH descriptor: [Vaccines] explode all trees	11432
#10	MeSH descriptor: [Vaccination] explode all trees	2403
#11	MeSH descriptor: [Immunization] this term only	643
#12	MeSH descriptor: [Immunization Programs] this term only	172
#13	((vaccin* or immuni*)):ti,ab,kw (Word variations have been searched)	30144
#14	(booster*):ti,ab,kw (Word variations have been searched)	3428
#15	#9 or #10 or #11 or #12 or #13	30161
#16	#8 and #15	4553
#17	MeSH descriptor: [Papillomavirus Vaccines] explode all trees	307
#18	MeSH descriptor: [Human Papillomavirus Recombinant Vaccine Quadrivalent, Types 6, 11, 16, 18] this term only	70
#19	MeSH descriptor: [Hepatitis B Vaccines] this term only	881
#20	MeSH descriptor: [Hepatitis A Vaccines] this term only	235
#21	((Cervarix or Gardasil or Ambirix or Twinrix)):ti,ab,kw (Word variations have been searched)	222
#22	#16 or #17 or #18 or #19 or #20 or #21	4563
#23	((gay near/3 (male* or men))):ti,ab,kw (Word variations have been searched)	199
#24	MeSH descriptor: [Homosexuality, Male] this term only	346
#25	MeSH descriptor: [Sexual and Gender Minorities] this term only	47
#26	MeSH descriptor: [Bisexuality] explode all trees	53
#27	MeSH descriptor: [Transgender Persons] this term only	28
#28	MeSH descriptor: [Homosexuality] explode all trees	460
#29	(men who have sex with men):ti,ab,kw (Word variations have been searched)	1855
#30	((same sex or non heterosexual* or non-heterosexual*)):ti,ab,kw (Word variations have been searched)	4752
#31	(MSM):ti,ab,kw (Word variations have been searched)	855
#32	((transgender* or transexual* or trans man or trans men or trans masculine or (gender near (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois)):ti,ab,kw (Word variations have been searched)	1664
#33	((bisexual* or homosexual* or lgbt)):ti,ab,kw (Word variations have been searched)	860
#34	((male near/3 (sex work* or prostitut* or transactional sex or escort*)):ti,ab,kw (Word variations have been searched)	2190
#35	#23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34	10603
#36	#22 and #35	112
#37	"clinicaltrials.gov":so	149740
#38	#36 not #37	100
#39	"conference":pt	167883
#40	#38 not #39 with Publication Year from 2009 to 2019, with Cochrane Library publication date Between Jan 2009 and Dec 2019, in Trials	42

Notes

11.1.2 Rerun searches

- #1 MeSH descriptor: [Papillomavirus Infections] this term only 782
- #2 (hpv*):ti,ab,kw (Word variations have been searched) 3081
- #3 ((papillomavirus near (human* or infect*)):ti,ab,kw (Word variations have been searched) 2322
- #4 MeSH descriptor: [Hepatitis A] 3 tree(s) exploded 1428
- #5 MeSH descriptor: [Hepatitis B] 3 tree(s) exploded 2756
- #6 (((hepatitis or hep) near (B or A)):ti,ab,kw (Word variations have been searched) 15749
- #7 ((HBV or HAV):ti,ab,kw (Word variations have been searched) 4846
- #8 #1 or #2 or #3 or #4 or #5 or #6 or #7 19825
- #9 MeSH descriptor: [Vaccines] explode all trees 13211
- #10 MeSH descriptor: [Vaccination] explode all trees 2603
- #11 MeSH descriptor: [Immunization] this term only 663
- #12 MeSH descriptor: [Immunization Programs] this term only 188
- #13 ((vaccin* or immuni*):ti,ab,kw (Word variations have been searched) 33646
- #14 (booster*):ti,ab,kw (Word variations have been searched) 4023
- #15 #9 or #10 or #11 or #12 or #13 or #14 35516
- #16 #8 and #15 5022
- #17 MeSH descriptor: [Papillomavirus Vaccines] explode all trees 352
- #18 MeSH descriptor: [Human Papillomavirus Recombinant Vaccine Quadrivalent, Types 6, 11, 16, 18] this term only 79
- #19 MeSH descriptor: [Hepatitis B Vaccines] this term only 896
- #20 MeSH descriptor: [Hepatitis A Vaccines] this term only 239
- #21 ((Cervarix or Gardasil or Ambirix or Twinrix):ti,ab,kw (Word variations have been searched) 268
- #22 #16 or #17 or #18 or #19 or #20 or #21 5040
- #23 (gay*):ti,ab,kw (Word variations have been searched) 511
- #24 MeSH descriptor: [Homosexuality, Male] this term only 418
- #25 MeSH descriptor: [Sexual and Gender Minorities] this term only 103
- #26 MeSH descriptor: [Bisexuality] explode all trees 53
- #27 MeSH descriptor: [Transgender Persons] this term only 51
- #28 MeSH descriptor: [Transsexualism] this term only 28
- #29 MeSH descriptor: [Health Services for Transgender Persons] this term only 0
- #30 MeSH descriptor: [Homosexuality] explode all trees 530
- #31 (men who have sex with men):ti,ab,kw (Word variations have been searched) 2169
- #32 ((same sex or non heterosexual* or non-heterosexual*):ti,ab,kw (Word variations have been searched) 5379
- #33 (MSM):ti,ab,kw (Word variations have been searched) 1025
- #34 ((transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender near (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crosssex* or cross-sex*):ti,ab,kw (Word variations have been searched) 3585
- #35 ((bisexual* or homosexual* or lgbt):ti,ab,kw (Word variations have been searched) 983
- #36 (((male or man or men or boy*) near/3 (sex work* or prostitut* or transactional sex or escort*)):ti,ab,kw (Word variations have been searched) 4087
- #37 #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 14185
- #38 #22 and #37 135
- #39 "clinicaltrials.gov":so 211833
- #40 #38 not #39 110
- #41 "conference":pt 183578
- #42 #40 not #41 with Publication Year from 2019 to 2021, in Trials 10
- #43 #22 and #37 with Cochrane Library publication date Between Dec 2019 and Jun 2021, in Cochrane Reviews 1

Notes

Line 42: downloaded as CENTRAL results

Line 43: downloaded as CDSR results

11.2 Econlit

11.2.1 Original search

- 1 (papillomavirus adj (human* or infect*)),ti,ab.
- 2 hpv*.ti,ab.
- 3 ((hepatitis or hep) adj (B or A)).ti,ab.
- 4 (HBV or HAV).ti,ab.
- 5 or/1-4
- 6 (vaccin* or immuni*).ti,ab.
- 7 booster*.ti,ab.
- 8 or/6-7
- 9 5 and 8
- 10 (Cervarix or Gardasil).ti,ab.
- 11 (Ambirix or Twinrix).ti,ab.
- 12 9 or 10 or 11
- 13 (gay adj3 (male* or men)).ti,ab.
- 14 men who have sex with men.ti,ab.
- 15 MSM.ti,ab.
- 16 (transgender* or transexual* or trans man or trans men or trans masculine or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois).ti,ab.
- 17 (bisexual* or homosexual* or lgbt).ti,ab.
- 18 (male adj3 (sex work* or prostitut* or transactional sex or escort*)).ti,ab.
- 19 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
- 20 or/13-19
- 21 12 and 20
- 22 limit 21 to yr="2009 -Current"

11.2.2 Rerun search

- 1 (papillomavirus adj (human* or infect*)),ti,ab.
- 2 hpv*.ti,ab.
- 3 ((hepatitis or hep) adj (B or A)).ti,ab.
- 4 (HBV or HAV).ti,ab.
- 5 or/1-4
- 6 (vaccin* or immuni*).ti,ab.
- 7 booster*.ti,ab.
- 8 or/6-7
- 9 5 and 8
- 10 (Cervarix or Gardasil).ti,ab.
- 11 (Ambirix or Twinrix).ti,ab.
- 12 9 or 10 or 11
- 13 gay*.ti,ab.
- 14 men who have sex with men.ti,ab.
- 15 MSM.ti,ab.
- 16 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 17 (bisexual* or homosexual* or lgbt).ti,ab.
- 18 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*)).ti,ab.
- 19 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
- 20 or/13-19

21 12 and 20
 22 limit 21 to yr="2019 -Current"

11.3 Embase

11.3.1 Original searches

1 papillomavirus infection/ or wart virus/ or human papillomavirus type 11/ or human papillomavirus type 16/ or human papillomavirus type 18/ (47966)
 2 (papillomavirus adj (human* or infect*)).ti,ab. (3736)
 3 hpv*.ti,ab. (51423)
 4 ((hepatitis or hep) adj (B or A)).ti,ab. (94716)
 5 (HBV or HAV).ti,ab. (62816)
 6 exp hepatitis a/ (9593)
 7 exp hepatitis B/ (81691)
 8 or/1-7 (189624)
 9 exp vaccination/ (131605)
 10 vaccine/ or virus vaccine/ (60699)
 11 immunization/ or vaccination coverage/ or vaccine failure/ or mass immunization/ (73180)
 12 preventive health service/ (22487)
 13 (vaccin* or immuni*).ti,ab. (473050)
 14 booster*.ti,ab. (11587)
 15 or/9-14 (529453)
 16 8 and 15 (44569)
 17 Wart virus vaccine/ (13037)
 18 hepatitis B vaccine/ (14890)
 19 hepatitis A vaccine/ (4512)
 20 (Cervarix or Gardasil).ti,ab. (790)
 21 (Ambirix or Twinrix).ti,ab. (77)
 22 hepatitis A hepatitis B vaccine/ (595)
 23 16 or 17 or 18 or 19 or 20 or 21 or 22 (51720)
 24 (gay adj3 (male* or men)).ti,ab. (4301)
 25 male homosexuality/ (3122)
 26 "sexual and gender minority"/ (1748)
 27 "men who have sex with men"/ or "men who have sex with men and women"/ (9695)
 28 bisexuality/ (5586)
 29 bisexual male/ (1145)
 30 exp transgender/ (5623)
 31 transsexualism/ (2785)
 32 homosexuality/ (12671)
 33 men who have sex with men.ti,ab. (13837)
 34 (same sex or non heterosexual* or non-heterosexual*).ti,ab. (6512)
 35 MSM.ti,ab. (14223)
 36 (transgender* or transexual* or trans man or trans men or trans masculine or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois).ti,ab. (7226)
 37 (bisexual* or homosexual* or lgbt).ti,ab. (14609)
 38 (male adj3 (sex work* or prostitut* or transactional sex or escort*)).ti,ab. (510)
 39 or/24-38 (52415)
 40 23 and 39 (1303)
 41 limit 40 to english language (1245)
 42 (letter or editorial).pt. (1339656)
 43 41 not 42 (1183)
 44 animals/ not humans/ (533020)
 45 43 not 44 (1183)
 46 limit 45 to yr="2009 -Current" (978)
 47 remove duplicates from 46 (959)
 48 (conference abstract or conference paper or conference proceeding or "conference review").pt. (4152028)
 49 47 not 48 (642)

11.3.2 Rerun searches

- 1 papillomavirus infection/ or wart virus/ or human papillomavirus type 11/ or human papillomavirus type 16/ or human papillomavirus type 18/
- 2 (papillomavirus adj (human* or infect*)).ti,ab.
- 3 hpv*.ti,ab.
- 4 ((hepatitis or hep) adj (B or A)).ti,ab.
- 5 (HBV or HAV).ti,ab.
- 6 exp hepatitis a/
- 7 exp hepatitis B/
- 8 or/1-7
- 9 exp vaccination/
- 10 vaccine/ or virus vaccine/
- 11 immunization/ or vaccination coverage/ or vaccine failure/ or mass immunization/
- 12 preventive health service/
- 13 (vaccin* or immuni*).ti,ab.
- 14 booster*.ti,ab.
- 15 or/9-14
- 16 8 and 15
- 17 Wart virus vaccine/
- 18 hepatitis B vaccine/
- 19 hepatitis A vaccine/
- 20 (Cervarix or Gardasil).ti,ab.
- 21 (Ambirix or Twinrix).ti,ab.
- 22 hepatitis A hepatitis B vaccine/
- 23 16 or 17 or 18 or 19 or 20 or 21 or 22
- 24 gay*.ti,ab.
- 25 male homosexuality/
- 26 "sexual and gender minority"/
- 27 bisexuality/
- 28 transgender/ or transsexualism/
- 29 homosexuality/
- 30 men who have sex with men.ti,ab.
- 31 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
- 32 MSM.ti,ab.
- 33 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 34 (bisexual* or homosexual* or lgbt*).ti,ab.
- 35 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*)).ti,ab.
- 36 or/24-35
- 37 23 and 36
- 38 limit 37 to english language
- 39 (letter or editorial).pt.
- 40 38 not 39
- 41 animals/ not humans/
- 42 40 not 41
- 43 limit 42 to dc=20191217-20210614
- 44 remove duplicates from 43
- 45 (conference abstract or conference paper or conference proceeding or "conference review").pt.
- 46 44 not 45

11.4 Emcare

11.4.1 Original searches

- 1 papillomavirus infection/ or wart virus/ or human papillomavirus type 11/ or human papillomavirus type 16/ or human papillomavirus type 18/ (11732)
- 2 (papillomavirus adj (human* or infect*)),ti,ab. (938)
- 3 hpv*.ti,ab. (9802)
- 4 ((hepatitis or hep) adj (B or A)).ti,ab. (13328)
- 5 (HBV or HAV).ti,ab. (6488)
- 6 exp hepatitis a/ (2442)
- 7 exp hepatitis B/ (13864)
- 8 or/1-7 (32854)
- 9 exp vaccination/ (34565)
- 10 vaccine/ or virus vaccine/ (16830)
- 11 immunization/ or vaccination coverage/ or vaccine failure/ or mass immunization/ (18602)
- 12 preventive health service/ (9717)
- 13 (vaccin* or immuni*).ti,ab. (77494)
- 14 booster*.ti,ab. (2476)
- 15 or/9-14 (97746)
- 16 8 and 15 (10768)
- 17 Wart virus vaccine/ (3949)
- 18 hepatitis B vaccine/ (3816)
- 19 hepatitis A vaccine/ (1433)
- 20 (Cervarix or Gardasil).ti,ab. (178)
- 21 (Ambirix or Twinrix).ti,ab. (12)
- 22 hepatitis A hepatitis B vaccine/ (329)
- 23 16 or 17 or 18 or 19 or 20 or 21 or 22 (12932)
- 24 (gay adj3 (male* or men)),ti,ab. (2930)
- 25 male homosexuality/ (117)
- 26 "sexual and gender minority"/ (413)
- 27 men who have sex with men/ or "men who have sex with men and women"/ (4405)
- 28 bisexuality/ (4046)
- 29 bisexual male/ (944)
- 30 exp transgender/ (2651)
- 31 transsexualism/ (1236)
- 32 homosexuality/ (5144)
- 33 men who have sex with men.ti,ab. (5529)
- 34 (same sex or non heterosexual* or non-heterosexual*).ti,ab. (3342)
- 35 MSM.ti,ab. (4420)
- 36 (transgender* or transexual* or trans man or trans men or trans masculine or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois).ti,ab. (3778)
- 37 (bisexual* or homosexual* or lgbt).ti,ab. (7488)
- 38 (male adj3 (sex work* or prostitut* or transactional sex or escort*)),ti,ab. (256)
- 39 or/24-38 (22721)
- 40 23 and 39 (399)
- 41 limit 40 to english language (390)
- 42 (letter or editorial).pt. (573129)
- 43 41 not 42 (362)
- 44 animals/ not humans/ (1082)
- 45 43 not 44 (362)
- 46 limit 45 to yr="2009 -Current" (280)
- 47 remove duplicates from 46 (279)
- 48 (conference abstract or conference paper or conference proceeding or "conference review").pt. (160356)
- 49 47 not 48 (276)

11.4.2 Rerun searches

- 1 papillomavirus infection/ or wart virus/ or human papillomavirus type 11/ or human papillomavirus type 16/ or human papillomavirus type 18/
- 2 (papillomavirus adj (human* or infect*)),ti,ab.

3 hpv*.ti,ab.
4 ((hepatitis or hep) adj (B or A)).ti,ab.
5 (HBV or HAV).ti,ab.
6 exp hepatitis a/
7 exp hepatitis B/
8 or/1-7
9 exp vaccination/
10 vaccine/ or virus vaccine/
11 immunization/ or vaccination coverage/ or vaccine failure/ or mass immunization/
12 preventive health service/
13 (vaccin* or immuni*).ti,ab.
14 booster*.ti,ab.
15 or/9-14
16 8 and 15
17 Wart virus vaccine/
18 hepatitis B vaccine/
19 hepatitis A vaccine/
20 (Cervarix or Gardasil).ti,ab.
21 (Ambirix or Twinrix).ti,ab.
22 hepatitis A hepatitis B vaccine/
23 16 or 17 or 18 or 19 or 20 or 21 or 22
24 gay*.ti,ab.
25 male homosexuality/
26 "sexual and gender minority"/
27 bisexuality/
28 transgender/ or transsexualism/
29 homosexuality/
30 men who have sex with men.ti,ab.
31 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
32 MSM.ti,ab.
33 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or
trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or
transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or
nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender
or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
34 (bisexual* or homosexual* or lgbt*).ti,ab.
35 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or
escort*).ti,ab.
36 or/24-35
37 23 and 36
38 limit 37 to english language
39 (letter or editorial).pt.
40 38 not 39
41 animals/ not humans/
42 40 not 41
43 limit 42 to dc=20191217-20210614
44 remove duplicates from 43
45 (conference abstract or conference paper or conference proceeding or "conference review").pt.
46 44 not 45

11.5 Health Technology Assessment (HTA)

11.5.1 Original search

1	(MeSH DESCRIPTOR Papillomavirus Infections EXPLODE ALL TREES)
2	((hpv*))
3	(((((papillomavirus near (human* or infect*))))))
4	(MeSH DESCRIPTOR Hepatitis A EXPLODE ALL TREES)
5	(MeSH DESCRIPTOR Hepatitis B EXPLODE ALL TREES)

6	((((hepatitis or hep) near (B or A))))
7	(((HBV or HAV)))
8	(#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7)
9	(MeSH DESCRIPTOR Vaccines EXPLODE ALL TREES)
10	(MeSH DESCRIPTOR Vaccination EXPLODE ALL TREES)
11	(MeSH DESCRIPTOR Immunization EXPLODE ALL TREES)
12	(MeSH DESCRIPTOR Immunization Programs EXPLODE ALL TREES)
13	(((vaccin* or immuni*)))
14	(((booster*)))
15	(#9 OR #10 OR #11 OR #12 OR #13 OR #14)
16	(#8 AND #15)
17	(MeSH DESCRIPTOR Papillomavirus Vaccines EXPLODE ALL TREES)
18	(MeSH DESCRIPTOR Human Papillomavirus Recombinant Vaccine Quadrivalent, Types 6, 11, 16, 18 EXPLODE ALL TREES)
19	(MeSH DESCRIPTOR Hepatitis B Vaccines EXPLODE ALL TREES)
20	(MeSH DESCRIPTOR Hepatitis A Vaccines EXPLODE ALL TREES)
21	(((Cervarix or Gardasil or Ambirix or Twinrix)))
22	(#16 OR #17 OR #18 OR #19 OR #20 OR #21)
23	(((gay near3 (male* or men))))
24	(MeSH DESCRIPTOR Homosexuality, Male EXPLODE ALL TREES)
25	(MeSH DESCRIPTOR Bisexuality EXPLODE ALL TREES)
26	(MeSH DESCRIPTOR Transgender Persons EXPLODE ALL TREES)
27	(MeSH DESCRIPTOR Homosexuality EXPLODE ALL TREES)
28	(MeSH DESCRIPTOR Sexual Minorities EXPLODE ALL TREES)
29	(((men who have sex with men)))
30	(((same sex or non heterosexual* or non-heterosexual*)))
31	(((MSM)))
32	(((transgender* or transexual* or trans man or trans men or trans masculine or (gender near (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois)))
33	(((bisexual* or homosexual* or lgbt)))
34	(((male near3 (sex work* or prostitut* or transactional sex or escort*))))
35	(#23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34)
36	(#22 AND #35)
37	(* IN NHSEED FROM 2009 TO 2020)
38	(#36 AND #37)

39	(* IN HTA FROM 2009 TO 2020)
40	(#36 AND #39)

11.6.2 Rerun search

41	#40 AND #23
40	#39 OR #38 OR #37 OR #36 OR #35 OR #34 OR #33 OR #32 OR #31 OR #30 OR #29 OR #28 OR #27 OR #26 OR #25 OR #24
39	((male or man or men or boy*) AND (sex work* or prostitut* or transactional sex or escort*))
38	(bisexual* or homosexual* or lgbt*)
37	(gender AND (queer* or fluid* or variant*))
36	(transgend* or transex* or transsex* or transma* or transmen* or "trans man" or "trans men" or "trans masculine" or transfem* or transwom* or "trans woman" or "trans women" or transperson* or transpeopl* or "trans person"* or "trans people"* or nonbinary or "non binary" or "non-binary" or genderless or genderqueer* or agender or "bi-gender" or "bi gender" or neutrois or crossgender* or "cross-gender"* or crossex* or "cross-sex"*)
35	MSM
34	(same sex or "non heterosexual"* or "non-heterosexual"*)
33	men who have sex with men
32	(Homosexuality)[mh]
31	(Health Services for Transgender Persons)[mh]
30	(Transgender)[mh]
29	(Transsexualism)[mh]
28	(Transgender Persons)[mh]
27	(Bisexuality)[mh]
26	"Sexual and Gender Minorities"[mh]
25	(Homosexuality, Male)[mh]
24	gay*
23	#22 OR #16
22	#21 OR #20 OR #19 OR #18 OR #17
21	(Cervarix or Gardasil or Ambirix or Twinrix)
20	(Hepatitis A Vaccines)[mh]
19	(Hepatitis B Vaccines)[mh]
18	"Human Papillomavirus Recombinant Vaccine Quadrivalent, Types 6, 11, 16, 18"[mh]
17	(Papillomavirus Vaccines)[mh]
16	#15 AND #8

15	#14 OR #13 OR #12 OR #11 OR #10 OR #9
14	booster*
13	(vaccin* or immuni*)
12	(Immunization Programs)[mh]
11	(Immunization)[mh]
10	(Vaccination)[mh]
9	(Vaccines)[mh]
8	#7 OR #6 OR #5 OR #4 OR #3 OR #2 OR #1
7	(HBV or HAV)
6	((hepatitis or hep) AND (B or A))
5	(Hepatitis B)[mh]
4	(Hepatitis A)[mh]
3	(papillomavirus AND (human* or infect*))
2	hpv*
1	(Papillomavirus Infections)[mh]

11.6 Medline

11.6.1 Original searches

- 1 Papillomavirus Infections/ (24693)
- 2 (papillomavirus adj (human* or infect*).ti,ab. (3726)
- 3 hpv*.ti,ab. (36531)
- 4 exp Hepatitis A/ (20348)
- 5 exp Hepatitis B/ (56963)
- 6 ((hepatitis or hep) adj (B or A)).ti,ab. (77275)
- 7 (HBV or HAV).ti,ab. (39563)
- 8 or/1-7 (148914)
- 9 exp Vaccination/ (82370)
- 10 Immunization/ or Immunization Programs/ or vaccines/ (78346)
- 11 (vaccin* or immuni*).ti,ab. (457972)
- 12 booster*.ti,ab. (10253)
- 13 or/9-12 (492518)
- 14 Papillomavirus Vaccines/ (7347)
- 15 Human Papillomavirus Recombinant Vaccine Quadrivalent, Types 6, 11, 16, 18/ (718)
- 16 Hepatitis B Vaccines/ (9124)
- 17 Hepatitis A Vaccines/ (1670)
- 18 (Cervarix or Gardasil).ti,ab. (464)
- 19 (Ambirix or Twinrix).ti,ab. (68)
- 20 8 and 13 (31118)
- 21 14 or 15 or 16 or 17 or 18 or 19 or 20 (33313)
- 22 (gay adj3 (male* or men)).ti,ab. (3861)
- 23 Homosexuality, Male/ (14972)
- 24 "Sexual and Gender Minorities"/ (2698)
- 25 Bisexuality/ (3979)
- 26 Transgender Persons/ (2682)
- 27 Homosexuality/ (12257)

- 28 men who have sex with men.ti,ab. (8850)
- 29 (same sex or non heterosexual* or non-heterosexual*).ti,ab. (5637)
- 30 MSM.ti,ab. (7797)
- 31 (transgender* or transexual* or trans man or trans men or trans masculine or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois).ti,ab. (3965)
- 32 (bisexual* or homosexual* or lgbt).ti,ab. (18306)
- 33 (male adj3 (sex work* or prostitut* or transactional sex or escort*)).ti,ab. (503)
- 34 or/22-33 (46060)
- 35 21 and 34 (738)
- 36 limit 35 to english language (686)
- 37 limit 36 to (letter or historical article or comment or editorial or news or case reports) (60)
- 38 36 not 37 (626)
- 39 Animals/ not (Humans/ and Animals/) (4622703)
- 40 38 not 39 (626)
- 41 limit 40 to yr="2009 -Current" (372)

11.6.2 Rerun searches

- 1 Papillomavirus Infections/
- 2 (papillomavirus adj (human* or infect*)).ti,ab.
- 3 hpv*.ti,ab.
- 4 exp Hepatitis A/
- 5 exp Hepatitis B/
- 6 ((hepatitis or hep) adj (B or A)).ti,ab.
- 7 (HBV or HAV).ti,ab.
- 8 or/1-7
- 9 exp Vaccination/
- 10 Immunization/ or Immunization Programs/ or vaccines/
- 11 (vaccin* or immuni*).ti,ab.
- 12 booster*.ti,ab.
- 13 or/9-12
- 14 Papillomavirus Vaccines/
- 15 Human Papillomavirus Recombinant Vaccine Quadrivalent, Types 6, 11, 16, 18/
- 16 Hepatitis B Vaccines/
- 17 Hepatitis A Vaccines/
- 18 (Cervarix or Gardasil).ti,ab.
- 19 (Ambirix or Twinrix).ti,ab.
- 20 8 and 13
- 21 14 or 15 or 16 or 17 or 18 or 19 or 20
- 22 gay*.ti,ab.
- 23 Homosexuality, Male/
- 24 "Sexual and Gender Minorities"/
- 25 Bisexuality/
- 26 Transgender Persons/ or Transsexualism/ or Transgender/ or Health Services for Transgender Persons/
- 27 Homosexuality/
- 28 men who have sex with men.ti,ab.
- 29 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
- 30 MSM.ti,ab.
- 31 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 32 (bisexual* or homosexual* or lgbt).ti,ab.
- 33 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*)).ti,ab.
- 34 or/22-33
- 35 21 and 34
- 36 limit 35 to english language
- 37 limit 36 to (letter or historical article or comment or editorial or news or case reports)
- 38 36 not 37
- 39 Animals/ not (Humans/ and Animals/)
- 40 38 not 39
- 41 limit 40 to ed=20191217-20210614

11.7 Medline-in-Process

11.7.1 Original searches

- 1 (papillomavirus adj (human* or infect*)).ti,ab. (310)
- 2 hpv*.ti,ab. (4439)
- 3 ((hepatitis or hep) adj (B or A)).ti,ab. (7498)
- 4 (HBV or HAV).ti,ab. (4512)
- 5 or/1-4 (12649)
- 6 (vaccin* or immuni*).ti,ab. (43832)
- 7 booster*.ti,ab. (985)
- 8 or/6-7 (44268)
- 9 5 and 8 (3038)
- 10 (Cervarix or Gardasil).ti,ab. (60)
- 11 (Ambirix or Twinrix).ti,ab. (2)
- 12 9 or 10 or 11 (3044)
- 13 (gay adj3 (male* or men)).ti,ab. (371)
- 14 men who have sex with men.ti,ab. (1342)
- 15 MSM.ti,ab. (1318)
- 16 (transgender* or transexual* or trans man or trans men or trans masculine or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois).ti,ab. (1294)
- 17 (bisexual* or homosexual* or lgbt).ti,ab. (1575)
- 18 (male adj3 (sex work* or prostitut* or transactional sex or escort*)).ti,ab. (31)
- 19 (same sex or non heterosexual* or non-heterosexual*).ti,ab. (661)
- 20 or/13-19 (4738)
- 21 12 and 20 (87)
- 22 limit 21 to english language (86)
- 23 limit 22 to (letter or historical article or comment or editorial or news or case reports) (2)
- 24 22 not 23 (84)
- 25 limit 24 to yr="2009 -Current" (80)

11.7.2 Rerun searches

- 1 (papillomavirus adj (human* or infect*)).ti,ab.
- 2 hpv*.ti,ab.
- 3 ((hepatitis or hep) adj (B or A)).ti,ab.
- 4 (HBV or HAV).ti,ab.
- 5 or/1-4
- 6 (vaccin* or immuni*).ti,ab.
- 7 booster*.ti,ab.
- 8 or/6-7
- 9 5 and 8
- 10 (Cervarix or Gardasil).ti,ab.
- 11 (Ambirix or Twinrix).ti,ab.
- 12 9 or 10 or 11
- 13 gay*.ti,ab.
- 14 men who have sex with men.ti,ab.
- 15 MSM.ti,ab.
- 16 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 17 (bisexual* or homosexual* or lgbt).ti,ab.

- 18 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*)),ti,ab.
- 19 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
- 20 or/13-19
- 21 12 and 20
- 22 limit 21 to english language
- 23 limit 22 to (letter or historical article or comment or editorial or news or case reports)
- 24 22 not 23
- 25 limit 24 to dt=20191217-20210614

11.8 Medline Epub Ahead-of-print

11.8.1 Original searches

- 1 (papillomavirus adj (human* or infect*)),ti,ab. (44)
- 2 hpv*.ti,ab. (750)
- 3 ((hepatitis or hep) adj (B or A)).ti,ab. (1039)
- 4 (HBV or HAV).ti,ab. (570)
- 5 or/1-4 (1901)
- 6 (vaccin* or immuni*).ti,ab. (5663)
- 7 booster*.ti,ab. (125)
- 8 or/6-7 (5720)
- 9 5 and 8 (532)
- 10 (Cervarix or Gardasil).ti,ab. (17)
- 11 (Ambirix or Twinrix).ti,ab. (2)
- 12 9 or 10 or 11 (535)
- 13 (gay adj3 (male* or men)).ti,ab. (203)
- 14 men who have sex with men.ti,ab. (452)
- 15 MSM.ti,ab. (361)
- 16 (transgender* or transexual* or trans man or trans men or trans masculine or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois).ti,ab. (389)
- 17 (bisexual* or homosexual* or lgbt).ti,ab. (527)
- 18 (male adj3 (sex work* or prostitut* or transactional sex or escort*)),ti,ab. (13)
- 19 (same sex or non heterosexual* or non-heterosexual*).ti,ab. (228)
- 20 or/13-19 (1416)
- 21 12 and 20 (23)
- 22 limit 21 to english language (23)
- 23 limit 22 to (letter or historical article or comment or editorial or news or case reports) (0)
- 24 22 not 23 (23)
- 25 limit 24 to yr="2009 -Current" (23)

11.8.2 Rerun searches

- 1 (papillomavirus adj (human* or infect*)),ti,ab.
- 2 hpv*.ti,ab.
- 3 ((hepatitis or hep) adj (B or A)).ti,ab.
- 4 (HBV or HAV).ti,ab.
- 5 or/1-4
- 6 (vaccin* or immuni*).ti,ab.
- 7 booster*.ti,ab.
- 8 or/6-7
- 9 5 and 8
- 10 (Cervarix or Gardasil).ti,ab.
- 11 (Ambirix or Twinrix).ti,ab.
- 12 9 or 10 or 11
- 13 gay*.ti,ab.
- 14 men who have sex with men.ti,ab.
- 15 MSM.ti,ab.
- 16 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or

- nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
 17 (bisexual* or homosexual* or lgbt).ti,ab.
 18 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*)).ti,ab.
 19 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
 20 or/13-19
 21 12 and 20
 22 limit 21 to english language
 23 limit 22 to (letter or historical article or comment or editorial or news or case reports)
 24 22 not 23
 25 limit 24 to dt=20191217-20210614

11.9 NHS EED

11.9.1 Original search

1	(MeSH DESCRIPTOR Papillomavirus Infections EXPLODE ALL TREES)
2	((hpv*))
3	(((((papillomavirus near (human* or infect*))))))
4	(MeSH DESCRIPTOR Hepatitis A EXPLODE ALL TREES)
5	(MeSH DESCRIPTOR Hepatitis B EXPLODE ALL TREES)
6	(((((hepatitis or hep) near (B or A))))))
7	(((((HBV or HAV))))))
8	(#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7)
9	(MeSH DESCRIPTOR Vaccines EXPLODE ALL TREES)
10	(MeSH DESCRIPTOR Vaccination EXPLODE ALL TREES)
11	(MeSH DESCRIPTOR Immunization EXPLODE ALL TREES)
12	(MeSH DESCRIPTOR Immunization Programs EXPLODE ALL TREES)
13	(((((vaccin* or immuni*))))))
14	((((booster*))))
15	(#9 OR #10 OR #11 OR #12 OR #13 OR #14)
16	(#8 AND #15)
17	(MeSH DESCRIPTOR Papillomavirus Vaccines EXPLODE ALL TREES)
18	(MeSH DESCRIPTOR Human Papillomavirus Recombinant Vaccine Quadrivalent, Types 6, 11, 16, 18 EXPLODE ALL TREES)
19	(MeSH DESCRIPTOR Hepatitis B Vaccines EXPLODE ALL TREES)
20	(MeSH DESCRIPTOR Hepatitis A Vaccines EXPLODE ALL TREES)
21	(((((Cervarix or Gardasil or Ambirix or Twinrix))))))
22	(#16 OR #17 OR #18 OR #19 OR #20 OR #21)
23	(((((gay near3 (male* or men))))))
24	(MeSH DESCRIPTOR Homosexuality, Male EXPLODE ALL TREES)
25	(MeSH DESCRIPTOR Bisexuality EXPLODE ALL TREES)

26	(MeSH DESCRIPTOR Transgender Persons EXPLODE ALL TREES)
27	(MeSH DESCRIPTOR Homosexuality EXPLODE ALL TREES)
28	(MeSH DESCRIPTOR Sexual Minorities EXPLODE ALL TREES)
29	(((men who have sex with men)))
30	(((same sex or non heterosexual* or non-heterosexual*)))
31	(((MSM)))
32	(((transgender* or transexual* or trans man or trans men or trans masculine or (gender near (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois)))
33	(((bisexual* or homosexual* or lgbt)))
34	(((male near3 (sex work* or prostitut* or transactional sex or escort*)))
35	(#23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34)
36	(#22 AND #35)
37	(* IN NHSEED FROM 2009 TO 2020)
38	(#36 AND #37)
39	(* IN HTA FROM 2009 TO 2020)
40	(#36 AND #39)

11.9.2 Rerun search

Note: no new content has been added to NHS EED since 2015, so this was outside the remit of a rerun search.

11.10 PsycINFO

11.10.1 Original searches

- 1 human papillomavirus/ (1276)
- 2 (papillomavirus adj (human* or infect*)).ti,ab. (77)
- 3 hpv*.ti,ab. (1562)
- 4 exp Hepatitis/ (2424)
- 5 ((hepatitis or hep) adj (B or A)).ti,ab. (1077)
- 6 (HBV or HAV).ti,ab. (475)
- 7 or/1-6 (4636)
- 8 exp immunization/ (4112)
- 9 (vaccin* or immuni*).ti,ab. (9822)
- 10 booster*.ti,ab. (986)
- 11 or/8-10 (10847)
- 12 7 and 11 (1611)
- 13 (Cervarix or Gardasil).ti,ab. (57)
- 14 (Ambirix or Twinrix).ti,ab. (1)
- 15 12 or 13 or 14 (1613)
- 16 (gay adj3 (male* or men)).ti,ab. (5598)
- 17 male homosexuality/ (9870)
- 18 bisexuality/ (6455)
- 19 Sexual Minority Groups/ (1445)
- 20 exp Transsexualism/ or Transgender/ (6596)
- 21 same sex intercourse/ (3090)
- 22 homosexuality/ (4837)

- 23 Same Sex Couples/ (528)
- 24 men who have sex with men.ti,ab. (4240)
- 25 (same sex or non heterosexual* or non-heterosexual*).ti,ab. (6964)
- 26 MSM.ti,ab. (3330)
- 27 (transgender* or transexual* or trans man or trans men or trans masculine or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or agender or bi-gender or bi gender or neutrois).ti,ab. (7212)
- 28 (bisexual* or homosexual* or lgbt).ti,ab. (14815)
- 29 (male adj3 (sex work* or prostitut* or transactional sex or escort*).ti,ab. (297)
- 30 lgbtq/ (945)
- 31 or/16-30 (33680)
- 32 15 and 31 (83)
- 33 limit 32 to english language (79)
- 34 Animals/ not (Humans/ and Animals/) (2612)
- 35 33 not 34 (79)
- 36 limit 35 to yr="2009 -Current" (59)

11.10.2 Rerun searches

- 1 human papillomavirus/
- 2 (papillomavirus adj (human* or infect*).ti,ab.
- 3 hpv*.ti,ab.
- 4 exp Hepatitis/
- 5 ((hepatitis or hep) adj (B or A)).ti,ab.
- 6 (HBV or HAV).ti,ab.
- 7 or/1-6
- 8 exp immunization/
- 9 (vaccin* or immuni*).ti,ab.
- 10 booster*.ti,ab.
- 11 or/8-10
- 12 7 and 11
- 13 (Cervarix or Gardasil).ti,ab.
- 14 (Ambirix or Twinrix).ti,ab.
- 15 12 or 13 or 14
- 16 gay*.ti,ab.
- 17 male homosexuality/
- 18 bisexuality/
- 19 Sexual Minority Groups/
- 20 exp Transsexualism/ or Transgender/
- 21 same sex intercourse/
- 22 homosexuality/
- 23 Same Sex Couples/
- 24 men who have sex with men.ti,ab.
- 25 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
- 26 MSM.ti,ab.
- 27 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 28 (bisexual* or homosexual* or lgbt).ti,ab.
- 29 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*).ti,ab.
- 30 lgbtq/
- 31 or/16-30
- 32 15 and 31
- 33 limit 32 to english language
- 34 Animals/ not (Humans/ and Animals/)
- 35 33 not 34
- 36 limit 35 to up=20191217-20210614

12. Website browsing

Website	
Name	British HIV Association
URL	https://www.bhiva.org/index.php
Date searched	13/12/19
Search terms (including any specific sections browsed)	Browsed: Current guidelines; Resources; Conferences and events
Results	<p>BHIVA guidelines on the use of vaccines in HIV-positive adults (2015) Has chapters on Hep A, Hep B and HPV + references for each chapter</p> <p>BHIVA guidelines for the management of hepatitis viruses in adults infected with HIV 2013 (updated September 2014) Website says this is now out of date but no new version available and 2014-2014 does fall with date limit of searches. Has vaccine/immunization recommendations</p> <p>Prevalence, type and factors associated with HPV infection at multiple sites in Young HIV-positive MSM (2016) Oral Research Presentation: 22nd Annual Conference of BHIVA</p>

Website	
Name	Centers for Disease Control and Prevention (CDC)
URL	http://www.cdc.gov/
Date searched	13/12/19
Search terms (including any specific sections browsed)	Browsed: Sexually Transmitted Diseases (STDs)
Results	<p>Schillie S, Vellozzi C, Reingold A, et al. Prevention of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices. MMWR Recomm Rep 2018;67(No. RR-1):1–31. MSM as population group are referred to throughout but they are only one group amongst many that are discussed in this report.</p> <p>Human Papillomavirus Vaccination: Recommendations of the Advisory Committee on Immunization Practices (ACIP) (2014) Brief mention of MSM</p> <p>Recommendations on the Use of Quadrivalent Human Papillomavirus Vaccine in Males — Advisory Committee on Immunization Practices (ACIP) (2011)</p>

Website	
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Name	Public Health England
URL	https://www.gov.uk/health-and-social-care/health-protection-immunisation
Date searched	13/12/19
Search terms (including any specific sections browsed)	Browsed: Immunisation
Results	<p>NHS public health functions agreement 2018-19 Service specification No.32 Human papillomavirus immunisation programme for men who have sex with men (HPV-MSM) (2018)</p> <p>Human papillomavirus (HPV) vaccination for Men who have sex with Men (MSM): 2016/17 pilot evaluation (2017) Public Health England</p> <p>HPV vaccination programme for men who have sex with men (MSM): Clinical and operational guidance (2018) Public Health England</p> <p>JCVI statement on HPV vaccination of men who have sex with men (2015) Department of Health and Social Care</p> <p>Human papillomavirus (HPV) vaccine for MSM: Patient Group Direction template (2018) Public Health England</p> <p>Hepatitis A: the green book, chapter 17 (2013)</p> <p>Hepatitis B: the green book, chapter 18 (2013; last updated 2019)</p> <p>Human papillomavirus (HPV): the green book, chapter 18a (2019)</p>

Website	
Name	Google.co.uk
URL	www.google.co.uk
Date searched	13/12/19
Search terms (including any specific sections browsed)	HPV AND MSM or gay men Hepatitis AND vaccination AND MSM or gay men
Results	<p>Nadarzynski, Tom, Smith, Helen, Richardson, Daniel, Pollard, Alex and Llewellyn, Carrie (2017) Perceptions of HPV and attitudes towards HPV vaccination amongst men who have sex with men: a qualitative analysis. British Journal of Health Psychology, 22 (2). pp. 345-361</p> <p>HPV vaccination for men who have sex with men (2017) Welsh Government</p> <p>HPV vaccinations for men who have sex with men (2016) House of Commons Library</p> <p>Addressing HPV-Related Cancer Risk Among Men Who Have Sex With Men (MSM): A Guide for Health Care Providers (2018) Sex Information and Education Council of Canada</p>

	Nadarzynski, Tom, Smith, Helen, Richardson, Daniel, Pollard, Alex and Llewellyn, Carrie (2017) Perceptions of HPV and attitudes towards HPV vaccination amongst men who have sex with men: a qualitative analysis. <i>British Journal of Health Psychology</i> , 22 (2). pp. 345-361
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Review questions 1.5

13. Review question details

Topic: Reducing STIs

Review 1: Effectiveness, cost effectiveness and unintended consequences of pre-exposure prophylaxis (PrEP) for HIV

1.1 What is the effectiveness, cost effectiveness and unintended consequences of pre-exposure prophylaxis (PrEP) for HIV?

Review 2: Acceptability and factors relating to the use of pre-exposure prophylaxis (PrEP) for HIV

1.2 What is the acceptability of pre-exposure prophylaxis (PrEP) for HIV, and what other factors influence its use?

14. Database strategy outline

14.1 Overview

A NICE information specialist conducted the literature searches for the evidence review. The searches for the effectiveness evidence were run on 1 May 2020. The searches for the cost effectiveness evidence were run on 13 May 2020.

The principal search strategy was developed in MEDLINE (Ovid interface) and adapted, as appropriate, for use in the other sources listed in the protocol, taking into account their size, search functionality and subject coverage.

In addition to terms for PrEP and Truvada, the search also includes terms for chemoprevention / chemoprophylaxis but the terms for named drugs (lines 21-24) were focused on prevention rather than treatment.

This approach was consistent with the NICE guidelines development manual (PMG20, 2014), which states that:

“NICE encourages the use of search methods that balance recall and precision. The aim is to identify the best available evidence to address a particular question without producing an unmanageable volume of results”.

14.2 Filters and limits

The initial search was developed in Medline. Line references below refer to the original Medline strategy.

English language limits were applied in adherence to standard NICE practice and the review protocol.

Limits to exclude letters, editorials, news and conferences were applied in adherence to standard NICE practice and the review protocol.

The search was limited from 2009 to current as defined in the review protocol. For the rerun searches there was no change to strategy apart from the date limit (from 29th April 2021 to 07 July 2021). As a result the rerun strategies have not been included apart from the INAHTA strategy, which was a translation of the HTA strategy.

The limit to remove animal studies in the searches was the standard NICE practice, which has been adapted from: Dickersin, K., Scherer, R., & Lefebvre, C. (1994). [Systematic Reviews: Identifying relevant studies for systematic reviews](#). *BMJ*, 309(6964), 1286.

The following search filter was applied to the search strategies in MEDLINE and Embase to identify cost-effectiveness studies:

- 1 Economics/ or exp "Costs and Cost Analysis"/ or Economics, Dental/ or exp Economics, Hospital/ or exp Economics, Medical/ or Economics, Nursing/ or

- Economics, Pharmaceutical/ or Budgets/ or exp Models, Economic/ or Markov Chains/ or Monte Carlo Method/ or Decision Trees/
- 2 (Economic* or cost or costs or costly or costing or costed or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or budget*).ti,ab.
- 3 ((monte adj carlo) or markov or (decision adj2 (tree\$ or analys\$))).ti,ab.
- 4 (value adj2 (money or monetary)).ti,ab.
- 5 Quality of Life/ or Health Status Indicators/ or Quality-Adjusted Life Years/ or Value of Life/
- 6 (quality of life or quality adjusted life or qaly* or qald* or qale* or qtime* or quality of wellbeing or quality of well-being or willingness to pay or standard gamble* or time trade off* or time tradeoff*).ti,ab.
- 7 (disability adjusted life or daly).ti,ab.
- 8 health* year* equivalent*.ti,ab.
- 9 (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab.
- 10 (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).ti,ab.
- 11 (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab.
- 12 (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab.
- 13 (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab.
- 14 (euroqol or euro qol or eq5d or eq 5d).ti,ab.
- 15 or/1-14
- 16 (((energy or oxygen) adj cost*) or (metabolic adj cost*) or ((energy or oxygen) adj expenditure*)).ti,ab.
- 17 Animals/ not humans/
- 18 (comment or editorial or letter or news).pt.
- 19 or/16-18
- 20 15 not 19

Source: Glanville J et al. (2009) [Development and Testing of Search Filters to Identify Economic Evaluations in MEDLINE and EMBASE](#). Alberta: Canadian Agency for Drugs and Technologies in Health (CADTH).

Several modifications have been made to these filters over the years that are standard NICE practice.

14.3 Quality assurance

The Information Services team at NICE quality assured the principal search strategy and peer reviewed the strategies for the other databases according to the standard NICE checklist that was adapted from the 2015 Peer review of electronic search strategies (PRESS) checklist.

14.4 Review management

The search results were managed in EPPI-Reviewer v5. Duplicates were removed in EPPI-R5 using a two-step process. First, automated deduplication is performed using a high-value algorithm. Second, manual deduplication is used to assess 'low-probability' matches. All decisions made for the review can be accessed via the deduplication history.

15. Search dates

Database name	Date searched	Database Platform	Database segment or version
Cochrane Central Register of Controlled Trials (CENTRAL) / Cochrane Database of Systematic Reviews (CDSR)	Original searches 01/05/20	Wiley	Issue 3 of 12, March 2020
	Rerun searches 07/07/21		
Econlit	Original searches 13/05/20	Ovid	Econlit 1886 to March 05, 2020
	Rerun searches 07/07/21		Econlit 1886 to June 17, 2021
Embase	Original searches 30/04/20	Ovid	Embase 1974 to 2020 Week 17
	Rerun searches 07/07/21		Embase 1974 to 2021 July 06
Emcare	Original searches 30/04/20	Ovid	Ovid Emcare 1995 to 2020 week 17
	Rerun searches 07/07/21		Ovid Emcare 1995 to 2021 Week 26
HTA	Original searches 29/04/20	CRD	-
INAHTA	Rerun searches 07/07/21	-	-

Medline	Original searches 03/03/20	Ovid	Ovid MEDLINE(R) 1946 to April 28, 2020
	Rerun searches 07/07/21		Ovid MEDLINE(R) 1946 to July 06, 2021
MEDLINE-in-Process (including Epub Ahead-of-Print)	Original searches 03/03/20	Ovid	Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations 1946 to April 28, 2020
	Rerun searches 07/07/21		Ovid MEDLINE(R) In-Process & In-Data-Review Citations 1946 to July 06, 2021
NHS EED / HTA	Original searches 29/04/20	CRD	-
PsycINFO	Original searches 03/03/20	Ovid	PsycInfo 1967 to April Week 4 2020
	Rerun searches 07/07/21		PsycInfo 1967 to June Week 4 2021

16. Number of records retrieved

16.1 Question 1.5

Search source	No. of records retrieved (original searches)	No. of records retrieved (rerun searches)	Results	De-duplicated
Cochrane Central Register of Controlled Trials (CENTRAL)	461	79	14,838	7,249
Cochrane Database of Systematic Reviews (CDSR)	18	0		
Embase	4,297	813		
Emcare	2,441	641		
Google Scholar	89	53		
Medline	3,119	1,000		
MEDLINE-in-Process	779	210		
PsycINFO	717	121		
Cost effective searches				

Reducing sexually transmitted infections

Econlit	4	1
Embase	771	123
HTA	0	-
INAHTA	-	3
Medline ALL	543	153

1,645

1,132

17. Database strategies

17.1 Cochrane Central Register of Controlled Trials (CENTRAL) / Cochrane Database or Systematic Reviews (CDSR)

17.1.1 Original searches

#1	[mh ^"HIV Infections"]	10341	
#2	[mh ^"Acquired Immunodeficiency Syndrome"]		1923
#3	[mh ^"HIV Seropositivity"]	724	
#4	[mh ^"HIV seronegativity"]	161	
#5	[mh ^"AIDS Serodiagnosis"]	96	
#6	(HIV or (human NEAR immunodeficiency NEAR virus)):ti,ab	24299	
#7	((("Human t-lymphotropic virus type III" or HTLV-III) NEAR (serodiagnos* or seronegativ* or serology or seroconversion* or seropositiv*)):ti,ab	1	
#8	(AIDS not hearing):ti,ab	7602	
#9	(acquired NEAR immun* NEAR syndrome):ti,ab	657	
#10	{or #1-#9}	28574	
#11	[mh ^chemoprevention] and [mh ^"HIV infections"]	43	
#12	((Chemoprevent* or Chemo-prevent* or "chemo prevent*") and (HIV or antiretroviral or anti-retroviral or "anti retroviral")):ti,ab	31	
#13	((chemoprophyla* or "chemo prophyla*" or chemo-prophyla*) and (anti-retroviral or antiretroviral or "anti retroviral" or hiv)):ti,ab	70	
#14	[mh ^"pre-exposure prophylaxis"]	155	
#15	pre exposure prophylaxi*:ti,ab	721	
#16	preexposure prophylaxi*:ti,ab	608	
#17	pre-exposure prophylaxi*:ti,ab	557	
#18	prep:ti,ab	1354	
#19	iprex:ti,ab	38	
#20	{or #11-#19}	1846	
#21	[mh ^"Emtricitabine, Tenofovir Disoproxil Fumarate Drug Combination"]	188	
#22	[mh ^emtricitabine] and [mh ^tenofovir]	478	
#23	truvada:ti,ab	229	
#24	(tenofovir and emtricitabine):ti,ab	1426	
#25	{or #21-#24}	1622	
#26	(prep or preexposure or pre-exposure or "pre exposure" or prophyla* or prevent*):ti,ab	163685	
#27	#25 and #26	368	
#28	#20 or #27	1959	
#29	#10 and #28	960	
#30	"conference":pt or (clinicaltrials or trialsearch):so	485953	
#31	#29 not #30	481	
#32	#31 in Trials	461	
#33	#29 in Cochrane Reviews		

Notes

Line 32: downloaded as CENTRAL results

Line 33: downloaded as CDSR results

17.2 Econlit

17.2.1 Original searches

- 1 (HIV or (human adj immunodeficiency adj virus)).ti,ab. (1901)
- 2 (("Human t-lymphotropic virus type III" or HTLV-III) adj (serodiagnos* or seronegativ* or serology or seroconversion* or seropositiv*)).ti,ab. (0)
- 3 (AIDS not hearing).ti,ab. (2690)
- 4 (acquired adj immun* adj syndrome).ti,ab. (10)
- 5 or/1-4 (3425)
- 6 ((Chemoprevent* or Chemo-prevent* or "chemo prevent*") and (HIV or antiretroviral or anti-retroviral or anti retroviral)).ti,ab. (0)
- 7 ((chemoprophyla* or "chemo prophyla*" or chemo-prophyla*) and (anti-retroviral or antiretroviral or anti retroviral or hiv)).ti,ab. (0)
- 8 pre exposure prophylaxi*.ti,ab. (5)
- 9 preexposure prophylaxi*.ti,ab. (1)
- 10 pre-exposure prophylaxi*.ti,ab. (5)
- 11 prep.ti,ab. (33)
- 12 iprex.ti,ab. (0)
- 13 or/6-12 (38)
- 14 truvada.ti,ab. (1)
- 15 (tenofovir and emtricitabine).ti,ab. (0)
- 16 or/14-15 (1)
- 17 (prep or preexposure or pre-exposure or "pre exposure" or prophyla* or prevent*).ti,ab. (16212)
- 18 16 and 17 (0)
- 19 13 or 18 (38)
- 20 5 and 19 (4)
- 21 limit 20 to english (4)

17.3 Embase

17.3.1 Original searches

- 1 Human immunodeficiency virus infection/ (268377)
- 2 acquired immune deficiency syndrome/ (134564)
- 3 (HIV or (human adj immunodeficiency adj virus)).ti,ab. (411217)
- 4 (("Human t-lymphotropic virus type III" or HTLV-III) adj (serodiagnos* or seronegativ* or serology or seroconversion* or seropositiv*)).ti,ab. (74)
- 5 (AIDS not hearing).ti,ab. (163404)
- 6 (acquired adj immun* adj syndrome).ti,ab. (16617)
- 7 or/1-6 (564504)
- 8 chemoprophylaxis/ and Human immunodeficiency virus infection/ (1117)
- 9 ((Chemoprevent* or Chemo-prevent* or "chemo prevent*") and (HIV or antiretroviral or anti-retroviral or "anti retroviral")).ti,ab. (72)
- 10 ((chemoprophyla* or "chemo prophyla*" or chemo-prophyla*) and (anti-retroviral or antiretroviral or "anti retroviral" or hiv)).ti,ab. (745)
- 11 pre-exposure prophylaxis/ (4018)
- 12 pre exposure prophylaxi*.ti,ab. (3614)
- 13 preexposure prophylaxi*.ti,ab. (974)
- 14 pre-exposure prophylaxi*.ti,ab. (3614)
- 15 prep.ti,ab. (9323)
- 16 iprex.ti,ab. (148)
- 17 or/8-16 (12866)
- 18 emtricitabine plus tenofovir disoproxil/ (3817)
- 19 Emtricitabine/ and (tenofovir disoproxil/ or tenofovir/) (7428)
- 20 truvada.ti,ab. (540)
- 21 (tenofovir and emtricitabine).ti,ab. (3826)
- 22 or/18-21 (11688)
- 23 (prep or preexposure or pre-exposure or "pre exposure" or prophyla* or prevent*).ti,ab. (1982382)
- 24 22 and 23 (2769)
- 25 17 or 24 (14246)
- 26 7 and 25 (8328)
- 27 nonhuman/ not (human/ and nonhuman/) (4612923)

- 28 26 not 27 (8122)
- 29 limit 28 to english language (7792)
- 30 29 not (letter or editorial).pt. (7379)
- 31 (conference abstract or conference paper or conference proceeding or "conference review").pt. (4524333)
- 32 30 not 31 (5250)
- 33 elsevier.cr. (25655771)
- 34 32 and 33 (4329)
- 35 remove duplicates from 34 (4297)

17.4 Emcare

17.4.1 Original searches

- 1 Human immunodeficiency virus infection/ (73436)
- 2 acquired immune deficiency syndrome/ (33135)
- 3 (HIV or (human adj immunodeficiency adj virus)).ti,ab. (99880)
- 4 (("Human t-lymphotropic virus type III" or HTLV-III) adj (serodiagnos* or seronegativ* or serology or seroconversion* or seropositiv*)).ti,ab. (0)
- 5 (AIDS not hearing).ti,ab. (41165)
- 6 (acquired adj immun* adj syndrome).ti,ab. (2571)
- 7 or/1-6 (135593)
- 8 chemoprophylaxis/ and Human immunodeficiency virus infection/ (410)
- 9 ((Chemoprevent* or Chemo-prevent* or "chemo prevent*") and (HIV or antiretroviral or anti-retroviral or "anti retroviral")).ti,ab. (13)
- 10 ((chemoprophyla* or "chemo prophyla*" or chemo-prophyla*) and (anti-retroviral or antiretroviral or "anti retroviral" or hiv)).ti,ab. (193)
- 11 pre-exposure prophylaxis/ (1847)
- 12 pre exposure prophylaxi*.ti,ab. (1433)
- 13 preexposure prophylaxi*.ti,ab. (482)
- 14 pre-exposure prophylaxi*.ti,ab. (1433)
- 15 prep.ti,ab. (2353)
- 16 iprex.ti,ab. (44)
- 17 or/8-16 (3658)
- 18 emtricitabine plus tenofovir disoproxil/ (1097)
- 19 emtricitabine/ and (tenofovir disoproxil/ or tenofovir/) (1725)
- 20 truvada.ti,ab. (90)
- 21 (tenofovir and emtricitabine).ti,ab. (648)
- 22 or/18-21 (2788)
- 23 (prep or preexposure or pre-exposure or "pre exposure" or prophyla* or prevent*).ti,ab. (467103)
- 24 22 and 23 (871)
- 25 17 or 24 (4025)
- 26 7 and 25 (3019)
- 27 nonhuman/ not (human/ and nonhuman/) (404581)
- 28 26 not 27 (2980)
- 29 limit 28 to english language (2912)
- 30 limit 29 to (books or chapter or dissertation or editorial or letter or note or press release) (412)
- 31 29 not 30 (2500)
- 32 limit 31 to (conference abstract or conference paper or "conference review") (52)
- 33 31 not 32 (2448)
- 34 remove duplicates from 33 (2441)

17.5 Health Technology Assessment (HTA)

17.5.1 Original searches

1	MeSH DESCRIPTOR HIV Infections	1049
2	MeSH DESCRIPTOR Acquired Immunodeficiency Syndrome	108

3	MeSH DESCRIPTOR HIV Seropositivity	86
4	MeSH DESCRIPTOR HIV Seronegativity	11
5	MeSH DESCRIPTOR AIDS Serodiagnosis	56
6	((hiv or human Immunodeficiency Virus*))	1895
7	((("Human t-lymphotropic virus type III" or HTLV-III) adj (serodiagnos* or seronegativ* or serology or seroconversion* or seropositiv*)))	0
8	((AIDS not hearing))	1208
9	((acquired adj immun* adj syndrome))	215
10	(#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9)	2395
11	MeSH DESCRIPTOR Chemoprevention	91
12	#1 AND #11	11
13	((Chemoprevent* or Chemo-prevent* or "chemo prevent*") and (HIV or anti-retroviral or antiretroviral or anti retroviral))	15
14	((chemoprophyla* or "chemo prophyla*" or chemo-prophyla*) and (anti-retroviral or antiretroviral or anti retroviral or hiv))	16
15	MeSH DESCRIPTOR Pre-Exposure Prophylaxis	2
16	(pre exposure prophylaxi*)	20
17	(preexposure prophylaxi*)	2
18	(pre-exposure prophylaxi*)	20
19	(prep)	18
20	(iprex)	1
21	(#12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20)	58
22	MeSH DESCRIPTOR Emtricitabine, Rilpivirine, Tenofovir Drug Combination	0
23	MeSH DESCRIPTOR Emtricitabine	17
24	MeSH DESCRIPTOR Tenofovir	41
25	#23 AND #24	11
26	(truvada)	2
27	((tenofovir and emtricitabine))	41
28	#22 OR #25 OR #26 OR #27	41
29	((prep or preexposure or pre-exposure or "pre exposure" or prophyla* or prevent*))	18788
30	#28 AND #29	9
31	#21 OR #30	63
32	#10 AND #31	48
33	(#32) IN HTA	0

17.6 INAHTA

17.6.1 Rerun searches

(((((prep or preexposure or pre-exposure or "pre exposure" or prophyla* or prevent*))) AND (((tenofovir and emtricitabine))) OR ((truvada))) OR (((Tenofovir)[mh]) AND ((Emtricitabine)[mh])) OR ((Emtricitabine, Rilpivirine, Tenofovir Drug Combination)[mh])) OR ((iprex)) OR ((prep)) OR ((pre-exposure prophylaxi*)) OR ((preexposure prophylaxi*)) OR ((pre exposure prophylaxi*)) OR ((Pre-Exposure Prophylaxis)[mh]) OR (((chemoprophyla* or "chemo prophyla*" or chemo-prophyla*) and (anti-retroviral or antiretroviral or anti retroviral or hiv)))) OR (((Chemoprevent* or Chemo-prevent* or "chemo prevent*") and (HIV or anti-retroviral or antiretroviral or anti retroviral)))) OR (((Chemoprevention)[mh]) AND ((HIV Infections)[mh])) AND (((acquired and immun* and

syndrome)))) OR (((AIDS not hearing))) OR (((("Human t-lymphotropic virus type III" or HTLV-III) adj (serodiagnos* or seronegativ* or serology or seroconversion* or seropositiv*)))) OR (((((hiv or human Immunodeficiency Virus*)))) OR ((AIDS Serodiagnosis)[mh]) OR ((HIV Seronegativity)[mh]) OR ((HIV Seropositivity)[mh]) OR ((Acquired Immunodeficiency Syndrome)[mh]) OR ((HIV Infections)[mh]))

17.7 Medline

17.7.1 Original searches

- 1 HIV Infections/ (190364)
- 2 Acquired Immunodeficiency Syndrome/ (76154)
- 3 HIV Seropositivity/ (23009)
- 4 HIV Seronegativity/ (3747)
- 5 AIDS Serodiagnosis/ (6650)
- 6 (HIV or (human adj immunodeficiency adj virus)).ti,ab. (294228)
- 7 (("Human t-lymphotropic virus type III" or HTLV-III) adj (serodiagnos* or seronegativ* or serology or seroconversion* or seropositiv*)).ti,ab. (65)
- 8 (AIDS not hearing).ti,ab. (129403)
- 9 (acquired adj immun* adj syndrome).ti,ab. (15117)
- 10 or/1-9 (391513)
- 11 Chemoprevention/ and HIV Infections/ (524)
- 12 ((Chemoprevent* or Chemo-prevent* or "chemo prevent*") and (HIV or antiretroviral or anti-retroviral or "anti retroviral")).ti,ab. (47)
- 13 ((chemoprophyla* or "chemo prophyla*" or chemo-prophyla*) and (anti-retroviral or antiretroviral or "anti retroviral" or hiv)).ti,ab. (565)
- 14 Pre-Exposure Prophylaxis/ (2073)
- 15 pre exposure prophylaxi*.ti,ab. (1826)
- 16 preexposure prophylaxi*.ti,ab. (669)
- 17 pre-exposure prophylaxi*.ti,ab. (1826)
- 18 prep.ti,ab. (3724)
- 19 iprex.ti,ab. (72)
- 20 or/11-19 (6008)
- 21 Emtricitabine, Tenofovir Disoproxil Fumarate Drug Combination/ (216)
- 22 Emtricitabine/ and Tenofovir/ (934)
- 23 truvada.ti,ab. (152)
- 24 (tenofovir and emtricitabine).ti,ab. (1708)
- 25 or/21-24 (2098)
- 26 (prep or preexposure or pre-exposure or "pre exposure" or prophyla* or prevent*).ti,ab. (1324314)
- 27 25 and 26 (722)
- 28 20 or 27 (6183)
- 29 10 and 28 (3802)
- 30 animals/ not humans/ (4660986)
- 31 29 not 30 (3734)
- 32 limit 31 to (letter or historical article or comment or editorial or news or case reports) (467)
- 33 31 not 32 (3267)
- 34 limit 33 to english language (3119)

17.8 Medline in Process

17.8.1 Original searches

- 1 (HIV or (human adj immunodeficiency adj virus)).ti,ab. (27767)
- 2 (("Human t-lymphotropic virus type III" or HTLV-III) adj (serodiagnos* or seronegativ* or serology or seroconversion* or seropositiv*)).ti,ab. (0)
- 3 (AIDS not hearing).ti,ab. (10081)
- 4 (acquired adj immun* adj syndrome).ti,ab. (688)
- 5 or/1-4 (32383)
- 6 ((Chemoprevent* or Chemo-prevent* or "chemo prevent*") and (HIV or antiretroviral or anti-retroviral or "anti retroviral")).ti,ab. (3)
- 7 ((chemoprophyla* or "chemo prophyla*" or chemo-prophyla*) and (anti-retroviral or antiretroviral or "anti retroviral" or hiv)).ti,ab. (37)
- 8 pre exposure prophylaxi*.ti,ab. (624)
- 9 preexposure prophylaxi*.ti,ab. (153)
- 10 pre-exposure prophylaxi*.ti,ab. (624)
- 11 prep.ti,ab. (886)
- 12 iprex.ti,ab. (8)
- 13 or/6-12 (1138)
- 14 truvada.ti,ab. (28)
- 15 (tenofovir and emtricitabine).ti,ab. (349)
- 16 or/14-15 (370)
- 17 (prep or preexposure or pre-exposure or "pre exposure" or prophyla* or prevent*).ti,ab. (166704)
- 18 16 and 17 (122)
- 19 13 or 18 (1166)
- 20 5 and 19 (822)
- 21 limit 20 to english language (817)
- 22 remove duplicates from 21 (779)

17.9 NHS EED

17.9.1 Original searches

1	MeSH DESCRIPTOR HIV Infections	1049
2	MeSH DESCRIPTOR Acquired Immunodeficiency Syndrome	108
3	MeSH DESCRIPTOR HIV Seropositivity	86
4	MeSH DESCRIPTOR HIV Seronegativity	11
5	MeSH DESCRIPTOR AIDS Serodiagnosis	56
6	((hiv or human Immunodeficiency Virus*))	1895
7	((("Human t-lymphotropic virus type III" or HTLV-III) adj (serodiagnos* or seronegativ* or serology or seroconversion* or seropositiv*)))	0
8	((AIDS not hearing))	1208
9	((acquired adj immun* adj syndrome))	215
10	(#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9)	2395
11	MeSH DESCRIPTOR Chemoprevention	91
12	#1 AND #11	11
13	((Chemoprevent* or Chemo-prevent* or "chemo prevent*") and (HIV or anti-retroviral or antiretroviral or anti retroviral))	15
14	((chemoprophyla* or "chemo prophyla*" or chemo-prophyla*) and (anti-retroviral or antiretroviral or anti retroviral or hiv))	16
15	MeSH DESCRIPTOR Pre-Exposure Prophylaxis	2

16	(pre exposure prophylaxi*)	20
17	(preexposure prophylaxi*)	2
18	(pre-exposure prophylaxi*)	20
19	(prep)	18
20	(iprex)	1
21	(#12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20)	58
22	MeSH DESCRIPTOR Emtricitabine, Rilpivirine, Tenofovir Drug Combination	0
23	MeSH DESCRIPTOR Emtricitabine	17
24	MeSH DESCRIPTOR Tenofovir	41
25	#23 AND #24	11
26	(truvada)	2
27	((tenofovir and emtricitabine))	41
28	#22 OR #25 OR #26 OR #27	41
29	((prep or preexposure or pre-exposure or "pre exposure" or prophyla* or prevent*))	18788
30	#28 AND #29	9
31	#21 OR #30	63
32	#10 AND #31	48
34	(#32) IN NHSEED	33

17.9.2 Rerun searches

Note: no new content has been added to NHS EED since 2015, so this was outside the remit of a rerun search.

17.10 PsycINFO

17.10.1 Original searches

- 1 HIV/ (35485)
- 2 aids/ (15386)
- 3 aids prevention/ (8725)
- 4 (HIV or (human adj immunodeficiency adj virus)).ti,ab. (51486)
- 5 (("Human t-lymphotropic virus type III" or HTLV-III) adj (serodiagnos* or seronegativ* or serology or seroconversion* or seropositiv*)).ti,ab. (1)
- 6 (AIDS not hearing).ti,ab. (31866)
- 7 (acquired adj immun* adj syndrome).ti,ab. (722)
- 8 or/1-7 (65266)
- 9 ((Chemoprevent* or Chemo-prevent* or "chemo prevent*") and (HIV or antiretroviral or anti-retroviral or "anti retroviral")).ti,ab. (4)
- 10 ((chemoprophyla* or "chemo prophyla*" or chemo-prophyla*) and (anti-retroviral or antiretroviral or "anti retroviral" or hiv)).ti,ab. (31)
- 11 pre exposure prophylaxi*.ti,ab. (674)
- 12 preexposure prophylaxi*.ti,ab. (119)
- 13 pre-exposure prophylaxi*.ti,ab. (674)
- 14 prep.ti,ab. (1263)
- 15 iprex.ti,ab. (31)
- 16 or/9-15 (1412)
- 17 truvada.ti,ab. (40)
- 18 (tenofovir and emtricitabine).ti,ab. (129)
- 19 or/17-18 (155)

- 20 (prep or preexposure or pre-exposure or "pre exposure" or prophyla* or prevent*).ti,ab. (218771)
- 21 19 and 20 (107)
- 22 16 or 21 (1420)
- 23 8 and 22 (899)
- 24 limit 23 to english language (778)
- 25 limit 24 to ("0200 book" or "0240 authored book" or "0280 edited book" or "0300 encyclopedia" or "0400 dissertation abstract") (61)
- 26 24 not 25 (717)
- 27 remove duplicates from 26 (717)

18. Website searches

Website	
Name	British HIV Association
URL	https://www.bhiva.org/
Date searched	06/05/2020, update search 08/07/2021
Search terms (including any specific sections browsed)	Browsed following sections: National Audit Reports Current Guidelines Clinical Standards
Results	BHIVA/BASHH (2021) UK Guideline for the use of HIV Post-Exposure Prophylaxis 2021 BHIVA (2018) BHIVA/BASHH guidelines on the use of HIV pre-exposure prophylaxis (PrEP) 2018 PHE (2018) PrEP and Health Promotion activity

Website	
Name	CDC
URL	https://www.cdc.gov/
Date searched	06/05/2020, update search 08/07/2021
Search terms (including any specific sections browsed)	Browsed the HIV section Used the site search function (only reviewed first 10 pages of results) to search for: prep
Results	PrEP info available on the following pages on the CDC website: https://www.cdc.gov/hiv/effective-interventions/prevent/prep/# https://www.cdc.gov/hiv/risk/prep/index.html https://www.cdc.gov/hiv/clinicians/prevention/prep-and-pep.html https://www.cdc.gov/grand-rounds/pp/2014/20140520-prep-hiv.html https://www.cdc.gov/hiv/clinicians/prevention/prep.html Journal articles listed on CDC "HIV Professional Associations and Other Resources" page: Michael J. Huey, MD, Margaret Higham, MD, and Ariel L. Watriss, MSN, NP-C Why You Should Provide HIV Pre-exposure Prophylaxis (PrEP) at Your College Health Center

	<p>Jeffrey T. Kirchner, D.O PrEP Your High-risk Patients to Help Protect Them From HIV</p> <p>Madeline B. Deutsch, MD Pre-Exposure Prophylaxis in Trans Populations: Providing Gender-Affirming Prevention for Trans People at High Risk of Acquiring HIV</p> <p>Tanner MR, Miele P, Carter W, et al. (2020) Preexposure Prophylaxis for Prevention of HIV Acquisition Among Adolescents: Clinical Considerations, 2020. <i>MMWR Recomm Rep</i> 2020;69(No. RR-3):1–12</p> <p>Kanny D, Jeffries WL IV, Chapin-Bardales J, et al. (2017) Racial/Ethnic Disparities in HIV Preexposure Prophylaxis Among Men Who Have Sex with Men — 23 Urban Areas, 2017. <i>MMWR Morb Mortal Wkly Rep</i> 2019;68:801–806</p> <p>Huang YA, Zhu W, Smith DK, Harris N, Hoover KW. (2018) HIV Preexposure Prophylaxis, by Race and Ethnicity — United States, 2014–2016. <i>MMWR Morb Mortal Wkly Rep</i> 2018;67:1147–1150.</p> <p>Finlayson T, Cha S, Xia M, et al. (2019) Changes in HIV Preexposure Prophylaxis Awareness and Use Among Men Who Have Sex with Men — 20 Urban Areas, 2014 and 2017. <i>MMWR Morb Mortal Wkly Rep</i> 2019;68:597–603</p> <p>Hoeningl M, Jain S, Moore D, et al. (2018) Substance Use and Adherence to HIV Preexposure Prophylaxis for Men Who Have Sex with Men. <i>Emerging Infectious Disease.</i>;24(12):2292-2302.</p> <p>CDC (2011) CDC Trial and Another Major Study Find PrEP Can Reduce Risk of HIV Infection among Heterosexuals</p> <p>Jenness SM, Weiss KM, Goodreau SM, Gift T, Chesson H, Hoover KW, Smith DK, Liu AY, Sullivan PS, Rosenberg ES. (2017) Incidence of Gonorrhea and Chlamydia Following Human Immunodeficiency Virus Preexposure Prophylaxis Among Men Who Have Sex With Men: A Modeling Study. <i>Clin Infect Dis.</i>65(5):712-8.</p> <p>CDC (2019) PrEP Clinical Trials</p> <p>CDC (2019) HIV Risk and Prevention Estimates</p> <p>CDC (2021) PrEP (HIV basics)</p>
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Website	
Name	PHE
URL	https://www.gov.uk/government/organisations/public-health-england
Date searched	07/05/2020, update search 08/07/2021
Search terms (including any specific sections browsed)	<p>Browsed HIV: surveillance, data and management collection</p> <p>Searched Policy Papers and Consultations, Guidance and Regulation, Research and Statistics for:</p> <p>Prep</p> <p>HIV</p> <p>pre-exposure prophylaxis</p>
Results	PHE (2021) HIV in the united kingdom

	<p>PHE (2019) HIV: women in the UK</p> <p>PHE (2011) AIDS Vaccines and Preexposure Prophylaxis: Is Synergy Possible?</p> <p>PHE (2009) Antiretroviral pre-exposure prophylaxis (PrEP) for preventing HIV in high-risk individuals</p>
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Website	
Name	WHO
URL	https://www.who.int/
Date searched	07/05/2020, update search 08/07/2021
Search terms (including any specific sections browsed)	<p>Browsed HIV/AIDs health topic section</p> <p>Searched site (only reviewed the first 200 results) for</p> <p>Prep</p> <p>pre-exposure prophylaxis</p>
Results	<p>WHO (2015) Guideline on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV</p> <p>WHO (2012) Guidance on oral pre-exposure prophylaxis (PrEP) for serodiscordant couples, men and transgender women who have sex with men at high risk of HIV</p> <p>WHO (2013) Ethics of PrEP and early initiation of art for prevention: How should countries reach a decision?</p> <p>WHO (2010) Report of a consultation: preparing for pre-exposure prophylaxis (PrEP) results: from research to implementation.</p> <p>WHO (2019) Prevention and control of sexually transmitted infections (STIs) in the era of oral pre-exposure prophylaxis (PrEP) for HIV</p> <p>WHO (2015) WHO expands recommendation on oral pre-exposure prophylaxis of HIV infection (PrEP)</p> <p>Carlos F Cáceres, Kenneth H Mayer, Rachel Baggaley and Kevin R O'Reilly (2015) PrEP implementation science: state-of-the-art and research agenda. Supplement - JIAS Journal of the International AIDS Society</p> <p>WHO (2015) Technical update on pre-exposure prophylaxis (PrEP)</p> <p>WHO (2014) WHO consultation on PrEP adherence</p> <p>WHO (2017) WHO implementation tool for pre-exposure prophylaxis (PrEP) of HIV infection</p> <p>WHO (2018) Appropriate medicines: options for pre-exposure prophylaxis</p> <p>Emtricitabine + tenofovir DF FDC (New indication – pre-exposure prophylaxis (PrEP) of HIV infection) (2 applications, Gilead and WHO HIV Dept)</p> <p>Aaron J. Blashill, Peter P. Ehlinger, Kenneth H. Mayer and Steven A. Safren (2015) The transition from postexposure prophylaxis to preexposure prophylaxis: an emerging opportunity for biobehavioral HIV prevention. Clinical Infectious Diseases supplement on HIV postexposure prophylaxis</p> <p>WHO (2019) What's the 2+1+1? Event-driven oral pre-exposure prophylaxis to prevent HIV for men who have sex with men: Update to WHO's recommendation on oral PrEP</p>

	<p>UNAIDS, WHO & AVAC (2015) Oral pre-exposure prophylaxis: putting a new choice in context</p> <p>Rachel Baggaley, Meg Doherty, Andrew Ball, Nathan Ford and Gottfried Hirnschall (2015) The strategic use of antiretrovirals to prevent HIV infection: a converging agenda. Clinical Infectious Diseases supplement on HIV postexposure prophylaxis</p> <p>WHO (2016) Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations</p> <p>Ioannis Hodges-Mameletzis, Shona Dalal, Busisiwe Msimanga-Radebe, Michelle Rodolph and Rachel Baggaley (2018) Going global: the adoption of the World Health Organization's enabling recommendation on oral pre-exposure prophylaxis for HIV. Sexual Health, 2018</p> <p>WHO (2016) Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection</p> <p>WHO (2021) Global data shows increasing PrEP use and widespread adoption of WHO PrEP recommendations</p> <p>WHO PrEP implementation tool</p> <p>WHO (2020) HIV drug resistance surveillance in countries scaling up pre-exposure prophylaxis</p> <p>PrEP Watch</p> <p>WHO Global state of PrEP</p> <p>News items:</p> <p>Study highlights the need to strengthen sexual health services for PrEP users (December 2019)</p> <p>Event driven or daily PrEP: ANRS Prévenir study confirms that these two biomedical prevention strategies are very effective and safe (July 2019)</p> <p>Trial results reveal that long-acting injectable cabotegravir as PrEP is highly effective in preventing HIV acquisition in women (Nov 2020)</p> <p>WHO and partners urge countries to fast-track implementation and scale-up of HIV self-testing and other innovative HIV testing approaches in Asia and the Pacific (March 2021)</p>
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Review questions 2.1-2.2

19. Review question details

Topic: Reducing STIs

Review 1: Effective and cost-effective strategies to improve uptake of STI testing

1.1 What strategies to improve the uptake of STI testing (excluding HIV testing) are effective and cost-effective?

Review 2: Acceptability of strategies to improve uptake of STI testing.1.2 review questions

2.1 What factors influence the acceptability of the strategies used to improve the uptake of STI testing?

20. Database strategy outline

20.1 Overview

A NICE information specialist conducted the literature searches for the evidence review. The searches for the effectiveness evidence were run on 19 November 2020. The searches for the cost effectiveness evidence were run on 10 September 2020.

The principal search strategy was developed in MEDLINE (Ovid interface) and adapted, as appropriate, for use in the other sources listed in the protocol, taking into account their size, search functionality and subject coverage.

The search for human papillomavirus (HPV) was limited to gay, bisexual and other men who have sex with men and trans people because without that focus the results were predominantly about girls and/or women, a population group not covered by these review questions.

The gay, bisexual and other men who have sex with men population set and the trans people population set were updated at a later date, following consultation with the committee. It was agreed that searches with the original set of terms would not be re-run, but all searches post-consultation (including all update searches) would use the revised set of terms.

HIV was not included in the STI set for these review questions as improving the uptake of HIV testing has already been covered in *HIV testing: increasing uptake among people who may have undiagnosed HIV (2016) NICE guideline 60*

20.2 Filters and limits

The initial search was developed in Medline. Line references below refer to the original Medline strategy.

English language limits were applied in adherence to standard NICE practice and the review protocol.

Limits to exclude letters, editorials, news and conferences were applied in adherence to standard NICE practice and the review protocol.

The search was limited from 2009 to current as defined in the review protocol. For the rerun searches there was no change to strategy apart from the date limit (from 16 November 2020 to 13 July 2021). As a result, the rerun strategies have not been included apart from the INAHTA strategy, which was a translation of the HTA strategy.

The limit to remove animal studies in the searches was the standard NICE practice, which has been adapted from: Dickersin, K., Scherer, R., & Lefebvre, C. (1994). [Systematic Reviews: Identifying relevant studies for systematic reviews](#). *BMJ*, 309(6964), 1286.

Lines 58-64 are a novel filter designed to exclude non-OECD studies. This filter was developed at NICE and is currently "in press" with the *Journal of the Medical Library*

Association. In practice it retains >99% of relevant studies.

The following search filter was applied to the search strategies in MEDLINE and Embase to identify cost-effectiveness studies:

- 1 Economics/ or exp "Costs and Cost Analysis"/ or Economics, Dental/ or exp Economics, Hospital/ or exp Economics, Medical/ or Economics, Nursing/ or Economics, Pharmaceutical/ or Budgets/ or exp Models, Economic/ or Markov Chains/ or Monte Carlo Method/ or Decision Trees/
- 2 (Economic* or cost or costs or costly or costing or costed or price or prices or pricing or pharmacoeconomic* or pharmaco economic* or budget*).ti,ab.
- 3 ((monte adj carlo) or markov or (decision adj2 (tree\$ or analys\$))).ti,ab.
- 4 (value adj2 (money or monetary)).ti,ab.
- 5 Quality of Life/ or Health Status Indicators/ or Quality-Adjusted Life Years/ or Value of Life/
- 6 (quality of life or quality adjusted life or qaly* or qald* or qale* or qtime* or quality of wellbeing or quality of well-being or willingness to pay or standard gamble* or time trade off* or time tradeoff*).ti,ab.
- 7 (disability adjusted life or daly).ti,ab.
- 8 health* year* equivalent*.ti,ab.
- 9 (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab.
- 10 (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).ti,ab.
- 11 (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab.
- 12 (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab.
- 13 (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab.
- 14 (euroqol or euro qol or eq5d or eq 5d).ti,ab.
- 15 or/1-14
- 16 (((energy or oxygen) adj cost*) or (metabolic adj cost*) or ((energy or oxygen) adj expenditure*)).ti,ab.
- 17 Animals/ not humans/
- 18 (comment or editorial or letter or news).pt.
- 19 or/16-18
- 20 15 not 19

Source: Glanville J et al. (2009) [Development and Testing of Search Filters to Identify Economic Evaluations in MEDLINE and EMBASE](#). Alberta: Canadian Agency for Drugs and Technologies in Health (CADTH).

Several modifications have been made to these filters over the years that are standard NICE practice.

20.3 Quality assurance

The Information Services team at NICE quality assured the principal search strategy and peer reviewed the strategies for the other databases according to the standard NICE checklist that was adapted from the 2015 Peer review of electronic search strategies (PRESS) checklist.

20.4 Review management

The search results were managed in EPPI-Reviewer v5. Duplicates were removed in EPPI-R5 using a two-step process. First, automated deduplication is performed using a high-value algorithm. Second, manual deduplication is used to assess 'low-probability' matches. All decisions made for the review can be accessed via the deduplication history.

21. Search dates

Database name	Date searched	Database Platform	Database segment or version
Cochrane Central Register of Controlled Trials (CENTRAL) / Cochrane Database of Systematic Reviews (CDSR)	Original searches 19/11/20	Wiley	Issue 11 of 12, November 2020
	Rerun searches 13/07/21		Issue 7 of 12, July 2021
Econlit	Original searches 10/09/20	Ovid	Econlit 1886 to September 03, 2020
	Rerun searches 13/07/21		Econlit 1886 to July 08, 2021
Embase	Original searches 19/11/20	Ovid	Embase 1996 to 2020 November 18
	Rerun searches 13/07/21		Embase 1996 to 2021 July 09
Emcare	Original searches 19/11/20	Ovid	Ovid Emcare 1995 to 2020 Week 46
	Rerun searches 13/07/21		Ovid Emcare 1995 to 2021 Week 27
HTA	Original searches 10/09/20	CRD	-
INAHTA	Rerun searches 13/07/21	-	-

Medline	Original searches 19/11/20	Ovid	Ovid MEDLINE(R) 1946 to November 17, 2020
	Rerun searches 13/07/21		Ovid MEDLINE(R) 1996 to July 09, 2021
MEDLINE-in-Process (including Epub Ahead-of-Print)	Original searches 19/11/20	Ovid	Ovid MEDLINE(R) Epub Ahead of Print November 17, 2020 / Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations 1946 to November 17, 2020
	Rerun searches 13/07/21		Ovid MEDLINE(R) In-Process & In-Data-Review Citations 1946 to July 09, 2021 / Ovid MEDLINE(R) Epub Ahead of Print July 09, 2021
NHS EED / HTA	Original searches 10/09/20	CRD	-
PsycINFO	Original searches 19/11/20	Ovid	PsycInfo 2002 to November Week 2 2020
	Rerun searches 13/07/21		PsycInfo 2002 to July Week 1 2021

22. Number of records retrieved

22.1 Question 2.1-2.2

Search source	No. of records retrieved (original searches)	No. of records retrieved (rerun searches)	Results	De-duplicated
Cochrane Central Register of Controlled Trials (CENTRAL)	659	65	11,384	5,672
Cochrane Database of Systematic Reviews (CDSR)	57	4		
Embase	3,632	389		
Emcare	1,865	129		
Medline	2,852	252		
MEDLINE-in-Process (including Epub Ahead-of-Print)	639	185		
PsycINFO	624	41		
Cost effective searches				
Econlit	20	1		
Embase	679	98		

Reducing sexually transmitted infections

HTA	15	-	1,636	1,088
INAHTA	-	3		
Medline ALL	612	92		
NHS EED	116	-		

23. Database search strategies

23.1 Cochrane Central Register of Controlled Trials (CENTRAL) / Cochrane Database of Systematic Reviews (CDSR)

23.1.1 Original searches

#1	MeSH descriptor: [Herpes Genitalis] this term only	419	
#2	MeSH descriptor: [Herpes Simplex] this term only	301	
#3	((genital* or simplex*) near/3 herpes*):ti,ab,kw (Word variations have been searched)		1926
#4	(chlamydia*):ti,ab,kw (Word variations have been searched)	1790	
#5	MeSH descriptor: [Chlamydia Infections] this term only	485	
#6	MeSH descriptor: [Chlamydia] this term only	31	
#7	MeSH descriptor: [Chlamydia trachomatis] this term only	312	
#8	((genital* or anogenital* or ano-genital* or venereal*) near/3 wart*):ti,ab,kw (Word variations have been searched)	438	
#9	MeSH descriptor: [Condylomata Acuminata] this term only	274	
#10	(condylomata acuminata):ti,ab,kw (Word variations have been searched)		333
#11	MeSH descriptor: [Gonorrhoea] this term only	477	
#12	((Gonorrhoea* or Gonorrhoea*):ti,ab,kw (Word variations have been searched)		1402
#13	MeSH descriptor: [Syphilis] this term only	135	
#14	(syphilis*):ti,ab,kw (Word variations have been searched)	685	
#15	((lymphogranuloma venereum or lgv):ti,ab,kw (Word variations have been searched)		22
#16	MeSH descriptor: [Lymphogranuloma Venereum] this term only	9	
#17	MeSH descriptor: [Trichomonas vaginalis] this term only	53	
#18	((trichomonas vaginali* or Trichomoniasi*):ti,ab,kw (Word variations have been searched)	424	
#19	MeSH descriptor: [Trichomonas Infections] this term only	57	
#20	((mycoplasma genitalium or Mgen):ti,ab,kw (Word variations have been searched)		56
#21	MeSH descriptor: [Mycoplasma genitalium] this term only	12	
#22	MeSH descriptor: [Sexually Transmitted Diseases] this term only	887	
#23	((sexually near/2 transmit* near/2 (disease* or infection*)) or sti or std):ti,ab,kw (Word variations have been searched)	3849	
#24	((venereal* near/2 (disease* or infection*))):ti,ab,kw (Word variations have been searched)	42	
#25	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 #20 or #21 or #22 or #23 or #24	8553	
#26	(hpv):ti,ab,kw	2836	
#27	((papillomavirus near (human* or infect*)):ti,ab,kw	2173	
#28	MeSH descriptor: [Papillomavirus Infections] this term only	745	
#29	#26 or #27 or #28	3202	
#30	(gay*):ti,ab,kw	469	
#31	MeSH descriptor: [Homosexuality, Male] this term only	386	
#32	MeSH descriptor: [Sexual and Gender Minorities] this term only	76	
#33	MeSH descriptor: [Bisexuality] this term only	53	
#34	MeSH descriptor: [Transgender Persons] this term only	39	
#35	MeSH descriptor: [Homosexuality] this term only	103	
#36	(men who have sex with men):ti,ab,kw	1866	
#37	((same sex or non heterosexual* or non-heterosexual* or nonheterosexual*):ti,ab,kw	4666	
#38	(MSM):ti,ab,kw	927	
#39	(transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*):ti,ab,kw (Word variations have been searched)	3183	
#40	(bisexual* or homosexual* or lgbt*):ti,ab,kw (Word variations have been searched)	937	
#41	((male or man or men or boy*) near/3 (sex work* or prostitut* or transactional sex or escort*)):ti,ab,kw (Word variations have been searched)	3754	
#42	((teen* or adolescent*) near/4 (boy* or male* or man or men)):ti,ab,kw (Word variations have been searched)	1283	

#43 ((over near/2 (sixteen* or "16") near/2 (year or years or age or ages or aged) near/2 (boy* or male*)):ti,ab,kw (Word variations have been searched) 4

#44 (((male* or boy*) near/2 (16 to 17 or 16 to 18 or 16 to 19 or 17 to 18 or 17 to 19) near/2 (year or years or age or ages or aged)):ti,ab,kw (Word variations have been searched) 2187

#45 #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 15932

#46 #29 and #45 134

#47 #25 or #46 8641

#48 (((test or tests or testing or tested or screen*) near/3 (uptake or take up or increas* or decreas* or reduc* or impact* or effect* or improve* or enhanc* or encourag* or support* or promot* or optim* or adher* or access* or motivat* or accept* or satisfaction or compliance or comply or complie* or refus* or availab* or provision or provid* or offer or incentiv* or barrier* or challeng* or attend* or service*)):ti,ab,kw (Word variations have been searched) 53952

#49 (((test or tests or testing or tested or screen*) near/4 (opportunistic or point of care or point-of-care or "point of care")):ti,ab,kw (Word variations have been searched) 142568

#50 (((test or tests or testing or tested or screen*) near/4 (invit* or invitation* or advert* or advertisement*)):ti,ab,kw (Word variations have been searched) 1132

#51 (((test or tests or testing or tested or screen*) near/4 access*)):ti,ab,kw (Word variations have been searched) 629

#52 (((test or tests or testing or tested or screen*) near/4 (outreach* or satellite clinic* or bespoke clinic* or remote clinic* or video consult* or teleconsult* or telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit* or home*)):ti,ab,kw (Word variations have been searched) 29215

#53 (((test or tests or testing or tested or screen*) near/4 (walk in or walk-in or "walk in")):ti,ab,kw (Word variations have been searched) 90455

#54 (((test or tests or testing or tested or screen) near/4 (wait* time* or open* hour* or appointment* or book* system*)):ti,ab,kw (Word variations have been searched) 25690

#55 (((test or tests or testing or tested or screen*) near/4 (mass or countr* or universal or population or national* or public health) near/4 (promotion* or campaign* or intervention* or toolkit* or strateg*)):ti,ab,kw (Word variations have been searched) 726

#56 ((awareness near/4 (rais* or promotion* or campaign* or intervention* or toolkit* or strateg*) near/4 (test or tests or testing or tested or screen*)):ti,ab,kw (Word variations have been searched) 41

#57 (((test or tests or testing or tested or screen*) near/4 (poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or banner* or t-shirt* or internet* or digital* or electronic* or computer* or advert* or campaign* or app or apps or "dating app*" or "dating site*" or "dating website*" or "online dating" or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or video* or messag* or email* or text* or sms or smartphone* or mobile* or phone* or "tablet computer*" or workshop* or train* or remote or communit*) near/2 (public health or promot*)):ti,ab,kw (Word variations have been searched) 603

#58 MeSH descriptor: [Diagnostic Tests, Routine] this term only 230

#59 MeSH descriptor: [Mass Screening] this term only 3110

#60 #48 or #49 or #50 or #51 or #52 or #53 or #54 or #55 or #56 or #57 or #58 or #59 229617

#61 #47 and #60 2104

#62 (clinicaltrials or trialsearch):so 344204

#63 #61 not #62 1530

#64 "conference":pt 168515

#65 #63 not #64 with Publication Year from 2009 to 2020, in Trials 659

#66 #47 and #60 with Cochrane Library publication date Between Jan 2009 and Nov 2020, in Cochrane Reviews 57

Notes

Line 65: downloaded as CENTRAL results

Line 66: downloaded as CDSR results

23.2 Econlit

23.2.1 Original searches

- 1 ((genital* or simplex*) adj3 herpes*).ti,ab. (5)
- 2 chlamydia*.ti,ab. (23)
- 3 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab. (5)
- 4 "condylomata acuminata".ti,ab. (0)
- 5 (Gonorrhoea* or Gonorrhoea*).ti,ab. (36)
- 6 syphilis*.ti,ab. (32)
- 7 (lymphogranuloma venereum or lgv).ti,ab. (6)
- 8 (trichomonas vaginali* or Trichomoniasi*).ti,ab. (4)
- 9 (mycoplasma genitalium or Mgen).ti,ab. (2)
- 10 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab. (314)
- 11 (venereal* adj2 (disease* or infection*)).ti,ab. (7)
- 12 or/1-11 (376)
- 13 (papillomavirus adj (human* or infect*)).ti,ab. (1)
- 14 hpv.ti,ab. (38)
- 15 or/13-14 (38)
- 16 gay*.ti,ab. (530)
- 17 men who have sex with men.ti,ab. (14)
- 18 (same sex or non heterosexual* or non-heterosexual*).ti,ab. (367)
- 19 MSM.ti,ab. (76)
- 20 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab. (165)
- 21 (bisexual* or homosexual* or lgbt*).ti,ab. (339)
- 22 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*)).ti,ab. (17)
- 23 ((teen* or adolescent*) adj4 (boy* or male* or man or men)).ti,ab. (128)
- 24 (over adj2 (sixteen* or "16") adj2 (year or years or age or ages or aged) adj2 (boy* or male*)).ti,ab. (0)
- 25 ((male* or boy*) adj2 (16-17 or 16-18 or 16-19 or 17-18 or 17-19) adj2 (year or years or age or ages or aged)).ti,ab. (1)
- 26 or/16-25 (1292)
- 27 15 and 26 (0)
- 28 12 or 27 (376)
- 29 ((test or tests or testing or tested or screen*) adj3 (uptake or take up or increas* or decreas* or reduc* or impact* or effect* or improve* or enhanc* or encourag* or support* or promot* or optim* or adher* or access* or motivat* or accept* or satisfaction or compliance or comply or complie* or refus* or availabl* or provision or provid* or offer or incentive* or barrier* or challeng*).ti,ab. (10247)
- 30 ((test or tests or testing or tested or screen*) adj4 (opportunistic or point of care or point-of-care or "point of care")).ti,ab. (29)
- 31 ((test or tests or testing or tested or screen*) adj4 (invit* or invitation* or advert* or advertisement*).ti,ab. (67)
- 32 ((test or tests or testing or tested or screen*) adj4 access*).ti,ab. (140)
- 33 ((test or tests or testing or tested or screen*) adj4 (outreach* or satellite clinic* or bespoke clinic* or remote clinic* or video consult* or teleconsult* or telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit* or home*)).ti,ab. (166)
- 34 ((test or tests or testing or tested or screen*) adj4 (walk in or walk-in or "walk in")).ti,ab. (12)
- 35 ((test or tests or testing or tested or screen) adj4 (wait* time* or open* hour* or appointment* or book* system*)).ti,ab. (16)
- 36 ((test or tests or testing or tested or screen*) adj4 (mass or countr* or universal or population or national* or public health) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab. (21)
- 37 (awareness adj4 (rais* or promotion* or campaign* or intervention* or toolkit* or strateg*) adj4 (test or tests or testing or tested or screen*)).ti,ab. (1)
- 38 ((test or tests or testing or tested or screen*) adj4 (poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or banner* or t-shirt* or internet* or digital* or electronic* or computer* or advert* or campaign* or app or apps or "dating app*" or "dating site*" or "dating website*" or "online dating" or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or video* or messag* or email* or text* or sms or smartphone* or mobile* or

phone* or "tablet computer*" or workshop* or train* or remote or communit*) adj2 (public health or promot*).ti,ab. (4)
 39 or/29-38 (10552)
 40 28 and 39 (25)
 41 limit 40 to yr="2009 -Current" (21)
 41 limit 41 to english (20)

23.3 Embase

23.3.1 Original searches

1 herpes simplex/ or genital herpes/
 2 ((genital* or simplex*) adj3 herpes*).ti,ab.
 3 chlamydia*.ti,ab.
 4 chlamydiasis/ or Chlamydia/ or Chlamydia trachomatis/
 5 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
 6 condyloma acuminatum/
 7 "condylomata acuminata".ti,ab.
 8 gonorrhea/
 9 (Gonorrhea* or Gonorrhoea*).ti,ab.
 10 syphilis/
 11 syphilis*.ti,ab.
 12 (lymphogranuloma venereum or lgv).ti,ab.
 13 lymphogranuloma venereum/
 14 Trichomonas vaginalis/
 15 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
 16 trichomoniasis/
 17 (mycoplasma genitalium or Mgen).ti,ab.
 18 Mycoplasma genitalium/
 19 sexually transmitted disease/
 20 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
 21 (venereal* adj2 (disease* or infection*).ti,ab.
 22 or/1-21
 23 papillomavirus infection/
 24 (papillomavirus adj (human* or infect*).ti,ab.
 25 hpv.ti,ab.
 26 or/23-25
 27 gay*.ti,ab.
 28 male homosexuality/
 29 "sexual and gender minority"/
 30 bisexuality/
 31 transgender/ or transsexualism/
 32 homosexuality/
 33 lgbtqia+ people/
 34 men who have sex with men.ti,ab.
 35 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
 36 MSM.ti,ab.
 37 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
 38 (bisexual* or homosexual* or lgbt*).ti,ab.
 39 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*).ti,ab.
 40 ((teen* or adolescent*) adj4 (boy* or male* or man or men)).ti,ab.
 41 (over adj2 (sixteen* or "16") adj2 (year or years or age or ages or aged) adj2 (boy* or male*).ti,ab.
 42 ((male* or boy*) adj2 (16-17 or 16-18 or 16-19 or 17-18 or 17-19) adj2 (year or years or age or ages or aged)).ti,ab.
 43 or/27-42
 44 26 and 43

- 45 22 or 44
- 46 ((test or tests or testing or tested or screen*) adj3 (uptake or take up or increas* or decreas* or reduc* or impact* or effect* or improve* or enhanc* or encourag* or support* or promot* or optim* or adher* or access* or motivat* or accept* or satisfaction or compliance or comply or complie* or refus* or availab* or provision or provid* or offer or incentiv* or barrier* or challeng* or attend* or service*)).ti,ab.
- 47 ((test or tests or testing or tested or screen*) adj4 (opportunistic or point of care or point-of-care or "point of care")).ti,ab.
- 48 ((test or tests or testing or tested or screen*) adj4 (invit* or invitation* or advert* or advertisement*)).ti,ab.
- 49 ((test or tests or testing or tested or screen*) adj4 access*).ti,ab.
- 50 ((test or tests or testing or tested or screen*) adj4 (outreach* or satellite clinic* or bespoke clinic* or remote clinic* or video consult* or teleconsult* or telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit* or home*)).ti,ab.
- 51 ((test or tests or testing or tested or screen*) adj4 (walk in or walk-in or "walk in")).ti,ab.
- 52 ((test or tests or testing or tested or screen) adj4 (wait* time* or open* hour* or appointment* or book* system*)).ti,ab.
- 53 ((test or tests or testing or tested or screen*) adj4 (mass or countr* or universal or population or national* or public health) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
- 54 (awareness adj4 (rais* or promotion* or campaign* or intervention* or toolkit* or strateg*) adj4 (test or tests or testing or tested or screen*)).ti,ab.
- 55 ((test or tests or testing or tested or screen*) adj4 (poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or banner* or t-shirt* or internet* or digital* or electronic* or computer* or advert* or campaign* or app or apps or "dating app*" or "dating site*" or "dating website*" or "online dating" or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or video* or messag* or email* or text* or sms or smartphone* or mobile* or phone* or "tablet computer*" or workshop* or train* or remote or communit*) adj2 (public health or promot*)).ti,ab.
- 56 diagnostic test/ or mass screening/
57 or/46-56
- 58 45 and 57
- 59 afghanistan/ or africa/ or "africa south of the sahara"/ or albania/ or algeria/ or andorra/ or angola/ or argentina/ or "antigua and barbuda"/ or armenia/ or exp azerbaijan/ or bahamas/ or bahrain/ or bangladesh/ or barbados/ or belarus/ or belize/ or benin/ or bhutan/ or bolivia/ or borneo/ or exp "bosnia and herzegovina"/ or botswana/ or exp brazil/ or brunei darussalam/ or bulgaria/ or burkina faso/ or burundi/ or cambodia/ or cameroon/ or cape verde/ or central africa/ or central african republic/ or chad/ or exp china/ or comoros/ or congo/ or cook islands/ or cote d'ivoire/ or croatia/ or cuba/ or cyprus/ or democratic republic congo/ or djibouti/ or dominica/ or dominican republic/ or ecuador/ or el salvador/ or egypt/ or equatorial guinea/ or eritrea/ or eswatini/ or ethiopia/ or exp "federated states of micronesia"/ or fiji/ or gabon/ or gambia/ or exp "georgia (republic)"/ or ghana/ or grenada/ or guatemala/ or guinea/ or guinea-bissau/ or guyana/ or haiti/ or honduras/ or exp india/ or exp indonesia/ or iran/ or exp iraq/ or jamaica/ or jordan/ or kazakhstan/ or kenya/ or kiribati/ or kosovo/ or kuwait/ or kyrgyzstan/ or laos/ or lebanon/ or liechtenstein/ or lesotho/ or liberia/ or libyan arab jamahiriya/ or madagascar/ or malawi/ or exp malaysia/ or maldives/ or mali/ or malta/ or mauritania/ or mauritius/ or melanesia/ or moldova/ or monaco/ or mongolia/ or "montenegro (republic)"/ or morocco/ or mozambique/ or myanmar/ or namibia/ or nauru/ or nepal/ or nicaragua/ or niger/ or nigeria/ or niue/ or north africa/ or oman/ or exp pakistan/ or palau/ or palestine/ or panama/ or papua new guinea/ or paraguay/ or peru/ or philippines/ or polynesia/ or qatar/ or "republic of north macedonia"/ or romania/ or exp russian federation/ or rwanda/ or sahel/ or "saint kitts and nevis"/ or "saint lucia"/ or "saint vincent and the grenadines"/ or saudi arabia/ or senegal/ or exp serbia/ or seychelles/ or sierra leone/ or singapore/ or "sao tome and principe"/ or solomon islands/ or exp somalia/ or south africa/ or south asia/ or south sudan/ or exp southeast asia/ or sri lanka/ or sudan/ or suriname/ or syrian arab republic/ or taiwan/ or tajikistan/ or tanzania/ or thailand/ or timor-leste/ or togo/ or tonga/ or "trinidad and tobago"/ or tunisia/ or turkmenistan/ or tuvalu/ or uganda/ or exp ukraine/ or exp united arab emirates/ or uruguay/ or exp uzbekistan/ or vanuatu/ or venezuela/ or viet nam/ or western sahara/ or yemen/ or zambia/ or zimbabwe/
- 60 exp "organisation for economic co-operation and development"/
- 61 exp australia/ or "australia and new zealand"/ or austria/ or baltic states/ or exp belgium/ or exp canada/ or chile/ or colombia/ or costa rica/ or czech republic/ or denmark/ or estonia/ or europe/ or exp finland/ or exp france/ or exp germany/ or greece/ or hungary/ or iceland/ or ireland/ or israel/ or exp italy/ or japan/ or korea/ or latvia/ or lithuania/ or luxembourg/ or exp mexico/ or netherlands/ or new zealand/ or north america/ or exp norway/ or poland/ or exp

portugal/ or scandinavia/ or sweden/ or slovakia/ or slovenia/ or south korea/ or exp spain/ or
 62 switzerland/ or exp united kingdom/ or exp united states/ or western europe/
 63 european union/
 64 developed country/
 65 or/60-63
 66 59 not 64
 67 58 not 65
 68 limit 66 to english language
 69 limit 67 to yr="2009 -Current"
 70 (letter or editorial).pt.
 71 68 not 69
 72 (conference abstract or conference paper or conference proceeding or "conference review").pt.
 73 70 not 71
 74 nonhuman/ not (human/ and nonhuman/
 72 not 73

23.4 Emcare

23.4.1 Original searches

1 herpes simplex/ or genital herpes/
 2 ((genital* or simplex*) adj3 herpes*).ti,ab.
 3 chlamydia*.ti,ab.
 4 chlamydiasis/ or Chlamydia/ or Chlamydia trachomatis/
 5 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
 6 condyloma acuminatum/
 7 "condylomata acuminata".ti,ab.
 8 gonorrhea/
 9 (Gonorrhea* or Gonorrhoea*).ti,ab.
 10 syphilis/
 11 syphilis*.ti,ab.
 12 (lymphogranuloma venereum or lgv).ti,ab.
 13 lymphogranuloma venereum/
 14 Trichomonas vaginalis/
 15 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
 16 trichomoniasis/
 17 (mycoplasma genitalium or Mgen).ti,ab.
 18 Mycoplasma genitalium/
 19 sexually transmitted disease/
 20 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
 21 (venereal* adj2 (disease* or infection*)).ti,ab.
 22 or/1-21
 23 papillomavirus infection/
 24 (papiillomavirus adj (human* or infect*)).ti,ab.
 25 hpv.ti,ab.
 26 or/23-25
 27 gay*.ti,ab.
 28 male homosexuality/
 29 "sexual and gender minority"/
 30 bisexuality/
 31 transgender/ or transsexualism/
 32 homosexuality/
 33 lgbtqia+ people/
 34 men who have sex with men.ti,ab.
 35 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
 36 MSM.ti,ab.
 37 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or
 trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or
 transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or
 nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender
 or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
 38 (bisexual* or homosexual* or lgbt*).ti,ab.

- 39 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*)),ti,ab.
- 40 ((teen* or adolescent*) adj4 (boy* or male* or man or men)),ti,ab.
- 41 (over adj2 (sixteen* or "16") adj2 (year or years or age or ages or aged) adj2 (boy* or male*)),ti,ab.
- 42 ((male* or boy*) adj2 (16-17 or 16-18 or 16-19 or 17-18 or 17-19) adj2 (year or years or age or ages or aged)),ti,ab.
- 43 or/27-42
- 44 26 and 43
- 45 22 or 44
- 46 ((test or tests or testing or tested or screen*) adj3 (uptake or take up or increas* or decreas* or reduc* or impact* or effect* or improve* or enhanc* or encourag* or support* or promot* or optim* or adher* or access* or motivat* or accept* or satisfaction or compliance or comply or complie* or refus* or availab* or provision or provid* or offer or incentiv* or barrier* or challeng* or attend* or service*)),ti,ab.
- 47 ((test or tests or testing or tested or screen*) adj4 (opportunistic or point of care or point-of-care or "point of care")),ti,ab.
- 48 ((test or tests or testing or tested or screen*) adj4 (invit* or invitation* or advert* or advertisement*)),ti,ab.
- 49 ((test or tests or testing or tested or screen*) adj4 access*),ti,ab.
- 50 ((test or tests or testing or tested or screen*) adj4 (outreach* or satellite clinic* or bespoke clinic* or remote clinic* or video consult* or teleconsult* or telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit* or home*)),ti,ab.
- 51 ((test or tests or testing or tested or screen*) adj4 (walk in or walk-in or "walk in")),ti,ab.
- 52 ((test or tests or testing or tested or screen) adj4 (wait* time* or open* hour* or appointment* or book* system*)),ti,ab.
- 53 ((test or tests or testing or tested or screen*) adj4 (mass or countr* or universal or population or national* or public health) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)),ti,ab.
- 54 (awareness adj4 (rais* or promotion* or campaign* or intervention* or toolkit* or strateg*) adj4 (test or tests or testing or tested or screen*)),ti,ab.
- 55 ((test or tests or testing or tested or screen*) adj4 (poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or banner* or t-shirt* or internet* or digital* or electronic* or computer* or advert* or campaign* or app or apps or "dating app*" or "dating site*" or "dating website*" or "online dating" or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or video* or messag* or email* or text* or sms or smartphone* or mobile* or phone* or "tablet computer*" or workshop* or train* or remote or communit*) adj2 (public health or promot*)),ti,ab.
- 56 diagnostic test/ or mass screening/
- 57 or/46-56
- 58 45 and 57
- 59 afghanistan/ or africa/ or "africa south of the sahara"/ or albania/ or algeria/ or andorra/ or angola/ or argentina/ or "antigua and barbuda"/ or armenia/ or exp azerbaijan/ or bahamas/ or bahrain/ or bangladesh/ or barbados/ or belarus/ or belize/ or benin/ or bhutan/ or bolivia/ or borneo/ or exp "bosnia and herzegovina"/ or botswana/ or exp brazil/ or brunei darussalam/ or bulgaria/ or burkina faso/ or burundi/ or cambodia/ or cameroon/ or cape verde/ or central africa/ or central african republic/ or chad/ or exp china/ or comoros/ or congo/ or cook islands/ or cote d'ivoire/ or croatia/ or cuba/ or cyprus/ or democratic republic congo/ or djibouti/ or dominica/ or dominican republic/ or ecuador/ or el salvador/ or egypt/ or equatorial guinea/ or eritrea/ or eswatini/ or ethiopia/ or exp "federated states of micronesia"/ or fiji/ or gabon/ or gambia/ or exp "georgia (republic)"/ or ghana/ or grenada/ or guatemala/ or guinea/ or guinea-bissau/ or guyana/ or haiti/ or honduras/ or exp india/ or exp indonesia/ or iran/ or exp iraq/ or jamaica/ or jordan/ or kazakhstan/ or kenya/ or kiribati/ or kosovo/ or kuwait/ or kyrgyzstan/ or laos/ or lebanon/ or liechtenstein/ or lesotho/ or liberia/ or libyan arab jamahiriya/ or madagascar/ or malawi/ or exp malaysia/ or maldives/ or mali/ or malta/ or mauritania/ or mauritius/ or melanesia/ or moldova/ or monaco/ or mongolia/ or "montenegro (republic)"/ or morocco/ or mozambique/ or myanmar/ or namibia/ or nauru/ or nepal/ or nicaragua/ or niger/ or nigeria/ or niue/ or north africa/ or oman/ or exp pakistan/ or palau/ or palestine/ or panama/ or papua new guinea/ or paraguay/ or peru/ or philippines/ or polynesia/ or qatar/ or "republic of north macedonia"/ or romania/ or exp russian federation/ or rwanda/ or sahel/ or "saint kitts and nevis"/ or "saint lucia"/ or "saint vincent and the grenadines"/ or saudi arabia/ or senegal/ or exp serbia/ or seychelles/ or sierra leone/ or singapore/ or "sao tome and principe"/ or solomon islands/ or exp somalia/ or south africa/ or south asia/ or south sudan/ or exp southeast asia/ or sri lanka/ or sudan/ or suriname/ or syrian arab republic/ or taiwan/ or tajikistan/ or tanzania/ or thailand/ or timor-leste/ or togo/ or tonga/ or "trinidad and tobago"/ or tunisia/ or turkmenistan/

or tuvalu/ or uganda/ or exp ukraine/ or exp united arab emirates/ or uruguay/ or exp
 uzbekistan/ or vanuatu/ or venezuela/ or viet nam/ or western sahara/ or yemen/ or zambia/ or
 zimbabwe/
 60 exp "organisation for economic co-operation and development"/
 61 exp australia/ or "australia and new zealand"/ or austria/ or baltic states/ or exp belgium/ or exp
 canada/ or chile/ or colombia/ or costa rica/ or czech republic/ or denmark/ or estonia/ or
 europe/ or exp finland/ or exp france/ or exp germany/ or greece/ or hungary/ or iceland/ or
 ireland/ or israel/ or exp italy/ or japan/ or korea/ or latvia/ or lithuania/ or luxembourg/ or exp
 mexico/ or netherlands/ or new zealand/ or north america/ or exp norway/ or poland/ or exp
 portugal/ or scandinavia/ or sweden/ or slovakia/ or slovenia/ or south korea/ or exp spain/ or
 switzerland/ or exp united kingdom/ or exp united states/ or western europe/
 62 european union/
 63 developed country/
 64 or/60-63
 65 59 not 64
 66 58 not 65
 67 limit 66 to english language
 68 limit 67 to yr="2009 -Current"
 69 (letter or editorial).pt.
 70 68 not 69
 71 (conference abstract or conference paper or conference proceeding or "conference review").pt.
 72 70 not 71
 73 nonhuman/ not (human/ and nonhuman/)
 74 72 not 73

23.5 Health Technology Assessment (HTA)

23.5.1 Original searches

1 MeSH DESCRIPTOR Herpes Genitalis EXPLODE ALL TREES 21
 2 MeSH DESCRIPTOR Herpes Simplex EXPLODE ALL TREES 38
 3 (((genital* or simplex*) adj3 herpes*)) 28
 4 (chlamydia*) 195
 5 MeSH DESCRIPTOR Chlamydia Infections EXPLODE ALL TREES 124
 6 MeSH DESCRIPTOR Chlamydia EXPLODE ALL TREES 93
 7 MeSH DESCRIPTOR Chlamydia trachomatis EXPLODE ALL TREES 87
 8 (((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*)) 49
 9 MeSH DESCRIPTOR Condylomata Acuminata EXPLODE ALL TREES 41
 10 ("condylomata acuminata") 41
 11 MeSH DESCRIPTOR Gonorrhea EXPLODE ALL TREES 43
 12 ((Gonorrhea* or Gonorrhoea*)) 90
 13 MeSH DESCRIPTOR Syphilis EXPLODE ALL TREES 38
 14 (syphilis*) 71
 15 ((lymphogranuloma venereum or lgv)) 1
 16 MeSH DESCRIPTOR Lymphogranuloma Venereum EXPLODE ALL TREES 1
 17 MeSH DESCRIPTOR Trichomonas vaginalis EXPLODE ALL TREES 3
 18 ((trichomonas vaginali* or Trichomoniasis*)) 24
 19 MeSH DESCRIPTOR Trichomonas Infections EXPLODE ALL TREES 14
 20 ((mycoplasma genitalium or Mgen)) 0
 21 MeSH DESCRIPTOR Mycoplasma genitalium EXPLODE ALL TREES 0
 22 MeSH DESCRIPTOR Sexually Transmitted Diseases EXPLODE ALL TREES 1460
 23 (((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std)) 426
 24 ((venereal* adj2 (disease* or infection*))) 2
 25 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13
 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24
 1670
 26 MeSH DESCRIPTOR Papillomavirus Infections EXPLODE ALL TREES 283
 27 ((papillomavirus adj (human* or infect*))) 274
 28 (hpv) 251
 29 #26 OR #27 OR #28 375
 30 (gay*) 131
 31 MeSH DESCRIPTOR Homosexuality, Male EXPLODE ALL TREES 53
 32 MeSH DESCRIPTOR Bisexuality EXPLODE ALL TREES 8
 33 MeSH DESCRIPTOR Transgender Persons EXPLODE ALL TREES 3

34 MeSH DESCRIPTOR Transsexualism EXPLODE ALL TREES 12
35 MeSH DESCRIPTOR Health Services for Transgender Persons EXPLODE ALL TREES 0
36 MeSH DESCRIPTOR Homosexuality EXPLODE ALL TREES 56
37 (men who have sex with men) 73
38 ((same sex or non heterosexual* or non-heterosexual*)) 4
39 (MSM) 45
40 ((transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or
trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or
transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or
nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender
or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*)) 77
41 (bisexual* or homosexual* or lgbt*) 89
42 (((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*))
6
43 (((teen* or adolescent*) adj4 (boy* or male* or man or men))) 56
44 ((over adj2 (sixteen* or "16") adj2 (year or years or age or ages or aged) adj2 (boy* or male*))
0
45 (((male* or boy*) adj2 (16-17 or 16-18 or 16-19 or 17-18 or 17-19) adj2 (year or years or age or
ages or aged))) 0
46 #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR
#41 OR #42 OR #43 OR #44 OR #45 373
47 #29 AND #46 12
48 #25 OR #47 1672
49 (((test or tests or testing or tested or screen*) adj3 (uptake or take up or increas* or decreas* or
reduc* or impact* or effect* or improve* or enhanc* or encourag* or support* or promot* or
optim* or adher* or access* or motivat* or accept* or satisfaction or compliance or comply or
complie* or refus* or availabl* or provision or provid* or offer or incentive* or barrier* or
challeng*)) 2384
50 (((test or tests or testing or tested or screen*) adj4 (opportunistic or point of care or point-of-
care or "point of care")) 49
51 (((test or tests or testing or tested or screen*) adj4 (invit* or invitation* or advert* or
advertisement*)) 37
52 (((test or tests or testing or tested or screen*) adj4 access*)) 25
53 (((test or tests or testing or tested or screen*) adj4 (outreach* or satellite clinic* or bespoke
clinic* or remote clinic* or video consult* or teleconsult* or telephone consult* or phone consult*
or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit*
or home*)) 121
54 (((test or tests or testing or tested or screen*) adj4 (walk in or walk-in or "walk in"))) 0
55 (((test or tests or testing or tested or screen) adj4 (wait* time* or open* hour* or appointment*
or book* system*)) 10
56 (((test or tests or testing or tested or screen*) adj4 (mass or countr* or universal or population
or national* or public health) adj4 (promotion* or campaign* or intervention* or toolkit* or
strateg*)) 12
57 ((awareness adj4 (rais* or promotion* or campaign* or intervention* or toolkit* or strateg*) adj4
(test or tests or testing or tested or screen*))0
58 (((test or tests or testing or tested or screen*) adj4 (poster* or leaflet* or booklet* or
presentation* or brochure* or flyer* or newsletter* or radio or tv or television or article* or
factsheet* or magazine* or literature or display* or card* or banner* or t-shirt* or internet* or
digital* or electronic* or computer* or advert* or campaign* or app or apps or "dating app*" or
"dating site*" or "dating website*" or "online dating" or blog* or website* or online or social
media or social market* or facebook or twitter or instagram or snapchat or video* or messag* or
email* or text* or sms or smartphone* or mobile* or phone* or "tablet computer*" or workshop*
or train* or remote or communit*) adj2 (public health or promot*)) 0
59 MeSH DESCRIPTOR Diagnostic Tests, Routine EXPLODE ALL TREES 185
60 MeSH DESCRIPTOR Mass Screening EXPLODE ALL TREES 2347
61 #49 OR #50 OR #51 OR #52 OR #53 OR #54 OR #55 OR #56 OR #57 OR #58 OR #59 OR
#60 4180
62 #48 AND #61 337
63 (#62) IN HTA WHERE LPD FROM 01/01/2009 TO 10/09/2020

23.6 INAHTA

23.6.1 Rerun searches

((Papillomavirus Infections)[mh]) OR ((papillomavirus AND (human* or infect*))) OR (hpv) OR ((Herpes Simplex)[mh]) OR ((Herpes Genitalis)[mh]) OR (((genital* or simplex*) AND herpes*)) OR (chlamydia*) OR ((Chlamydia trachomatis)[mh]) OR ((Chlamydia)[mh]) OR ((Chlamydia Infections)[mh]) OR (((genital* or anogenital* or ano-genital* or venereal*) AND wart*)) OR ((condylomata acuminata)[mh]) OR ((condylomata acuminata)) OR ((Gonorrhea)[mh]) OR ((Gonorrhea* or Gonorrhoea*)) OR ((Syphilis)[mh]) OR (syphilis*) OR (lgy) OR ((Lymphogranuloma Venereum)[mh]) OR ((Lymphogranuloma Venereum)) OR ((Trichomonas vaginalis)[mh]) OR (Trichomoniasi*) OR ((trichomonas vaginali*)) OR ((Trichomonas Infections)[mh]) OR ("Mycoplasma genitalium") OR ((Mycoplasma genitalium)[mh]) OR ((Sexually Transmitted Diseases)[mh]) OR ((sexually AND transmit* AND (disease* or infection*))) OR ((sti or std)) OR ((venereal* AND (disease* or infection*)))

23.7 Medline

23.7.1 Original searches

- 1 Herpes Genitalis/ or Herpes Simplex/
- 2 ((genital* or simplex*) adj3 herpes*).ti,ab.
- 3 chlamydia*.ti,ab.
- 4 Chlamydia Infections/ or Chlamydia/ or Chlamydia trachomatis/
- 5 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
- 6 Condylomata Acuminata/
- 7 "condylomata acuminata".ti,ab.
- 8 Gonorrhea/
- 9 (Gonorrhea* or Gonorrhoea*).ti,ab.
- 10 Syphilis/
- 11 syphilis*.ti,ab.
- 12 (lymphogranuloma venereum or lgy).ti,ab.
- 13 Lymphogranuloma Venereum/
- 14 Trichomonas vaginalis/
- 15 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
- 16 Trichomonas Infections/
- 17 (mycoplasma genitalium or Mgen).ti,ab.
- 18 Mycoplasma genitalium/
- 19 Sexually Transmitted Diseases/
- 20 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
- 21 (venereal* adj2 (disease* or infection*)).ti,ab.
- 22 or/1-21
- 23 Papillomavirus Infections/
- 24 (papillomavirus adj (human* or infect*)).ti,ab.
- 25 hpv.ti,ab.
- 26 or/23-25
- 27 gay*.ti,ab.
- 28 Homosexuality, Male/
- 29 "Sexual and Gender Minorities"/
- 30 Bisexuality/
- 31 Transgender Persons/ or Transsexualism/ or Transgender/ or Health Services for Transgender Persons/
- 32 Homosexuality/
- 33 men who have sex with men.ti,ab.
- 34 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
- 35 MSM.ti,ab.
- 36 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 37 (bisexual* or homosexual* or lgbt*).ti,ab.

- 38 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*)),ti,ab.
- 39 ((teen* or adolescent*) adj4 (boy* or male* or man or men)),ti,ab.
- 40 (over adj2 (sixteen* or "16") adj2 (year or years or age or ages or aged) adj2 (boy* or male*)),ti,ab.
- 41 ((male* or boy*) adj2 (16-17 or 16-18 or 16-19 or 17-18 or 17-19) adj2 (year or years or age or ages or aged)),ti,ab.
- 42 or/27-41
- 43 26 and 42
- 44 22 or 43
- 45 ((test or tests or testing or tested or screen*) adj3 (uptake or take up or increas* or decreas* or reduc* or impact* or effect* or improve* or enhanc* or encourag* or support* or promot* or optim* or adheer* or access* or motivat* or accept* or satisfaction or compliance or comply or complie* or refus* or availab* or provision or provid* or offer or incentiv* or barrier* or challeng* or attend* or service*)),ti,ab.
- 46 ((test or tests or testing or tested or screen*) adj4 (opportunistic or point of care or point-of-care or "point of care")),ti,ab.
- 47 ((test or tests or testing or tested or screen*) adj4 (invit* or invitation* or advert* or advertisement*)),ti,ab.
- 48 ((test or tests or testing or tested or screen*) adj4 access*),ti,ab.
- 49 ((test or tests or testing or tested or screen*) adj4 (outreach* or satellite clinic* or bespoke clinic* or remote clinic* or video consult* or teleconsult* or telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit* or home*)),ti,ab.
- 50 ((test or tests or testing or tested or screen*) adj4 (walk in or walk-in or "walk in")),ti,ab.
- 51 ((test or tests or testing or tested or screen) adj4 (wait* time* or open* hour* or appointment* or book* system*)),ti,ab.
- 52 ((test or tests or testing or tested or screen*) adj4 (mass or countr* or universal or population or national* or public health) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)),ti,ab.
- 53 (awareness adj4 (rais* or promotion* or campaign* or intervention* or toolkit* or strateg*) adj4 (test or tests or testing or tested or screen*)),ti,ab.
- 54 ((test or tests or testing or tested or screen*) adj4 (poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or banner* or t-shirt* or internet* or digital* or electronic* or computer* or advert* or campaign* or app or apps or "dating app*" or "dating site*" or "dating website*" or "online dating" or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or video* or messag* or email* or text* or sms or smartphone* or mobile* or phone* or "tablet computer*" or workshop* or train* or remote or communit*) adj2 (public health or promot*)),ti,ab.
- 55 Diagnostic Tests, Routine/ or Mass Screening/
56 or/45-55
57 44 and 56
58 afghanistan/ or africa/ or africa, northern/ or africa, central/ or africa, eastern/ or "africa south of the sahara"/ or africa, southern/ or africa, western/ or albania/ or algeria/ or andorra/ or angola/ or "antigua and barbuda"/ or argentina/ or armenia/ or azerbaijan/ or bahamas/ or bahrain/ or bangladesh/ or barbados/ or belize/ or benin/ or bhutan/ or bolivia/ or borneo/ or "bosnia and herzegovina"/ or botswana/ or brazil/ or brunei/ or bulgaria/ or burkina faso/ or burundi/ or cabo verde/ or cambodia/ or cameroon/ or central african republic/ or chad/ or exp china/ or comoros/ or congo/ or cote d'ivoire/ or croatia/ or cuba/ or "democratic republic of the congo"/ or cyprus/ or djibouti/ or dominica/ or dominican republic/ or ecuador/ or egypt/ or el salvador/ or equatorial guinea/ or eritrea/ or eswatini/ or ethiopia/ or fiji/ or gabon/ or gambia/ or "georgia (republic)"/ or ghana/ or grenada/ or guinea/ or guinea-bissau/ or guyana/ or haiti/ or honduras/ or independent state of samoa/ or exp india/ or indian ocean islands/ or indochina/ or indonesia/ or iran/ or iraq/ or jamaica/ or jordan/ or kazakhstan/ or kenya/ or kosovo/ or kuwait/ or kyrgyzstan/ or laos/ or lebanon/ or liechtenstein/ or lesotho/ or liberia/ or libya/ or madagascar/ or malaysia/ or malawi/ or mali/ or malta/ or mauritania/ or mauritius/ or mekong valley/ or melanesia/ or micronesia/ or monaco/ or mongolia/ or montenegro/ or morocco/ or mozambique/ or myanmar/ or namibia/ or nepal/ or nicaragua/ or niger/ or nigeria/ or oman/ or pakistan/ or palau/ or exp panama/ or papua new guinea/ or paraguay/ or peru/ or philippines/ or qatar/ or "republic of belarus"/ or "republic of north macedonia"/ or romania/ or exp russia/ or rwanda/ or "saint kitts and nevis"/ or saint lucia/ or "saint vincent and the grenadines"/ or "sao tome and principe"/ or saudi arabia/ or serbia/ or sierra leone/ or senegal/ or seychelles/ or singapore/ or somalia/ or south africa/ or south sudan/ or sri lanka/ or sudan/ or suriname/ or syria/ or taiwan/ or tajikistan/ or tanzania/ or thailand/ or timor-leste/ or togo/ or tonga/ or "trinidad and tobago"/ or tunisia/ or turkmenistan/ or uganda/ or ukraine/ or united arab

emirates/ or uruguay/ or uzbekistan/ or vanuatu/ or venezuela/ or vietnam/ or west indies/ or yemen/ or zambia/ or zimbabwe/
59 "organisation for economic co-operation and development"/
60 australasia/ or exp australia/ or austria/ or baltic states/ or belgium/ or exp canada/ or chile/ or colombia/ or costa rica/ or czech republic/ or exp denmark/ or estonia/ or europe/ or finland/ or exp france/ or exp germany/ or greece/ or hungary/ or iceland/ or ireland/ or israel/ or exp italy/ or exp japan/ or korea/ or latvia/ or lithuania/ or luxembourg/ or mexico/ or netherlands/ or new zealand/ or north america/ or exp norway/ or poland/ or portugal/ or exp "republic of korea"/ or "scandinavian and nordic countries"/ or slovakia/ or slovenia/ or spain/ or sweden/ or switzerland/ or turkey/ or exp united kingdom/ or exp united states/
61 european union/
62 developed countries/
63 or/59-62
64 58 not 63
65 57 not 64
66 limit 65 to english language
67 limit 66 to yr="2009 -Current"
68 limit 67 to (letter or historical article or comment or editorial or news or case reports)
69 67 not 68
70 Animals/ not (Humans/ and Animals/)
71 69 not 70

23.8 MEDLINE-in-Process (including Epub Ahead-of-Print)

23.8.1 Original searches

1 ((genital* or simplex*) adj3 herpes*).ti,ab.
2 chlamydia*.ti,ab.
3 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
4 "condylomata acuminata".ti,ab.
5 (Gonorrhea* or Gonorrhoea*).ti,ab.
6 syphilis*.ti,ab.
7 (lymphogranuloma venereum or lgv).ti,ab.
8 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
9 (mycoplasma genitalium or Mgen).ti,ab.
10 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
11 (venereal* adj2 (disease* or infection*)).ti,ab.
12 or/1-11
13 (papillomavirus adj (human* or infect*)).ti,ab.
14 hpv.ti,ab.
15 or/13-14
16 gay*.ti,ab.
17 men who have sex with men.ti,ab.
18 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
19 MSM.ti,ab.
20 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
21 (bisexual* or homosexual* or lgbt*).ti,ab.
22 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*)).ti,ab.
23 ((teen* or adolescent*) adj4 (boy* or male* or man or men)).ti,ab.
24 (over adj2 (sixteen* or "16") adj2 (year or years or age or ages or aged) adj2 (boy* or male*)).ti,ab.
25 ((male* or boy*) adj2 (16-17 or 16-18 or 16-19 or 17-18 or 17-19) adj2 (year or years or age or ages or aged)).ti,ab.
26 or/16-25
27 15 and 26
28 12 or 27

- 29 ((test or tests or testing or tested or screen*) adj3 (uptake or take up or increas* or decreas* or reduc* or impact* or effect* or improve* or enhanc* or encourag* or support* or promot* or optim* or adher* or access* or motivat* or accept* or satisfaction or compliance or comply or complie* or refus* or availab* or provision or provid* or offer or incentiv* or barrier* or challeng* or attend* or service*)).ti,ab.
- 30 ((test or tests or testing or tested or screen*) adj4 (opportunistic or point of care or point-of-care or "point of care")).ti,ab.
- 31 ((test or tests or testing or tested or screen*) adj4 (invit* or invitation* or advert* or advertisement*)).ti,ab.
- 32 ((test or tests or testing or tested or screen*) adj4 access*).ti,ab.
- 33 ((test or tests or testing or tested or screen*) adj4 (outreach* or satellite clinic* or bespoke clinic* or remote clinic* or video consult* or teleconsult* or telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit* or home*)).ti,ab.
- 34 ((test or tests or testing or tested or screen*) adj4 (walk in or walk-in or "walk in")).ti,ab.
- 35 ((test or tests or testing or tested or screen) adj4 (wait* time* or open* hour* or appointment* or book* system*)).ti,ab.
- 36 ((test or tests or testing or tested or screen*) adj4 (mass or countr* or universal or population or national* or public health) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
- 37 (awareness adj4 (rais* or promotion* or campaign* or intervention* or toolkit* or strateg*) adj4 (test or tests or testing or tested or screen*)).ti,ab.
- 38 ((test or tests or testing or tested or screen*) adj4 (poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or banner* or t-shirt* or internet* or digital* or electronic* or computer* or advert* or campaign* or app or apps or "dating app*" or "dating site*" or "dating website*" or "online dating" or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or video* or messag* or email* or text* or sms or smartphone* or mobile* or phone* or "tablet computer*" or workshop* or train* or remote or communit*) adj2 (public health or promot*)).ti,ab.
- 39 or/29-38
- 40 28 and 39
- 41 limit 40 to yr="2009 -Current"
- 42 limit 41 to english language
- 43 limit 42 to (letter or historical article or comment or editorial or news or case reports)
- 44 42 not 43

23.9 NHS EED

23.9.1 Original searches

1	MeSH DESCRIPTOR Herpes Genitalis EXPLODE ALL TREES	21
2	MeSH DESCRIPTOR Herpes Simplex EXPLODE ALL TREES	38
3	((genital* or simplex*) adj3 herpes*)	28
4	(chlamydia*)	195
5	MeSH DESCRIPTOR Chlamydia Infections EXPLODE ALL TREES	124
6	MeSH DESCRIPTOR Chlamydia EXPLODE ALL TREES	93
7	MeSH DESCRIPTOR Chlamydia trachomatis EXPLODE ALL TREES	87
8	((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*)	49
9	MeSH DESCRIPTOR Condylomata Acuminata EXPLODE ALL TREES	41
10	("condylomata acuminata")	41
11	MeSH DESCRIPTOR Gonorrhoea EXPLODE ALL TREES	43
12	((Gonorrhoea* or Gonorrhoea*))	90
13	MeSH DESCRIPTOR Syphilis EXPLODE ALL TREES	38
14	(syphilis*)	71
15	((lymphogranuloma venereum or lgv))	1
16	MeSH DESCRIPTOR Lymphogranuloma Venereum EXPLODE ALL TREES	1
17	MeSH DESCRIPTOR Trichomonas vaginalis EXPLODE ALL TREES	3
18	(trichomonas vaginali* or Trichomoniasi*)	24
19	MeSH DESCRIPTOR Trichomonas Infections EXPLODE ALL TREES	14
20	((mycoplasma genitalium or Mgen))	0
21	MeSH DESCRIPTOR Mycoplasma genitalium EXPLODE ALL TREES	0
22	MeSH DESCRIPTOR Sexually Transmitted Diseases EXPLODE ALL TREES	1460
23	((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std))	426

24 ((venereal* adj2 (disease* or infection*)) 2
25 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13
OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24
1670
26 MeSH DESCRIPTOR Papillomavirus Infections EXPLODE ALL TREES 283
27 ((papillomavirus adj (human* or infect*)) 274
28 (hpv) 251
29 #26 OR #27 OR #28 375
30 (gay*) 131
31 MeSH DESCRIPTOR Homosexuality, Male EXPLODE ALL TREES 53
32 MeSH DESCRIPTOR Bisexuality EXPLODE ALL TREES 8
33 MeSH DESCRIPTOR Transgender Persons EXPLODE ALL TREES 3
34 MeSH DESCRIPTOR Transsexualism EXPLODE ALL TREES 12
35 MeSH DESCRIPTOR Health Services for Transgender Persons EXPLODE ALL TREES 0
36 MeSH DESCRIPTOR Homosexuality EXPLODE ALL TREES 56
37 (men who have sex with men) 73
38 ((same sex or non heterosexual* or non-heterosexual*)) 4
39 (MSM) 45
40 (((transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or
trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or
transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or
nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender
or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*)) 77
41 (bisexual* or homosexual* or lgbt*) 89
42 (((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or escort*))
6
43 (((teen* or adolescent*) adj4 (boy* or male* or man or men))) 56
44 ((over adj2 (sixteen* or "16") adj2 (year or years or age or ages or aged) adj2 (boy* or male*))
0
45 (((male* or boy*) adj2 (16-17 or 16-18 or 16-19 or 17-18 or 17-19) adj2 (year or years or age or
ages or aged))) 0
46 #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR
#41 OR #42 OR #43 OR #44 OR #45 373
47 #29 AND #46 12
48 #25 OR #47 1672
49 (((test or tests or testing or tested or screen*) adj3 (uptake or take up or increas* or decreas* or
reduc* or impact* or effect* or improve* or enhanc* or encourag* or support* or promot* or
optim* or adher* or access* or motivat* or accept* or satisfaction or compliance or comply or
complie* or refus* or availabl* or provision or provid* or offer or incentive* or barrier* or
challeng*)) 2384
50 (((test or tests or testing or tested or screen*) adj4 (opportunistic or point of care or point-of-
care or "point of care")) 49
51 (((test or tests or testing or tested or screen*) adj4 (invit* or invitation* or advert* or
advertisement*)) 37
52 (((test or tests or testing or tested or screen*) adj4 access*)) 25
53 (((test or tests or testing or tested or screen*) adj4 (outreach* or satellite clinic* or bespoke
clinic* or remote clinic* or video consult* or teleconsult* or telephone consult* or phone consult*
or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit*
or home*)) 121
54 (((test or tests or testing or tested or screen*) adj4 (walk in or walk-in or "walk in"))) 0
55 (((test or tests or testing or tested or screen) adj4 (wait* time* or open* hour* or appointment*
or book* system*)) 10
56 (((test or tests or testing or tested or screen*) adj4 (mass or countr* or universal or population
or national* or public health) adj4 (promotion* or campaign* or intervention* or toolkit* or
strateg*)) 12
57 ((awareness adj4 (rais* or promotion* or campaign* or intervention* or toolkit* or strateg*) adj4
(test or tests or testing or tested or screen*))0
58 (((test or tests or testing or tested or screen*) adj4 (poster* or leaflet* or booklet* or
presentation* or brochure* or flyer* or newsletter* or radio or tv or television or article* or
factsheet* or magazine* or literature or display* or card* or banner* or t-shirt* or internet* or
digital* or electronic* or computer* or advert* or campaign* or app or apps or "dating app*" or
"dating site*" or "dating website*" or "online dating" or blog* or website* or online or social
media or social market* or facebook or twitter or instagram or snapchat or video* or messag* or
email* or text* or sms or smartphone* or mobile* or phone* or "tablet computer*" or workshop*
or train* or remote or communit*) adj2 (public health or promot*)) 0
59 MeSH DESCRIPTOR Diagnostic Tests, Routine EXPLODE ALL TREES 185
60 MeSH DESCRIPTOR Mass Screening EXPLODE ALL TREES 2347

61 #49 OR #50 OR #51 OR #52 OR #53 OR #54 OR #55 OR #56 OR #57 OR #58 OR #59 OR
 #60 4180
 62 #48 AND #61 337
 63 (#62) IN NHSEED WHERE LPD FROM 01/01/2009 TO 10/09/2020 116

23.9.2 Rerun searches

Note: no new content has been added to NHS EED since 2015, so this was outside the remit of a rerun search.

23.10 PsycINFO

23.10.1 Original searches

1 gay*.ti,ab.
 2 male homosexuality/
 3 bisexuality/
 4 Sexual Minority Groups/
 5 exp Transsexualism/ or Transgender/
 6 same sex intercourse/
 7 homosexuality/
 8 Same Sex Couples/
 9 men who have sex with men.ti,ab.
 10 (same sex or non heterosexual* or non-heterosexual* or nonheterosexual*).ti,ab.
 11 MSM.ti,ab.
 12 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or
 trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or
 transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or
 nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender
 or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
 13 (bisexual* or homosexual* or lgbt).ti,ab.
 14 ((male or man or men or boy*) adj3 (sex work* or prostitut* or transactional sex or
 escort*).ti,ab.
 15 ((teen* or adolescent*) adj4 (boy* or male* or man or men)).ti,ab.
 16 (over adj2 (sixteen* or "16") adj2 (year or years or age or ages or aged) adj2 (boy* or
 male*).ti,ab.
 17 ((male* or boy*) adj2 (16-17 or 16-18 or 16-19 or 17-18 or 17-19) adj2 (year or years or age or
 ages or aged)).ti,ab.
 18 lgbtq/
 19 or/1-18
 20 Human Papillomavirus/
 21 (papillomavirus adj (human* or infect*).ti,ab.
 22 hpv.ti,ab.
 23 20 or 21 or 22
 24 19 and 23
 25 Herpes Genitalis/ or Herpes Simplex/
 26 ((genital* or simplex*) adj3 herpes*).ti,ab.
 27 chlamydia*.ti,ab.
 28 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
 29 "condylomata acuminata".ti,ab.
 30 gonorrhea/
 31 (Gonorrhoea* or Gonorrhoea*).ti,ab.
 32 Syphilis/
 33 syphilis*.ti,ab.
 34 (lymphogranuloma venereum or lgv).ti,ab.
 35 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
 36 (mycoplasma genitalium or Mgen).ti,ab.
 37 sexually transmitted diseases/
 38 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
 39 (venereal* adj2 (disease* or infection*).ti,ab.
 40 or/25-39

- 41 24 or 40
- 42 ((test or tests or testing or tested or screen*) adj3 (uptake or take up or increas* or decreas* or reduc* or impact* or effect* or improve* or enhanc* or encourag* or support* or promot* or optim* or adher* or access* or motivat* or accept* or satisfaction or compliance or comply or complie* or refus* or availab* or provision or provid* or offer or incentiv* or barrier* or challeng* or attend* or service*)).ti,ab.
- 43 ((test or tests or testing or tested or screen*) adj4 (opportunistic or point of care or point-of-care or "point of care")).ti,ab.
- 44 ((test or tests or testing or tested or screen*) adj4 (invit* or invitation* or advert* or advertisement*)).ti,ab.
- 45 ((test or tests or testing or tested or screen*) adj4 access*).ti,ab.
- 46 ((test or tests or testing or tested or screen*) adj4 (outreach* or satellite clinic* or bespoke clinic* or remote clinic* or video consult* or teleconsult* or telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit* or home*)).ti,ab.
- 47 ((test or tests or testing or tested or screen*) adj4 (walk in or walk-in or "walk in")).ti,ab.
- 48 ((test or tests or testing or tested or screen) adj4 (wait* time* or open* hour* or appointment* or book* system*)).ti,ab.
- 49 ((test or tests or testing or tested or screen*) adj4 (mass or countr* or universal or population or national* or public health) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab.
- 50 (awareness adj4 (rais* or promotion* or campaign* or intervention* or toolkit* or strateg*) adj4 (test or tests or testing or tested or screen*)).ti,ab.
- 51 ((test or tests or testing or tested or screen*) adj4 (poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or banner* or t-shirt* or internet* or digital* or electronic* or computer* or advert* or campaign* or app or apps or "dating app*" or "dating site*" or "dating website*" or "online dating" or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or video* or messag* or email* or text* or sms or smartphone* or mobile* or phone* or "tablet computer*" or workshop* or train* or remote or communit*) adj2 (public health or promot*)).ti,ab.
- 52 exp Screening Tests/
or/42-52
- 53 41 and 53
- 54 limit 54 to english language
- 55 limit 55 to yr="2009 -Current"
- 56 Animals/ not (Humans/ and Animals/)
- 57 56 not 57

24. Website browsing

Website	
Name	Turning research into Practice (TRIP)
URL	https://www.tripdatabase.com/
Date searched	13/11/20
Search terms (including any specific sections browsed)	Searched: STI AND test AND guideline filter
Results	HIV, viral hepatitis and STIs - a guide for primary care (2014 update) Australasian Society for HIV Medicine Chapters: 8: Assessment of the patient and testing for STIs and Chapter 9: Talking about testing

Website	
Name	Public Health England /
URL	https://www.gov.uk/government/organisations/public-health-england
Date searched	11/11/20
Search terms (including any specific sections browsed)	Searched: STI test (sub topic: Health and social care)
Results	Syphilis epidemiology in London: 2017 data update (2018) Statistics and "Key areas for action" covers testing/screening Addressing the increase in syphilis in England: PHE Action Plan (2019) Action plan includes testing and screening Managing outbreaks of Sexually Transmitted Infections: Operational guidance (2017) Brief reference to testing/screening and promotion as part of managing outbreaks. Guidance for the detection of gonorrhoea in England (2015 update) Extensive content on testing and screening

Website	
Name	BASHH
URL	https://www.bashh.org/
Date searched	13/11/20
Search terms (including any specific sections browsed)	Browsed: Publications
Results	Standards for the management of sexually transmitted infections (STIs) (2019) Section 4: Diagnostics 2015 BASHH CEG guidance on tests for Sexually Transmitted Infections (2015) BASHH Recommendations for Testing for Sexually Transmitted Infections in Men who have Sex with Men (2014)

	<p>United Kingdom national guideline on the sexual health care of men who have sex with men (2016)</p> <p>Standards for the management of sexually transmitted infections (STIs) in outreach services (2016) Section on diagnostics</p> <p>2018 UK national guideline for the management of infection with <i>Neisseria gonorrhoeae</i> (2018) Section on diagnosis</p> <p>2015 UK national guideline for the management of infection with <i>Chlamydia trachomatis</i> (2016) Section on diagnosis</p> <p>2015 UK National Guideline on the management of non-gonococcal urethritis (2015) Section on diagnosis</p> <p>British Association for Sexual Health and HIV national guideline for the management of infection with <i>Mycoplasma genitalium</i> (2019) Sections on: Recommendations for testing and Diagnosis</p> <p>United Kingdom National Guideline on the Management of <i>Trichomonas vaginalis</i> (2014) Section on diagnosis</p> <p>2014 UK national guideline for the management of anogenital herpes (2015) Section on diagnosis</p> <p>UK national guidelines on the management of syphilis (2015) Sections on diagnosis</p> <p>2013 UK National Guideline for the management of lymphogranuloma venereum (2013) Section on diagnosis</p>
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Website	
Name	Evidence Search
URL	https://www.evidence.nhs.uk/
Date searched	13/11/20
Search terms (including any specific sections browsed)	"STI TEST" Sexually transmitted infection AND test
Results	<p>Use of geosocial networking applications is independently associated with diagnosis of STI among men who have sex with men testing for STIs: findings from the cross-sectional MSM Internet Survey Ireland (MISI) 2015 (2019) <i>Sexually Transmitted Infections</i> 2019; 95:279-284</p> <p>TECHNICAL REPORT 2017: The European Men-Who-Have-Sex-With-Men Internet Survey (2019) Sections on testing</p> <p>Utilising social media to support HIV/STI prevention: evidence to inform a handbook for public health programme managers (2017) Several mentions of testing and social media</p> <p>Enhancing the value of sexual health, reproductive health and contraception services through council scrutiny (Centre for Public Scrutiny, 2019) Section 10: screening and diagnostics</p>

Website	
Name	Google.co.uk
URL	www.google.co.uk
Date searched	13/11/20
Search terms (including any specific sections browsed)	"STI TEST" Sexually transmitted infection AND test
Results	Sexual Health in Ireland: What Do We Know? (2018) Sexual Health & Pregnancy Programme (SHCPP) Chapter on testing

Review questions 2.3

25. Review question details

Topic: Reducing STIs

Review 1: Effective and cost-effective interventions to increase frequent STI testing in very high-risk groups

1.1 What interventions are effective and cost effective at increasing frequent STI testing in very high risk groups?

26. Database strategy outline

26.1 Overview

A NICE information specialist conducted the literature searches for the evidence review. The searches for the effectiveness evidence were run on 12 March 2021. The searches for the cost effectiveness evidence were run on 11 September 2020.

The principal search strategy was developed in MEDLINE (Ovid interface) and adapted, as appropriate, for use in the other sources listed in the protocol, taking into account their size, search functionality and subject coverage.

The population group for this group was expanded from the population group used for review questions 2.1 and 2.2 to include two additional groups of people that were at a very high risk of acquiring STIs.

The gay, bisexual and other men who have sex with men population set and the trans people population set used for this search were the updated set of terms agreed following a consultation with the committee. It was agreed that searches with the original set of terms would not be re-run, but all searches post-consultation (including all update searches) would use the revised set of terms.

26.2 Filters and limits

The initial search was developed in Medline. Line references below refer to the original Medline strategy.

English language limits were applied in adherence to standard NICE practice and the review protocol.

Limits to exclude letters, editorials, news and conferences were applied in adherence to standard NICE practice and the review protocol.

The search was limited from 2009 to current as defined in the review protocol. For the rerun searches there was no change to strategy apart from the date limit (from 12 March 2021 to 08 June 2021). As a result, the rerun strategies have not been included apart from the INAHTA strategy, which was a translation of the HTA strategy.

The limit to remove animal studies in the searches was the standard NICE practice, which has been adapted from: Dickersin, K., Scherer, R., & Lefebvre, C. (1994). [Systematic Reviews: Identifying relevant studies for systematic reviews](#). *BMJ*, 309(6964), 1286.

Lines 66-72 are a novel filter designed to exclude non-OECD studies. This filter was developed at NICE and is currently "in press" with the *Journal of the Medical Library Association*. In practice it retains >99% of relevant studies.

The following search filter was applied to the search strategies in MEDLINE and Embase to identify cost-effectiveness studies:

- 1 Economics/ or exp "Costs and Cost Analysis"/ or Economics, Dental/ or exp Economics, Hospital/ or exp Economics, Medical/ or Economics, Nursing/ or Economics, Pharmaceutical/ or Budgets/ or exp Models, Economic/ or Markov Chains/ or Monte Carlo Method/ or Decision Trees/
- 2 (Economic* or cost or costs or costly or costing or costed or price or prices or pricing or pharmacoeconomic* or pharmaco economic* or budget*).ti,ab.
- 3 ((monte adj carlo) or markov or (decision adj2 (tree\$ or analys\$))).ti,ab.
- 4 (value adj2 (money or monetary)).ti,ab.
- 5 Quality of Life/ or Health Status Indicators/ or Quality-Adjusted Life Years/ or Value of Life/
- 6 (quality of life or quality adjusted life or qaly* or qald* or qale* or qtime* or quality of wellbeing or quality of well-being or willingness to pay or standard gamble* or time trade off* or time tradeoff*).ti,ab.
- 7 (disability adjusted life or daly).ti,ab.
- 8 health* year* equivalent*.ti,ab.
- 9 (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab.
- 10 (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).ti,ab.
- 11 (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab.
- 12 (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab.
- 13 (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab.
- 14 (euroqol or euro qol or eq5d or eq 5d).ti,ab.
- 15 or/1-14
- 16 (((energy or oxygen) adj cost*) or (metabolic adj cost*) or ((energy or oxygen) adj expenditure*)).ti,ab.
- 17 Animals/ not humans/
- 18 (comment or editorial or letter or news).pt.
- 19 or/16-18
- 20 15 not 19

Source: Glanville J et al. (2009) [Development and Testing of Search Filters to Identify Economic Evaluations in MEDLINE and EMBASE](#). Alberta: Canadian Agency for Drugs and Technologies in Health (CADTH).

Several modifications have been made to these filters over the years that are standard NICE practice. Other notes

26.3 Quality assurance

The Information Services team at NICE quality assured the principal search strategy and peer reviewed the strategies for the other databases according to the standard NICE checklist that was adapted from the 2015 Peer review of electronic search strategies (PRESS) checklist.

26.4 Review management

The search results were managed in EPPI-Reviewer v5. Duplicates were removed in EPPI-R5 using a two-step process. First, automated deduplication is performed using a high-value algorithm. Second, manual deduplication is used to assess 'low-

probability' matches. All decisions made for the review can be accessed via the deduplication history.

27. Search dates

Database name	Date searched	Database Platform	Database segment or version
Cochrane Central Register of Controlled Trials (CENTRAL) / Cochrane Database of Systematic Reviews (CDSR)	Original searches 12/03/21	Wiley	Issue 3 of 12, March 2021
	Rerun searches 08/06/21		Issue 5 of 12, May 2021
Econlit	Original searches 11/9/20	Ovid	Econlit 1886 to September 03, 2020
	Rerun searches 13/07/21		Econlit 1886 to July 08, 2021
Embase	Original searches 12/03/21	Ovid	Embase 1996 to 2021 March 11
	Rerun searches 08/06/21		Embase 1996 to 2021 June 07
Emcare	Original searches 12/03/21	Ovid	Ovid Emcare 1995 to 2021 Week 08
	Rerun searches 08/06/21		Ovid Emcare 1995 to 2021 Week 22
HTA	Original searches 10/09/20	CRD	-
INAHTA	Rerun searches 13/07/21	-	-

Medline	Original searches 12/03/21	Ovid	Ovid MEDLINE(R) 1996 to March 11, 2021
	Rerun searches 08/06/21		Ovid MEDLINE(R) 1996 to June 04, 2021
MEDLINE-in-Process (including Epub Ahead-of-Print)	Original searches 12/03/21	Ovid	Ovid MEDLINE(R) Epub Ahead of Print March 11, 2021 / Ovid MEDLINE(R) In-Process & In-Data-Review Citations 1946 to March 11, 2021
	Rerun searches 08/06/21		Ovid MEDLINE(R) Epub Ahead of Print June 07, 2021 / Ovid MEDLINE(R) In-Process & In-Data-Review Citations 1946 to June 07, 2021
NHS EED / HTA	Original searches 10/09/20	CRD	-
PsycINFO	Original searches 12/03/21	Ovid	PsycInfo 2002 to March Week 1 2021
	Rerun searches 08/06/21		APA PsycInfo 2002 to May Week 5 2021

28. Number of records retrieved

28.1 Question 2.3

Search source	No. of records retrieved (original searches)	No. of records retrieved (rerun searches)	Results	De-duplicated
Cochrane Central Register of Controlled Trials (CENTRAL)	347	14		
Cochrane Database of Systematic Reviews (CDSR)	10	0		
Embase	2,302	102		
Emcare	1,259	24		
Medline	1,478	72		
MEDLINE-in-Process (including Epub Ahead-of-Print)	212	51		
PsycINFO	686	6		
Cost effective searches				
Econlit	9	0		
Embase	909	121		

Reducing sexually transmitted infections

HTA	29	-	2,046	1,275
INAHTA	-	7		
Medline ALL	700	117		
NHS EED	154	-		

29. Database search strategies

29.1 Cochrane Central Register of Controlled Trials (CENTRAL) / Cochrane Database of Systematic Reviews (CDSR)

29.1.1 Original searches

- #1 MeSH descriptor: [Herpes Genitalis] this term only 421
- #2 MeSH descriptor: [Herpes Simplex] this term only 304
- #3 (((genital* or simplex*) near/3 herpes*)):ti,ab,kw (Word variations have been searched) 1955
- #4 (chlamydia*):ti,ab,kw (Word variations have been searched) 1818
- #5 MeSH descriptor: [Chlamydia Infections] this term only 488
- #6 MeSH descriptor: [Chlamydia] this term only 31
- #7 MeSH descriptor: [Chlamydia trachomatis] this term only 313
- #8 (((genital* or anogenital* or ano-genital* or venereal*) near/3 wart*)):ti,ab,kw (Word variations have been searched) 446
- #9 MeSH descriptor: [Condylomata Acuminata] this term only 275
- #10 (condylomata acuminata):ti,ab,kw (Word variations have been searched) 335
- #11 MeSH descriptor: [Gonorrhoea] this term only 480
- #12 ((Gonorrhoea* or Gonorrhoea*)):ti,ab,kw (Word variations have been searched) 1434
- #13 MeSH descriptor: [Syphilis] this term only 137
- #14 (syphilis*):ti,ab,kw (Word variations have been searched) 709
- #15 ((lymphogranuloma venereum or lgv)):ti,ab,kw (Word variations have been searched) 22
- #16 MeSH descriptor: [Lymphogranuloma Venereum] this term only 9
- #17 MeSH descriptor: [Trichomonas vaginalis] this term only 53
- #18 ((trichomonas vaginali* or Trichomoniasi*)):ti,ab,kw (Word variations have been searched) 433
- #19 MeSH descriptor: [Trichomonas Infections] this term only 57
- #20 MeSH descriptor: [HIV Infections] this term only 10791
- #21 MeSH descriptor: [HIV] this term only 425
- #22 ((hiv or human Immunodeficiency Virus*)):ti,ab,kw 27657
- #23 ((mycoplasma genitalium or Mgen)):ti,ab,kw (Word variations have been searched) 60
- #24 MeSH descriptor: [Mycoplasma genitalium] this term only 12
- #25 MeSH descriptor: [Sexually Transmitted Diseases] this term only 905
- #26 (((sexually near/2 transmit* near/2 (disease* or infection*)) or sti or std)):ti,ab,kw (Word variations have been searched) 3950
- #27 ((venereal* near/2 (disease* or infection*)):ti,ab,kw (Word variations have been searched) 43
- #28 (hpv):ti,ab,kw 2933
- #29 ((papillomavirus near (human* or infect*)):ti,ab,kw 2240
- #30 MeSH descriptor: [Papillomavirus Infections] this term only 762
- #31 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 36787
- #32 (((test or tests or testing or tested or screen*) near/4 (attend* or reattend* or re-attend* or recall* or remind* or repeat* or retest* or re-test* or alert* or ongoing* or regular* or routine* or interval* or month* or week* or year*)):ti,ab,kw (Word variations have been searched) 43941
- #33 (((test or tests or testing or tested or screen*) near/4 frequen*)):ti,ab,kw (Word variations have been searched) 1942
- #34 (((test or tests or testing or tested or screen*) near/4 (participat* or detection*)):ti,ab,kw (Word variations have been searched) 6664
- #35 MeSH descriptor: [Diagnostic Tests, Routine] this term only 240
- #36 MeSH descriptor: [Mass Screening] this term only 3165
- #37 MeSH descriptor: [Direct-To-Consumer Screening and Testing] this term only 1
- #38 (((test or tests or testing or tested or screen*) near/4 ((service* or setting*) near/4 (provision* or deliver* or remote* or outreach* or online or communit* or voluntary* or non-clinical or non-clinical))):ti,ab,kw (Word variations have been searched) 526
- #39 (((test or tests or testing or tested or screen*) near/4 (pub or pubs or nightclub* or bar* or club* or "social event*" or "social venue*" or sauna* or brothel* or (sex* near/2 (venue* or premise* or club*)) or ((faith or religious) near/2 setting*)):ti,ab,kw (Word variations have been searched) 1380

#40 (((test or tests or testing or tested or screen*) near/4 (satellite* or remote* or video consult* or telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit* or home* or self)):ti,ab,kw (Word variations have been searched) 8627

#41 (((test or tests or testing or tested or screen*) near/4 (spoke near/4 (clinic* or provision or approach* or model*)):ti,ab,kw (Word variations have been searched) 0

#42 (((test or tests or testing or tested or screen*) near/4 ("hub and spoke" or "hub-and-spoke")):ti,ab,kw (Word variations have been searched) 0

#43 ((test or tests or testing or tested or screen) near/4 (access* or wait* time* or open* hour* or appointment* or book* system*)) 27291

#44 #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 82260

#45 #31 and #44 4092

#46 ((sex work* or prostitut* or transaction* sex or commercial sex or escort* or "commuter housewife" or "commuter housewives" or "gay for pay")):ti,ab,kw (Word variations have been searched) 4315

#47 ((hooker* or call girl* or gigolo* or gigalo* or hustler* or working girl* or streetwalker* or "street walker*"):ti,ab,kw (Word variations have been searched) 570

#48 (((Sell* or paid*) near/4 sex*)):ti,ab,kw (Word variations have been searched) 25

#49 MeSH descriptor: [Sex Work] this term only 97

#50 MeSH descriptor: [Sex Workers] this term only 69

#51 #46 or #47 or #48 or #49 or #50 4802

#52 (((Multiple* or many or numerous or "more than 10" or "more than ten" or "10 or more" or "ten or more" or 10 plus) near/3 Sex* near/3 Partner*)):ti,ab,kw (Word variations have been searched) 148

#53 MeSH descriptor: [Sexual Partners] this term only 656

#54 #52 or #53 781

#55 ((chemsex* or "chem* sex*" or "chemical sex*" or chemfun or "chem fun" or "party and play" or PNP or slamsex* or "slam* sex*"):ti,ab,kw (Word variations have been searched) 139

#56 (((GHB or Gamma-hydroxybutyrate or GBL or gamma-butyrolactone or mephedrone or methylmethcathinone or "crystal meth" or methamphetamine or meph or meaw or "miaow miaow" or MCAT or drug use* or drug abuse* or drug misuse* or psychoactive*) near/4 sex*)):ti,ab,kw (Word variations have been searched) 6095

#57 MeSH descriptor: [Methamphetamine] this term only 580

#58 MeSH descriptor: [Illicit Drugs] this term only 190

#59 MeSH descriptor: [Substance-Related Disorders] explode all trees 15231

#60 MeSH descriptor: [Sexual Behavior] this term only 1863

#61 (#57 or #58 or #59) AND #60 249

#62 #55 or #56 or #61 6321

#63 (gay*):ti,ab,kw (Word variations have been searched) 486

#64 MeSH descriptor: [Homosexuality, Male] this term only 403

#65 MeSH descriptor: [Sexual and Gender Minorities] this term only 89

#66 MeSH descriptor: [Bisexuality] this term only 53

#67 MeSH descriptor: [Transgender Persons] explode all trees 47

#68 MeSH descriptor: [Transsexualism] this term only 27

#69 MeSH descriptor: [Health Services for Transgender Persons] this term only 0

#70 MeSH descriptor: [Homosexuality] this term only 103

#71 (men who have sex with men):ti,ab,kw (Word variations have been searched) 2066

#72 ((same sex or non heterosexual* or non-heterosexual*)):ti,ab,kw (Word variations have been searched) 5210

#73 (MSM):ti,ab,kw (Word variations have been searched) 957

#74 ((transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender near (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*)):ti,ab,kw (Word variations have been searched) 3414

#75 ((bisexual* or homosexual* or lgbt*)):ti,ab,kw (Word variations have been searched) 965

#76 #63 or #64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72 or #73 or #74 or #75 11167

#77 #51 or #54 or #62 or #76 20740

#78 #45 and #77 771

#79 (clinicaltrials or trialsearch):so 356231

#80 #78 not #79 519

#81 "conference":pt 176642

#82 #80 not #81 with Publication Year from 2009 to 2021, in Trials 347

#83 #45 and #77 with Cochrane Library publication date Between Jan 2009 and Mar 2021, in Cochrane Reviews 10

Notes

Line 82 downloaded as CENTRAL results

Line 83 downloaded as CDSR results

29.2 Econlit

29.2.1 Original searches

- 1 ((genital* or simplex*) adj3 herpes*).ti,ab. (5)
- 2 chlamydia*.ti,ab. (23)
- 3 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab. (5)
- 4 "condylomata acuminata".ti,ab. (0)
- 5 (Gonorrhea* or Gonorrhoea*).ti,ab. (36)
- 6 syphilis*.ti,ab. (32)
- 7 (lymphogranuloma venereum or lgv).ti,ab. (6)
- 8 (trichomonas vaginali* or Trichomoniasi*).ti,ab. (4)
- 9 (mycoplasma genitalium or Mgen).ti,ab. (2)
- 10 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab. (314)
- 11 (venereal* adj2 (disease* or infection*)).ti,ab. (7)
- 12 (papillomavirus adj (human* or infect*)).ti,ab. (1)
- 13 hpv.ti,ab. (38)
- 14 or/1-13 (409)
- 15 ((test or tests or testing or tested or screen*) adj4 (attend* or reattend* or recall* or remind* or repeat* or retest* or re-test* or alert* or ongoing* or regular* or routine* or interval* or month* or week* or year*)).ti,ab. (1493)
- 16 ((test or tests or testing or tested or screen*) adj4 frequen*).ti,ab. (418)
- 17 ((test or tests or testing or tested or screen*) adj4 (participat* or detection)).ti,ab. (291)
- 18 ((test or tests or testing or tested or screen*) adj4 ((service* or setting*) adj4 (provision* or deliver* or remote* or outreach*))).ti,ab. (18)
- 19 ((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or "social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise*)) or ((faith or religious) adj2 setting*))).ti,ab. (353)
- 20 ((test or tests or testing or tested or screen*) adj4 (mass or universal or population or countr* or national* or public health) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)).ti,ab. (21)
- 21 (awareness adj4 (rais* or promotion* or campaign* or intervention* or toolkit* or strateg*) adj4 (test or tests or testing or tested or screen*)).ti,ab. (1)
- 22 ((test or tests or testing or tested or screen*) adj4 (poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or banner* or t-shirt* or internet* or digital* or electronic* or computer* or advert* or campaign* or app or apps or "dating app*" or "dating site*" or "dating website*" or "online dating" or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or video* or messag* or email* or text* or sms or smartphone* or mobile* or phone* or "tablet computer*" or workshop* or train* or remote or communit*) adj2 (public health or promot*)).ti,ab. (4)
- 23 or/15-22 (2554)
- 24 14 and 23 (14)
- 25 limit 24 to yr="2009 -Current" (9)

29.3 Embase

29.3.1 Original searches

- 1 herpes simplex/ or genital herpes/
- 2 ((genital* or simplex*) adj3 herpes*).ti,ab.
- 3 chlamydia*.ti,ab.
- 4 chlamydiasis/ or Chlamydia/ or Chlamydia trachomatis/
- 5 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
- 6 condyloma acuminatum/
- 7 "condylomata acuminata".ti,ab.
- 8 gonorrhoea/
- 9 (Gonorrhoea* or Gonorrhoea*).ti,ab.
- 10 syphilis/
- 11 syphilis*.ti,ab.
- 12 (lymphogranuloma venereum or lgv).ti,ab.
- 13 lymphogranuloma venereum/
- 14 Trichomonas vaginalis/
- 15 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
- 16 trichomoniasis/
- 17 (mycoplasma genitalium or Mgen).ti,ab.
- 18 Mycoplasma genitalium/
- 19 (hiv or human Immunodeficiency Virus*).ti,ab.
- 20 Human immunodeficiency virus/
- 21 sexually transmitted disease/
- 22 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
- 23 (venereal* adj2 (disease* or infection*)).ti,ab.
- 24 papillomavirus infection/
- 25 (papillomavirus adj (human* or infect*)).ti,ab.
- 26 or/1-25
- 27 ((test or tests or testing or tested or screen*) adj4 (attend* or reattend* or re-attend* or recall* or remind* or repeat* or retest* or re-test* or alert* or ongoing* or regular* or routine* or interval* or month* or week* or year*)).ti,ab.
- 28 ((test or tests or testing or tested or screen*) adj4 frequen*).ti,ab.
- 29 ((test or tests or testing or tested or screen*) adj4 (participat* or detection)).ti,ab.
- 30 ((test or tests or testing or tested or screen*) adj4 ((service* or setting*) adj4 (provision* or deliver* or remote* or outreach* or online or communit* or voluntary* or non-clinical or non clinical))).ti,ab.
- 31 ((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or "social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise* or club*)) or ((faith or religious) adj2 setting*))).ti,ab.
- 32 ((test or tests or testing or tested or screen*) adj4 (satellite* or remote* or video consult* or telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit* or home* or self)).ti,ab.
- 33 ((test or tests or testing or tested or screen*) adj4 (spoke adj4 (clinic* or provision or approach* or model*))).ti,ab.
- 34 ((test or tests or testing or tested or screen*) adj4 ("hub and spoke" or "hub-and-spoke")).ti,ab.
- 35 ((test or tests or testing or tested or screen) adj4 (access* or wait* time* or open* hour* or appointment* or book* system*).ti,ab.
- 36 ((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or "social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise*)) or ((faith or religious) adj2 setting*))).ti,ab.
- 37 diagnostic test/ or mass screening/
- 38 or/27-37
- 39 (sex work* or prostitut* or transaction* sex or commercial sex or escort* or "commuter housewife" or "commuter housewives" or "gay for pay").ti,ab.
- 40 (hooker* or call girl* or gigolo* or gigalo* or hustler* or working girl* or streetwalker* or "street walker").ti,ab.
- 41 ((Sell* or paid*) adj4 sex*).ti,ab.
- 42 prostitution/
- 43 sex worker/
- 44 or/39-43
- 45 ((Multiple* or many or numerous or "more than 10" or "more than ten" or "10 or more" or "ten or more" or 10+ or 10 plus) adj3 Sex* adj3 Partner*).ti,ab.
- 46 sexual behavior/

- 47 45 or 46
- 48 (chemsex* or "chem* sex*" or "chemical sex*" or chemfun or "chem fun" or "party and play" or PNP or slamsex* or "slam* sex*").ti,ab.
- 49 ((GHB or Gamma-hydroxybutyrate or GBL or gamma-butyrolactone or mephedrone or methylmethcathinone or "crystal meth" or methamphetamine or meph or meaw or "miaow miaow" or MCAT or drug use* or drug abuse* or drug misuse* or psychoactive*) adj4 sex*).ti,ab.
- 50 (methamphetamine/ or gamma butyrolactone/ or 4' methylmethcathinone/ or illicit drug/) and sexual behavior/
- 51 or/48-50
- 52 gay*.ti,ab.
- 53 male homosexuality/
- 54 "sexual and gender minority"/
- 55 bisexuality/
- 56 transgender/ or transsexualism/
- 57 homosexuality/
- 58 men who have sex with men.ti,ab.
- 59 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
- 60 MSM.ti,ab.
- 61 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 62 (bisexual* or homosexual* or lgbt*).ti,ab.
- 63 or/52-62
- 64 43 or 47 or 51 or 63
- 65 26 and 38 and 64
- 66 afghanistan/ or africa/ or "africa south of the sahara"/ or albania/ or algeria/ or andorra/ or angola/ or argentina/ or "antigua and barbuda"/ or armenia/ or exp azerbaijan/ or bahamas/ or bahrain/ or bangladesh/ or barbados/ or belarus/ or belize/ or benin/ or bhutan/ or bolivia/ or borneo/ or exp "bosnia and herzegovina"/ or botswana/ or exp brazil/ or brunei darussalam/ or bulgaria/ or burkina faso/ or burundi/ or cambodia/ or cameroon/ or cape verde/ or central africa/ or central african republic/ or chad/ or exp china/ or comoros/ or congo/ or cook islands/ or cote d'ivoire/ or croatia/ or cuba/ or cyprus/ or democratic republic congo/ or djibouti/ or dominica/ or dominican republic/ or ecuador/ or el salvador/ or egypt/ or equatorial guinea/ or eritrea/ or eswatini/ or ethiopia/ or exp "federated states of micronesia"/ or fiji/ or gabon/ or gambia/ or exp "georgia (republic)"/ or ghana/ or grenada/ or guatemala/ or guinea/ or guinea-bissau/ or guyana/ or haiti/ or honduras/ or exp india/ or exp indonesia/ or iran/ or exp iraq/ or jamaica/ or jordan/ or kazakhstan/ or kenya/ or kiribati/ or kosovo/ or kuwait/ or kyrgyzstan/ or laos/ or lebanon/ or liechtenstein/ or lesotho/ or liberia/ or libyan arab jamahiriya/ or madagascar/ or malawi/ or exp malaysia/ or maldives/ or mali/ or malta/ or mauritania/ or mauritius/ or melanesia/ or moldova/ or monaco/ or mongolia/ or "montenegro (republic)"/ or morocco/ or mozambique/ or myanmar/ or namibia/ or nauru/ or nepal/ or nicaragua/ or niger/ or nigeria/ or niue/ or north africa/ or oman/ or exp pakistan/ or palau/ or palestine/ or panama/ or papua new guinea/ or paraguay/ or peru/ or philippines/ or polynesia/ or qatar/ or "republic of north macedonia"/ or romania/ or exp russian federation/ or rwanada/ or sahel/ or "saint kitts and nevis"/ or "saint lucia"/ or "saint vincent and the grenadines"/ or saudi arabia/ or senegal/ or exp serbia/ or seychelles/ or sierra leone/ or singapore/ or "sao tome and principe"/ or solomon islands/ or exp somalia/ or south africa/ or south asia/ or south sudan/ or exp southeast asia/ or sri lanka/ or sudan/ or suriname/ or syrian arab republic/ or taiwan/ or tajikistan/ or tanzania/ or thailand/ or timor-leste/ or togo/ or tonga/ or "trinidad and tobago"/ or tunisia/ or turkmenistan/ or tuvalu/ or uganda/ or exp ukraine/ or exp united arab emirates/ or uruguay/ or exp uzbekistan/ or vanuatu/ or venezuela/ or viet nam/ or western sahara/ or yemen/ or zambia/ or zimbabwe/
- 67 exp "organisation for economic co-operation and development"/
- 68 exp australia/ or "australia and new zealand"/ or austria/ or baltic states/ or exp belgium/ or exp canada/ or chile/ or colombia/ or costa rica/ or czech republic/ or denmark/ or estonia/ or europe/ or exp finland/ or exp france/ or exp germany/ or greece/ or hungary/ or iceland/ or ireland/ or israel/ or exp italy/ or japan/ or korea/ or latvia/ or lithuania/ or luxembourg/ or exp mexico/ or netherlands/ or new zealand/ or north america/ or exp norway/ or poland/ or exp portugal/ or scandinavia/ or sweden/ or slovakia/ or slovenia/ or south korea/ or exp spain/ or switzerland/ or exp united kingdom/ or exp united states/ or western europe/
- 69 european union/
- 70 developed country/
- 71 or/67-70
- 72 66 not 71

73	65 not 72
74	Animals/ not (Humans/ and Animals/)
75	73 not 74
76	limit 75 to yr="2009 -Current"
77	limit 76 to english language
78	(letter or editorial).pt.
79	77 not 78
80	(conference abstract or conference paper or conference proceeding or "conference review").pt.
81	79 not 80

29.4 Emcare

29.4.1 Original searches

1	herpes simplex/ or genital herpes/
2	((genital* or simplex*) adj3 herpes*).ti,ab.
3	chlamydia*.ti,ab.
4	chlamydia/ or Chlamydia/ or Chlamydia trachomatis/
5	((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
6	condyloma acuminatum/
7	"condylomata acuminata".ti,ab.
8	gonorrhea/
9	(Gonorrhea* or Gonorrhoea*).ti,ab.
10	syphilis/
11	syphilis*.ti,ab.
12	(lymphogranuloma venereum or lgv).ti,ab.
13	lymphogranuloma venereum/
14	Trichomonas vaginalis/
15	(trichomonas vaginali* or Trichomoniasi*).ti,ab.
16	trichomoniasis/
17	(mycoplasma genitalium or Mgen).ti,ab.
18	Mycoplasma genitalium/
19	(hiv or human Immunodeficiency Virus*).ti,ab.
20	Human immunodeficiency virus/
21	sexually transmitted disease/
22	((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
23	(venereal* adj2 (disease* or infection*)).ti,ab.
24	papillomavirus infection/
25	(papillomavirus adj (human* or infect*)).ti,ab.
26	or/1-25
27	((test or tests or testing or tested or screen*) adj4 (attend* or reattend* or re-attend* or recall* or remind* or repeat* or retest* or re-test* or alert* or ongoing* or regular* or routine* or interval* or month* or week* or year*)).ti,ab.
28	((test or tests or testing or tested or screen*) adj4 frequen*).ti,ab.
29	((test or tests or testing or tested or screen*) adj4 (participat* or detection)).ti,ab.
30	((test or tests or testing or tested or screen*) adj4 ((service* or setting*) adj4 (provision* or deliver* or remote* or outreach* or online or communit* or voluntary* or non-clinical or non clinical))).ti,ab.
31	((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or "social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise* or club*)) or ((faith or religious) adj2 setting*))).ti,ab.
32	((test or tests or testing or tested or screen*) adj4 (satellite* or remote* or video consult* or telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit* or home* or self)).ti,ab.
33	((test or tests or testing or tested or screen*) adj4 (spoke adj4 (clinic* or provision or approach* or model*))).ti,ab.
34	((test or tests or testing or tested or screen*) adj4 ("hub and spoke" or "hub-and-spoke")).ti,ab.
35	((test or tests or testing or tested or screen) adj4 (access* or wait* time* or open* hour* or appointment* or book* system*).ti,ab.
36	((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or "social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise*)) or ((faith or religious) adj2 setting*))).ti,ab.
37	diagnostic test/ or mass screening/
38	or/27-37

- 39 (sex work* or prostitut* or transaction* sex or commercial sex or escort* or "commuter housewife" or "commuter housewives" or "gay for pay").ti,ab.
- 40 (hooker* or call girl* or gigolo* or gigalo* or hustler* or working girl* or streetwalker* or "street walker").ti,ab.
- 41 ((Sell* or paid*) adj4 sex*).ti,ab.
- 42 prostitution/
- 43 sex worker/
- 44 or/39-43
- 45 ((Multiple* or many or numerous or "more than 10" or "more than ten" or "10 or more" or "ten or more" or 10+ or 10 plus) adj3 Sex* adj3 Partner*).ti,ab.
- 46 sexual behavior/
- 47 45 or 46
- 48 (chemsex* or "chem* sex*" or "chemical sex*" or chemfun or "chem fun" or "party and play" or PNP or slamsex* or "slam* sex*").ti,ab.
- 49 ((GHB or Gamma-hydroxybutyrate or GBL or gamma-butyrolactone or mephedrone or methylmethcathinone or "crystal meth" or methamphetamine or meph or meaw or "miaow miaow" or MCAT or drug use* or drug abuse* or drug misuse* or psychoactive*) adj4 sex*).ti,ab.
- 50 (methamphetamine/ or gamma butyrolactone/ or 4' methylmethcathinone/ or illicit drug/) and sexual behavior/
- 51 or/48-50
- 52 gay*.ti,ab.
- 53 male homosexuality/
- 54 "sexual and gender minority"/
- 55 bisexuality/
- 56 transgender/ or transsexualism/
- 57 homosexuality/
- 58 men who have sex with men.ti,ab.
- 59 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
- 60 MSM.ti,ab.
- 61 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 62 (bisexual* or homosexual* or lgbt*).ti,ab.
- 63 or/52-62
- 64 43 or 47 or 51 or 63
- 65 26 and 38 and 64
- 66 afghanistan/ or africa/ or "africa south of the sahara"/ or albania/ or algeria/ or andorra/ or angola/ or argentina/ or "antigua and barbuda"/ or armenia/ or exp azerbaijan/ or bahamas/ or bahrain/ or bangladesh/ or barbados/ or belarus/ or belize/ or benin/ or bhutan/ or bolivia/ or borneo/ or exp "bosnia and herzegovina"/ or botswana/ or exp brazil/ or brunei darussalam/ or bulgaria/ or burkina faso/ or burundi/ or cambodia/ or cameroon/ or cape verde/ or central africa/ or central african republic/ or chad/ or exp china/ or comoros/ or congo/ or cook islands/ or cote d'ivoire/ or croatia/ or cuba/ or cyprus/ or democratic republic congo/ or djibouti/ or dominica/ or dominican republic/ or ecuador/ or el salvador/ or egypt/ or equatorial guinea/ or eritrea/ or eswatini/ or ethiopia/ or exp "federated states of micronesia"/ or fiji/ or gabon/ or gambia/ or exp "georgia (republic)"/ or ghana/ or grenada/ or guatemala/ or guinea/ or guinea-bissau/ or guyana/ or haiti/ or honduras/ or exp india/ or exp indonesia/ or iran/ or exp iraq/ or jamaica/ or jordan/ or kazakhstan/ or kenya/ or kiribati/ or kosovo/ or kuwait/ or kyrgyzstan/ or laos/ or lebanon/ or liechtenstein/ or lesotho/ or liberia/ or libyan arab jamahiriya/ or madagascar/ or malawi/ or exp malaysia/ or maldives/ or mali/ or malta/ or mauritania/ or mauritius/ or melanesia/ or moldova/ or monaco/ or mongolia/ or "montenegro (republic)"/ or morocco/ or mozambique/ or myanmar/ or namibia/ or nauru/ or nepal/ or nicaragua/ or niger/ or nigeria/ or niue/ or north africa/ or oman/ or exp pakistan/ or palau/ or palestine/ or panama/ or papua new guinea/ or paraguay/ or peru/ or philippines/ or polynesia/ or qatar/ or "republic of north macedonia"/ or romania/ or exp russian federation/ or rwanda/ or sahel/ or "saint kitts and nevis"/ or "saint lucia"/ or "saint vincent and the grenadines"/ or saudi arabia/ or senegal/ or exp serbia/ or seychelles/ or sierra leone/ or singapore/ or "sao tome and principe"/ or solomon islands/ or exp somalia/ or south africa/ or south asia/ or south sudan/ or exp southeast asia/ or sri lanka/ or sudan/ or suriname/ or syrian arab republic/ or taiwan/ or tajikistan/ or tanzania/ or thailand/ or timor-leste/ or togo/ or tonga/ or "trinidad and tobago"/ or tunisia/ or turkmenistan/ or tuvalu/ or uganda/ or exp ukraine/ or exp united arab emirates/ or uruguay/ or exp uzbekistan/ or vanuatu/ or venezuela/ or viet nam/ or western sahara/ or yemen/ or zambia/ or zimbabwe/
- 67 exp "organisation for economic co-operation and development"/

68 exp australia/ or "australia and new zealand"/ or austria/ or baltic states/ or exp belgium/ or exp
 canada/ or chile/ or colombia/ or costa rica/ or czech republic/ or denmark/ or estonia/ or
 europe/ or exp finland/ or exp france/ or exp germany/ or greece/ or hungary/ or iceland/ or
 ireland/ or israel/ or exp italy/ or japan/ or korea/ or latvia/ or lithuania/ or luxembourg/ or exp
 mexico/ or netherlands/ or new zealand/ or north america/ or exp norway/ or poland/ or exp
 portugal/ or scandinavia/ or sweden/ or slovakia/ or slovenia/ or south korea/ or exp spain/ or
 switzerland/ or exp united kingdom/ or exp united states/ or western europe/
 69 european union/
 70 developed country/
 71 or/67-70
 72 66 not 71
 73 65 not 72
 74 Animals/ not (Humans/ and Animals/
 75 73 not 74
 76 limit 75 to yr="2009 -Current"
 77 limit 76 to english language
 78 (letter or editorial).pt.
 79 77 not 78
 80 (conference abstract or conference paper or conference proceeding or "conference review").pt.
 81 79 not 80

29.5 Health Technology Assessment (HTA)

29.5.1 Original searches

1 MeSH DESCRIPTOR Herpes Genitalis EXPLODE ALL TREES 21
 2 MeSH DESCRIPTOR Herpes Simplex EXPLODE ALL TREES 38
 3 (((genital* or simplex*) adj3 herpes*)) 28
 4 (chlamydia*) 195
 5 MeSH DESCRIPTOR Chlamydia Infections EXPLODE ALL TREES 124
 6 MeSH DESCRIPTOR Chlamydia EXPLODE ALL TREES 93
 7 MeSH DESCRIPTOR Chlamydia trachomatis EXPLODE ALL TREES 87
 8 (((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*)) 49
 9 MeSH DESCRIPTOR Condylomata Acuminata EXPLODE ALL TREES 41
 10 ("condylomata acuminata") 41
 11 MeSH DESCRIPTOR Gonorrhoea EXPLODE ALL TREES 43
 12 ((Gonorrhoea* or Gonorrhoea*)) 90
 13 MeSH DESCRIPTOR Syphilis EXPLODE ALL TREES 38
 14 (syphilis*) 71
 15 (lymphogranuloma venereum or lgv) 1
 16 MeSH DESCRIPTOR Lymphogranuloma Venereum EXPLODE ALL TREES 1
 17 MeSH DESCRIPTOR Trichomonas vaginalis EXPLODE ALL TREES 3
 18 ((trichomonas vaginali* or Trichomoniasi*)) 24
 19 MeSH DESCRIPTOR Trichomonas Infections EXPLODE ALL TREES 14
 20 (mycoplasma genitalium or Mgen) 0
 21 MeSH DESCRIPTOR Mycoplasma genitalium EXPLODE ALL TREES 0
 22 MeSH DESCRIPTOR Sexually Transmitted Diseases EXPLODE ALL TREES 1460
 23 (((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std)) 426
 24 ((venereal* adj2 (disease* or infection*))) 2
 25 MeSH DESCRIPTOR Papillomavirus Infections EXPLODE ALL TREES 283
 26 ((papillomavirus adj (human* or infect*))) 274
 27 (hpv) 251
 28 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13
 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24
 OR #25 OR #26 OR #27 1970
 29 (((test or tests or testing or tested or screen*) adj4 (attend* or reattend* or recall* or remind* or
 repeat* or retest* or re-test* or alert* or ongoing* or regular* or routine* or interval* or month* or
 week* or year*))) 1300
 30 (((test or tests or testing or tested or screen*) adj4 frequen*)) 126
 31 (((test or tests or testing or tested or screen*) adj4 (participat* or detection))) 380
 32 (((test or tests or testing or tested or screen*) adj4 ((service* or setting*) adj4 (provision* or
 deliver* or remote* or outreach*))) 3

- 33 ((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or "social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise*)) or ((faith or religious) adj2 setting*)) 35
- 34 (((test or tests or testing or tested or screen*) adj4 (mass or universal or population or countr* or national* or public health) adj4 (promotion* or campaign* or intervention* or toolkit* or strateg*)) 12
- 35 ((awareness adj4 (rais* or promotion* or campaign* or intervention* or toolkit* or strateg*) adj4 (test or tests or testing or tested or screen*))0
- 36 (((test or tests or testing or tested or screen*) adj4 (poster* or leaflet* or booklet* or presentation* or brochure* or flyer* or newsletter* or radio or tv or television or article* or factsheet* or magazine* or literature or display* or card* or banner* or t-shirt* or internet* or digital* or electronic* or computer* or advert* or campaign* or app or apps or "dating app*" or "dating site*" or "dating website*" or "online dating" or blog* or website* or online or social media or social market* or facebook or twitter or instagram or snapchat or video* or messag* or email* or text* or sms or smartphone* or mobile* or phone* or "tablet computer*" or workshop* or train* or remote or communit*) adj2 (public health or promot*)) 0
- 37 MeSH DESCRIPTOR Diagnostic Tests, Routine EXPLODE ALL TREES 185
- 38 MeSH DESCRIPTOR Mass Screening EXPLODE ALL TREES 2347
- 39 #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 3419
- 40 #28 AND #39 428
- 41 (#40) IN HTA WHERE LPD FROM 01/01/2009 TO 10/09/2020

29.6 INAHTA

29.6.1 Rerun searches

((("HIV"[mh]) OR (((human Immunodeficiency Virus) OR (human Immunodeficiency Viruses))) OR (hiv)) OR (((Papillomavirus Infections)[mh]) OR ((papillomavirus AND (human* or infect*))) OR (hpv) OR ((Herpes Simplex)[mh]) OR ((Herpes Genitalis)[mh]) OR (((genital* or simplex*) AND herpes*)) OR (chlamydia*) OR ((Chlamydia trachomatis)[mh]) OR ((Chlamydia)[mh]) OR ((Chlamydia Infections)[mh]) OR (((genital* or anogenital* or ano-genital* or venereal*) AND wart*)) OR ((condylomata acuminata)[mh]) OR ((condylomata acuminata)) OR ((Gonorrhoea)[mh]) OR ((Gonorrhoea* or Gonorrhoea*)) OR ((Syphilis)[mh]) OR (syphilis*) OR (lgv) OR ((Lymphogranuloma Venereum)[mh]) OR ((Lymphogranuloma Venereum)) OR ((Trichomonas vaginalis)[mh]) OR (Trichomoniasi*) OR ((trichomonas vaginali*)) OR ((Trichomonas Infections)[mh]) OR ("Mycoplasma genitalium") OR ((Mycoplasma genitalium)[mh]) OR ((Sexually Transmitted Diseases)[mh]) OR ((sexually AND transmit* AND (disease* or infection*))) OR ((sti or std)) OR ((venereal* AND (disease* or infection*))))

29.7 Medline

29.7.1 Original searches

- 1 Herpes Genitalis/ or Herpes Simplex/
- 2 ((genital* or simplex*) adj3 herpes*).ti,ab.
- 3 chlamydia*.ti,ab.
- 4 Chlamydia Infections/ or Chlamydia/ or Chlamydia trachomatis/
- 5 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
- 6 Condylomata Acuminata/
- 7 "condylomata acuminata".ti,ab.
- 8 Gonorrhoea/
- 9 (Gonorrhoea* or Gonorrhoea*).ti,ab.
- 10 Syphilis/
- 11 syphilis*.ti,ab.
- 12 (lymphogranuloma venereum or lgv).ti,ab.
- 13 Lymphogranuloma Venereum/
- 14 Trichomonas vaginalis/
- 15 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
- 16 Trichomonas Infections/
- 17 (mycoplasma genitalium or Mgen).ti,ab.

- 18 Mycoplasma genitalium/
 19 HIV Infections/ or HIV/
 20 (hiv or human Immunodeficiency Virus*).ti,ab.
 21 Sexually Transmitted Diseases/
 22 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
 23 (venereal* adj2 (disease* or infection*)).ti,ab.
 24 Papillomavirus Infections/
 25 (papillomavirus adj (human* or infect*)).ti,ab.
 26 hpv.ti,ab.
 27 or/1-26
 28 ((test or tests or testing or tested or screen*) adj4 (attend* or reattend* or re-attend* or recall*
 or remind* or repeat* or retest* or re-test* or alert* or ongoing* or regular* or routine* or
 interval* or month* or week* or year*)).ti,ab.
 29 ((test or tests or testing or tested or screen*) adj4 frequen*).ti,ab.
 30 ((test or tests or testing or tested or screen*) adj4 (participat* or detection)).ti,ab.
 31 ((test or tests or testing or tested or screen*) adj4 ((service* or setting*) adj4 (provision* or
 deliver* or remote* or outreach* or online or communit* or voluntary* or non-clinical or non
 clinical))).ti,ab.
 32 ((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or
 "social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise* or
 club*)) or ((faith or religious) adj2 setting*)).ti,ab.
 33 ((test or tests or testing or tested or screen*) adj4 (satellite* or remote* or video consult* or
 telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand"
 or "Push Doctor" or "Dr Thom" or kit* or home* or self)).ti,ab.
 34 ((test or tests or testing or tested or screen*) adj4 (spoke adj4 (clinic* or provision or approach*
 or model*)).ti,ab.
 35 ((test or tests or testing or tested or screen*) adj4 ("hub and spoke" or "hub-and-spoke")).ti,ab.
 36 ((test or tests or testing or tested or screen) adj4 (access* or wait* time* or open* hour* or
 appointment* or book* system*)).ti,ab.
 37 ((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or
 "social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise*)) or
 ((faith or religious) adj2 setting*)).ti,ab.
 38 Diagnostic Tests, Routine/ or "Direct-To-Consumer Screening and Testing"/
 39 or/28-38
 40 (sex work* or prostitut* or transaction* sex or commercial sex or escort* or "commuter
 housewife" or "commuter housewives" or "gay for pay").ti,ab.
 41 (hooker* or call girl* or gigolo* or gigalo* or hustler* or working girl* or streetwalker* or "street
 walker*").ti,ab.
 42 ((Sell* or paid*) adj4 sex*).ti,ab.
 43 Sex Workers/ or Sex Work/
 44 40 or 41 or 42 or 43
 45 ((Multiple* or many or numerous or "more than 10" or "more than ten" or "10 or more" or "ten or
 more" or 10+ or 10 plus) adj3 Sex* adj3 Partner*).ti,ab.
 46 Sexual Partners/
 47 45 or 46
 48 (chemsex* or "chem* sex*" or "chemical sex*" or chemfun or "chem fun" or "party and play" or
 PNP or slamsex* or "slam* sex*").ti,ab.
 49 ((GHB or Gamma-hydroxybutyrate or GBL or gamma-butyrolactone or mephedrone or
 methylmethcathinone or "crystal meth" or methamphetamine or meph or meaw or "miaow
 miaow" or MCAT or drug use* or drug abuse* or drug misuse* or psychoactive*) adj4
 sex*).ti,ab.
 50 (Methamphetamine/ or Illicit Drugs/ or Substance-Related Disorders/) and Sexual Behavior/
 51 48 or 49 or 50
 52 gay*.ti,ab.
 53 Homosexuality, Male/
 54 "Sexual and Gender Minorities"/
 55 Bisexuality/
 56 Transgender Persons/ or Transsexualism/ or Transgender/ or Health Services for Transgender
 Persons/
 57 Homosexuality/
 58 men who have sex with men.ti,ab.
 59 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
 60 MSM.ti,ab.
 61 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or
 trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or
 transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or

- nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender
 or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
 62 (bisexual* or homosexual* or lgbt*).ti,ab.
 63 or/52-62
 64 44 or 47 or 51 or 63
 65 27 and 39 and 64
 66 afghanistan/ or africa/ or africa, northern/ or africa, central/ or africa, eastern/ or "africa south of
 the sahara"/ or africa, southern/ or africa, western/ or albania/ or algeria/ or andorra/ or angola/
 or "antigua and barbuda"/ or argentina/ or armenia/ or azerbaijan/ or bahamas/ or bahrain/ or
 bangladesh/ or barbados/ or belize/ or benin/ or bhutan/ or bolivia/ or borneo/ or "bosnia and
 herzegovina"/ or botswana/ or brazil/ or brunei/ or bulgaria/ or burkina faso/ or burundi/ or cabo
 verde/ or cambodia/ or cameroon/ or central african republic/ or chad/ or exp china/ or
 comoros/ or congo/ or cote d'ivoire/ or croatia/ or cuba/ or "democratic republic of the congo"/
 or cyprus/ or djibouti/ or dominica/ or dominican republic/ or ecuador/ or egypt/ or el salvador/
 or equatorial guinea/ or eritrea/ or eswatini/ or ethiopia/ or fiji/ or gabon/ or gambia/ or "georgia
 (republic)"/ or ghana/ or grenada/ or guatemala/ or guinea/ or guinea-bissau/ or guyana/ or
 haiti/ or honduras/ or independent state of samoa/ or exp india/ or indian ocean islands/ or
 indochina/ or indonesia/ or iran/ or iraq/ or jamaica/ or jordan/ or kazakhstan/ or kenya/ or
 kosovo/ or kuwait/ or kyrgyzstan/ or laos/ or lebanon/ or liechtenstein/ or lesotho/ or liberia/ or
 libya/ or madagascar/ or malaysia/ or malawi/ or mali/ or malta/ or mauritania/ or mauritius/ or
 mekong valley/ or melanesia/ or micronesia/ or monaco/ or mongolia/ or montenegro/ or
 morocco/ or mozambique/ or myanmar/ or namibia/ or nepal/ or nicaragua/ or niger/ or nigeria/
 or oman/ or pakistan/ or palau/ or exp panama/ or papua new guinea/ or paraguay/ or peru/ or
 philippines/ or qatar/ or "republic of belarus"/ or "republic of north macedonia"/ or romania/ or
 exp russia/ or rwanda/ or "saint kitts and nevis"/ or saint lucia/ or "saint vincent and the
 grenadines"/ or "sao tome and principe"/ or saudi arabia/ or serbia/ or sierra leone/ or senegal/
 or seychelles/ or singapore/ or somalia/ or south africa/ or south sudan/ or sri lanka/ or sudan/
 or suriname/ or syria/ or taiwan/ or tajikistan/ or tanzania/ or thailand/ or timor-leste/ or togo/ or
 tonga/ or "trinidad and tobago"/ or tunisia/ or turkmenistan/ or uganda/ or ukraine/ or united
 arab emirates/ or uruguay/ or uzbekistan/ or vanuatu/ or venezuela/ or vietnam/ or west indies/
 or yemen/ or zambia/ or zimbabwe/
 67 "organisation for economic co-operation and development"/
 68 australasia/ or exp australia/ or austria/ or baltic states/ or belgium/ or exp canada/ or chile/ or
 colombia/ or costa rica/ or czech republic/ or exp denmark/ or estonia/ or europe/ or finland/ or
 exp france/ or exp germany/ or greece/ or hungary/ or iceland/ or ireland/ or israel/ or exp italy/
 or exp japan/ or korea/ or latvia/ or lithuania/ or luxembourg/ or mexico/ or netherlands/ or new
 zealand/ or north america/ or exp norway/ or poland/ or portugal/ or exp "republic of korea"/ or
 "scandinavian and nordic countries"/ or slovakia/ or slovenia/ or spain/ or sweden/ or
 switzerland/ or turkey/ or exp united kingdom/ or exp united states/
 69 european union/
 70 developed countries/
 71 or/67-70
 72 66 not 71
 73 65 not 72
 74 Animals/ not (Humans/ and Animals/)
 75 73 not 74
 76 limit 75 to yr="2009 -Current"
 77 limit 76 to english language
 78 limit 77 to (letter or historical article or comment or editorial or news or case reports)
 79 77 not 78

29.8 MEDLINE-in-Process (including Epub Ahead-of-Print)

29.8.1 Original searches

- 1 ((genital* or simplex*) adj3 herpes*).ti,ab.
 2 chlamydia*.ti,ab.
 3 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
 4 "condylomata acuminata".ti,ab.
 5 (Gonorrhoea* or Gonorrhoea*).ti,ab.
 6 syphilis*.ti,ab.
 7 (lymphogranuloma venereum or lgv).ti,ab.

- 8 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
 9 (mycoplasma genitalium or Mgen).ti,ab.
 10 (hiv or human Immunodeficiency Virus*).ti,ab.
 11 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
 12 (venereal* adj2 (disease* or infection*)).ti,ab.
 13 (papillomavirus adj (human* or infect*)).ti,ab.
 14 hpv.ti,ab.
 15 or/1-14
 16 ((test or tests or testing or tested or screen*) adj4 (attend* or reattend* or re-attend* or recall* or remind* or repeat* or retest* or re-test* or alert* or ongoing* or regular* or routine* or interval* or month* or week* or year*)).ti,ab.
 17 ((test or tests or testing or tested or screen*) adj4 frequen*).ti,ab.
 18 ((test or tests or testing or tested or screen*) adj4 (participat* or detection)).ti,ab.
 19 ((test or tests or testing or tested or screen*) adj4 ((service* or setting*) adj4 (provision* or deliver* or remote* or outreach* or online or communit* or voluntary* or non-clinical or non clinical))).ti,ab.
 20 ((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or "social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise* or club*)) or ((faith or religious) adj2 setting*))).ti,ab.
 21 ((test or tests or testing or tested or screen*) adj4 (satellite* or remote* or video consult* or telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit* or home* or self)).ti,ab.
 22 ((test or tests or testing or tested or screen*) adj4 (spoke adj4 (clinic* or provision or approach* or model*))).ti,ab.
 23 ((test or tests or testing or tested or screen*) adj4 ("hub and spoke" or "hub-and-spoke")).ti,ab.
 24 ((test or tests or testing or tested or screen) adj4 (access* or wait* time* or open* hour* or appointment* or book* system*)).ti,ab.
 25 ((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or "social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise*)) or ((faith or religious) adj2 setting*))).ti,ab.
 26 or/16-25
 27 (sex work* or prostitut* or transaction* sex or commercial sex or escort* or "commuter housewife" or "commuter housewives" or "gay for pay").ti,ab.
 28 (hooker* or call girl* or gigolo* or gigalo* or hustler* or working girl* or streetwalker* or "street walker*").ti,ab.
 29 ((Sell* or paid*) adj4 sex*).ti,ab.
 30 or/27-29
 31 ((Multiple* or many or numerous or "more than 10" or "more than ten" or "10 or more" or "ten or more" or 10+ or 10 plus) adj3 Sex* adj3 Partner*).ti,ab.
 32 (chemsex* or "chem* sex*" or "chemical sex*" or chemfun or "chem fun" or "party and play" or PNP or slamsex* or "slam* sex*").ti,ab.
 33 ((GHB or Gamma-hydroxybutyrate or GBL or gamma-butyrolactone or mephedrone or methylmethcathinone or "crystal meth" or methamphetamine or meph or meaw or "miaow miaow" or MCAT or drug use* or drug abuse* or drug misuse* or psychoactive*) adj4 sex*).ti,ab.
 34 or/32-33
 35 gay*.ti,ab.
 36 men who have sex with men.ti,ab.
 37 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
 38 MSM.ti,ab.
 39 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
 40 (bisexual* or homosexual* or lgbt*).ti,ab.
 41 or/35-40
 42 30 or 31 or 34 or 41
 43 15 and 26 and 42
 44 limit 43 to english language
 45 limit 44 to yr="2009 -Current"
 46 limit 45 to (letter or historical article or comment or editorial or news or case reports)
 47 45 not 46

29.9 NHS EED

29.9.1 Original searches

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1      MeSH DESCRIPTOR Herpes Genitalis EXPLODE ALL TREES 21
2      MeSH DESCRIPTOR Herpes Simplex EXPLODE ALL TREES 38
3      (((genital* or simplex*) adj3 herpes*)) 28
4      (chlamydia*) 195
5      MeSH DESCRIPTOR Chlamydia Infections EXPLODE ALL TREES 124
6      MeSH DESCRIPTOR Chlamydia EXPLODE ALL TREES 93
7      MeSH DESCRIPTOR Chlamydia trachomatis EXPLODE ALL TREES 87
8      (((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*)) 49
9      MeSH DESCRIPTOR Condylomata Acuminata EXPLODE ALL TREES 41
10     ("condylomata acuminata") 41
11     MeSH DESCRIPTOR Gonorrhoea EXPLODE ALL TREES 43
12     ((Gonorrhoea* or Gonorrhoea*)) 90
13     MeSH DESCRIPTOR Syphilis EXPLODE ALL TREES 38
14     (syphilis*) 71
15     (lymphogranuloma venereum or lgv) 1
16     MeSH DESCRIPTOR Lymphogranuloma Venereum EXPLODE ALL TREES 1
17     MeSH DESCRIPTOR Trichomonas vaginalis EXPLODE ALL TREES 3
18     ((trichomonas vaginali* or Trichomoniasi*)) 24
19     MeSH DESCRIPTOR Trichomonas Infections EXPLODE ALL TREES 14
20     (mycoplasma genitalium or Mgen) 0
21     MeSH DESCRIPTOR Mycoplasma genitalium EXPLODE ALL TREES 0
22     MeSH DESCRIPTOR Sexually Transmitted Diseases EXPLODE ALL TREES 1460
23     (((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std)) 426
24     ((venereal* adj2 (disease* or infection*))) 2
25     MeSH DESCRIPTOR Papillomavirus Infections EXPLODE ALL TREES 283
26     ((papillomavirus adj (human* or infect*))) 274
27     (hpv) 251
28     #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13
OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24
OR #25 OR #26 OR #27 1970
29     (((test or tests or testing or tested or screen*) adj4 (attend* or reattend* or recall* or remind* or
repeat* or retest* or re-test* or alert* or ongoing* or regular* or routine* or interval* or month* or
week* or year*))) 1300
30     (((test or tests or testing or tested or screen*) adj4 frequen*)) 126
31     (((test or tests or testing or tested or screen*) adj4 (participat* or detection))) 380
32     (((test or tests or testing or tested or screen*) adj4 ((service* or setting*) adj4 (provision* or
deliver* or remote* or outreach*)))) 3
33     ((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or
"social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise*)) or
((faith or religious) adj2 setting*)) 35
34     (((test or tests or testing or tested or screen*) adj4 (mass or universal or population or countr*
or national* or public health) adj4 (promotion* or campaign* or intervention* or toolkit* or
strateg*))) 12
35     ((awareness adj4 (rais* or promotion* or campaign* or intervention* or toolkit* or strateg*) adj4
(test or tests or testing or tested or screen*))) 0
36     ( ((test or tests or testing or tested or screen*) adj4 (poster* or leaflet* or booklet* or
presentation* or brochure* or flyer* or newsletter* or radio or tv or television or article* or
factsheet* or magazine* or literature or display* or card* or banner* or t-shirt* or internet* or
digital* or electronic* or computer* or advert* or campaign* or app or apps or "dating app*" or
"dating site*" or "dating website*" or "online dating" or blog* or website* or online or social
media or social market* or facebook or twitter or instagram or snapchat or video* or messag* or
email* or text* or sms or smartphone* or mobile* or phone* or "tablet computer*" or workshop*
or train* or remote or communit*) adj2 (public health or promot*)) 0
37     MeSH DESCRIPTOR Diagnostic Tests, Routine EXPLODE ALL TREES 185
38     MeSH DESCRIPTOR Mass Screening EXPLODE ALL TREES 2347
39     #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 3419
40     #28 AND #39 428
41     (#40) IN NHSEED WHERE LPD FROM 01/01/2009 TO 10/09/2020 154

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29.9.2 Rerun searches

Note: no new content has been added to NHS EED since 2015, so this was outside the remit of a rerun search.

29.10 PsycINFO

29.10.1 Original searches

- 1 Herpes Genitalis/ or Herpes Simplex/
- 2 ((genital* or simplex*) adj3 herpes*).ti,ab.
- 3 chlamydia*.ti,ab.
- 4 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
- 5 "condylomata acuminata".ti,ab.
- 6 Human Papillomavirus/
- 7 (papillomavirus adj (human* or infect*)).ti,ab.
- 8 hpv.ti,ab.
- 9 gonorrhea/
- 10 (Gonorrhea* or Gonorrhoea*).ti,ab.
- 11 Syphilis/
- 12 syphilis*.ti,ab.
- 13 (lymphogranuloma venereum or lgv).ti,ab.
- 14 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
- 15 hiv/
- 16 (hiv or human Immunodeficiency Virus*).ti,ab.
- 17 (mycoplasma genitalium or Mgen).ti,ab.
- 18 sexually transmitted diseases/
- 19 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
- 20 (venereal* adj2 (disease* or infection*)).ti,ab.
- 21 or/1-20
- 22 ((test or tests or testing or tested or screen*) adj4 (attend* or reattend* or re-attend* or recall* or remind* or repeat* or retest* or re-test* or alert* or ongoing* or regular* or routine* or interval* or month* or week* or year*)).ti,ab.
- 23 ((test or tests or testing or tested or screen*) adj4 frequen*).ti,ab.
- 24 ((test or tests or testing or tested or screen*) adj4 (participat* or detection)).ti,ab.
- 25 ((test or tests or testing or tested or screen*) adj4 ((service* or setting*) adj4 (provision* or deliver* or remote* or outreach* or online or communit* or voluntary* or non-clinical or non clinical))).ti,ab.
- 26 ((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or "social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise* or club*)) or ((faith or religious) adj2 setting*))).ti,ab.
- 27 ((test or tests or testing or tested or screen*) adj4 (satellite* or remote* or video consult* or telephone consult* or phone consult* or skype* or zoom* or "youre welcome" or "GP at Hand" or "Push Doctor" or "Dr Thom" or kit* or home* or self)).ti,ab.
- 28 ((test or tests or testing or tested or screen*) adj4 (spoke adj4 (clinic* or provision or approach* or model*))).ti,ab.
- 29 ((test or tests or testing or tested or screen*) adj4 ("hub and spoke" or "hub-and-spoke")).ti,ab.
- 30 ((test or tests or testing or tested or screen) adj4 (access* or wait* time* or open* hour* or appointment* or book* system*).ti,ab.
- 31 ((test or tests or testing or tested or screen*) adj4 (pub or pubs or nightclub* or bar* or club* or "social event*" or "social venue*" or sauna* or brothel* or (sex* adj2 (venue* or premise*)) or ((faith or religious) adj2 setting*))).ti,ab.
- 32 Screening Tests/ or Medical Diagnosis/
- 33 or/22-32
- 34 (sex work* or prostitut* or transaction* sex or commercial sex or escort* or "commuter housewife" or "commuter housewives" or "gay for pay").ti,ab.
- 35 (hooker* or call girl* or gigolo* or gigalo* or hustler* or working girl* or streetwalker* or "street walker").ti,ab.
- 36 ((Sell* or paid*) adj4 sex*).ti,ab.
- 37 sex work/
- 38 or/34-37
- 39 ((Multiple* or many or numerous or "more than 10" or "more than ten" or "10 or more" or "ten or more" or 10+ or 10 plus) adj3 Sex* adj3 Partner*).ti,ab.
- 40 Sexual Partners/

- 41 39 or 40
- 42 (chemsex* or "chem* sex*" or "chemical sex*" or chemfun or "chem fun" or "party and play" or PNP or slamsex* or "slam* sex*").ti,ab.
- 43 ((GHB or Gamma-hydroxybutyrate or GBL or gamma-butyrolactone or mephedrone or methylmethcathinone or "crystal meth" or methamphetamine or meph or meaw or "miaow miaow" or MCAT or drug use* or drug abuse* or drug misuse* or psychoactive*) adj4 sex*).ti,ab.
- 44 (Drug Usage/ or Methamphetamine/ or "Substance Use Disorder"/) and (Psychosexual Behavior/ or Sexual Partners/
- 45 or/42-44
- 46 gay*.ti,ab.
- 47 male homosexuality/
- 48 bisexuality/
- 49 Sexual Minority Groups/
- 50 exp Transsexualism/ or Transgender/
- 51 same sex intercourse/
- 52 homosexuality/
- 53 Same Sex Couples/
- 54 men who have sex with men.ti,ab.
- 55 (same sex or non heterosexual* or non-heterosexual*).ti,ab.
- 56 MSM.ti,ab.
- 57 (transgend* or transex* or transsex* or transma* or transmen* or trans man or trans men or trans masculine or transfem* or transwom* or trans woman or trans women or transperson* or transpeopl* or trans person* or trans people* or (gender adj (queer* or fluid* or variant*)) or nonbinary or non binary or non-binary or genderless or genderqueer* or agender or bi-gender or bi gender or neutrois or crossgender* or cross-gender* or crossex* or cross-sex*).ti,ab.
- 58 (bisexual* or homosexual* or lgbt*).ti,ab.
- 59 or/46-58
- 60 38 or 41 or 45 or 59
- 61 21 and 33 and 60
- 62 limit 61 to yr="2009 -Current"
- 63 limit 62 to english language
- 64 Animals/ not (Humans/ and Animals/)
- 65 63 not 64

30. Website searching

NOTE: The website searching for review questions 2.1 and 2.2 also covered review question 2.3 so no additional website searches were carried out.

Review questions 3.1-3.2

31. Review question details

Topic: Reducing STIs

Review 1: Effective and cost-effective partner notification methods to prevent or reduce STIs

1.1 What partner notification methods for STIs are effective and cost effective?

Review 2: Acceptability of partner notification methods for STIs

2.1 What is the acceptability of partner notification methods for STIs?

32.Database strategy outline

32.1 Overview

A NICE information specialist conducted the literature searches for the evidence review. The searches for the effectiveness evidence were run on 30 January 2020. The searches for the cost effectiveness evidence were run on 7 February 2020.

The principal search strategy was developed in MEDLINE (Ovid interface) and adapted, as appropriate, for use in the other sources listed in the protocol, taking into account their size, search functionality and subject coverage.

32.2 Filters and limits

The initial search was developed in Medline. Line references below refer to the original Medline strategy.

English language limits were applied in adherence to standard NICE practice and the review protocol.

Limits to exclude letters, editorials, news and conferences were applied in adherence to standard NICE practice and the review protocol.

The search was limited from 2009 to current as defined in the review protocol. For the rerun searches there was no change to strategy apart from the date limit (from 27 January 2020 to 23 June 2021). As a result, the rerun strategies have not been included apart from the INAHTA strategy, which was a translation of the HTA strategy.

The limit to remove animal studies in the searches was the standard NICE practice, which has been adapted from: Dickersin, K., Scherer, R., & Lefebvre, C. (1994). [Systematic Reviews: Identifying relevant studies for systematic reviews](#). *BMJ*, 309(6964), 1286.

32.3 Quality assurance

The Information Services team at NICE quality assured the principal search strategy and peer reviewed the strategies for the other databases according to the standard NICE checklist that was adapted from the 2015 Peer review of electronic search strategies (PRESS) checklist.

32.4 Review management

The search results were managed in EPPI-Reviewer v5. Duplicates were removed in EPPI-R5 using a two-step process. First, automated deduplication is performed using a high-value algorithm. Second, manual deduplication is used to assess 'low-probability' matches. All decisions made for the review can be accessed via the deduplication history.

33. Search dates

Database name	Date searched	Database Platform	Database segment or version
Cochrane Central Register of Controlled Trials (CENTRAL) / Cochrane Database of Systematic Reviews (CDSR)	Original searches 30/01/20	Wiley	Issue 1 of 12, January 2020
	Rerun searches 23/06/21		Issue 6 of 12, June 2021
Econlit	Original searches 07/02/20	Ovid	Econlit 1886 to January 30, 2020
	Rerun searches 23/06/21		Econlit 1886 to June 17, 2021
Embase	Original searches 30/01/20	Ovid	Embase 1996 to 2020 January 28
	Rerun searches 23/06/21		Embase 1996 to 2021 June 22
Emcare	Original searches 30/01/20	Ovid	Ovid Emcare 1995 to 2020 week 04
	Rerun searches 23/06/21		Emcare 1995 to 2021 Week 24
HTA	Original searches 07/02/20	CRD	-
INAHTA	Rerun searches 23/06/21	-	-

Medline	Original searches 30/01/20	Ovid	Ovid MEDLINE(R) 1996 to January 28, 2020
	Rerun searches 03/03/20		Ovid MEDLINE(R) 1996 to June 18, 2021
MEDLINE-in-Process	Original searches 30/01/20	Ovid	Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations 1946 to January 28, 2020
	Rerun searches 23/06/21		MEDLINE(R) In-Process & In-Data-Review Citations 1946 to June 22, 2021
Medline Epub Ahead-of-Print	Original searches 30/01/20	Ovid	Original search: Epub Ahead-of-Print was searched as part of MEDLINE-in-Process
	Rerun searches 23/06/21		MEDLINE(R) Epub Ahead of Print <June 22, 2021
NHS EED / HTA	Original searches 07/02/20	CRD	-
PsycINFO	Original searches 30/01/20	Ovid	PsycINFO 2002 to January Week 3 2020
	Rerun searches 23/06/21		PsycInfo 2002 to June Week 2 2021

34. Number of records retrieved

34.1 Question 1.1-1.2

Search source	No. of records retrieved (original searches)	No. of records retrieved (rerun searches)	Results	De-duplicated
Cochrane Central Register of Controlled Trials (CENTRAL)	208	52	6,020	2,840
Cochrane Database of Systematic Reviews (CDSR)	7	0		
Embase	1,954	324		
Emcare	853	144		
Medline	1,643	230		
MEDLINE-in-Process (including Epub Ahead-of-Print)	219			
MEDLINE-in-Process		54		
Medline Epub ahead of print		31		
PsycINFO	285	16		
Cost effective searches				
Econlit	7	1		

Embase	268	49	603	372
HTA	3	-		
INAHTA	-	1		
Medline ALL	225	29		
NHS EED	20	-		

35.Database search strategies

35.1 Cochrane Central Register of Controlled Trials (CENTRAL) / Cochrane Database of Systematic Reviews (CDSR)

35.1.1 Original searches

#1	MeSH descriptor: [Herpes Genitalis] this term only	393	
#2	MeSH descriptor: [Herpes Simplex] this term only	277	
#3	((genital* or simplex*) near/3 herpes*):ti,ab,kw (Word variations have been searched)		1941
#4	(chlamydia*):ti,ab,kw (Word variations have been searched)	1781	
#5	MeSH descriptor: [Chlamydia Infections] this term only	458	
#6	MeSH descriptor: [Chlamydia] this term only	30	
#7	MeSH descriptor: [Chlamydia trachomatis] this term only	310	
#8	((genital* or anogenital* or ano-genital* or venereal*) near/3 wart*):ti,ab,kw (Word variations have been searched)	427	
#9	MeSH descriptor: [Condylomata Acuminata] this term only	261	
#10	(condylomata acuminata):ti,ab,kw (Word variations have been searched)		320
#11	MeSH descriptor: [Papillomavirus Infections] this term only	674	
#12	((papillomavirus near (human* or infect*)):ti,ab,kw (Word variations have been searched)	2108	
#13	(hpv):ti,ab,kw (Word variations have been searched)	2645	
#14	MeSH descriptor: [Gonorrhoea] this term only	449	
#15	((Gonorrhoea* or Gonorrhoea*):ti,ab,kw (Word variations have been searched)		1378
#16	MeSH descriptor: [Syphilis] this term only	123	
#17	(syphilis*):ti,ab,kw (Word variations have been searched)	656	
#18	((lymphogranuloma venereum or lgv):ti,ab,kw (Word variations have been searched)		24
#19	MeSH descriptor: [Lymphogranuloma Venereum] this term only	9	
#20	MeSH descriptor: [Trichomonas vaginalis] this term only	51	
#21	((trichomonas vaginali* or Trichomoniasi*):ti,ab,kw (Word variations have been searched)	438	
#22	MeSH descriptor: [Trichomonas Infections] this term only	51	
#23	MeSH descriptor: [HIV Infections] this term only	9590	
#24	MeSH descriptor: [HIV] this term only	389	
#25	((hiv or human Immunodeficiency Virus*):ti,ab,kw (Word variations have been searched)	25503	
#26	((mycoplasma genitalium or Mgen):ti,ab,kw (Word variations have been searched)		54
#27	MeSH descriptor: [Mycoplasma genitalium] this term only	12	
#28	MeSH descriptor: [Sexually Transmitted Diseases] this term only	815	
#29	((sexually near/2 transmit* near/2 (disease* or infection*)) or sti or std):ti,ab,kw (Word variations have been searched)	3644	
#30	((venereal* near/2 (disease* or infection*)):ti,ab,kw (Word variations have been searched)	44	
#31	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30	34130	
#32	((contact* or contract* or partner*) near/2 (trac* or notif* or manage*)):ti,ab,kw (Word variations have been searched)	426	
#33	MeSH descriptor: [Contact Tracing] this term only	75	
#34	((provider* or patient* or contact* or contract* or conditional*) near/2 refer*):ti,ab,kw (Word variations have been searched)	7995	
#35	((accelerated partner near (therap* or treat*)):ti,ab,kw (Word variations have been searched)	11	
#36	((expedited partner near (therap* or treat*)):ti,ab,kw (Word variations have been searched)	13	
#37	((enotif* or e-notif*):ti,ab,kw (Word variations have been searched)	0	
#38	#32 or #33 or #34 or #35 or #36 or #37	8394	
#39	#31 and #38 with Cochrane Library publication date Between Jan 2004 and Jan 2020, in Cochrane Reviews	7	
#40	#31 and #38	436	
#41	(clinicaltrials or trialsearch):so	277406	
#42	#40 not #41	368	
#43	"conference":pt	169256	
#44	#42 not #43 with Publication Year from 2004 to 2020, in Trials	208	

#45 #31 and #38 with Cochrane Library publication date Between Jan 2004 and Jan 2020, in Cochrane Reviews 7

Notes

Line 44: downloaded as CENTRAL results

Line 39: downloaded as CDSR results

35.2 Econlit

35.2.1 Original searches

```
1 ((genital* or simplex*) adj3 herpes*).ti,ab.
2 chlamydia*.ti,ab.
3 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
4 "condylomata acuminata".ti,ab.
5 (papillomavirus adj (human* or infect*)).ti,ab.
6 hpv.ti,ab.
7 (Gonorrhea* or Gonorrhoea*).ti,ab.
8 syphilis*.ti,ab.
9 (lymphogranuloma venereum or lgv).ti,ab.
10 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
11 (hiv or human Immunodeficiency Virus*).ti,ab.
12 (mycoplasma genitalium or Mgen).ti,ab.
13 (venereal* adj2 (disease* or infection*)).ti,ab.
14 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
15 or/1-14
16 ((contact* or contract* or partner*) adj2 (trac* or notif* or manage*)).ti,ab.
17 ((provider* or patient* or contact* or contract* or conditional*) adj2 refer*).ti,ab.
18 (accelerated partner adj (therap* or treat*)).ti,ab.
19 (expedited partner adj (therap* or treat*)).ti,ab.
20 (enotif* or e-notif*).ti,ab.
21 or/16-20
22 15 and 21
23 limit 22 to yr="2004 -Current"
```

35.3 Embase

35.3.1 Original searches

```
1 genital herpes/
2 herpes simplex/
3 ((genital* or simplex*) adj3 herpes*).ti,ab.
4 chlamydia*.ti,ab.
5 Chlamydia trachomatis/ or Chlamydia/
6 chlamydiasis/
7 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
8 condyloma acuminatum/
9 "condylomata acuminata".ti,ab.
10 papillomavirus infection/
11 (papillomavirus adj (human* or infect*)).ti,ab.
12 hpv.ti,ab.
13 gonorrhea/
14 (Gonorrhea* or Gonorrhoea*).ti,ab.
15 syphilis/
16 syphilis*.ti,ab.
```

- 17 (lymphogranuloma venereum or lgv).ti,ab.
 18 lymphogranuloma venereum/
 19 Trichomonas vaginalis/
 20 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
 21 trichomoniasis/
 22 Human immunodeficiency virus infection/
 23 (hiv or human Immunodeficiency Virus*).ti,ab.
 24 (mycoplasma genitalium or Mgen).ti,ab.
 25 Mycoplasma genitalium/
 26 sexually transmitted disease/
 27 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
 28 (venereal* adj2 (disease* or infection*)).ti,ab.
 29 or/1-28
 30 ((contact* or contract* or partner*) adj2 (trac* or notif* or manage*)).ti,ab.
 31 contact examination/
 32 ((provider* or patient* or contact* or contract* or conditional*) adj2 refer*).ti,ab.
 33 (accelerated partner adj (therap* or treat*)).ti,ab.
 34 (expedited partner adj (therap* or treat*)).ti,ab.
 35 (enotif* or e-notif*).ti,ab.
 36 or/30-35
 37 29 and 36
 38 limit 37 to english language
 39 (letter or editorial).pt.
 40 38 not 39
 41 animals/ not humans/
 42 40 not 41
 43 limit 42 to yr="2004 -Current"
 44 remove duplicates from 43
 45 (conference abstract or conference paper or conference proceeding or "conference review").pt.
 46 44 not 45

35.4 Emcare

35.4.1 Original searches

- 1 genital herpes/
 2 herpes simplex/
 3 ((genital* or simplex*) adj3 herpes*).ti,ab.
 4 chlamydia*.ti,ab.
 5 Chlamydia trachomatis/ or Chlamydia/
 6 chlamydiasis/
 7 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
 8 condyloma acuminatum/
 9 "condylomata acuminata".ti,ab.
 10 papillomavirus infection/
 11 (papillomavirus adj (human* or infect*)).ti,ab.
 12 hpv.ti,ab.
 13 gonorrhea/
 14 (Gonorrhea* or Gonorrhoea*).ti,ab.
 15 syphilis/
 16 syphilis*.ti,ab.
 17 (lymphogranuloma venereum or lgv).ti,ab.
 18 lymphogranuloma venereum/
 19 Trichomonas vaginalis/
 20 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
 21 trichomoniasis/
 22 Human immunodeficiency virus infection/
 23 (hiv or human Immunodeficiency Virus*).ti,ab.
 24 (mycoplasma genitalium or Mgen).ti,ab.
 25 Mycoplasma genitalium/
 26 sexually transmitted disease/
 27 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
 28 (venereal* adj2 (disease* or infection*)).ti,ab.

29 or/1-28
 30 ((contact* or contract* or partner*) adj2 (trac* or notif* or manage*)).ti,ab.
 31 contact examination/
 32 ((provider* or patient* or contact* or contract* or conditional*) adj2 refer*).ti,ab.
 33 (accelerated partner adj (therap* or treat*)).ti,ab.
 34 (expedited partner adj (therap* or treat*)).ti,ab.
 35 (enotif* or e-notif*).ti,ab.
 36 or/30-35
 37 29 and 36
 38 limit 37 to english language
 39 (letter or editorial).pt.
 40 38 not 39
 41 animals/ not humans/
 42 40 not 41
 43 limit 42 to yr="2004 -Current"
 44 remove duplicates from 43
 45 (conference abstract or conference paper or conference proceeding or "conference review").pt.
 46 44 not 45

35.5 Health Technology Assessment (HTA)

35.5.1 Original searches

1	MeSH DESCRIPTOR Herpes Genitalis
2	MeSH DESCRIPTOR Herpes Simplex
3	((((genital* or simplex*) adj3 herpes*))
4	(chlamydia*)
5	MeSH DESCRIPTOR Chlamydia Infections
6	MeSH DESCRIPTOR Chlamydia
7	MeSH DESCRIPTOR Chlamydia trachomatis
8	((((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*))
9	MeSH DESCRIPTOR Condylomata Acuminata
10	(condylomata acuminata)
11	MeSH DESCRIPTOR Papillomavirus Infections
12	((papillomavirus adj (human* or infect*)))
13	(hpv)
14	MeSH DESCRIPTOR Gonorrhoea
15	((Gonorrhoea* or Gonorrhoea*))
16	MeSH DESCRIPTOR Syphilis
17	(syphilis*)
18	((lymphogranuloma venereum or lgv))
19	MeSH DESCRIPTOR Lymphogranuloma Venereum
20	MeSH DESCRIPTOR Trichomonas vaginalis
21	((trichomonas vaginali* or Trichomoniasis*))
22	MeSH DESCRIPTOR Trichomonas Infections
23	MeSH DESCRIPTOR HIV Infections
24	MeSH DESCRIPTOR HIV
25	((hiv or human Immunodeficiency Virus*))
26	((mycoplasma genitalium or Mgen))

27	MeSH DESCRIPTOR Mycoplasma genitalium
28	MeSH DESCRIPTOR Sexually Transmitted Diseases
29	((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std)
30	((venereal* adj2 (disease* or infection*)))
31	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30
32	((contact* or contract* or partner*) adj2 (trac* or notif* or manage*))
33	MeSH DESCRIPTOR Contact Tracing
34	((provider* or patient* or contact* or contract* or conditional*) adj2 refer*)
35	((accelerated partner adj (therap* or treat*))
36	((expedited partner adj (therap* or treat*))
37	((enotif* or e-notif*))
38	#32 OR #33 OR #34 OR #35 OR #36 OR #37
39	#31 AND #38
40	(#39) FROM 2004 TO 2020
41	(#40) IN NHSEED FROM 2004 TO 2020
42	(#40) IN HTA FROM 2004 TO 2020

35.6 INAHTA

35.6.1 Rerun searches

78	2020 to 2021
77	#76 AND #69
76	#75 OR #74 OR #73 OR #72 OR #71 OR #70
75	(enotif* or e-notif*)
74	(expedited partner AND (therap* or treat*))
73	(accelerated partner AND (therap* or treat*))
72	((provider* or patient* or contact* or contract* or conditional*) AND refer*)
71	(Contact Tracing)[mh]
70	((contact* or contract* or partner*) AND (trac* or notif* or manage*))
69	#68 OR #67 OR #66 OR #65 OR #64 OR #63 OR #62 OR #61 OR #60 OR #59 OR #58 OR #57 OR #56 OR #55 OR #54 OR #53 OR #52 OR #51 OR #50 OR #49 OR #48 OR #47 OR #46 OR #45 OR #44 OR #43 OR #42
68	(venereal* AND (disease* or infection*))
67	sti or std
66	(sexually AND transmit* AND (disease* or infection*))
65	(Sexually Transmitted Diseases)[mh]
64	(Mycoplasma genitalium)[mh]
63	("mycoplasma genitalium" or Mgen)

62	(hiv or "human Immunodeficiency Virus**")
61	(HIV Infections)[mh] OR (HIV)[mh]
60	(Trichomonas Infections)[mh]
59	(trichomonas vaginali* or Trichomoniasi*)
58	(Trichomonas vaginalis)[mh]
57	(Lymphogranuloma Venereum)[mh]
56	(lymphogranuloma venereum or lgv)
55	syphilis*
54	(Syphilis)[mh]
53	(Gonorrhoea* or Gonorrhoea*)
52	(Gonorrhoea)[mh]
51	hpv
50	(papillomavirus AND (human* or infect**))
49	(Papillomavirus Infections)[mh]
48	"condylomata acuminata"
47	(Condylomata Acuminata)[mh]
46	((genital* or anogenital* or ano-genital* or venereal*) AND wart*)
45	(Chlamydia Infections)[mh] OR (Chlamydia)[mh] OR (Chlamydia trachomatis)[mh]
44	chlamydia*
43	((genital* or simplex*) AND herpes*)
42	(Herpes Genitalis)[mh] OR (Herpes Simplex)[mh]

35.7 Medline

35.7.1 Original searches

- 1 Herpes Genitalis/ or Herpes Simplex/
- 2 ((genital* or simplex*) adj3 herpes*).ti,ab.
- 3 chlamydia*.ti,ab.
- 4 Chlamydia Infections/ or Chlamydia/ or Chlamydia trachomatis/
- 5 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
- 6 Condylomata Acuminata/
- 7 "condylomata acuminata".ti,ab.
- 8 Papillomavirus Infections/
- 9 (papillomavirus adj (human* or infect**)).ti,ab.
- 10 hpv.ti,ab.
- 11 Gonorrhoea/
- 12 (Gonorrhoea* or Gonorrhoea*).ti,ab.
- 13 Syphilis/
- 14 syphilis*.ti,ab.
- 15 (lymphogranuloma venereum or lgv).ti,ab.
- 16 Lymphogranuloma Venereum/

- 17 Trichomonas vaginalis/
- 18 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
- 19 Trichomonas Infections/
- 20 HIV Infections/ or HIV/
- 21 (hiv or human Immunodeficiency Virus*).ti,ab.
- 22 (mycoplasma genitalium or Mgen).ti,ab.
- 23 Mycoplasma genitalium/
- 24 Sexually Transmitted Diseases/
- 25 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
- 26 (venereal* adj2 (disease* or infection*)).ti,ab.
- 27 or/1-26
- 28 ((contact* or contract* or partner*) adj2 (trac* or notif* or manage*)).ti,ab.
- 29 Contact Tracing/
- 30 ((provider* or patient* or contact* or contract* or conditional*) adj2 refer*).ti,ab.
- 31 (accelerated partner adj (therap* or treat*)).ti,ab.
- 32 (expedited partner adj (therap* or treat*)).ti,ab.
- 33 (enotif* or e-notif*).ti,ab.
- 34 or/28-33
- 35 27 and 34
- 36 limit 35 to english language
- 37 limit 36 to (letter or historical article or comment or editorial or news or case reports)
- 38 36 not 37
- 39 Animals/ not (Humans/ and Animals/)
- 40 38 not 39
- 41 limit 40 to yr="2004 -Current"

35.8 Medline-in-Process

35.8.1 Original searches

- 1 ((genital* or simplex*) adj3 herpes*).ti,ab.
- 2 chlamydia*.ti,ab.
- 3 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
- 4 "condylomata acuminata".ti,ab.
- 5 (papillomavirus adj (human* or infect*)).ti,ab.
- 6 hpv.ti,ab.
- 7 (Gonorrhoea* or Gonorrhoea*).ti,ab.
- 8 syphilis*.ti,ab.
- 9 (lymphogranuloma venereum or lgv).ti,ab.
- 10 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
- 11 (hiv or human Immunodeficiency Virus*).ti,ab.
- 12 (mycoplasma genitalium or Mgen).ti,ab.
- 13 (venereal* adj2 (disease* or infection*)).ti,ab.
- 14 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
- 15 or/1-14
- 16 ((contact* or contract* or partner*) adj2 (trac* or notif* or manage*)).ti,ab.
- 17 ((provider* or patient* or contact* or contract* or conditional*) adj2 refer*).ti,ab.
- 18 (accelerated partner adj (therap* or treat*)).ti,ab.
- 19 (expedited partner adj (therap* or treat*)).ti,ab.
- 20 (enotif* or e-notif*).ti,ab.
- 21 or/16-20
- 22 15 and 21
- 23 limit 22 to english language
- 24 limit 23 to (letter or historical article or comment or editorial or news or case reports)
- 25 23 not 24
- 26 limit 25 to yr="2004 -Current"

35.9 NHS EED

35.9.1 Original searches

1	MeSH DESCRIPTOR Herpes Genitalis
2	MeSH DESCRIPTOR Herpes Simplex
3	((genital* or simplex*) adj3 herpes*)
4	(chlamydia*)
5	MeSH DESCRIPTOR Chlamydia Infections
6	MeSH DESCRIPTOR Chlamydia
7	MeSH DESCRIPTOR Chlamydia trachomatis
8	((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*)
9	MeSH DESCRIPTOR Condylomata Acuminata
10	(condylomata acuminata)
11	MeSH DESCRIPTOR Papillomavirus Infections
12	((papillomavirus adj (human* or infect*)))
13	(hpv)
14	MeSH DESCRIPTOR Gonorrhea
15	((Gonorrhea* or Gonorrhoea*))
16	MeSH DESCRIPTOR Syphilis
17	(syphilis*)
18	((lymphogranuloma venereum or lgv))
19	MeSH DESCRIPTOR Lymphogranuloma Venereum
20	MeSH DESCRIPTOR Trichomonas vaginalis
21	((trichomonas vaginali* or Trichomoniasis*))
22	MeSH DESCRIPTOR Trichomonas Infections
23	MeSH DESCRIPTOR HIV Infections
24	MeSH DESCRIPTOR HIV
25	((hiv or human Immunodeficiency Virus*))
26	((mycoplasma genitalium or Mgen))
27	MeSH DESCRIPTOR Mycoplasma genitalium
28	MeSH DESCRIPTOR Sexually Transmitted Diseases
29	((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std)
30	((venereal* adj2 (disease* or infection*))
31	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30
32	((contact* or contract* or partner*) adj2 (trac* or notif* or manage*))
33	MeSH DESCRIPTOR Contact Tracing
34	((provider* or patient* or contact* or contract* or conditional*) adj2 refer*)
35	((accelerated partner adj (therap* or treat*))
36	((expedited partner adj (therap* or treat*))
37	((enotif* or e-notif*))
38	#32 OR #33 OR #34 OR #35 OR #36 OR #37
39	#31 AND #38
40	(#39) FROM 2004 TO 2020

41	(#40) IN NHSEED FROM 2004 TO 2020
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35.9.2 Rerun searches

Note: no new content has been added to NHS EED since 2015, so this was outside the remit of a rerun search.

35.10 PsycINFO

35.10.1 Original searches

- 1 Herpes Genitalis/ or Herpes Simplex/
- 2 ((genital* or simplex*) adj3 herpes*).ti,ab.
- 3 chlamydia*.ti,ab.
- 4 ((genital* or anogenital* or ano-genital* or venereal*) adj3 wart*).ti,ab.
- 5 "condylomata acuminata".ti,ab.
- 6 Human Papillomavirus/
- 7 (papillomavirus adj (human* or infect*)).ti,ab.
- 8 hpv.ti,ab.
- 9 gonorrhea/
- 10 (Gonorrhea* or Gonorrhoea*).ti,ab.
- 11 Syphilis/
- 12 syphilis*.ti,ab.
- 13 (lymphogranuloma venereum or lgv).ti,ab.
- 14 (trichomonas vaginali* or Trichomoniasi*).ti,ab.
- 15 hiv/
- 16 (hiv or human Immunodeficiency Virus*).ti,ab.
- 17 (mycoplasma genitalium or Mgen).ti,ab.
- 18 sexually transmitted diseases/
- 19 ((sexually adj2 transmit* adj2 (disease* or infection*)) or sti or std).ti,ab.
- 20 (venereal* adj2 (disease* or infection*)).ti,ab.
- 21 or/1-20
- 22 ((contact* or contract* or partner*) adj2 (trac* or notif* or manage*)).ti,ab.
- 23 ((provider* or patient* or contact* or contract* or conditional*) adj2 refer*).ti,ab.
- 24 (accelerated partner adj (therap* or treat*)).ti,ab.
- 25 (expedited partner adj (therap* or treat*)).ti,ab.
- 26 (enotif* or e-notif*).ti,ab.
- 27 or/22-26
- 28 21 and 27
- 29 limit 28 to english language
- 30 Animals/ not (Humans/ and Animals/)
- 31 29 not 30
- 32 limit 31 to yr="2004 -Current"

Website browsing

Website	
Name	British HIV Association
URL	https://www.bhiva.org/index.php
Date searched	06/02/20
Search terms (including any specific sections browsed)	Browsed: Clinical guidelines; Clinical standards; Resources; Conferences and events
Results	HIV partner notification for adults: definitions, outcomes and standards (2015)

Website	
Name	AIDSMAP
URL	https://www.aidsmap.com/
Date searched	06/02/20
Search terms (including any specific sections browsed)	Searched: partner notification
Results	<p>Public health benefits of partner notification for sexually transmitted infections and HIV: Technical report (2013) European Centre for Disease Prevention and Control</p> <p>HIV Partner Notification: a missed opportunity? (2012) National AIDS Trust</p> <p>2013 Joint BHIVA/BASHH audit of partner notification for patients with newly diagnosed HIV infection</p> <p>UK national guideline for consultations requiring sexual history taking (2013) British Association for Sexual Health and HIV</p>

Website	
Name	Society of sexual health advisers (SSHA)
URL	http://ssha.info/
Date searched	06/02/20
Search terms (including any specific sections browsed)	Partner notification
Results	<p>Guidance on Partner Notification (2015)</p> <p>Partner notification for sexually transmitted infections in the modern world: a practitioner perspective on challenges and opportunities (2012)</p> <p>The Sigma Panel: Insight Blast 4 Notifying former sex partners about STI diagnoses (2011)</p>

	The Manual for Sexual Health Advisers (2004) Chapters 1-7 deal with partner notification

Website	
Name	National Collaborating Centre for Infectious Diseases
URL	https://nccid.ca/
Date searched	06/20/20
Search terms (including any specific sections browsed)	Partner notification
Results	<p>Partner Notification for Sexually-transmitted Infections: Policy Options (2014)</p> <p>A Review of Evidence on Partner Notification Practices for Chlamydia (2014)</p> <p>HIV Partner Notification: A review of the evidence with recommendations to move the field forward (2013)</p> <p>Outcomes Related to STI Partner Notification (2013)</p> <p>New Technologies for Partner Notifications for Sexually Transmitted Infections (2013)</p>

Website	
Name	Google.co.uk
URL	www.google.co.uk
Date searched	06/20/20
Search terms (including any specific sections browsed)	Partner notification
Results	<p>Electronic partner notification (ePN) of sexually transmitted infection (2017) The Health Foundation</p> <p>2012 BASHH statement on partner notification for sexually transmissible infections</p> <p>Introducing Technology into Partner Services: A Toolkit for Programs (2015) Centers for Disease Control and Prevention</p> <p>Recommendations for Partner Services Programs for HIV Infection, Syphilis, Gonorrhea, and Chlamydial Infection (2008) Centers for Disease Control and Prevention</p> <p>Expedited Partner Therapy in the Management of Sexually Transmitted Diseases (2006) Centers for Disease Control and Prevention</p> <p>Guidelines on HIV self-testing and partner notification (2016) World Health Organization</p>

