Additional File 4. Findings of included studies with young people, by level (young people, provider, service), and sub-component (COM-B)

Heading abbreviations: COM-B = capability, opportunity, motivation, behaviour; Y = young people; P = provider level; S = service level; PhC = physical capability; PsC = psychological capability; PsC = psychological opportunity; PsC = psychological opportunity; PsC = psychological opportunity; PsC = psychological opportunity; PsC = psychological opportunity

Source	Barriers		Level				-B Sul				Facilitators	Level			COM-B Subcomponent					
		Y	P	S	PhC	PsC	RM	AM	PO	SO		Y	P	S	PhC	PsC	RM	AM	PO	SO
Balfe et al. (2009)	Stigma, embarrassment and shame about the potential social consequences of being known to attend a health service for testing, discredit young adults' identities	1						1		1	Seeing testing as a responsible practice that adults should engage in	√					1			
	Embarrassment: the testing process, having to take clothes off in front of healthcare professional (stronger for women)	1						1		1	Moral obligation	1					1			
	Shame: had unprotected sex and were ashamed, concerned healthcare provider would judge them and behaviour	1						1		1	Concerns about the damage an infection could do to future fertility	✓					1			
	No symptoms therefore not urgent	1					1				Perceived risk status of respondents' sexual partners	1					1			
	Cost	1		1					1		Anxieties about the risk that asymptomatic STIs could affect them without their knowledge	1					1			
Balfe et al. (2010)	Testing seen as a threat to young women's identities: anxieties about promiscuity (risk takers) and identity discreditation	1						1			Preference for testing offers from younger female healthcare professions, not receptionist	1		1					✓	
	Would not accept tests from 'para-professionals' (healthcare professionals who were not doctors nor nurses) who worked in public settings (reception areas).	1		1					1		Test offered in private areas, rather than in more public settings (e.g., reception areas)	1							1	
	Offers framed in moral surveillance style, undermined identities were likely to be rejected	1					1				More likely to accept if emphasised that testing is a normal practice and is a good, responsible thing to do	1	1				1			
	Stigma of having an infection	1								1										
Brugha et al.	Testing located in pharmacies and public non-health care	1		1					1		Most women wanted to be offered test by a female	✓	1				✓		✓	

(2011)	settings								healthcare professional (65%)								
	Cost	✓		1			1		Most wanted to be offered test by a doctor (75%), 50% of males and 80% of would feel comfortable being test by nurses	1	1					1	
									Preference for urine-based test (90%)	1		1				1	
Ewert et al. (2016)	Embarrassment: talking to someone about personal information	✓				✓			Increase education: sexual health education in schools	1		1	1				
	Embarrassment: if others and parents were to find out	✓				✓		1	Increase awareness: public health campaigns, e.g., TV advertising	1		1	1				1
Heritage & Jones	Tests offered by receptionists			1			1		Preference for urine samples over self-taken vulval swabs	1		1				1	
(2008)	Policy targeting females only			1				1									
	Embarrassment and fear	1				1											
	Partner tracing caused concern	1					1	1									
	Lack of privacy in reception area	1		1			1	1									
	Parent being present during consultation	✓						1									
Hogan et al. (2010)	Embarrassment: to admit to unprotected sex	✓				✓			Raise awareness: marketing campaigns, posters, letters, leaflets and staff talking to the patients about testing		1	1	1				
	Embarrassment: in case they were seen by someone they knew	✓				✓		1	Characteristic of doctor or nurse: non-judgemental		1			1			1
	Fear of being judged by the staff at the surgery and fear of parents finding out	✓				1		1	Preference for providing the sample immediately at the practice rather than home	1		1				1	
	Scared of results: prefer to ignore the issue, easier when no symptoms	✓				✓											
	Time constraints	✓	/	1			✓										
Jones et al. (2017)	Staff judgemental attitude and being singled out as 'needing' a chlamydia test	✓				✓			Increasing patient awareness of service	1			1				
	Embarrassment: having to walk through reception with sample	1		1		✓	1		Mode of testing	1		1				1	
	Inappropriate in an unrelated consultation if the patient is religious - could cause offence	✓						1	Routine testing offered to all in age group in all consultations	1		1			1	1	1

	Time: testing in an unrelated consultation takes time away from their original reason for attending, thereby reducing quality of consultation	1		1					1									
	Forgetting to return home testing kits	1				1												
Mac											Medical provider offered a test		1				✓	
Phail et al.											Cost - free			1			✓	
(2017)											Annual reminder to test via email (>50%) or text message (40%)			1			✓	
Mills et al. (2006)	Embarrassment with sexual health issues and associations with promiscuity	1						1		1	Understanding of benefits of testing	1			1			
	Participants may not consider themselves at risk	1					1											
	Unease with vulvo-vaginal swab	✓		1					1									
	Anxiety: in relation to all stages of the testing process, from offer to receiving results	1						1										
	Stigma	1								✓								
Norman sell et al. (2016)	Fear of having identity 'tainted' or 'spoiled' by the need to get tested	1						1										
	Fear of positive result	1						1										
	Judgemental attitudes of healthcare professionals		1				1		1									
	Perception that GPs lack sufficient expertise in sexual health	1	1		1	1												
	Patient cultural and religious factors	1					1			1								
Pavlin et al. (2008)	Confronting nature of being tested for chlamydia and fear of the infection	1						1			Age-based testing (16-24 years) acceptable and non-discriminatory	1		1			✓	
	If diagnosed with chlamydia concerned would be judged and seen as sexually promiscuous, feel embarrassed and ashamed	✓						√		1	Introducing chlamydia during a sexual health-related consultation is appropriate	1	1				✓	
	Being required to disclose their sexual history	√		1						1	Normalisation: frame as a public health issue that is openly discussed rather than an issue that relates to the behaviour of	✓	1	1				√

										an individual								
										Normalisation: Widespread	1		1	/				1
										community education campaign	•		•	•				•
										No pressure put to provide a	/	/						1
										sexual history (questions relating								
										to number of partners)								
										Did not want to be contacted by	1		1				1	1
										mobile text message with	-							
										results, email more acceptable.								
										Letter to home acceptable if in								
										unmarked envelope. Phone call								
										acceptable. Face-to-face with								
										GP preferred for results								
										Anonymous contact tracing	1		✓					1
Pimenta	Dissatisfaction with receptionist	1	,	/				1	1	Reassurance that are not being	✓	/				✓		
et al.	handing out leaflets -									singled out as being "sexually								
(2003)	compromised confidentiality									active" or "at risk" of having								
										chlamydia								
										Knowing the possible long term	1			✓				
										impact on fertility								
										Knowing that chlamydia was	1			✓				
										easily treated				1				
										Urine sample is more acceptable	✓		✓			1	1	
										and less embarrassing than								
Santer et	Perceived lack of 'at risk': no				+	,				swabs Being informed of the risk of				,				+
al.		✓				1				infertility, asymptomatic nature,	1			•				
(2003)	symptoms, sexual history, perceived sexual history of									the ease of testing, infection								
(2003)	partner, perceived prevalence of									could be treated with antibiotics								
	chlamydia (not common), lack of									could be treated with antibiotics								
	awareness of chlamydia																	
Zakher	Perceived low risk (65%)	1				1				Perceived personal risk	1				1			+
& Kang	Not comfortable discussing	1				-	1			Preference for urine sample	1		1		_		1	+
(2008)	sexual matters with GP (38%)	•					•			Treference for unite sample	•		•				•	
(====)	Not seeing chlamydia as a	1			+				1	Comfortable with GP test every	1		1				1	+
	concern personally or within	•							•	two years as part of routine	•		•				•	
	their peer group									check								
	Not knowing what was involved	1			1					Check								+-
	or where to go	•			•													
	Fear of what others would think	1			1		/		1					†				<u> </u>
	Not wanting to know chlamydia	1					/											+
	status	•																
	Cost	1	<u> </u>	/				1										1