

The evidence statements

This document lists the evidence statements that support the recommendations in [NICE's guideline on Needle and syringe programmes](#). For details of which evidence statements are linked to each recommendation, see section 9 of the guideline. Only evidence statements linked to a recommendation are listed in this document.

The evidence statements are short summaries of evidence, in the reviews (see below). Each statement has a short code indicating which document it has come from and the number of the evidence statement in the document.

Evidence statement E6.2b indicates that the linked statement is numbered 6.2b in the review, 'A review of the effectiveness and cost-effectiveness of needle and syringe programmes for injecting drug users' (conducted for the original guidance).

Evidence statement Q3.3a indicates that the linked statement is numbered 3.3a in the review, 'Injecting equipment schemes for injecting drug users: qualitative evidence review' (conducted for the original guidance).

Evidence statement U2b indicates that the linked statement is numbered 2b in the review, 'Update of NICE guidance PH18 on needle and syringe programmes: qualitative and quantitative review updates'.

Evidence statement Y10 indicates that the linked statement is numbered 10 in the review, 'Injecting drug use among young people – risk, harm and factors affecting access to services: a systematic review of the evidence'.

Please note that the wording of some evidence statements has been altered slightly from those in the evidence reviews to make them more consistent with each other and NICE's standard house style.

The evidence reviews are:

The evidence statements. Needle and syringe programmes (PH52)

Original guidance

The [evidence](#) used to develop the original guidance included:

- Evidence reviews:
 - 'A review of the effectiveness and cost-effectiveness of needle and syringe programmes for injecting drug users'.
 - 'Injecting equipment schemes for injecting drug users: qualitative evidence review'
- Economic modelling:
 - 'Assessing the cost-effectiveness of interventions linked to needle and syringe programmes for injecting drug users: an economic modelling report'.

Updated guidance

The evidence that the PHAC considered for the updated guidance included:

- [Evidence and policy reviews](#):
 - Review 1: 'Update of NICE guidance PH18 on needle and syringe programmes: qualitative and quantitative review updates'
 - Review 2: 'Update of NICE guidance PH18 on needle and syringe programmes: PIEDs review'
 - Review 3: 'Injecting drug use among young people – risk, harm and factors affecting access to services: a systematic review of the evidence'
 - Policy review and consensus development exercise: 'Analysis of national and local policy and protocols on the delivery of needle and syringe programme services to young people under 18: policy review and consensus development exercise'

The reviews are available [online](#).

Original review : 'A review of the effectiveness and cost-effectiveness of needle and syringe programmes for injecting drug users'

Evidence statement E5.1a

There is evidence from 1 good quality (++)¹ and 5 moderate quality (+)²⁻⁶ systematic reviews and meta-analyses that participation in needle and syringe programmes reduces injection risk behaviours among people who inject drugs, in particular self-reported sharing of needles and syringes, and frequency of injection. The evidence is not clear in relation to the impact of participation in needle and syringe programmes on sharing of other injection equipment such as cookers, filters or water because few studies have examined these outcomes.

¹ Tilson et al. 2006, ² Gibson et al. 2001, ³ Cross et al. 1998, ⁴ Ksobiech 2003, ⁵ Ksobiech 2006, ⁶ Ritter and Cameron 2006

Evidence statement E5.1b

There is evidence from 2 good quality (++) systematic reviews^{1,2} to support the effectiveness of needle and syringe programmes in reducing HIV infection among people who inject drugs. However, findings from 2 other systematic reviews^{3,4}, including 1 high-quality (++) review, suggest that the evidence may be less convincing. There is insufficient evidence from 2 systematic reviews^{5,6} to determine the impact of needle and syringe programmes on hepatitis C virus infection in people who inject drugs.

¹ Wodak and Cooney 2004, ² Gibson et al. 2001, ³ Tilson et al. 2006, ⁴ Kall et al. 2007, ⁵ Tilson et al. 2006, ⁶ Wright et al. 2005

Evidence statement E5.1c

There is evidence from 2 good quality (++) systematic reviews^{1,2} to suggest that access to sterile needles and syringes through pharmacies provides

The evidence statements. Needle and syringe programmes (PH52)

specific benefits in addition to those available through specialist needle and syringe programmes.

¹ Wodak and Cooney 2004, ² Tilson et al. 2006

Evidence statement E6.3b

There is evidence from 1 moderate quality (+) cohort study¹ to suggest that the provision of needle and syringe programme-based healthcare services may decrease emergency department admissions.

¹ Pollack et al. 2002

Evidence statement E6.3c

There is evidence from 1 moderate quality (+) cohort study¹ and 1 poor quality (-) cross-sectional study² to suggest that people who inject drugs who obtain their needles exclusively from needle and syringe programmes are less likely to engage in high risk injection behaviours than those who obtain them from secondary distribution. However, there is evidence from 2 poor quality (-) cross-sectional studies^{3,4} to suggest that people who inject drugs who obtain needles from secondary distribution engage in high risk injection behaviours less than people who inject drugs who do not obtain any needles, directly or indirectly, from needle and syringe programmes.

¹ Tyndall et al. 2001, ² Huo et al. 2005, ³ Sears et al. 2001, ⁴ Huo et al. 2005

Evidence statement E6.4b

There is evidence from 1 moderate quality (+) cohort study¹ to suggest that the combination of methadone treatment and full participation in needle and syringe programmes reduces the incidence of HIV and hepatitis C virus among drug users.

¹ Van Den Berg et al. 2007

Evidence statement E7.1a

There is evidence from 11 cost-effectiveness analyses (6 [+]¹⁻⁶ and 5 [-]⁷⁻¹¹) and 1 cost-benefit analysis (+)¹² to suggest that in terms of reducing HIV

The evidence statements. Needle and syringe programmes (PH52)

incidence and prevalence among people who inject drugs, needle and syringe programmes are cost effective.

¹ Cabases and Sanchez 2003, ² Cohen et al. 2004, ³ Harris 2006, ⁴ Kumaranayake et al. 2004, ⁵ Laufer 2001, ⁶ Vickerman et al. 2006, ⁷ Cohen et al. 2006, ⁸ Gold et al. 1997, ⁹ Holtgrave et al. 1998, ¹⁰ Jacobs et al. 1998, ¹¹ Lurie and Drucker 1997, ¹² Health Outcomes International et al. 2002

Evidence statement E7.1b

There is evidence from 2 cost-effectiveness analyses (1 [+]¹ and 1 [-]²) to suggest that intervention coverage may be increased to higher levels at a low cost per HIV infection averted.

¹ Vickerman et al. 2006, ² Holtgrave et al. 1998

Evidence statement E7.1c

There is evidence from 1 cost-effectiveness analysis (+)¹ to suggest that cost-effective allocation within a multi-site needle and syringe programme requires that sites are located where the density of people who inject drugs is highest and that the number of syringes exchanged per client is equal across sites.

¹ Harris 2006

Original review: 'Injecting equipment schemes for injecting drug users: qualitative evidence review'

Evidence statement Q3.2a

There is evidence from 1 moderate quality (+)¹ US study that the features of a successful needle and syringe programme include: flexibility in process and management models, knowledge, coalition building and community involvement, strong leadership, staging debate with sensitivity to political and cultural norms, access to resources, use of research, and overcoming fear.

¹ Downing 2005

The evidence statements. Needle and syringe programmes (PH52)

Evidence statement Q3.3a

There is evidence from 1 good quality (++)¹ UK study and 2 moderate quality (+)^{2,3} UK studies to suggest that immediate availability of injecting equipment is more important to injecting drug users than perceptions of risk associated with injecting behaviour.

¹ Power 1996, ² Barnard 1993, ³ Neale 1998

Evidence statement Q3.3b

There is evidence from 2 good quality (++)^{1,2} UK studies and 3 moderate quality (+) studies³⁻⁵, 2 of which are from the UK, that pharmacy-based needle and syringe programmes are popular with injecting drug users. Pharmacies were rated more highly than drug agency-based needle and syringe programmes for accessibility in 3 UK studies; although in another 2 UK studies, embarrassment, negative staff attitudes or fear of exposure led to negative feelings about pharmacy-based needle and syringe programmes, particularly in women. Agency-based needle and syringe programmes were rated more highly than pharmacies for advice and information.

¹ Matheson 1999, ² Power 1996, ³ Clarke 2001, ⁴ Lewis 1996, ⁵ Neale 1998

Evidence statement Q3.3c

There is evidence from 1 good quality (++) UK study¹, 1 good quality (++) US study², 1 moderate quality (+) UK study³, 2 moderate quality (++) US studies^{4,5} and 1 poor quality (-) UK study⁶ to suggest that convenience or otherwise (specifically opening hours, location and queues) of needle and syringe programmes are very important to people who inject drugs and can influence decisions on whether to obtain equipment from them or from street sellers or via secondary distribution.

¹ Power 1996, ² Finlinson 2000, ³ Neale 1998, ⁴ Voytek 2003, ⁵ Miller 200, ⁶ Hay 2001

Evidence statement Q3.3d

There is evidence from 2 good quality (++)^{1,2} studies, 1 of which is from the UK, and 6 moderate quality (+) studies³⁻⁸, 2 of which are from the UK, to suggest that people who inject drugs are not a homogeneous group: there are different cultures, some of whom disapprove of others' drug using behaviours and some of whom are more affluent than others. Fear of being caught and publicly exposed as a drug user (to police [USA studies], neighbours or family [UK studies]) is a prominent theme and can impact upon use of needle and syringe programmes and other services, with some people who inject drugs preferring secondary distribution for this reason.

¹ Matheson 1998, ² Strenski 2000, ³ Buchanan 2003, ⁴ Murphy 2004, ⁵ Neale 1998, ⁶ Spittal 2003, ⁷ Strike 2005, ⁸ Voytek 2003

Evidence statement Q3.4a

There is evidence from 2 moderate quality (+) UK studies^{1,2} of gender differences in patterns of equipment sharing and use of services. Women are less likely than men to share equipment with friends, preferring to share only with their sexual partner. Women are also more likely to have negative feelings about using pharmacy-based needle and syringe programmes and to obtain equipment by secondary distribution, particularly with their sexual partner.

¹ Barnard 1993, ² Neale 1998

Evidence statement Q3.4b

There is evidence from 3 good quality (++)¹⁻³ and 1 moderate quality (+) study⁴ to suggest that a range of harm reduction interventions (referrals to drug treatment and other services, HIV testing, medical care) in addition to needle and syringe programmes were accessed and valued by people who inject drugs.

¹ Long 2004, ² Power 1996, ³ Porter 2002, ⁴ Phillips 2007

The evidence statements. Needle and syringe programmes (PH52)

Evidence statement Q3.4c

There is evidence from 3 good quality (++)¹⁻³ studies, 1 of which is from the UK, and 6 moderate quality (+)⁴⁻⁹ studies, 1 of which is from the UK, that secondary distribution is a valued method for obtaining sterile syringes because it is convenient and relieves the fear of exposure.

¹ Finlinson 2000, ² Power 1996, ³ Moore 1995, ⁴ Voytek 2003, ⁵ Grund 1992, ⁶ Miller 2001, ⁷ Murphy 2004, ⁸ Neale 1998, ⁹ Snead 2003

Evidence statement Q3.5a

In 2 UK studies (1 good quality [++]¹ and 1 moderate quality [+]²), people who inject drugs obtained oral methadone prescriptions from the same pharmacy they used for needle and syringe exchange. A need for privacy when collecting needles and taking oral methadone was expressed.

¹ Clarke 2001, ² Matheson 1998

Evidence statement Q3.6a

There was evidence from 1 good quality (++)¹ US study and 2 moderate quality (+) studies^{2,3}, 1 of which was from the UK, that the general public, particularly religious groups, had concerns about the ethics or morality of providing syringes and needles to injecting drug users, with some stating that it was helping them (people who inject drugs) to harm themselves; others were more concerned that it discouraged people who inject drugs from taking personal responsibility for their drug use.

¹ Springer 1999, ² Lawrie 2005, ³ Shaw 2006

Evidence statement Q3.6b

There was evidence from 3 moderate quality (+) studies¹⁻³, 1 of which was from the UK, that the general public and people who inject drugs themselves had some concerns about the environmental and health consequences (for example, discarded needles and increased crime) of fixed site needle and syringe programmes. In some cases direct opposition came from a vocal, more affluent, minority.

¹ Lawrie 2005, ² Shaw 2006, ³ Tempalski 2007

Review 1: ‘Update of NICE guidance PH18 on needle and syringe programmes: qualitative and quantitative review updates’

Evidence statement U1a: Needle and syringe coverage and injection risk behaviours

There is evidence from 2 moderate quality (+) cross-sectional studies about the association between individual levels of syringe coverage and injection risk behaviours among people who inject drugs. One study¹ reported that a level of 60% syringe coverage may be sufficiently adequate to effectively reduce injection risk behaviours among people who inject drugs. The other study² found that despite a high level of coverage among the overall sample, inadequate syringe coverage was associated with syringe re-use (Adjusted Odds Ratio [AOR] 0.56, 95% confidence interval [CI] 0.42–0.74). This evidence is only partially applicable to the UK as these 2 studies were conducted in Australia where needle and syringe availability is likely to be higher than may be commonly found across the UK.

¹ Bryant et al. 2012, ² Iversen et al. 2012

Evidence statement U1b: Proximity to needle and syringe programme and injection risk behaviours

There is evidence from 5 moderate quality (+) cross-sectional studies about the association between geographical proximity to needle and syringe programmes and injection risk behaviours. The evidence about the association is based on studies conducted in diverse settings. One study¹ found that a temporal increase in access to needles and syringes was associated with greater odds of injecting with a sterile syringe at least 75% of the time (needle and syringe programme: AOR 1.23, 95% CI 1.01–1.52; pharmacy: AOR 1.15, 95% CI 1.03–1.27). Further studies^{2,3} showed that this association was undermined by drug-related arrests. Another study⁴ found

The evidence statements. Needle and syringe programmes (PH52)

that distances between 4 locations used by people who inject drugs in purchasing and using drugs were associated with injection risk behaviours. A fifth study⁵ found that the association between distance to needle and syringe programmes and high-risk injection behaviour was non-linear and that proximity to a needle and syringe programme was associated with high-risk injection behaviour. This evidence is only partially applicable to the UK. Four studies¹⁻⁴ were from the USA, where needles and syringes are sold over the counter in pharmacies and in settings where needle and syringe programmes may have formerly been illegal. One further study⁵ was conducted in a setting where needle and syringe availability is likely to be higher than may be commonly found across the UK.

¹ Cooper et al. 2011, ² Cooper et al. 2012a, ³ Cooper et al. 2012b, ⁴ Williams and Metzger 2010, ⁵ Bruneau et al. 2008

Evidence statement U2b: Profile of people who inject drugs who use vending machines

There is moderate evidence from 5 (4 [+] and 1 [-]) cross-sectional studies¹⁻⁵ about the characteristics and risk behaviour profiles of people who inject drugs who use needle and syringe vending machines (NSVM). There was evidence from 4 studies¹⁻⁴ to suggest that people who inject drugs who use NSVM tend to be younger¹⁻⁴ and have a shorter history of injecting drug use than users of other types of needle and syringe programmes^{1,3}. There was further evidence from 5 studies¹⁻⁵ to suggest that sharing behaviours among NSVM users did not differ significantly from users of other types of needle and syringe programmes. This evidence is partially applicable to the UK because although studies were conducted across a range of settings, none were directly applicable to a UK context.

¹ Islam et al. 2008a, ² McDonald 2009, ³ Moatti et al. 2001, ⁴ Obadia et al. 1999, ⁵ Stark et al. 1994

Evidence statement U2c: Profile of people who inject drugs who use outreach and mobile outlets

There is moderate evidence from 1 (++) cohort study¹ and 4 (2 [++] and 2 [+]) cross-sectional studies about the characteristics and risk behaviour profiles of people who inject drugs who use outreach and mobile outlets. There was evidence from 5 studies¹⁻⁵ to suggest that people who inject drugs who use outreach and mobile outlets have different characteristics to users of fixed-site and pharmacy needle and syringe programme services, and represent a high-risk group of people who inject drugs. There was mixed evidence from 3 studies³⁻⁵ about sharing behaviours among outreach and mobile users. Two studies^{3,5} did not identify an association, but 1 study⁴ reported an association between using a needle that had already been used by someone else and use of a mobile van needle and syringe programme. This evidence is partially applicable to the UK as although studies were conducted across a range of settings, none were directly applicable to a UK context. Four studies^{1-3,5} were conducted in a setting with a high proportion of cocaine injectors among people who inject drugs and a significant proportion of participants in the fifth study⁴ was African American.

¹ Deering et al. 2011, ² Hayashi et al. 2010, ³ Miller et al. 2002, ⁴ Riley et al. 2000, ⁵ Wood et al. 2003

Evidence statement U2e: needle and syringe programme policy changes

There was moderate evidence from 2 (+) cohort studies^{1,2} that examined associations between changes in needle and syringe programme policies and needle and syringe programme user status¹, and injection risk behaviours². One study¹ found that changes to the cap on the number of needles and syringes that could be exchanged did not have a direct impact on needle and syringe programme use but increased secondary distribution. Another study² found that a significant change in needle and syringe programme policy and diversification of services was associated with reductions in injection risk behaviours. This evidence may only be partially applicable to the UK because needle and syringe programme policies in 1 study¹, which was conducted in

The evidence statements. Needle and syringe programmes (PH52)

the USA, were more restrictive in comparison to policies in the UK and in the second study² were likely to be more liberal than may commonly be found across services in the UK.

¹ Green et al. 2010, ² Kerr et al. 2010

Evidence statement U3a: Uptake of injection paraphernalia and sharing of equipment

There is moderate evidence from 1 (+) cross-sectional study¹ about the association between the uptake of injection paraphernalia (specifically filters, spoons or sterile water) from needle and syringe programmes and sharing of such equipment among people who inject drugs. There is evidence from this study to suggest that a shortfall in injecting paraphernalia among people who inject drugs is associated with increased odds of sharing (for example, shortfall of more than 10 filters: AOR 1.55, 95% CI 1.12–2.14). In addition, evidence from this study suggests that uptake of injecting paraphernalia from needle and syringe programmes is associated with reductions in sharing (for example, uptake of at least 1 spoon: AOR 0.61, 95% CI 0.45–0.82). This evidence is directly applicable to the UK.

¹ Allen et al. 2012

Evidence statement U3b: Crack kit distribution

There is weak evidence from 1 (–) repeat cross-sectional study¹ to suggest that distribution of crack kits from needle and syringe programmes may reduce the frequency of injecting drug use among people who inject drugs by facilitating the transition to other routes of administration (for example, from injecting to smoking). This evidence is only of limited applicability to the UK because the setting in which the study was conducted included a high proportion of crack smoking among people who inject drugs.

¹ Leonard et al. 2008

Evidence statement U3c: Drop box presence

There is moderate evidence from 1 (+) study¹ based on a time series approach and 1 (+) controlled before and after study² about the association between the installation of drop boxes and changes in the quantity of discarded needles. One study² of 4 drop boxes did not find a change in the number of discards but a second study¹ found that the presence of an outdoor drop box was associated with reduction of discards within 25 m (98%), 50 m (92%), 100 m (73%) and 200 m (71%) buffer zones. This evidence is only partially applicable to the UK because both studies were conducted in cities in North America; in addition, 1 study¹ was conducted in a city where cocaine (associated with frequent daily injection) was the drug of choice among people who inject drugs.

¹ de Montigny et al. 2010, ² Riley et al. 1998

Evidence statement U5: Pharmacies

Five studies¹⁻⁵ (all [+]) examined views and perspectives on, and experiences of, pharmacies as a setting for needle and syringe distribution and exchange. Two studies^{1,2} identified convenience and accessibility as the main reasons for people who inject drugs accessing needle and syringes from pharmacies. Three studies^{1,3,4} identified that people who inject drugs had encountered both positive and negative experiences in pharmacies. A theme relating to the need for mutual respect among people who inject drugs and pharmacy staff was identified in 2 studies^{1,5} This evidence is directly applicable to a UK context.

¹ Trealoar et al. 2010, ² Vorobjov et al. 2009b, ³ Lutnick et al. 2012,

⁴ Mackridge et al. 2010, ⁵ Mackridge and Scott 2009

Evidence statement U6: Needle and syringe vending machines

Two studies^{1,2} (both [+]) explored views and perspectives on vending machines. Although participants in both studies reported a general acceptance of the benefits of NSVMs, the potential ease of access of needles and syringes from vending machines was raised as a major potential public

The evidence statements. Needle and syringe programmes (PH52)

health and safety issue. However, in 1 study¹ there was a consensus among participants (who were people who inject drugs and drugs workers) that making needles and syringes more accessible from vending machines would not encourage people to start injecting drugs. This evidence is likely to be directly applicable to the UK.

¹ Dodding and Gaughwin 1995, ² Philbin et al. 2009

Evidence statement U7: Additional harm reduction services

Five studies¹⁻⁵ (all [+]) reported views and perspectives on, and experiences of, additional harm reduction services offered by specialist needle and syringe programmes and pharmacies. Two studies^{1,2} identified that trusting relationships between people who inject drugs and needle and syringe programme staff were felt to be key to facilitating engagement in additional harm reduction services in specialist needle and syringe programme settings. Two studies^{3,4} explored the potential for additional harm reduction services to be delivered by pharmacies. Expansion of services was desired by both people who inject drugs and pharmacy staff. However, barriers to expansion were identified including the need to tackle negative attitudes towards people who inject drugs by some pharmacy staff, and the need to identify private spaces for the delivery of such services. One study⁵ acknowledged that opportunities for disseminating information to users of NSVMs were limited but participants in this study did not feel that this was a major concern. This evidence is directly applicable to the UK.

¹ Parker et al. 2012, ² MacNeil and Pauly 2011, ³ Mackridge et al. 2010, ⁴ Lutnick et al. 2012, ⁵ Dodding and Gaughwin 1995

Evidence statement U8: Drop boxes and drug-related litter bins

Four studies¹⁻⁴ (1 [++] and 3 [+]) explored views and perspectives on, and experiences of drop boxes and drug-related litter bins. Two studies^{1,3} identified that discarded needles were a concern for both community members and people who inject drugs. Two studies^{3,4} that explored the views of community members identified mixed responses to drop boxes; with

The evidence statements. Needle and syringe programmes (PH52)

1 study³ finding that many fears and concerns within the community may be unfounded. Three studies²⁻⁴ identified general support for drop boxes among people who inject drugs. However, significant barriers to their use were identified in all 4 studies¹⁻⁴. One UK study² identified that the correct environmental and geographical positioning of drop boxes was crucial. In all 4 studies¹⁻⁴, participants expressed that the fear of being arrested for possession of injection paraphernalia was a barrier to the use of drop boxes. In 1 UK study², experience of arrest after the use of a drop box led to the adoption of unsafe injection practices. The evidence is likely to be applicable to the UK.

¹ Miller 2001, ² Parkin and Coomber 2011, ³ Smith et al. 1998, ⁴ Springer et al. 1999

Review 3: 'Injecting drug use among young people – risk, harm and factors affecting access to services: a systematic review of the evidence'

Evidence statement Y5: Prevalence of injecting risk behaviours

There is strong evidence from 4 controlled studies (3 [+]¹⁻³ and 1 [++]⁴) and 2 cohort studies (both [++]^{5,6}) to suggest that more than 25% of young people who inject drugs inject with a used needle or syringe. In Ireland among a sample aged less than 25 years, 56% reported ever sharing needles or syringes⁴. In San Francisco 52% of young people who inject drugs (less than 30 years) reported this behaviour in the past month⁷. In the USA 37% of young people who inject drugs aged between 12 and 18 years had ever injected with a used needle or syringe and in Moldova 13% of a similar age range (15–17 years) had shared injecting equipment in the past month^{3,4}. High prevalence (39%) of sharing needles or syringes (time frame not specified) were reported in Dublin among young people who inject drugs (median age 18) and 31% in New York (median age 23)^{1,3}.

The evidence statements. Needle and syringe programmes (PH52)

¹ Diaz et al. 2001, ² Cassin 1998, ³ Chan et al. 2011, ⁴ Busza et al. 2013, ⁵ Miller 2002, ⁶ Miller 2007, ⁷ Kral et al. 2000

Evidence statement Y6: Differences in injecting risks by age

Three controlled studies (2 [+]^{1,2}, 1 [++]³) and 2 cohort studies (both [++]^{4,5}) suggested no difference in injecting risk behaviours by age. However, there is moderate evidence from a study in the USA that compared differences in risk between 12–15 and 16–18 year olds. Among the younger group, 37% had ever injected with a used needle compared with 45% of their older peers. Among the younger group 26% re-used a needle compared with 45% of the older group, suggesting injecting risk increased with age among this very young population (1 controlled study [+]⁶). Overall, there is strong evidence from some of the above studies^{2,4,5} and an additional controlled study (++)⁷ that younger people who inject drugs more consistently reported being injected by someone else compared with their older counterparts.

¹ Diaz et al. 2001, ² Cassin, ³ Busza et al. 2013, ⁴ Miller 2002, ⁵ Miller 2007, ⁶ Chan et al. 2011, ⁷ Kral et al. 2000

Evidence statement Y13: Factors associated with use of needle and syringe programmes among young people who inject drugs

There is moderate evidence from another US controlled study (+) that younger age (19–25) was associated with inadequate syringe coverage (odds ratio [OR]=6.3, 95% CI 1.2–32.0) compared with those aged over 45 years (1.0). Other factors associated with inadequate coverage included being homeless (OR=1.6, 95% CI 1.0–2.5), being male (OR=1.6, 95% CI 1.0–2.6), injecting in a public place (OR=1.9, 95% CI 1.2–3.0) and ethnicity: black/African–American (OR=3.0, 95% CI 1.5–6.2) or Latino/Hispanic (OR=2.5, 95% CI 1.3–4.8) compared with being white. Inadequate coverage was defined as obtaining fewer needles or syringes than the number of times injected in the past month¹.

¹ Heller et al. 2009

Evidence statement Y14: Use of pharmacies

There is evidence from one Moldovan controlled study (++)¹ to suggest that in Eastern Europe young people who inject drugs use pharmacies more than needle and syringe programmes and that use of pharmacies or needle and syringe programmes rather than informal sources is associated with reduced odds of sharing injecting equipment (Romania OR=0.18, 95% CI 0.08–0.49; Moldova: OR=0.33, 95% CI 0.12–0.93; Serbia: OR=0.28, 95% CI 0.10–0.81).

¹ Busza et al. 2013