



# Targeting and tailoring stop smoking interventions to priority groups: A rapid evidence summary

Summary report: Updated August 2025

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## Executive summary

This rapid evidence summary reviews the available evidence on targeting and tailoring stop smoking interventions / tobacco dependence treatment with a focus on priority groups. The review was carried out to inform the design of new training and guidance for local authority stop smoking services and workforce.

Original research, systematic reviews and grey literature were used to identify evidence, as well as good practices for targeting and tailoring stop smoking support. This rapid review focussed on existing high-quality systematic reviews and recently published research which may not have been included in the evidence review conducted as part of the 2024 *Local Stop Smoking Services and support: commissioning, delivery and monitoring guidance* (CDMG). In addition, we consulted with national experts to identify research in progress and to assist with translating research evidence into practice.

Documented rates of stopping smoking, with and without support, are significantly lower in most priority groups. The only exception are people from the LGBTQI+ community where rates of stopping smoking are similar to the general population of people who smoke.

**The review found good evidence that interventions tailored to the characteristics of the groups or individuals being treated, also referred to as bespoke interventions, can improve rates of treatment engagement and success with reducing or stopping smoking.** Evidence and best practice on adapting and tailoring stop smoking services is more robust for some priority groups, whilst for others there is limited research but emerging good practices. Specifically, there is a larger evidence base for tailoring stop smoking support for people with severe mental illness (SMI) and those receiving treatment in drug and alcohol services. Tailored (bespoke) interventions for priority groups have been shown to improve quit attempts and smoking outcomes in most, but not all, groups; even with bespoke treatment, rates of stopping are lower than for the general population. For some groups populations, such as people experiencing homelessness, we have primarily seen success with increased rates of engagement with treatment and reduction of daily consumption of tobacco.

The key considerations and general principles for working with priority groups are summarised below along with the overarching principles for working with these groups. This includes tailoring both behavioural support, and the use of stop smoking aids to increase acceptability, engagement and stop smoking outcomes among people in priority groups.

## Considerations for tailoring treatment to priority groups

- Individuals from priority groups typically have significantly greater tobacco dependence, and therefore greater severity of tobacco withdrawal symptoms and urges to smoke, relative to the general population of people who smoke. Higher rates of tobacco dependence have been documented for people with SMI, people with drug and alcohol addictions, people living in social housing and people experiencing homelessness.
- Greater frequency and severity of tobacco withdrawal symptoms have been documented among people with mental illness, in particular people with schizophrenia that are independent of their level of tobacco dependence.
- There is strong association between smoking, enjoyment and relaxation that may be particularly relevant to smoking continuation in priority groups when compared to the general population of people who smoke. This may be due to a combination of factors that include:
  - reduced access to/presence of other forms of enjoyment
  - the perception that smoking reduces stress and promotes relaxation
- Social and other environments that promote smoking, including a greater number of people in their social networks who smoke and positive smoking identities.
- Increased levels of stress, distress and mental illness and the use of smoking as a coping mechanism.
- Greater use of smoking to cope with boredom and loneliness along with reduced access to alternative activities.
- Greater likelihood of co-addictions and dual diagnosis (mental illness and alcohol dependence).
- Greater popularity/acceptability of nicotine vapes as an aid for stopping smoking has been documented among individuals in priority groups. New research supports that when compared to nicotine replacement therapy (NRT) or nicotine analogues, vaping is a more suitable substitute for cigarette smoking among several priority groups.
- Lower levels of self-esteem, self-worth and increased likelihood of a history of trauma.
- Reduced confidence in their ability to stop smoking, greater ambivalence about stopping smoking and greater acceptability of Cut Down to Stop (CDTS) approaches to stopping.
- Some individuals who are part of priority groups tend to require longer to build trusting relationships due to a history of trauma, mental health illness or other factors.
- While data suggests that motivation to quit does not vary significantly among individuals in priority groups, there are well documented lower rates of successful stopping among individuals in priority groups, with and without treatment, when compared to the general population of people who smoke.

**This evidence review and consultation with national experts has identified factors that are either seen with increased frequency or play a larger role in tobacco dependence among members of priority groups . These include:**

- greater tobacco dependence and daily tobacco consumption and more severe withdrawal symptoms and urges to smoke
- greater enjoyment from smoking (lack of enjoyment/pleasure from other sources)
- daily routines that are associated with smoking
- greater social triggers to continue smoking
- greater distress and symptoms of mental illness and co-addictions
- socio-economic stressors and higher rates of unemployment
- greater likelihood of past or present trauma
- poorer cognitive function and greater likelihood of learning disabilities
- boredom, loneliness and social isolation playing a greater role in contributing to smoking behaviours

### **Principles for tailoring treatment to priority groups**

- Involve service users and staff from service settings who work with priority groups in the design and delivery of stop smoking support.
- Anticipate the need to provide more intensive stop smoking support (frequency of contact) and extended duration of treatment (12 weeks or longer).
- Embed support into settings in which priority groups live and/or spend time.
- Due to greater tobacco dependence there is a greater likelihood that the following will be needed:
  - Higher doses of nicotine replacement from nicotine vapes and NRT to address withdrawal symptoms and urges to smoke
  - Extended use of stop smoking aids
  - Combination of two stop smoking aids such as varenicline and NRT, or NRT and nicotine vapes
  - Behavioural support that addresses the skills needed for coping with withdrawal symptoms, urges and triggers to smoke
- Anticipate more intensive behavioural support and advanced use of pharmacotherapy for people with anxiety and schizophrenia spectrum disorder.
- Consider nicotine vapes as a first-choice treatment option, which may need to be combined with NRT or a nicotine analogue to manage tobacco withdrawal and urges to smoke.
- Make available both abrupt and CDTs approaches to stopping.
- Hire stop smoking practitioners who have background or training in working with people from priority groups including people with mental illness, and people with drug and alcohol addictions.
- Anticipate that more time may be required to build rapport with some clients, and train practitioners in trauma informed approaches to the delivery of stop smoking support.

Embedding stop smoking support in settings where individuals have developed trusting relationships can help.

- Service delivery models for priority groups should include greater flexibility, including:
  - allowing, if needed, a longer lead-in time and pre-treatment with stop smoking aids before stopping
  - where and how services are delivered
  - shorter appointment times
- Communicate using language that is tailored to increase acceptability among members of priority groups
- Recognise that symptoms of mental illness, learning disabilities and/or the effects of medications may affect the ability of individuals to engage in traditional forms of support. These can include social anxiety, difficulty concentrating, and difficulty with waking and functioning in the morning.
- Tailor communications materials to increase engagement by ensuring they resonate with, and reflect, priority groups.
- Layer support by adding additional components to the treatment plan over time as needed. This includes adding a second stop smoking aid, extending treatment support, adding digital support or more frequent contact based on the patient's response to treatment.
- Offer incentives to quit to priority groups, including people with SMI, people experiencing homelessness and people living in social housing.

The findings of this review summarise recent research and good practices for tailoring stop smoking support for all people who smoke, and particularly individuals from priority groups. The review findings add to our understanding of recommended good practice for optimising stop smoking outcomes.

There remain gaps in our understanding and, as such, there is a need to collaborate locally, regionally and nationally to better identify the needs, wants and responses of different service delivery models and tailoring approaches. Effort should be made to embed evaluation into service innovation, and to document experience with implementing tailored stop smoking support among priority groups.

# Introduction

## Aim

The aim of this rapid evidence review is to synthesise available evidence and good practice on targeting and tailoring stop smoking / tobacco dependence interventions for people who smoke, with a focus on priority groups as defined within the *Local Stop Smoking Services and support: commissioning, delivery and monitoring guidance* (CDMG).

## Context for rapid evidence summary

This rapid review of evidence will be used to inform the development of new specialist training and guidance for commissioners, service leads and practitioners working in local authority stop smoking services (LSSS). Specifically, the evidence review will assist with understanding:

- how we engage more residents in stopping with support by adapting service delivery models.
- how we increase success of stop smoking interventions by tailoring support to the needs of individuals, particularly those in priority groups.

The audience for this rapid evidence review is the co-design team responsible for the design of new national training resources. It is anticipated that this evidence review may be published as a series of NCSCT briefings for service leads and practitioners as a complement to training courses and resources.

## Methods

The scoping review included original research, systematic reviews and grey literature. The evidence review covers literature published up to March and was updated in August 2025. This review does not constitute a systematic review of the literature but rather builds on the evidence review undertaken as part of the 2024 CDMG. We focussed our scoping review on existing high-quality systematic reviews and recently published research which may not be reflected in the evidence review conducted as part of the 2024 CDMG. This was complemented by discussions with national experts in tobacco control and stop smoking support. These discussions were used to identify insights from national experts and document relevant research currently underway.

### **The review was framed by two overarching research questions:**

1. What is best practice for adapting and tailoring stop smoking support to priority groups, including behavioural support and stop smoking aids?
2. How effective was the service/intervention at supporting stopping smoking?

There have been several recent trials and evaluations of stop smoking interventions for priority groups and there are more projects underway that have yet to be published. Where appropriate, we have included boxes summarising research that is currently underway called *What's in the pipeline?*



## About this report

The report is organised in three parts:

### **Part 1: Service adaptation**

Describes evidence to support changes to the delivery of stop smoking services to increase engagement and stop smoking outcomes among priority groups.

### **Part 2: Service tailoring**

Summarises evidence for tailoring individual level behavioural support.

### **Part 3: Priority groups**

Summarises evidence on tailoring support for priority groups where available.

## Working definitions

### **Person-centred**

An approach that focuses on the needs of each person in order to provide tailored, evidence-based support. Being person-centred is about focusing care on the needs of the individual, ensuring that people's preferences, needs and values guide clinical decisions, and providing care that is respectful of and responsive to them.

### **Priority groups**

Often referred to as complex clients, these groups have higher rates of tobacco use and/or complex needs that would benefit most from targeted and tailored stop smoking support. The 2024 CDMG guidance recommended national priority groups include people in lower socio-economic groups, those living in social housing, people with mental illness, people with health conditions caused or made worse by smoking, people with multiple or complex needs (unemployed, experiencing homelessness, in contact with the criminal justice system, ethnic minorities, travelers, LGBTQI+) and pregnant women.

### **Targeted**

Stop smoking support / tobacco dependence treatment designed in a way that meets the needs of, and increases service access to, specific groups of people with high smoking prevalence.

### **Tailored**

Adapting stop smoking support / tobacco dependence treatment to the needs of individuals who smoke.

# Part 1: Service adaptation

## 1.1 Person-centred support

Question to be answered:

**What is the evidence base for person-centred stop smoking support?**

**Evidence statement:** There is good evidence and international consensus that intervention tailoring to the characteristics of the groups or individuals being treated, also referred to as bespoke interventions, can improve rates of treatment engagement and success with reducing or stopping smoking.

### Key points

- Person-centred models of care have been shown to enhance patient outcomes. [Carver 2020; Cohen 2024]
- Person-centred models have also been shown to increase job satisfaction of staff delivering support. [Gustavsson 2023]
- Good practice suggests patient-centred approaches include tailoring stop smoking treatment plans based on initial individual response, preference and tolerability to first-choice interventions, and considering second-choice options (including evidence-based combination therapies, CDTs) when needed.[Cohen 2024; McNeill 2018]

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## 1.2 Equity-orientated stop smoking support

Questions to be answered:

**What is the case for an equity-orientated approach to stop smoking service delivery?**

**What are the best practices for an equity-oriented approach to stop smoking service delivery?**

**Evidence statement:** People from priority groups benefit from tailored tobacco dependence treatment and support. Adapting treatment models and tailoring behavioural support and use of stop smoking aids to address barriers of priority groups and individuals will increase rates of stopping. Directing resources to these groups will assist with offsetting the low rates of stopping among priority groups.

### Key points

- Evaluations of English Stop Smoking Services have found that while disadvantaged clients are less successful in stopping, increased service reach has offset these lower quit rates, resulting in higher service impact among people who smoke from low socio-economic status (SES) groups.[Smith 2020; Bauld 2016; Dobbie 2015; Hiscock 2013]
- Interventions that offer tailored and targeted support (often referred to as bespoke) have shown evidence of increased engagement from priority groups and greater improvement in quit outcomes among people from disadvantaged groups who smoke.[Gilbody 2019]
- There is a large amount of evidence for informing service design and tailoring for some specific priority groups, including people with mental illness, people in addiction services, as well as a growing experience with people experiencing homelessness. [Gilbody 2019; Murray 2024]
- Research to date on bespoke interventions continues to document rates of stopping that are lower than those in the general population of people who smoke, and this should be reflected in service planning.[Gilbody 2019; Murray 2024]
- Evaluations have found that individuals with higher levels of well-being, with less dependence on tobacco, whose quit attempt was supported by a spouse or partner, and who have fewer people who smoke in their social network are more likely to be successful.[Bauld 2016; Dobbie 2015]

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## 1.3 Service delivery models

### Question to be answered:

What is the evidence for different service delivery models in supporting people to stop?

**Evidence statement:** Individuals with greater barriers to stopping will benefit from an extended duration of behavioural support; it is unlikely they will stop at high rates with minimal intervention models. Regardless of the service delivery model offered to patients, a first-choice stop smoking aid should also be offered.

### Key points

- First-choice stop smoking aids (combination NRT, varenicline, cytisine, nicotine vapes) are effective when used alone.[NICE 2025] Their effectiveness is significantly increased when combined with behavioural support.[Lindson 2019; Hartmann-Boyce 2019]
- Increased intensity and duration of behavioural support has been shown to increase success with stopping in groups at risk of relapse.[Hartmann-Boyce 2019] Extending the duration and intensity of support has also been shown to increase success with stopping among priority groups, including pregnant women, people with mental illness and people with co-addictions.[See section 3]
- Both group and individual multi-session support are effective in supporting stopping. Treatment for at least four weeks following the quit date is superior to brief advice and/or shorter periods.[Bauld 2016; Lindson 2019]
- Evidence supports that smoking cessation support is most effective and cost-effective when provided as a single intervention, rather than as part of multi-component integrated lifestyle interventions.[NCSCCT 2016]
- Evaluations to date have found that drop-ins (i.e. where people can simply drop in to see a stop smoking practitioner without an appointment) did not result in as positive cessation outcomes as other types of support.[Dobbie 2015; Bauld 2016]

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## 1.4 Embedding stop smoking support in community service organisations (outreach, co-location)

Questions to be answered:

**What is the evidence to support the role of outreach in supporting people to stop?**

**What is the evidence for co-location of services?**

**Evidence statement:** There is good evidence and identified best practice that embedding stop smoking support into settings in which people live, work or receive health or social care may increase the likelihood they will engage in support.

### Key points

- Embedding stop smoking support into settings in which people who smoke live or spend significant amounts of time results in greater engagement and may improve stop smoking outcomes via greater compliance.[Mills 2024; Wolfden 2021]
- Clients from some priority groups may have difficulty building trust and rapport with practitioners and, as such, may be more likely to engage in stop smoking support that is embedded in settings in which they are receiving treatment or support by individuals who are part of their care team.[Mills 2024]
- There is evidence and identified best practice that indicates practitioners who have been trained and have direct experience working in addiction and mental health services may be particularly well placed for utilising skills from outside tobacco control to support clients.[Gilbody 2019]

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## 1.5 Digital support

Questions to be answered:

**What is the evidence for digital stop smoking support such as digital apps, text messages and other novel technologies?**

**What are the best practices for use of digital stop smoking support in stop smoking services**

**Evidence statement:** At present, person-based interventions are considered superior to digital interventions. There has been some promising recent research in the UK that well designed digital stop smoking interventions, when utilised at regular intervals, can enhance rates of stopping smoking. Digital interventions should include the use of a stop smoking aid. At present poor compliance with digital apps has been identified as a key challenge.

### Key points

- Digital stop smoking interventions delivered via the use of information technology such as text messages or smartphone applications may assist with expanding the reach of LSSS among people who might not otherwise access support.
- Automated text message interventions may be effective in supporting people to stop smoking when compared to minimal support, or alongside other forms of stop smoking support.[Whittaker 2019]
- Overall, there is limited high-quality evidence that the addition of digital app interventions when compared to in-person support can increase success with stopping smoking.[Whittaker 2019] This does not necessarily mean digital app interventions are not effective, and there is some limited evidence to suggest that apps can have a positive effect on stopping smoking when compared to self-help or no intervention. [Whittaker 2019; Fang 2023; Sha 2022]
- There have been recent studies published which both contribute to a greater understanding of, and provide evidence to support, the role of digital interventions in aiding stopping.[Marler 2023; Bricker 2020] This includes several UK-based evaluations, such as the Greater Manchester NHS staff digital intervention which has reported promising findings in terms of increased rates of stopping.[Naughton 2024; Jackson 2024; Sivabalah 2024; White 2024]
- The use of first-choice stop smoking aids alongside digital stop smoking support increases effectiveness compared to digital support alone.[Guo 2023 ] This is consistent with evidence regarding the efficacy of stop smoking aids when delivered alongside behavioural support.[Hartmann Boyce 2019]
- While digital apps have the potential to expand reach, low rates of user engagement and retention have been documented and are associated with poorer outcomes.[Herbec 2021; Ubhi 2015]
- There have been several recent studies reporting on evaluations of digital app features that aim to assist with increasing engagement with the app (e.g. games, chatbox).[White 2024;



Panyanda] This includes evaluation of apps which are tailored to people who are ambivalent about stopping smoking. [Nair 2024]

- There is some evidence that the addition of a digital app to face-to-face support can increase efficacy of treatment. However, this evidence is limited to four studies.[Whittaker 2019]
- There is evidence that the addition of digital support to practitioner-based support may reduce face-to-face contacts without reducing effectiveness.
- Digital interventions should be designed to deliver the same evidence-based behaviour change techniques (BCTs) as other interventions to maximise their effect on smoking behaviours, particularly those that address cravings or anxiety.[Fang 2023; Sha 2022]
- There is data to suggest that interventions that are personalised and interactive are more effective.[Fang 2023]
- Chatbots (software that enables conversation with users) have been explored as a means of increasing engagement. More research is needed to provide guidance on the efficacy of chatbots for smoking cessation.[Alphonse 2022; Bricker 2024; Whittaker 2022; Rapp 2021]
- Digital interventions provide both opportunities and threats in terms of inequalities. They could be more accessible and convenient to people who have the technology and knowledge to engage, but those with poorer technology access and capability will be excluded and further marginalised, contributing to worse health inequalities.
- There have been evaluations published to assess digital apps for supporting people to stop vaping.[Lee 2024]

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## 1.6 Pre-treatment (pre-loading) of nicotine replacement

Questions to be answered:

**What is the relative effectiveness and cost-effectiveness of pre-treatment with NRT compared to standard treatment?**

**Are there groups of clients for which pre-treatment with NRT is most effective?**

**Evidence statement:** Pre-treatment with NRT and varenicline has been shown to result in a small but significant increase in success with stopping smoking. While pre-treatment has not been widely adopted by English Stop Smoking Services, it may be particularly relevant to tailoring support to people with multiple barriers to stopping and/or low confidence in their ability to stop.

### Key points

- NRT pre-loading involves the use of NRT before stopping smoking, generally one to a few weeks prior to the client's quit date.
- A 2023 Cochrane review found moderate-certainty evidence that NRT pre-loading increases rates of stopping smoking (RR 1.25, 95% CI 1.08 to 1.44; nine studies).[Theodoulou 2023]
- Nicotine pre-loading appears to facilitate smoking abstinence by reducing urges to smoke and tobacco intake before stopping and urges to smoke after stopping.
- Some evidence suggests that there is an increase in nicotine withdrawal symptoms prior to an individual's quit date which may be associated with anticipation of stopping smoking and may occur in greater frequency among individuals in some priority groups (e.g. people experiencing homelessness) and be associated with not stopping on the scheduled quit date.[Sharbin 2022]
- The pre-loading trial was a large UK-based study that tested the efficacy of four weeks of NRT pre-loading prior to smoking abstinence (i.e. quit date) and demonstrated positive effects. The study found that, at three weeks pre-quit, pre-loading NRT was associated with reduced urges to smoke ( $p < 0.001$ ), reduced cigarette consumption, reduced CO concentrations ( $p < 0.001$ ), reduced enjoyment of and satisfaction from smoking, and reduced smoking reward.[Hajek 2018] Pre-loading was associated with increased rates of abstinence and reduced urges to smoke in the post-quit period ( $p < 0.001$ ) among those who abstained from smoking.
- The study investigators identified several candidate theories for why pre-loading appears to improve success with stopping smoking: it potentially enhances self-efficacy, facilitates medication adherence post-quit, induces aversion to smoking, reduces reward from smoking or reduces the drive to smoke.[Hayek 2018]
- Pre-loading may be particularly useful for tailoring treatment to individuals with low confidence in stopping or significant past experience with withdrawal symptoms and urges to smoke.

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## 1.7 Cut Down to Stop (CDTS) approaches

Questions to be answered:

**What is the relative effectiveness and cost-effectiveness of CDTS compared to abrupt stopping? What are the best practices for CDTS?**

**Should CDTS be available to all people who smoke or certain sub-groups only?**

**What is the recommended reduction timeframe and duration of support for CDTS?**

**What is the relative effectiveness of stop smoking aids for CDTS?**

**What best practices exist for adapting BCTs that can support CDTS?**

**Evidence statement:** Individuals who feel unable to commit to stop smoking abruptly can be supported to cut down the amount that they smoke prior to a planned quit date. Support for Cut Down to Stop (CDTS) or Cut Down to Quit (CDTQ) should include use of a first-choice stop smoking aid (nicotine replacement therapy (NRT), nicotine vape or varenicline) and structured multi-session behavioural support from a trained stop smoking practitioner.

### Key points

- CDTS should be viewed as an effective stop smoking intervention, to be implemented when quitting in one go is not possible.
- CDTS is particularly useful for engaging people with severe mental illness and people experiencing homelessness.
- CDTS is distinct from smoking reduction in that it involves structured reduction with a plan to stop completely over several weeks (four to six weeks is recommended), but longer periods may be required for some.
- CDTS can appeal to people who lack confidence in their ability to stop abruptly, are more tobacco dependent and have greater barriers to stopping.
- CDTS interventions are significantly more effective when a first-choice stop smoking aid is used. There is evidence that the use of NRT and varenicline significantly increases the likelihood of stopping successfully.
- There is emerging evidence that nicotine vapes are effective as part of CDTS.
- At present, there is no reported research to evaluate the use of cytisine as part of CDTS.
- Structured support that includes multi-session behavioural support from a trained practitioner, the setting of progressive smoking reduction goals and an individualised coping plan is recommended.
- When evidence-based approaches are used, CDTS will often have a greater average cost per quit relative to abrupt stopping. However, CDTS remains a cost-effective approach to stopping because the relatively small incremental cost is offset by the significant benefits to clients who are successful. This is particularly true for people who might not otherwise engage in, or be successful with, abrupt approaches to stopping. This additional cost should be viewed as part of equity-based approaches to the delivery of stop smoking support.

- Abrupt quitting is the preferred approach to stopping smoking due to the immediate health gains when compared to CDTs and should be recommended to people who can stop in one go.

### What is the supporting evidence?

A 2019 Cochrane review evaluated evidence for smoking reduction interventions versus abrupt stopping and found no significant difference in long-term effects between the two approaches (RR 1.01, 95% CI 0.87 to 1.17;  $I^2 = 29\%$ ; 22 studies, 9219 participants). [Lindson 2019] Importantly, the review identified that smoking reduction interventions that included the use of a stop smoking aid resulted in significantly higher rates of stopping when compared to not using an aid (RR 1.68, 95% CI 1.09 to 2.58; 11 studies, 8636 participants). The evidence was strongest for use of varenicline or a faster-acting NRT product as part of the CDTs intervention. [Lindson 2019] One large high-quality study to report on use of varenicline for CDTs reported large increases in rates of stopping (RR 3.99, 95% CI 2.93 to 5.44;  $I^2 = n/a$ ; 1 study, 1510 participants). [Ebbert 2015] The use of a fast-acting NRT product was found to result in significantly higher rates of stopping (RR 2.56, 95% CI 1.93 to 3.39; 7 studies, 5323 participants). [Lindson 2019]

The review also found some evidence that, whilst the inclusion of behavioural support for smoking reduction resulted in higher quit rates than self-help alone, the ability to assess the value of behavioural support was limited due to confounding factors. As a result, more research is needed. [Lindson 2019]

Since the 2019 Cochrane review, there have been several studies looking at CDTs in specific populations. [Gentry 2019; Cinciripini 2023; Dawkins 2025] One large study ( $n=916$ ) found that the use of scheduled smoking (systematically reducing cigarette consumption according to a predetermined schedule that increases the time between cigarette consumption) when combined with NRT resulted in significantly higher quit rates than abrupt quitting with NRT. [Cinciripini 2023]

A number of studies have **examined the use of nicotine vapes as part of CDTs or smoking reduction interventions**. [Myers 2014, Foulds 2022, Rose 2023, Skelton 2022; Dawkins 2025] A systematic review reported that the effect of nicotine vapes was similar to NRT for CDTs, but concluded that there was insufficient evidence due to the small size of the studies. [Gentry 2019] A recent RCT conducted in an English LSSS ( $n=135$ ) compared eight weeks of NRT treatment versus a vaping starter kit, accompanied by limited behavioral support, among people who were unable to stop using conventional methods. [Myers 2022] The study found that **nicotine vapes were significantly more effective than NRT in supporting smoking reduction (26.5% versus 19.1%) and abstinence (6% versus 3%) at six months**. The UK based SCoTCH study reported provision of a vape starter kit (4 weeks) and training in VBA within homeless support centres resulted in significant reduction in rates of smoking relative to usual care, however modest rates of smoking abstinence at 4 and 24 weeks. [Dawkins 2025]

Systematic reviews have also found evidence that the use of stop smoking aids, particularly varenicline and nicotine, may increase rates of stopping among those who are not initially interested in stopping. [Foulds 2022; Klemperer 2016; Klemperer 2023; Wu 2015]

### What do national experts say?

National experts working with priority groups have found that newer evidence and real world experience with CDTS suggest it is an important treatment option for engaging people from priority groups.[Brose 2020, Gilbody 2019] Investigators from the University of York's SCIMITAR study, as well as investigators from University College London and King's College London, have successfully used CDTS to support stopping in people experiencing homelessness, people with severe mental illness, and people in contact with drug and alcohol services.[Gilbody 2019; Cox 2021; Cox 2022; Dawkins 2025] Experts also emphasise that CDTS involving support from nicotine vapes and/or vapes in combination with the NRT patch, to address compensatory smoking and assist with supporting individuals with withdrawal symptoms and urges to smoke, makes progressive reduction more achievable. They also note that not all people from priority groups stop smoking completely over four to six weeks, but evidence indicates those that do not stop completely reduce their daily cigarette consumption significantly.

### Views from experts

- Many patients find abrupt stopping intimidating and CDTS offers a way to provide a longer lead-in time prior to stopping smoking. CDTS is being introduced to engage more people who might not otherwise make an attempt to stop smoking.
- CDTS should remain a second-choice approach to stopping, which means if the patient is able to stop abruptly this is the recommended option. We do not want to discourage patients from stopping abruptly.
- It should be made clear that the ultimate goal is to stop smoking completely but that they will be able to do so over a few weeks. This allows clients to gain confidence in their ability to achieve reduction goals, engage in behavioural support and use of stop smoking aids.
- We want to have the CDTS offer visible as an alternative way of stopping. The CDTS offer should be communicated to clients to attract more people to services, not just as an option you learn about once you speak with a practitioner. This should be done by including the offer in brief advice delivered by referral networks (Very Brief Advice , VBA+). The offer could also be advertised via communications and marketing.

### What's in the pipeline?

**Dashes Study:** Researchers from University of Edinburgh are examining a CDTS intervention for people in drug and alcohol recovery.[Dobbie 2022]

**Trident Study:** Researchers at the University of Oxford are examining the use of nicotine vapes for CDTS among individuals with mental illness.

**CDTS in pregnancy:** Researchers at the University of Nottingham are planning the design of a study that will evaluate the role of CDTS for pregnant women who are unable to stop abruptly.

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## 1.8 Incentives

Question to be answered:

**What is the evidence regarding incentives for targeting and tailoring stop smoking support?**

**Evidence statement:** There is high-quality evidence to indicate that incentives increase engagement and rates of smoking abstinence. There is emerging evidence to indicate that people from low socio-economic status groups might benefit to a greater extent from incentives.

### Key points

- A recent update to the Cochrane review on incentives for stopping smoking included 15 new studies.[Notley 2025] The review found high-certainty evidence that incentives improve smoking cessation rates, with effects maintained at long-term follow-up and after incentives are withdrawn.[Notley 2025] The pooled odds ratio was 1.57 (95% CI 1.37 to 1.79;  $I^2 = 30\%$ ; 43 studies, 23,960 participants; high-certainty evidence).
- Evidence suggests financial incentives appear to be particularly useful to help people stop smoking if they have socio-economic disadvantage, are pregnant or recently post-partum, have a high threshold for behaviour change, and/or respond well to external rewards.(Siersbaek 2024; Breen 2021; Jenkins 2024; Businelle 2014; Wilson 2023) There is evidence that incentives can be beneficial for people with mental illness and people experiencing homelessness.(Siersbaek 2024; Businelle 2014; Wilson 2023)
- There was no noticeable difference between studies paying smaller amounts compared to those paying larger amounts.[Notley 2025]
- A systematic review by Siersbaek (2024) examined how, why and for whom financial incentives work. The review reported that financial incentives are particularly useful to help people stop smoking if they have a financial need, are pregnant or recently post-partum, have a high threshold for behaviour change, and/or respond well to external rewards. The incentives work through several mechanisms, including the role their direct monetary value can play in a person's life and through a process of reinforcement where they can help build confidence and self-esteem.
- Insights work with people who smoke in the UK indicated that those on higher incomes found programmes significantly less appealing and motivating than people with a low income, although no significant between-group differences were observed in the likelihood of enrollment.[Breen 2021] Other insights work found enrollments may be highest when incentive amounts are higher, rewards of a consistent amount in cash are provided, and sessions occur once per week in a healthcare setting.[Breen 2021]
- Economic evaluations have shown that financial incentives are cost-effective, with the greatest cost-effectiveness reported for pregnant women where direct effects on reductions on pregnancy complications and healthcare costs are seen in a short timeframe.[Notley 2025]
- A recently published large (n=320) RCT examined the efficacy of small financial rewards for stopping smoking when delivered in addition to usual care in adults with low socio-

economic status in the USA.[Kendzor 2024] The study found that adults who received incentives were more than three times as likely to stop smoking at three-month follow-up compared to participants in the usual care group. The adjusted quit rates at 26 weeks were 23.5% in the incentives group versus 12.1% in the usual care group (AOR, 2.29 [95% CI, 1.14-4.63]). The usual care involved a combination of counselling and stop smoking aids. Participants earned a mean (SD) of \$72 (\$90) (of \$250 possible) in abstinence-contingent incentives.

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## Part 2: Service tailoring (tailoring of Behaviour Change Techniques)

### 2.1 Trauma informed approaches

Question to be answered:

**What is the evidence to support the use of trauma informed approaches in tobacco dependence treatment?**

**Evidence statement:** While there has been little formal research to assess the relative value of trauma informed approaches (TIA) for tobacco dependence treatment, TIA has been widely used outside stop smoking services to tailor treatment and offer patient-centred support.

#### Key points

- Childhood trauma is associated with higher rates of substance use including smoking, drugs and alcohol. Trauma is also associated with higher levels of distress, post-traumatic stress disorder (PTSD) and mental illness.[Geaves 2016; Farris 2014; Budenz 2021; Zhu 2023; Allen 2023]
- There is a growing body of literature that supports the value of TIA in a variety of settings, including addiction services, to help ameliorate the effects on treatment outcomes.[Gilson 2007; Brown 2013; Saunders 2023; Alway 2024; Mahori 2024; Johnson Lawrence 2024; Mahon 2024; McNally 2023]
- There is limited research regarding the role of TIA in stop smoking support, but the broader literature suggests it may be relevant for effectively engaging people with a history of trauma in stop smoking support. As such, training practitioners working with patients from priority groups in TIA is good practice.[National Council of Health and Wellbeing 2022; California Dept of Health 2022; Geaves 2016; Parker 2022]

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## 2.2 Stop smoking aids

Questions to be answered:

**How can stop smoking aids be used more effectively?**

**What considerations are there for tailoring treatment using stop smoking aids?**

### 2.2.1 Individualised dosing of nicotine replacement via NRT or nicotine vapes

**Evidence statement:** To increase rates of stopping and reduce relapse, stop smoking aids should be provided at sufficient doses to minimise withdrawal symptoms and urges to smoke.

#### Key points

- Higher doses of NRT are established as safe. There is good evidence that higher doses are more effective in addressing nicotine withdrawal in people who smoke more heavily or have greater tobacco dependence.
- Evidence demonstrates that people with SMI, and in particular people with schizophrenia, experience more pronounced withdrawal symptoms and urges to smoke, and poorer responses to standard treatment doses.

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## 2.2.2 Clients with greater tobacco dependence

**Evidence statement:** There is good evidence that among people with greater tobacco dependence higher doses of nicotine replacement (via either NRT or nicotine vapes) and varenicline are more effective in reducing withdrawal symptoms and urges to smoke and increase rates of stopping. Services working with clients from priority groups, who are often more highly tobacco dependent, should have protocols which provide for higher doses of NRT/nicotine vapes and varenicline.

### Key points

- People who are more dependent on tobacco generally benefit from higher doses of NRT or nicotine vapes.[Theodoulou 2023]
- High-dose NRT is well tolerated and safe among those who are more dependent on tobacco.[Mills 2012; Shiffman 2009]
- Research has shown that a higher dose of NRT patch (42/44mg, i.e. two patches) is more effective in managing withdrawal symptoms in those who are highly tobacco dependent compared to a single NRT patch (21/25mg).[Mills 2012; Shiffman 2009; Ferguson 2006; Dale 2005] Use of a second patch may serve as a more feasible method for achieving a higher nicotine dose given it does not require frequent administration, as is the case with the faster-acting products.
- High-dose NRT has been found to be well tolerated and safe among people who are more tobacco dependent.[Mills 2012, Frederickson 2009; Dale 1995]
- While most people who smoke will not require a second patch, having flexibility within protocols to offer high-dose combination NRT to clients who are more dependent may serve to increase four-week quit rates in this population and, above all, is a safe practice.
- There is also some evidence to indicate that varenicline is more effective than NRT or bupropion in those who are more tobacco dependent.[Livingstone Banks 2023]
- While using two patches is not a well-established practice in LSSS at present, it has been a standard practice in many specialised stop smoking centres in countries such as Canada, the United States and Australia for many years.[Tulloch 2016; Hurt 2009; OMSC 2016; RACGP 2020; Mendelsohn 2013]

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### 2.2.3 Nicotine vapes

**Evidence statement:** There is strong evidence showing that nicotine vapes are effective in increasing rates of smoking abstinence and are well accepted by people who smoke in priority groups. [Lindson 2023]

#### Key points

- Greater popularity/acceptability of nicotine vapes as an aid for stopping smoking has been documented among individuals in priority groups.[See section 3]
- New research supports that, when compared to NRT or nicotine analogues, nicotine vapes are a more suitable substitute for cigarette smoking among several priority groups.[See section 3]

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## 2.2.4 Cost-free stop smoking aids and direct supply of medications

**Evidence statement:** Provision of free stop smoking aids increases compliance and stop smoking outcomes and has been shown to be highly cost-effective. Research and insights work suggests the provision of cost-free stop smoking aids and direct supply may be particularly important for increasing use of treatment among priority groups where multiple economic and other barriers exist. Direct supply should be given particular attention when tailoring support for priority groups.

### Key points

- The provision of cost-free stop smoking aids has been shown to increase use of aids, compliance with the treatment course and rates of smoking abstinence.[van den Brand 2017]
- Provision of free stop smoking aids is highly cost-effective and is one of the key roles of LSSS.[Shahab 2015; Shahab 2012; van den Brand 2017; Aksel 2021]
- Several authors have identified the importance of removing barriers to access of NRT, in particular among priority groups.[Gilbody 2020] Direct access to stop smoking aids at the site where behavioural support is being provided can remove barriers and is good practice.
- There is also good evidence regarding the cost-effectiveness of providing free nicotine vape starter kits.[Kale 2025]
- A common contribution to relapse is not using stop smoking aids for long enough. Improving access to stop smoking aids, through direct supply at no extra cost to clients, is a means of improving compliance with treatment.

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## 2.2.5 Extended treatment with stop smoking aids

**Evidence statement:** There is good evidence that extended use of stop smoking aids can reduce risk of relapse and this has been shown to be particularly true among people from priority groups, in particular people with SMI.

### Key points

- NICE guidance recommends the extended use of stop smoking aids to prevent relapse to smoking.[NICE 2021/2025]
- Extended use of stop smoking aids is one of the few interventions with proven efficacy to reduce rates of relapse to smoking.[Livingstone-Banks 2019; McRobbie 2020]
- Extended use of stop smoking aids such as NRT and varenicline is safe practice and recommended if there is a risk of relapse to smoking.[NICE 2021; Livingstone-Banks 2019]
- There is some evidence to show that extended use of stop smoking aids can be particularly useful in reducing rates of relapse among people with SMI.[See section 3.2: People with SMI]

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## 2.2.6 Varenicline and extended use of varenicline

**Evidence statement:** Varenicline is one of the most effective stop smoking aids and superior to combination NRT, with similar rates of stopping to nicotine vapes and cytisine. Rates of smoking abstinence may be improved with pre-loading and extended treatment in people who have recently stopped. Varenicline can be used as part of CDTs for people unwilling or unable to quit abruptly.

### Key points

- Gold standard evidence shows varenicline is superior to combination NRT in short- and long- term smoking abstinence.[Lindson 2021; Tonstad 2020] Varenicline has been shown to be particularly useful among individuals with greater dependence on tobacco.
- The Eagles study, the largest smoking trial conducted internationally, found varenicline was superior to NRT and bupropion in supporting smoking abstinence among people with a history of mental illness.[Anthenelli 2016]
- Studies testing varenicline to date among people with and without SMI have found no evidence of adverse effects.[Anthenelli 2016; Lindson 2023] However most of the research on varenicline has been on people with stable mental illness, with less research being available involving people with unstable mental illness [current psychotic episode].
- Varenicline is typically taken for 12 weeks. The summary of product characteristics (SPC) allows for varenicline treatment to be extended by an additional 12 weeks (total 24 weeks) in patients who would benefit.[SPC varenicline]
- Use of varenicline for 24 weeks has been shown to prevent relapse.[Lee 2008; Hajek 2009; Tonstad 2006; Lee 2008; Livingston Banks 2019; Tonstad 2020]
- Extended use of varenicline beyond 24 weeks has been found to be safe.[Livingston Banks 2019; Sansoras 2016; Williams 2007; Tonstad 2020]
- Extended use of varenicline (12 months) has been shown to increase smoking abstinence among patients with chronic obstructive pulmonary disease (COPD) who were otherwise unable to quit.[Sansores 2016]
- Varenicline has been shown to be effective when used as part of a CDTs intervention and the SPC allows for use as part of CTDS.[Lindson 2019; Klemperer 2023; Carpenter 2021]
- Risk for relapse to smoking is elevated in the period immediately following the end of treatment. The varenicline SPC recommends that for patients with a high risk of relapse, dose tapering (1.0mg to 0.5mg) may be considered.[SPC varenicline]

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### 2.2.7 Cytisine (Cytisinicline)

**Evidence statement:** Cytisine is a first-choice stop smoking aid and there is strong evidence of its efficacy in the general population of people who smoke. There is limited research specifically looking at people from priority groups, but we expect to see similar effects. Recent research supports safety and efficacy of extended use (12 weeks) as well as higher doses of cytisine, and these tailored uses are likely to be relevant to people from priority groups.

#### Key points

- Cytisine is as effective as varenicline and nicotine vapes for smoking abstinence and slightly more effective than combination NRT. [Puljevic 2024; Lindson 2023]
- A recently published trial by Rigotti tested extended use of high-dose (300mg daily) cytisine. This landmark trial found that extended use of cytisine for 12 weeks was superior to standard doses.[Rigotti 2023]
- The recently published ORCA-v1 trial found evidence to support the use of 12 weeks of cytisine for people who wish to stop vaping compared to placebo at the end of treatment (31.8% vs. 15.1%) and nine to 12 weeks follow-up (23.4% vs. 13.2%).[Rigotti 2024] Overall rates of stopping vaping were low in both groups.

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## 2.2.8 Combined use of stop smoking aids

**Evidence statement:** There is good evidence that combining varenicline and NRT increases success with stopping when compared to either medication alone. The addition of a second stop smoking aid is recommended for people with a high level of dependence, with past failed quit attempts with monotherapy, experiencing significant urges to smoke and withdrawal symptoms with a single treatment, or who have reduced but been unable to stop smoking completely. There is some limited evidence indicating combining varenicline with nicotine vapes as being superior to using vapes alone. It is reasonable that combining either nicotine vapes or NRT with varenicline would produce similar effects, as both products deliver nicotine.

### Key points

- Combining drugs with different mechanisms of action, such as varenicline and NRT, has increased quit rates in some studies compared with use of a single product.[Rigotti 2022; Thomas 2021; Hajek 2013, King 2022; Ramon 2014; Ebbert 2010; Chang 2015]
- The combination of varenicline and NRT has been used among people with higher tobacco dependence, those who continue to experience urges to smoke and/or withdrawal symptoms, and those who have reduced their cigarette consumption but not quit completely.
- A recent RCT (n=122) found combining NRT and varenicline was more effective in supporting smoking abstinence at nine to 12 weeks than NRT alone among people who smoke who also drink heavily (44.9% vs 27.9%).[King 2022] More research is required to strengthen guidance.
- People treated with varenicline and NRT report more side effects (nausea, sleep disturbance) than those receiving either treatment alone.[Thomas 2021; King 2022]
- A small study within English Stop Smoking Services found clients using varenicline plus nicotine vapes had a higher success rate (85%) than clients using nicotine vapes only (54%; p=0.03).[Hajek 2015]

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## 2.3 Behaviour change techniques (BCTs) for priority groups

**Evidence statement:** Increased frequency and duration of behavioural support has been shown to benefit individuals who find stopping difficult including pregnant women, people with SMI and people from disadvantaged groups. The BCTs with greatest evidence are prompting commitment, social reward, goal setting, action planning, and identity associated with behaviour self-regulation. There is evidence that mental health status moderates the effects of BCTs which target self-regulation.

### Key points

- Behaviour counselling has been shown to increase rates of stopping and, in combination with stop smoking aids, gives people who smoke the best chances of stopping in the short- and long-term. (Lancaster 2017)
- Increased frequency and duration of behavioural support has been shown to benefit individuals who find stopping difficult including pregnant women, people with SMI and people from disadvantaged groups. Tailoring support to include more frequent contact over longer periods can be useful, allowing individuals to focus on short timeframes and receive social and professional support with new routines, coping strategies and self-regulation.
- The NCSCT's 17 BCTs, which are based on the work of Susan Michie at University College London (UCL), have been shown to increase rates of stopping smoking. The BCTs informed the development of the NCSCT Training Standard and Standard Treatment Programme. [NCSCT 2018; NCSCT 2018; West 2010; Michie 2011, Michie 2011]
- The review of evidence-based BCTs for stop smoking support was updated in 2020 to reflect new research. [Black 2020] This review identified that higher smoking cessation rates were predicted by BCTs targeting associative and self-regulatory processes ( $B = 0.034, 0.041, P < 0.05$ ) and by four individual BCTs:
  - prompting commitment
  - social reward
  - identity associated with changed behaviour (non-smoker identity)
  - self-regulation
- The Black review found that mental health status moderated the effects of BCTs which target self-regulation. [Black 2020]
- There has been significant work to adapt and identify BCTs for stopping smoking for pregnant and post-partum women. [Lorencatto 2010; Abidi 2010; Flemming 2016; Kumar 2021; Brown 2019; Fergie 2019; Campbell 2018; Phillips 2021] This includes work led by the University of Nottingham's Smoking in Pregnancy Research Group. [Brown 2019; Fergie 2019; Campbell 2018; Phillips 2021]
- There has also been work to identify BCTs with the greatest potential to support stopping in people with SMI following a stay in inpatient mental health settings. [Shoesmith 2021] Nine BCTs were identified, with three as promising for people following admission to a mental health setting in terms of probable effectiveness and feasibility. These were pharmacological support, goal-setting (behaviour), plans to not smoke, action planning and social support.

- One study tested a behavioural intervention for people with complex social needs.[Tosh 2021]

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### 2.3.1 Developing rapport

**Evidence statement:** The client/patient-practitioner relationship has been shown to play a key role in effective stop smoking support. While this is the case for all individuals, it appears to be particularly important among members of priority groups.

#### Key points

- Building rapport is an evidence-based BCT. There is some limited evidence that among people with SMI, building rapport with patients/clients is even more important in influencing treatment outcomes.[Black 2020]
- Techniques for building rapport have been established and include a variety of engagement and communication techniques.
- Participant-led engagement behaviours include referencing past quit attempts, asking questions, elaborating responses to yes/no questions and expressing commitment to behaviour change.[Schnitzer 2022]
- Counsellor-led behaviours include building from prior interactions, using empathy, normalising challenges, reframing and summarising, validating achievements, expressing shared experience and use of humour.[Schnitzer 2022]

#### What's in the pipeline?

**University of York (Dr. Omara Dogar):** Investigators from York University are studying the characteristics of high-quality stop smoking counselling using evaluation of both practitioners and patients. Results of this study are expected in May 2025.

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### 2.3.2 Coping strategies for addressing withdrawal symptoms and urges to smoke, and smoking cues and triggers

**Evidence statement:** For people with higher levels of tobacco dependence and those from some priority groups (e.g. people with SMI), strategies for coping with withdrawal symptoms and urges to smoke have been shown to be of increased importance. There is good evidence to support the importance of supporting clients with self-regulatory strategies that help address urges to smoke and smoking triggers. There is also evidence that acceptance commitment therapy (ACT) may be effective for supporting patients who are attempting to stop smoking, with further research needed to strengthen guidance.

#### Key points

- Given the higher levels of dependence among individuals from several priority groups, BCTs which focus on coping strategies appear to have greater importance.[Black 2020]
- Evidence indicates that behavioural support which focusses on helping individuals with developing self-regulatory strategies to cope with urges to smoke and withdrawal symptoms, as well as personal triggers to smoke, have been shown to increase rates of stopping.[Michie 2011; Black 2020]
- Cognitive behavioural therapy (CBT) and mindfulness training have been assessed for their role in helping individuals who smoke to develop new coping skills.[Jackson 2022; Vincci 2020]
- CBT has informed stop smoking support for many years and focusses on reframing thoughts (cognitions) about smoking.
- A recent Cochrane review did not detect a clear benefit of mindfulness-based smoking cessation interventions for increasing smoking quit rates. More research is necessary to strengthen guidance regarding the value of mindfulness interventions.
- Five studies have assessed the use of acceptance commitment therapy (ACT) for stopping smoking and documented a small to medium positive effect on rates of stopping.[Vilardaga 2014; Lee 2015] Unlike CBT, ACT focusses on changing one's relationship with internal experiences rather than directly changing the content of these experiences. It is unclear if ACT outperforms other forms of support such as CBT, however there is evidence of its value in supporting clients with reframing urges to smoke as a coping strategy.

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### 2.3.3 Non-smoker identity

**Evidence statement:** An individual's ability to adopt a non-smoker identity can predict success with long-term stopping. People who are able to adopt a non-smoker identity following stopping smoking have a lower rate of relapse. There has not been strong evidence regarding the role of behavioural support in increasing rates at which non-smoker identities are adopted. However, interviews with national experts have acknowledged that, when working with priority groups, it can be particularly important to focus on supporting an individual's non-smoker identity.

#### Key points

- Smoker identities (i.e. thinking of oneself as a smoker or non-smoker) have an important influence on the success of quit attempts and can predict medium- and long-term abstinence.[ Meijer 2015; Thombar 2015; Thombar 2015; Vangeli 2010; Vangeli 2010; ; Vangeli 2012; Oyserman 2007]
- A review by Black found supporting people who smoke to develop a non-smoker identity was among the top BCTs for influencing success with stopping.[Black 2020]
- Most people who stop smoking will adopt a non-smoker identity and those who do not are significantly more likely to relapse.[Collahan 2020]
- People who make this mental transition following a quit attempt appear more likely to remain abstinent in the medium term than those who still think of themselves as smokers.[Thombar 2015; Collahan 2020]
- Smoker identity is part of West's PRIME Theory of Motivation which suggests an individual's positive assessment of smoking is associated with continued smoking and higher rates of relapse.[West 2013]
- There has not been strong evidence regarding the role of behavioural support in increasing rates at which non-smoker identities are adopted.
- However, interviews with national experts have acknowledged that, when working with priority groups, it can be particularly important to focus on supporting an individual's non-smoker identity. This can focus on discussing alternatives to smoking, changes to daily routines and stress responses, alternative methods of enjoyment and relaxation and supporting individuals with developing plans, and the value of a non-smoker identity.
- Moreover, people who saw themselves more as being quitters (quitter self-identity) than smokers (smoker self-identity), as well as people who felt more positive about non-smokers (non-smoker group identity) had stronger intentions to stop smoking. No significant interactions with socio-economic status were found.[Mejer 2016]
- The results suggest that developing ways to stimulate the social environment to provide adequate support for people who intend to stop smoking, and developing ways to strengthen identification with stopping, may help individuals stop successfully. Findings further suggest that the possible-self as a quitter is more important than the current-self as a smoker.[Mejer 2016]

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### 2.3.4 Increasing motivation in people not ready to stop

**Evidence statement:** Among people who are not ready to stop smoking abruptly, treatment with NRT, varenicline and CDTs have been shown to increase rates of stopping. There is also some evidence that motivational interventions which target self-efficacy may be effective.

#### Key points

- Two systematic reviews found evidence that use of stop smoking aids may increase quit rates among those who are not initially interested in stopping, in particular when varenicline is used as a stop smoking aid.[Klemperer 2016; Klemperer 2023] A review by Klemperer specifically assessed evidence for interventions that target people who are not ready to stop smoking abruptly.[Klemperer 2023] The review reported that the use of varenicline and NRT increased quit attempts more than the control (no stop smoking aids).
- Treatment with NRT or varenicline and CDTs have been shown to be effective in both increasing quit attempts and successful abstinence among people who are not ready to stop smoking.[Engle 2019; Cox 2022]
- There has been mixed evidence regarding the value of motivational interviewing on quit rates.[Lindson 2015; Lindson 2019; Catley 2016; Klemperer 2023]
- Behavioural interventions which focus on quitting self-efficacy have been identified as important targets for those not motivated to stop.[Klemperer 2020]
- A study evaluating three brief interventions designed to increase the number of quit attempts made by a non-treatment-seeking group suffering from health disparities (i.e. people from socio-economically disadvantaged groups) found that quit attempts are increased by brief motivational interventions and that these interventions should be used to motivate people from these groups to make a quit attempt.[Steinberg 2020]
- Future studies should examine combined motivational interventions, including pharmacological and behavioral interventions.[Steinberg 2020]

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## 2.4 Preventing relapse

Question to be answered:

**What is the evidence to guide practice for preventing relapse to smoking among people who have stopped, both overall and for priority groups?**

**Evidence summary:** Extended use of stop smoking support and having developed a non-smoker identity have a strong association with long-term abstinence.

### Key points

- Extended use of stop smoking support has been shown to increase long-term abstinence and reduce risk of relapse.[Lindson 2023]
- Developing a non-smoker identity is strongly associated with a reduced risk of relapse. [Meijer 2015; Thombar 2015; Thombar 2015; Vangeli 2010; Vangeli 2010; ; Vangeli 2012; Oyserman 2007; Black 2020]

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## 2.5 Cultural tailoring

### Question to be answered:

What is known about targeting and tailoring treatment to people from different cultures?

**Evidence statement:** There is evidence that suggests cultural tailoring of smoking cessation interventions does show an effect on abstinence.

### Key points

- Culturally tailoring or adapting an intervention may address some of the culturally-specific risk factors or social norms for members of the target population and support individuals with engaging with the intervention. [Leinberger 2024].
- Cultural tailoring has included modifying the content of stop smoking support to reflect cultural norms related to smoking, lifestyle patterns and family dynamics. It has also included the settings (venues, locations), staff, languages and communications materials used to deliver support.
- Reviews of culturally tailored interventions have found these interventions are preferred and are more accepted by the target populations but have not been able to clearly demonstrate their overall effects on clinical outcomes, suggesting they may primarily have a role in increasing engagement.[Leinberger 2024]
- A 2024 systematic review assessing the effectiveness of culturally tailoring smoking cessation interventions on stopping or reducing smoking identified 33 studies.[Leinberger 2024] The review found moderate certainty evidence that intensity-matched culturally tailored stop smoking interventions increased quit success when compared with non-tailored interventions at three-month follow-up or longer ( $n = 5602$ , risk ratio [RR] = 1.29 95% confidence interval [CI] 1.10, 1.51,  $I^2 = 47\%$ , 14 studies). The review found the addition of a culturally tailored component to a standard intervention compared with the standard intervention increased rates of stopping smoking ( $n = 6674$ , RR = 1.47, 95% CI 1.10, 1.95,  $I^2 = 74\%$ , 18 studies).
- A review of qualitative evaluations indicates that culturally tailored interventions resonated more with people and that people felt that the interventions were designed for people like them.[Leinberger 2024] The authors note that it is likely that those who feel an intervention is for them will participate more fully in it and ultimately benefit from it.

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## Part 3: Priority groups

Part 3 summarises evidence on intervention tailoring for priority groups.

Questions to be answered:

**What is known about tailoring stop smoking treatment for each priority group including BCTs, stop smoking aids and service delivery?**

**What is known about quit rates for the priority group?**

**What is known about cost and cost-effectiveness of treatment models for the priority group?**

People who may be part of priority groups are often referred to as complex clients and/or those with greater barriers to stopping. It is often the case that individuals belong to several priority groups, for example people being treated in addiction services who experience severe mental illness may also live in social housing.

While everyone we work with will have their unique set of characteristics, there are factors that are seen with increased frequency among members of priority groups which are relevant to targeting and tailoring stop smoking support. These include:

- greater tobacco dependence and daily tobacco consumption
- greater enjoyment from smoking (lack of enjoyment/pleasure from other sources)
- boredom, loneliness, social isolation playing a greater role in contributing to smoking behaviours
- daily routines associated with smoking
- greater social triggers to continue smoking
- greater distress and symptoms of mental illness
- socio-economic stressors
- established smoker identity
- greater likelihood of trauma
- poorer cognitive function and greater likelihood of learning disabilities

While many of the factors identified are barriers that are reported for all people who smoke (e.g. boredom, distress, socio-economic stress, enjoyment from smoking), they play a larger role in the lives of people in priority groups and are, therefore, important in informing the tailoring of stop smoking support.

### 3.1 People with common mental health conditions

Question to be answered:

**What is known about tailoring stop smoking treatment for people with common mental health conditions?**

**Evidence statement:** People with common mental health conditions often smoke more heavily and are less likely to be successful with stopping. This is particularly true for people with anxiety disorders. Evidence suggests that improvement experienced with both mental health and withdrawal symptoms can improve rates of stopping smoking. Evidence supports the addition of psychological mood management to behavioural support, and that the use of varenicline can increase rates of stopping smoking. Nicotine vapes are also widely used by people with common mental health conditions and appear to enhance rates of stopping.

#### Key points

- Evidence supports that people with common mental health conditions (e.g. depression, anxiety) are often just as motivated to quit smoking as those without these conditions; however, they are less likely to make a quit attempt and succeed with stopping.[Siru 2009; Richardson 2019]
- Research suggests that higher levels of distress and/or low distress tolerance play a role in motivation to use tobacco and difficulty with stopping.[Schlam 2020; Kock 2023; Taylor 2023]
- The role of smoking as a coping mechanism for distress is frequently identified by people who smoke as a barrier to stopping.[Schlam 2020; Taylor 2023] Many people say that smoking tobacco helps them alleviate stress and cope with their mental health difficulties, such as low mood or anxiety, and that smoking brings them relaxation or pleasure.[Malone 2018]
- Stopping smoking has not been shown to worsen symptoms of anxiety and depression. High-quality meta-analyses have shown that significant improvements in both anxiety and depression occur over several weeks following stopping smoking.[Taylor 2023; Wu 2023]
- Research suggests people with anxiety disorders may find it more difficult to quit smoking compared to those with other mental illnesses.[Okoli 2017] In contrast, past major depression has been shown to have a modest adverse effect on stopping smoking with support.[Hitsman 2013]
- Evidence suggests that the tobacco withdrawal cycle partly contributes to poorer mental health among people who smoke and those who have recently stopped.[Taylor 2021] Reduction in both tobacco withdrawal symptoms and symptoms of mental illness are associated with improved stop smoking outcomes and should therefore be a target of stop smoking interventions.[Lightfoot 2020; Taylor 2021]
- Monitoring of mood and symptoms of anxiety, depression and stress may assist with identifying how to tailor and support individuals with mental health conditions and is a practice used by Quitline Victoria.[Taylor 2021]

- A UK-based qualitative study assessed key factors that support smoking behaviour change among people receiving psychological support for anxiety or depression. Participants identified that an increased awareness of how smoking negatively impacted participants' mental health, and the opportunity to be offered smoking cessation treatment in a 'non-judgmental', 'supportive' environment and at the right time contributed to their interest in stopping.[Fredman 2022] Participants described acquiring 'a couple of tricks up your sleeve' that were helpful in making smoking cessation feel more 'manageable'. Regular sessions and individualized strategies contributed to successful smoking cessation outcomes.[Fredman 2022]
- A systematic review of smoking cessation interventions for people with current or past depression found that adding psychosocial mood management, primarily cognitive behavioural therapy (CBT), enhanced stopping smoking compared to usual smoking cessation support. [Lightfoot 2020; Taylor 2021]
- Among people with common mental health conditions, compliance with stop smoking sessions is associated with improved treatment outcomes.[Lightfoot 2020]
- The UK-based ESCAPE feasibility study evaluated a smoking cessation intervention within the CBT treatment of adults receiving treatment for depression or anxiety. The study found the 12-week intervention was well received, did not interfere with the primary treatment goals and significantly increased smoking abstinence (OR = 8.69, 95% CI = 1.11 to 396.26).[Taylor 2025]

### **Stop smoking aids**

- First-choice stop smoking aids are effective for people with common mental health conditions.[Okoli 2017; Das 2017, Lightfoot 2020; Anthoenelli 2016]
- Among individuals with mood disorders, receiving varenicline alone resulted in three times the likelihood of cessation as compared to receiving a single NRT product.[Okoli 2017] The superior efficacy of varenicline for people with a history of mental illness was also documented in the Eagles study.[Anthoenelli 2016]
- A recent UK evaluation reported that current use of nicotine vapes or dual use was predicted by a history of single or multiple mental health conditions, suggesting that vapes are widely used by people with mental illness to support stopping.[Taylor 2023] Nicotine vapes have been identified as potentially having higher levels of acceptance among people with mental illness when used as part of a harm reduction approach.[Taylor 2023]

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### 3.2 People with severe mental illness (SMI)

Question to be answered:

**What is known about tailoring stop smoking treatment for people with SMI?**

**Evidence statement:** Evidence supports that people with SMI require tailored (bespoke) stop smoking support that provides more intensive behavioural and pharmacological support over longer durations. This is particularly true of patients with schizophrenia spectrum disorder. Strategies such as a longer lead-in time before stopping, pre-treatment with stop smoking aids, CDTs and provision of nicotine vapes have been shown to be particularly important for engaging people with SMI who smoke in reducing and stopping smoking. Embedding tobacco dependence treatment into mental health settings and/or having stop smoking practitioners with cross training in mental health is recommended good practice.

#### Key points

- People with SMI are often just as motivated to stop smoking as those without SMI; however, they are significantly less likely to make a quit attempt and succeed with stopping.[Siru 2009; Richardson 2018; Fornaro 2022]
- People with SMI report greater tobacco dependence than the general population of people who smoke.[Tidey 2014] This is particularly true among people with schizophrenia spectrum disorder, with research demonstrating both higher levels of tobacco dependence and more pronounced withdrawal symptoms and urges to smoke.[Williams 2005; Williams 2010; Tidey 2014; Lo 2011]
- Tobacco withdrawal can also mimic or exacerbate symptoms of mental illness and it is not uncommon for symptoms of untreated tobacco withdrawal to be confused with symptoms of mental illness.[Taylor 2021; Das 2017das]
- Overall, rates of stopping smoking among people with SMI with and without treatment are lower than those for the general population of people who smoke. There is a particularly lower rate of successful stopping with and without treatment among people with schizophrenia spectrum disorder.[Gilbody 2019; Greenhalgh 2022]
- People with SMI experience more challenges when stopping compared with the general population of people who smoke, including perceived beliefs that smoking is benefiting their mental health and negative symptoms of mental illness. Boredom is a key factor contributing to continued smoking among people with SMI who may be socially isolated, unemployed and experiencing loneliness; the high rates of smoking among their peers and social networks often serve as a trigger for smoking.[Peckham 2016]
- A review of 15 studies assessing service user and staff perspectives identified factors which affect smoking behaviours of people with SMI. The review found smoking behaviours were influenced by an individual's environmental and social context, factors related to living with a mental health illness, personal health awareness, financial awareness and provision of smoking cessation support.[Malone 2025]

- All clients, and in particular patients with SMI, should have a medications review completed to identify current use of any medicines which are known to interact with smoking, in particular clozapine and olanzapine. For patients taking clozapine, olanzapine or another medicine that interacts with smoking, the prescriber should be contacted to coordinate dose reduction and monitoring when smoking status changes.
- People with SMI often require more time to develop rapport with people before trust can be developed.
- A systematic review of mass media campaigns for stopping smoking found that campaigns tested to date have had limited impact on those with mental illness, although campaigns that are specific to smoking and mental health may be effective.[Perman 2022] The authors suggest that the results be interpreted with caution as studies to date have been of low to moderate quality.

### **Behavioural support**

- A meta-analysis found that people with mental illness preferred to receive support with stopping smoking from mental health service staff rather than mainstream stop smoking services.[Malone 2018] Integrating stop smoking support into mental health treatment has been shown to be acceptable to patients.[Sawyer 2023]
- People with SMI can be expected to need longer overall treatment durations of stop smoking support compared to people with other mental illnesses.[Okoli 2017]
- Tailored (bespoke) stop smoking interventions for adults with SMI have been found to result in greater effectiveness when compared to usual treatment.[Spanakis 2022; Gilbody 2020; Hawes 2021]
- The SCIMITAR trial reported that rates of stopping smoking among people with SMI could be increased with structured stop smoking support delivered over an extended period (12 weeks) alongside the use of stop smoking aids.[Gilbody 2021] Identified as key to the study's success was the flexible treatment and service delivery model. This included: flexible appointment venues, more frequent contact and tailored duration of support. The trial's authors identified the involvement of mental health staff trained in tobacco dependence in supporting stopping smoking as key to the bespoke intervention. Economic evaluation found the SCIMITAR bespoke intervention to be significantly more cost-effective than standard models of support via LSSS.[Li 2020]
- In a narrative review Szerman highlights that, due to the lower treatment response among people with SMI who smoke (dual diagnosis disorders), new treatment paradigms are needed.[Szerman 2024] These include harm reduction involving nicotine vapes, CDTs and extended use of stop smoking aids and behavioural support.
- CDTs interventions have been identified as being particularly useful when addressing tobacco dependence among people with SMI.[Gilbody 2019; Lindson 2020]
- It is recommended that people with mental illness who quit smoking be monitored for changes in mood, as this can occur when someone quits smoking and has been shown to occur at greater frequency among people with a history of mental illness.[Maudsley 2025]
- There is some newer evidence that financial incentives may increase quit attempts and rates of smoking abstinence among people with SMI.[Notely 2025; Siersbaek 2024]
- There has been one study assessing the use of a novel treatment – metacognitive remediation therapy (MCR), in combination with stop smoking aids – for stopping smoking

among people with schizophrenia spectrum disorders. The study reports positive results for MCR; however, further research will be required.[Breitborde 2021]

### **Stop smoking aids**

- High-quality trials and meta-analyses have shown that, among people with stable SMI, the use of first-choice stop smoking aids is not associated with increased symptoms of mental illness.[Anthonelli 2016; Shawen 2018; Siskind 2020]
- Clinical experience suggests that, among people with mental illness, vaping is more acceptable compared to NRT, with greater compliance among patients and higher rates of stopping.[Peckham 2020; Das 2017; Caponetto 2020; Caponetto 2020] It is hypothesized that nicotine vapes are more effective than other stop smoking aids in substituting for the role of smoking. One trial has assessed the efficacy of high nicotine strength vapes among people with schizophrenia; this small study (n=400) reported positive effects on smoking reduction.[Caponetto 2020]
- Higher doses for longer durations of nicotine replacement (NRT or nicotine vapes) are typically needed to address the higher rates of tobacco dependence and more severe presentation of withdrawal symptoms documented among people with SMI. This is particularly true among people with schizophrenia or schizoaffective disorder.[Cather 2013; Williams 2005; Williams 2010; Tidey 2014; Lo 2011]
- Evidence indicates varenicline is one of the most effective stop smoking aids for people with mental illness. The EAGLES study reported quit rates achieved with varenicline as superior to NRT, bupropion and placebo.[Anthonelli 2016]
- Evidence supports the safety and efficacy of varenicline for reducing smoking in people with schizophrenia.[Jeon 2016; Smith 2016; Shawen 2018; Wu 2016; Ahmed 2018; Siskind 2020; Greenhalgh 2022; Evins 2014; Shawen 2018; Caponetto 2020] A network meta-analysis by Siskind (2020) evaluated 18 studies assessing the safety and efficacy of stop smoking aids in people with schizophrenia spectrum disorders. It concluded significantly higher smoking abstinence at six months or longer with varenicline (RR 3.75, 95% CI 1.96–7.19,  $p<0.0001$ ) and NRT (RR 4.27, 95% CI 1.71–10.65,  $p=0.0002$ ) when compared to placebo, with no significant differences between these two aids documented.[Siskind] There was no evidence of changes in psychiatric symptoms associated with the use of stop smoking aids.[Siskind 2020]
- Extended use of stop smoking aids is recommended by NICE as a relapse prevention strategy.(NICE 2021/2025) Given the high rates of relapse among people with SMI, extended use of stop smoking aids can be particularly useful among patients with mental illness.[Evins 2014; Cather 2013].
- Extending treatment with stop smoking aids to one year has been shown to improve treatment rates in people with SMI.[Evins 2014; Cather 2013] A study by Cather found extending stop smoking aids and support to one year reduced rates of relapse in a sample of people with schizophrenia, when compared to the standard 12 weeks of support.[Cather 2013] A double-blind, placebo-controlled study assessed 52 weeks of treatment with varenicline compared to the standard 12 weeks of treatment, when combined with CBT, among 203 participants with schizophrenia, schizoaffective, or bipolar disorder.[Evins 2014] Those participants who were smokefree at the end of 12 weeks (n=87) were randomised to extended treatment with varenicline or placebo. At week 52, point-

prevalence abstinence rates were 60% for those treated with varenicline and 19% for those treated with placebo.[Evins 2014].

- There have been reported barriers to accessing stop smoking aids among people with SMI. As such, it is important to ensure direct supply or other user-friendly methods of provision.[Arundel 2020]

### What's in the pipeline?

**Interventions for smoking cessation in inpatient psychiatry settings:** A Cochrane review is underway looking at stop smoking interventions for patients admitted to mental health hospitals. The full protocol is available.[Pleaver 2024]

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### 3.3 People with substance misuse disorders and co-addictions

Question to be answered:

**What is known about targeting and tailoring support to people receiving support within drug and alcohol services?**

**Evidence statement:** People with substance misuse disorders generally require more intensive stop smoking interventions over longer periods of time to be successful. Nicotine vapes and varenicline are effective treatments in supporting stopping smoking among people with co-addictions. Extending treatment for up to one year has been shown to increase rates of stopping in this group.

#### Key points

- Drug and alcohol service users are often motivated to stop smoking or reduce their smoking while receiving treatment.[Dobbie 2022; McKelvey 2017]
- There has been limited research on efficacy of stop smoking treatments among people with substance misuse disorders and co-addictions and more research is required to strengthen guidance.
- Research indicates that addressing tobacco use is not perceived by patients or staff as being less important (low priority) than addressing substance in which people were in treatment for and overall perception that there was less serious health consequences attributable to tobacco use relative to illicit drugs.[Iyahan 2023; Cookson 2014] Qualitative evaluation of treatment programme administrators documented concern that tobacco use treatment may distract patients from getting off illicit drug use.[Iyahan 2023] The same review also identified that information about available stop smoking support was not conveyed in a manner that service users could understand and would make them want to engage in stopping smoking.[Iyahan 2023]
- Research indicates that stop smoking interventions initiated during treatment for alcohol and other drug dependence increases the rate of smoking abstinence and smoking reduction and does not undermine drug treatment.[Apolonio 2016; Thurgood 2015; Dobbie 2022; Prochaska 2010] There is some evidence of a beneficial effect on outcomes in addressing tobacco alongside substance use treatment.[Winhusen 2014; Thurgood 2016]
- A recent review by Dobbie identified studies that examined the implementation of existing national guidance on smoking cessation into drug and alcohol services or evaluated new or additional interventions or service delivery models (e.g. more intensive, greater length).[Dobbie 2024]
- It is important that communication and coordination of care takes place with services that clients are engaged with and embedded into recovery plans.[Dobbie 2022]
- Research indicates that the perception that stop smoking aids are not effective and have not helped them in the past may limit interest in future use.[Iyahan 2023]
- Nicotine vapes and NRT have been shown to be acceptable treatments and standard treatment courses can increase success with stopping, however rates of stopping are lower. There has been greater success with standard treatments in significantly reducing



withdrawal symptoms and daily cigarettes consumption.[Bonveski 2021; Thurgood 2015; Dobbie 2022]

- There is some research that indicates individuals with substance misuse disorders can successfully quit smoking at similar rates to the overall population when intensive interventions are provided.[Apollonio 2016]
- Evidence suggests the use of stop smoking aids improves outcomes and that clients with co-addictions may require more intensive treatment for a longer period of time.[Apollonio 2016; Mendelsohn 2016; Guillaumier 2020]
- Several studies have found varenicline is effective treatment in supporting stopping smoking and helps reduce heavy drinking in people with alcohol use disorders.[Zawertailo 2020; Guo 2021; Ray 2021; Hurt 2018; O'Malley 2018; Winhusun 2014; Fucitto 2011; King 2022]
- For methadone maintenance patients, varenicline and NRT may be effective for promoting tobacco abstinence.[Yee 2018]
- Research suggests NRT may assist with cannabis withdrawal symptoms. A recent study found that the NRT patch may alleviate negative a-ect-related cannabis withdrawal symptoms among those who were not heavy tobacco users.[Walsh 2020; Gilbert 2020] Some evidence suggests that varenicline is useful for the treatment of withdrawal symptoms among individuals who use both tobacco and cannabis.[McRae-Clark 2021; Adams 2018] Further trials are ongoing to evaluate varenicline for cannabis use disorders, as is research exploring a combination of varenicline and nabilone (a THC analogue) on tobacco and cannabis cessation and outcomes.(Hermann 2019)
- The provision of financial incentives is associated with more short-term abstinence among current and former injecting drug users.[Drummond 2014] Several studies have supported the use of contingency management when combined with pharmacotherapies and/or behavioural counselling. [Rohsenow 2015; Cooney 2017; Anosa-Diego 2021]
- Increasing tolerance for withdrawal and abstinence discomfort, addressing expectations and increasing motivation may also be important when implementing incentive programmes.[Rohsenow 2015]
- None of the papers included in the Dobbie review made explicit reference to their interventions being guided by trauma informed approaches (TIA). However, five studies reported that interventions contained elements of a trauma-informed approach.[Dobbie 2024]

### **What's in the pipeline?**

#### **DASHES (drug and alcohol users help to exit smoking) Study, King's College London**

DASHES is developing and evaluating a tobacco harm reduction intervention with service users and staff of specialist third sector and NHS services, public health, and policymakers.



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### 3.4 LGBTQI+ community

**Question to be answered:**

What is known about targeting and tailoring support to people who are part of the LGBTQI+ community?

**Evidence statement:** Tailored stop smoking support can enhance engagement among members of the LGBTQI+ community and group support appears to be favoured. There is mixed evidence on the value of tailored support compared to standard support on increasing stop smoking outcomes.

**Key points**

- Evidence to date does not indicate that quitting attitudes and behaviours differ between members of the LGBTQI+ community and the overall population of people who smoke.[Sun 2023; ASH 2021; Jackson 2021]
- In England, the differences in smoking prevalence reported in the past among people with different sexual orientations have narrowed.[Jackson 2021] This has been attributed to a larger decline in smoking rates among sexual minority groups than heterosexuals. Bisexual men (28.2%) and women (29.8%), however, continue to have higher rates of smoking when compared to the general population. When compared to heterosexual people who smoke, bisexual men and women reported lower levels of addiction and being just as likely to want to quit.[Jackson 2021]
- An analysis of a UK-representative survey found no difference between LGBTQ and heterosexual people who smoke in motivation to quit or number of quit attempts.[Jackson 2021]
- Evaluations suggest rates of successful stopping among LGBTQ people who quit with support are comparable to heterosexual people.[Berger 2017] The majority of research has been conducted among gay men, with less research available for other LGBTQI+ people.[Berger 2017]
- Gender-specific interventions have been identified as a preference among the LGBTQI+ community and have been associated with greater satisfaction and uptake.[Berger 2017; Matthews 2019; Riley 2023; Lee 2014; Sun 2023; ASH 2021] Evaluations have shown that, while targeting and tailoring of stop smoking support improved the acceptability of the intervention, overall results have been mixed and more research is needed to understand the effect of tailoring interventions on improving quit rates.[Mathews 2019; Riley 2023]
- There is also some evidence that group support may have greater effectiveness than one-on-one support.[Sun 2023]
- Needs assessments and systematic reviews have attempted to identify best practice for tailoring treatment to LGBTQI+ clients. This has included holding group sessions in LGBTQI+ spaces, discussing social justice, discussing LGBTQI+-specific triggers, boosting motivation/self-efficacy and addressing social support.[Berger 2017; Sun 2023]

- A US study identified that personal and family concerns were important motivators to quit for both heterosexual and LGBQ adults. Physical fitness was also a primary motivator to quit for LGBQ women.[Patterson 2021]
- Focus groups with LGBTQI+ youth and young adults expressed preferences for smoking cessation and prevention interventions to: be LGBTQI+ specific; be accessible; be inclusive, be relatable and highlight diversity; incorporate LGBTQI+ peer support and counselling services; integrate other activities beyond smoking; be positive, motivational, uplifting, and empowering; provide concrete coping mechanisms; and integrate rewards and incentives.[Baskerville 2018]
- In addition, interviews with LGBT-friendly US healthcare providers indicated that community outreach and holistic cessation treatment services for LGBT people are needed to address specific barriers faced by LGBT people.[Aleshire 2019]
- Several reviews have explored the ways in which smoking cessation interventions are being tailored to LGBTQI+ people.[Fogerty 2024; Lee 2014; Berger 2016]
- LSSS policies, communications and services should embrace members of the LGBTQI+ community and use inclusive language that avoids assumption about gender or sexual orientation. Services should use the Sexual Orientation Monitoring Information Standard as part of local data collection for monitoring and needs assessments. Communication materials and messages should include representation of the LGBTQI+ community and ideally use tailored and targeted messages.
- A trial found culturally tailored anti-smoking ads (i.e. anti-smoking ads containing LGBTQI+ branding and colours) increased intentions to quit and decreased intentions to purchase cigarettes among sexual minority women who smoked. However, when compared to participants who were exposed to control ads (i.e. anti-smoking ads not containing LGBTQI+ branding and colours) there were no significant differences in these measured outcomes.[Tan 2023]
- Partnering with LGBTQI+ organisations, and co-designing and co-locating services in health and community services that work with the LGBTQI+ community, is good practice.[Lee 2014]
- A 2024 systematic review found that cessation interventions are commonly tailored through the addition of sexual and gender minority psychoeducation, intra-community and peer support, and culturally impactful resources.[Fogerty 2024]
- A 2016 systematic review of smoking cessation programmes for LGBTQI people identified cultural modifications, such as meeting in LGBTI spaces, discussing social justice and discussing LGBTQI-specific triggers. Common behaviour change techniques included providing normative information, boosting motivation/self-efficacy, relapse prevention, social support, action planning and discussing consequences.
- A single trial of a culturally tailored Facebook intervention for LGBTQI people who smoke increased abstinence compared to a non-tailored intervention.[Vogel 2020]

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### 3.5 People experiencing homelessness or rough sleeping

Question to be answered:

**What is known about targeting and tailoring support to people who smoke who are experiencing homelessness, rough sleeping, or sofa surfing?**

**Evidence statement:** Interventions tailored to people experiencing homelessness have been shown to increase quit attempts, use of stop smoking aids and reductions in daily or weekly cigarette consumption. The higher rate of tobacco dependence, co-addictions and use of smoking to manage distress and socialise are important targets for stop smoking support. Embedding support into homelessness settings and offering free nicotine vapes are good practices. There is some evidence that financial incentives may be a useful intervention.

#### Key points

- People experiencing homelessness have among the highest rates of smoking in the country at 76-85%. [Groundwell 2016; ASH 2019; Homeless Link 2022]
- They also have higher rates of tobacco dependency and smoke more cigarettes per day than the general population (20+ per day, versus 13 per day). [Groundwell 2016; Dawkins 2019]
- Poor mental health, a higher use of alcohol, cannabis and illicit drugs, along with the challenges of being homeless make effective smoking cessation support harder to access and stopping harder to sustain. [Dawkins 2019; Groundwell 2016; Homeless Link 2022; Cox 2022; Cox 2021]
- Additional barriers faced by this group include access to information about stopping and support, peer group pressure (pro-smoking norms) and use of smoking to relieve boredom and high levels of distress, beliefs about smoking assisting with managing mental health illness, and the increasing effects of illicit drugs. [Dawkins 2019; Groundwell 2016; Homeless Link 2022, Cox 2022; Pratt 2022; Miller 2023]
- Studies have reported unique challenges in addressing tobacco use among people experiencing homelessness. [Pratt 2023; Cox 2022; Miller 2023] This includes creating smoke-free spaces and norms in and outside homeless shelters, and that the personal goals of people experiencing homelessness are more about reducing their smoking than stopping completely. [Pratt 2023] Experts have highlighted the need to change the ways in which we define success for people experiencing homelessness to reflect that success in this population may be smoking reduction. [Cox interview; Pratt 2023]
- Although there is no reason to believe that stop smoking treatment works any differently for people experiencing homelessness than the general population, best practice identifies the need to use tailored approaches given the daily challenges they face. [Cox 2022; Vijayaraghavan 2020]
- Several interventions in England, Australia and the US have focused on encouraging stopping smoking and smoking reduction within homelessness services. Interventions tested to date have documented significant increases in quit attempts, use of stop



smoking aids and reductions in daily or weekly cigarette consumption.[Vijayaraghavan 2020; Cox 2022; Hartman Filson 2022; Dawkins 2025] Effects of interventions on stopping smoking have been relatively low compared to the general population of people who smoke, with most studies reporting quit rates of less than 6.3%-27%.[Vijayaraghavan 2020; Cox 2021; Cox 2022; Wilson 2023; Dawkins 2025]

- The SCeTCH randomized controlled trial tested the effectiveness of the provision of a vape intervention versus usual care in people accessing homeless support services among 475 study participants from 32 homelessness support services in UK.[Dawkins 2025; Ford 2025] Both study groups received very brief advice to stop smoking, a leaflet. The vape intervention group also received a tank style vape starter kit a choice of nicotine strength e-liquids (12 mg/mL and 18 mg/mL), and flavours (tobacco, menthol, or fruit) and a vape factsheets with practical advice and tips from experienced vapers. E-liquids were provided for up to 4 weeks at weekly intervals along with replacement supplies as needed. The study found a small positive effect on seven-point prevalence abstinence at 24-weeks was 6.3% (15/239) in the vape arm versus 2.1% (5/236) in UC group (aRR: 2.95, 95%CI: 1.05–8.29), however the effect on sustained abstinence was not significant. The trial found that while vape intervention group did not support long-term sustained smoking abstinence for 24 weeks in people experiencing homelessness compared to UC, it did suggest a significant benefit of the vape intervention across secondary smoking cessation and reduction outcomes when compared to UC. Specifically, a significantly higher number of participants in the EC arm reduced their smoking by 50% or more at 4 weeks (40.2% vs 17.8%; aRR: 2.55, 95%CI: 1.83–3.54), 12 weeks (33.6% vs 17.0%; aRR: 2.37, 95%CI: 1.68–3.35), and 24 weeks (34.7% vs 17.0%; aRR: 2.02, 95%CI: 1.44–2.84) compared to those in the UC arm. The authors concluded that while smoking reduction was achieved, abstinence was low, and more support maybe needed to increase smoking abstinence in this population. Qualitative evaluation of the SCeTCH study explored mediators that positively or negatively influenced intervention.[Ford 2025] Factors which facilitated use of vapes included social support and perceived acceptability of vape and pride from reducing smoking. Factors which hindered included challenging personal circumstances, smoking culture and perceived lack of staff support as well as dissatisfaction with vaping.
- A recent study assessed experience with the severity of tobacco withdrawal symptoms during a quit attempt among a sample (n=70) of people experiencing homelessness and provides insights into challenges faced that can be used to target and tailor interventions.[Sharbin 2022] Anticipatory withdrawal symptoms (prior to the quit date) were documented and associated with poor adherence to cessation aids. The study found that while tobacco withdrawal symptoms decreased during treatment a significant proportion (20-35%) of participants reported tobacco withdrawal symptoms, with their severity increasing in weeks 3 and 4. Authors recommend future evaluation of strategies that consider these issues of anticipation and adherence (e.g., pre-loading NRT protocols, counselling targeting medication adherence) to address the low response to standard cessation treatments in this population. They highlight the 3-to-4-week period as a target for booster counselling sessions and medication review.
- A small Australian study (n=20) examined the feasibility of providing varenicline in combination with NRT and motivational interviewing (MI) among adult males who smoke attending a clinic in a hostel for homeless people. The study found a small increase in stopping smoking and significant reduction in the number of cigarettes smoked per day (19.4 vs. 4.7 CPD; p<0.01).[Skelton 2022] Importantly, cravings, withdrawal symptoms and

psychological distress significantly decreased from baseline to 12-week follow-up (all < 0.01).

- There have been two recent US-based studies to assess interventions involving pharmacy delivered counselling for people experiencing homelessness. (Hartman Filson 2022; Kui 2025) A smaller study, which assessed an intervention which involved training homeless shelter staff to deliver brief cessation counselling and provided a one-time pharmacist delivered counselling session with treatment with NRT for three months, found effects on quit attempts and reduction in smoking consumption. [Hartman Filson 2022] The evaluation by Kui involved a sample of 205 people experiencing homelessness that enrolled in a 12-week pharmacist-linked stop smoking intervention and documented lower tobacco consumption and weekly quit attempts.
- There is some evidence to suggest a modest benefit of more intensive behavioural smoking cessation interventions when compared to less intensive interventions. [Vijayaraghavan 2020] However, further research is needed to strengthen this guidance.
- Good practice includes training homelessness staff in VBA+, having regular offers of stop smoking support embedded in routine health reviews, outreach visits from LSSS and offering harm reduction support. [Cox 2021; Cox 2022a]
- Best practice to date indicates direct supply of nicotine vapes and CDTs interventions as particularly useful for people experiencing homelessness. [Cox 2021; Cox 2022a; Cox 2022b] Vaping has been found to be popular and should be encouraged and facilitated by frontline staff as a substitute for smoking tobacco. [Cox 2022b; Cox 2021] NRT can also be used.
- There is emerging evidence to suggest incentives have a positive effect on smoking outcomes including smoking abstinence in people experiencing homelessness. [Wilson 2023] A US study found that a \$100USD incentive for smoking abstinence at three months when delivered alongside behavioral support (telephone or group) and appropriate stop smoking aids (12 weeks) was effective in increasing rates of bio-chemically verified smoking abstinence. However, effects of the incentive were not sustained at 12-months follow-up. Interestingly the quit rates reported in this study are greater than for other trials involving people experiencing homelessness being 27% vs. 19% at 3-months, 22% vs. 17% at 6 months, and 14% vs 13% at 12 months.
- Process evaluations of efforts to engage and train staff working in agencies serving the homeless and vulnerably housed as part of a tobacco-free workplace strategy reported positive effects on rates of stop smoking support provided to residents/clients to quit. [Taing 2020]

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### 3.6 Social housing

Question to be answered:

**What is known about targeting and tailoring support to people who smoke who live in social housing?**

**Evidence statement:** Evidence indicates that stop smoking interventions targeted to social housing settings can increase smoking cessation rates and reduce secondhand smoke exposure. Onsite support, the provision of free stop smoking aids and peer support has been shown to increase acceptability of stop smoking support.

#### Key points

- Housing status is the strongest independent socio-economic predictor of smoking in England.[Jackson 2022; Jackson 2019; ASH 2022; APPG 2021]
- Adults living in social housing had two times the odds of smoking ( $OR_{adj}=2.17$ , 95% CI 2.08 to 2.27), and the decline in smoking prevalence between 2015 and 2020 was less pronounced in this high-risk group (-7%;  $OR_{adj}=0.98$ , 95% CI 0.96 to 1.01) than among adults living in other housing types (-24%;  $OR_{adj}=0.95$ , 95% CI 0.94 to 0.96; housing tenure-survey year interaction  $p=0.020$ ).[Jackson 2022]
- Secondhand smoke (SHS) exposure is disproportionately concentrated among children and people living in subsidised housing, with home environments being a key site of SHS exposure.[King 2010; ASH 2022; Orton 2022] Around one in five children living in social housing are in a home where someone smokes inside most days, compared to one in eight children living in privately rented housing and one in 10 children living in owner occupied housing.[DOH 2021; ASH 2022]
- Levels of motivation to quit among people who live in social housing are no different to the wider adult population of people who smoke – a majority want to quit and around one in seven report that they ‘really want and plan to stop within three months’.[Jackson 2022] People living in social housing had higher odds of having made a serious attempt to quit in the past year ( $OR_{adj}=1.16$ , 95% CI 1.07 to 1.25) and higher odds of using evidence-based cessation support ( $OR_{adj}=1.22$ , 95% CI 1.07 to 1.39) but lower odds of remaining abstinent ( $OR_{adj}=0.63$ , 95% CI 0.52 to 0.76).[Jackson 2022]
- People who smoke living in social housing were more addicted than those in other housing types (smoking within 30 minutes of waking:  $OR_{adj}=1.50$ , 95% CI 1.39 to 1.61) but were no less motivated to stop smoking ( $OR_{adj}=1.06$ , 95% CI 0.96 to 1.17).[Jackson 2022]
- People who smoke living in social housing face more barriers to stopping, such as higher levels of tobacco dependence (as above) and higher levels of smoking in their environment.[Jackson 2022; ASH 2022] Reported barriers to stopping smoking include a lack of access to stop smoking aids, social triggers to continue smoking and socio-economic stressors.[Foster 2022; Jackson 2022]
- Evidence indicates that stop smoking interventions targeted to social housing settings can increase smoking cessation rates and reduce SHS exposure. A systematic review identified 18 studies conducted in the US and one in the UK involving stop smoking

interventions in social housing settings.[Lai 2024] Four of these were RCTs which included control group comparators and biochemical validation; three of the RCTs demonstrated smoking reduction and one did not document an effect. These studies used a variety of strategies that combined behavioural counselling, stop smoking aids and social support.[Lai 2024] The review found a positive impact on both short-term (<6 month) and long-term (6–12 month) smoking abstinence.

- Reported quit rates from studies conducted to date suggest quit rates for social housing interventions are 30.7% at four weeks and 33.8% at six months.[Lai 2024]
- Onsite interventions were favoured by residents and acceptability was higher when social support and/or free pharmacotherapy were provided.[Lai 2024]
- Most participants liked peer-led group sessions. The use of trained peer mentors to deliver cessation support to residents has been identified as a promising strategy but additional research is needed to inform practice.[Ford 2013]
- Both participants and mentors suggested incentives to encourage participation and targeting of younger people.[Ford 2013]
- Studies described participant difficulties with NRT use, with one reporting less than 20% of participants using nicotine gum correctly.[Lai 2024]
- Delivering stop smoking support and aids directly to residents has been identified in exploratory studies as being important in social housing settings.[Lai 2024]
- Modelling by University College London estimates that providing targeted stop smoking support, including an offer of a free nicotine vape starter kit to people who smoke and live in social housing across England, would result in approximately 298,000 additional long-term ex-smokers between 2022 and 2030.[ASH 2022] Overall, this intervention alone could deliver a 3.9 percentage point reduction in smoking prevalence among people who live in social housing.
- Existing practice shows collaboration between social housing providers, local authorities and other partners to deliver specific and targeted programmes supporting residents to quit smoking can be highly effective.[ASH 2022]
- A report published by ASH and Housing Learning and Improvement Network (LIN) highlighted that when working with social housing organisations it may be important to emphasise the mutual benefits to supporting tenants with stopping smoking.[ASH 2022] Specifically, stopping smoking helps tenants with spending less on cigarettes and therefore improves their household finances and increases their ability to pay rent, meaning an increase in stability of housing organisation income streams.

## National examples

Flagship Homes, a social landlord providing over 30,000 homes across the East of England, launched its smokefree homes project in September 2021. The multi-stranded, phased project aims to comprehensively support residents to quit smoking and lead healthier lives. The project is the result of close collaboration between Flagship Homes, Norfolk County Council, Suffolk County Council and Essex County Council.

Flagship Homes have successfully consulted with residents to inform their approach and have a comprehensive programme of communications planned to raise awareness of available support and make the health and wellbeing motivation for this work clear. This engaging and comprehensive approach will help to secure buy-in from staff and residents and avoid misperceptions that tobacco control measures are punitive in nature or motivation.

### What's in the pipeline?

#### **SAVINGS pilot study**

This project explores an innovative approach to help people living in social housing quit smoking. Recognising that residents of social housing are more likely to smoke, thereby facing greater health risks and financial strain, Clarion Futures is offering brief advice on smoking cessation as part of its financial guidance service. The University of Oxford is assessing this service's feasibility and acceptability.

[https://www.arc-oxtv.nihr.ac.uk/research/Brief\\_Opportunistic\\_Advice\\_On\\_Smoking\\_Cessation\\_Within\\_Financial\\_Guidance\\_Services](https://www.arc-oxtv.nihr.ac.uk/research/Brief_Opportunistic_Advice_On_Smoking_Cessation_Within_Financial_Guidance_Services)

#### **Brief opportunistic Smoking cessation Advice for financially Vulnerable Individuals accessing financial Support (SAVINGS): a randomised controlled trial**

<https://fundingawards.nihr.ac.uk/award/NIHR158844>

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Oxford University partners with Clarion Housing Group to support smoking cessation for people living in social housing. <https://www.phc.ox.ac.uk/news/supporting-smokers-in-social-housing-with-smoking-cessation>



## Conclusions

**This scoping review found good evidence that intervention tailoring to the characteristics of the groups or individuals being treated, also referred to as bespoke interventions, can improve rates of treatment engagement and success with reducing or stopping smoking.**

This is true for all people who smoke, particularly among groups where we document higher rates of smoking and/or greater barriers to stopping smoking. The review addressed both the evidence for tailoring behavioural support and stop smoking aids and what is known about tailoring tobacco dependence treatment to priority groups.

There are well documented lower rates of successful stopping among individuals in priority groups – both with and without treatment – when compared to the general population of people who smoke. This is despite data suggesting that motivation to quit does not vary significantly among individuals in priority groups. Individuals from several priority groups (people with SMI, people with drug and alcohol addictions, people living in social housing and those experiencing homelessness) have documented significantly greater tobacco dependence, and therefore greater severity of tobacco withdrawal symptoms and urges to smoke, relative to the general population.

Social and other environments that promote smoking, positive smoking identities, higher levels of distress, a greater reliance on smoking to cope with stress, smoking for relaxation and enjoyment, symptoms of mental illness, greater levels of boredom and loneliness, and trauma all contribute to higher rates of smoking. The review identified that, while we commonly speak about mental illness as a broad category, individuals with anxiety disorders and those with schizophrenia spectrum disorders experience greater barriers and lower rates of stopping than those with other forms of mental illness and consequently require greater attention to tailoring of support.

This review identified that ensuring individuals, particularly those from priority groups, feel that the tobacco treatment programme is inclusive and appropriate for them is important for increasing rates of participation and compliance. Promoting alternative ways of stopping such as CDTs, using a nicotine vape and embedding support in settings that individuals live and/or receive treatment or support in can increase engagement and have been shown to be particularly important for priority groups.

There is good evidence that individuals from priority groups will benefit from pre-treatment, higher doses and extended use of stop smoking aids to appropriately address nicotine withdrawal and urges to smoke, and to increase confidence in their ability to stop. Available evidence supports that nicotine vapes and varenicline can provide people in priority groups with the greatest chance of stopping smoking. There is evidence that combining nicotine analogues with nicotine replacement products (NRT or a nicotine vape), as well as extending treatment with stop smoking aids to 12 months for individuals at high risk of relapse, can increase success with stopping.

There is good evidence that extended and tailored behavioural support will result in increased rates of stopping among individuals from priority groups. While BCTs for priority groups are not fundamentally different, this review identified that behavioural support for priority groups often

requires additional time and practitioner skills to develop rapport and address low confidence, smoker identities and self-regulation. Research supports the need for behavioural support to be delivered flexibly (appointment times and settings) and for practitioners to be prepared for setbacks in the quitting process.

For some priority groups, the evidence and best practice on adapting and tailoring stop smoking services is robust, whilst for others there is limited research but emerging good practice. Specifically, there is a larger evidence base for tailoring stop smoking support for people with SMI and those receiving treatment in drug and alcohol services. It is reasonable that many of the principles and approaches identified for people with SMI could be applied to other priority groups.

Summarised below are principles for tailoring treatment to priority groups that have emerged from this review, under three categories: service design, behavioural support and stop smoking aids.

### **Service design**

- Involve service users and staff from service settings who work with priority groups in the design and delivery of stop smoking support.
- Embed support into settings in which priority groups live and/or spend time.
- Anticipate the need to provide more intensive stop smoking support (frequency of contacts) and extended duration of behavioural support (12 weeks or longer).
- Make available both abrupt and CDTs approaches to stopping.
- Layer support by adding additional components to the treatment plan over time as needed. This includes adding a second stop smoking aid, extending treatment support, adding digital support or more frequent contacts based on patient response to treatment.
- Offer incentives to quit to priority groups, including people with SMI, people experiencing homelessness and people living in social housing.

### **Stop smoking aids**

- Due to greater tobacco dependence there is a greater likelihood that the following will be needed:
  - Higher doses of nicotine replacement from nicotine vapes and NRT to address withdrawal symptoms and urges to smoke
  - Extended use of stop smoking aids
  - Combination of two stop smoking aids such as varenicline and NRT, or NRT and nicotine vapes
  - Behavioural support that addresses the skills needed for coping with withdrawal symptoms, urges and triggers to smoke

### **Priority groups**

- Tailor communications materials to increase engagement by ensuring they resonate with and reflect priority groups.
- Communicate using language that is tailored to increase acceptability among members of priority groups.

- Anticipate more intensive behavioural support and advanced use of pharmacotherapy for people with anxiety and schizophrenia spectrum disorder.
- Consider nicotine vapes as a first-choice treatment option, which may need to be combined with NRT or a nicotine analogue to manage tobacco withdrawal and urges to smoke.
- Hire stop smoking practitioners who have background or training in working with people from priority groups including people with mental illness, and people with drug and alcohol addictions.
- Anticipate that more time may be required to build rapport with some clients, and train practitioners in trauma informed approaches to the delivery of stop smoking support. Embedding stop smoking support in settings where individuals have developed trusting relationships can help.
- Recognise that symptoms of mental illness, learning disabilities and/or the effects of medications may affect the ability of individuals to engage in traditional forms of support. These can include social anxiety, difficulty concentrating, and difficulty with waking and functioning in the morning.
- For members of some priority groups, service delivery models should include greater flexibility, including:
  - longer lead-in time and pre-treatment with stop smoking aids may be needed before stopping
  - where and how services are delivered
  - shorter appointment times

There remain gaps in our understanding and, as such, there is a need to collaborate locally, regionally and nationally to better identify the needs, wants and responses of different service delivery models and tailoring approaches. Effort should be made to embed evaluation into service innovation, and to document experience with implementing tailored stop smoking support among priority groups.