Understanding how smoking cessation services can be adapted to improve the uptake and success of smoking cessation for people in low socioeconomic status groups. A mixed-methods exploratory study.

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Executive summary

Context

Tobacco remains the biggest cause of cancer and premature death in the UK, causing around 75,800 deaths each year. Smoking cost the health service about £2.2bn in 2022 across the UK, with a further £1.3bn falling on the social care system. Smoking is also a key driver of health inequalities and is responsible for nearly twice as many cancer cases in lower income groups compared to higher income groups.

The importance of stop smoking services (SSS) in reducing smoking prevalence is highlighted in tobacco control strategies and recommendations for future tobacco control measures across the UK. A key recommendation from the Khan Review (2022) outlines the importance of well-funded SSS to achieve improvement in health outcomes and reduction in health inequalities in England. People who smoke and who use SSS are three times more likely to successfully quit than those who try to quit unaided. Uptake and engagement are particularly low amongst lower socioeconomic status (LSES) groups. It is important to fully understand the potential challenges and opportunities in the context of enhancing the provision of SSS for people in LSES groups.

Aim

To explore the appeal, acceptability, and accessibility of SSS for people in LSES groups, and understand the barriers and enablers to uptake of SSS and areas of opportunity for service providers across the UK.

Methodology

We adopted a mixed methods approach using the COM-B model as a framework for identifying key mechanisms of action of accessing SSS (the target behaviour). In the report we use LSES as an umbrella term for multiple indicators of deprivation that included but were not limited to:

- Education - educated to O-level or GCSE equivalent or below;
- Household income - casual labourer, pensioner, student, unemployed (e.g. pensioner without private pension and anyone living on basic benefits), routine semi-skilled and unskilled manual worker, skilled manual worker and those with no previous or current employment within the household;
- Living arrangements - renting from local authority/housing association, renting privately or living with family/friends.

Work package 1: Exploratory analysis of the uptake of SSS in areas with high levels of deprivation and smoking prevalence in routine and manual (R&M) groups

- Creation and analysis of a dataset combining SSS returns data, Index of Multiple Deprivation (IMD) and population size (18+) at local authority level in England.
- Survey of SSS leads, managers, cessation practitioners and pharmacists across the UK.

Work package 2: A qualitative study to explore the knowledge and perceptions of SSS providers in relation to providing and promoting SSS to LSES groups

- Semi structured interviews with SSS providers across all four nations (England n=7, Wales n=5, Scotland n=6, NI n=5)

Work package 3: A qualitative study to ascertain the knowledge and perceptions of SSS users alongside barriers and facilitators to access.

- Semi-structured interviews with 114 participants who had either a current or recent smoking history and who had either previously accessed or may potentially access a SSS across the UK.

Key findings

Service uptake

The exploratory analysis of service uptake showed that, as would be expected, the number of people setting a quit date with a SSS tends to be higher in areas with a higher number of people who smoke. However, when looking at the number of people setting a quit date per 100,000 people who smoke, there was significant variation across local authorities. We found no relationship between the number of people[1] setting a quit date and local area IMD, suggesting that people in areas of high deprivation are similarly likely to set a quit date using a SSS to those in areas of low deprivation.

Service delivery

How support is delivered

The survey of SSS leads, managers, cessation practitioners and pharmacists showed that SSS are provided using a range of channels, including in-person, telephone and digital support, including one-to-one online sessions. Services are being offered in a variety of settings, primarily within the community but also within secondary care, mental health, maternity, and pharmacy settings. Nearly one third of SSS are offered as part of an integrated lifestyle service.

In the interviews with SSS providers, although the use of technology to deliver SSS was seen as a valuable tool to increase accessibility of services, some felt it could lead to digital exclusion. In addition, some service providers preferred in-person service delivery options, as this allowed them to observe service users' body language and build rapport more easily.

Although service providers may have had a preference on service delivery, they agreed that providing multiple modes of delivery, such as telephone, online, or in-person support, was a facilitator to accessing SSS and allowed for a more tailored service flexible to the needs and preferences of people in LSES groups.

Similarly, interviews with service users showed there is a need for more choice in delivery of both in-person and remote (i.e., telephone and app-based behavioural support). Several participants with lived experience of smoking felt they would not use a digital app to help them stop smoking, citing limited access to technology (smartphones), poor digital literacy and a preference for talking to a 'real person''. However, some participants in England and Wales thought they would consider this mode of support if they possessed the awareness and understanding of relevant apps to support their quit journey.

Who can access services

Most services indicated in the survey that there were several criteria to be eligible for support, though not all had to be met to be able to access support. The most commonly reported eligibility

[1] per 100,000 people who smoke

criteria were being at least 12 years of age and being committed to quit smoking completely. A small number of services indicated that being in a priority group formed part of their eligibility criteria to access services; most frequently this was people with mental health and long-term conditions, pregnant women and family members of pregnant women who smoke.

Some services had targeted support within their standard programme of work; however, there is generally little targeted support among travellers, LGBTQIA+ and those in touch with the criminal justice system, despite higher smoking prevalence in these groups compared to the general population.

Length of support offered

In the survey, most services reported offering support for 12 weeks, with around 1 in 5 reporting that they offered support for longer than this. Less than 50% of SSS reported providing immediate access to support after relapse.

The interviews with service users found the length of the support often insufficient: most participants expressed a wish for access to more NRT and/or some form of behavioural support beyond a 12-week period. However, some participants felt that the length of treatment was either the right amount of time or too much.

Type of support offered

Although most SSS reported in the survey that they offered more than one form of NRT product, pharmacotherapy options were very limited due to the prior removal of Zyban (Bupropion) and (at the time the research was conducted), removal of Champix (Varenicline) as well. Additionally, only around half of services reported offering e-cigarettes as part of the support package, despite proven efficacy of nicotine-containing e-cigarettes as a quit aid.

Accessing Stop Smoking Services

SSS providers saw that the wider determinants of smoking among LSES groups, such as being part of a social group with people who smoke, or increased stress, stopped some people accessing their services. For instance, the use of smoking as a coping mechanism to deal with difficult or complex lives. Further potential barriers included busy schedules, as well as language, health literacy and general literacy levels.

Providers reported that services located centrally within LSES groups, such as pharmacies, were more easily accessible. In contrast, they saw that people living in remote and rural areas faced physical barriers in accessing services due to the extra time required for travel. This was echoed in the interviews with service users who reflected on the ease of being able to access a service when it was based in their local community.

Along with flexibility in location, flexible timings were seen as an option to increase both uptake and engagement with services. However, an oft-cited barrier identified by service providers was long waiting lists, which were due to staffing shortages and increasing demand for referrals to the service - with some services having waiting lists of four to six weeks before service users were contacted.

In Scotland and Wales, providers noted a general uncertainty in the community about how to access support. Similarly, across the UK, previous SSS users reported being unsure about how to re-access a service if they relapsed and felt if they did relapse, they would be limited in when they could sign up to the service again in the future.

Acceptability and delivery of NRT and pharmacotherapy

People who had previously accessed a SSS perceived free access to NRT to be an important facilitator to quitting smoking; however, some thought there was a lack of support for NRT provision and/ or that they needed more information around the range of products available and potential side effects. Some service providers felt that service users were unable to understand how to use NRT products correctly, potentially due to lower levels of health literacy and, in some cases, due to finding it difficult to open packaging because of limited manual dexterity. Many participants held negative preconceived beliefs about the effectiveness of NRT, derived from their own personal experience of having used NRT or from discussions with family and/ or friends who had previously used NRT when trying to quit.

Service providers identified the limited range of NRT products available to SSS (in some cases due to funding constraints) as a barrier to LSES groups who would have to purchase their preferred product out-of-pocket if not provided by the service. The removal of pharmacotherapies, such as Champix (Varenicline) and Zyban (Bupropion), was reported as a further barrier to service uptake, as users have disengaged with the service when their preferred support was no longer available. Participants mentioned instances of service users having to wait weeks until they could receive their NRT or pharmacotherapy prescription from the pharmacy.

Service providers highlighted the importance of a flexible and tailored approach to NRT provision among LSES groups. This included service users having the ability to choose which products work for them, offering a combination of products, and tailoring the service according to the individual.

E-cigarettes for smoking cessation

Service providers in England recognised that service users preferred e-cigarettes for smoking cessation, making their provision within SSS a facilitator to uptake and success among LSES groups. However, for the remaining devolved nations, participants acknowledged that conflicting public health messaging regarding e-cigarettes for smoking cessation often made it difficult to "*promote a united front*" as "*nuance does not translate well in public health*." Some service providers identified a need to offer support with e-cigarette cessation for service users who exclusively use e-cigarettes, particularly for LSES groups, due to the cost of e-cigarettes.

Behavioural support

Service providers identified some common barriers to the effective uptake and success of behavioural support among LSES groups including a lack of familiarity and trust with SSS advisors. Other potential barriers to engagement included the lack of ability to maintain a regular schedule and have one-to-one meetings due to irregular work schedules. In some services, behavioural support was compulsory as part of the treatment course, and this was viewed as a barrier to engagement for those who did not want to have this type of support. The ability to provide longer-term and more flexible, holistic behavioural support was seen as an option to increase rapport and encourage engagement among LSES groups.

In the interviews with service users, some felt it would be beneficial to receive more behavioural support within the community pharmacy setting. Others commented that having an advisor with a personal smoking history was a facilitator to engaging with behavioural support, as they felt they were better able to relate to their experience and the difficulties in quitting smoking.

Reasons for never accessing a Stop Smoking Service

Psychological barriers
Some never-users had never accessed a SSS because they had a limited understanding about the range of support a SSS could provide. Some preferred to quit on their own terms and without the support of a SSS, often due to a fear of being judged if they relapsed and/ or a lack of confidence in the support offered. Lack of motivation to stop smoking was one of the most frequently described reasons for why participants had not or would not access a SSS. Many non-service users did not want to access a SSS because they were not ready to stop smoking. For others, social anxiety meant they were put off the behavioural support aspect of SSS.

Physical barriers
Participants expressed a lack of time to attend SSS or engage with regular behavioural support due to busy schedules and competing priorities. Inconvenient locations also acted as a barrier to access, i.e. location was too far and/ or the participant experienced mobility issues and was unable to get there without support. Other cessation tools such as e-cigarettes and NRT were considered easier to access than a SSS.

Conclusion
This report presents findings from a mixed methods study exploring how to improve uptake of SSS and identify areas of opportunity for service providers across the UK. These findings show that there are a range of services available, appropriately placed in areas with higher numbers of people who smoke, and those people who access services are similarly setting quit dates in line with service availability. However, this research has also identified that there are large numbers of people who are not accessing the services, and this may particularly be the case for those from disadvantaged and vulnerable populations. This could be for several reasons, including lack of capacity within the service as a result of cuts to public health grants, inability of services to meet needs of specific populations and/or access restrictions such as geographical location, physical barriers or restrictions on access after an unsuccessful quit attempt.

Key facilitators to increasing uptake and engagement with services were: higher awareness of the services available and how different options could help people; flexibility in how services are delivered (e.g. location, duration and online vs in person); a range of NRT, pharmacotherapy, e-cigarette and behavioural support available; and a personalised, non-judgemental approach. Access to relapse support as soon as possible after a relapse was further identified as an important facilitator to success.

Policy recommendations
These recommendations were developed by Cancer Research UK's policy experts based on the research findings from this study, other evidence and wider considerations.

In order to improve engagement with SSS for people in LSES groups, CRUK makes recommendations on page 50 around improving the visibility of SSS, widening the access to SSS, and improving the availability of NRT, pharmacotherapy and e-cigarettes. This all needs to be underpinned by sustainable Government funding across all four nations to help people who smoke to quit.

Cancer Research UK is calling on the UK and devolved Governments to:

- **Provide funding for the services and resources that help people quit smoking.**

  SSS must receive adequate and sustainable funding, which should be secured for the amount of time needed to reduce smoking rates (to less than 5% of the population smoking) across all four nations.

- **Increase the visibility and reach of SSS to help people quit smoking.**

  Health and social services – for example, healthcare services, local authorities, third sector organisations, and community groups – should work to promote SSS available in their local area and should encourage people to quit smoking.

- **Increase the accessibility of SSS to encourage uptake.**

  SSS should be made as flexible as possible, including by offering a range of session timings, flexible quit dates, in-person and digital technology options, and re-access to support following relapse. Evidence on how co-location of services with other support in the community should also be gathered to assess impact on uptake and success.

- **Ensure cessation tools, including e-cigarettes, are available and accompanied by support.**

  Evidence-based interventions and cessation tools, including e-cigarettes, should be widely available to people in LSES groups and should be provided alongside clear public health guidance and service providers' advice.

List of acronyms

AA	Alcoholics Anonymous
ASH	Action on Smoking and Health
CO_2	Carbon Monoxide
CRUK	Cancer Research UK
GP	General Practitioner
IMD	Index of Multiple Deprivation
LA	Local Authority
LSES	Low Socio-Economic Status
NCSCT	National Centre for Smoking Cessation and Training
NHS	National Health Service
NICE	National Institute for Healthcare and Excellence
NRT	Nicotine Replacement Therapy
PHA	Public Health Agency (Northern Ireland)
PPIE	Patient and Public Involvement and Engagement
R&M	Routine and Manual
SCP	Smoking Cessation Practitioner
SIMD	Scotland Index of Multiple Deprivation
SSS	Stop Smoking Services
TANG	Tobacco and Nicotine Discussion Group
UK	United Kingdom
WP	Work Package (1,2 and 3)

Introduction

Background

Tobacco is the largest cause of cancer and premature mortality in the UK (1), estimated to be responsible for around 75,800 deaths and a cost of £3.6 billion to the National Health Service (NHS) and social care each year (2). Although smoking prevalence across the United Kingdom (UK) has been declining over recent decades, prevalence amongst those in low socioeconomic status (LSES) groups remains high (3, 4). Data from across the UK suggests that 23% of those in 'routine and manual' (R&M) occupations smoke tobacco compared to 8% within 'managerial and professional' roles (3). As a result, smoking is a key driver of health inequalities (5) and is a key factor in cancer incidence inequalities across the UK (6); for example, if everyone in England had the same smoking prevalence as the least deprived quintile, then 20% of the deprivation gap in cancer incidence could be prevented (6).

Governments in England, and Wales have set targets to reduce smoking prevalence to less than 5% of the adult population by the year 2030 and Scotland by 2034 (there is no such target in Northern Ireland) (7-9). According to CRUK projections, if recent smoking prevalence trends continue, adult smoking prevalence in the least deprived decile in England will reach 5% in 2024, while in the most deprived decile, adult smoking prevalence will not fall below 5% by 2050 (10). The recent Khan Review suggested that the target for England will not be achieved without concerted action in the poorest areas of society (11).

Stop smoking services in the UK

A network of stop smoking services (SSS), offering a combination of behavioural and pharmacological support, and initially targeting areas of high deprivation, was first established in 1999 in England and rolled out to other parts of the UK from 2000 (12).

Services in Scotland (Quit Your Way) and Wales (Help Me Quit) are commissioned by the NHS and are delivered via a national 'Quitline', plus referrals and self-referrals into localised NHS teams and pharmacies(13, 14) . In Northern Ireland, the Public Health Agency (PHA) commission services from a range of providers that include general practitioners (GP's), pharmacies, hospitals, workplaces and community and voluntary settings (15). In England services are commissioned by local authorities and provided by independent SSS or integrated lifestyle services that could also include alcohol support and weight management, pharmacies, and charities (16).

People who smoke and who use SSS are three times more likely to successfully quit than those who try to quit unaided, (17) but uptake of service use is low across all socioeconomic status groups, and particularly amongst populations living in more deprived areas (18). Research with those in LSES groups suggests a range of factors influence uptake and success, including: lack of awareness or understanding about what SSS offer; fear of being judged; lack of confidence in service efficacy; lack of time and resource to attend appointments; living with people who smoke; and perceived stigma (19). Investigation of how SSS can be more engaging and accessible for LSES groups is essential particularly as budgets to fund SSS have been reducing since 2015 (20).

Targeted support for LSES groups

SSS have been increasingly adopting partnership working with third parties to directly engage with those who smoke from LSES groups. For example, the recent ASH report “Reaching Out: Tobacco control and SSS in local authorities in England, 2021” identified that 43% of local authorities were undertaking tobacco control/smoking cessation work with social housing providers and 21% with debt or financial advice services (2). It should be noted, however, as far as we are aware this model does not operate in Scotland, Wales or Northern Ireland where the SSS are still delivered by the NHS or Public Health Agency and thus experiences may differ.

There is also potential to increase the reach and accessibility of stop smoking support through changing the medium of service delivery. Making services more agile through expansion of non-face-to-face services (including telephone/online/digital support) became more commonplace through the COVID-19 pandemic (21-23) and may be an avenue for widening access to SSS. However, to ensure the ‘digital divide’ does not exacerbate existing smoking-related health inequalities, it is important to fully understand the potential challenges and opportunities that such approaches could provide in enhancing the provision of SSS for people in LSES and other priority groups.

The importance of SSS in tackling smoking is highlighted in tobacco control strategies and recommendations for future tobacco control measures across the UK (4, 11, 24-26). A key recommendation from the Khan Review for English SSS (2022), and mirrored in other nations, outlines the importance of well-funded SSS to achieve improvement in health outcomes and reduction in health inequalities (11). In October 2023 the UK government pledged £70 million per year to local authority led SSS in England (27). The Scottish Government pledged to continue to fund SSS to achieve their target of making Scotland tobacco free by 2034 and have recently published a Tobacco and vaping framework road map with an initial implementation plan running until 2025 (9). The Tobacco Control Strategy for Wales (8) highlights the need to develop tailored approaches and work in collaboration with communities in order to increase smoking cessation rates for LSE groups. Finally, Northern Irelands plan published in 2012, identified three target groups, one of which was ‘disadvantaged people who smoke’ (15) This study will help to understand how current SSS provision can be adapted to increase the uptake and success of SSS and reduce smoking related harms among LSES groups. Our study identifies the needs of the target population, as well as the views of individuals who design and deliver local SSS, resulting in evidence-based recommendations which consider both the service user and provider perspectives.

Research aims and objectives

In undertaking this commissioned research for Cancer Research UK, our aim was to explore the appeal, acceptability, and accessibility of SSS for people in LSES groups, and understand the barriers and enablers to uptake of SSS and areas of opportunity for service providers across the UK.

To meet this aim, we formulated three objectives:

1: Understand the type and location of SSS available across England, Scotland, Wales and Northern Ireland, uptake of these services overall and within LSES groups and how this relates to local smoking prevalence (Work package 1).

2: Explore the knowledge and perceptions of SSS providers, in relation to providing and promoting SSS to LSES groups, including likely barriers and facilitators to access and how services could be enhanced (Work package 2).

3: Ascertain the knowledge and perceptions of previous and potential SSS users from LSES groups, in terms of their understanding of SSS, barriers and facilitators to access and any service needs to promote more equitable access for this group (Work package 3).

Methods

To meet our objectives, we adopted a mixed methods approach as we were addressing complex health questions which require data from different perspectives (28). The COM-B model (29) was used as a framework for identifying key mechanisms of action of accessing SSS (the target behaviour) within Objectives 2 & 3. The COM-B Model suggests that for any Behaviour (B) change to occur, individuals must have the physical and psychological Capability (C), Opportunity (O) and Motivation (M) to do so (29).

In the report we use LSES as an umbrella term for multiple indicators of deprivation that included but were not limited to:

- Education - educated to O-level or GCSE equivalent or below
- Household income - casual labourer, pensioner, student, unemployed (e.g. pensioner without private pension and anyone living on basic benefits), routine semi-skilled and unskilled manual worker, skilled manual worker and those with no previous or current employment within the household
- Living arrangements - renting from local authority/housing association, renting privately or living with family/friends.

Work package 1

Exploratory analysis of uptake of SSS in areas with high levels of deprivation and smoking prevalence in routine and manual groups

In this part of WP1 we used secondary data to explore uptake of SSS and how this varied according to levels of smoking in local authorities. A dataset was created combining stop smoking service returns data (30-32), , Index of Multiple Deprivation (IMD) and population size (18+) at

local authority (LA) level in England (33, 34). The SSS returns data are for England only, and therefore wider UK analysis was not possible.

Variables

- Number of people setting a quit date by LA (SSS returns data)
- Number of people who smoke by LA (derived from LA smoking prevalence and LA population size)
- Number of people setting a quit date per 100,000 of people who smoke by LA (SSS returns data)
- IMD (population profiles for local authorities in England)
- Self-reported quit success at four weeks overall and in R&M groups, by LA (SSS returns data)

Exploratory analysis using scatter plots was undertaken to investigate:

1) The relationship between the number of people who smoke in the LA and the number of people setting a quit date.
2) The relationship between the number of people setting a quit date per 100,000 of people who smoke and, local authority IMD.
3) Differences in setting a quit date between R&M people who smoke, and all people who smoke accessing SSS, by local authority.

Data management was undertaken in Excel and analysis in Stata/SE 18.0 (35).

Survey of stop smoking service provision

As comprehensive and sufficiently detailed data on local SSS were not available from secondary data sources, we set up a survey to collect such information across all four nations. A comprehensive list of SSS across the UK was compiled using NHS SSS returns data as a reference. Then SSS leads, managers, cessation practitioners and pharmacists were invited to take part in an online survey, administered by Jisc online surveys, in June 2023. The survey questionnaire was designed using a mix of questions previously used in annual surveys of SSS commissioners and managers carried out by the National Centre for Smoking Cessation and Training (NCSCT) plus questions designed specifically for this study. The survey contained questions relating to service organisation, delivery, products, and services provided and service users (Supplementary Material 1). The questionnaire was piloted prior to distributing it to survey participants. The survey link was distributed via the NCSCT members mailing list, through professional networks, and via adverts on Facebook and Instagram. We sent out two reminder e-mails to maximise the response rate to the survey. SSS websites were searched to populate survey questions when survey data was not provided. Respondents to the survey were asked to complete five follow-up questions eight weeks after completing the original survey, to gain additional understanding of some key aspects of SSS (Supplementary Material 2). We matched 44 (out of 85 operational services) of these additional question responses with those originally provided based on responder and service details.

Analysis of survey data was carried out in Stata v18. Data were explored using descriptive statistics. Any considerable outliers were excluded, but in all cases where that has been done, we have indicated the number of values excluded and the reasons for the exclusion. As the survey also contained free-text boxes, data from these were not included in statistical analysis but instead

were analysed separately by exploring common themes in free-text responses.

We received survey responses from 87 services, but two services were decommissioned. We therefore used only currently operational services for the analysis. In instances where more than one response was provided for a service, preference was given to responses from smoking cessation service managers, followed by tobacco control leads.

Work packages 2 & 3

Qualitative interviews with SSS providers and service users from LSES groups

Design

We conducted qualitative semi-structured interviews with SSS providers (WP2) and both previous and potential SSS service users (WP3) from across the four UK nations. Interviews explored current SSS practices, and the types of support offered to those in LSES groups, facilitators and barriers to the access or provision of services, and suggestions for potential areas of service development.

The semi-structured approach was chosen to ensure that interviews were participant-led and gave ample opportunity for the interviewer to explore points brought up by individuals (36). One-to-one interviews yield more detail than focus groups, and offer more insight into an individual's lived experience, personal thoughts, feelings, and world view (37). Interview data collection and analysis was guided by the COM-B Model as a framework for understanding Capability, Opportunity and Motivational barriers and facilitators to SSS engagement (Behaviour) (29).

Sample

Service providers (WP2): To ensure we maximised the variation in our sample and achieved theoretical saturation of data (38) we recruited 23 SSS providers (5 in Wales and Northern Ireland, 6 in Scotland, and 7 in England).

The qualitative sampling strategy involved all four nations and was purposeful to recruit a range of SSS job roles, areas (urban/rural), delivery of services (face-to-face, digital services) and type of support available nicotine replacement therapies (NRT) and/or e-cigarettes and/or behavioural support). Participants were recruited via WP1 (ticking a box at end of the survey to confirm follow-up for a potential interview), adverts on social media, and via the research team's national SSS networks.

Service users (WP3): We combined both convenience and purposeful sampling methods to recruit individuals from LSES groups who had previously accessed SSS and those who may look to access SSS in the future. Participants were recruited from across the UK by using IMD post code information to post targeted adverts on social media and within third sector organisations. We also advertised the study across Patient and Public Involvement and Engagement (PPIE) networks and utilised a specialist recruitment agency (recruiting roughly a third of the sample).

To determine study eligibility, participants completed five initial screening questions on smoking and socioeconomic status. Participants were eligible if they currently smoked or had recently stopped (quit within one year) and met the threshold for at least two out of three individual-level

deprivation indicators (education, household income, and living arrangements).

Our sampling strategy was purposeful where possible in order to recruit from a range of criteria, including age groups, genders, ethnicities, smoking status, and previous SSS experience (whether they had accessed a SSS ever, in the last year, or never before). Participants who were dual users of both e-cigarette and tobacco were included in the study; however, vaping status did not form part of the study eligibility criteria. As the study progressed, potential participants were chosen based on sampling criteria which had low recruitment.

Those eligible to take part in WP2 and 3 were given an information sheet and had to provide signed consent in advance of the interview.

Data collection and procedure

We designed separate semi-structured interview topic guides for SSS providers and service users, informed by the COM-B Model and Theoretical Domains Framework (39) (see Supplementary Material 3 and 4). The service provider (WP2) interviews discussed current practices related to delivery (e.g. stand alone or embedded services) and monitoring of services (e.g. number of service users enrolled, quit rates etc), types of support offered and if these are tailored towards those LSES groups. Interviews also covered potential barriers to accessing SSS amongst those in LSES groups and how services could be adapted to increase uptake and quit success amongst this group from the perspective of the service provider. In addition, we collected demographic data, and years working within a SSS.

For service users (WP3) we were interested in their awareness of, and motivation to, engage with local SSS, previous experiences of engaging with SSS, barriers and facilitators to engaging with cessation support (NRT and/or e-cigarettes and/or behavioural support) or modes of delivery (e.g. face-to-face in different settings, digital services). Options for adapting local SSS to maximise engagement and quit success amongst those in LSES groups were also explored. Alongside our screening data, we collected demographic information on each participant: postcode, age of smoking initiation, current number of cigarettes smoked per day, vaping status, and if they had ever had a quit attempt.

Interviews were conducted by one of five trained researchers (LD, EP, PS, RBW, RT) either via the telephone or an online platform (such as Zoom or Microsoft Teams). All interviews were digitally audio recorded. For service users we provided a £25 voucher as a thank-you for their time. Vouchers were not provided for service providers as their participation was viewed as part of their professional role.

Data analysis

Audio recordings were transcribed verbatim by an external specialist transcription service, approved by the University of Nottingham. Following receipt of transcripts, data were checked for accuracy and personal identifiers removed. Data were analysed separately for the service providers (WP2) and service users (WP3).

Both datasets were analysed using the framework approach (40). This approach enabled the team to map thematic differences/similarities within and between groups, e.g. for service providers, comparisons could be made across the nations and for service users, differences could be considered between those who had never and those who had ever accessed a SSS.

Data were coded both deductively (informed by the topic guide and COM-B Model) and

inductively, deriving from the spontaneous accounts from participants. Amongst the team of researchers, initial readings facilitated familiarisation with the data and the generation of initial codes. Further reading and immersion resulted in more substantive themes and sub-themes, resulting in the generation of an analytical framework. Data were then indexed according to the identified thematic framework. Finally, themes were agreed between the research team, allowing clarification of the final framework that was then applied across all the remaining transcripts. Discussion within the team helped refine, label, and interpret themes throughout these steps. Data were then charted according to each theme to facilitate interpretation, synthesis, and reporting. NVivo 12.0 was used to facilitate data management and analysis.

Knowledge Exchange and Engagement Activities

Stakeholder Round Table Event

To consolidate the findings from across the WPs an online round table event was held in January 2024. The event, hosted by Action on Smoking and Health (ASH), brought together thirty-four people from the across the UK comprised of third sector partners, practitioners, policy makers, academics, and participants from our WP2 and 3 interviews to share our findings and discuss recommendations for future action and potential future design of services across the four nations (Supplementary Material 5)

Patient and Public Involvement and Engagement

Patient and Public Involvement and Engagement (PPIE) was utilised throughout the study via consultation with the Tobacco and Nicotine Discussion Group (TANG), a UK-wide PPIE panel made up of people who smoke and/or vape. For more information on PPIE throughout the study (Supplementary Material 6)

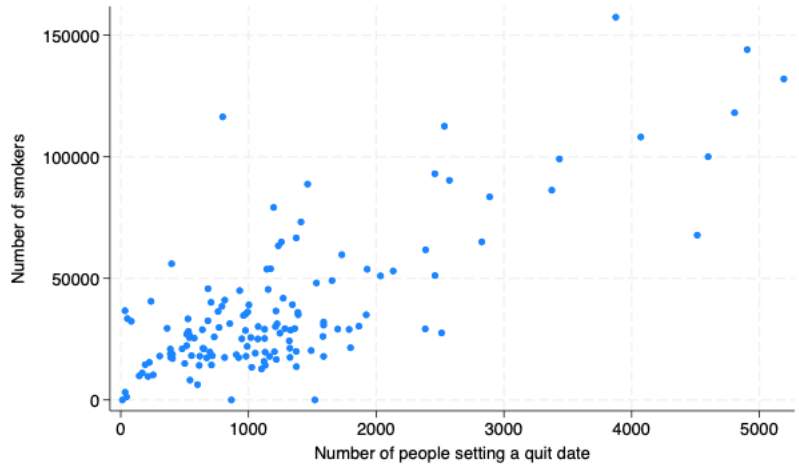
Findings

Work Package 1

Exploratory analysis of uptake of SSS in areas with high levels of deprivation and smoking prevalence in routine and manual groups

Figure 1 shows that in England, the higher the number of people who smoke in a local authority, the higher the number of people setting a quit date. However, there is a wide range in the number of people setting a quit date and a wide range in the number of people per 100,000 of people who smoke setting a quit date per year across LAs (range 109-8,299 per 100,000 people who smoke; median 3,209 per 100,000 people who smoke).

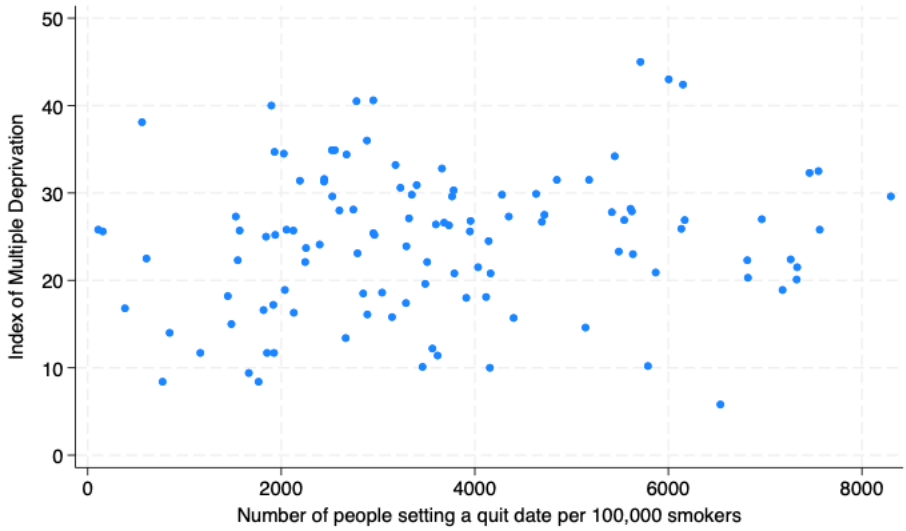
Figure 1: Scatterplot of number of people who smoke and number of people setting a quit date in local SSS per year, by local authority in England.



There is no relationship between the number of people per 100,000 people who smoke setting a quit date and local area IMD (Figure 3), suggesting that people in areas of high deprivation are similarly likely to set a quit date using a SSS to those in areas of low deprivation.

The median proportion of self-reported quit success (at four weeks) across LAs for R&M groups is 56%; for all persons setting a quit date it is 55%.

Figure 2: Scatterplot of IMD and number of people setting a quit date per 100,000 people who smoke, by local authority in England.



Survey results

Survey respondents

Completed WP1 surveys were received from 70 respondents providing data on 87 SSS across the UK. The majority of those who responded to the survey were from England (80 services; 92%). There were three responses from Wales, and two responses each from Scotland and Northern Ireland. Most people who completed the survey were smoking cessation service managers (n=43, 61.4%), followed by 24 tobacco leads (34.3%) and three pharmacists (4.3%).

Nearly half of those who completed the survey (n=32; 45.7%) worked in tobacco control/ smoking cessation on a part-time basis (less than 35 hours a week) whilst the majority (n=38; 54.3%) carried out tobacco control/ smoking cessation as a full-time role, working at least 35 hours a week.

Characteristics of SSS

Eighty-five services out of 87 were operational at the time of the survey, and most were commissioned by the LA (n=64; 73.6%) (Supplementary Material 7, Table i). The majority were expected to deliver their service in more than one setting, most common being community (76.5%), primary (50.6%) and secondary (41.2%) care, and mental health care (38.8%) settings (Supplementary Material 7, Table ii).

Smoking cessation advisors

Out of 85 currently operational smoking cessation services 75 (88%) reported information about the number of smoking cessation advisors employed to the service and 10 responded that they did not know. The number of advisors ranged from 1 to 80 advisors. However, when we further explored the data, it became apparent that the 80 was the number provided by one respondent who was an area manager and provided survey responses for six different services therefore it is likely that 80 represents overall number of advisors in those six services. Similarly, the estimate of 40 advisors was provided by a respondent who completed the survey questionnaire for two services hence again it is likely that it represents a total number in both services rather than just one. For the purpose of calculating the average value we therefore excluded these numbers. The average number of advisors employed to the service was 8.1.

In most of the services that are currently running (n=85) there were no volunteers (n=74, 87.1%).

We also asked the respondents whether they provided training for other practitioners to deliver Very Brief Advice (VBA). Most of the services indicated that they provided such training (n=73, 85.9%).

SSS uptake and use

We explored the eligibility criteria for service use (Table 1). Most services indicated that there were several criteria. However, people who smoke would not necessarily need to meet all criteria to be eligible to access the service. The most common criteria were related to being at least 12 years old (n=53, 62.4%) and being committed to quit smoking completely (n=45; 52.9%).

Table 1: Eligibility criteria for service use

Eligibility criteria	N (%)
Must live in certain area	37 (43.5)
Only people who smoke from priority groups	5 (5.9)
People who smoke aged 12 or older	53 (62.4)
People who smoke aged over 18 years of age (adults only)	27 (31.8)
People who smoke committed to cutting down with a view to quitting	19 (22.4)
People who smoke committed to quitting completely	45 (52.9)
Other eligibility criteria not listed	21 (24.7)

A small number of services indicated that being in a priority group formed part of their eligibility criteria to access services; most frequently this included were people with mental health conditions, pregnant women who smoke and the partners or family of pregnant women who smoke, though one service indicated that their priority group was those with diabetes and heart failure. For those services that had place-based eligibility criteria, most indicated that those were related to a person who smokes living, working, or having a GP in a certain geographical area, usually a borough or postcode area. For those that included other criteria, these included that people who smoke had to have smoked within the past 14 days. Some were related to a service user being an inpatient or outpatient in a specific trust. Some also had different age eligibility criteria - one services was offered to people who smoke aged 14 or over and one service specified that they offered the service to people who smoke aged 11 or older.

We also asked survey respondents whether in the last 12 months they had undertaken any targeted work to address smoking prevalence in specified populations.

As shown in Table 2, most services provided no or some targeted work for all priority groups. A comprehensive package of work was most frequently delivered for pregnant women as well as people with mental health conditions or long-term health conditions. The groups where most services had not undertaken any work in the past 12 months were people who are in touch with the criminal justice system, travellers, LGBTQIA+ and rural communities.

The services that indicated that they provided targeted support to other groups were typically providing support to drug and alcohol services, youth in schools and further education as well as pregnant teenagers.

Table 2: Targeted work in priority populations

Populations	No work undertaken/ not applicable. (N, %)	Some work undertaken. (N, %)	Comprehensive package of work undertaken (N, %)	Service has a designated worker for this population. (N, %)
Socioeconomically disadvantaged/ low-income areas	21 (24.7)	38 (44.7)	17 (20.0)	9 (10.6)
Routine and manual workers	20 (23.5)	45 (52.9)	18 (21.2)	2 (2.4)
Residents of social housing	32 (37.6)	43 (50.6)	9 (10.6)	1 (1.2)
Homeless people	45 (52.9)	34 (40.0)	5 (5.9)	1 (1.2)
Pregnant women	18 (21.2)	20 (23.5)	22 (25.9)	24 (28.2)
Post-partum women	29 (34.1)	31 (36.5)	12 (14.1)	13 (15.3)
People with mental health conditions	25 (29.4)	30 (35.3)	12 (14.1)	18 (21.2)
Ethnic minority groups	35 (41.2)	33 (38.8)	9 (10.6)	8 (9.4)
LGBTQIA+ communities	53 (62.4)	26 (30.6)	6 (7.1)	0
People with acute or long-term health conditions	23 (27.1)	28 (32.9)	19 (22.4)	15 (17.7)
People in touch with the criminal justice system	64 (75.3)	16 (18.8)	3 (3.5)	2 (2.4)
Travellers	67 (78.8)	14 (16.5)	4 (4.7)	0
Rural communities	60 (70.6)	18 (21.2)	7 (8.2)	0
Other target populations not listed above	59 (69.4)	15 (17.7)	10 (11.8)	1 (1.2)

Service delivery

The majority of the services (n=79, 92.9%) confirmed that service users usually speak to the same advisor for the duration of their treatment. We also enquired about the length of support provided and most services offered 12 weeks support (n=54, 63.5%) (Table 3).

Table 3: Duration of treatment

Duration of the service provided	N (%)
12 weeks	54 (63.5)
More than 12 weeks	15 (17.7)
Other	11 (12.9)
4 weeks	2 (2.4)
6 weeks	2 (2.4)
Less than 4 weeks	1 (1.2)

Among those who indicated that they offered different length of service, typically it was a flexible approach or was dependent on length of admission. Some services also provided different support to different groups, for example, in one service pregnant women and people who smoke with mental health conditions could get 12 weeks support, but the general population could receive 6 weeks support. Another service offered 8 weeks for behavioural support but 12 weeks for NRT.

Services also differed slightly in the frequency of contact with the service users during their treatment, although typically services contacted their service users weekly (n=51, 60%) (Supplementary Material 7, Table iii).

The majority of smoking cessation services typically delivered stop smoking support to people who smoke using more than one method. In person one-to-one appointments and telephone support were most popular (95.3%), with nearly two thirds of services offering one-to-one video calls and text messages (Table 4),

Table 4: Method of support delivery

Support offered	**N (%)**
In person one-to-one appointments	81 (95.3)
Telephone support	81 (95.3)
Video calls- one-to-one sessions	54 (63.5)
Text messages	53 (62.4)
In person 'drop in'- one-to-one	38 (44.7)
Emails	37 (43.5)
Digital (web based/ apps)	25 (29.4)
Home visits	21 (24.7)
In person- rolling groups*	17 (20.0)
In person- closed groups^	13 (15.3)
Video calls- groups sessions	6 (7.1)
Peer-led sessions	3 (3.5)
Other	2 (2.4)

*In person rolling groups – Service users can join the group at different stages in their quit journey
^In person closed groups – Service users start the group together, with the same quit date and number of weeks of support

Nearly one third of SSS (n=25) reported offering digital (web based/app) support and this was further explored in a separate question. There were 16 services where apps were used as an integrated part of delivery. There were also 15 services where apps were not used at all. However, the majority of the services indicated that although they do not use apps as part of their service, users may be signposted to digital services for additional stop smoking support (n=53; 62.4%). There was one service where the responder did not know the answer and two services that were currently not operational did not provide answer to this question.

When asked about how soon after relapse to smoking a service user can access support for their next quit attempt, nearly half of services provided immediate access with only a minority of services exceeding one month. Those who had selected 'other' mostly indicated that such decisions were made on a case-by-case basis and was dependent on client's individual circumstances (Supplementary Material 7, table iv).

Additional survey response

After the main survey we approached survey respondents and asked about the service opening hours. Whilst almost all services were open at least standard working hours (9am to 5pm) (93.2%) there were also a considerable proportion of services that provided their services in the evening (47.7%) and at weekends (25.0%). Some also indicated that their service was available from 8am on all or some weekdays and one respondent had indicated that digital support was available 24/7 (Supplementary Material 7, Table v).

The additional survey data analysis also showed that 16 out of 44 services (36.4%) had waiting lists with waiting time typically being two weeks (Supplementary Material 7, Table vi).

Products available to service users to support quit attempts

We explored what products were offered to service users and how these products were made available (Table 6). Direct provision was most common for different forms of NRT, though not all NRT products were available in every service. For example, nearly a quarter of services did not provide nicotine nasal spray.

Table 6: Stop smoking product availability

Product	Direct provision N (%)	Voucher N (%)	Prescription N (%)	Not provided N (%)	Don't know. N (%)
Nicotine patches	46 (54.1)	24 (28.2)	13 (15.3)	2 (2.4)	0
Nicotine mouth spray	45 (52.9)	24 (28.2)	13 (15.3)	3 (3.5)	0
Nicotine nasal spray	30 (35.3)	22 (25.9)	12 (14.1)	21 (24.7)	0
Nicotine gum	45 (52.9)	24 (28.2)	13 (15.3)	3 (3.5)	0
Nicotine inhalator	42 (49.4)	24 (28.2)	13 (15.3)	6 (7.1)	0
Nicotine micro-tabs	24 (28.2)	23 (27.1)	9 (10.6)	27 (31.8)	2 (2.4)
Nicotine lozenges	44 (51.8)	24 (28.2)	12 (14.1)	5 (5.9)	0
Varenicline (when available)*	9 (10.6)	5 (5.9)	39 (45.9)	32 (37.7)	0
Bupropion (when available)*	5 (5.9)	5 (5.9)	36 (42.4)	39 (45.9)	0
Cytisine (when available)*	1 (1.2)	0	7 (8.2)	70 (82.4)	7 (8.2)

***Availability of pharmacotherapy products**

Varenicline - Varenicline was withdrawn in Oct 2021 and was not available in the UK. An unlicensed version was made available at the end of 2023 and a licensed version is being introduced from August 2024.

Bupropion - Production was withheld in December 2022 and a review of manufacturing processes undertaken. Bupropion was made available again in the UK in October 2023.

Cytisine - Available as a prescription only stop smoking medication from 22nd January 2024.

We also investigated whether service users were offered dual therapy in a form of different NRT products or NRT product combined with e-cigarettes. Only two services did not provide dual therapy. The majority (n=55, 51.8%) offered NRT with e-cigarettes and 39 services (45.9%) offered dual NRT therapy.

Similarly to the length of support (Table 3), the products were mostly offered to people using SSS for 12 weeks (Table 7).

Table 7: Length of NRT provision

Weeks of NRT provision	N (%)
12 weeks	58 (68.2)
Other	10 (11.8)
More than 12 weeks	7 (8.2)
4 weeks	6 (7.1)
Not supplied	2 (2.4)
8 weeks	1 (1.2)
Less than 4 weeks	1 (1.2)

Survey results also show that 46 out of 85 services provided electronic cigarettes (54.1%) while the remaining 39 (45.9%) were not providing such products.

For those that provided e-cigarettes, tank devices and pod devices were the two most commonly offered products (Table 8).

Table 8: Type of vaping device provided

Type of vaping device	N (%)
Tank devices	23 (44.2)
Pod devices	12 (23.1)
Regulated Mods	5 (9.6)
Single use/ disposable e-cigarettes	4 (7.7)
Other	2 (3.9)
Not applicable/ Don’t know	6 (7.1)

When it comes to vaping related paraphernalia, 24 services (53.3% of those providing e-cigarettes) provided coils for the duration of treatment and six services provided coils as a one-off. 26 services (57.8% of those who provided e-cigarettes) provided liquids for the duration of treatment and a further six services provided liquids as a one-off. Plugs for charging were offered by 16 services for the duration of treatment and 11 services provided plugs as a one off. Seven services provided pods for the devices and one service provided a voucher. In 40 (88.9%) out of 45 services that provided e-cigarettes, service users were given an option to choose their e-liquid flavour. 36 services (or 80% of those providing e-cigarettes) said that they provided e-cigarettes during the 12 weeks service delivery period. There were no services that provided e-cigarettes after 12 weeks though seven services provided e-cigarettes for eight weeks or less.

In the additional survey questions, we also asked whether the service was e-cigarette friendly and supported users to use their own e-cigarettes, and 37 out of 44 (84.1%) responders confirmed

that their service was e-cigarette friendly.

Additionally, 25 responders out of 44 who completed the additional questionnaire (56.8%) confirmed that their service provided advice and support to quit e-cigarettes.

Work Package 2

Qualitative interviews with SSS providers

Twenty-three participants working within SSS across the UK took part in a qualitative interview between June 2023 and October 2023. One interview completed in Scotland had two participants in attendance, resulting in 22 interviews being carried out in total, each within a different SSS locality: England (n=7), Scotland (n=6), Northern Ireland (n=5) and Wales (n=5) (Supplementary Material 8, Table 1). Nearly two thirds of the sample (n = 16) were SSS managers, and the remaining were SSS advisors (Supplementary Material 8, Table 2); some advisors also offered stop smoking support within their day-to-day role. Most service managers had senior roles, either leading services at local or national localities.

On average the number of years working within an SSS and/or tobacco control was 11.5 (ranging from 6 months to 33 years). There was a variety of SSS described in the interviews across all four UK nations, including services based within community, workplace, school, prison, mental health, and primary and secondary care settings. The average age of participants was 53 years and most participants identified as White British/Irish ethnicity (n = 22) and female (n = 20) (Supplementary Material 8, Table 2). Average interview length was 58 minutes.

Four key themes were derived from the data:

1. Accessing SSS.
2. Mode of SSS delivery.
3. Range of support offered by SSS; and
4. Recommendations to improve SSS

These themes are described in relation to barriers or facilitators to uptake and engagement among LSES groups. Each theme is presented below alongside illustrative quotes, with the following participant identifiers for England (E0XX), Wales (W0XX), Scotland (S0XX), and Northern Ireland (NI0XX), along with their role as either an SSS advisor or lead/manager.

1. Accessing SSS

Social Determinants

The service providers described the influence of the wider social determinants of smoking among LSES groups on accessing SSS. The sentiment that LSES groups may lead more "*chaotic or difficult complex lives*" was described as a barrier for LSES groups who lacked the capacity to attend in-person service provision. Providers also felt that the wider determinants of smoking among LSES groups may also contribute to psychological barriers in accessing SSS, specifically around self-efficacy in quitting and the use of smoking as a coping mechanism to deal with difficult or complex lives.

"*It's knowing that the services are there. The time when they can access it, having the*

*ability depending on their work schedules, or generally their life if they live in maybe more chaotic or difficult complex lives, having the time, the ability to want to prioritise [SSS] and smoking cessation I imagine could be challenging for some people." (*W007, SSS Lead/Manager)

Service providers discussed unique challenges that occur when delivering SSS to LSES groups including higher rates of lapse throughout their quit journey. Participants felt that LSES groups are more likely to experience a lapse in smoking may be due to socio-economic stressors and structural inequalities that are uniquely experienced by this demographic. Other barriers to stopping smoking or maintaining a quit attempt among LSES groups were described by service providers, including socio-cultural factors such as social isolation and being part of social groups that smoke. Furthermore, barriers to accessing SSS due to social stigma and anxiety preventing them from leaving their community to uptake a new or unknown service were also described.

"*An awful lot of people don't want to go, they're a bit socially anxious. What I find with people in low socioeconomic groups is that they, for example, they don't want to go out of their area."* (S002, SSS Advisor)

Location of SSS

Service users felt that pharmacies were highly accessible in contrast to locations that involved having to travel and use public transport. However, despite pharmacies being outlined as an accessible service for LSES groups, many highlighted that stop smoking support in pharmacies was limited following the COVID-19 pandemic.

"*People from disadvantaged communities tend to use pharmacy as the primary source of health advice and we would expect that there'd be fewer barriers to access in the community pharmacy than to other services. Certainly, our work has shown that if you ask people to leave their communities and to attend a central point for a service, they are less likely to do so, just for bus fare if nothing else*." (S003/4, SSS Lead/Manager)

"*Unfortunately, since COVID, a lot of pharmacies have pulled out of the service […] with the pharmacies being so busy with extra patients so I think that's one challenge that you're telling a patient to go to the pharmacy and they're ringing you back with, "Well the pharmacy won't do it for me*."" (NI006, SSS Lead/Manager)

Service providers identified that for people living in remote and more rural areas, distance, and time to travel are likely to be physical barriers to accessing the service; albeit acknowledging that having services within all more localised settings was not always feasible. SSS that were located centrally within the community were identified as facilitators to access among LSES groups due to ongoing familiarity and established rapport.

"*We do our utmost to make sure we are where we really need to be so wherever we are, it is a comfortable walking distance, it's not somewhere where we'd expect somebody to get on a bus and come to us. It's actually working right in the heart so things like, one of the drop-ins we have is in Tesco, in the community room in Tesco, so when people are doing their shopping and then they can just pop in so they're actually doing two things at once and that's lovely because it is a drop-in so the clients can have their own un-facilitated group while they're waiting to speak to an advisor*" (E042 SSS Lead/Manager)

Literacy, language, and terminology

Service providers acknowledged low literacy and language issues are potential barriers to service uptake among LSES groups. Service providers discussed how the terminology used within the service may be exclusionary for people in LSES groups with lower health literacy levels.

> "*They struggle and we need an interpreter and it's just trying to marry those two really that we've got an interpreter of the right language at the right time to help that person otherwise they can feel quite alienated really because it's very difficult to be going through this programme if we can't speak or communicate effectively*." (W010, SSS Lead/Manager)

> "*We are talking, now in some instances of where people's not just health literacy is poor but literacy itself is poor so whilst you're talking of people with a reading age of 7, the whole mentality is completely different*" (E042, SSS Lead/Manager)

> "*I think terminology, how we speak, the language that we use, I think that does need to be changed to encourage people from all different groups to access the service but to break down barriers especially for the low socioeconomic groups*." (W010, SSS Lead/Manager)

SSS waiting lists

Service providers identified staffing shortages and increasing demand for referrals to the service as a challenge, with some services having waiting lists of four to six weeks. Participants felt waiting lists could be a significant barrier for LSES groups who will likely experience competing priorities and may no longer have the capacity or motivation to undergo a quit attempt by the time space within the service becomes available.

> "*I think the waiting time is a huge barrier as well […] if somebody's been referred through and they have to wait, particularly if life is difficult for them, if they're struggling with other things, by the time we have space to take them in, then things can have changed dramatically for them, for the worse, sometimes and they're just no longer in a place… I think with people whose lives are particularly difficult, you kind of need to strike while the iron is hot and if you catch them at a point where they're ready to implement change and they feel ready to access the service."* (S005, SSS Advisor)

At the time of interviewing, participants felt that staffing and funding issues were a key barrier to improving access to SSS for LSES groups, with some services having to *"fight every year to keep funding."* Service providers discussed how the COVID-19 pandemic had a significant impact on staffing shortages.

2. Mode of SSS delivery

Service providers discussed the use of technology to deliver SSS as a barrier among LSES groups. While some participants identified that technology can be "a *valuable tool in the right context*," it could also lead to "*digital exclusion*" and may not consider literacy levels. Service providers also identified that remote delivery of SSS, such as over the telephone, may not be as accessible for LSES groups due to challenging personal life circumstances that occur while the service is being accessed from home.

> "*That's another thing that people don't factor in maybe when we say this is wonderful having telephone support and all the rest of it, because while they're on the call you've got children hanging around, there's screaming going on, you've got quite often some sort of altercation going on with the other half. All these things go on. It's more difficult, I think, because we are targeting these areas."* (W006, SSS Lead/Manager)

In-person service delivery options appeared to be a preferred method of support among some

service providers, as this allowed providers to observe service user's body language and build rapport.

> "*The landscape has changed certainly in terms of the support. If I was back in the office….I sit with a client all day, up to 35 a week […] because I'm a great believer, I want to see you. I want to look into the whites of your eyes. I want to know. It's body language you see us as well. So, you know I don't get out much now. I just have to go on people's honesty*." (S008, SSS Advisor)

While some service providers identified that digitally delivered support may be a barrier among LSES groups, others recognised that it may also be a facilitator noting that most that are often service users have access to a mobile phone with internet connection regardless of LSES. Service providers described that in response to the COVID-19 pandemic, many services transitioned to remote delivery options and that this period improved retention rates of the service. Furthermore, participants discussed that they had experienced some service users now preferring remote and online options due to limited access to transport, childcare responsibilities, work schedules, long-term health conditions, and other complex factors.

> *"I think since COVID we are all over the telephone which has been like a challenge and a struggle but it works really well for the service as well because we were sitting in clinics before where there were a lot of DNAs or people couldn't attend and now at least we're at a base where we can try people a couple of times on the telephone and it works for people, they don't have to leave work or whatever they're doing in their lives to come to an appointment. It is quite quick and convenient for them. I think it works really well'* (NI005 SSS Advisor)

Although service providers may have had a preference on service delivery, they agreed that providing multiple modes of delivery, such as telephone, online, or in-person support, were seen as a facilitator to accessing SSS and allowed for a more tailored service delivery that was flexible to the needs and preferences of those in LSES groups.

> "*Most of the work that we do is telephone, which does make it actually very accessible for anybody any time because most people have got a telephone. The people that don't want to actually engage with us face-to-face, we do recommend that people can use the app if they want to, so I wouldn't say it's a challenge myself because we're very flexible with what we offer*." (E035, SSS Lead/Manager)

3. Range of support offered by SSS

Acceptability and delivery of NRT and pharmacotherapy

Some service providers felt that service users were unable to understand how to use NRT products correctly, potentially due to lower levels of health literacy and in some cases also found packaging difficult to open because of limited manual dexterity. Service users felt that these individuals require extra support with NRT administration and adherence. Service providers also identified that side effects such as intolerances with NRT products are a barrier to uptake and success of NRT in supporting smoking cessation.

> "*Their understanding of nicotine replacement, how to use it, actually how to get it out of the packets and physically use it and that understanding just to keep using it and don't be frightened of using it and getting those messages across as well can be difficult*." (E042, SSS Lead/Manger)

> "*The patches, it works for some patients, it doesn't work with others. We've got quite a few*

patients that have skin allergies, so they maybe have welts from wearing them." (NI006, SSS Lead/Manager)

Service providers described that the range of NRT products available to their service may be quite limited, in some cases due to funding constraints. This limited range of NRT products poses a barrier to LSES groups who would potentially have to purchase their preferred product out-of-pocket if not provided by the service.

Participants identified that the removal of pharmacotherapies, such as Champix (Varenicline) and Zyban (Bupropion), has been a barrier to uptake among LSES groups. Service providers described encountering clients not wanting to use the service again (after a previous quit attempt with Champix or Zyban) due to these medications no longer being available.

> "*Some clients will come back looking for it because they've been successful in the past using it, and then maybe something happened in their life and they've started smoking again, and they'd be quite disappointed that it's not available for them*." (NI004, SSS Advisor)

Participants mentioned instances of service users having to wait weeks until they can receive their NRT or pharmacotherapy prescription from the pharmacy. Service providers acknowledged that whilst pharmacy provision is a valuable resource, physical access to a pharmacy can be difficult, particularly within rural and remote areas. This barrier was thought to be exacerbated by the closure of pharmacies within some deprived areas. Service providers that had the capability to directly prescribe NRT identified this as a facilitator to access among LSES groups, describing this as advantageous in expediting the process from service uptake to NRT access.

> "*In one of our areas, which is mainly all housing association, we have a pharmacy there that recently closed […] so that was a bit of a blow really, we're hoping to get another pharmacy back in there, but it's been a bit of a, we've had to do quite a lot of jiggling to make sure people can access their NRT*." (E035, SSS Lead/Manager)

Service providers acknowledged that the provision of NRT products free of charge is a facilitator to access among LSES groups, "*who may otherwise have struggled to access NRT*."

> "*I think financially the knowledge that you can get them for free, if people are struggling then that does make a big difference*." (W015, SSS Advisor)

Tailored NRT Provision

Participants highlighted the importance of a tailored approach to NRT provision for LSES groups. This included service users having the ability to choose which NRT products work for them, offering a combination of NRT products, and tailoring the service according to the individual.

> "*I think in the lower socio-economic group that's [combination therapy] pretty common I'd say that I end up with people saying, "I don't want patches, I tried them before. I can't have the gum," and then when we talk about it and then I might suggest to them, "What about the patches plus the mouth spray because that's a new product, it's worth trying," that sort of thing*." (E026, SSS Lead/Manager)

Services providers also felt the ability to extend the SSS treatment length, from 12-weeks up to 25-weeks, appeared to be a facilitator to success of the service among LSES groups who may be more likely to face structural barriers during a quit attempt.

> *"We do issue everything up to 12 weeks and then if we have a client with significant mental health problems and they have done really well, we would extend that, we are really*

flexible and we look at that client as an individual and take everything on board". (E042, SSS Lead/Manager)

Use of E-Cigarettes

Across all UK nations, service providers expressed diverse views on the provision of e-cigarettes within SSS. Service providers in England (where e-cigarette provision is available through some SSS) acknowledged that while there remain concerns around their provision and the potential unknown long-term health outcomes, they are a popular and effective smoking cessation tool among some service users.

> "*The quit rate using the vapes alone far outweighs NRT and of course at the moment we haven't got Champix, and we haven't got Zyban*" (E042, SSS Lead/Manager)

> "*I value them. Obviously, there's a lot of work still to be done around certain things, but I value them as giving people more options and not being limited to just NRT*." (E009, SSS Lead/Manager)

Service providers in England recognised that e-cigarettes are the preferred option for smoking cessation among service users, making their provision within SSS a facilitator to uptake and success among LSES groups. However, for the remaining devolved nations, participants acknowledged that conflicting public health messaging regarding e-cigarettes for smoking cessation often made it difficult to "*promote a united front*" as "*nuance does not translate well in public health*."

> "*It does make it difficult in terms of the kind of services that we're looking to develop and the questions that folk have because it means we can't give them the clear-cut answers and they're seeing Scotland doing one thing and England doing another thing. They're seeing the messages being directed towards kids is differently towards them and it just gets a bit messy*." (S005, SSS Advisor)

> "*We are looking at vaping but we're waiting for the Welsh Government's position statement on that because there's a lot of people now that are vaping only. [...] so we haven't […] been able to then support people with behaviour change support if they're vaping only so it has to be tobacco*." (W010, SSS Lead/Manager)

Some service providers identified a need to offer support with e-cigarette cessation for service users who exclusively use e-cigarettes. This issue was highlighted as important to LSES groups specifically, due to the cost of e-cigarettes.

Behavioural Support

Service providers identified some common barriers to the effective uptake and success of behavioural support among LSES groups including a lack of familiarity and trust with SSS advisors.

> *"For a lot of clients, it's the fear of starting a relationship with someone you don't know. You're a stranger. I think that has a lot of … they have real trust issues, lots of trust issues" (E048, SSS Advisor).*

Service providers highlighted how carbon monoxide (CO) monitoring was largely no longer used

within consultations; not being fully resumed since the COVID-19 pandemic. They said historically the practice of taking CO readings had a positive impact on service users' motivation during their quit journeys. Without CO readings there were also concerns about the reliability of self-reported smoking status.

> *"When they can see that number going down every week, it is a bit of an incentive. Because of COVID, we haven't been using our CO monitors, so you're literally going on what the patient reports to you so you're trusting that they're telling the truth" (NI006, SSS Lead/Manager)*

Some service providers felt there were gaps in their training when it came to offering behavioural support, especially for LSES groups experiencing existing mental health conditions.

> *"And people come to us with a variety of issues happening in their life, particularly around bereavement, and I think that's a training gap where people should be aware that they're struggling. People are getting sent to us that are suffering bereavement issues and giving up smoking. The whole side of things really needs to be seriously looked at, with accredited training, not just the e-learning figure, which is a joke in my opinion." (S008, SSS Advisor).*

Sustaining a regular schedule with service users was discussed as a potential challenge due to irregular work schedules and other competing priorities that are common among LSES groups. Secondly, within some services behavioural support was compulsory as part of the treatment course, and this was viewed as a barrier to engagement among LSES groups.

> "*It's hard to do any behavioural work when, that will tend to be, you know, a working guy who's like a scaffolder or something. It's really hard to get him down to appointments but he still wants to check in and almost that that's the behavioural intervention in itself, is just having somebody to check in very brief kind of input" (S005, SSS Advisor).*

Rapport building and the ability to provide longer and more flexible tailored support was mentioned among the key facilitators in encouraging engagement in behavioural support among LSES groups.

> *"Every client's individual, so we just try to take the client's level of knowledge. Basically, if somebody's struggling, you're trying to find out why they're struggling, you're trying to find out what their values are. You're constantly motivating them and encouraging them and providing them with the information to help them make an informed decision" (NI004, SSS Advisor).*

4. Recommendations to improve SSS

Suggestions on how SSS could be improved to increase uptake and success by LSES groups are highlighted below, many of which reflect upon points raised in earlier themes.

Holistic approach to service provision

Flexibility within service provision was seen as a key facilitator to improve SSS access among LSES groups, including having a 'person-centred approach,' whereby the service is more tailored to the individual. Participants felt that being flexible in terms of quit dates and response to a lapse, along with more time dedicated to exploring their "*motivation and reasons for quitting*" would be beneficial for LSES groups. Incorporating more person-centered approaches was described as providing flexible and fluid support aligned with service users' working patterns, caring

responsibilities, diverse needs, and conditions. A few examples mentioned by service providers included workplace-based support, offering evening sessions, extended programme lengths and several NRT options available.

> *"So we used to have more strict adherence to setting a quit date, "If you don't [set a date], then there's no service for you." We were finding that people were really struggling with this type of service where, "If you don't quit, then we won't support you," kind of thing, so we've become a lot more flexible and fluid in our approach over the past few years. People will come in. We will explain the usual programme is 12 weeks long. You set a quit date and from that point, you can get 12 weeks' worth of NRT.....We wouldn't force you to set a quit date right away. Additionally, if they are struggling with the idea of setting a quit date, some people really want to cut down first, so we've started helping people take a structured approach to a cut down to quit..... At the end of the 12 weeks, there is the option to add-on another 12 weeks, so basically, two programmes back-to-back. If they are particularly dependent smokers"* (S005, SSS Advisor).

> *"It's trying to support people, understanding a lot of people lead very complex lives, and the reasons people smoke, and reasons people are trying to smoke, and the barriers to stop smoking vary from person to person. I think they can try and make sure when they're offering behaviour support, it's acknowledging the complexities of individuals"* (W007, SSS Lead/Manager)

Improving visibility of SSS through collaborative working relationships with other services

Participants suggested the need for collaborative working between healthcare services, local authorities, and third-sector organisations in order to increase the visibility and awareness of SSS among LSES groups. Participants felt that providing community-based SSS within familiar healthcare settings may help to improve service engagement, uptake and success while reducing stigma among LSES groups.

> *"I think personally that it would be so much easier for smokers to liaise with people that they already know. Within their own communities, I do think strangers and people who are seen a bit dictatorial, I think that already puts people's defenses up whereas […] within their local community and premises and environments, and people that they know, I think that might help with that problem." (*NI001, SSS Lead/Manger)

> *"I think we need to be doing more work with third sector, voluntary, social services. Embedding ourselves in the community, in GP settings so that we're like a normal service and there isn't a stigma."* (W010, SSS Lead/Manger)

Improved training for service providers

Participants suggested improving training that service providers received as a way to better prepare them for engaging and working with LSES groups who are likely to possess a range of existing physical and mental health conditions as well as life stressors and competing priorities. Services providers highlighted the need to offer cultural competency programmes to service providers.

> *"I think possibly cultural training around smoking. I've been lucky that I've had access to*

things in the past, but it's not something that I've seen for a few years now and I haven't been able to provide my staff with anything like that. Where I think looking at the different cultures in the areas, for us to be able to empathise with their situations, cultural training would I think benefit a lot of people." (E009, SSS Lead/Manager)

Clear guidance on e-cigarettes as a cessation aid and support for stopping vaping.

When discussing the current policy discourse around e-cigarettes and the impact on SSS, most providers acknowledged various complexities surrounding this issue. For instance, there was a recognition that currently SSS have limited capacity to offer support to those people who want to quit vaping. Furthermore, service providers found that conflicting public health messages and different standpoints on e-cigarettes across nations added confusion for both service users and providers. It was suggested that developing clear guidance for SSS on e-cigarettes as well as training for cases in which individuals are using e-cigarettes only would be helpful.

'Public Health England [now OHID] *are encouraging the use of vapes and e-cigarettes where currently in Northern Ireland we're still at the stance of its nicotine replacement only so it makes it very difficult if they're using UK based apps or using UK internet sites like the NHS website because it's saying you can use them as a quit aid, whereas here our Public Health Agency hasn't acknowledged that just yet so it's a bit of a grey area for us."* (NI006, SSS Lead/Manager).

Improved access to language translators/interpreters and plain language summaries.

Language and literacy barriers were suggested as a key obstacle among some service users, preventing their meaningful engagement and uptake of the service. Potential solutions offered by service providers included the need to have a translator available when providing support.

"The only thing I think I would add is making sure you've got translators and being able to communicate in the language. Because we're [...] finding that there's more and more language barriers to get to be able to work with smokers." (W006, SSS Lead/Manager).

"Some of the clients [people in prison] had asked for … it was in prison but actually it can be used for any groups. A lot of the written information is actually very wordy from Public Health Agency. A lot of our prison and some of the other clients would have a very low reading age.....our team had a focus group with some of the clients [people in prison] and they say they would like something to take away that they could fill bits and pieces in of a workbook, for example. They've produced a workbook for the clients [people in prison] which is all easy read, it's all been vetted by all the teams, the equality teams, to make sure it's easy read and it's easily accessible for all people." (NI001 SSS Lead/Manager).

Improved data monitoring within and across services.

Data monitoring was often seen as a routine administrative task. Participants primarily viewed it as a way to demonstrate whether the government-set targets were met or not rather than a process leading to a meaningful change in how services were offered. Participants suggested capturing additional demographics to improve how the service engages with LSES groups and also to deliver more bespoke support.

'It's sometimes laborious and sometimes I don't know where it goes and how necessary it is" (E016, SSS Lead/Manager)

"There's lots of demographics I think that we could be collecting that would inform then and then we could look at the service and make improvements on, or even make it bespoke […] Whereas now we don't know it's just an address and a postcode and a gender." (W010, SSS Lead/Manager)

Improved funding and staffing

Overall, when discussing avenues for SSS improvement, service providers acknowledged that many of these suggestions require adequate funding and staffing to implement actionable changes, both of which are currently limited.

"I think a lot more could be done, but it's resource led [...] we know what to do, but we don't have the resources to do it." (S008, SSS Advisor)

"There's so many things we could do [to improve uptake and access] if we had more staff but at the minute I think we're doing our best to try and make it as accessible as possible" (NI001, Lead/Manager)

Work Package 3

Qualitative interviews with previous and potential SSS users

The study undertook 114 one-to-one interviews that were carried out with a range of participants from England (n=40), Scotland (n=24), Wales (n=25) and Northern Ireland (n=25) (Supplementary Material 9). Our sample consisted of fifty-six male and fifty-seven female participants, with the majority reporting that they currently smoke (n=74). Just over two thirds of the participants (n=80) had accessed a SSS with almost half of those accessing one within the last year (n=36). Interviewees mainly consisted of individuals from a White British ethnicity (n=94), living in an urban environment (n=82), with the majority being under 60 years of age (n=97). Participants predominantly lived in rental accommodation (n=60) and had left school with minimal qualifications (GCSE or below) (n=77). See Supplementary Material 9, Table 1 for participant characteristics and Table 2 for individual and area-level indicators of deprivation determined using participant postcodes. Interviews were completed between July and September 2023 and lasted on average 33 minutes.

Four key themes were derived from the data:

1. Awareness and understanding of SSS.
2. Reasons for never accessing a SSS (non-service users).
3. SSS user experience; and
4. Recommendations to improve SSS.

Theme 3 (SSS user experience) was derived from data for those who had either ever accessed or recently (within the last year) accessed a SSS and Theme 2 (Reasons for never accessing a

SSS) was derived from data for those who had never accessed a SSS. These themes are discussed alongside relation to any barriers or facilitators to uptake and engagement among LSES groups.

These themes are described in relation to barriers or facilitators to uptake and engagement among LSES groups. Each theme is presented below alongside illustrative quotes, with the following participant identifiers for England (E0XX), Wales (W0XX), Scotland (S0XX), and Northern Ireland (NI0XX), along with their gender, age group and then SSS status: EA = Ever Accessed NA = Never Accessed, RSS = Recent SSS user. TM prior to the country code refers to interviewees recruited by a third-party agency.

1. Awareness and understanding of stop smoking services

On the whole participants who had never accessed a SSS before were unaware of existing services that could provide free support for cessation, both in the form of NRT, behavioural support (all Nations) and e-cigarettes (in England). Some participants described being aware of a SSS in their area but lacked knowledge of what the service entails. For those who had never accessed a SSS but had heard of them, their awareness was generally vague, and they perceived the support to be akin to the support an individual would receive during an Alcoholics Anonymous (AA) meeting. Those who had never accessed a SSS were not aware of the broad range of services and most often referred to GP and/or pharmacy support alone when discussing their knowledge of ways in which they could receive cessation support. This was similar for those who had previously accessed pharmacy level support, in that they were unaware of community-based and remote behavioural support available to them.

> *"No, I've never heard of that, (SSS)...I went in, and I said to the doctor, "I really want to give up smoking" and he didn't really give me a lot of information, he just said, "Take this to the pharmacy and they'll give you everything you need.""* (W3005 Male, 18-34, NA)

> *"It's not ignorance, it's just lack of knowledge that they [*people who smoke*] don't realise what services are there [...] whereas if they realised they can do it online, they can phone, you don't actually have to physically go in to the chemist, there is other services out there that can offer support without being face to face and I think that puts people off as well, some people don't like to do face to face. [...] There's loads of people there that can actually access them without physically having to leave the house." (*TMS003, Female, 45-59, EA)

Many participants held negative preconceived beliefs about the effectiveness of NRT, derived from their own personal experience of having used NRT or from discussions with family and/or friends who had previously used NRT when trying to quit. Discussions with non-SSS users also demonstrated that there was limited understanding of what behavioural support entails. Some non-service users described not wanting to engage in the behavioural support aspect of SSS because they did not feel the need to talk to someone and thought that this would not help them. There were some individuals who felt that spending time talking about smoking may prompt them to smoke rather than motivate them to quit.

> *"I know he did try all those different things that you hear about, the gums and the patches and nothing like that seemed to work for him so I think it wouldn't work for me." (*S3054 Female, 18-34, NA)

> *'"I just don't see what talking does to help you get rid of a habit, to me you need, I went to*

*the doctors, and they gave me nicotine patches and the nicotine vape thing. That was more of what I was looking for help, not somebody to talk to I'm afraid." (*TMW007 Female, 45-59, NA*)*

Participants from England, Wales and Northern Ireland perceived SSS to be aimed towards "the older generation", with advertisements for services often located in healthcare settings more likely to be accessed by older individuals.

"*The older generation, because as I've said, the only time I've really seem them are in pharmacies and GPs – which is typically where you find the older generation" (*W3024, Male, 18-34 NA*)*

Participants reported a range of additional barriers to accessing SSS. Due to a general lack of knowledge about how and where SSS exist, participants from England, Scotland and Wales were unsure as to how they would go about accessing support. Furthermore, some participants mentioned that they were not signposted to a SSS when discussing quitting with their GP and were offered a prescription for NRT.

*"I was still on nicotine gums and I maybe if I will need more, I can ask GP for this. But I didn't ask, and they didn't told me that this is an option, so I was like, 'Okay, I hope it will last.'" (*S3039 Female, 18-34, RSS*)*

Previous SSS users from England, Wales and Scotland were unsure as to how they would re-access a service if they were to relapse and felt that if they did relapse, they would be limited in when they could sign up to the service again in the future.

*"They were saying was that if I wasn't to break the cycle before the 12-week mark then I wouldn't be able to try again for the next year. So that was when the pressure kind of set on as well and I was like if I don't do it then I probably never will" (*TMS3004, Female, 27, EA*)*

2. Stop smoking service user experience

Many participants who had previously used a SSS felt that accessing and enrolling onto the service was straightforward and they experienced minimal issues. However, most participants (although not those in England) mentioned that there was a delay in accessing the service due to long waiting times. These findings are in reference to waiting for support from an advisor (both in-person and in some cases via telephone support). There were some instances of participants having to wait 2-3 weeks to start support, by which point they had lost motivation to stop smoking.

"It was perfectly easy enough for the initial contact and telling them what I wanted to do" (S3007, Female, 45-59, EA)

*"It was a longer wait for that one. Then I just came out of the zone then, I came out of the headspace. I was ready to do it and then yeah, so I did find it hard then." (*W3053, Female, 45-59, EA*)*

NRT and behavioural support

Participants who had previously accessed a stop smoking service discussed their experience of using a service in relation to NRT, behavioural support and the mode in which they received the support. Those who had previously accessed a SSS felt that there was a lack of support for NRT provision. Some participants felt that they needed more support around the potential side effects

of certain NRT products as well as more information regarding the range of NRT that the service offers.

Free access to NRT was described as an important facilitator among participants who had previously accessed a SSS. The majority of those who had never accessed a SSS mentioned that they were unaware of free NRT provision offered by many SSS across the UK.

> *“I think it might have said you can get free products [...] I was really pleasantly surprised.”* (TME017, Female, 45-59, RSS)

Participants discussed long waiting times for accessing NRT as well as some participants struggling to get NRT through their local pharmacies. Furthermore, some participants from England, Wales and Scotland who had previously accessed a SSS felt that the range of NRT on offer was slightly outdated and they would like to have newer products including the provision of e-cigarettes. Delayed NRT provision due to logistical issues within pharmacies was also discussed among participants.

> *“it hasn’t moved with the times, if you know what I mean, because there’s not a lot of smokers nowadays because they’ve all gone down different paths.” (*E3058, Male, 45-59, NA*)*

> *"The one time the lady did get me some of the chewing gum and I thought maybe I would try it because I’d never tried it because I didn't like the thought of it. Then it was waiting weeks and weeks because the chemist didn’t have them in stock." (*W3053, Female, 45-59, EA*)*

For those who had previously accessed a SSS in England and Wales, having an advisor with a personal smoking history was described as a facilitator to engaging with behavioural support. Participants felt that they were able to relate to their experience and the difficulties in quitting smoking in a way that an advisor who has not previously smoked would not be able to.

> *“Someone to talk to that doesn’t patronise or talk down to you. Someone who is talking to you on your level. Someone who has smoked before and they know what you're going through”* (E3019, Female, 45-59, NA)

Mode and duration of SSS delivery

Regarding the length of SSS programmes, most participants (both previous service users and potential future service users) felt that the length of the support was not sufficient, and they would like to have access to more NRT beyond a 12-week mark as well as some form of behavioural support. However, there were some participants who felt that the length of treatment was either the right amount of time or too much. Communication and contact between the service user and the service was sometimes discussed as lacking, with participants mentioning that they received limited contact from the service and felt that they were not fully supported through their quit attempt.

> *"They were meant to ring up and check-up and they didn’t really do that either." (*TMNI027, Female, 18-34, NA*)*

> *‘It should have been an hour... I didn’t feel like it was long enough because obviously we go through how I’d been getting on the previous weeks and my thoughts and my feelings...I felt like it wasn’t really long enough, but I didn’t know whether that was because it was on the NHS*. (E3066, Female, 35-44, EA)

Participants highlighted the importance of the service offering choice in the delivery of both in-person and remote (i.e., telephone and app-based behavioural support). Participants also highlighted that offering different timings and locations to suit the needs of the service users would be beneficial. However, there were some participants who felt that the service was not acceptable due to the mode of SSS delivery being inflexible and not suiting their needs. For example, many participants discussed the need for more in-person support in their local area.

> *'It's just very depersonalised with the unknown caller ID and no contact in those two weeks'* (E3112, Female, 18-34, RSS).

> *"It's always nice when you go to a place that you're familiar with, which I was lucky, my clinic is 10 minutes away from me."* (S3022, Male, 60 and over, EA)

Participants who had previously accessed a SSS reflected on the ease of being able to do so when the service was based in their local community. Additionally, several participants felt they would not utilise a digital app to help them stop smoking citing limited access to technology (smartphones), poor digital literacy and a preference for talking to a 'real-person''. However, some participants in England and Wales felt they would consider this mode of support if they possessed the awareness and understanding of relevant apps to support their quit journey.

> *"I don't really get on very well with apps [...] I need to actually talk to somebody".* (TME019, Male, 45-59, EA)

> *"Maybe like alerts and stuff from app would help. I think they've started doing that now"* (E3043, Male, 18-34, EA)

Many of those who had previously experienced SSS behavioural support mentioned that there was not enough time to discuss their smoking cessation journey. These participants recognised the constraints on smoking cessation advisors' time and capacity to support them. Participants also felt that they would have liked to receive more behavioural support within the community pharmacy setting.

> *"I would have thought they* [SSS advisors] *would be more involved, like they would do check ins and stuff like that to see how you were getting on.... they threw medication at me and out the door ...we'll see you in five or six weeks" (*E3048, Male, 35-44, EA*).*

3. Reasons for never accessing a SSS (non-service users)

Psychological barriers

Many participants felt that if they wanted to quit, they would do so on their own and without the support of a SSS. Reasons given for wanting to quit alone included fear of being judged for failing to stop smoking and a lack of confidence in existing smoking cessation support mechanisms such as NRT and SSS. Participants also felt that talking about smoking cessation with others, including an advisor, would not be beneficial in helping them to quit.

> *'If you fail you've got to tell them you've failed'* (E3058 Male, 45-59, NA)

> *"I just thought, "Oh, coming down every week and chatting about smoking." Apart from anything else, chatting about smoking makes you think more about smoking, it would stress me out and I'd feel like I needed a fag.*" (W3046, Male, 45-59, NA)

One of the most frequently described reasons for why participants had not or would not access a

SSS was in relation to their lack of motivation to stop smoking. Many non-service users did not want to access a SSS because they were not ready to stop smoking. Participants reflected on how they may go about quitting in the future and many discussed accessing support through their GP initially or going 'cold turkey.'

> *"I might not have been in the right frame of mind when I was approaching it... you've got to be really motivated"* (TMNI031, Female, 59, NA)

> *"I didn't think there was any need, I was able to do it myself, I know there's a lot of people that can't, but I felt like I could myself."* (NI3009, Female, 18-34, NA)

Social anxiety was reported as a psychological barrier to uptake of SSS in England, Wales and Scotland. Some participants who had never accessed SSS or had only accessed NRT support discussed experiencing social anxiety in relation to being around others and as a result, these individuals felt that the behavioural support aspect of SSS was off-putting. Further findings in related to social mechanisms showed that social influence may play a key role in the engagement with and uptake of SSS. For example, some participants cited unsuccessful quit attempts by friends and/or family members who used a SSS as a reason for not wanting to access SSS.

> '*My mum's tried stopping smoking for years on and off [...] I saw quite a few products that she'd had and so I did borrow one or two of them, so I had an insight of what I was getting into. But I just thought with the spray thing, it might get a lot easier, just an initial thing, you get a sore throat for a few days and that'll be it, you'll be right then, but unfortunately it didn't, it just carried on, so I just basically stopped it*' (E3086, Female, 45-59, EA)

Physical barriers

Those who had not previously used a SSS reported a range of physical barriers to accessing a SSS. These included a lack of time to attend SSS/engage with the behavioural support due to busy schedules and competing priorities such as work and caring for family members. Some participants also mentioned that the location of available in-person behavioural support was not accessible as it was too far for them to travel, and/or because they have mobility issues so would not be able to get there without support.

> *"I think also they mentioned that there might be in-person groups, but I think they were mostly out the city in areas where I didn't want to go. Just because of my own conditions travelling can be a bit tricky." (*TMS022, Female 54, EA)

A frequently discussed reason for not accessing a SSS in England, Scotland and Wales was that participants felt it is easier to access other smoking cessation tools such as e-cigarettes. Many participants mentioned that they would rather use an e-cigarette or acquire NRT themselves (i.e. purchase them at a pharmacy or have them prescribed by their GP) than access a local SSS.

4. Suggestions to improve SSS

Akin to WP2, previous and potential service users outlined several areas in which they felt SSS could be improved for themselves and others, these are outlined below.

Increasing awareness of SSS

As many participants discussed a lack of awareness of SSS, suggestions were given on how

services may improve this including the use of social media advertisements. Participants also felt that key community groups and members could be an efficient way to disseminate information and increase awareness about the available SSS in local communities.

> *"I think it's more for the advertising on social media. These services, they would be fine on social media, just because everyone would see it, everyone's always on social media."* (W3024, Male, 18-34,NA)

> *"Libraries, healthcare centres, dentists. I think all these places are really important and we shouldn't forget that that's where we've got a captured audience and that's where we can really get that message across."* (TMS022, Female, 54, EA)

> *"I think the only way you could do […] is to send someone who's also from a lower income area to it, someone who's been through it. Because like where I'm from everyone knows everyone, the only way you could do it is to get one of the ones who runs the community centre who everyone knows and respects, it would be to get them to get involved on it before anything could happen really."* (W3055, Male, 45-59, EA)

Improving the mode and content of behavioural support

Interviews with both previous and potential future service users demonstrated that there is a desire for more community-based smoking cessation support. Participants discussed the value of existing community services such as wellbeing support and local community centres and thought that these services could be useful for co-located delivery of SSS.

> *"A lot more support [...] You go in, stop smoking [...] you have your cup of tea with your friends, pick up your prescription, have a natter and then go your own way. Then it will turn into a smoker's community hub where friends can meet who both want to stop smoking at the same time. Then that way you'll help each other get off the cigarettes and stop smoking. That for me is a far superior idea."* (NI3065, Male, 60+, EA)

Rather than formal SSS behavioural support, some participants suggested that they would prefer to attend a group in which the focus is on a hobby or workshop for skill development (e.g. craft groups, book clubs) rather than directly on smoking. Participants saw this as an opportunity to improve social connections and community as well as talk to people in a less pressured environment when discussing smoking and smoking cessation.

> *'a healthy activity somewhere, maybe like a gathering in a park or something that was kind of like informative and you're also doing something else... like walk and talk, or like a mixture of both* (E3080, Male, 18-34, EA)

A peer-support model was suggested by participants to encourage uptake of and engagement with SSS. These individuals discussed the importance of having a positive social influence during a quit attempt and suggested that it may be useful for those who access a SSS to take along a friend of family member who may also be trying to stop smoking.

> *I think it's the connection with other people with same problem. It's always easy to talk about that if somebody understands you* (E3061, Male, 35-44, NA).

Many participants who had previously accessed a SSS felt that they would have liked further ongoing support for NRT provision, as many felt that the amount of behavioural support, they received was insufficient to meet their needs. Generally, there was a view that the overall treatment programme through SSS should be extended to allow individuals more time to adjust

to quitting smoking.

> *"I would definitely say that the number one point is that the support for medication needs to be longer than six weeks, that is the number one issue with me. Having just communication support afterwards, yes, that's an added bonus to it but that shouldn't really kick in until a longer duration of time of being on the medication."* (W3049, Female,45-59, EA)

> *"it's like you've just got to the end [...] and it's like, "Where do I go from here?" Doing the 12-week programme, you've still got to have willpower at the end and to just keep that going on"* (S3027, Male, 35-44, RSS)

> *"I think the government ought to give more really for longer treatments like they worked for me, they could work for somebody else. I think we need longer treatment for it"* (E3123, Male, 60+, RSS)

Participants discussed the potential benefits of being offered more frequent behavioural support during their cessation journey with a SSS, including access to a smoking cessation practitioner (SCP) in-between their weekly sessions. Participants mentioned that having drop-in sessions for people to access would provide additional time for them to ask questions or talk to someone about any difficulties they may be experiencing in relation to their quit attempt.

> *"I think there could be a lot of change really. Like a drop-in where you just go...a 24/7 care line and better aftercare"* (E3048, Male, 35-44, EA)

Further study findings from England, Wales and Scotland included access to a compassionate and empathetic advisor. Those who had previously had a positive experience with a SSS discussed the importance of having an advisor that they felt comfortable with and was able to encourage them using a person-centred approach to smoking cessation.

Participants reflected on the use of potential incentives to encourage individuals to attend SSS and quit smoking. Some participants in England and Wales felt that the use of monetary incentives would be ineffective and unlikely to result in a sustained quit. However, some participants suggested other incentive types such as certificates for milestones in a person's quit journey and gym memberships to encourage an all-round healthier lifestyle.

> *"It could be incentivised if for example there was, I don't know if it's possible but a discount on your local gym membership or something?"* (TMNI024, Male, 40, NA)

> *"Well, it's also an addiction and alcohol and drug addiction get wee medals and stuff like that, wee coins to say, "One month sober, two months sober," what if you were to do something like that for people that smoke because it is another addiction?* (S3007, Female, 45-59, Scotland, EA)

> *"An incentive to go, if you could sit in a comfortable chair and have a coffee or something [...] More relaxed surroundings."* (TME021, Male, 60+, NA)

Participants also discussed the importance of having behavioural support offered in different languages as well as improving the type and amount of support that is offered via pharmacies.

Improving the provision of NRT and e-cigarette support

Participants (both those who had previously accessed a SSS and those who had not) from across all nations discussed the importance of being given guidance for e-cigarettes use. Participants felt that they would like to have more support on potential benefits and risks of e-cigarette use,

particularly in the current climate in which there are mixed messages surrounding their long-term safety.

> *"I think people do need to understand more about the vapes and what's in vapes because right now I really don't think people should be smoking them to be honest with you. I would like to see them be made safe and people are made aware that they're safe and maybe access them on the NHS or something like that for people trying to quit smoking, I think that would be a good idea as well"* (W3040, Male, 35-44, NA)

All nations apart from Northern Ireland highlighted the importance of making access to NRT easier for specific groups, including older individuals and those with mobility issues. Specific recommendations included offering a delivery service for NRT/pharmacotherapy to those who are unable to access a pharmacy.

> *"If they're disabled [...] or they can't get to that session. There should be a service that will say, "Well, don't worry about this session, we'll do a telephone call with you," and then a delivery service that maybe they can go through to the chemist and get that medication delivered to them."* (W3049, Female,45-59, EA)

Recommendations for NRT delivery were suggested and participants felt that it would be important to improve the provision and range of NRT. In relation to pharmacotherapy, participants emphasised the importance of prescriptive medication to help with stopping smoking. Many of these individuals were those who had previously used Champix and felt that SSS should offer this form of support.

> *"Widen NRT options I suppose the products are a bit limited… There isn't a great massive range of products to help you stop smoking"* (E3086, Female, 45-59, EA)

> *"I think they should have given more supply maybe [...] I don't think it was really enough."* (E3048, Male, 35-44, EA)

> *"If that Champix came back on the market tomorrow I would be straight into my doctor's because I know for starters, I could stop straightaway."* (NI3065, Male, 60+, EA)

Participants from England, Wales and Northern Ireland felt that they would be more likely to access a SSS in the future if pharmacotherapy were provided. Some participants also expressed the need for greater transparency of NRT provision, including suggestions such as a clear list of available NRT in advertisements and highlighting that the provision of NRT products is free or discounted through SSS.

> *"I don't think they explain what certain products are. Because I was given the spray, but I've got gastric reflex and I can't take a spray and it was only after I'd taken it that I realised, "Oh dear, I can't take it." I think there needs to be a bit more of contraindications given warnings of side-effects."* (W3047, Female, 45-59, RSS)

> *"More than just the nicotine patch, because I think people are drawn off by nicotine patch. There's way more, there's the chewing gums and the lozenges and everything else that I think people should really give a go."* (NI3036, Male, 18-34, NA)

Case Studies

Service providers interviewed throughout the UK (WP2) outlined several initiatives related to how SSS support or target services for those in LSES groups. Here we have selected a range of initiatives highlighted from across the four nations:

England – Supporting smoke-free homes

One scheme in England encouraged smoke-free (tobacco) areas such family homes and playgrounds as a first step in engaging with local communities. Within this example, the SSS worked closely with a local social housing provider and trialled a range of partnership outreach work, e.g. SSS attending events run for housing association residents based around supporting healthy lifestyles and fire safety.

> *'We would go and have a little stand and talk to residents about stopping smoking or keeping their homes smoke-free... We recently ran a Smoke Free Homes initiative, which was keeping the home smoke free, not about smoking cessation and we produced 'Smoke-Free Home packs,' the housing association helped us to dispense those 'Smoke-Free Home packs' to people moving into new properties as well'* (E035, SSS Lead/Manager)

These events were well received by residents and in addition, the SSS devised a pack that offered a range of information to support other healthy lifestyle choices, such as thermometers to monitor house warmth and toothbrushes to support dental care. The SSS felt the success of this initiative was in part due to the fact that the focus was not on quitting smoking, instead the core message revolved around reducing smoking in the home and benefits this could bring.

The SSS went on to outline how this type of partnership was dependent on the engagement of agencies, in this case a housing association, which in their experience had been mixed; hindered in the past by the level of management engagement in the work of SSS. The SSS also outlined a similar initiative had been undertaken with a local fire service who had distributed their 'smoke-free home packs' within routine home safety visits.

Northern Ireland – Targeted work within respiratory wards

A service provider in Northern Ireland described an initiative aimed to increase the number of SSS referrals and NRT prescribed onsite within hospital respiratory wards, where LSES groups are often over-represented. The initiative ran various cycles as part of the initiative, with one cycle including a face-to-face hospital staff training and another supplying resource related to how to prescribe NRT and refer into a SSS. The service provider outlined its success in increasing both referrals from and NRT prescribed within respiratory hospital wards.

> *"We've had different cycles to support the initiative so one cycle is doing face to face training. Another cycle is supplying little cards with how to prescribe nicotine replacement. There were ones that had posters to show them how to refer to us and we were able to increase referrals from those 2 specific respiratory wards and also with linking through Pharmacy, we were able to see that there was an increase in nicotine replacement being provided to those wards for patients."* (NI006 SSS Lead/Manager).

The initiative also had an influence on SSS referrals and NRT prescriptions beyond the respiratory

wards targeted as a result of resources being shared with other hospital wards.

Scotland – Cessation incentive scheme

One service provided in Scotland had trialled an incentive scheme to encourage people from LSES and other priority groups to stay smoke-free. Eligible participants receive up to £50 per month via local supermarket shopping vouchers. Individuals interested in participating signed up to the scheme in their local pharmacies.

> *"It's the Incentive Scheme that would be targeted to people living in SIMD areas 1 and 2 but in terms of looking at, we also offer the Incentive Scheme to people who are experiencing money difficulties as well, as a way to maximise income to help with the situation"* (S003/4, SSS Lead/Manager)

Service providers outlined the positive impact this incentive scheme had on LSES service users' engagement and how quit rates for this group were above average.

Wales – Utilising community engagement facilitators

This case study highlights the use of community engagement facilitators within a SSS in Wales. Engaging with those from LSES groups can be challenging and the implementation of more community engagement facilitators has the potential to improve awareness of and access to local SSS through building rapport with communities and acting as the friendly face of the service. As the quote below suggest, embedding in communities is key for improving service promotion and engagement through the utilisation of existing community groups, developing networks, and targeting specific areas of deprivation.

> *"They'll* [community engagement facilitators] *go out and about and they'll talk to people in the community so if we've got a new group in the community they'll go out and about and they'll link in with people* [third sector, charities, existing community groups] *or they'll hold an engagement stand in the town centre and they'll talk to people* [potential service users] *about the service. If somebody is interested, they can sign up with them there and then. As I said, they can take the details and then we'll contact them and start that service so it cuts out all that ringing a national number because a lot of people* [potential service users] *have said that would put them off [...] It's working together* [with existing community networks] *but I'd like to do a lot more of that. It goes back to staffing […] Not everybody has a smartphone or computers they can go on and look at the service and sign themselves up for that, so I think the local engagement in those community areas are crucial."* (W010, SSS Lead/Manager)

Discussion

Work Package 1

As expected, the number of people setting a quit date with a SSS tends to be higher in areas with a higher number of people who smoke. However, uptake of SSS as measured by the number of people setting a quit date per 100,000 people who smoke varies significantly across LAs. This potentially indicates variability in reach and client engagement with services across LAs. Encouragingly, self-reported quit success is similar across socioeconomic groups, suggesting that support provided is equally effective amongst those engaging with SSS.

Our survey responses were mostly limited to SSS from England. The survey findings indicated that SSS was provided using a range of different modes which were used to cater for diverse needs and preferences of service users. This is reflected in WP2 findings. Like delivery modes, there was also variation in the number of SSS advisors, although such variation might be related to the number of service users or size of the population in the area, and we were unable to account for this in our analysis.

The provision of targeted support for priority populations varied significantly between services. As might be expected given the NHS Long Term Plan (41), the greatest targeted stop smoking support was reported in pregnant women and people with mental health conditions and long-term conditions. Of concern is that there appears to be little targeted support among travellers, LGBTQIA+ people and those in touch with the criminal justice system, despite higher smoking prevalence in these groups compared to the general population. Future planning should ensure sufficient resource allocation to effectively target these groups to meet national plans to be smoke-free (42).

Although most SSS offered more than one form of NRT products, and in some cases e-cigarettes, the selection of products provided might not be optimal for service users. For example, in some services pharmacotherapy options were reported as very limited. Further, only around half of services offered e-cigarettes as part of the support package. Given the proven efficacy of nicotine containing e-cigarettes as a quit aid (43) this is a potential missed opportunity to optimise quit rates but is reflective of the inconsistent views around e-cigarettes as a stop smoking tool. Further, e-cigarettes may be especially helpful to reduce inequalities in smoking (44). The finding that just over half of respondents reported offering support to quit vaping illustrates inconsistency in the approach to vaping in SSS across the UK. Consistent messaging and support for using e-cigarettes as a smoking cessation tool should be a priority within SSS. The NCSCT guidance on supporting clients who want to stop vaping (45) states that support for using cigarettes as part of a quit attempt should take the form of information and advice. The National Institute for Health and Care Excellence (NICE) (46) recommends that e-cigarettes should be used for as long as needed to prevent relapse to smoking; although these guidelines officially cover England, decisions on how these guidelines apply to Wales, Scotland and Northern Ireland fall to the devolved administrations. Limited availability of preferred products, be that NRT or e-cigarettes, might influence service users' interest in accessing service and quitting success and was highlighted as a potential barrier to SSS access in WP2. Similarly, WP3 findings highlighted that some participants who had previously accessed pharmacy support experienced difficulty in acquiring their NRT, which may impact the likelihood of them re-accessing the service in the future if needed.

SSS are being offered in a variety of settings, primarily within the community but also within secondary care, mental health, maternity, and pharmacy settings. This is not surprising given the NHS Long Term Plan (41) and the National Pharmacy Smoking Cessation Service commissioned in 2022 (47) to widen access to stop smoking support (both apply to England only). Nearly one third of SSS were offered as part of an integrated lifestyle service, this may in part due to the idea that risky health behaviours tend to be clustered and interventions targeting multiple health behaviours at once are likely to reduce healthcare costs (48) . However, a recent review of evidence in this area has suggested that smoking should be targeted in isolation to be most effective and cost-effective (49).

Services were offering support via several mediums. Nearly all were offering in-person, one-to-one appointments, and telephone support. Around two thirds were offering appointments via video calls. There is little published research investigating the effectiveness of such remote consultations compared to more traditional telephone and in-person consultations. A systematic review published in 2019 (49) found only two studies addressing this question and reported no difference between real-time video consultations and telephone support. However, since this time the COVID-19 pandemic changed working practices and remote consultations across healthcare are now more widely used. Virtual consultations have the potential to be more accessible and convenient to potential clients as they negate the need for travel yet maintain the ability for smoking cessation practitioners to use non-verbal communication as part of the consultation (50). The NCSCT produced guidance for the delivery of remote consultations in response to the COVID-19 pandemic (51), though the principles remain and should be considered by services offering such services. One key point for consideration is client access to technology, and this remains pertinent when considering the use of web-based apps as either an integrated part of delivery or an adjunct to SSS support. Nearly one third of respondents indicated that their service used web-based apps, and most remaining services indicated that users may be signposted to digital services for additional quit support. An additional question asked of respondents to the initial survey found that the use of apps as an integrated part of the support package was employed by around half of services. Whilst this has the potential to reach more clients, at potentially lower cost and going some way to counteracting a shortage of trained SCPs (Smoking Cessation Practitioners), consideration must be given to the potential 'digital divide'.

Most services reported offering support for 12 weeks, with around 1 in 5 reporting that they offered support for longer than this. Evidence suggests that extended duration of treatment (>12 weeks) may be more effective for long term cessation than shorter durations; and this finding was also echoed by participants in WP3. Offering longer term support for quit attempts could prove an important avenue for investigation to support those from LSES groups (52). Given that individuals from LSES groups not only find it more difficult to quit but are also more likely to relapse (53), the finding that less than 50% of services provide immediate access to support after relapse may be disproportionately disadvantaging those from LSES groups in their attempts to become abstinent long-term.

Work Package 2 & 3

Understanding the barriers and facilitators to the accessibility, appeal, and acceptability of SSS by LSES groups is crucial to improving SSS uptake. Findings from WP2 & 3 provide an understanding of the wider social determinants that influence SSS uptake and offer suggestions for how to improve smoking cessation support for LSES groups. A range of barriers and facilitators to engaging with and uptake of SSS across the UK were reported.

A key barrier outlined by potential service users (WP3) was a lack of awareness as well as poor understanding as to what SSS support entailed. Those who had never accessed a SSS to help them quit smoking reported physical (e.g., location, lack of time, waiting lists) barriers to accessing a SSS. These barriers to access were echoed in service providers (WP2) responses, in addition to a lack of interpreters to increase SSS reach and engagement among non-English speakers.

In line with the existing literature on SSS innovation, findings from WP2 & 3 reveal the importance of offering tailored stop smoking programmes to LSES groups to address health inequalities and meet the needs of under-served populations (54-56). Findings clearly demonstrate the importance of providing a more tailored and less prescriptive approach to SSS, which may help encourage uptake of services for LSES groups. Examples included: flexibility in the overall duration and intensity of behavioural and NRT support; options for both communities based one-to-one and remote/online support; and greater choice of NRT products, pharmacotherapy and e-cigarettes available. These findings support existing evidence suggesting that among LSES groups, there is a preference for more person-centred, flexible support that is located within their own community setting, as opposed to more clinical, prescriptive service models (57, 58). This research also suggests preferences for service delivery to include options for remote/online services (in-keeping with a person-centred approach); as outlined within WP1 this could be due to changes that have occurred throughout the delivery of many health services since COVID-19.

Previous studies have also revealed that barriers to uptake of SSS among LSES groups include fear of being judged, fear of failure, competing priorities and a perceived lack of knowledge about existing services (59). The current findings are consistent with this previous evidence, suggesting that facilitators to accessing SSS among LSES groups include a personalised, non-judgmental approach and convenient and flexible timing of service delivery (59, 60). Furthermore, those who had previously accessed a SSS (WP3) felt it was important that smoking cessation practitioners were empathetic and compassionate. As found in previous research, some participants also valued having a practitioner with a history of smoking, as this facilitated rapport building and trust due to common ground (61). This may be particularly important to those from LSES groups who are more likely to experience smoking-related stigma, fear of judgement in relation to their smoking behaviour and a lack of trust towards health care professionals (61).

Findings from WP3 suggest that amongst those who had never accessed a SSS there was a perception that willpower and motivation would be enough to give up smoking and because of this, many of these participants held the belief that help would not be required if they decided to stop smoking. Participants tended to hold misconceptions about SSS with many underestimating the potential benefits of them. These findings echo much of the previous literature that suggests there is a lack of understanding about the effectiveness of SSS, a misunderstanding of the types of support that are available (59, 62-67) and doubtfulness regarding the need to utilise a SSS (67, 68).

Guidance around the use and provision of e-cigarettes differs across each of the nations (69, 70). Although, as highlighted in WP1, many services in England include e-cigarette support, WP2 findings along with previous research have suggested that advice regarding the use of e-cigarettes varies widely and many smoking cessation practitioners hold concerns regarding recommending e-cigarettes (71-75). Data from WP3 demonstrates that participants (particularly those from NI, Scotland, and Wales where SSS do not provide e-cigarettes) felt that there is little discussion and support from SSS regarding their use as a cessation aid. There were mixed responses from WP3

participants around the use of e-cigarettes in SSS, for example, some mentioned wanting more e-cigarette support within SSS and others viewed e-cigarettes as harmful. Given a recent study in England (76) found that over the last decade, harm perception of e-cigarettes had worsened amongst those who smoke, the mix of views towards e-cigarettes in this study is particularly important to consider when tailoring SSS for LSES groups, as such concerns may undermine uptake of SSS. While there is uncertainty around the provision of e-cigarettes within SSS, some service providers in WP2 perceived them as an effective and popular smoking cessation tool among LSES groups.

Developing and strengthening collaborative working relationships with community services, healthcare providers, local authorities, and third-sector organisations, was a suggestion by service users to increase visibility, access, and uptake amongst LSES groups. Examples of initiatives within the nation specific 'Case studies' highlighted instances where SSS have had success here. In addition, WP3 participants also encouraged the use of existing community groups/services to deliver SSS; research suggests some potential in such approaches (77).

A key barrier highlighted by WP2 to improve SSS uptake and success amongst LSES groups was funding of services. WP2 participants suggested that in order to provide services that were holistic, they would require more funding and increased staff resources. At the end of 2023, the Department for Health, and Social Care (DHSC) outlined an additional £70 million per year in funding up to 2029 for local authority SSS within England (78). This additional funding could go some way to support SSS support for LSES groups in England. To our knowledge, no similar funding pledges have been made in the other three UK nations.

Strengths and Limitations

Work Package 1

The SSS returns data are for England only, and the results of the exploratory analysis on service uptake and quit success may not be representative of the rest of the UK. The returns data are reported at different LA levels for different areas; where the data are reported for larger areas, differences within those areas will be missed. Further, deprivation was measured at an area rather than individual level. It is unlikely, however, that this will have affected the general conclusions. The analysis used self-reported quit success data and there is, therefore, a risk of reporting bias; however, there is no reason to assume that this would vary across the nations or between population sub-groups, so it is unlikely to have affected the conclusions. There may also be some double counting in the returns data, as people who access the service more than once in a year are likely to be counted as a new client each time within the data. Like SSS returns, data survey responses were also mainly limited to England. However, our survey did not cover all services in the country and although we attempted to use SSS websites to collect the missing data such an approach revealed very limited data and therefore these were not used in the analysis.

Work Package 2 & 3

The UK wide focus of both WP2 and WP3 allowed for data collection that provided good geographical diversity and multiple researchers focusing on individual nations proved to be a significant strength of this study. The sample for WP2 included employees and a wide spread of roles, from managerial level to other positions that are involved in SSS such as pharmacists and dentists. This scope allowed for an overview of the SSS provision that included a range of

perspectives from those in charge of policy and funding decisions to those providing face to face support daily. This also allowed for anomalies between perspectives i.e., 'what is said and what is done' to be also explored. Although the research team worked hard to recruit a diverse participant group for WP3, our sample was limited in respect to recruitment of those from different ethnic backgrounds and of those under the age of 35, even with the support of an external recruitment agency. This limitation therefore impacted the ability to conduct sub-group analysis by certain demographic groups (e.g. ethnic background).

Future Research

There are numerous future research opportunities that have been highlighted through the project and its findings, these include:

- An in-depth review of service characteristics and quit rates i.e. focusing on different localities and ranges of support provision.
- A greater exploration of SSS participant demographics, such as the experiences of those under 35 years and of those from a range of ethnicities, to enable targeted smoking prevention and early intervention initiatives to be developed.
- Further research to understand what targeted support and initiatives could be provided for other priority groups to support them to stop smoking. This includes those who, in this report, had the least contact with services in the past 12 months: travellers, people in touch with the criminal justice system, rural communities, and LGBTQIA+ communities.
- Further exploration of how best to support individuals who do not feel ready to quit smoking, and how best to encourage them to try to quit. This may include, but is not limited to, awareness of and access to SSS.
- Further research to understand the barriers to providing a range of NRT products in SSS.
- Further research into e-cigarette cessation in people who used to smoke.
- Further research to understand how to improve awareness of SSS and understanding of support provided (including understanding the role of behavioural support - what this involves, and how to overcome misperceptions).
- An exploration of the potential for developing closer links with other relevant services (e.g. social prescribing) to address the need for social connection.
- Further exploration of SSS training needs and examples of best practice in relation to building advisers' confidence to work with clients with complex needs.

Research focusing around these areas may help to understand the individual participant experience better and potentially provide a more nuanced understanding of the SSS sector.

Conclusion

Findings from this study provide evidence on practical solutions for adapting SSS delivery, increasing equitable uptake and improving outcomes. This work adds to the evidence demonstrating that more tailored support and targeted promotion of local SSS is essential to maximise service uptake for LSES groups. The use of community services/agencies were identified as a way to maximise targeted work to improve access to services for LSES groups.

In addition, clear guidance on the use of e-cigarettes within SSS is needed, with consistent messaging across nations, so that people who smoke are not deterred from using an e-cigarette as a cessation aid. Although efforts to make SSS more convenient for LSES groups is a key recommendation, the current research also highlights the importance of ensuring greater visibility of services and assurance of the value and potential benefits of their support, to help to motivate the target population to access SSS when trying to quit smoking.

Policy recommendations

These recommendations were developed by Cancer Research UK's policy experts based on the research findings from this study, alongside other evidence and wider considerations.

There is a policy need to ensure that uptake, reach, access and effectiveness of stop smoking services (SSS) is maintained and strengthened for LSES groups.

The wider evidence shows that SSS are a key lever in helping people quit, providing a combination of specialist behavioural support, NRT and sometimes access to e-cigarettes. People using these services are around three times more likely to successfully stop smoking than people attempting to quit without help.(79, 80) However, uptake of SSS in low socioeconomic status (LSES) groups is low.

This report demonstrates there are a number of steps that Governments across the UK and SSS can take to improve the support that they offer. This includes making the support offered at SSS more visible, accessible and effective for LSES groups.

Improving the visibility of SSS

We learn from this report that people from LSES groups may not know what stop smoking services exist in their area or what these services provide, with many holding misconceptions about SSS and underestimating the potential benefits of using them.

Improving the visibility of SSS among LSES, so that they know what support is available and the breadth of support, could improve quit outcomes.

Based on this, **CRUK recommends that:**

1. **Health and social services – for example, healthcare services, local authorities, third sector organisations, and community groups – should work to promote SSS available in their local area and should encourage people to quit smoking.**

Improving the accessibility of SSS

This report adds to the existing literature that shows people from LSES groups face a number of barriers when accessing services. This includes physical barriers (like time and location), psychological barriers (such as a fear of being judged or lack of motivation to quit), literacy and language barriers, and service waiting lists. This report suggests people from LSES groups prefer more person-centred, flexible support that is located within their community setting. In order to

increase uptake of services, **CRUK recommends that:**

2. **Wherever possible, SSS should ensure there is more flexibility within service provision.** This could include offering: work-placed support, evening sessions, flexible quit dates, and extended lengths of time with the service, along with NRT and behavioural support.

Service users and managers highlighted that having SSS in familiar, community settings could increase use and accessibility among LSES. This could reduce stigma associated with SSS. **CRUK therefore recommends that:**

3. **Service commissioners should gather evidence on the co-location of services with other support in the community, in order to assess whether co-location can increase uptake of services and improve the success of stop smoking support.**

Location was listed as one of the potential barriers for accessing SSS. This report reveals how offering digital support could be a facilitator for both service users and service providers, with some providers noting that most service users have access to a mobile phone with internet connection regardless of LSES. **CRUK therefore recommends that:**

4. **If not doing so already, SSS should consider using digital/remote technologies to complement existing face-to-face service offer.** To avoid potential digital exclusion or risk exacerbating smoking-related inequalities, digital support should not replace existing avenues for delivering smoking cessation, including face-to-face services.

The report also highlighted how individuals from LSES groups not only find it more difficult to quit but are also more likely to relapse. There are psychological barriers to accessing SSS associated with this: individuals reported a fear that they would be judged by the service, or that support would be limited and not immediately available if they signed up again. **CRUK recommends that:**

5. **Local SSS should**, where possible, **ensure individuals can swiftly re-access support**, in a comfortable, non-judgemental setting, ***regardless* of the circumstances of their relapse**. It is also crucial that service providers **clearly communicate their policy to individuals in the event of a relapse.**
   As part of this, **SSS should encourage their advisors to share their own stop smoking experience with service users, which could reassure users that the services are welcoming and have friendly and experienced staff.**

Improving engagement with LSES groups in SSS

Within the report, service providers discussed challenges related to engagement with LSES groups, particularly those with physical and mental health conditions and life stressors. As part of this, providers mentioned socio-cultural factors that could prevent certain groups from attending services, as well as language and literacy barriers. **CRUK therefore recommends that:**

6. **SSS are tailored to the needs of different population groups and are culturally adapted to encourage more people from all groups to quit smoking.** To do so, mental

health training and cultural competency programmes should be offered to service providers.

7. **Local service providers should, where needed and possible, improve access to language translators and interpreters.**

Ensuring services are available and resourced across the UK

We appreciate that some of these recommendations would require additional funding, workforce, or staffing to be implemented. This comes at a time where for many years, SSS have not always received the adequate or sustainable funding needed to able to deliver support to people who smoke.

The report highlighted how some services are experiencing a shortage of funding and staff, and that this can be a barrier when improving access for LSES groups. We know that not all people who smoke have access to SSS and, as identified in this report by service providers, people are often put on waiting lists due to staffing and referral issues. Waiting lists can be particularly damaging for people from LSES groups, as they can lose motivation to quit while waiting to access a service. The report also notes that because people from LSES groups may have competing priorities, when a space does become available at a service, they may no longer have the capacity or motivation to undergo a quit attempt.

Adequate resourcing is therefore critical to providing efficient, sustainable and targeted support. **CRUK recommends that:**

8. **Governments across the UK provide adequate and sustainable funding for SSS.** This funding should be secured for the length of time needed to reduce smoking rates (to less than 5% of the population smoking) across all four nations. This funding should also be sufficient for services to ensure the products proven to be beneficial to quitting are affordable and accessible for the people in LSES groups**.**
9. **Governments across the UK adequately fund mass media campaigns to encourage people to stop smoking.** These can be cost-effective, as well as effective in motivating people to stop smoking or not take it up in the first place.

Improving the availability and support around NRT, pharmacotherapy and e-cigarettes

This report adds to existing literature that shows effective tools to help people stop smoking are not universally available across the UK.

Service providers and service users both reported a limited range of NRT and pharmacotherapy products in some services, with providers stating funding constraints were often the cause. This can pose a barrier to LSES groups, who may be unable to access their preferred NRT product via SSS and may not be able to purchase it out of pocket. The report also outlines that wait times for NRT/ pharmacotherapy prescriptions from pharmacies can last weeks and that physical access to a pharmacy can be difficult, especially in rural and remote areas.

Service providers said that having the ability to directly prescribe NRT was a facilitator to access among LSES groups, describing this as advantageous in expediting the process from service uptake to NRT access. Service users also wanted to be provided with support for NRT provision and information about the range of products available and the potential side effects.

Evidence-based interventions must be available and accessible to improve quit rates. To ensure people have the right cessation tool, **CRUK recommends that:**

10. **To increase NRT access, service providers should, where possible, be able to directly prescribe NRT products.**
11. **Governments across the UK should continue to work with suppliers and prescribers to improve access to cessation options, including Varenicline.**[2]

The evidence so far suggests legal e-cigarettes are far less harmful than smoking (82) and can help people quit across all socioeconomic groups. (83) However, vaping is not risk free as the long-term health effects are still unknown, which is why the uptake of vaping by young people and those who do not smoke must be prevented. Within this report, service providers recognised that e-cigarettes were the preferred cessation option for some service users. **CRUK recommends that:**

12. **Governments across the UK provide clear public health guidance at a national level on the utility of e-cigarettes as a smoking cessation tool**. They should work together to ensure public communications on vaping are evidence-based and aligned, in order to reduce confusion.
13. **When distributing e-cigarettes as a cessation tool, smoking cessation practitioners should be supported by their local service to provide clear information about the benefits and risks of e-cigarettes** in a way that prevents harm misperceptions worsening, and there should be clear advice and guidance on how to use them.

[2] Varenicline was withdrawn in Oct 2021 and was not available in the UK. An unlicensed version was made available at the end of 2023 and a licensed version is being introduced from August 2024.

References

1. Brown KF, Rumgay H, Dunlop C, Ryan M, Quartly F, Cox A, et al. The fraction of cancer attributable to modifiable risk factors in England, Wales, Scotland, Northern Ireland, and the United Kingdom in 2015. Br J Cancer. 2018;118(8):1130-41.
2. Action on Smoking and Health. Tobacco control and stop smoking services in local authorities in England, 2021 UK: Action on Smoking and Health; 2022 [Available from: https://ash.org.uk/uploads/Reaching-Out-1.pdf?v=1643633584.
3. Office for National Statistics. Adult smoking habits in the UK: 2022 2022 [Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/2022.
4. Office for National Statistics. Deprivation and the impact on smoking prevalence, England and Wales: 2017 to 2021 2021 [Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/drugusealcoholandsmoking/bulletins/deprivationandtheimpactonsmokingprevalenceenglandandwales/2017to2021 .
5. The Kings Fund. Smoking - Time to think differently UK2022 [Available from: https://www.kingsfund.org.uk/projects/time-think-differently/trends-healthy-behaviours-smoking.
6. Payne NWS, Brown KF, Delon C, Kotrotsios Y, Soerjomataram I, Shelton J. Socio-economic deprivation and cancer incidence in England: Quantifying the role of smoking. PLOS ONE. 2022;17(9):e0272202.
7. Department of Health and Social Care. Advancing our health: prevention in the 2020s – consultation document London2019 [Available from: https://www.gov.uk/government/consultations/advancing-our-health-prevention-in-the-2020s/advancing-our-health-prevention-in-the-2020s-consultation-document.
8. Welsh Government. A smoke-free Wales: Our long-term tobacco control strategy: Our long-term plan towards a smoke-free Wales by 2030. Wales2020.
9. Scottish Government. Tobacco and vaping framework: roadmap to 2034. Scotland: Minister for Public Health and Womens Health; 2023.
10. Cancer Intelligence Team Cancer Research UK. Smoking prevalence projections for England, based on data to 2021. 2023.
11. Khan J. The Khan review: Making smoking obsolete. Independent review into smokefree 2030 policies. 2022 2022.
12. Bauld L, Judge K, Platt S. Assessing the impact of smoking cessation services on reducing health inequalities in England: observational study. Tob Control. 2007;16(6):400-4.
13. NHS Inform Scotland. [Available from: https://www.nhsinform.scot/healthy-living/stopping-smoking/help-to-stop/local-help-to-stop-smoking/.
14. Help Me Quit Wales. [Available from: https://www.helpmequit.wales/.
15. Department of Health Social Services and Public Safety. The 10 year Tobacco Control Strategy for Northern Ireland Northern Ireland2023 [Available from: https://www.health-ni.gov.uk/sites/default/files/publications/health/doh-tobacco-control-strategy-review.pdf.
16. Public Health England. Models of delivery for stop smoking services options and evidence London2017 [
17. West R, Paperdakis, S.,. Stop smoking services: increased chances of quitting. 2019.
18. Brose LS, McEwen A. Neighbourhood Deprivation and Outcomes of Stop Smoking Support – An Observational Study. PLOS ONE. 2016;11(1):e0148194.
19. Kwah KL, Fulton EA, Brown KE. Accessing National Health Service Stop Smoking Services in the UK: a COM-B analysis of barriers and facilitators perceived by smokers, ex-smokers and stop smoking advisors. Public Health. 2019;171:123-30.

20. Action on Smoking and Health. A changing landscape stop smoking services and tobacco control in England. London; 2019.
21. El-Osta A, Hennessey C, Pilot C, Aumran Tahir M, Bagkeris E, Akram M, et al. A digital solution to streamline access to smoking cessation interventions in England; findings from a primary care pilot (STOPNOW study). Public Health in Practice. 2021;2:100176.
22. Davies NP, Callister ME, Copeland H, Griffiths S, Holtam L, Lambert P, et al. Opportunistic Non-Governmental Organisation Delivery of a Virtual Stop Smoking Service in England during the COVID-19 Lockdown. Int J Environ Res Public Health. 2022;19(13).
23. Johnston E, Bains M, Hunter A, Langley T. The Impact of the COVID-19 Pandemic on Smoking, Vaping, and Smoking Cessation Services in the United Kingdom: A Qualitative Study. Nicotine Tob Res. 2023;25(2):339-44.
24. The All Party Parliamentary Group on Smoking and Health. Delivering a Smokefree 2030: The All Party Parliamentary Group on Smoking and Health recommendations for the Tobacco Control Plan 2021 London2021 [Available from: https://cdn.ash.ten4dev.com/uploads/APPGTCP2021.pdf?v=1652361624.
25. Department of Health Social Services and Public Safety. Ten-year tobacco control strategy for Northern Ireland Northern Ireland2012 [Available from: https://www.health-ni.gov.uk/publications/ten-year-tobacco-control-strategy-northern-ireland.
26. Royal College of Physicians. Nicotine without smoke: Tobacco harm reduction. London; 2016.
27. Department of Health and Social Care. Stopping the start: our new plan to create a smokefree generation. London2023.
28. Doyle L. Mixed Methods. Routledge International Handbook of Advanced Quantitative Methods in Nursing Research: Routledge; 2015.
29. Michie S, van Stralen MM, West R. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. Implementation Science. 2011;6(1):42.
30. National Health Service (Digital). Statistics on NHS Stop Smoking Services in England April 2022-March 2023. 2023 [Available from: https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-nhs-stop-smoking-services-in-england/april-2022-to-march-2023-q4/datasets.
31. National Health Service (Digital). Statistics on NHS Stop Smoking Services in England 2022 [Available from: https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-nhs-stop-smoking-services-in-england.
32. Office for Health Improvement and Disparities. Local Tobacco Control Profiles London: OHID; 2024 [Available from: Office for Health Improvement and Disparities. Local Tobacco Control Profiles. Available from https://fingertips.phe.org.uk/profile/tobacco-control [Accessed 09/01/24].
33. Office for National Statistics. Population profiles for local authorities in England 2021 [Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/articles/populationprofilesforlocalauthoritiesinengland/2020-12-14.
34. Office for National Statistics. Mid-Year Population Estimates, UK, June 2021. 2021 [Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland.
35. StataCorp. Stata Statistical Software: Release 18. College Station, TX: StataCorp LLC.2023.
36. Lingard LA, Kennedy TJT, editors. Qualitative Research Methods in Medical Education2010.

37. Bolander Laksov K, Dornan T, Teunissen PW. Making theory explicit - An analysis of how medical education research(ers) describe how they connect to theory. BMC Med Educ. 2017;17(1):18.
38. Emmel N. Sampling and Choosing Cases in Qualitative Research: A Realist Approach. London2013. Available from: https://methods.sagepub.com/book/sampling-and-choosing-cases-in-qualitative-research.
39. Cane J, O'Connor D, Michie S. Validation of the theoretical domains framework for use in behaviour change and implementation research. Implementation Science. 2012;7(1):37.
40. Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. BMC Medical Research Methodology. 2013;13(1):117.
41. National Health Service. NHS Long Term Plan London: NHS; 2019 [Available from: https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf.
42. Action on Smoking and Health and LGBT Foundation. LGBT Evidence into Practice briefing. March 2020 2020 [Available from: https://ash.org.uk/uploads/LGBTeip.pdf.
43. Hartmann-Boyce J, Lindson N, Butler AR, McRobbie H, Bullen C, Begh R, et al. Electronic cigarettes for smoking cessation. Cochrane Database of Systematic Reviews. 2022(11).
44. Iain H, Michael James G. Vaping and socioeconomic inequalities in smoking cessation and relapse: a longitudinal analysis of the UK Household Longitudinal Study. Tobacco Control. 2023:tc-2022-057728.
45. National Centre for Smoking Cessation and Training. Supporting clients who want to stop vaping: NCSCT; 2022 [Available from: https://www.ncsct.co.uk/library/view/pdf/Supporting-stopping-vaping-2023.pdf.
46. National Institute for Health and Care Excellence. Tobacco: preventing uptake, promoting quitting and treating tobacco dependence. NICE guideline [NG209] 2023 [Available from: https://www.nice.org.uk/guidance/ng209/chapter/recommendations-on-treating-tobacco-dependence-in-pregnant-women.
47. Community Pharmacy England. Smoking Cessation Services (SCS) 2024 [updated February 2024. Available from: https://cpe.org.uk/national-pharmacy-services/advanced-services/smoking-cessation-service/.
48. Prochaska JO. Multiple Health Behavior Research represents the future of preventive medicine. Prev Med. 2008;46(3):281-5.
49. Montgomery S. Integrated health behaviour (lifestyle) services: a review of the evidence. 2023.
50. Tzelepis F, Paul CL, Williams CM, Gilligan C, Regan T, Daly J, et al. Real-time video counselling for smoking cessation. Cochrane Database Syst Rev. 2019;2019(10).
51. National Centre for Smoking Cessation and Training. Remote consultations: Delivering behavioural support and supply of NRT: NCSCT; 2020 [Available from: https://www.ncsct.co.uk/library/view/pdf/Remote%20consultations.pdf.
52. Murray RL, Zhang YQ, Ross S, O'Brien KK, Zhu M, Leone FT, et al. Extended Duration Treatment of Tobacco Dependence: A Systematic Review and Meta-Analysis. Ann Am Thorac Soc. 2022;19(8):1390-403.
53. Kotz D, West R. Explaining the social gradient in smoking cessation: it's not in the trying, but in the succeeding. Tobacco Control. 2009;18(1):43.
54. van Wijk EC, Landais LL, Harting J. Understanding the multitude of barriers that prevent smokers in lower socioeconomic groups from accessing smoking cessation support: A literature review. Prev Med. 2019;123:143-51.
55. Sniehotta FF, Araújo-Soares V, Brown J, Kelly MP, Michie S, West R. Complex systems

and individual-level approaches to population health: a false dichotomy? Lancet Public Health. 2017;2(9):e396-e7.
56. Landais LL, van Wijk EC, Harting J. Smoking Cessation in Lower Socioeconomic Groups: Adaptation and Pilot Test of a Rolling Group Intervention. Biomed Res Int. 2021;2021:8830912.
57. Henderson H, Memon A, Lawson K, Jacobs B, Koutsogeorgou-Andreou E. What factors are important in smoking cessation amongst deprived communities? A qualitative study. Health Education Journal. 2011;70:84-91.
58. Marcano Belisario JS, Bruggeling MN, Gunn LH, Brusamento S, Car J. Interventions for recruiting smokers into cessation programmes. Cochrane Database Syst Rev. 2012;12(12):Cd009187.
59. Roddy E, Antoniak M, Britton J, Molyneux A, Lewis S. Barriers and motivators to gaining access to smoking cessation services amongst deprived smokers – a qualitative study. BMC Health Services Research. 2006;6(1):147.
60. Robinson J, McEwen A, Heah R, Papadakis S. A 'Cut-Down-To-Stop' intervention for smokers who find it hard to quit: a qualitative evaluation. BMC Public Health. 2019;19(1):403.
61. Lindson-Hawley N, Begh R, McDermott MS, McEwen A, Lycett D. The importance of practitioner smoking status: a survey of NHS Stop Smoking Service practitioners. Patient Educ Couns. 2013;93(1):139-45.
62. Christiansen BA, Reeder KM, TerBeek EG, Fiore MC, Baker TB. Motivating Low Socioeconomic Status Smokers to Accept Evidence-Based Smoking Cessation Treatment: A Brief Intervention for the Community Agency Setting. Nicotine Tob Res. 2015;17(8):1002-11.
63. Hughes JR, Keely J, Naud S. Shape of the relapse curve and long-term abstinence among untreated smokers. Addiction. 2004;99(1):29-38.
64. Andrea LS, Stacy MC, Simon C, Sally MD, Becky F. Why do smokers try to quit without medication or counselling? A qualitative study with ex-smokers. BMJ Open. 2015;5(4):e007301.
65. van Rossem C, Spigt MG, Kleijsen JR, Hendricx M, van Schayck CP, Kotz D. Smoking cessation in primary care: Exploration of barriers and solutions in current daily practice from the perspective of smokers and healthcare professionals. Eur J Gen Pract. 2015;21(2):111-7.
66. Vogt F, Hall S, Marteau TM. Examining why smokers do not want behavioral support with stopping smoking. Patient Educ Couns. 2010;79(2):160-6.
67. Kale D, Gilbert H, Sutton S. An exploration of the barriers to attendance at the English Stop Smoking Services. Addict Behav Rep. 2019;9:005-5.
68. Hammond D, McDonald PW, Fong GT, Borland R. Do smokers know how to quit? Knowledge and perceived effectiveness of cessation assistance as predictors of cessation behaviour. Addiction. 2004;99(8):1042-8.
69. Northern Ireland Public Health Agency. Quality standards for the delivery of specialist stop smoking service in Northern Ireland. 2011 2011 [Available from: https://www.publichealth.hscni.net/sites/default/files/2011%20Quality%20Standards%20for%20the%20Delivery%20of%20Smoking%20Cessation%20Services%20in%20NI%20PDF_0.pdf
70. National Health Service. Using e-cigarettes to stop smoking London [Available from: https://www.nhs.uk/live-well/quit-smoking/using-e-cigarettes-to-stop-smoking/.
71. Hiscock R, Arnott D, Dockrell M, Ross L, McEwen A. Stop Smoking Practitioners' understanding of e-cigarettes' use and efficacy with particular reference to vapers' socioeconomic status. J Smok Cessat. 2019;14(1):21-31.
72. Hartwell G, Egan M, Petticrew M. Understanding decisions to use e-cigarettes or behavioural support to quit tobacco: a qualitative study of current and ex-smokers and stop smoking service staff. Addiction. 2020;115(3):518-26.
73. Beard E, Brose LS, Brown J, West R, McEwen A. How are the English Stop Smoking Services responding to growth in use of electronic cigarettes? Patient Educ Couns.

2014;94(2):276-81.
74. Hiscock R, Goniewicz ML, McEwen A, Murray S, Arnott D, Dockrell M, et al. E-cigarettes: online survey of UK smoking cessation practitioners. Tob Induc Dis. 2014;12(1):13.
75. Farrimond H, Abraham C. Developing E-cigarette friendly smoking cessation services in England: staff perspectives. Harm Reduction Journal. 2018;15(1):38.
76. Jackson SE, Tattan-Birch H, East K, Cox S, Shahab L, Brown J. Trends in Harm Perceptions of E-Cigarettes vs Cigarettes Among Adults Who Smoke in England, 2014-2023. JAMA Network Open. 2024;7(2):e240582-e.
77. Visser JEM, Rozema AD, Kunst AE, Kuipers MAG. Smoking Cessation Support in Social and Community Service Organizations: Potential Activities, Barriers, and Facilitators. Nicotine & Tobacco Research. 2024:ntae004.
78. Department for Health and Social Care. Local stop smoking services and support: funding allocations and methodology 2023 [Available from: https://www.gov.uk/government/publications/local-stop-smoking-services-and-support-additional-funding/local-stop-smoking-services-and-support-funding-allocations-and-methodology#:~:text=provide%20indicative%20figures.-,Grant%20funding%20criteria,stop%20s.
79. Kotz D, Brown J, West R. 'Real-world' effectiveness of smoking cessation treatments: a population study. Addiction. 2014;109(3):491-9.
80. Kotz D, Brown J, West R. Prospective cohort study of the effectiveness of smoking cessation treatments used in the "real world". Mayo Clin Proc. 2014;89(10):1360-7.
81. Department for Health and Social Care. Local Stop Smoking Services and Support: Guidance for local authorities. 2023 [Available from: https://www.gov.uk/government/publications/local-stop-smoking-services-and-support-additional-funding.
82. Action on Smoking and Health. New paths and pathways: Tobacco control and stop smoking services in English local authorities in 2022. 2023.
83. McNeill A, et al. Nicotine vaping in England: 2022 evidence update main findings 2022.

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Our values

Our values help guide our behaviour and culture in an ever-changing world, building on the best of what we do today and what we aspire to be in the future. They unite and inspire us to achieve our ambitious plans and our mission of beating cancer, together.

Our values are: