Health Innovation Wessex

Hampshire and Isle of Wight Tobacco Dependency Services - A comparison of costs and quit rates

Sophie Barton
Advanced Analyst - Insight
March 2025

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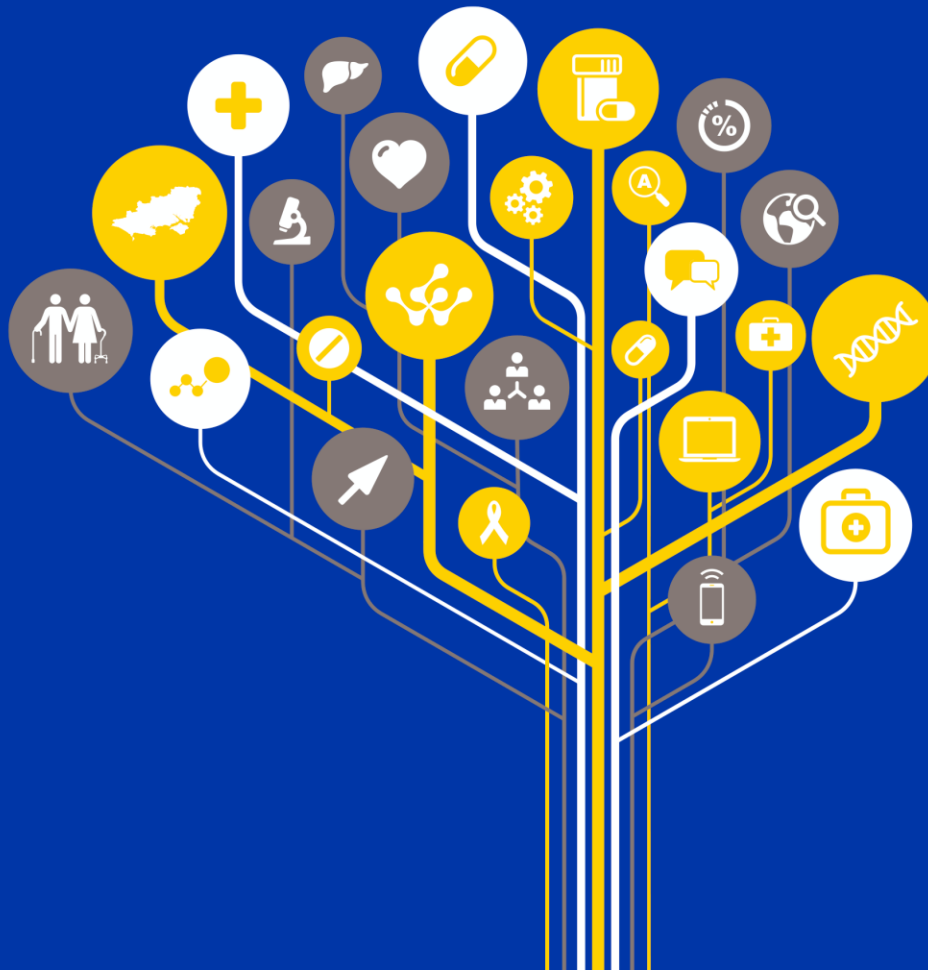
Background



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Background

NHS Hampshire and Isle of Wight have introduced Tobacco Dependency Treatment Services to its acute hospitals as part of its commitment to the NHS Long Term Plan Prevention strategy.

All people admitted to hospital who smoke will be offered a mixture of behavioural support and pharmacotherapy during their inpatient stay to support them to quit smoking. Upon discharge, patients are referred to local authority public health commissioned services, primary care and pharmacy Local Incentive Schemes for ongoing support.

NHS Hampshire and Isle of Wight (NHS HIOW) approached Health Innovation Wessex (HIW) to carry out an independent evaluation of the Tobacco Dependency Treatment Services in June 2024. The evaluation was supported by a working group comprising NHS HIOW, HIW and public health colleagues from Southampton City Council (SCC) and Hampshire County Council (HCC). The following evaluation questions were agreed.

Q. How do quit rates compare for people accessing stop smoking support in the acute setting versus those in the community setting?

Q. How do the costs of providing Tobacco Dependency Services compare for patients accessing stop smoking support in the acute setting versus those in the community setting?

Background

Initially, the evaluation aimed to inform funding decisions for the 2025/26 financial year. Previous funding for the Tobacco Dependency Services was non-recurrent which had a negative impact on performance (e.g., vacant posts due to short-term contracts). However, recurrent funding has now been agreed. While the evaluation surfaced several data issues which meant that we were not able to answer the original questions, it is hoped that greater financial security will bring an improvement in data quality. The shape of the evaluation changed to focus on describing and understanding the data issues with a view to improved measurement of impact in the future.

We recommend that this review is read in conjunction with the other outputs commissioned for this evaluation:

- *A Short Review of Tobacco Cessation Approaches at University Hospital Southampton NHS Foundation Trust and Hampshire Hospitals NHS Foundation Trust* by Julia Wilson
- *Literature review of evidence-based tobacco cessation interventions in under-served groups* by Julia Wilson
- *Hampshire and Isle of Wight Tobacco Dependency Services - Data Monitoring Framework* by Sophie Barton

This evaluation was completed before the announcement on 13 March 2025 that NHS England will be brought back into the Department of Health and Social Care (DHSC). The evaluation description of the innovation, its deployment and the evaluation findings were accurate at the time of publication. The government decision may, in the future, alter how the report's findings and recommendations are received in this new context. We raise this issue for the reader to note.

Background

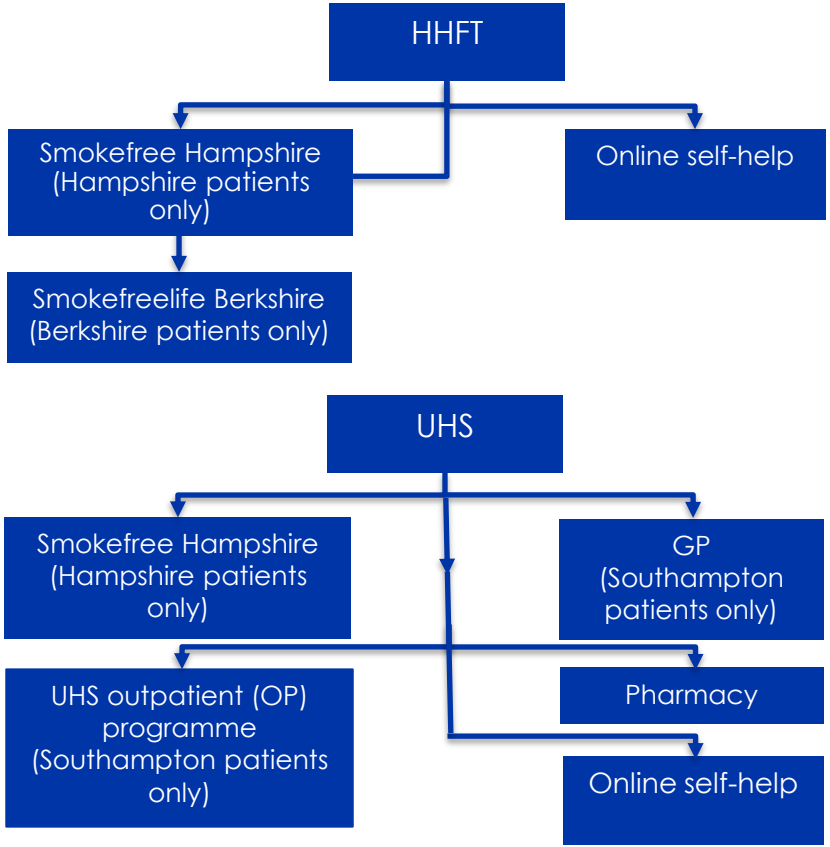
Two providers, Hampshire Hospitals NHS Foundation Trust (HHFT) and University Hospital Southampton (UHS) NHS Foundation Trust are the focus of this evaluation.

At HHFT, there is one primary onward referral route when patients are discharged from hospital. This is Smokefree Hampshire which is funded by Hampshire County Council. A small number of patients with a Berkshire postcode are also referred to Smokefreelife Berkshire.

At UHS, there are several local referral routes, depending on the patient's postcode and personal preference.

Patients with a Southampton postcode can choose to be referred to the UHS outpatient programme, GP programme or to local pharmacies for ongoing support, all of which are funded by Southampton City Council. Patients with a Hampshire postcode can be referred to Smokefree Hampshire or local pharmacies.

All patients at both providers can access online self-help which is provided nationally[1].



[1] Quit smoking - Better Health - NHS

Background

Southampton (served by UHS)

14.2% smoking prevalence[3]

Population in the most deprived quintile **28.4%**[4]
Severe mental health prevalence **1.1%**[4]
Homelessness **10.4 per 1,000 households**[5]
Alcohol dependence **10.8%**[4]

"Smoking and smoking harm contributes to health inequalities. People in more deprived areas, people living with severe mental illness, people who are homeless and people who are drug or alcohol dependent are more likely to smoke and are more likely to smoke heavily".[2]

The population profiles served by UHS and HHFT are summarised here.

Basingstoke and Deane (served by HHFT)

14.1% smoking prevalence[4]

Population in the most deprived quintile **1.0%**[4]
Severe mental illness prevalence **0.9%**[4]
Homelessness **2 per 1,000 households**[6]
Alcohol dependence **14.3%**[4]

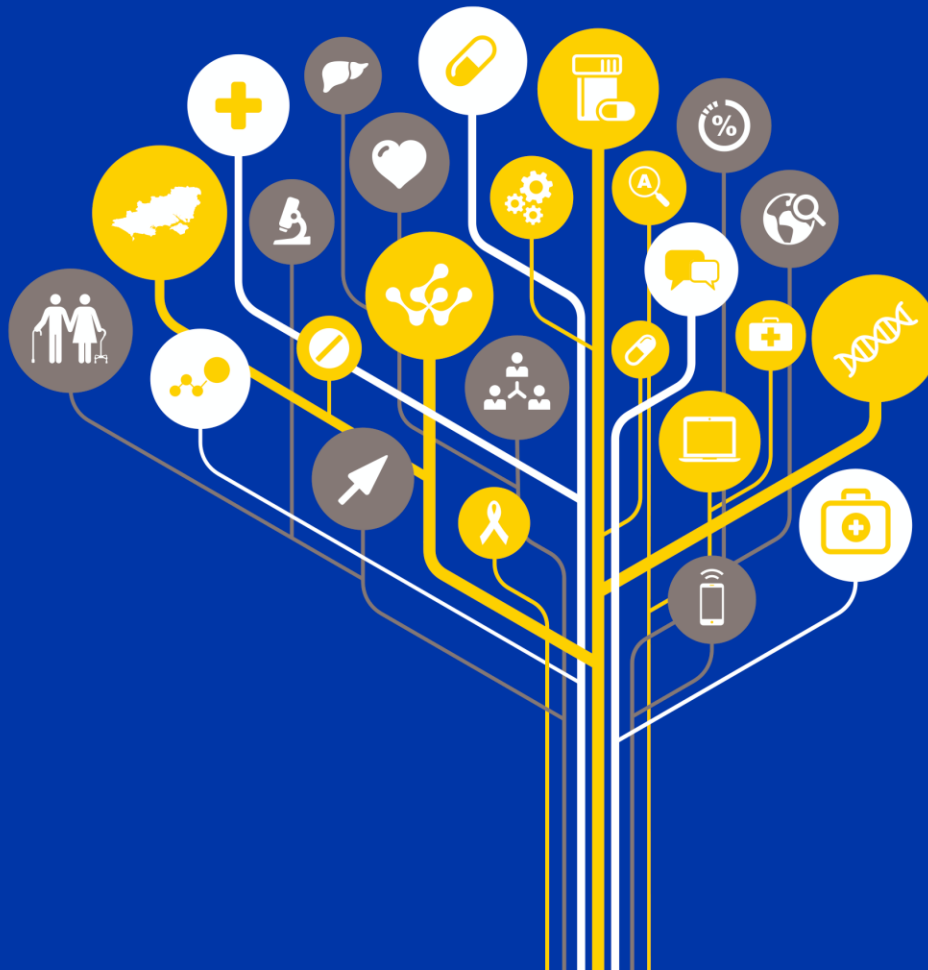
Winchester (served by HHFT)

10.3% smoking prevalence[4]

Population in the most deprived quintile **0%**[4]
Severe mental illness prevalence **0.9%**[4]
Homelessness **3.1 per 1,000 households**[6]
Alcohol dependence **19.6%**[4]

[2] Southampton Strategic Assessment - Smoking December 2022
[3] Southampton Data Observatory - Smoking Prevalence APS
[4] Health Analytics - Population Profile
[5] Homelessness and Rough Sleeping Strategy 2024-2029
[6] Hampshire and IOW JSNA - Healthy Places

Approach



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Approach

This evaluation sought to assess value for money by comparing quit rates and costs for quits that originated in the acute hospital setting (the intervention group) to quits that originated in a community setting (the comparator group).

Comparator data is limited to 'community quits' from Smokefree Hampshire and does not include the UHS GP and pharmacy pathways due to lack of data available for these referral routes. 'Community quits' are defined as any person receiving support from Smokefree Hampshire that was not referred via a hospital.

Aggregated cost data was requested from an NHS and public health perspective since it is common for both sectors to contribute to a successful quit. Costs were gathered from multiple funding sources and shared costs would be allocated using the proportional allocation technique, a method of distributing resources or costs based on a proportionate share of a total amount [7].

Demographic differences between intervention and comparator groups would be described.

The evaluation covered the period Oct 2023 – September 2024; this is the 'service year' for public health services and was the most practical period for which cost data could be supplied by public health colleagues.

[7] Costing in Economic Evaluations - Health Economics Unit, University of Cape Town

Data considerations

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Data considerations

Quit rates for HHFT and UHS were sourced from the Tobacco Dependency Services Dashboard, a national data set that forms part of the NHS England Prevention Programme. The data in this dashboard is aggregated, small number suppressed and rounded to the nearest five.

During the data collection phase of the evaluation, discrepancies were uncovered between quit rates reported in the dashboard and those reported internally to HCC and SCC. This meant that there was not one reliable source of information available for this evaluation.

For information governance reasons, it was not possible for HCC to share comprehensive cost data, (detailing costs of all types e.g. staff, nicotine replacement therapy etc.) with HIW as planned.

Small number suppression in the dashboard resulted in inconsistencies when breaking the data down into smaller categories, e.g. by age/sex/ethnicity/deprivation. Due to this and existing data quality concerns regarding quit rates in the dashboard, quit rates will not be split by demographic fields as planned.

Matching between intervention and treatment groups has not been carried out due to patient level data being unavailable for this evaluation. It is possible that the comparison group differs in ways that would influence the likelihood of a successful quit being achieved, such as demographic and lifestyle factors.

Data considerations

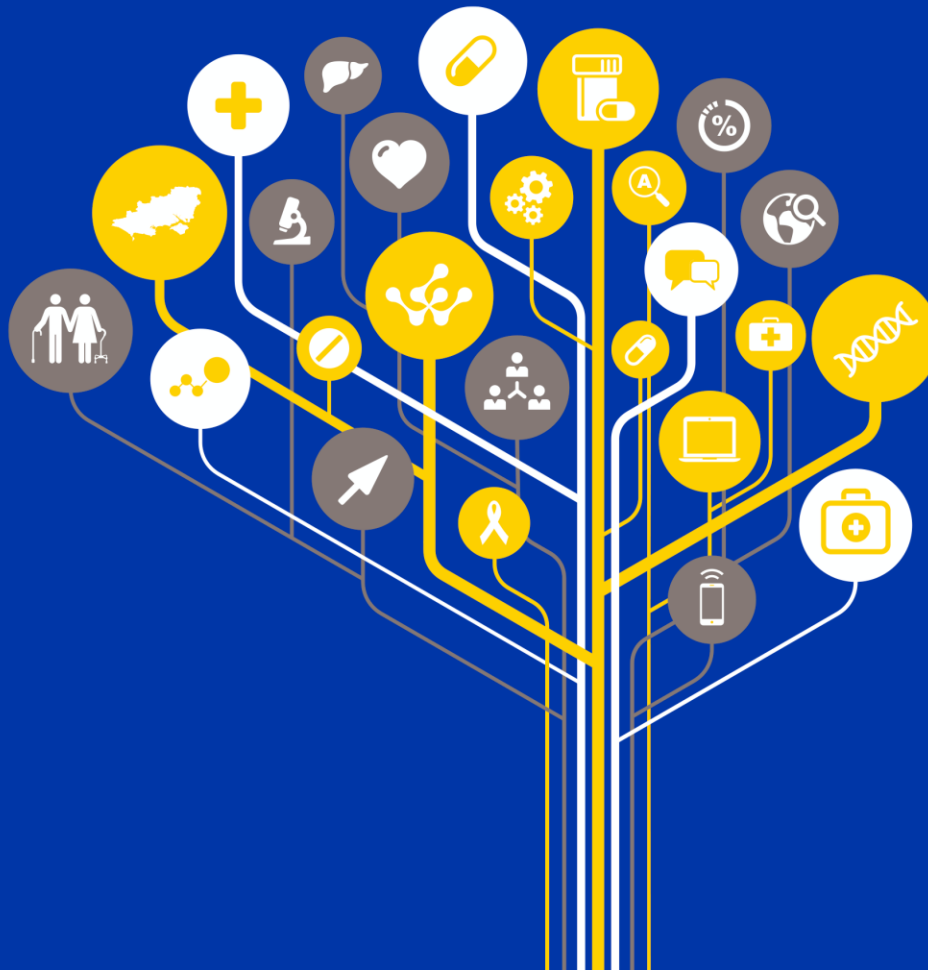
Local and national stop smoking campaigns

A number of local and national stop smoking campaigns also ran concurrently during the evaluation period and may have had an impact on quit rates. The events and campaigns below were supported by UHS, HHFT, SCC and HCC. Activities included sharing of social media posts, distribution of posters at hospital sites and attendance at events.

- **Swap to stop**[8] – a government scheme aiming to encourage people in England to switch from smoking to vaping by providing free vape starter kits, alongside some form of behavioural support
- **NHS Lung Cancer Screening** [9,10] - a two-stage lung screening check designed to spot any signs of lung health problems early, often before the development of noticeable symptoms.
- **Stoptober** [11] - an annual campaign that offers free resources and advice to encourage people to quit smoking for good.
- **World COPD Day** [12] - organised by the Global Initiative for Chronic Obstructive Lung Disease (GOLD), its aim is to raise awareness, share knowledge, and discuss ways to reduce the burden of COPD worldwide.
- **New Year/New You**[13] - Jan 2024
- **No Smoking Day** – Observed annually, leading charities collaborate with the government to encourage people who smoke to undertake a quit attempt
- **Better Health** April – June 2024
- **Shirley Carnival and 'Change Grow Live' Football Event** – Local events in Southampton held in the summer of 2024

[8] S2S briefing v1
[9] Lung Cancer Screening :: Hampshire Hospitals
[10] Our services - blood, heart and circulation - targeted lung health check - University Hospital Southampton
[11] Stoptober_2023_Campaign_Toolkit.pdf
[12] World COPD Day 2023 - Global Initiative for Chronic Obstructive Lung Disease – GOLD
[13] New-Year-2024-Southampton.pdf

Results



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Results

Quit rates

Rather than presenting one set of quit rates as originally planned, quit rates from the various data sources are presented for comparison. Both sets of data relate to quits originating in the acute setting only. If trusts are following up on all patients following discharge, we would expect the number of successful quits in the dashboard to be higher than that supplied by Smokefree Hampshire and the UHS OP service. Quit rates for the comparator (quits originating in the community) are described on the following slide.

		National Dashboard	Supplied to HCC via Smokefree Hampshire	Variance compared to National Dashboard
HHFT	Successful 4 week quit	170	188	+18 (+11%)
	Setting a quit date	465	355	-110 (-24%)
	Quit rate (%)	**37%**	**53%**	**+16%**

The number of successful quits recorded for HHFT is 11% higher in the data supplied by HCC compared to the dashboard, while the number setting a quit date is 24% lower. Having both a higher numerator and lower denominator results in a more a favourable quit rate (53% compared to 37%).

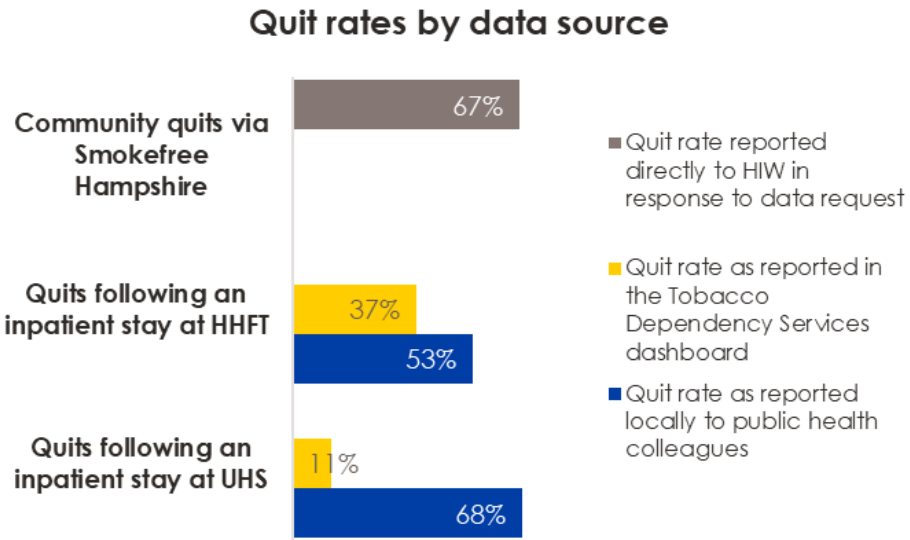
		National Dashboard	Supplied to HCC (via Smokefree Hampshire and to SCC (via UHS OP service)	Variance compared to National Dashboard
UHS	Successful 4 week quit	50	269	+219 (+438%)
	Setting a quit date	435	398	-37 (-9%)
	Quit rate (%)	**11%**	**68%**	**+56%**

The number of successful quits recorded for UHS is 438% higher in the data supplied by HCC and SCC compared to the dashboard, while the number setting a quit date is 9% lower. This large difference in the number of successful quits results in a vastly different quit rate in the two sources (68% compared to 11%).

*Quit rate defined as no. people recorded as successfully quitting after 28 days/no. people setting a quit date following contact with the Tobacco Dependency Service.

Results

Quit rates continued



The chart to the left shows how the quit rates received as part of this evaluation compare to community quits from Smokefree Hampshire.

Quit rates for HHFT, according to the data received, ranged between 37% and 53%, both of which were lower than the 67% reported by Smokefree Hampshire.

Due to the wide variation in quit rates reported by different sources for UHS , it was not possible to comment on how quit rates at UHS compare to the comparator.

Results

Health inequalities

Rather than splitting quit rates by demographic fields as originally planned, differences in the make up of our cohort will be described using the same demographic fields (age/sex/ethnicity/deprivation). This description relates only to people who set a quit date and does not reflect the makeup of everyone who was referred to/had contact with the Tobacco Dependency Service.

	Count of people setting a quit date	
	HHFT	UHS
Data cut by age group (sourced from the Health Inequalities tab of the dashboard)	400	430
Data cut by deprivation (sourced from the Health Inequalities tab of the dashboard)	465	435
Data cut by ethnic group (sourced from the Health Inequalities tab of the dashboard)	420	365
Data cut by gender (sourced from the Health Inequalities tab of the dashboard)	435	435
Total (sourced from the Indicator Overview tab of the dashboard)	465	435

The national dashboard contains data on people setting a quit date split by demographic fields (age/sex/ethnicity/deprivation), however due to small number suppression, the total number of patients does not add up to the same number when cutting the data in different ways. These differences are displayed in the table to the left. For HHFT, values range from 400 to 465 and for UHS they range from 365 to 435.

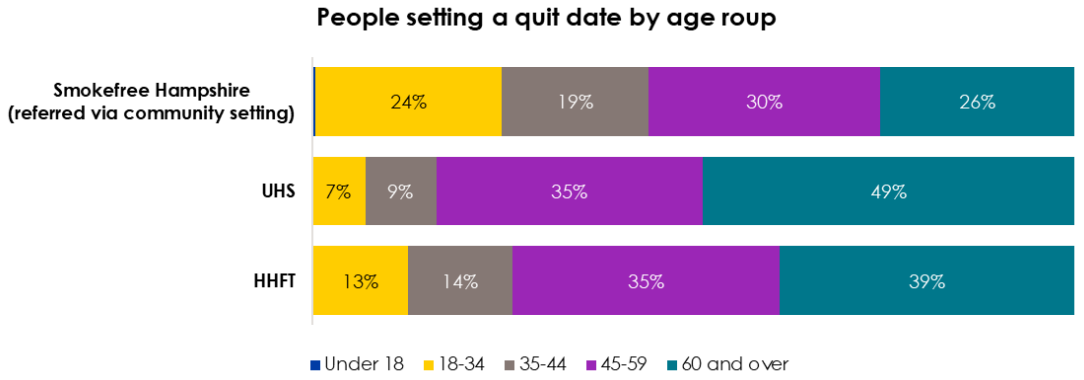
Some totals match exactly while for others, there as been some degree of data loss as a result of breaking down the data into smaller categories.

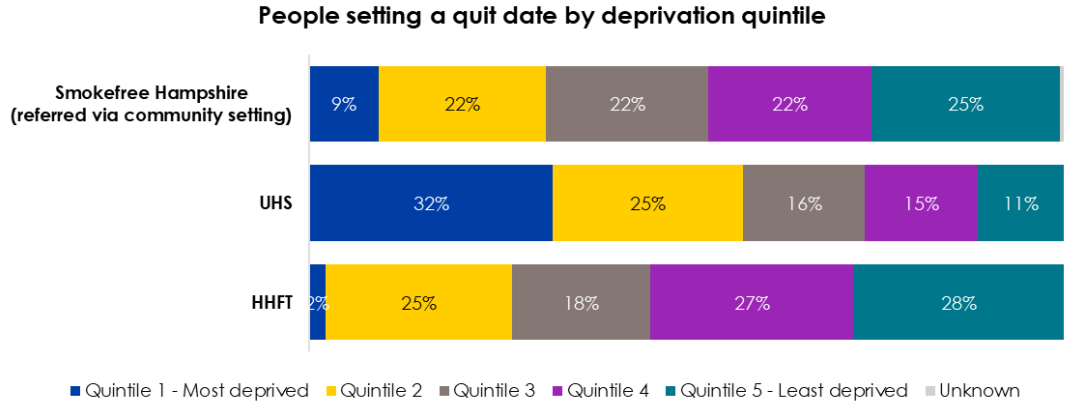
Results

Health inequalities continued

UHS has a higher proportion of older people (60 and over) and a lower proportion of younger people (18-34 and 35-44) compared to both HHFT and the comparator.

UHS has a higher proportion of people in the most deprived quintile and a lower proportion in the least deprived quintile compared to both HHFT and the comparator.



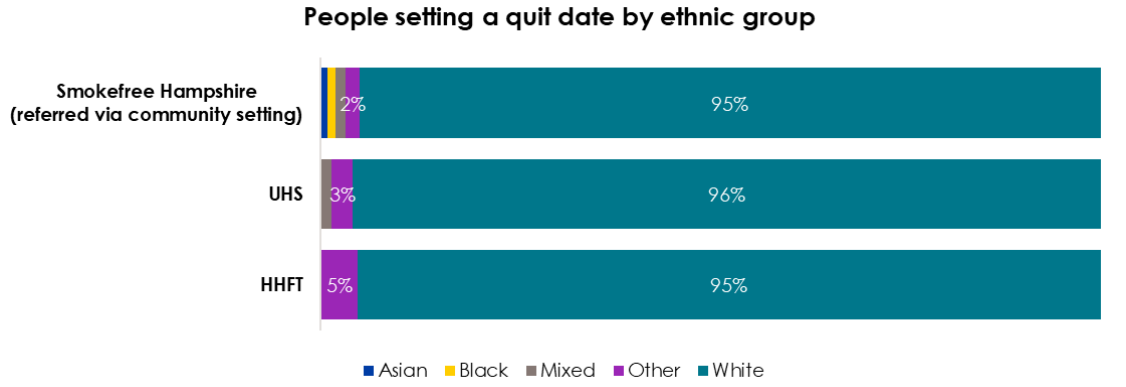


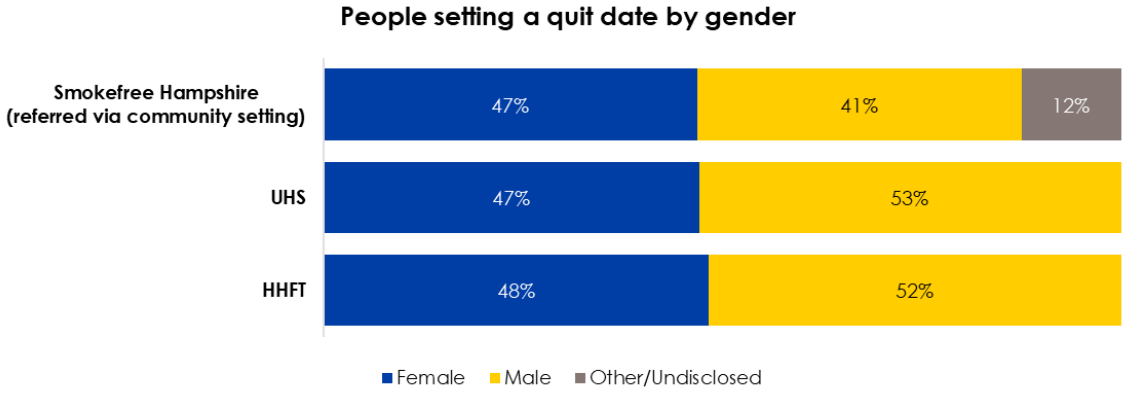
Results

Health Inequalities continued

For all providers, the majority of people setting a quit date came from white ethnic backgrounds.

The proportion of people setting a quit date was split relatively evenly for HHFT and UHS. The comparator had a lower proportion of men but also a higher proportion of 'Other/Undisclosed'.





Results

Cost data

Below is a breakdown of the cost data received by HIW for the period Oct 2023 – Sep 2024[14].

Costs relating to the Tobacco Dependency Service at HHFT	HIOW ICB
Staff	£162,364
NRT	£84,592[15]
Training	£6,000
Printed materials and other comms	£900
Total	**£253,855**

Cost data received from HIOW ICB relates to all referral routes. For UHS this means that costs will also relate to the GP and pharmacy pathways for which we do not have quit data.

Both Trusts supported a similar number of people to set a quit date (465 for HHFT and 435 for UHS).

Costs relating to the Tobacco Dependency Service at UHS	HIOW ICB	SCC	Total
Staff	£108,124	£71,561	**£179,684**
NRT	£8,000	£20,067	**£28,067**
CO2 Monitors	£500	-	**£500**
IT and phone eqiupment	500	-	**£500**
Training/Quality assurance	-	Unable to provide	**-**
Total	**£117,124**	**£91,627**	**£208,751**

For UHS, the ICB costs relate to the inpatient (IP) programme only, whereas SCC costs relate to the outpatient (OP) programme. This programme is managed by the same manager but resourced separately by additional staff funded by SCC.

[14] Cost data for ICB was calculated using an equal split from Trust delivery templates for financial years 2023/24 and 2024/25

[15] NRT costs at HHFT looked higher than expected for the 2023/34 financial year when compared to the previous financial year and to the UHS costs for NRT. A query was raised with HHFT Finance Team but a response was not received in time for inclusion in this report.

Results

Cost data continued

Costs relating to Smokefree Hampshire	HCC
Staff	Unable to be shared
NRT	£228,000[16]
CO^2 Monitors	Unable to be shared
IT and phone equipment	Unable to be shared
Supply Chain (vendor costs: Space / vape supplies / service delivery payments)	Unable to be shared
Total	£228,000

Cost data supplied to HIW relating to Smokefree Hampshire was very limited. Only the figure for NRT costs was shared and this figure reflects costs for Smokefree Hampshire as a whole, not for people being referred from an acute setting or community setting separately.

Allocation of shared costs

The following costs needed to be allocated to accurately reflect the scope of this evaluation:

1. Smokefree Hampshire costs to be allocated by referral source (HHFT/UHS/'Community'/Other acute hospital) Rationale: Costs relate to the service as a whole and not specifically to our intervention/comparator group.

2. HIOW ICB costs at UHS to be allocated by onward referral route (UHS OP programme/Smokefree Hampshire/Pharmacy/GP/Lost to follow up) Rationale: Costs relate to the IP Tobacco Dependency Service as a whole and not specifically to the referral routes for which this evaluation holds quit data.

[16] Monthly allocation of £19,000 multiplied by 12 to get a full year. Figure supplied directly from HCC to HIW

Results

Allocation of shared costs continued

1. Smokefree Hampshire costs to be allocated by referral source (HHFT/UHS/'Community'/Other acute hospital)

Data supplied by HCC and Smokefree Hampshire to HIW shows the proportion of Smokefree Hampshire clients setting a quit date by referral source. This data could be used to allocate costs, an example is shown below.

Smokefree Hampshire			
Referral source	**No. people setting a quit date**	**% people setting a quit date**	**NRT Cost**
HHFT	355	5%	£11,943
UHS	206	3%	£6,931
Other acute hospitals[17]	686	10%	£23,079
Community	5,530	82%	£186,047
Total	**6,777**	**100%**	**£228,000**

In this case the £228,000 NRT cost for Smokefree Hampshire is allocated using the proportions shown in the table. However, due to discrepancies in the number of people setting a quit date between different data sources, this allocation is shown only as an example. This would be better carried out once a greater degree of confidence in the data has been established.

2. HIOW ICB costs at UHS to be allocated by onward referral route (UHS OP programme/Smokefree Hampshire/Pharmacy/GP/Lost to follow up)

It was not possible to determine the proportion of people setting a quit date split by onward referral route using data available for this evaluation. This would involve matching up data from several sources (dashboard and reported locally to public health colleagues) where we have already established large discrepancies for UHS.

For the cost data to be representative, it would be necessary to either source reliable data for proportion of people engaging with various onward referral routes, or source reliable data on quits for all referral routes so that the costs don't need to be allocated in this way.

[17] Data supplied to HIW by HCC. 'Other acute hospitals' relates to Portsmouth Hospitals NHS Trust and Frimley Health NHS Foundation Trust

Conclusions

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Conclusions

Discrepancies between quit rates from different data sources make it difficult to have confidence in the data.

Feedback from UHS indicated that staff capacity did not allow the team to follow up with every person who set a quit date while in hospital and as such there is a high proportion of loss to follow up from the acute trust perspective (although some people will have been seen by public health or other community services). HHFT reported that they follow up on quit status at two weeks but only for those who agreed to onward support.

Four-week quits are recorded by Smokefree Hampshire (SFH) and the UHS OP service but they are likely to only have access to data for people that have been referred to their service, not to those who set a quit date while in hospital and did not accept further support. This may explain why the denominator is lower in the data supplied by public health colleagues.

Many of the costs relating to Smokefree Hampshire were not able to be shared with HIW. It may be possible to share this information locally between HIOW ICB and public health colleagues (as opposed to sharing with HIW for publication in a report) to gain a fuller picture of costs.

Cost per quit could not be calculated in this report due to the issues previously discussed with both the quit data and the cost data. A greater degree of confidence would be required to carry out this work. Recommendations on strategies to facilitate future measurement of impact are discussed in the Data Monitoring Framework commissioned as part of this evaluation.

Acknowledgements

We would like to thank the Population Health and Health Inequalities team at NHS Hampshire and Isle of Wight for the opportunity to carry out this evaluation. We would also like to thank the wide range of staff who contributed their time and energy to provide data. These included members of the Tobacco Dependency Teams at UHS and HHFT, Smokefree Hampshire, Hampshire County Council and Southampton City Council.

The authors would also like to thank several Health Innovation Wessex staff for their support designing and completing this evaluation: Philippa Darnton (Director of Insight), Emily Hunter (Senior Programme Manager, Insight), Charlotte Forder (Associate Director, Communications), and Julia Wilson (Evaluation Programme Coordinator, Insight).

Health Innovation Wessex

Health Innovation Wessex
Innovation Centre
Southampton Science Park
2 Venture Road
Chilworth
Southampton
S016 7NP

E: enquiries@hiwessex.net
@HIWessex
T: 023 8202 0840

healthinnovationwessex.org.uk

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