Hampshire and Isle of Wight Tobacco Dependency Services – Data Monitoring Framework

Background

NHS Hampshire and Isle of Wight (NHS HIOW) 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 HIOW approached Health Innovation Wessex (HIW) to carry out an independent evaluation of the Tobacco Dependency Treatment Services in June 2024. 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.

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.

Evaluation questions

What are the current gaps in data collection for the Tobacco Dependency services and what impact do these gaps have on data quality?

How can data collection for the Tobacco Dependency services be enhanced for future assessment of impact and return on investment?

Purpose

The purpose of this document is to describe the current status of data collection for the Hampshire and Isle of Wight Tobacco Dependency services, to support robust monitoring of activity and to provide strategies to facilitate measurement of impact in the future. This stemmed from scoping work carried out for this evaluation which revealed the challenges of collecting reliable data for these services.

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

Hampshire and Isle of Wight Tobacco Dependency Services – A comparison of costs and quit rates by Sophie Barton

A Short Review of Tobacco Cessation Approaches at University Hospitals 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

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.

Approach

This report relates closely to the comparison of costs and quit rates, commissioned as part of this evaluation. The approach for this work was to compare costs and quits that originated in the acute hospital setting (the intervention group) to quits that originated in a community setting (the comparator group).

The information in this report has been split into two tables. The first describes the availability of data for each metric and its impact on data quality. The second provides recommended approaches to facilitate measurement of impact in the future.

The report focuses on two providers, Hampshire Hospitals NHS Foundation Trust (HHFT) and University Hospital Southampton (UHS) NHS Foundation Trust, chosen as the sites thought to have the most developed reporting mechanisms and the best chance of carrying out an economic evaluation.

HHFT has one primary referral route following discharge from hospital; this is Smokefree Hampshire (SFH) which is funded by Hampshire. 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 (OP) 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.

Metrics in this report have been chosen in collaboration with NHS Hampshire and Isle of Wight and public health colleagues as areas of interest to them. A list of acronyms used throughout the report is provided below.

Title in full	**Acronym**
Health Innovation Wessex	HIW
Hampshire Hospitals Foundation Trust	HHFT
University Hospital Southampton	UHS
NHS Hampshire and Isle of Wight	NHS HIOW
Hampshire County Council	HCC
Southampton City Council	SCC
Southampton Smokefree Solutions	SSS
Smokefree Hampshire	SFH
Smokefreelife Berkshire	SFLB
Action on Smoking and Health	ASH
NHS England	NHSE
Inpatient	IP
Outpatient	OP
Nicotine Replacement Therapy	NRT

Data availability and impact on data quality

Metric	Current data source(s)	Current status	Impact on data quality
Quits originating in the acute hospital setting e.g. quits following contact with a Tobacco Dependency Team in an acute hospital	• Tobacco Dependency Services Dashboard, a national data set that forms part of the NHS England Prevention Programme[1] • Smokefree Hampshire (SFH) • Southampton OP Service	• HHFT and UHS both submit monthly data on quit rates to the dashboard. • HHFT and UHS patients that have been referred to SFH are contacted by SFH to follow up on their quit status. This information is passed back to the trusts via email. • Approximately one third of the population served by HHFT live in Berkshire. Upon discharge, Berkshire patients wishing to receive onward support will be referred to Smokefreelife Berkshire (SFLB). HHFT has attempted to contact SFLB to obtain quit rates but no response was received. These referrals are small in number (in 2024 referrals to SFLB were between 1 and 3 per month[2]).	• Providers are not able to follow up on quit rates for all referral routes, resulting in an incomplete picture of quit rates. • Inconsistences in quit rates from different sources make it difficult to have confidence in the data.

[1] 041 Dashboard - NHS Prevention Programme - FutureNHS Collaboration Platform
[2] Data received by HIW via email from the Tobacco Dependency Lead at HHFT

		• UHS patients that have been referred to the UHS OP Service have their quit status confirmed by the Service and recorded in a local UHS database. • UHS is not able to follow up on quit status for patients that choose the GP pathway or the pharmacy pathway. The Tobacco Dependency Lead at UHS reported that there is no automated referral process in place for these routes. Patients wishing to follow up with their GP or a pharmacy would need to initiate this themselves. • Neither trust is currently following up with patients who are supported in hospital but choose not to engage with onward support. Quit rates for this group of people are unknown. • Inconsistencies have been observed between the quit rates reported in the dashboard and those reported separately by the UHS OP service and SFH.	
Quits originating in the community setting e.g. quits	• Smokefree Hampshire (SFH)	• This information was provided on request via email from SFH	• This evaluation was only able to source community quits from

following a self-referral to a public health stop smoking service		for the purposes of this evaluation • SFH also regularly report to HCC although it is unclear if this data is typically split into quits originating in an acute setting vs a community setting. • It is unclear what kind of information is being recorded in pharmacy or GP practices as this did not form part of the evaluation.	SFH as a comparator, resulting in an incomplete picture of community quits.
Cost per quit	As above and additionally: • Hampshire County Council (HCC) • Southampton City Council (SCC) • Trust Delivery Templates (via email from NHS HIOW)	• Gathering costs relating to successful quits was challenging since it is common for both NHS and public health services to contribute to a successful quit. • Further complexity in data collection is associated with multiple referral routes to a provider and the funding arrangements relating to them e.g. UHS has four referral routes where HHFT only has two (including a small number of referrals to SFLB) • Due to information governance issues, the cost data made available for evaluation by HCC was very limited.	• Cost data received by HIW was incomplete and some anomalies were identified, making it difficult to gain an understanding of the true costs.

		• Some of the costs identified as part of the evaluation were shared costs that need to be allocated. The data required to allocate those costs was not always available. • Not all costs could be gathered e.g. SCC access training, quality assurance and printed materials via Southampton Smokefree Solutions (SSS). This organisation is funded in a block contract to support a large number of embedded services across the city. The details of this were impossible to identify and break down for one organisation. • An anomaly was queried by HIW in one instance regarding a higher-than-expected cost for NRT. • It is unclear what cost data would be available for local pharmacy and GP stop smoking services as this did not form part of the evaluation.	
Impact on health inequalities (Gender/Age/Ethnicity/Deprivation)	• Tobacco Dependency Services Dashboard	• Data in the dashboard is aggregated, small number suppressed and rounded to the nearest five. This causes rounding errors and	• Quit rates are subject to some degree of data loss when breaking down into smaller

		inconsistencies when taking different cuts of the data e.g. by demographic fields • Where activity is low in volume, inconsistencies are even more likely.	categories such as demographic fields.
Impact on acute hospital activity E.g. hospital bed days saved	• Action on Smoking and Health[3] (ASH), a public health charity aiming to end the harm caused by tobacco, has a tool for estimating the impact of acute Tobacco Dependency Services[4]	• The ASH tool uses the number of admissions to an acute provider per year to estimate likely impacts with the option to use predetermined assumptions from NHS England (NHSE) on likely impacts or to input your own assumptions. • The tool is designed to be used in tandem with the dashboard because all metrics required are included in the Tobacco Dependency Services dashboard already. • The tool allows trusts to apply the Ottawa evidence base[5] to local figures to estimate the reduction in:	• This tool relies on local confidence in the dashboard figures unless data can be sourced separately • As this tool does not take into account the costs of running the services, it cannot provide a calculation of return on investment. • The tool assumes that the model being evaluated resembles the Ottawa Smoking Cessation Model[6] and that the core requirements of the Tobacco Dependency services have been met e.g. systematic

[3] Action on Smoking and Health - ASH
[4] ashresources.shinyapps.io/TDTS_Impact/
[5] Program Effectiveness | Ottawa Model for Smoking Cessation
[6] About the Ottawa Model | Ottawa Model for Smoking Cessation

		• All cause 30 day readmissions • All cause 1 year readmissions • All cause 2 year readmissions • All cause 30 day A&E presentations • Bed spaces created per day • Annual savings based on 1 year readmissions • Reductions in all cause deaths at 1 year	screening of smoking status on admission and opt-out referral to see an in-house specialist since this is what the assumptions are based on. UHS has reported that opt-out referrals are not currently in place despite an IT request for this to be actioned and that smoking screening frequently does not take place until discharge. Where models being delivered locally differ, these assumptions on impact will be less valid.
Average number of quit attempts	This metric is not currently reported locally.	-	• Multiple quit attempts are often required before someone is able to quit smoking for good. This potential impact is not currently being captured.
People identified as smoking as a % of all new patient contacts	Tobacco Dependency Services Dashboard	The data required to calculate this are included in the dashboard under the metrics below:	• Data for these metrics has been submitted by both UHS and HHFT but should be validated by

		T.020: Count of people identified as people who smoke A.001.010: % of activity where a person's smoking status is recorded (scroll right to view the denominator) These can be viewed using the 'Indicator Overview' tab on the dashboard.	Tobacco Dependency Teams before using for analysis.
Number of people setting a quit date as a % of people identified as smoking	Tobacco Dependency Services Dashboard	The data required to calculate this are included in the dashboard under the metrics below: T.061: Count of people provided with care plans to support a quit attempt T.020: Count of people identified as people who smoke These can be viewed using the 'Indicator Overview' tab on the dashboard.	• Data for these metrics has been submitted by both UHS and HHFT but should be validated by Tobacco Dependency Teams before using for analysis.

Recommended approaches

Metric	Recommended approaches
Quits originating in the acute hospital setting e.g. quits following contact with a Tobacco Dependency Team in an acute hospital	• Discuss feasibility of local pharmacy and GP stop smoking services providing regular reports on quit rates. Relevant considerations may include where data is stored, completeness, ease of extraction and number of different sites involved.

	• Discuss feasibility of trusts following up with those who receive support or set a quit date in hospital but do not engage in onward support. This has not been possible to date due to staff capacity issues but may be possible in future in the context of recurrent funding for the service being confirmed and greater financial security. • Work with stakeholders (trusts and public health colleagues) to establish a clearer division of responsibilities regarding who will follow up on successful quits and the mechanisms for doing this.
Quits originating in the community setting e.g. quits following a self-referral to a public health stop smoking service	• Establish whether SFH can routinely split their quit data by people referred from an acute hospital vs people referred from the community. This information was gathered for this evaluation but regular reporting would allow for continued monitoring of this metric. • As above, discuss feasibility with local pharmacy and GP stop smoking services of reporting their quit rates and splitting this data by those referred from an acute hospital vs those referred from the community. • Once data flows are reliably established, consider a matching method such as propensity score matching[7] where patients are matched on important characteristics. This would provide greater confidence that the groups being compared are similar in terms of observed characteristics but would require access to patient level data.
Cost per quit	• Establish confidence in quit rate data as a prerequisite to carrying out any cost per quit analysis. • Establish confidence in the number of people engaging with different referral routes as these will be needed to allocate shared costs. • This evaluation used the proportional allocation[8] method to allocate shared costs. More precise methods are available but require more detailed data than is currently available.

[7] Propensity scores | Better Evaluation
[8] Costing in Economic Evaluations - Health Economics Unit, University of Cape Town

	• If seeking to understand costs of HCC services, consider the information governance (IG) requirements to access such data and whether it may be possible to share this information locally between NHS HIOW and public health colleagues (as opposed to sharing with HIW for publication in a report) to gain a fuller picture of costs. • Discuss feasibility of local pharmacy and GP stop smoking services providing cost data. Relevant considerations may include information governance, complexity of funding arrangements, ease of extraction and number of sites involved.
Impact on health inequalities (Gender/Age/Ethnicity/Deprivation)	• If seeking greater flexibility in cutting data by demographic fields, investigate sourcing this information directly from trust databases to circumvent issues relating to small number suppression. • Impact on health inequalities cannot be understood without first resolving the wider issues surrounding quit data.
Impact on acute hospital activity e.g. hospital bed days saved	• Gain an understanding of how closely delivery on the ground resembles the Ottawa Smoking Cessation Model • If local models do resemble the Ottawa model, the ASH tool could readily be utilised to gain an understanding of likely impact on acute hospital activity since the only input it requires is the total number of admissions to the provider. • This information could be combined with accurate cost data relating to the running of the service (when in a position to provide this) to carry out a return on investment calculation.
Average number of quit attempts	• Use of NHS number/personal identifier to track the same individual across different services over time • Trust Business Intelligence (BI) teams may be able run analysis on the average number of quit attempts for patients seen by the acute Tobacco Dependency Services. • This would likely reflect quit attempts made in hospital only since it would be the hospital databases being interrogated

	• If seeking to understand average quit attempts across different services, both row-level data containing a personal identifier and the relevant IG approvals to share this would be required • HCC have plans to improve the monitoring of patients as they move from referral to onboarding with the SFH quit programme by applying patient coding using NHS numbers (subject to data sharing agreements across trusts) using a portal for secure monthly data transfer[9] • Once established, the capability to request the number of quit attempts per individual between these organisations would exist • There is likely to be a time lag before reporting of this metric could be useful since this would be a new data collection.

Next steps

- Scope what existing reporting of quit rates is taking place for the GP and pharmacy pathways and whether there is any reporting that could be forwarded to trusts for inclusion in the dashboard.
- If recording mechanisms do not already exist, discuss the feasibility of setting up new data collection with GP and pharmacy colleagues.
- Map out funding arrangements for pharmacy and GP pathways to understand any shared costs and data that might be required to allocate them.
- Discuss with Trust colleagues the possibility of following up with people who set a quit date in hospital but do not engage with onward support. This could initially be as a short-term exercise to understand the resource implications of taking on this task and how many extra quits are picked up as a result.
- Request for SFH to supply the number of successful quits by trust to HCC and trust colleagues concurrently. This data has been supplied separately to both organisations, but the numbers don't match. This would minimise inconsistencies between data sources.
- Follow up on remaining gaps and anomalies in cost data with HHFT (regarding higher-than-expected NRT costs) and HCC (regarding the reasons cost data couldn't be shared).

[9] Data received by HIW via email from HCC

- Make request to trust BI teams to discuss the feasibility of reporting average number of quit attempts made in hospital.

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