



SUSQI PROJECT REPORT

Improving sustainability in the Urgent Suspected Skin Cancer pathway

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Date of Report: 08/08/2025

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Background:

The number of referrals into the urgent suspected skin cancer (USSC) pathway is increasing exponentially. With an increase of around 15% in 2024-25⁽¹⁾, the dermatology department are on track to receive close to 5000 USSC referrals this year. Redeveloping the pathway is essential to ensure a service that is sustainable and fit for the future.

Several changes in the USSC pathway at WWL have already been implemented, with the introduction of Tele-dermatology in early 2024, and AI as a medical device in April 2025. These changes have brought with them differences in how patients attend their appointments. Rather than attending an initial face-to-face consultation with a doctor or specialist nurse, patients attend a clinic with the medical illustration department. Medical photographers take high quality locational, macroscopic & dermoscopic images of the patient's skin lesion(s), and assist them with completing a medical history questionnaire. Images and questionnaires are then reviewed by dermatologists and decisions on clinical outcomes made. The primary benefit of this model is that 24 patients can be reviewed by dermatologists in one session, compared to 12 in a standard face-to-face session.

When evaluating the service for potential areas of improvement, imperfections in the relatively new Tele-dermatology pathway were identified.



Figure 1 – Inconvenient locations. A map of the Wigan Borough, with the location of Leigh Infirmary marked in red.

All patients

assessed via this pathway are required to travel to Leigh Infirmary to attend clinic with the medical illustration department. *Figure 1* (above) depicts the scale of the issue at hand. With WWL providing care for 326,000 patients across a borough 77 square miles wide, the geographical location of Leigh Infirmary placed a heavy travel burden was on patients.

Photography appointments themselves are relatively short in duration, with the whole appointment often completed in 10-15 minutes. With an average estimated travel time via public transport of well over an hour (*Figure 5*), it is unsurprising that most patients travel to their appointment via car. Teams receive a lot of verbal feedback from patients on the traffic, distance, parking and general inconvenience of attending Leigh Infirmary for such a short appointment.

With the release of the NHS 10-year plan in July 2025, a heavy focus has been placed on developing sustainable services which are fit for the future, with specific emphasis on 3 measures:

- *From hospital to community*
- *From analogue to digital*
- *From sickness to prevention*

The government is also committed to helping the NHS in England to achieve net zero carbon emissions by 2024⁽²⁾. We believe that we have the potential to offer appointments current exclusive to Leigh Infirmary in community locations. By aligning service developments to both the 10-year plan and government net-zero ambitions, we can help to create a truly sustainable service, that not only meets and exceeds the needs of its patients, but the needs of the population and environment too.

By working in collaboration with operational, clinical and administrative colleagues from the dermatology, medical illustration and estates teams, we aim to draw parallels with government ambitions, reduce carbon emissions and develop a sustainable service. It is hoped that holding USSC appointment in communities across the Wigan borough will great increase accessibility for patients and improve clinical outcomes, whilst simultaneously increasing the sustainability of the service.

Specific Aims:

The premise of this project was to increase the accessibility and sustainability of the Tele-dermatology service, moving care back into the community by setting up “imaging hubs” as the first point of contact in the USSC pathway. We plan to improve accessibility by demonstrating services can be shifted away from hospital sites and back into the community with 3 main aims:

1. *Provide faster cancer diagnoses and increase adherence to the faster diagnostic standard (FDS), improving clinical outcomes for patients*
2. *Reduce carbon emissions associated with the service by reducing travel times and dependencies on the car as a mode of travel.*
3. *Implement Tele-dermatology as a sustainable service model for the future, helping to reduce the reliance on locums and the associated costs*



Methods:

Identifying areas for improvement

Our first step was to review the USSC pathway in its entirety to evaluate areas of inefficiency or poor sustainability. Resource mapping (*Appendix 1*) identified travel, surgical procedures, and unnecessary referrals as the three main potential areas for improvement.

Analysis of the three main areas identified for improvement highlighted improving accessibility and reducing patient & staff travel as the primary candidate. Other ideas considered were not taken forward primarily due to being deemed unfeasible; however, it is hoped that this project may form the foundations for these to be revisited in later bodies of work.

Improvement idea / opportunity	Health Impact (0-3)	Environmental Impact (0-3)	Social Impact (0-3)	Feasibility (0-3)	Total (out of 12)
Reducing unnecessary surgeries	3	2	3	1	9
Improving accessibility & reducing travel	2	3	3	3	11 
Reducing unnecessary referrals into the service	2	3	2	0	7

Figure 2 – Designing improvement. Once identified via process mapping, feasibility testing was performed on all ideas considered for improving sustainability.

Assessing requirements for implementation

Once it was decided that improving accessibility and reducing travel carried the most scope for improvement, collaboration was sought with key stakeholders. Feedback was gathered from patients attending dermatology appointments at Leigh Infirmary. This was supportive of the hypothesis that overall, Leigh Infirmary is a difficult location for the majority of patients to travel to.

It was recognised that the equipment and location requirements for photography clinics were standardised and overall portable, meaning there was the potential for clinics to be held away from the base at Leigh Infirmary. A set of minimum suitability criteria for alternative rooms to be considered was identified in collaboration with Andrea Jones, the head of medical illustration. Requirements were as follows:

- Minimum levels of lighting required for image quality
- Minimum room size / space for patient, photographer & equipment

- Privacy for patients to complete medical history questionnaire
- Lockable door / privacy curtain for patients to change / remove clothing if necessary
- Geographical location suitable to meet needs of population

Research and planning

Requirements were discussed with the Trust estates team to identify potentially suitable WWL-owned community rooms. Searches matching the criteria given revealed suitable community rooms at Standish Clinic, Claire House, Pemberton Health Centre, Chandler House and Boston House.

To help guide which location would be most suitable, an internal audit was conducted to look at the most common locations (by postcode) from which referrals were sent. This audit consisted of over 1000 patients referred into the service across 2024-25 and assessed the postcode prefix to identify where most patients live. This concluded that the 3 most common postcodes for patients using the services were WN2, WN7 & WN6.

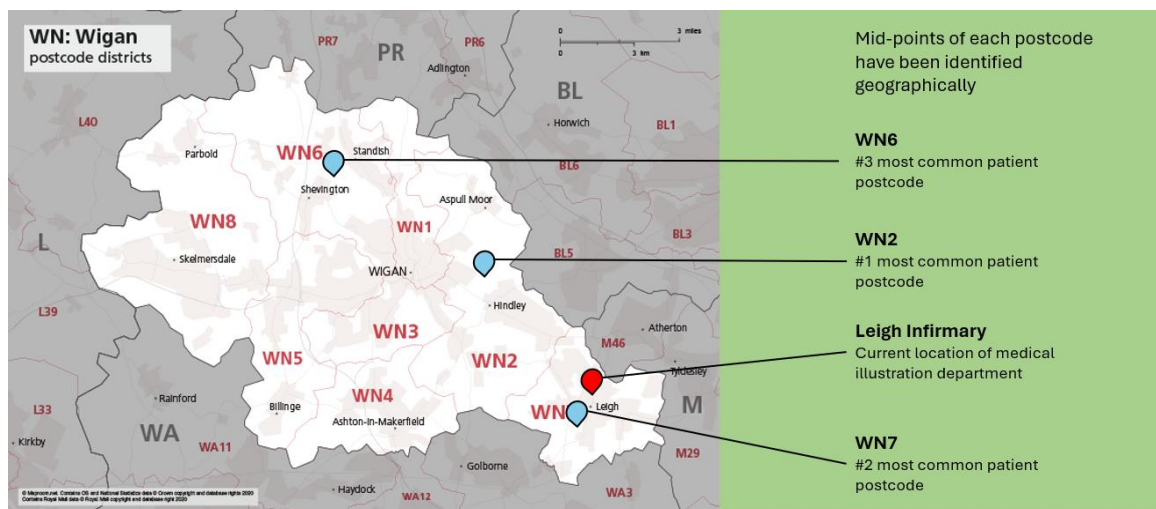


Figure 3 – Identifying the needs of the population. Map of Wigan borough detailing the locations of the three most common patient postcodes.

Once this data was established, we were able to narrow down our search for appropriate community clinic locations. Using the data in *Figure 3* above, we identified that patients would get the most benefit from having the option to attend 1 of 3 clinics. One would continue to be based at Leigh Infirmary, allowing patients from WN7 to benefit from still being able to attend their nearest hospital. This also allowed Medical Illustration to continue with their base at Leigh, meaning there was also no need to fully relocate the department. It was decided to look for suitable clinics in central Wigan and WN6. Central Wigan has the best public transportation links, allowing patients who do not drive to benefit from improved accessibility, and WN6 would allow patients living in the north of the borough the option to reduce their travel time. With this in mind, clinics at Standish

and Boston House were identified as being the most appropriate, and team members went to view the locations to ensure they met the pre-determined minimum requirements.

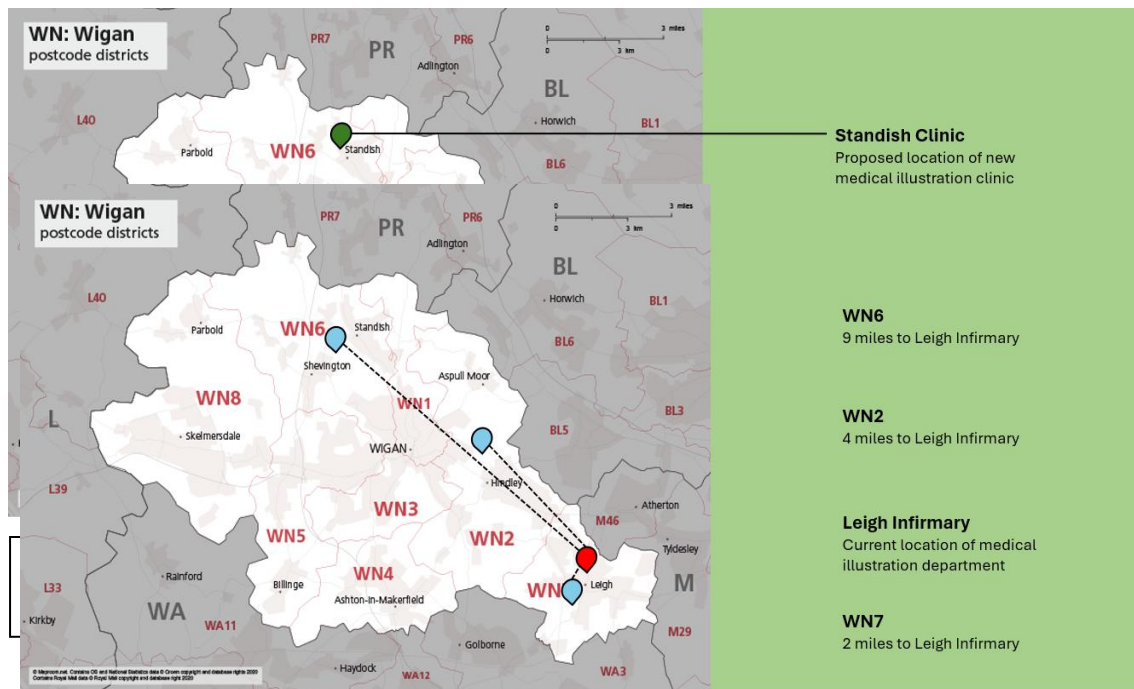


Figure 5 – Baseline data modelling. The average projected travel distance to Leigh Infirmary for patients living in WN2, WN6 and WN7.

Once identified as the prime candidates for hosting the community imaging clinics, modelling was performed to demonstrate the projected benefit to patient travel. Geographical mid-points of each postcode were identified to produce an average distance to Leigh Infirmary (Figure 5) and then compared to the projected average distance to the nearest community clinic (Figure 6).

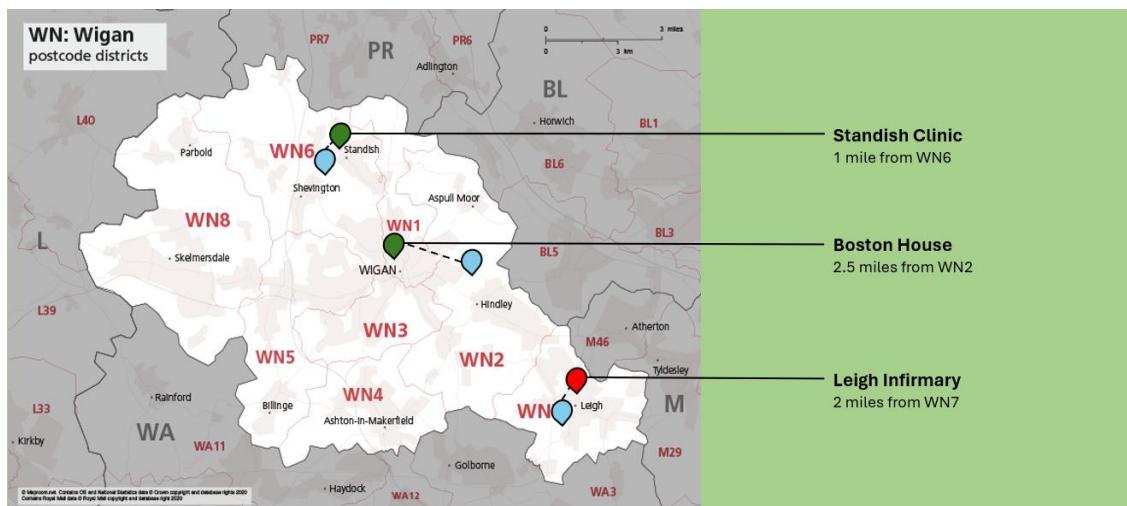


Figure 6 – Projected benefit modelling. The average projected travel distance to proposed new community imaging clinics for patients living in WN2, WN6 and WN7.

Modelling demonstrated a potential drastic reduction in travel distance and supported Standish Clinic and Boston House as the two best options for community clinics. With equipment being portable, no additional cost was associated with setting up & running the clinics. In addition, there was no charge for the use of the rooms themselves at either Standish Clinic or Boston House, as they are Trust-owned properties. This came with the additional environmental benefit of utilising a space that is already being heated and lit and would otherwise have remained empty and unused.

Implementation

Logistical groundwork was conducted in collaboration with the estates team and the templates team, who are responsible for setting up clinics via the online platform. We identified early on that the increase in likelihood of errors potentially leading to a negative impact on patient care would be higher if we pushed ahead with setting up both community clinics simultaneously. Therefore, the decision was made to implement the clinic at Standish in the first instance and run a 6-8 week pilot study to ensure patient care and outcomes remain unaffected, before later setting up the clinic at Boston House. The process to implement the Standish clinic began with initial discussions with the estates team on the 2nd of May 2025, and the first 12-patient clinic at Standish ran on the 4th of July – a turnaround time of 8 weeks from start to finish.

Patients on the USSC pathway are triaged for Tele-derm suitability by our clinical utilisation officer. During this process, she identified patients with a WN1, WN2, WN6 or WN8 postcode and offered them the choice to attend the Standish clinic at the point of booking. We did endeavor to address changes to the booking process to make it more efficient, such as by sending SMS messages to patients. However, this was deemed unfeasible due to associated costs, as well as the complexity and uniqueness of the Tele-derm / USSC pathway.

Measurement:

Patient Outcomes

Clinical outcomes will be recorded to assess the impact of community imaging clinics on patients. Metrics such as time from GP referral can be used to demonstrate impact on the departments adherence to the NHS Faster Diagnostic Standard (FDS). This will have an impact on patient timed pathways, specifically the 28-, 31- and 62-day pathways. We hypothesise that hosting first point of contact clinics closer to the neighbourhoods of patients will allow greater flexibility, allowing patients to be seen quicker and ultimately receive a faster diagnosis.

Standards of care will also be measured to ensure there is no unforeseen negative impact from holding clinics in the community. This will be monitored by standardised metrics for patient care and gathered through feedback surveys. Standards such as ease of access, privacy and communication will be constantly assessed however there are no negative effects on standard of care forecast due to our changes.

If we can document better adherence to the FDS then we will have demonstrably improved standards of care and patient outcomes. Quantitative and qualitative feedback will be collected through patient feedback surveys and the data collated and analysed by our team.



Population outcomes:

When implementing changes, the impact on different local communities was considered. Socioeconomic factors as well as age, population density and ethnicities were assessed when choosing locations for clinics. However, this data was limited and considered poor and unreliable. Ultimately it was decided that travel distance and geographical location were more important factors when deciding upon the location of community clinics. Whilst disadvantaged populations were not specifically targeted from additional support, it is hoped that by reducing distance and travel time, community clinics may help bridge health inequalities by improving accessibility for patients who otherwise may have cancelled or DNA'd their appointment due to travel.

Successfully distributing care across multiple sites is projected to have wider benefits to the population via a reduction in traffic congestion in Leigh, specifically around the hospital site. A reduction in traffic will have hypothesised benefits to health through a reduction in air pollution, however tangible data on this is hard to assess. With up to 72 Teledermatology patients previously visiting Leigh Infirmary each week, reducing this number to 24, as the remaining are spread across Standish and Wigan, a theoretical reduction of 48 patients per week will travel through Leigh. If we assume each of these travels in a medium sized petrol car, this is a potential emissions saving of 16.66752 KgCo2e per week.

Environmental sustainability

Benefits in the reduction of travel-related carbon emissions will be measured through tailored patient feedback. Data will be gathered on mode of transport used, specifying type of fuel, and distance travelled. This data will be gathered for all clinic sites up and running before the report deadline and can then be collated to compare and reduction in average travel distance and carbon emissions.

Travel emissions factors will be taken from the 2025 UK government data base⁽³⁾, the most up to date and reliable source available to us. Specific factors used include:

- Medium Car (Petrol) Travel KgCo2e
- Medium Car (Diesel) Travel KgCo2e
- Medium Car (Hybrid) Travel KgCo2e
- Medium Car (Electric) Travel KgCo2e
- Taxi (per passenger) Travel KgCo2e
- Bus (per passenger local) Travel KgCo2e
- Train (per passenger national rail) Travel KgCo2e

Well-to-tank (WTT) emissions factors were also taken from the 2025 UK government data base. Travel emissions factors were added to WTT factors to calculate the comprehensive emissions factor (CEF).

$$\text{Travel emissions factor} + \text{Well-to-tank factor} = \text{Comprehensive emissions factor}$$

Comprehensive emissions factors were then multiplied by total journey distance to give total carbon emissions per patient.

Mode of Transport	Travel emissions factor per mile (KgCo2e)	Well-to-tank factor (KgCo2e)	Comprehensive emissions factor per mile (KgCo2e)
Medium Car (Petrol)	0.28121	0.07977	0.36098
Medium Car (Diesel)	0.27639	0.06603	0.34242
Medium Car (Hybrid)	0.18869	0.04824	0.23693
Medium Car (Electric)	0.06162	0.01645	0.07807
Taxi (per passenger)	0.23917	0.05951	0.29868
Bus (per passenger)	0.16713	0.04263	0.20976
Train (per passenger)	0.05707	0.01444	0.07151

Figure 7 – Calculating emissions. Breakdown of the travel and well-to-tank emissions factors for designated modes of patient transport. Comprehensive emissions factors are calculated via the above formula.

Assumptions & Estimations

All travel journeys were assumed to be return journeys, with patients returning home after their clinic appointment. This was factored into calculations by multiplying the travel distance by 2. All cars were assumed to be medium sized as no specific data was gathered on the size, make or model of patient cars. Although utilisation of empty space is predicted to have an environmental benefit, no figures or data was drawn on heating or power for buildings used.

Economic Sustainability

Impact on travel costs for patients was considered, as it was hypothesised that reduction in travel distance not only reduced carbon emissions, but also less expenditure on fuel or public transport (bus / train tickets, taxi fares etc.). However, this data was not specifically gathered or analysed as part of the final report. The impact on staff travel was also assessed, as it is possible for staff to claim travel expenses if they are required to travel across multiple sites as part of their working day. Again, this data was not specifically gathered, as discussions with relevant staff members revealed that although claiming travel expenses is possible, it is not common practice.

The financial cost of appointment cancellations and DNAs was also considered. It was theorised that clinics held closer to the neighbourhoods of patients who use the service would help to reduce the rate of cancellations and DNAs, helping with savings & cost avoidance. The nature of the USSC pathway means that overall DNA and cancellation rates are extremely low, as patients are informed of their suspected cancer referral by the referring practitioner. However, some patients still fail to attend their appointment. 5 patients cancelled or DNA'd their medical photography appointment in the first 6 months of 2025, equating to 0.5% of total appointments booked. Although small, a reduction in this number and percentage will undoubtedly provide cost avoidance.

There was no associated cost with the implementation of the community clinics. Clinics currently run 4x per week at Leigh Infirmary; this remained 4x per week once community clinics were set up, so there was no associated additional cost through increased in staff hours. There was no cost or fees for the use of the clinic buildings, as we chose to utilise pre-existing WWL community spaces, which were available to us free of charge. Heating, lighting and power were already in place and therefore did not generate extra cost.

Social Sustainability

Patients take time out of their working day to attend appointments, and often travelling long distances to get to said appointments can increase the amount of time off work they are required to take. By shifting care to the community and closer to patients, it is theorised that people will have to take less time away from work or school, reducing social impact.

Data will also be gathered on the percentage of patients who attend appointments with a friend, family member or carer. For those who do not, or cannot drive, reducing travel distance will have a positive social impact, allowing them greater accessibility to services as well as reducing economic and environmental impacts.

Qualitative feedback will also be gathered to allow patients the chance to feedback on other benefits or negatives that may otherwise be unforeseen. One potential negative discussed ahead of implementation was accessibility to Standish clinic in the form of car parking, as there is limited patient parking available.

Data gathered on patient travel will also include the number/percentage of patients who chose to walk to their appointment. Increasing this number would demonstrate a wider social sustainability achievement with knock-on effects such as reduced traffic & air pollution. There is also the potential for general health benefits through increased exercise for patients who otherwise would have been forced to travel by car or public transport.

Staff will also be surveyed to ensure changes to the service do not have an unforeseen negative impact on the teams daily working or wider lives.

Results:

Patient outcomes – Results

Data was gathered from July 2025. During this time, 35 patients attended the new Standish Clinic. To ensure data was fairly corroborated, 35 patients who attended Leigh Infirmary during the same period were selected at random. The average time (in days) from initial GP referral to first appointment was calculated by auditing patient referral letters. The mean was then calculated to determine the average length of time in days from GP referral to initial appointment for patients attending both Standish Clinic and Leigh Infirmary.

Average time from GP referral to medical photography appointment (Leigh) = **7.6 days**

Average time from GP referral to medical photography appointment (Standish) = **7.5 days**

Our results demonstrate a very slight reduction in the average length of time between initial referral and first appointment. Whilst small, a reduction in 0.1 days extrapolated across the course of a year could have a significant impact on our adherence to the Faster Diagnostic Standard (FDS). As is apparent, patients are seen well within the 28-day target for initial appointment. However, patients who go on to be referred for treatment and management will remain on the 31- and 62-day pathways, and this is where the impact may be best observed. There is data to show that a number

of patients breach their pathway by 1 or 2 days, meaning even the slightest time saving may have positive effects on reducing patient breaches.

Whilst these figures did not demonstrate the significant reduction that we had theorised, it is important to take in to account the small sample size used in this report. Due to time constraints and deadlines, only patients seen in July 2025 were used, meaning this may not be an accurate representation of the changes made over a longer period. We shall continue to monitor this data over the course of the year to see if there is a greater or lesser impact on adherence to the FDS than demonstrated by this report.

Population outcomes – Results

Number of patients who chose to walk to their appointment (Leigh) = **2**

Number of patients who chose to walk to their appointment (Standish) = **4**

Population outcomes including general health associated with air pollution, local traffic reduced etc. have not been assessed as part of this project. However, even allowing for the small sample size, it is clear to see the difference in travel preference between Standish clinic and Leigh Infirmary, with 50% more patients choosing to walk to Standish. This indicates we have achieved one of our primary goals of increasing accessibility. This may also contribute to an overall positive impact on general health, obesity and cardiovascular disease.

As discussed above (*Patient Outcomes*), patients who attended Standish Clinic were also able to be seen quicker compared to patients who had to attend Leigh Infirmary. Although small, it is predicted this will have a wider-reaching impact on local populations, with faster cancer diagnoses which are often linked to better outcomes.

Environmental Sustainability – Results

Travel Data – Standish Clinic					
Patient Age	Postcode pre-fix	Mode of travel	Travelled alone or with someone	Distance travelled in miles (one way)	Total carbon emissions (KgCo2e)
52	WN3	Car (Petrol)	Friend or family member	5	3.6098
65	WN1	Car (Diesel)	Alone	1.6	1.0957
61	WN1	Car (Petrol)	Alone	2	1.4439
49	WN5	Car (Hybrid)	Friend or family member	4	1.8954
60	WN1	Car (Petrol)	Alone	2	1.4439
76	WN1	Car (Diesel)	Friend or family member	5	3.4242
73	WN6	Car (Petrol)	Friend or family member	0.25	0.1805

81	WN5	Taxi	Friend or family member	4	2.3894
63	WN1	Car (Petrol)	Friend or family member	3.3	2.3825
59	WN3	Car (Petrol)	Friend or family member	4.5	3.2489
-	-	Car (Petrol)	Friend or family member	3	2.1659
56	WN5	Car (Petrol)	Friend or family member	5	3.6098
36	WN6	Walk	Alone	0.3	0
55	WN6	Car (Petrol)	Alone	2	1.4439
68	WN1	Car (Petrol)	Friend or family member	5	3.6098
69	WN1	Car (Petrol)	Friend or family member	3	2.1659
54	WN5	Car (Petrol)	Alone	3	2.1659
52	WN2	Other (Van)	Friend or family member	7	-
58	WN6	Car (Petrol)	Friend or family member	5	3.6098
68	WN6	Car (Petrol)	Alone	2	1.4439
77	WN1	Walk	Alone	1	0
66	WN6	Car (Petrol)	Alone	1	0.36098
70	WN6	Walk	Alone	0.3	0
58	WN6	Car (Electric)	Alone	1	0.07807
78	WN1	Walk	Alone	1	0
71	WN1	Car (Petrol)	Friend of family member	2	1.4439
64	WN1	Car (Diesel)	Alone	2	1.3697

Figure 8 – Carbon emissions (Standish). Carbon emission calculations for patients attending Standish Clinic using mode of transport, distance travelled, and comprehensive carbon emissions factors.

Average distance travelled to clinic (one way) = **2.8 miles**

Percentage of patients walking to their appointment = **15%**

Average estimated carbon emissions for patients attending clinic = **1.71468 KgCo2e**

Travel Data – Leigh Infirmary					
Patient Age	Postcode pre-fix	Mode of travel	Travelled alone or with someone	Distance travelled in miles (one way)	Total carbon emissions (KgCo2e)
57	WN5	Car (Petrol)	Friend or family member	9	6.49764
36	WA3	Car (Petrol)	Alone	3	3.6588

54	WN1	Car (Electric)	Friend or family member	4	0.62456
70	WN7	Walk	Alone	0.1	0
78	WN3	Car (Diesel)	Alone	6	4.10904
39	WN3	Car (Petrol)	Alone	6	4.33176
56	WN6	Car (Petrol)	Alone	8	5.77568
77	WN2	Car (Petrol)	Friend or family member	6	4.33176
72	WN4	Car (Petrol)	Alone	10	7.2196
84	M46	Car (Diesel)	Friend or family member	2.5	1.7121
44	WN4	Car (Petrol)	Alone	6	4.33176
57	WN4	Car (Petrol)	Friend or family member	4.5	3.24882
64	M46	Car (Diesel)	Alone	4	2.73936
60	WN2	Car (Petrol)	Alone	3	3.6588
-	M46	Car (Electric)	Alone	2	0.31228
72	WN7	Car (Diesel)	Alone	3	2.05452
54	WN7	Walk	Alone	1	0
32	M46	Car (Petrol)	Alone	2	1.44392
55	WN3	Car (Diesel)	Alone	7	4.79388
69	M29	Car (Petrol)	Alone	4	2.88784
73	WN4	Car (Petrol)	With carer	6	4.33176
56	WN7	Car (Petrol)	Alone	2	1.44392
74	WA3	Car (Petrol)	Alone	4	2.88784
70	M29	Car (Petrol)	Friend or family member	4	2.88784
30	WA3	Car (Petrol)	Alone	5	3.6098
64	WA3	Car (Petrol)	Other	4	2.88784
69	WN2	Car (Petrol)	Friend or family member	2	1.44392
-	M29	Car (Diesel)	Alone	4	2.73936
63	WN7	Car (Petrol)	Friend or family member	0.75	0.46047
70	WN7	Car (Petrol)	Alone	1.5	1.0829

Figure 9 – Carbon emissions (Leigh). Carbon emission calculations for patients attending Leigh Infirmary using mode of transport, distance travelled, and comprehensive carbon emissions factors.

Average distance travelled to clinic (one way) = **4.2 miles**

Percentage of patients walking to their appointment = **7%**

Average estimated carbon emissions for patients attending clinic = **2.91693 KgCo2e**

Total Savings

Data was collected across a 4-week period in July 2025 (*Appendix 5*). On average, patients who attended the community clinic in standish saved an average of 1.20225 KgCo2e per return journey, representing a 41% reduction in comparison to patients who attended Leigh Infirmary. If we extrapolate this data, assuming the Teledermatology service is operating at maximum capacity (72 patients per week), we can predict a yearly carbon emissions saving of approximately 4.5 tonnes of Co2 – The equivalent of:

- 3.5 full flights from London to New York
- 33 journeys in a petrol car from London to Glasgow
- 119 low-intensity inpatient bed days
- 63,380 cups of tea with cow's milk
- 76,271 10ml plastic syringes

Projected carbon emissions savings per month = **346.248 KgCo2e**

Projected carbon emissions savings per year = **4,501.224KgCo2e**

*Data provided by Rosie Hillson (Centre for Sustainability in Healthcare) and quoted from Greener NHS, CSH, How Bad Are Bananas (book) and BBC News (Climate change: Should you fly, drive or take the train?)

Economic sustainability – Results

When looking at direct savings or cost avoidance as part of our project, DNAs were analysed to determine the value of lost appointments. The nature of the Tele-dermatology service, and its place in the suspected skin cancer pathway, means that DNA rates were extraordinarily low to begin with. From January 2024 to December 2024, only 15 patients cancelled or did not attend their medical photography appointment for Tele-dermatology. Looking at more recent data from January 2025 – June 2025, this number was only 5.

DNAs and cancellations do result in a small economic loss in the form of lost “new appointment” fees. The new appointment fee is approximately £157, meaning across 2024 £2,355 was lost due to DNAs and cancellations in the Tele-dermatology pathway. Due to the short timeframe of the project, and limited data collected so far, we have not been able to accurately assess whether our project will successfully reduce the rate of DNAs and cancellations and therefore bring with it a loss avoidance element. It is predicted though that reduced travel distance and easier access will have an impact on DNA and cancellation rates.

This also does not take in to account the lost productivity, loss in capacity due to re-booking and negative impact on waiting lists, which all also come with an economic impact. However, this was not assessed as a part of this project.

Overall improvements to make the Tele-dermatology service more sustainable and easier for patients to access will have bigger overarching economic impacts. With a business case for 72 Tele-dermatology appointments per week, ensuring the service is accessible and well-liked by patients is key to reducing departmental locum spend.



With 72 appointments distributed across 3 substantive dermatologists, Tele-dermatology helps to reduce the need for the equivalent of 6 locum-lead suspected cancer clinics per week. With locum spend averaging up to £160 per hour, our Tele-dermatology model helps to save £3,840 per week, or £199,680 per year. Whilst these figures are not a direct saving associated with changes made across the course of this project, they highlight how crucial it is to ensure we continue to develop Tele-dermatology to be as sustainable and accessible as possible.

Social Sustainability – Results

Patients attending the Standish Clinic saw an average journey 1.4 miles shorter than patients travelling to Leigh Infirmary. In addition, 39% of patients attended their appointment alongside a friend, family member or carer, as demonstrated in the “Environmental sustainability” subheading above. Reducing journey distance will save patients, carers and their family members time and money. It will also reduce the amount of time people must take off work to attend appointments, having positive social impacts on work. The impact on the care system may also be significant, with carers having to spend less time visiting appointments, it leaves more room for other caring commitments.

As part of the feedback surveys, patients were also asked to give direct feedback on their experience in the form of Likert tables. Figures 10 and 11 below demonstrate the vast majority of respondents at both clinics strongly agreed with all four questions. However, 74.25% of respondents at Leigh marked strongly agree for all questions. However, 74.25% of respondents at Leigh marked strongly agree for all questions, compared to 80.25% from Standish, demonstrating a higher degree of overall satisfaction.

Quantitative feedback averages – Leigh Infirmary (Total 30 responses)					
Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I was happy with the amount of time it took between my original GP referral and this appointment	0% (0)	0% (0)	0% (0)	13% (4)	87% (26)
I was aware I would not be seeing a Dr or Nurse at this appointment	0% (0)	7% (2)	3% (1)	23% (7)	67% (20)
The team explained the process and any next steps to me clearly	0% (0)	0% (0)	7% (2)	20% (6)	73% (22)
The team answered any questions I had	0% (0)	0% (0)	3% (1)	27% (8)	70% (21)

Figure 10 – Direct patient feedback (Leigh Infirmary). This table represents the number and percentages of patients who ranked their experiences of attending medical photography at Leigh Infirmary, either strongly disagreeing, disagreeing, feeling neutral, agreeing or strongly agreeing with the questions posed.

Quantitative feedback averages – Standish Clinic (Total 27 responses)					
Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I was happy with the amount of time it took between my original GP referral and this appointment	4% (1)	0% (0)	0% (0)	15% (4)	81% (22)
I was aware I would not be seeing a Dr or Nurse at this appointment	4% (1)	0% (0)	0% (0)	19% (5)	78% (21)
The team explained the process and any next steps to me clearly	4% (1)	0% (0)	4% (1)	11% (3)	81% (22)
The team answered any questions I had	4% (1)	0% (0)	4% (1)	11% (3)	81% (22)

Figure 11 – Direct patient feedback (Standish Clinic). This table represents the number and percentages of patients who ranked their experiences of attending medical photography at Standish Clinic, either strongly disagreeing, disagreeing, feeling neutral, agreeing or strongly agreeing with the questions posed.

Interestingly, none of the respondents indicated they travelled via public transport (Figures 8 & 9). It was hypothesised that hosting clinics in the community may increase the percentage of patients who are able and willing to travel via public transport and thus save them money on reduced distances. However, the data gathered did not support this.

Patients were also given the opportunity to provide bespoke written feedback in the form of a free text box. Figures 12 & 13 below highlight some of the key responses verbatim.

Qualitative feedback highlights – Leigh Infirmary	
Positive	Negative
-	- "N/A"

Figure 12 – Voluntary additional written feedback (Leigh Infirmary). This graphic represents key highlights from patients who chose to leave additional written feedback in the text box provided. This was clearly marked as not mandatory, and hence the number of data points does not directly match the number of respondents.

Qualitative feedback highlights – Standish Clinic	
Positive	Negative
- <i>"I am very impressed with the location of clinic at Standish. The Staff are very professional with a re-assuring kindness"</i> - <i>"Quick appointment – Thanks"</i> - <i>Fabulous service and not travelling to Leigh was a real bonus"</i> - <i>"A good service provided"</i> - <i>"Much better to come here. Very close to home. Leigh would take me almost an hour especially with the numerous road works. Very happy with service and location"</i> - <i>"It is very good to come to Standish. An excellent process done by excellent people who are kind and professional"</i> - <i>"This was so helpful being able to attend a local clinic that was easy to reach. I am a carer for an elderly relative, so time is quite an issue."</i> - <i>"Brilliant service / practitioner. Great so local and not Leigh"</i> - <i>"Being able to attend Standish rather than Leigh was a massive help. The clinic was easy to find."</i>	- <i>"N/A"</i> - <i>"Location details would have been useful."</i>

Figure 13 – Voluntary additional written feedback (Standish Clinic). This graphic represents key highlights from patients who chose to leave additional written feedback in the text box provided. This was clearly marked as not mandatory, and hence the number of data points does not directly match the number of respondents.

Note: Out of 30 patients who completed a feedback questionnaire at Leigh Infirmary, only one chose to fill out the "Any other comments" section, and this response was "N/A".

By their nature, feedback surveys have limitations and tend to be completed by people who have strong feelings or emotions, whether that be positive or negative, towards the topic being surveyed. From this, we can assume that the lack of written responses from Leigh Infirmary may indicate that patients were indifferent about the service they received, or that they did not feel strongly enough one way or the other to provide this written feedback.

Staff from the medical illustration department were also surveyed to assess any benefits / complications to their team with regards to running their clinic in a new location. Collaboration was

sought with medical illustration management in the initial design element of the project, so it was expected that staff would benefit from reduced travel as well as patients.

The average distance travelled by staff to Standish clinic was 2.5 miles, with an average travel time of 10 minutes. It was also reported that staff were able to car share when travelling to and from the clinic due to a good working relationship, an unexpected social and environmental benefit.

Discussion:

Overview & Aims

The desire to improve the Tele-dermatology service has been long standing. The premise of increasing accessibility and the troubles patients experience travelling to Leigh are long standing and well known. The project, in collaboration with the center for sustainability in healthcare, has been the catalyst for change desperately needed by the department. Analysing the existing service, identifying sticking points and areas for improvement and subsequently collecting and collating data to drive the desired change has allowed us to pursue quality improvement goals that previously had felt out of reach.

Our project set out to improve accessibility to the service to meet three key aims; increase adherence to the national faster diagnostic standard (FDS), to reduce carbon emissions associated with the service by cutting patient and staff travel distances and help embed the Tele-dermatology service as a sustainable outfit for the future, helping to cut locum-spend associated costs. We will now briefly discuss whether these aims have been met, and challenges encountered, and how we are planning for the future.

1 - Increase Trust adherence to the Faster Diagnostic Standard (FDS)

As demonstrated, our project has shown the potential to have a positive impact on adherence to the FDS. Our data shows patients who had their appointment at the community Standish Clinic were on average seen 0.1 days faster when compared to patients who had appointments at Leigh infirmary. This difference is not as significant as theorized; however, it does demonstrate potential given the relatively small timescale and data samples at our disposal.

In addition, it will be interesting to see the impact the introduction of a second community clinic at Boston House in Wigan will have on the speed at which patients are able to be seen at their initial appointment. We intend to commence these clinics shortly and will continue to monitor impacts on the FDS.

2 - Reduce carbon emissions by reducing patient and staff travel times

We have been greatly successful in this regard. As the data shows, hosting community clinics in Standish have reduced the average patient journey to 2.8 miles, down 33.3% from 4.2 miles in comparison to those travelling to Leigh infirmary. We have also seen an increase of 53% in the number of patients choosing to walk to their appointment. This reflects the ease of access associated with community clinics, due to their central location within their neighbourhoods. Allowing more patients to walk will do more than just reduce carbon emissions, increasing daily exercise to play a small part in tackling population-wide issues such as obesity.



Unexpectedly, we did not see an increase in the percentage of patients choosing to travel via public transport. This may be to do with local transport links. In future, public transport connections such as proximity to train / bus stops will be factored in when deciding the best location to set up community clinics.

Staff still travelled to clinic via car; however, they were often able to car-share, reducing the number of vehicles and associated carbon emissions by 50%. This also helped to save space in the limited car park at Standish. Staff reported good satisfaction and there were no concerns raised about challenges to their daily work caused by the change in location. They also reported a significant volume of informal verbal feedback they had received from patients about the difficulties in travelling to Leigh Infirmary.

3 - Implement Tele-dermatology as a sustainable service for the future, helping to ensure a reduction in locum-spend associated costs

Direct economic savings from this project were small. Main economic benefits came in the form of loss -avoidance from DNAs / cancellations, and due to the short duration and small sample size, the overall data on savings / avoidance was poor and unconvincing. However, when taking a step back to look at the wider picture, this project has significant scope to make impactful cost savings for the dermatology department. The Tele-dermatology pilot began in January 2024 and ran until January 2025, in this time capacity was limited to one consultant who saw 24 patients per week. Following the conclusion of the pilot, a business case was approved to make the pathway substantive, based on the target of 72 patients being reviewed via the pathway each week. However, the team have struggled to reach this target, as clinician training, confidence and leave have meant that currently we only operate at 65% capacity, with 3 clinicians reviewing 47 patients between them.

Making changes to the Tele-dermatology service, increasing its sustainability and longevity will be crucial to helping us realise our target of 72 patients per week. It will be crucial to establish Tele-dermatology as the go-to model for new skin cancer patients, as there are not enough substantive dermatology consultants to meet demand via the traditional face to face model. With dermatology, we can reduce our dependence on expensive locum consultants, saving almost £200,000 per year on salary costs. Whilst not a direct economic benefit from changes made in our project, it helps demonstrate that the work we do to increase the sustainability of our service will undoubtedly help to reduce costs across the department.

Barriers & Risks

The main barrier faced when designing and implementing our improvement was communication and collaboration. Whilst everyone involved was receptive and willing to help, the sheer number of teams and stakeholders involved in the project was a barrier. We often found that we were not able to progress as quickly in some areas as we were awaiting replies from various teams. A list of key collaborators and stakeholders involved in the project can be found below:

- *Dermatology clinical team*
- *Dermatology operations and management teams*
- *Medical Illustration (photographers & management)*



- *Estates team*
- *Business Intelligence team*
- *Patients, family members & carers*

A relatively minor but unexpected barrier was encountered in the first couple of weeks of running the Standish Clinic. Patients reported that whilst they were able to find the location of the clinic well, there was some confusion as to where to report upon arrival. Several patients found themselves waiting in the long queue for the GP reception, situated downstairs in the same building, only to be told by reception staff to head upstairs. We reacted to this feedback by producing large signage, which was distributed across the clinic, on the front door and near the GP reception area (*Appendix 4*).

Risks were considered throughout the course of the project, with a strong focus on identifying potential risks ahead of time so as to be proactive rather than reactive. The main risk identified was the quality of the images. It was theorized that new locations would be appropriate for medical photography to be performed, and as part of the implementation process, key members from their management team visited proposed locations to give their opinion on appropriateness and feasibility. However, until the first clinic was undertaken, we were unsure if the quality would be acceptable for the reviewing clinician. Close input and feedback was sought from reviewing clinicians to ensure there was no drop in image quality for patients seen at Standish which may have an adverse effect on patient care. No issues were found with image quality and clinicians were able to review images as normal.

Next steps

As part of our initial project, we had planned to introduce two community imaging hubs simultaneously. However, as the project evolved, it became clear that time pressures made this unfeasible, and it was decided that the risk of errors would be increased if we pushed ahead with two clinics at once. It was therefore decided that Standish Clinic would be established, and once feedback had been gathered, and any relevant troubleshooting had been performed, the second clinic at Boston House would be implemented.

Currently, our plan is to commence clinics at Boston House in the next 4 -6 weeks. We will continue to gather patient feedback and perform dynamic risk assessment to ensure standards of patient care remain exemplary.

Beyond this, we believe that our model for shifting care into the community could well be used as a reference for other urgent suspected cancer services, particularly those who utilise a triage or screening-based pathway. We would like to work in collaboration with other services who may be interested in this project to help departments improve the sustainability and economic viability of their services, whilst simultaneously offering environmental improvements and increased accessibility for patients.



Conclusions:

When began this project with a problem. The Tele-dermatology service was already established but struggling to reach maximum capacity. Patients who used the service were satisfied overall, but difficulties with travel and public transport were frequent points of feedback. The green team initiative provided us with the platform to push ahead with service development ideas that otherwise may not have come to fruition. By educating our team members on the importance of sustainability in healthcare, we were able to design improvements that had environmental impacts, as well as socioeconomic impacts.

The coincidental of the governments NHS 10-year plan midway through the project provided us with reassuring guidelines, demonstrating that our work to help improve accessibility by providing care in community spaces was a sustainable long-term ambition.

After successfully setting up a community clinic at Standish to provide patients with a first point of contact appointment in the USSC pathway, we aim to continue to develop our service by opening a second community clinic at Boston House soon. We have learnt from the difficulties encountered when setting up Standish Clinic and will implement changes (E.g. appropriate signage) based on these learning points when setting up clinics at Boston House.

We have been able to demonstrate significant environmental and social improvements as a direct result of changes made across this project. We have reduced the time and distance patients need to travel and helped patients to choose to walk to their appointment where possible. By improving accessibility in this way, we hope to ensure the sustainability of the service, which will have significant and impactful benefits on the dermatology service as a whole by helping to reduce reliance on locums and their associated costs. Collaboration between the dermatology and medical illustration departments has been crucial to the success of this project. After consultation with teams from medical illustration and the estates department, we have already confirmed that the Standish community clinic will run indefinitely, with future service reviews planned to ensure it continues to improve standards of care for patients.

Going forward, we now have strong data to demonstrate Tele-dermatology is an environmentally and economically sustainable service, and it is hoped that we may be able to expand its deployment beyond the 72-patient target currently given to us. We also hope to use our findings to work collaboratively with other departments & services across the Trust who feel that our model may represent a realistic opportunity to help improve their own urgent suspected cancer services.

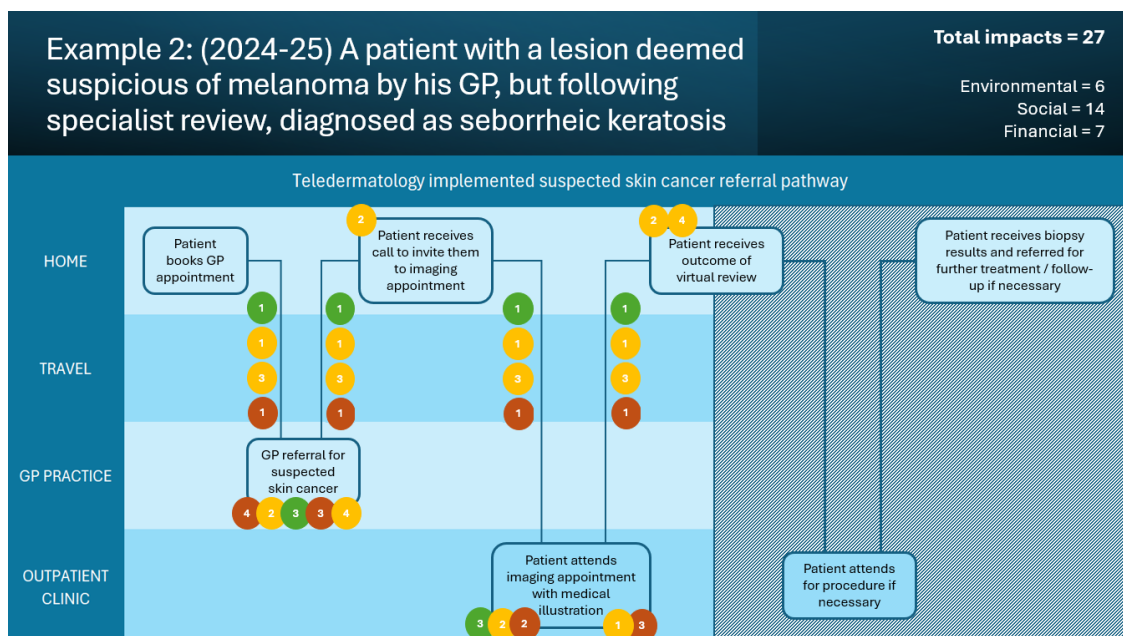
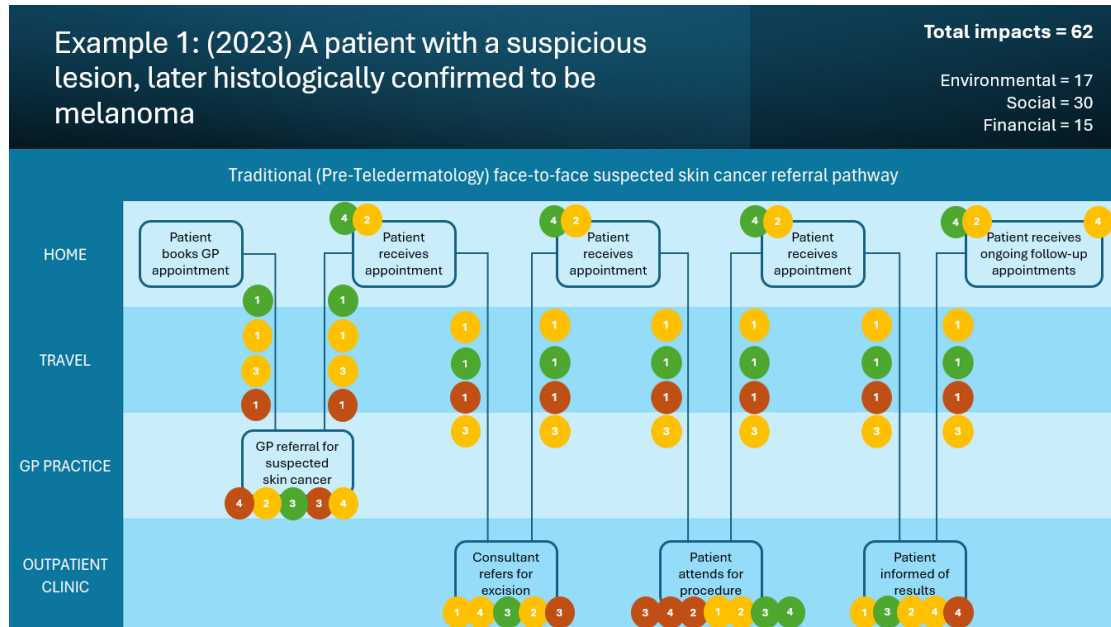
References and Resources

- 1 – Internal audit of incoming urgent suspected skin cancer referrals (Cancer Services Team)
- 2 – [Greener NHS » Delivering a net zero NHS](#)
- 3 – [Greenhouse gas reporting: conversion factors 2025 - GOV.UK](#)



Appendices

1. Resource mapping



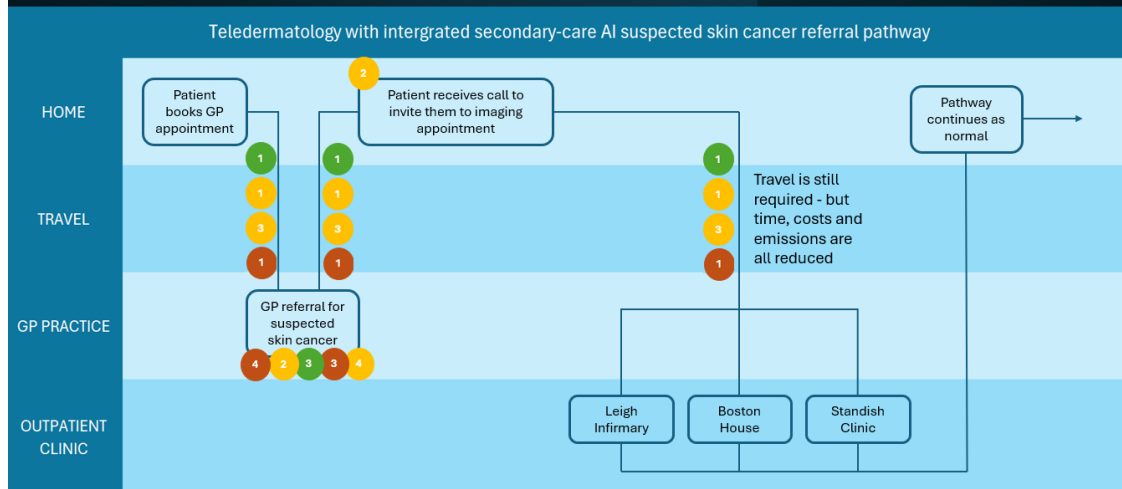
Proposed model: Pathway streamlined to maximise sustainability, reduce waste, lower emissions and improve the patient experience

Total impacts = 18

Environmental = 4

Social = 9

Financial = 5



2. Patient feedback questionnaire

Tele-dermatology patient experience questionnaire

NHS
Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

The dermatology and medical illustration departments have been working closely together to improve the patient experience for those who have been referred from their GP for the rapid assessment of a lesion / mole.

The Tele-dermatology service allows patients to receive a faster diagnosis with shorter waiting times. As part of improvements to the service, we are now offering patients greater flexibility by hosting clinics in the community.

Your feedback is extremely valuable to us, and we would appreciate it if you could complete the following anonymous feedback form to help us ensure we deliver a service which works for patients. Thank you.

Date: _____

Please indicate which clinic you attended: Standish / Boston House / Leigh Infirmary

Age: _____

Sex: Male / Female / Prefer not to say

First 3 digits of your postcode (E.g. WN2): _____

Please turn over, the questionnaire continues overleaf.

Please tick the most appropriate option

What mode of transport did you use to travel to your appointment today?

☐ Car (Petrol) ☐ Bus ☐ Cycle

☐ Car (Diesel) ☐ Train ☐ Other (Please specify below)

☐ Car (Electric) ☐ Walk

Roughly how far did you have to travel for your appointment today?

_____ Miles or _____ Km

How did you travel to your appointment today?

☐ Alone ☐ With a carer

☐ With a friend or family member ☐ Other

Did you find the department easy to locate?

☐ Yes ☐ No

Please tick to indicate your experience	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I was happy with the amount of time it took between my original GP referral and this appointment					
I was aware I would not be seeing a doctor or nurse at this appointment					
The team explained the process and any next steps to me clearly					
The team answered any questions I had					

Any other comments:

3. Staff feedback questionnaire

**Tele-dermatology
Staff experience
questionnaire**

**Wrightington, Wigan and
Leigh Teaching Hospitals**
NHS Foundation Trust

The dermatology and medical illustration departments have been working closely together to improve the patient experience for those who have been referred from their GP for the rapid assessment of a lesion / mole.

We want to ensure that changes made to the pathway represent improvements both for staff and patients. Reducing travel across the borough and aiming towards a reduction in carbon emissions is at the heart of creating a sustainable service for the future.

Please kindly complete this short survey to allow us to measure how changes affect the staff involved in running the clinics.

Date: _____

Please indicate which clinic you staffed: Standish / Boston House / Leigh Infirmary

Role: _____

Age: _____

First 3 digits of your postcode (E.g. WN2): _____

Please turn over, the questionnaire continues overleaf.

Please tick the most appropriate option

What mode of transport did you use to travel to clinic today?

☐ Car (Petrol)

☐ Bus

☐ Cycle

☐ Car (Diesel)

☐ Train

☐ Other (Please specify below)

☐ Car (Electric)

☐ Walk

Roughly how far did you have to travel to clinic today?

_____ Miles or _____ Km

How long did it take you to travel to clinic today?

_____ minutes

Do (or will you) staff this clinic regularly?

☐ Yes
 ☐ No

Please tick to indicate your experience	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am happy with the amount of time it takes me to travel to clinic					
A reduction in the time it takes for me to commute would improve my productivity					
I would be able to travel to clinic via more sustainable means, if it were closer to home					
I think holding these clinics in the community is beneficial to my patients					

Any other comments:

4. Standish clinic signage



5. Exert from patient feedback data table - Credit: Ayesha Habib (Full data table available upon request)

WWL Dermatology Green Team Competition - Community imaging clinic patient feedback												
Date	Location of clinic	Age	Sex	Postcode pre-fix	Mode of transport	Distance travelled (miles)	Attended with friend, family or carer?	Easy to locate?	I was happy with the amount of time it took between my original GP referral and this appointment	I was aware I would not be seeing a Dr or Nurse at this appointment	The team explained the process and any next steps to me clearly	The team answered any questions I had
11/7/2025	n/a	54	Female	WNS	Car (petrol)		3 alone	yes	strongly agree	strongly agree	strongly agree	strongly agree
12/7/2025	Standish	69	Female	WNL	Car (petrol)		3 with a friend or family member	yes	strongly agree	strongly agree	strongly agree	strongly agree
11/7/2025	Standish	58	Male	WNL	Car (petrol)		5 with a friend or family member	yes	agree	agree	agree	agree
11/7/2025	n/a	55	Female	WNG	Car (petrol)		2 alone	yes	I was aware as pt put strongly disagree for all yet other comments stated otherwise hence a			
11/7/2025	Standish	36	Male	WNG	walk		0.3 alone	yes	strongly agree	strongly agree	strongly agree	strongly agree
4/7/2025	Standish	56	n/a	WNS	Car (petrol)		5 with a friend or family member	yes	strongly agree	neutral	strongly agree	strongly agree
4/7/2025	Standish	n/a	Male	n/a	Car (petrol)		3 with a friend or family member	yes	agree	strongly agree	strongly agree	strongly agree
4/7/2025	Standish	59	Male	WNS	Car (petrol)		4.5 with a friend or family member	yes	strongly agree	strongly agree	strongly agree	strongly agree
4/7/2025	n/a	63	Female	WNL	Car (petrol)		3.5 with a friend or family member	yes	strongly agree	strongly agree	strongly agree	strongly agree
4/7/2025	n/a	81	Male	WNS	Taxi (other)		34 with a friend or family member	yes	strongly agree	strongly agree	strongly agree	strongly agree
4/7/2025	Standish	73	Male	WNG	Car (petrol)	1/4	with a friend or family member	yes	strongly agree	strongly agree	strongly agree	strongly agree
4/7/2025	Standish	76	Male	WNL	Car (diesel)	5/6	with a friend or family member	yes	strongly agree	agree	strongly agree	strongly agree
4/7/2025	Standish	60	Female	WNL	Car (petrol)	2	alone	yes	strongly agree	strongly agree	strongly agree	strongly agree
4/7/2025	Standish	49	Female	WNS	Hybrid (other)	4	with a friend or family member	yes	strongly agree	strongly agree	strongly agree	strongly agree
4/7/2025	Standish	61	Male	WNL	Car (petrol)	2	alone	yes	strongly agree	strongly agree	strongly agree	strongly agree
4/7/2025	Standish	65	Male	WNL	Car (diesel)	1.6	alone	yes	strongly agree	strongly agree	strongly agree	strongly agree
4/7/2025	Standish	52	Female	WNS	Car (petrol)	5	with a friend or family member	yes	strongly agree	strongly agree	strongly agree	strongly agree

Critical success factors

Please select one or two of the below factors that you believe were most essential to ensure the success of your project changes.

People	Process	Resources	Context
☐ Patient involvement and/or appropriate information for patients - to raise awareness and understanding of intervention ☐ Staff engagement ☐ MDT / Cross-department communication ☐ Skills and capability of staff X Team/service agreement that there is a problem and changes are suitable to trial (Knowledge and understanding of the issue) ☐ Support from senior organisational or system leaders	☐ clear guidance / evidence / policy to support the intervention. ☐ Incentivisation of the strategy – e.g., QOF in general practice ☐ systematic and coordinated approach ☐ clear, measurable targets ☐ long-term strategy for sustaining and embedding change developed in planning phase X integrating the intervention into the natural workflow, team functions, technology systems, and incentive structures of the team/service/organisation	X Dedicated time ☐ QI training / information resources and organisation process / support ☐ Infrastructure capable of providing teams with information, data and equipment needed ☐ Research / evidence of change successfully implemented elsewhere ☐ Financial investment	X aims aligned with wider service, organisational or system goals. ☐ Links to patient benefits / clinical outcomes ☐ Links to staff benefits ☐ 'Permission' given through the organisational context, capacity and positive change culture.