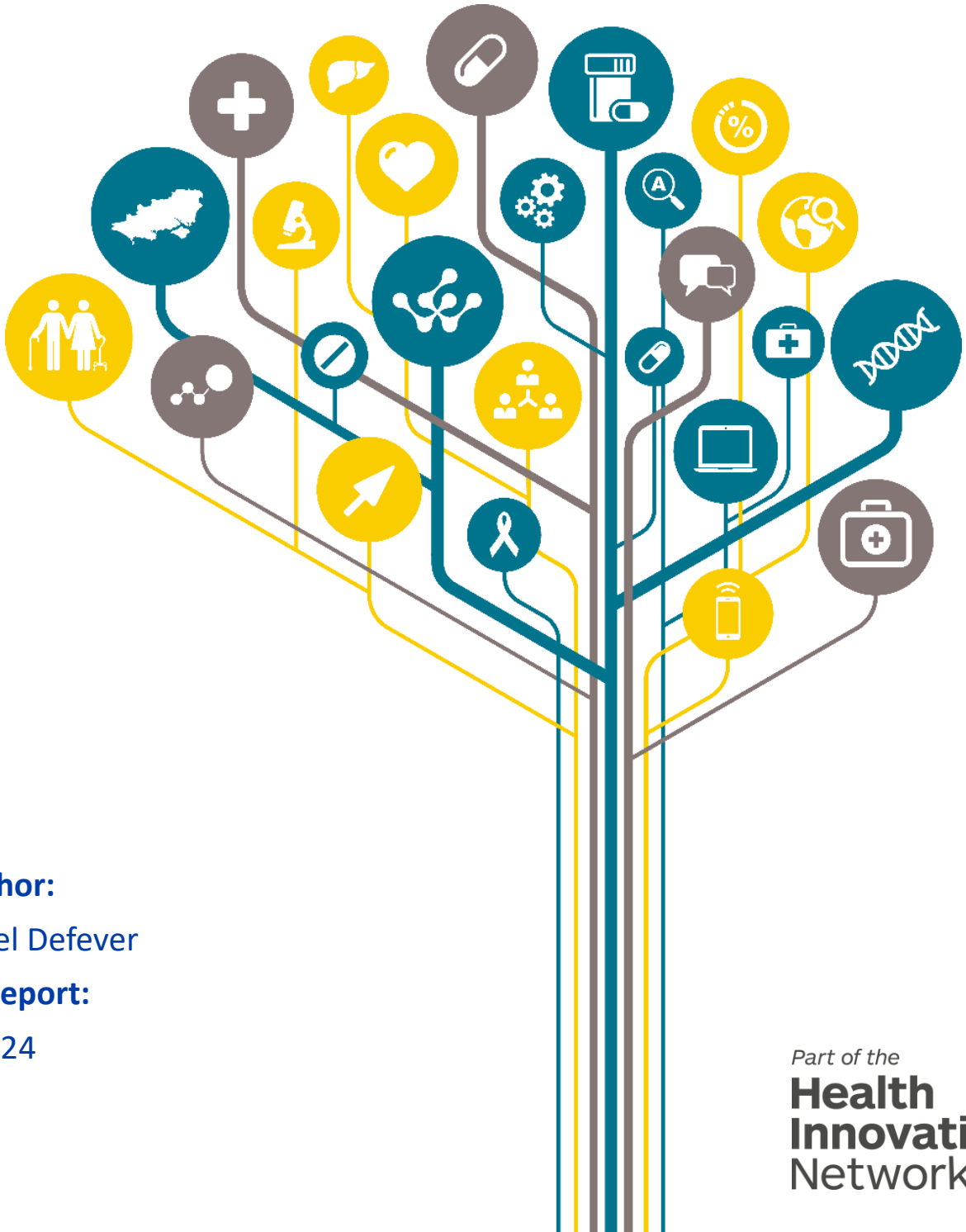
Health Innovation Wessex

The Transforming Wound Care Programme

Test and Evaluation Site case report
Sussex Health and Care



Lead Author:

Emmanuel Defever

Date of Report:

25/11/2024

Part of the Health Innovation Network

Evaluation Team

Emily Hunter, Evaluation Senior Programme Manager
Dr Jackie Chandler, Evaluation Programme Manager- Lead (Qualitative)
Dr Amanda Lees, Evaluation Programme Manager (Qualitative)
Dr Emmanuel Defever, Evaluation Programme Co-ordinator (Qualitative)
Dr Rebecca Player, Evaluation Programme Co-ordinator (Qualitative)
Vivi Yao, Advanced Analyst (Quantitative)
Suhani Patel, Consultant (Quantitative)

Correspondence

Jackie Chandler, Evaluation Programme Manager, jackie.chandler@hiwessex.net
Health Innovation Wessex
Innovation Centre, 2 Venture Road, Southampton Science Park, SO16 7NP.

Disclaimer

This report presents the findings of an independent evaluation of the Transforming Wound Care (TWC) programme of which this case study forms a part. The independent evaluation was undertaken by Health Innovation Wessex (HIW). The findings of this independent evaluation are those of the author (HIW) and do not necessarily represent the views of the Transforming Wound Care programme team. Health Innovation Wessex was not involved in the roll out of the National Wound Care Strategy Programme Lower Limb Recommendations.

Declaration of Interest Statement

Health Innovation Wessex supports innovators to bring their innovations to the NHS as well as provide an evaluation service more broadly to our members and others. On occasion, we evaluate innovations that we have also supported. While these evaluations are independent, for transparency we disclose our dual role where applicable.

Acknowledgements

We would like to thank Test and Evaluation Site (TES) staff, and patients of the service, for their participation in this evaluation.

We would like to acknowledge the support of Health Innovation East in co-ordinating data collection for this evaluation.

We would like to acknowledge Health Innovation Kent Surrey Sussex (KSS) and their project team in supporting communications and data collection with this TES.

Health Innovation Wessex

Table of Contents

TES Executive Summary

Sussex Health and Care Integrated Care System (ICS) (hereafter to referred to as 'Sussex') joined the Transforming Wound Care (TWC) programme in September 2022 with the objective of delivering the National Wound Care Strategy Programme (NWCSP) Lower Limb Recommendations (LLRs) through dedicated services. The over-arching aim for the Sussex Test and Evaluation Site (TES) was to ensure all patients with lower limb wounds receive evidence-based care leading to faster healing of wounds, improved quality of life for patients, reduced likelihood of wound recurrence, and effective use of health and care resources. This work was supported by Sussex Wound Care Programme steering group (SWCP), which consisted of key representatives from NHS Sussex ICB, Health Innovation Kent Surrey Sussex (KSS) and community and primary care provider services. The steering group was dedicated to ensuring the implementation and delivery of the TWC programme within its wider scope of system-wide transformation of wound care services. The proposed timeline for the programme outlined that, during the programme evaluation period (September 2023 – March 2024), Sussex were in a pre-implementation phase.

Sussex has undertaken an ambitious and comprehensive approach to the pre-implementation strategy of the TWC programme across its whole region to overhaul and integrate the lower limb wound care services at system level. Data presented in this report may provide a baseline for future evaluation of the impact of the new care model.

The next phase for Sussex is to establish one or two 'concept model testing sites' to implement the new proposed care model.

Sussex TES's three providers – East Sussex Healthcare NHS Trust (ESHT), Sussex Community NHS Foundation Trust (SCFT), Pioneer Wound Health and Lymphoedema Centres Community Interest Company (Pioneer) – had not implemented their new model of delivery for the NWCSP LLRs during the course of the evaluation. Data from these providers is presented in this report to potentially provide a baseline for future evaluation of this TES once the new model of delivery is implemented[1].

The TES also contributed qualitative data in the form of staff surveys (data analysts only), observations (workstream meeting, patient workshop), a focus group, and implementation trackers.

Qualitative data supplied by Sussex (survey, observations, interview/focus group) was analysed along with comparable data from the other TESs and these contributed to the development of key messages and themes at programme level. Across the TESs, qualitative findings from survey and interview/focus group data revealed that staff were committed to the aims of the TWC programme, had confidence in the programme resulting in better care, faster healing, improved outcomes, fewer appointments, anticipated net zero benefits and the positive contribution of wound management digital systems (WMDSs). Challenges identified included patient lifestyle and health factors that can delay healing and reduce ability to tolerate compression. Other challenges related to engaging the wider health system, staffing and financial pressures, and logistics associated with the collection of metrics data.

Across the TESs, 100% of patient cases rated their treatment as either 'Very Good' or 'Good', 93% of patient cases understood information that they were given at their appointment. Patient cases felt staff to

[1] Postscript provided by Sussex TES: The programme has continued in Sussex with a standard dataset agreed and implemented with provider partners; a monthly Sussex Wound Care Dashboard has been live since Summer 2023.

be friendly and approachable. Patient cases reported that staffing pressures sometimes caused appointments to be rescheduled and there were sometimes problems with availability of dressings and equipment.

1. Introduction

This case report presents an overview of findings from Sussex Health and Care (hereafter referred to as 'Sussex), one of eight Test and Evaluation Sites (TESs) captured as part of the Transforming Wound Care (TWC) programme evaluation. Along with the other TESs, Sussex contributed data to support a programme evaluation of the TWC programme, which was commissioned by Health Innovation East and undertaken by Health Innovation Wessex Insight team. Sussex was not the focus of an individual TES-level evaluation.

Following an application process, successful TESs received funding to adopt the National Wound Care Strategy Programme (NWCSP) Lower Limb Recommendations (LLRs), supported by the TWC programme, if their locality met the criteria which included the involvement of a multi partner system with strategic engagement embedded within an Integrated Care System (ICS). The TWC programme was focused on delivering place-based wound care to align with wound care services in different geographical locations. Funding supported each TES to develop a specific lower limb wound service with foot wounds under the care of a podiatry service. The role of TESs was to deliver the NWCSP LLRs through dedicated services, via changes to the model of care delivery. TESs were asked to run a monthly audit of a predefined set of metrics and take part in a programme evaluation including supporting the collection of patient cases, staff interviews or focus groups, survey, and implementation information. All data collection was completed by 31 March 2024. Each TES commenced their programme of work at different times during the TWC programme.

Data contributed by Sussex was used to address evaluation questions at a programme level rather than to evaluate and fully describe activities undertaken within Sussex. This has shaped the way that data has been analysed (as described below); it has not been possible to draw conclusions or implications at the level of individual TESs.

This case report describes Sussex TES, its context and the approach taken to implement the NWCSP LLRs. A description of the data that the TES contributed to the programme evaluation is provided. Findings from the analysis of metrics data provided by Sussex are included. Qualitative data supplied by Sussex (survey, observations, interview/focus group) was analysed along with comparable data from the other TESs and these contributed to the development of key messages and themes at programme level. Qualitative findings from surveys, patient cases, interviews and focus groups are reported at programme level only, with illustrative quotes specific to Sussex included where possible. Conclusions and implications of the evaluation findings have not been identified at the level of each TES; those arising from the overall programme evaluation are included for information.

It is recommended that this case report is read in conjunction with the programme level executive summary, programme report and accompanying technical reports[2].

[2] Technical appendices:
Technical report 1: Staff survey
Technical report 2: Patient cases
Technical report 3: Staff interviews and focus groups
Technical report 4: Implementation tracker
Technical report 5: Implementation of metrics
Technical report 6: Quantitative metrics

2. Case summary

Sussex joined the TWC programme as a TES in September 2022. The over-arching aim for Sussex was to ensure all patients with lower limb wounds receive evidence-based care leading to faster healing of wounds, improved quality of life for patients, reduced likelihood of wound recurrence, and effective use of health and care resources. This work was supported by Sussex Wound Care Programme steering group (SWCP), which consisted of key representatives from NHS Sussex ICB, Health Innovation Kent Surrey Sussex (KSS) and community and primary care provider services. The steering group was dedicated to ensuring the implementation and delivery of the TWC programme within its wider scope of system-wide transformation of wound care services. The proposed timeline for the programme outlined that, during the programme evaluation period (September 2023 – March 2024), Sussex were in a pre-implementation phase.

3. Local context for lower limb wound care

The context for lower limb wound care in Sussex is described in terms of the features of the locality covered by the TES and its local health system infrastructure.

3.1. Sussex locality description

The Sussex locality is situated in Southeast England and boarders the English Channel to the south. The area is separated into two counties, West Sussex and East Sussex, and one unitary authority, Brighton and Hove. The two counties are dominantly rural areas with Brighton and Hove being urban.

3.1.1. West Sussex population profile

Based on the Joint Strategic Needs Assessment (JSNA)[3] the population of West Sussex was approximately 883,000 in 2021. West Sussex has an older population with 24% of the county's population aged 65 years or over, compared with the national average (18.3%). Overall people enjoy a good quality of life and have a longer life expectancy (80.3 years for men and 83.9 years for women) when compared with England. However, the county has considerable health inequality; for example, some neighbourhoods in Arun and Crawley now rank amongst the poorest 10% of all areas in England.

3.1.2. East Sussex population profile

Based on the most recent JSNA[4] the population of East Sussex was approximately 560,000 in mid-2020. East Sussex has an older population profile compared to England as a whole; 26% of the county's population is aged 65 years or over and projected to make up nearly a third of all people by 2030. East Sussex has a lower population who are non-White British/Northern Irish (11.7%) compared to the national average of 26.5%. East Sussex is the fifth most deprived of the 26 county councils in England although deprivation varies significantly within the county. A seaside town, Hastings, is the 17th most deprived area of the 317 local authorities nationally, with Wealden district being the 65th least deprived.

[3] West Sussex Joint Strategic Needs Assessment (JSNA) (June 2022). Population estimates census 2021 (westsussex.gov.uk). Accessed 5 June 2024.

[4] East Sussex Joint Strategic Needs Assessment (December 2022). East Sussex Joint Strategic Needs Assessment | (eastsussexjsna.org.uk) Accessed 5 June 2024.

3.1.3. Brighton and Hove

Based on the Census 2021 data published by the Office for National Statistics[5] Brighton and Hove had a population of approximately 277,000 in 2021. The city has an average age of 38 years which is lower than the national average for England (40 years). The proportion of people aged 65 years or over was 14% in Brighton and Hove. The majority (85.4%) of people in Brighton and Hove identified their ethnic group within the "white" category.

3.2. Local health system infrastructure

Sussex took a system-wide approach to TWC programme implementation. The key organisational partners who deliver community wound care are shown below. These partners have taken a shared leadership approach to the pre-implementation strategy:

- **East Sussex Healthcare NHS Trust (ESHT)** – An integrated NHS provider of acute and community care comprising two acute hospitals, three community hospitals and over 100 community sites across East Sussex. ESHT is the leading provider in East Sussex.
- **Sussex Community NHS Foundation Trust (SCFT)** – The main provider of community NHS health and care across Brighton and Hove and West Sussex**.** Provides limited services to patients in East Sussex; SCFT's footprint is the former High Weald Lewes Havens CCG.
- **Pioneer Wound Healing and Lymphoedema Centres Community Interest Company (CIC) Ltd. (Pioneer)** – A community interest company funded by Sussex ICB to provide a specialist service in wound care and lymphoedema for patients in Sussex who are referred via a GP.
- **Primary Care –** There are a total of 156 GP practices in 39 primary care networks (PCNs) across the region.
- **NHS Sussex commissioners**.

3.3. TES objectives and service delivery and implementation plan

Sussex's plan for transforming its wound care services at system level was conceived before joining the TWC programme as a TES. Issues with existing provision were identified across the region, including the complexity of the commissioner and provider landscape, lack of system-level oversight on service performance, inconsistency in service provision across the region and inequity of access to services. Sussex joined the TES to deliver the programme in a three-stage process (see below) with a clinically led, evidence-based approach and putting patients at the centre of the service transformation. The SWCP steering group set up six key workstreams to coordinate multifaceted system-wide changes:

1. Clinical pathway development.
2. Learning and development.
3. Data, information and digital.
4. Medicines optimisation (optimising wound care formulary).
5. Commissioning and finance.
6. Communications and patient engagement.

The first phase involved a commissioner desk-top exercise to map and benchmark all existing services that provide elements of the wound care pathway across Sussex. This initial mapping exercise collated available

[5] Office for National Statistics (2023). How life has changed in Brighton and Hove: Census 2021 (ons.gov.uk) Accessed 5 June 2024.

information on costs and activities of these services to develop a system-wide consensus on a comprehensive community wound care pathway to standardise across the system. The first phase was completed prior to joining the TWC programme as a TES.

The second phase, since joining as a TES, involved a collaborative exercise with service partners across the system to review the initial mapping exercise. Engaging with multiple service providers provided further information from stakeholders to refine the community wound care pathway for ambulatory and non-ambulatory services. The process involved: codesign of the service model that is clinically led and evidence-based; consideration of local challenges and variability in service delivery; undertaking public engagement from general and marginalised population groups; and establishing the reporting of a system-wide data set. This phase of the plan was scheduled for completion in March 2024.

The third phase of the plan for the SWCP is to test their conceptual model and move their system-wide wound care pathway through to "business as usual" delivery, train the workforce at pace to support implementation and standardise data recording and reporting across the system. This final phase of the plan, which is the implementation phase, is outside of the programme evaluation period.

4. Data contributed to the evaluation

The following summarises any specific adaptations to the methods outlined in the programme report and the technical reports for the different sources of data used in the evaluation of the TWC programme. Also detailed is the contribution this TES made to the different data collection activities.

4.1. Metrics data

The metrics data in this case report refers to the number of patients with a lower limb wound on caseload, number of new referrals receiving full assessment, proportion of patients receiving strong compression, and proportion of patients healed for lower limb wounds within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks between October 2022 and March 2024 from the monthly wound care aggregated dashboard and the TES metrics returns. For Sussex, three providers (ESHT, SCFT and Pioneer) provided metrics data. All monthly submissions covered most of the six critical metrics (and 17 data collection points). **Table 1** presents how each metric was scoped, collected and the caveats emphasised by the TES. When interpreting the findings, it is crucial to account for these caveats to ensure an accurate understanding of the metrics and their implications.

Table 1 Sussex metrics reporting and adaptation by provider

Metric	ESHT	SCFT	Pioneer
Lower limb wound caseload within community services (TWC001A)	Yes	Yes	Yes, caseloads are either patients with wounds or lymphoedema or both.
Foot wound referrals for new assessment (TWC002A)	Yes	Yes	No

Lower leg wound referrals for new assessment (TWC002B)	Yes	No	Yes
Foot wound patients receiving full assessment (TWC003A)	Yes	No	No
Lower leg wound patients receiving full assessment (TWC003B)	Yes	No	Yes, full assessment refers to a specialist service here and NWSCP LLR is covered as part of specialist assessment.
Foot wound patients receiving full care (TWC004A)	Yes	No	No
Lower leg wound patients receiving full care (TWC004B)	Yes	No	Yes, full care here includes a combination of techniques, and some are not covered by NWSCP LLRs.
Lower leg wounds treated with strong compression (TWC010)	No	No	Yes
Wounds healed within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks (TWC011A-H)	Yes, reported by patients	Yes, reported by patient	Yes, reported by patients; the healed data is reported from the time that the patient is referred.

4.2. Qualitative data

Qualitative data refers to patient cases, staff interviews, focus groups, staff survey, and implementation trackers that captured TESs' delivery of planned service changes to meet the NWCSP LLRs.

Table 2 Sussex contribution, and adaptations, by qualitative data source

Data source	TES contribution	Adaptation
Survey	Survey distributed to 18 data analysts.	Clinical survey was not distributed because Sussex was in pre-implementation phase at the time of the evaluation.
Patient cases	None	Patient cases were not collected because Sussex was in pre-implementation phase at the time of the evaluation. One of the three patient workshops was observed to capture public and patients' views of the

		proposed new care pathway. This observation was undertaken in place of capturing patient cases.
Observations	One virtual observation of workstream meeting (data, information and digital workstream, October 2023). One virtual observation of patient workshop event (December 2023).	None
Staff interviews or focus groups	One virtual staff focus group with 11 participants (October 2023). One semi-structured joint interview with two participants (Feb 2024).	None
Implementation tracker	Implementation tracker covering the period September to November 2023.	None

5. Analysis approach

As described above, some data contributed by TESs was analysed at TES level and some (survey, patient cases and interviews/focus groups) was analysed at programme level. **Table 3 Analysis conducted by TES or programme level** below is included to explain these differences in approach.

Table 3 Analysis conducted by TES or programme level

Data source	Level of analysis (TES or Programme level) and reason	Included in findings (section 6):
Metrics data	TES level, due to the way data was collected and submitted.	TES level, see **Findings from metrics** data.
Survey	Programme level because of the detailed nature of the data collection tool which generated a substantial body of findings at programme level.	Programme level with returns information provided at TES level, see **Box 1**.
Patient cases	Both programme and TES level. This was possible due to the concise nature of the data. collection tool (patient case questionnaire).	Programme level to protect anonymity of patients (due to small numbers involved), see **Figure 15** with some descriptive data shared at TES level.

Staff interviews and focus groups	The main analysis was conducted at programme level to generate themes relevant to all TESs.	Programme level, see **Box 2** with supplementary TES level quotes/points included where possible.
Implementation tracker	TES level due to the way the data was submitted. Some common themes were identified across TESs.	TES level, see **Findings from the implementation tracker**.

6. Findings

6.1. Findings from metrics data

The collection of standardised metrics data was a major part of ensuring both the delivery and successful implementation of NWCSP LLRs and improvements to patient care. As part of the evaluation, information was gathered on the progress of implementing metrics and issues that arose to ensure critical metrics were captured. Further details about the metrics for Sussex are provided in Appendices 1 and 2.

The following section presents a high-level view of metrics data for Sussex (pre-implementation of the NWCSP LLRs). To note, the analysis contained in the programme report does not include data for Sussex as they had not started to implement the NWCSP LLRs during the evaluation period. Data are presented in this case report to potentially provide a baseline for future evaluation of this TES once the new model of delivery is implemented[6].

6.1.1. ESHT findings

For ESHT, data are reported against the following metrics:

- Number of patients with a lower limb wound per month on the caseload.
- Number of new referrals for lower leg wounds in ESHT per month and number of new referrals receiving a full assessment for lower leg wounds in ESHT.
- Number of new referrals for foot wounds and number of referrals receiving a full assessment, ESHT.
- Number of new referrals for foot wounds and number of referrals receiving full care for foot wounds.
- Number of new referrals for lower leg wounds and number of new referrals receiving full care for lower leg wounds per month in ESHT.
- Proportion of patients with a lower limb wound reported healed within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks by the tissue viability team after identification by a health care practitioner per month.

[6] Postscript provided by Sussex TES: The programme has continued in Sussex with a standard dataset agreed and implemented with provider partners; a monthly Sussex Wound Care Dashboard has been live since Summer 2023.

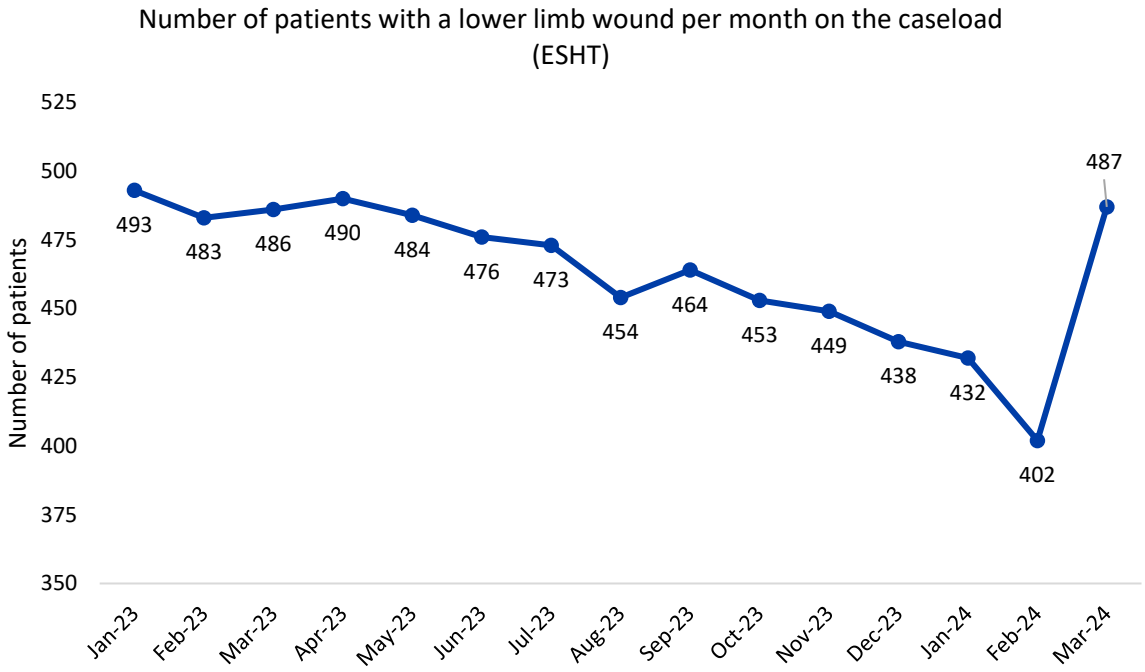


Figure 1 Number of patients with a lower limb wound on the caseload in ESHT per month

Figure 1 illustrates the number of patients with a lower limb wound on the caseload at ESHT. The figure showed a steady and continuous decrease from 493 patients in January 2023 to 432 patients in January 2024. The figure also showed a dip in February 2024 followed by a sharp increase of 85 patients in the last reporting month. However, the reason for this sudden increase is unknown.

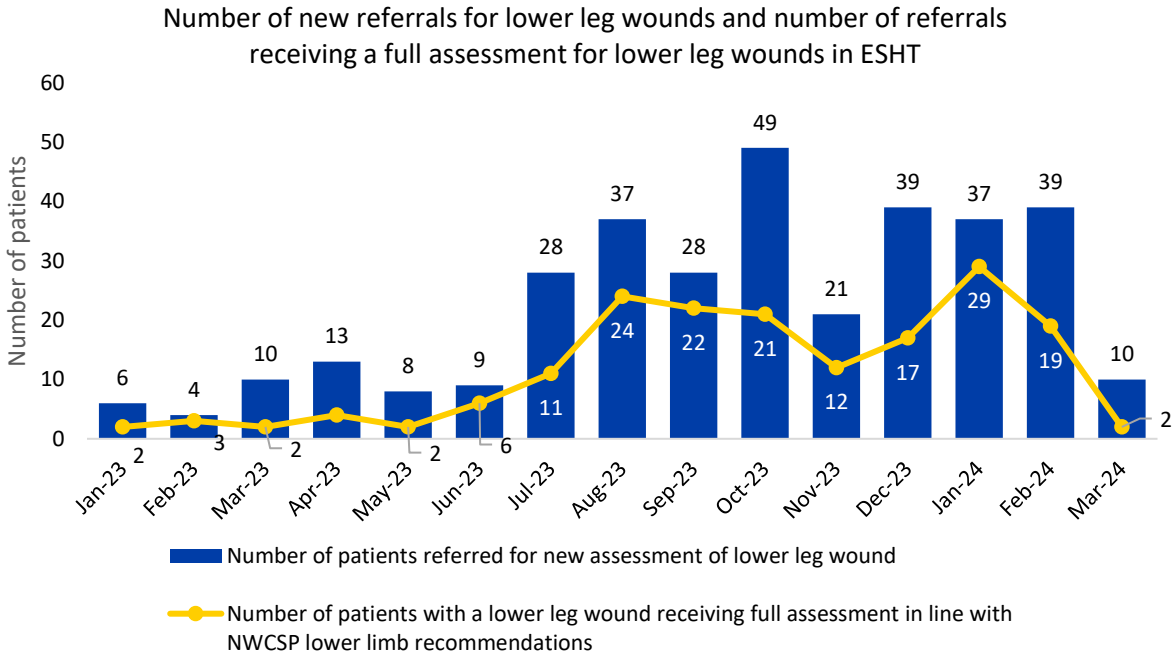


Figure 2 Number of new referrals for lower leg wound in ESHT per month and number of new referrals receiving a full assessment for the lower leg wounds in ESHT

Figure 2 illustrates the number of new referrals for the lower leg wounds (blue bar chart) along with the number of new referrals receiving full assessment for the lower leg wounds (yellow line chart) from January 2023 to March 2024 in ESHT. From January 2023 to March 2024, a total of 338 patients were referred to ESHT for their lower leg wounds and 176 assessments were provided, covering 52% of new referrals.

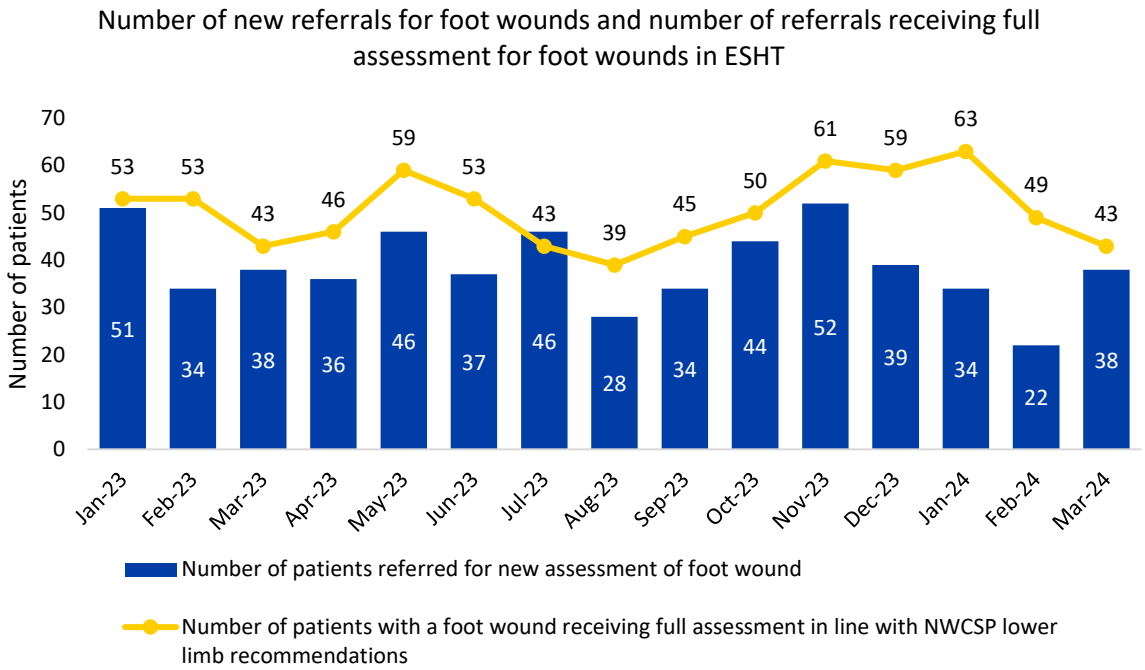


Figure 3 Number of new referrals for foot wounds and number of referrals receiving a full assessment, ESHT

Figure 3 shows the number of new referrals for the foot wounds and number of new referrals receiving new assessments for foot wounds in ESHT. Between January 2023 to March 2024, ESHT team received 579 patients for foot wounds and provided a total of 759 full assessments, covering all the patients by number. It is noted that the number of full assessments provided by ESHT has consistently exceeded the number of new referrals and in most scenarios, the number of full assessments given increases alongside an increase in new referrals for foot wounds. Given that ESHT has not yet implemented the NWCSP LLRs, several assumptions are made to understand the working practices in ESHT. First, it is assumed that the provider has capacity to provide full assessment of all new referrals within the month. Second, it is assumed that the provider reported full assessments provided to all patients with foot wounds on the caseload, not just full assessment for new referrals based on NWSCP LLRs.

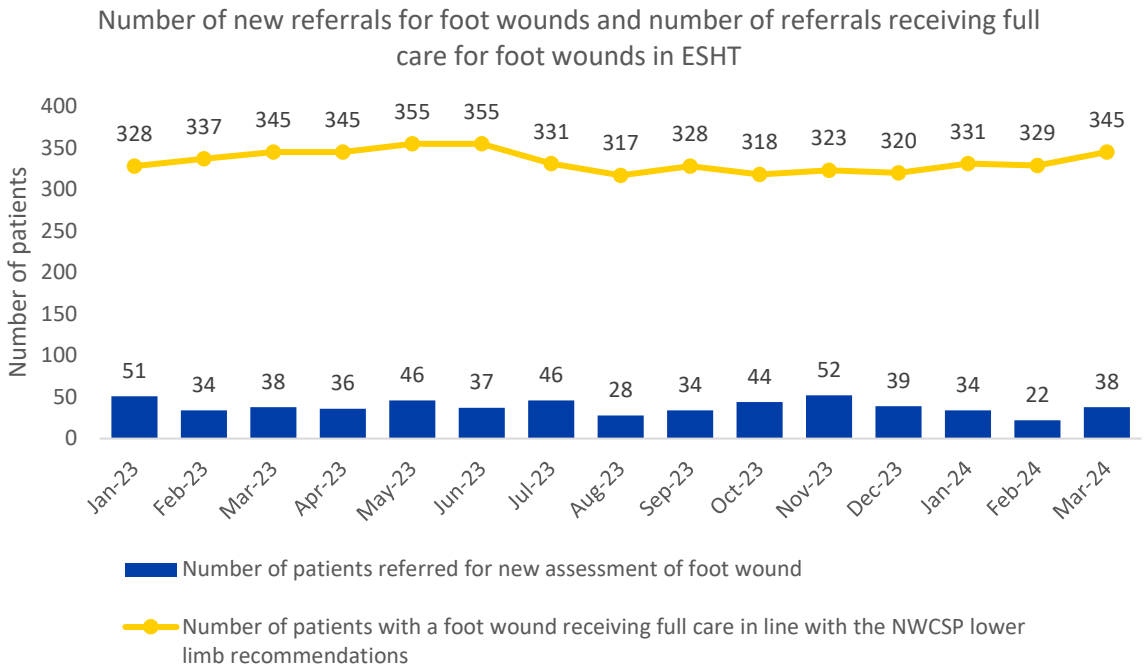


Figure 4 Number of new referrals for foot wounds and number of referrals receiving full care for foot wounds

Figure 4 presents the number of patients receiving full care for foot wounds per month in ESHT (blue bar) and number of patients receiving full care for their foot wounds (yellow line). Compared to the number of new referrals for foot wounds, the number of patients receiving full care in ESHT with a total of 5,007 of full care are given, significantly exceeds the number of new referrals. Several assumptions are made here to understand this discrepancy. First, assuming one patient can receive only one full care session per month, the data likely includes all the patients who received full care, not just those referred within the month. Second, if a patient can receive multiple full care sessions within a month, the high number of patients receiving full care implies that patients may be counted multiple times, reflecting the sum of several full care sessions per patient. Contextual information is needed to interpret the data accurately.

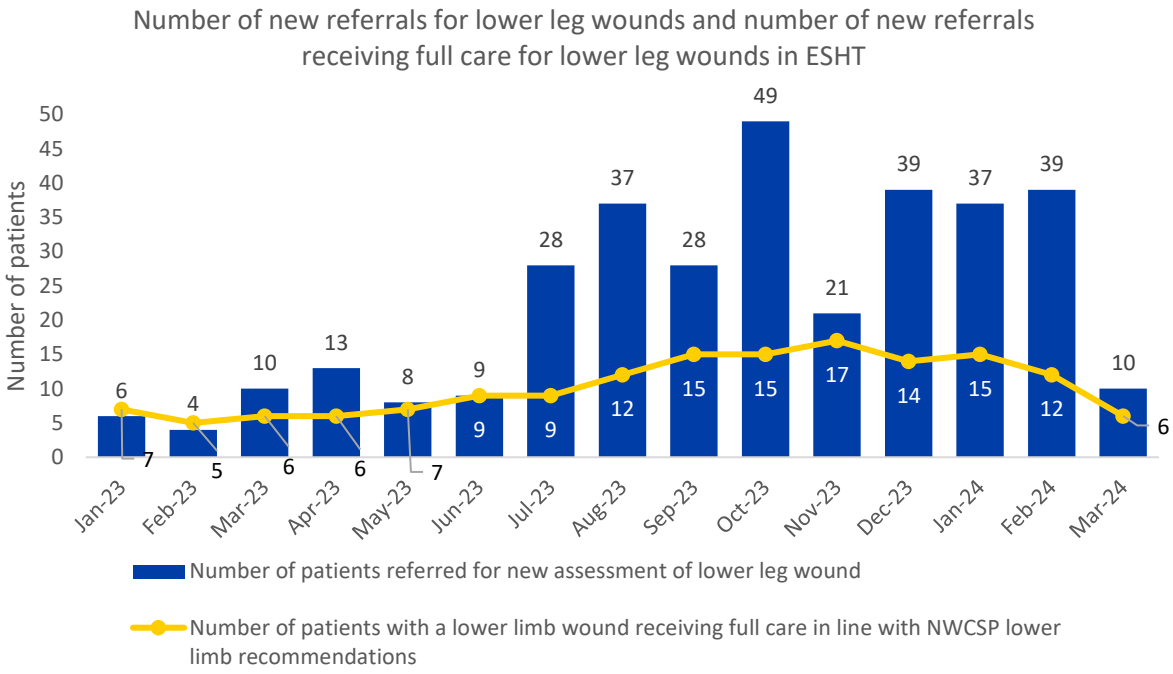


Figure 5 Number of new referrals for lower leg wounds and number of new referrals receiving full care for lower leg wounds per month in ESHT

Figure 5 illustrates the number of patients receiving full care (yellow line) compared to the number of new referrals for lower leg wounds (blue bars) for each month in ESHT from January 2023 to March 2024. A total of 155 patients received full care, covering 46% of total new referrals for the lower leg wounds. The yellow line chart shows a steady increase from January 2023, peaking in November 2023. The lower count of patients receiving full care for lower limb wounds is primarily due to the prevalence of foot wounds among ESHT patients (see **Figure 3**), as mentioned above. Additionally, the number of patients receiving full care exceeds the number of new referrals in January 2023 and February 2023. The reason for this was not provided.

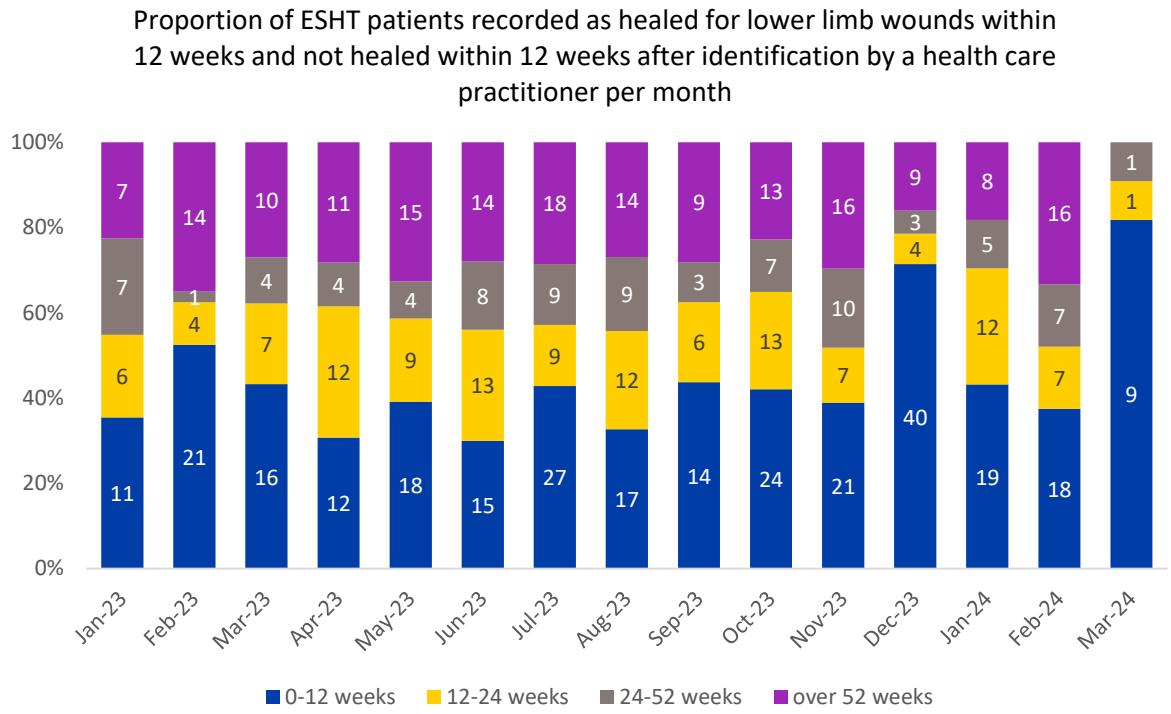


Figure 6 Proportion of patients with a lower limb wound reported healed within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks by tissue viability team after identification by a health care practitioner per month

Figure 6 illustrates the proportion of patient with a lower limb wound reported healed within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks from January 2023 to March 2024. During this period, 635 patients has recorded healed with 44% of them healed within 12 weeks as the most followed by 27% of the patients reported healed after 52 weeks. It is important to note that the figures present the patients recorded as healed only each month and does not include those patients who remain unhealed. Any fluctuations in each sub-category of healing rate (where no data issues are recorded) is considered typical for small numbers such as these.

6.1.2. SCFT findings

For SCFT, data are reported against the following metrics:

- Number of patients with a lower limb wound on the caseload per month.
- Number of new referrals for foot wounds in SCFT per month.
- Proportion of patients recorded as healed for lower limb wounds within 12 weeks and not healed within. 12 weeks after identification by a health care practitioner per month.

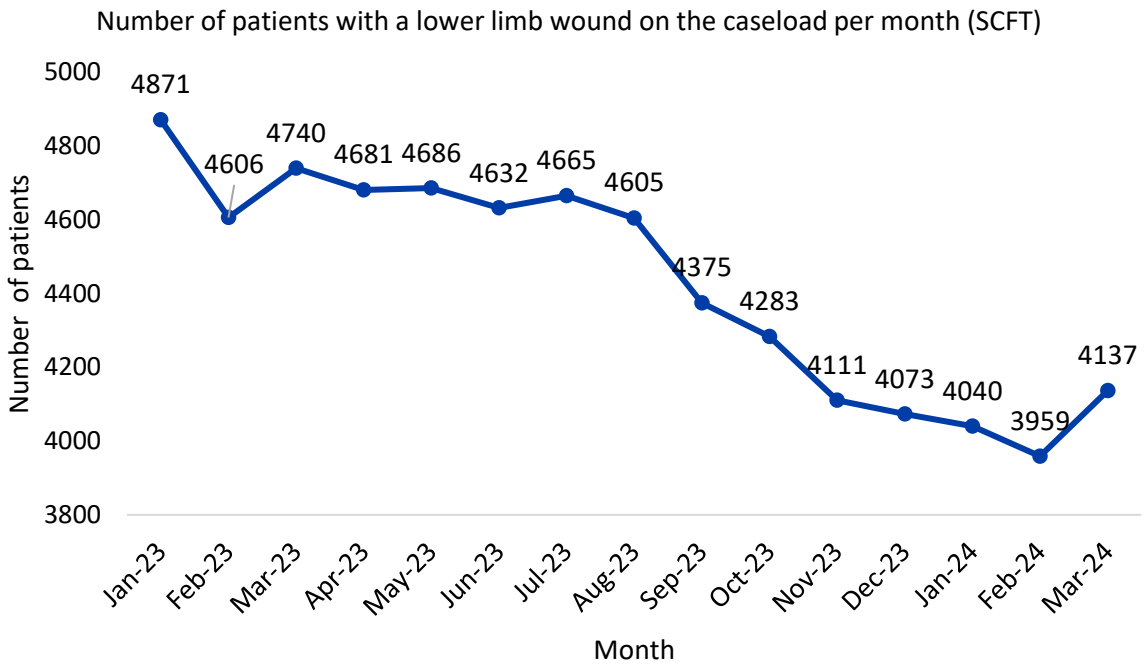


Figure 7 Number of patients with a lower limb wound on the caseload per month (SCFT)

SCFT manages the largest patient cohort in relation to the other providers and the eight TESs. The number of patients shows a steady decrease from April 2023 to February 2024, although the reason for this trend was not provided.

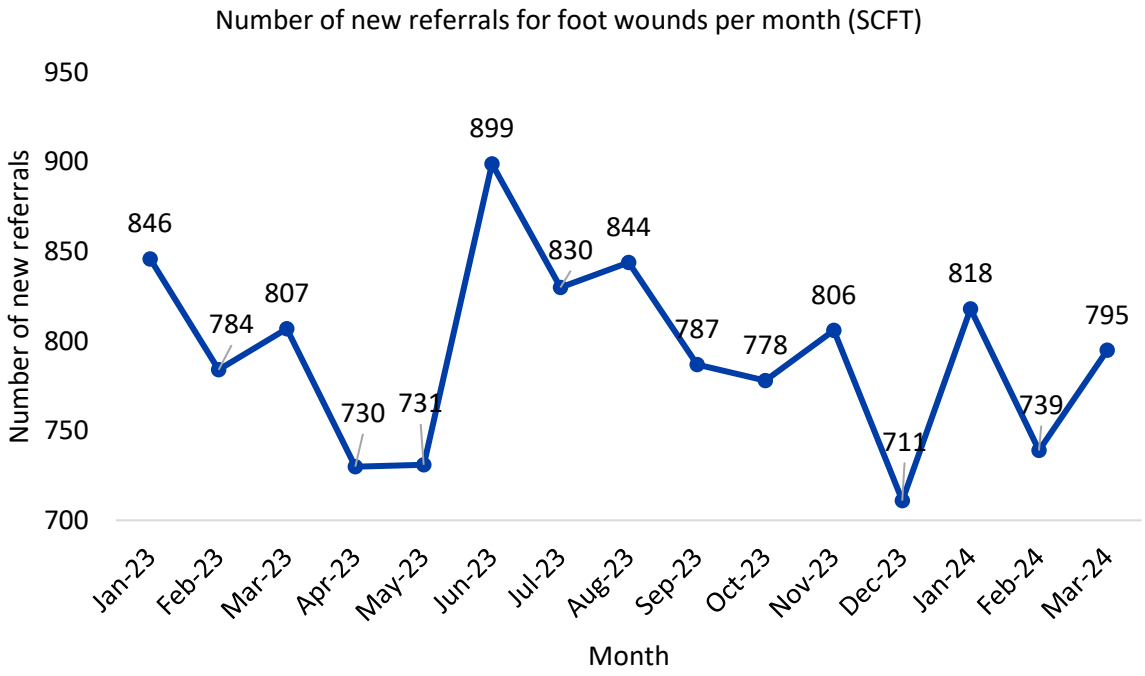


Figure 8 Number of new referrals for foot wounds per month (SCFT)

Figure 8 illustrates the number of new referrals for foot wounds in SCFT per month. On average, SCFT handles 793 patients with foot wounds. The provider's coverage area includes Brighton and Hove, High Weald Lewes and Havens, and West Sussex. Given this extensive coverage, the substantial caseload is anticipated in this context.

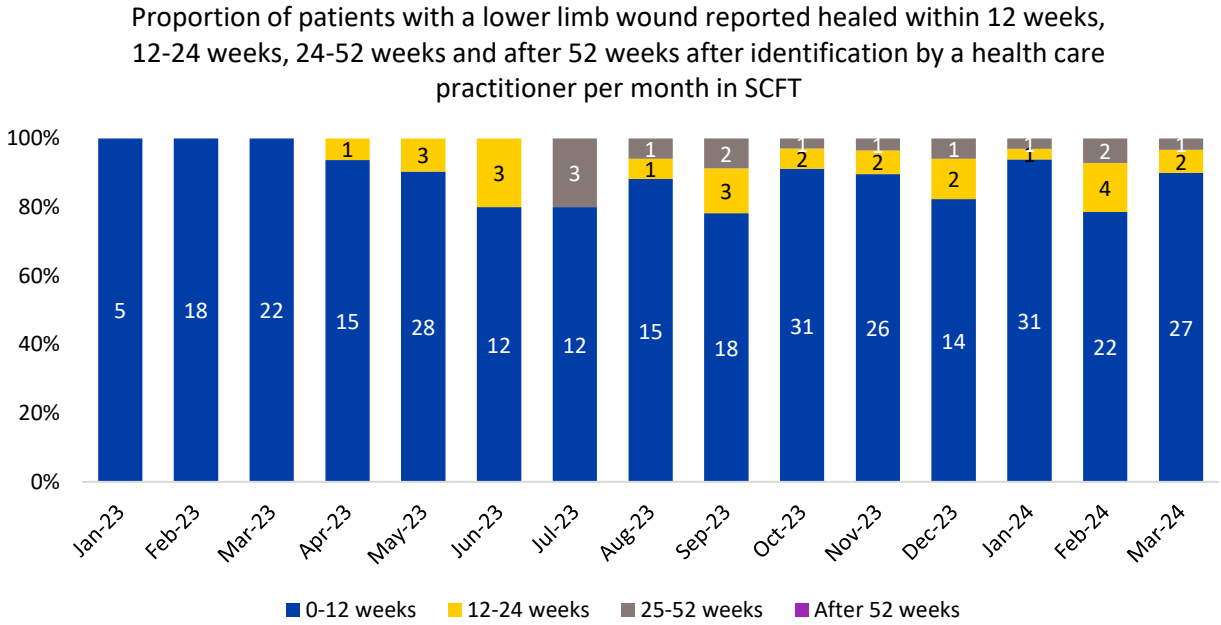


Figure 9 Proportion of patients recorded as healed for lower limb wounds within 12 weeks and not healed within 12 weeks after identification by a health care practitioner per month (SCFT)

Figure 9 above shows the proportion of patients recorded as healed within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks. Notably, over 78% of patients recorded as healed achieved recovery within the initial 12-week period. However, it is important to acknowledge that SCFT has not yet established the data capture process for reporting all healed patients.

6.1.3. Pioneer findings

For Pioneer, data are reported against the following metrics:

- Number of patients on the caseload with a lower limb wound per month, Pioneer.
- Number of new referrals for lower leg wounds and number of new referrals receiving a full assessment for lower leg wounds per month, Pioneer.[7]
- Number of new referrals receiving full care for lower limb wounds per month and number of new referrals for lower limb wounds, Pioneer.
- Proportion of adult patients with a lower limb wound and an adequate arterial supply, where no aetiology other than venous insufficiency is suspected, being treated in strong compression (40mmHg) per month, Pioneer.
- Proportion of patients recorded as healed for lower limb wounds within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks after identification by a health care practitioner per month, Pioneer.

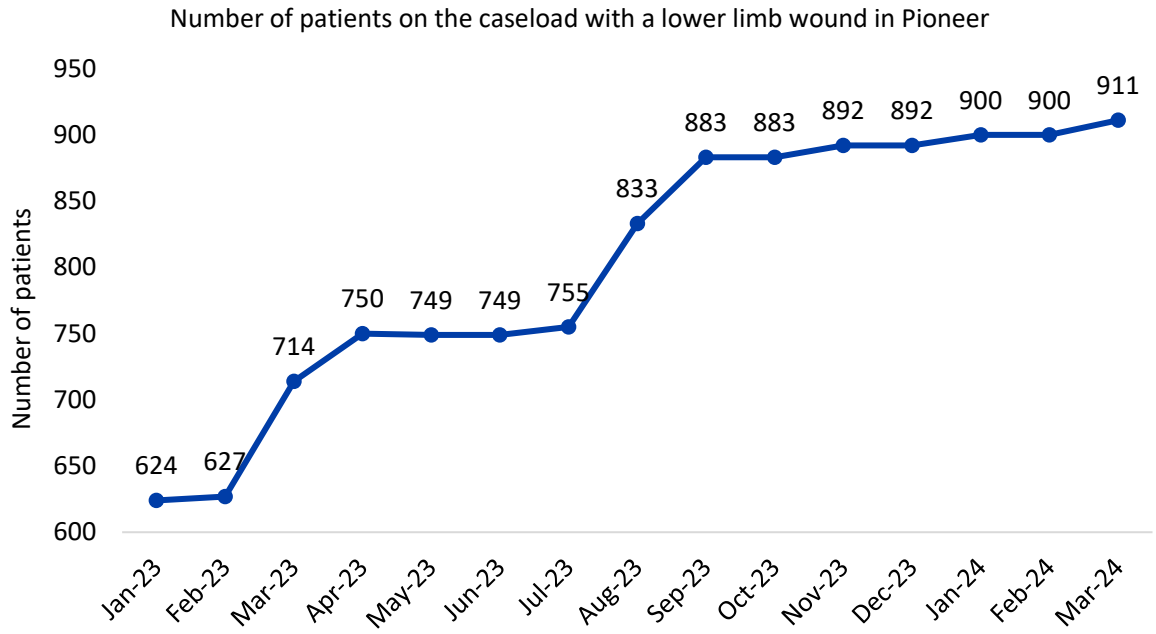


Figure 10 Number of patients on the caseload with a lower limb wound in Pioneer

Figure 10 illustrates the patient caseload for lower limb wounds in Pioneer for either wounds, lymphoedema or patients with both from January 2023 to March 2024. It reveals a continuous and upward trend in

[7] Metric definition is 'lower leg wounds' however Pioneer stated the lower leg metric data might include pressure ulcers on the foot therefore lack of clarity in the data. For simplicity, presented as 'lower leg wounds' only.

numbers throughout the reporting period. The increase in March 2023 was due to an increase in new referrals, while the reasons for the increase from September onwards remains unknown.

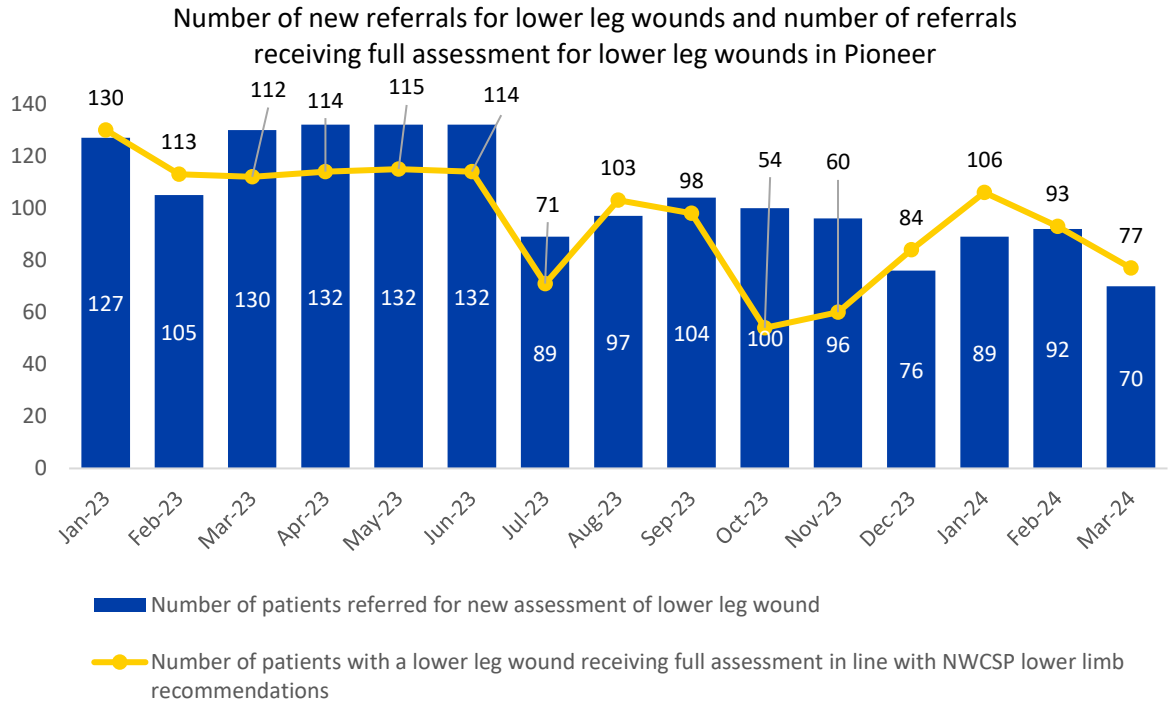


Figure 11 Number of new referrals for lower leg wounds and number of new referrals receiving a full assessment for lower leg wounds per month for Pioneer

Figure 11 illustrates the number of new referrals received for foot and lower leg wounds (blue bars), along with the number of new referrals receiving full assessments for lower leg wounds (yellow line) in Pioneer from January 2023 to March 2024. During this period, the Pioneer team received 1,571 patients for their lower leg wounds and have provided 1,444 full assessments, covering 91% of the new referrals. From January 2023 to June 2023, the number of new referrals remains stable and then shows a less stable trend from July 2023 onwards. This trend contrasts with the number of patients on the caseload with lower limb wounds (upward trend and stable from September 2023); the reasons for this are not known. In some months, the number of assessments surpasses the number of new referrals. It is possible that this is due to assessments carrying over from the previous month however further information is required to understand this. It is important to note that at Pioneer, assessments are primarily conducted on patients with lymphoedema and venous diseases. Therefore, the NWCSP LLRs are included as part of a specialist assessment along with other assessments.

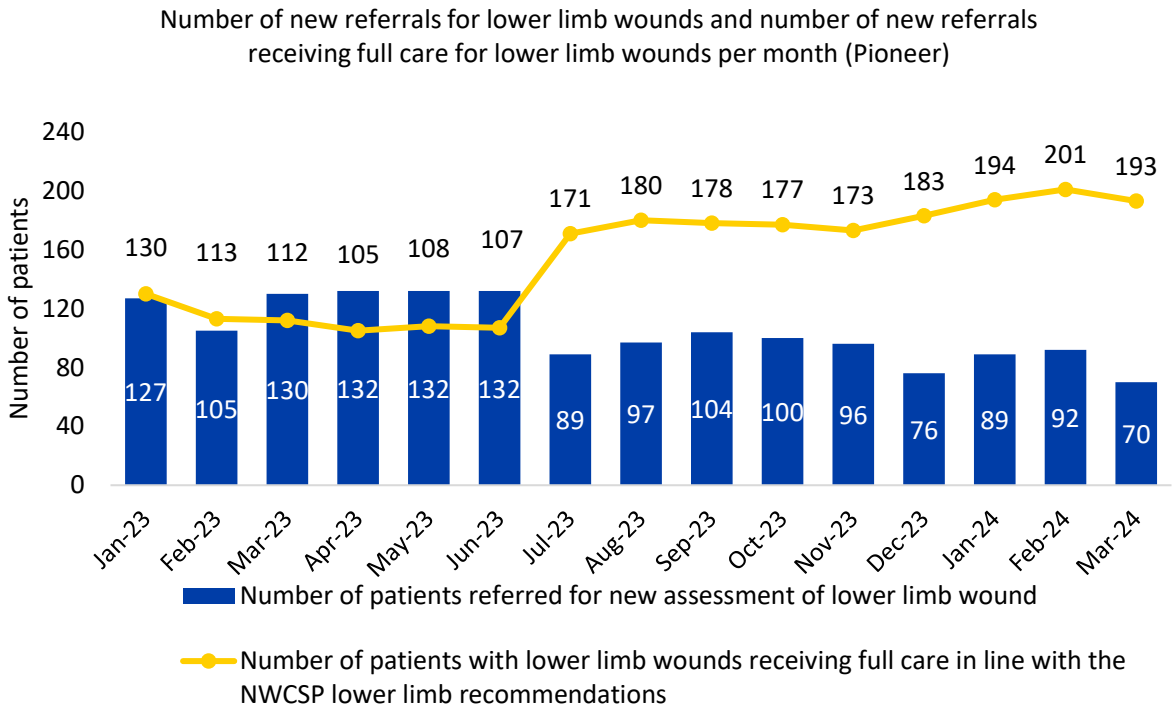


Figure 12 Number of new referrals receiving full care for lower limb wounds per month and number of new referrals for lower limb wounds (Pioneer)

Figure 12 presents the number of new referrals receiving full care for lower limb wounds compared to the number of new referrals for lower limb wounds. On average, the Pioneer team provides 155 patients with full care each month, while the number of new referrals averages 104. In July 2023 there is a drop in the number of new referrals and an increase in the number of full care provided however, the underlying cause of this trend is not known. The number of patients receiving full care exceeds the number of new patients with lower limb wounds in most cases and this supports the assumption that the metrics data includes all patients receiving full care, not just those for new referrals. Pioneer reported that it incorporates other techniques alongside NWCSP LLRs within the scope of full care (no further details of the techniques were provided).

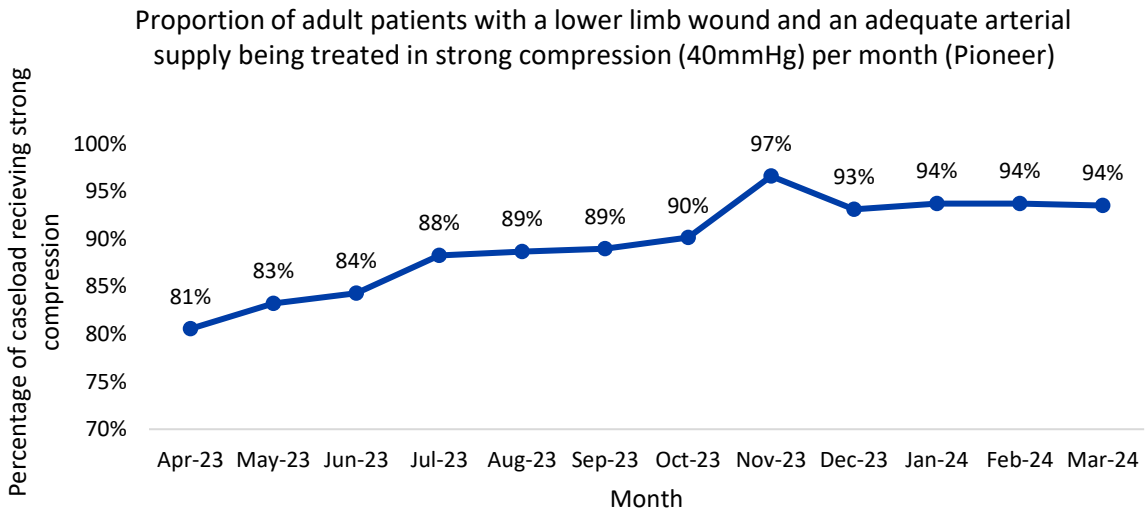


Figure 13 Proportion of adult patients with a lower limb wound and an adequate arterial supply, where no aetiology other than venous insufficiency is suspected, being treated in strong compression (40mmHg) per month (Pioneer)

Figure 13 shows the proportion of adult patients receiving strong compression, presented as a cumulative measure. Patients identified as suitable for strong compression but unable to commence the treatment within the month might remain on the caseload until subsequent month. Hence, the increase trends in proportion reflects that strong compression treatment continued to be provided to both existing and new patients. During the data capture time, Pioneer identified a peak of 160 patients suitable for strong compression (December 2023) with 149 receiving strong compression, covering 93% of the suitable patients.

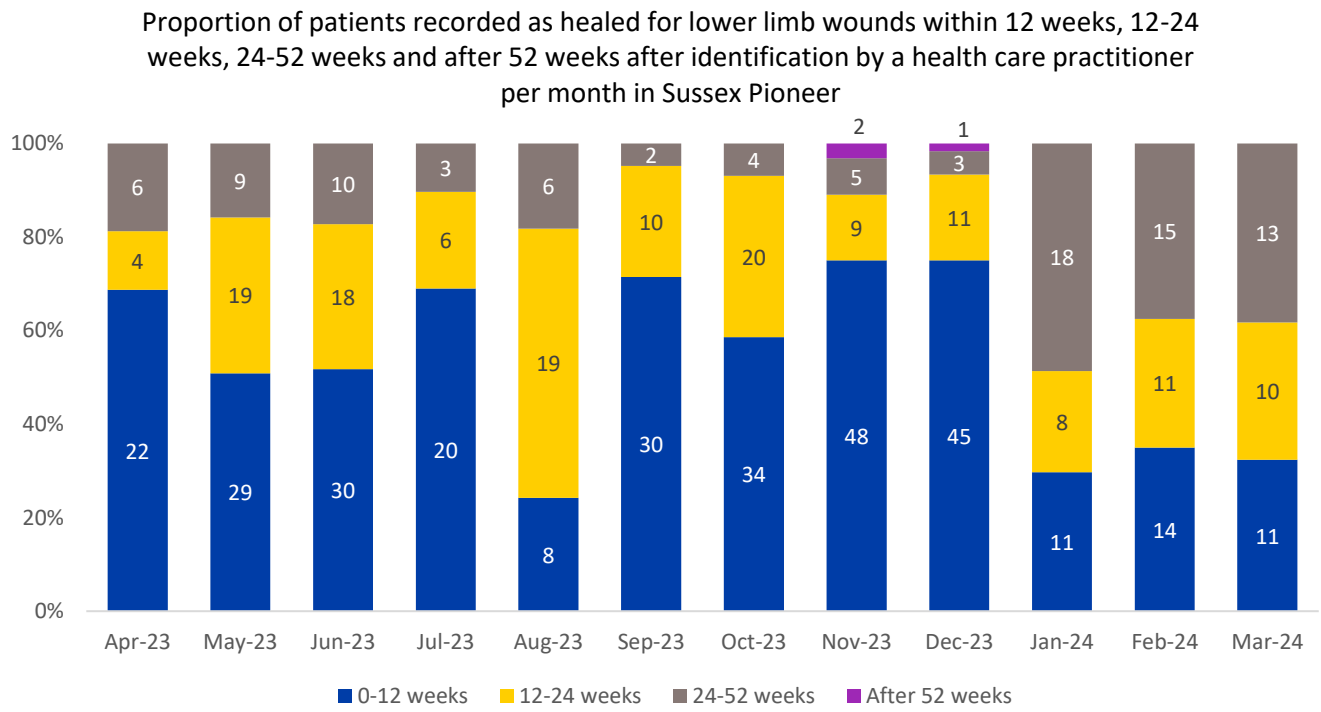


Figure 14 Proportion of patients recorded as healed for lower limb wounds within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks after identification by a health care practitioner per month in Sussex Pioneer

In Pioneer, a total of 573 patients were recorded as healed from April 2023 to March 2024. 302 (53%) were healed within 12 weeks with an additional 145 (25%) patients recorded as healed within 12-24 weeks. 93 patients were recorded healed between 24-52 weeks, representing 16% of the healed cohort followed by only 3 patients healed after 52 weeks. It is important to note that the healing time in Pioneer is recorded from the time the patient is referred to the service until they are reported as healed. Hence, waiting time is added into this metric data. While it is impossible to separate waiting times from metric data, peaks in the number of full care treatments and the proportion of patients receiving strong compression may contribute to the observed increases in November and December 2023.

Additionally, several numerators in TWC011, which detail the number of patients recorded healed within various timeframes (i.e. 0-12 week, 12-24 weeks, etc.) are either incomplete or do not align with the total number of patients recorded as healed each month. Consequently, the graph starts from April and the percentage for July does not total 100%.

6.2. Findings from staff surveys

Sussex staff returned six surveys (from a distribution of 18 surveys, a 33% response rate). Findings from the survey are presented at a programme level rather than at TES level due to the analytical approach taken for the evaluation.

Box 1 below highlights key findings that emerged from the survey across all TESs (programme level evaluation), divided into 'key points', 'successes' and 'challenges'.

Box 1 Overview of programme level survey findings

Key points

- The survey covered a range of topics related to the implementation of the National Wound Care Strategy Programme (NWCSP) Lower Limb Recommendations (LLRs).
- A total of 523 staff across all TESs were invited to complete the survey and 100 responses were received.
- Overall, the survey responses show positive perceptions of the transformation of lower limb wound care and services.

Successes

- Staff observed improvement in patients' healing rates and reduction in recurrence of wounds.
- Input from tissue viability nurses (if locally available) was a valuable source of specialist training, advice and support for colleagues.
- Overall, responses on the experience of wound care training (e-learning and/or face-to-face) showed that training gave staff more confidence in providing wound care.
- The two common components of the NWCSP LLRs implemented in TESs were:
  1. Immediate and necessary care.
  2. Compression therapy (both mild and strong compression).
- The key impact of using technology (Wound Management Digital System or any other technologies) was the improved oversight of patient care with accurate and consistent clinical recording.
- Staff appreciated the continuous support from the local health innovation network and TWC Central Team.

Challenges

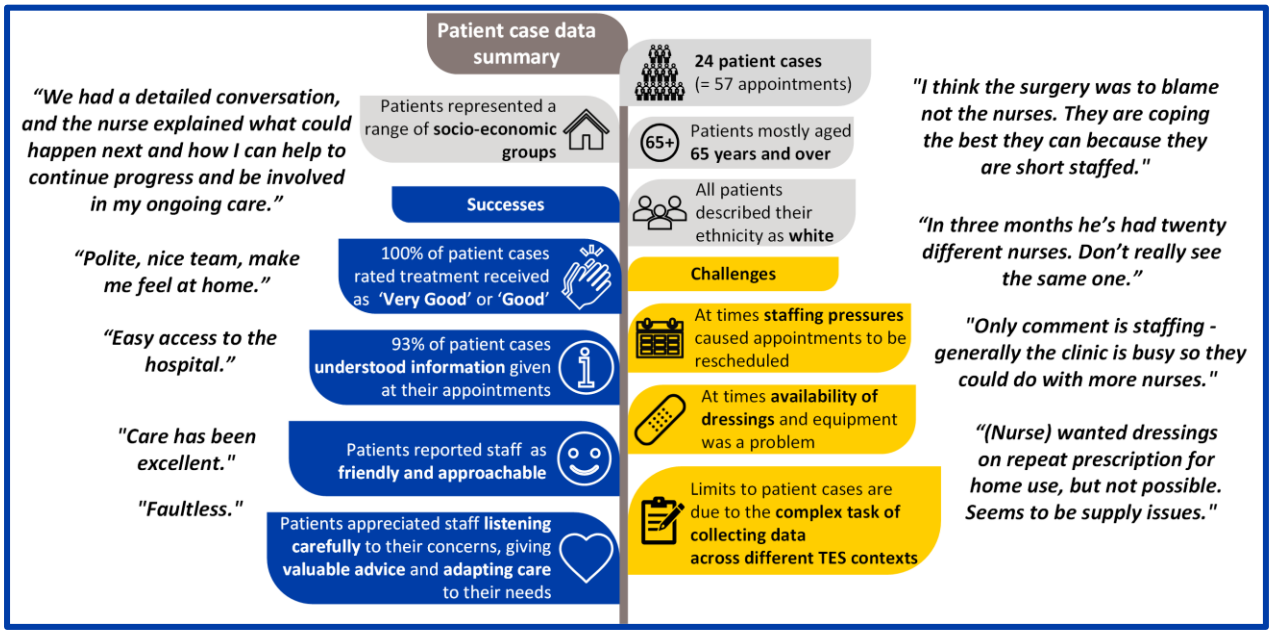
- Limited or reduced workforce capacity was the most reported barrier to the implementation of the NWCSP LLRs.
- A small proportion of patients do not engage well with self-care mainly due to their intolerance of compression treatment.
- The complex nature of wound management, often involving several health and care providers to address patients with multiple comorbidities, was also highlighted as challenging.
- Ensuring data accuracy and time required for data collation were the two most reported challenges with metrics reporting.

6.3. Findings from patient cases

Patient cases were not collected from Sussex as the programme was in pre-implementation phase during the evaluation period. To capture patients' voices on wound care services across Sussex, Health Innovation Wessex Insight team observed one of the three patient engagement online workshops aimed at both general and marginalised population groups. In summary, the workshop participants responded positively to the proposal of the new wound care pathway. The workshop also provided a valuable opportunity to discuss and share opinions around the existing services, the new proposed model of care including the development

of specialist wound care hubs and the need for further engagement with the marginalised communities and representatives of voluntary, community and social enterprise sectors on how to address and minimise exacerbation of health inequalities. Further details of the patient workshop observation are described in appendix 3. **Figure 15** below shows an overview of findings from patient cases across all TESs (programme level).

Figure 15 Summary of programme level patient case data with quotes



6.4. Programme level findings from staff interviews and focus groups

Box 2 below highlights key themes that emerged from analysis of data from the staff interviews and focus groups across all eight TESs (programme level evaluation), divided into 'successes' and 'challenges'. The key points explain the approach taken to data collection and analysis.

Box 2 Summary of programme level findings from staff interviews and focus groups

Key points

- The Health Innovation Wessex Insight team conducted 16 interviews and four focus groups with key staff from each TES.
- The TWC programme's key enablers of implementation i.e. people (patients and staff), processes, and technology and data, were used to broadly organise the coding of the interview transcripts.
- Following coding, thematic analysis was carried out to derive key categories from the data.

Successes

- Staff expressed enthusiasm and commitment to the TWC programme aims of starting patients in compression earlier and ensuring consistent pathways.
- The need for staff expertise to deal with the complicated field of wound care was acknowledged and training to upskill those delivering care was being delivered across all TES.
- Staff reported feeling confident that patients are getting better care, and that this is leading to faster healing, improved outcomes, and fewer appointments needed per patient.
- Staff anticipated environmental net zero benefits resulting from the new pathways e.g. fewer appointments for district nurses, fewer miles travelled etc and cited some efficiency savings.
- With regards to technology and data, staff recognised that high-quality data could answer important questions about service delivery.
- Positive comments relating to wound management digital systems included improved quality of images, images can be uploaded straight to patients' notes and faster referral processes.

Challenges

- Patient factors: Lifestyle and general health factors that can work against healing and treatment adherence (such as co-morbidities, obesity, low literacy) as well as resistance to strong compression for reasons of discomfort or lack of belief it will work. This resistance can be mitigated by building trust over time in the nurse-patient relationship.
- System challenges: These included challenges related to engagement and involvement with the wider system beyond the immediate TES, staffing, supply of dressings, and financially challenged systems with competing priorities.
- Technology and data: These challenges focused on difficulties related to the collection of metrics and the implementation of wound management digital systems.

Sussex staff agreed with a number of the challenges described above. For example, with regards to system challenges, they described the enormity and complexity of designing a service transformation programme across the system, especially when the services have been variable across the system,

> *"It was always something that I could never get my head around why we were all so different. When I moved into the role that I'm in now [district nurse], it became quite apparent that even within [a community care], we were doing things very, very differently." Sussex focus group*

The complexity of harmonising the practice across the system was apparent when service providers had expressed different needs from the programme implementation. For example, the key priority from the primary care sector was staff training and development,

> *"And when we've been engaging with primary care and particularly with all the practice nurses. Their plea is purely around learning and development. It's not clinical pathways, it's not formulary, it's not any of the other stuff. It is around learning and development. So we have to get our act together." Sussex interview*

One of the key areas of focus in Sussex was to establish sufficient and efficient delivery of specialist supply for lower limb wound care,

> *"…Sort of single supply store cupboard so they know before going to that patient immediately they have it at hand so long as they keep that [stock] up to date. So there were two big things in that meds optimisation [work programme] and I was almost attacked on my first day by a community trust who basically said 'if you can fix the supply chain, that's all we want.' That literally was all [community service] wanted out of the whole [TWC] programme," Sussex interview*

As indicated at TES level, staff were committed to the aims of the TWC programme, for example putting the patient at the centre,

> *"I suppose some of the challenges in the system and then the benefits of working in, in the way that we're proposing, I think I often with my work come back to that, 'if you put the patient at the centre…' And then the clinic, the clinical design… what does the patient need and what does the clinical design around that tell us..." Sussex interview*

Sussex has yet to implement the programme, but because of their system-wide approach and the diligent pre-implementation phase, the progress with their programme has brought the stakeholders together,

> *"I think we've actually come together really well because there's a recognition on all parts that there are real gains to be made here and real improvements to patient outcomes, an opportunity for that." Sussex focus group*

6.5. Findings from the implementation tracker

Implementation trackers were collected and analysed by each TES. As such, this summary relates specifically to Sussex. A review of the implementation tracker across the three-month period (September – November 2023) revealed the following progress against the defined milestones.

- **Clear delivery plan for implementing the new clinical model** – key stakeholders have come together to develop a clinical model that is suitable for the system-wide approach. The plan for Sussex is now to establish one or two 'concept model testing sites' to implement the new care model.
- **Training the workforce** – mapping of staff training and competency was completed across different services within the system. Learning shared from other TESs helped to adopt a more facilitating and supportive approach to negotiating across different providers and learning systems and yet keep training standard across the system. The next steps are to adopt the NWCSP tiered training and set up a system wide training glossary.

- **Development of a system-wide metrics dashboard** – a dedicated workstream was set up to focus on metrics and collation of data across the system. Currently, the development of the dashboard is on hold due to the complexity of data collection across the system, but the groundwork is being prepared.

7. Programme level conclusions

The following conclusions are drawn from programme level analysis and are not specific to the TES (for reasons described above).

Overall, the healing rate for wounds for the period October 2023 to March 2024 showed a steady increase in the number of wounds healed within 12 weeks. Patient healing rates varied between 53% and 78% recorded as healed within 12 weeks. It was not possible to show a clear correlation between early assessment, application of strong compression and wound healing rates to support implementation of the proposed care pathways due to data quality issues and the lack of suitable baseline data.

Other findings from qualitative data support TWC programme implementation success. Staff were committed to its aims, had confidence in the programme resulting in better care, faster healing, improved outcomes and fewer appointments, anticipated net zero benefits and the positive contribution of wound management digital systems (WMDSs). Challenges identified included patient lifestyle and health factors that can delay healing and reduce ability to tolerate compression. Other challenges related to engaging the wider health system, staffing and financial pressures, and logistics associated with the collection of metrics data and implementation of WMDSs.

8. Programme level implications

The following implications are drawn from programme level analysis and are not specific to the TES (for reasons described above).

8.1. Implications for lower limb wound care practice

1. The scale up and spread of the necessary improvements to wound care and the delivery of dedicated wound care services across the NHS requires a significant implementation effort, associated resources and sustained support over time to embed changes in practice. Exemplified by the TWC programme this includes strategic leadership; financial support; coordination of activities; community of practice; guidance and an implementation toolkit and expert facilitation.
2. Staff willingness to deliver effective care was countered by contextual pressures that prevented wider engagement and delivery of best clinical practice. The extent to which an improvement programme is actively managed and facilitated was shown to be a critical factor in explaining implementation success.
3. Programme level findings indicate that patient factors can inhibit opportunities for effective lower limb wound care due to co-morbidities, intolerance for strong compression and the inability of some patients to support self-care. Greater effort and time to build trust with patients are strategies that staff employ to manage wound care in these cases, and therefore the need for greater staff capacity and time to manage this area of care is highlighted.
4. Programme level findings show that whilst supporting digital solutions such as WMDSs is viewed as providing benefits, they also present adoption challenges when integrating this technology at local

systems' level. This indicates the need for further development and assistance to services in this area.

5. To ensure that investment in implementation is making a difference, data monitoring should be continued.
6. Automated data collection supported by point of care reporting needs to become embedded and routinised into local systems and may need more resources.

8.2. Implications for future evaluations and metrics data collection

1. Low patient participation in the evaluation resulted in an imbalance of patient perspectives. Purposive sampling of specific patient groups to better understand inequalities should be considered in future.
2. To ensure implementation investment is making a difference, there is a need to embed automated data collection into local systems and in addition support provided to clinical staff collecting data during patient contacts.
3. The collection of demographic data on patients receiving wound care would enable an assessment of the extent to which services are addressing inequalities.

Version Control

Version	Status	Key Changes	Authorised by
V1 Nov 2024	Live	Final amendments completed.	Philippa Darnton

Appendices

Appendix 1: Sussex providers summary of metrics reporting

Three organisations within Sussex contributed to the collection of standardised metrics as a major part of the TWC programme, despite the TES being in pre-implementation phase. An overview of metrics collected from Sussex organisations are as follows:

- ESHT, SCFT and Pioneer all collated metrics reported by patient cases.
- The greatest challenges experienced by Sussex organisations included accuracy and consistency of data input at point of care, manual extraction of data and potential data duplication due to separate reporting from different services.
- Sussex and all the providers started a major change in reporting from January 2024. This transition may be reflected in metrics reporting as some staff used old templates, some staff used new templates.
- The system-wide programme of work to improve patient care continues between different organisations across the sector, including primary care. Some patients may move between services, and this may impact on metrics reporting as the same patient cases may be reported by different providers (i.e. there is a risk of double counting).
- Workforce changes[8] across the system affected staff training and may have impacted on the consistency in data input at point of care.

[8] Postscript provided by Sussex TES: The large size of the workforce may also have affected staff training and data consistency.

Appendix 2: Commentary on critical metrics and data points collated by Sussex

Since all Sussex providers were in pre-implementation stages, the data may not exclusively reflect TWC programme implementation.

ESHT metrics narrative

ESHT identified 16 (out of 17) data collection points within the scope of their site, and 15 out of the agreed data collection points were reported by March 2024.

Table 4 ESHT narrative

ESHT	In scope data points collated by March 2024: 15	In scope data points not collated by March 2024: 1
Metrics collated by patient or wound	Report by patients.	
Biggest challenge	Following structured processes and the consistency of data input from clinicians due to digital confidence within the workforce and capacity/demand challenges across the clinical teams.	
Key points to note	Caseload: Entire ESHT Sussex and all the providers stated a big change in reporting from January 2024. This transition may be reflected in metrics reporting as some staff use old templates, some staff use new templates. • A new dataset for ESHT has been agreed upon and submitted to ICB. • For all services there is ongoing work for patient care in primary care, and the way in which patients move between services may impact metric reporting. • The TES reported some inaccuracy with the data, especially for lower leg wound patients receiving full assessment (TWC003B) and lower leg wound patients receiving full care (TWC004B), however, no further explanation given. • The TES was unable to report on strong compression through the reporting period; they have a care plan which differentiates between levels of compression; however, no metrics were reported in the Unity Insights aggregated dashboard. • New templates (reported January 2024): Staff members are currently transitioning to use the new templates, although some staff are still completing previous care plans. These changes are evident in the reported data.	

Pioneer metrics narrative

Pioneer identified 13 (out of 17) data collection points within the scope of their site, and nine out of the agreed data collection points were reported by March 2024.

Table 5 Pioneer narrative

Pioneer	In scope data points collated by March 2024: 9	In scope data points not collated by March 2024: 4
Metrics collated by patient or wound	Report by patients.	
Biggest challenge	Manual extraction of data	

Key points to note	Caseload: Full Pioneer caseload.
	
	Sussex and all the providers stated a big change in reporting from January 2024. This transition may be reflected in reporting as some staff use old templates, some staff use new templates.
	
	• It is a specialised service and includes patients with wounds, lymphoedema, or both.
	• Reporting was manual through clinical notes, which posed challenges for reporting due to the time required and capacity issues.
	• Staff training and implementation remain ongoing challenges (as of January 2024).
	• Like other Sussex providers, work continues on patient care between Pioneer and primary care. Some patients may move between services, affecting patient journey and metrics reporting.
	• In relation to foot wound referrals for new assessment (TWC002A) (as of January 2024):
	  ○ Diabetic foot wounds are not included, but pressure ulcers from the Nursing Home Telehealth service are counted as lower leg wounds.
	  ○ Heel pressure ulcers are also counted within metric.
	• In relation to healing rate metrics (TWC0011 (as of January 2024):
	  ○ Healing rates refer to the time of patient referral, not wound identification.
	• In relation to lower leg wound patients receiving full assessment (TWC003B) and lower leg wound patients receiving full care (TWC004B) (as of January 2024):
	  ○ There may be overlap between the metrics due to the service and how it runs.
	  ○ Patients referred into the specialist service often have lymphoedema and venous disease, not just ulcer.
	• Additional assessment beyond NWCSP recommendations is performed as part of the specialist assessment within the service.	

SCFT metrics narrative

SCFT identified 16 (out of 17) data collection points within the scope of their site, and six out of the agreed data collection points were reported by March 2024.

Table 6 SCFT narrative

Sussex: SCFT	In scope data points collated by March 2024: 6	In scope data points not collated by March 2024: 10
Metrics collated by patient or wound	Report by patients.	
Biggest challenge	Reporting mechanisms: a) Patients seen for wounds in more than one service would be reported separately based on the referral to that service, b) Unable to report lower leg and foot wounds separately in system.	
Key points to note	Caseload: The entire SCFT. Sussex and all the providers stated a big change in reporting from January 2024. This transition may be reflected in reporting as some staff use old templates, some staff use new templates. • As of January 2024, staff training remains challenging during the implementation of the new dataset (using READ codes). • Additionally, across SCFT, transitioning 500 clinical staff across 25 community nursing teams to new ways of working is complex and takes time. Reason for not reporting foot wound patients receiving full assessment (TWC003A) and lower leg wounds treated with strong compression (TWC0010) were due to staff training and challenges with the new dataset being implemented. • As of January 2024, a high level of foot referrals is shared with podiatry and community nursing team. • Like other Sussex providers, ongoing work with patient care between SCFT and primary care. • Some patients may move between services, which may also have impacted metrics reporting. • No difference in collating metrics from early 2023 to early 2024 (percentage of metrics collated 2023 to 2024 41.2% to 37.5%). One metric became out of scope from July 2023 onwards. • SCFT unable to separate lower leg and foot wounds for reporting, therefore they were reported together (TWC002A) • There were no new referrals being created for new wounds if patient already known in system. • Patients seen for wounds in more than one service would be reported separately based on the referral to that service.	

Appendix 3: Sussex patient workshop

In December 2023, Sussex held an online workshop to review and discuss proposed changes to the Sussex Wound Care Programme and the development of specialist wound hubs. NHS Sussex produced a report from this workshop, which is summarised below. Fourteen people participated in the workshop including people with lived experience, carers, university students, professionals working in the wound care service, and VCSE representatives. The workshop posed the following questions:

- Would you welcome the introduction of new specialist wound care hubs? What would be your concerns?
- Given a choice of locations for the hubs across Sussex, what would we need to consider from your perspective? What would be a 'reasonable' distance for patients to travel for a specialist assessment?
- Services will actively support patients to self-manage and prevent recurrence of wounds following discharge – would you welcome any additional training and the opportunity to self-refer back into the hub should you have a recurrence of a wound?
- Once established, we are interested in promoting digital technologies to track the healing of wounds. Would you welcome this proposal, and what might stop you taking and uploading photos?

Key messages: Sussex online workshop

- Development of specialist wound hubs was welcomed with the proviso that home visits continue for those unable to travel.
- Hubs should be in locations that are easily accessible by public transport and offer parking for those coming by car.
- 'Going out into the community' was seen as a strategy to enhance access for underserved groups.
- Proposals for empowering individuals to self-care were received positively, provided it is recognised that not everyone will have capacity to do this. Staff would need to assess, along with the patient and any carers, how able they are to care for themselves at home and adjust the care plan accordingly.
- Self-referral back to a hub in the case of wound recurrence was viewed positively. There was a query as to whether patients could self-refer at the start of their treatment journey to bypass the GP surgery, with associated potential delays.
- In terms of digital technology, the group observed that some people may not be able to take photos (e.g. the visually impaired) and that some are digitally excluded. Therefore, digital technologies should be an option, rather than a mainstay, of monitoring and assessment.
- Consultation with marginalised communities ahead of service change is important to prevent reinforcing any existing inequalities.

The following suggestions made by the group were highlighted for consideration:

- A hybrid model for services which includes going out to community-based hubs already in use by the community, for part of the week.
- Patients' eligibility for the non-emergency patient transport service.
- Need to consider patients' needs when producing patient-facing information e.g. need for translation.
- Offer training for those who support people with wound care regularly e.g. voluntary community and social enterprise (VCSE) organisations and community connectors/ambassadors.