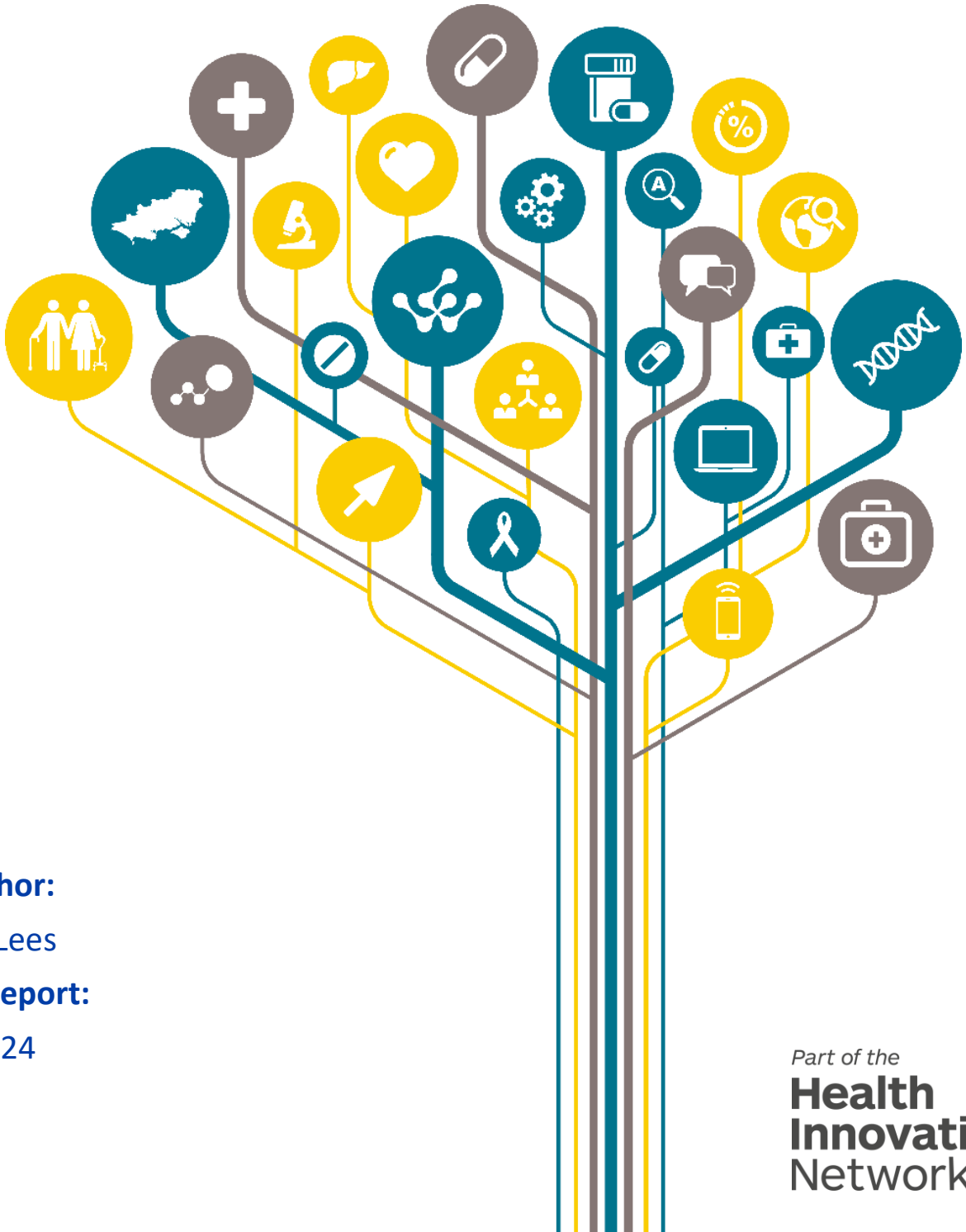
Health Innovation Wessex

The Transforming Wound Care Programme

Test and Evaluation Site case report
Cornwall Partnership Foundation Trust



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Disclaimer

This report presents the findings of an independent evaluation of Transforming Wound Care 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 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.

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Health Innovation Wessex

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TES Executive summary

Cornwall Partnership Foundation Trust (CPFT, hereafter referred to as 'Cornwall') is a community and mental health provider trust, delivering care to people across Cornwall and the Isles of Scilly at home or in hospital. Cornwall joined the Transforming Wound Care (TWC) programme as a Test and Evaluation Site (TES) in October 2022. Service plans commenced in December 2022 with the objective of delivering the National Wound Care Strategy Programme (NWCSP) Lower Limb Recommendations (LLRs) through dedicated services. Cornwall TES aimed to scope and redesign the lower limb pathway in three parts i.e. immediate and necessary care, dedicated service, and ongoing care. The TES trialled a wound management digital system (WMDS) within two District Nursing teams, but it was not found to be suited to their requirements.

At the end of the evaluation period (March 2024), Cornwall had made significant progress towards system-wide implementation of the new lower limb wound pathway despite substantial financial and systems pressure. Immediate and necessary care across the Cornwall region was being delivered and had become business as usual, as had training to equip staff to deliver the new lower limb pathway. Areas for ongoing focus included delivery of a dedicated service (pending a successful business case), delivery of an ongoing care service for patients whose wounds have healed, and continued work on data quality improvement.

Cornwall contributed metrics data to the programme evaluation in relation to the lower limb wound caseload in community services, foot wound referrals for new assessment, lower leg wound referrals for new assessment, lower leg wounds treated with strong compression and wounds healed within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks for lower leg wounds and for foot wounds between January 2023 and March 2024 from the monthly wound care aggregated dashboards and the TES metrics returns.

Analysis of metrics data from Cornwall indicated:

- By the end of March 2024, a total of 2,019 patients were recorded on the caseload, representing a 196% increase from 681 patients in January 2023. (Please note this figure is likely to be inflated due to inconsistent recording of healed patients and delays in removing deceased patients from the caseload[1]).
- Between January 2023 and March 2024, the number of patients receiving strong compression increased significantly, from 13 to 204.
- The proportion of eligible patients receiving strong compression remained between 39% and 43% from June 2023 to March 2024.
- By the end of March 2024, a total of 316 lower leg wounds were recorded as healed. Of these, 209 healed with 12 weeks, representing 66% of the healed cohort with 62 (20%) healed between 12 to 24 weeks, 54 (17%) healed between 24-52 weeks and 6 (2%) healed after 52 weeks.
- By the end of March 2024, a total of 158 foot wounds were recorded as healed. Of these, 101 (64% of the healed cohort) healed within 12 weeks, 28 (18%) healed between 12-24 weeks, 26 (16%) healed within 24-52 weeks and 5 (3%) healed after 52 weeks.

[1] Cornwall explained that the figure is also likely to be inflated as teams started to increase use of new forms in the WMDS for wound assessments from which data was captured.

Qualitative data supplied by Cornwall (survey and focus group/interviews, patient cases) 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 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 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 Cornwall Partnership Foundation Trust (hereafter referred to as 'Cornwall'), one of eight Test and Evaluation Sites (TESs) captured as part of the Transforming Wound Care (TWC) programme evaluation. Along with the other TESs, Cornwall 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. Cornwall 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 Cornwall was used to address evaluation questions at a programme level rather than to evaluate and fully describe activities undertaken within Cornwall TES. 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 Cornwall 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 Cornwall are included. Qualitative data supplied by Cornwall (survey and focus group/interviews, patient cases) 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 Cornwall 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

Cornwall Partnership Foundation Trust (CPFT) is a community and mental health provider trust, delivering care to people across Cornwall and the Isles of Scilly at home or in hospital.[3] The project team comprised a Senior Responsible Manager (and the Trust's Tissue Viability Lead), Quality Improvement Lead, Professional Lead, Finance Lead, and Clinical Leads. The project team was supported by Health Innovation South West.

Cornwall joined the TWC programme in October 2022. Service plans commenced in December 2022. The TES aimed to scope and redesign the lower limb pathway in three parts immediate and necessary care, dedicated service, and ongoing care.

3. Local context for lower limb wound care

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

3.1. Cornwall locality description

Cornwall is one of the largest local authority areas in England (3,559 square kilometres), but it is one of the least densely populated. It has a population of 570,300 (2021 Census). People aged over 65 years make up 25% of the population and the median age in Cornwall is 47. In 2021, 96.8% of people identified their ethnicity within the 'white' category.[4] Around 13% of the population of Cornwall live in the 20% most deprived communities in England. Cornwall has a mixture of rural, urban, and coastal communities.

Cornwall's Equality Impact Assessment for the project highlighted the following risks and mitigations associated with the project.

- Rural isolation of the frail elderly: because of the geography of Cornwall those living in isolated rural areas face barriers to accessing specialist assessment clinics. Through reshaping the service to include community outreach and the use of novel technology, the project aims to mitigate this risk
- People without homes face increased risk of wounds and wound care problems due to raised incidence of mental health issues, poor nutrition, and challenges with hygiene. The project aims to enhance care for this group of people via drop-in clinics, mobile care solutions and availability of a Tier 3 contact[5]

[3] Our vision and values | Cornwall Partnership NHS Foundation Trust (cornwallft.nhs.uk)
[4] Figures have been accessed from ONS Census Data 2021 How life has changed in Cornwall: Census 2021 (ons.gov.uk) and Cornwall and Isles of Scilly Population Health profile Population Health Summary (cld1ltd.com)
[5] Tier 3 capabilities that require a high degree of autonomy and complex decision making, an ability to lead wound care practice, enabling innovative solutions to enhance people's experience and improve outcomes. Education Update Education Update (nationalwoundcarestrategy.net)

- People from minority ethnic backgrounds and those with language barriers can face barriers to understanding when accessing treatment for leg wounds. The project aims to review self-care materials to ensure accessibility for all.

3.2. Local health system infrastructure

The team worked across existing tissue viability services, District Nursing teams and in partnership with the local Integrated Care Board (ICB), Royal Cornwall Hospital Trust (RCHT), Primary Care Networks (PCN) and care and nursing homes.

3.3. TES objectives, service delivery and implementation plans

To equip staff to deliver immediate and necessary care, training sessions were carried out across the county which were well attended and evaluated. Staff are offered an additional online training programme (Tier 1 and Tier 2) as well as a two-day leg ulcer course. The TES reports that 106 staff from community and District Nursing teams, primary care, inpatient and outpatient teams attended the two-day leg ulcer course over a 12-month period.

A wound management digital system (WMDS) was piloted within two District Nursing teams, but not found to be suited to their requirements.

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. 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 lower limb wound caseload in community services, foot wound referrals for new assessment, lower leg wound referrals for new assessment, lower leg wounds treated with strong compression and wounds healed within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks for lower leg wounds and for foot wounds between January 2023 and March 2024 from the monthly wound care aggregated dashboards and the TES metrics returns.

The TES acknowledged the possibility of ‘double counting’ patients in terms of the number receiving strong compression treatment. This could occur if some patients initially received mild graduated compression and then switched to strong compression (or vice versa) within the same month. Therefore, this data has been presented in the case report with this caveat in mind but could not be used in aggregated programme level data.

Table 1 Cornwall metrics reporting

Metric	Cornwall
Lower limb wound caseload in community services (TWC001A)	Yes
Foot wound referrals for new assessment (TWC002A)	Yes
Lower leg wound referrals for new assessment (TWC002B)	Yes
Foot wound patients receiving full assessment (TWC003A)	Out of Scope.
Lower leg wound patients receiving full assessment (TWC003B)	Unable to provide.
Foot wound patients receiving full care[6] (TWC004A)	Unable to provide.
Lower leg wound patients receiving full care[5] (TWC004B)	Unable to provide.
Lower leg wounds treated with strong compression (TWC010)	Yes
Wounds healed within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks for lower leg wounds (TWC011A-D) and for foot wounds (TWC011E-H)	Yes, reported by wounds and foot wounds (TWC011E-H) reported.

4.2. Qualitative data

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

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

Data source	TES contribution	Adaptation
Survey	Surveys were sent to 263 clinical staff.	None
Patient cases	Five	The project team's Quality Lead recruited and consented to all patient cases at the Camborne and Redruth Community Hospital Wound Management Clinic. Due to patients'

[6] Due to difficulties relating to definition it was agreed that metrics related to 'full care' could be excluded.

		preference not to be followed up beyond the appointment date, data collection for four out of five patient cases was conducted during site visits. One patient was followed up by the HIW team. Patients were asked one set of experience questions about their appointment on the date of recruitment.
Staff interviews or focus groups	One small focus group (2 staff members) took place on 19 September 2023. Semi-structured interview carried out on 7 December 2023.	None
Implementation tracker	Virtual systems mapping session on 19 October 2023. Implementation tracker covering period September - November 2023.	The TES also shared Transforming Wound Care Project updates for February, April and May 2024. These were reviewed up until the end of the data collection period (31 March 2024).

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** 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 7** with some descriptive data shared at TES level.
Staff interviews and focus groups	The main analysis was conducted at programme level	Programme level, see **Box 2** with supplementary TES level quotes/points included where possible.

	to generate themes relevant to all TESs.	
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 following section presents a high-level view of metrics data that Cornwall contributed to the programme evaluation in a series of graphs depicting findings at TES level.

The collection of standardised metrics is 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 implementation and issues that arose to ensure critical metrics were captured. Cornwall identified 16 (out of 17) critical metrics within the scope of their TES, and 12 out of the agreed data collection points were reported by March 2024. Further details about the metrics for Cornwall are provided in Appendix 1.

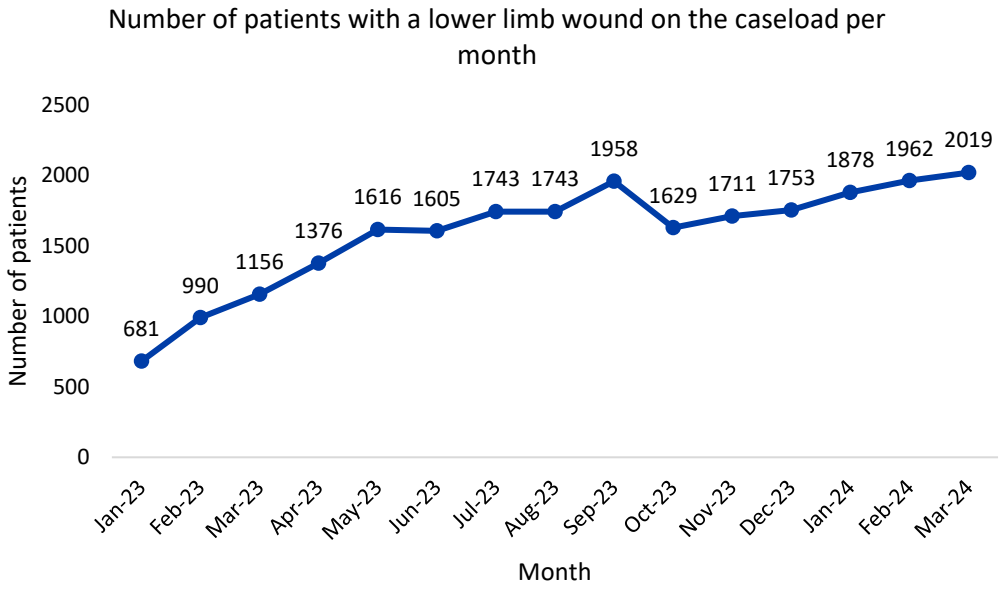


Figure 1 Number of patients with a lower limb wound on caseload per month

Figure 1 illustrates an increase in the number of patients with lower limb wounds on the caseload throughout the reporting period from 681 to 2019, indicating 196% increase Notably, the substantial rise in patients (both new and existing) from January to September 2023 can be attributed, in part, to the integration of data from a newly created form into the TES's electronic patient records (EPR). Additionally, caseload numbers were inflated due to inconsistent recording of those healed (and therefore removed from the caseload). The slight decline in patient numbers in October 2023

corresponds to the removal of data relating to deceased patients. Nevertheless, the caseload remains high and gradually increases again reaching 2000+ patients by March 2024.

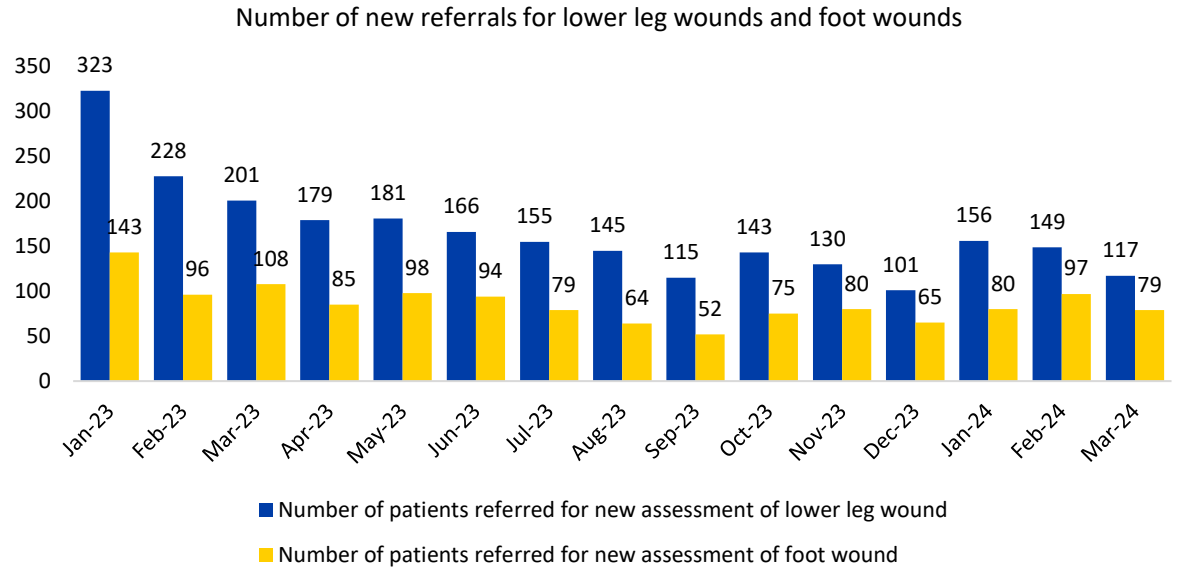


Figure 2 Number of new referrals received per month

Although the total number of patients on the caseload for lower limb wounds (**Figure 1**) increased, the monthly number of new referrals for both lower leg wounds and foot wounds declined over time (**Figure 2**). The reason behind the continuous decline remains uncertain[7]. It is important to note that new assessment forms were introduced in January 2023, resulting in all existing and new patients on the caseload undergoing a new assessment. This may have been a factor that influenced the rates of referrals although we cannot specify how and to what extent.

[7] Postscript: Cornwall confirmed that 'the reason behind the continuous decline in new referrals may be attributed to a reduction in inappropriate referrals, clearer patient pathways and self-management resources. Additionally, the training provided by the tissue viability team to other providers enabled them to have the skills and competence to manage these patients without requiring our specialist input.'

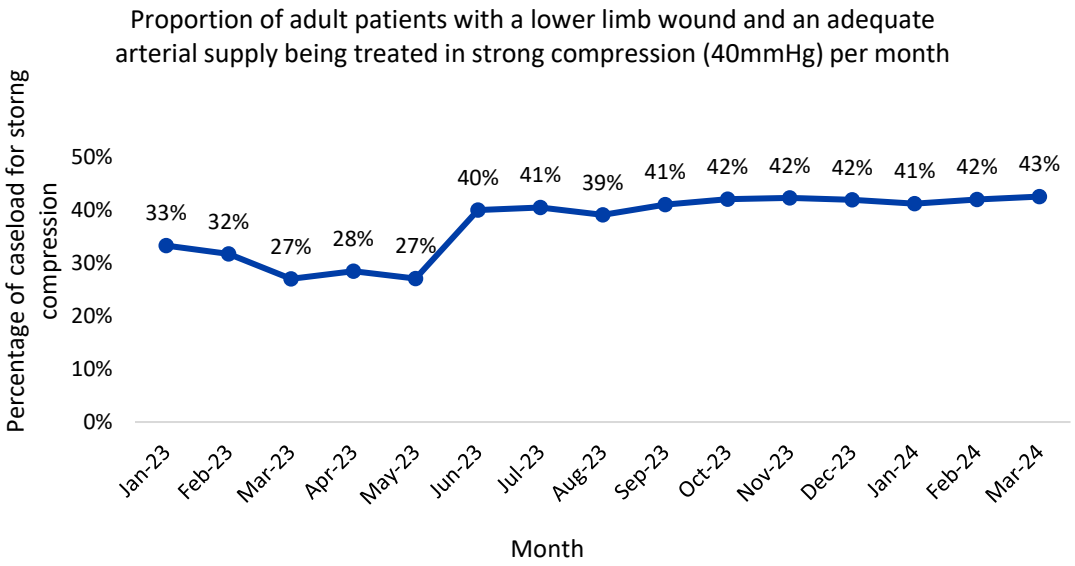


Figure 3 Proportion of adult patients with a lower limb wound and an adequate arterial supply, where no aetiology other than venous insufficiency is suspected, being treated in strong compression (40mmHg) per month

By the end of March 2024, a peak of 479 patients were identified as suitable for strong compression with 204 (43%) of them being treated in strong compression. From June 2023 to March 2024, the proportion of patients receiving strong compression treatment remained relatively stable, ranging from 39% to 43%. The percentage increase observed from May 2023 to June 2023 resulted from a change in reporting practices. Initially, Cornwall reported only patients assessed within the month. However, starting from June 2023, they began reporting all patients on compression treatment (as mentioned in technical report 5).

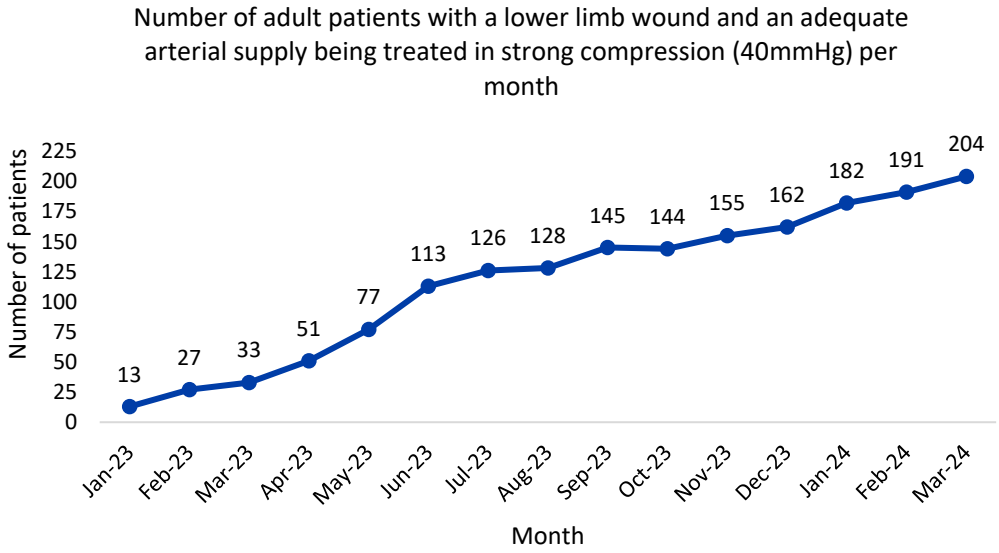


Figure 4 Number of adult patients with a lower limb wound and an adequate arterial supply, where no aetiology other than venous insufficiency is suspected, being treated in strong compression (40mmHg) per month

Figure 4 represents the cumulative number of patients receiving strong compression throughout the data capture period, indicating an increase of patients in strong compression treatment even as the proportion remains consistent. It is important to note that Cornwall may have reported a combination of mild and strong compression per patient within a month. This is a limitation to assessing the specific impact of the implementation of strong compression on patients' healing rates during the evaluation period, as double counting some patients makes it difficult to isolate the effect of strong compression on healing.

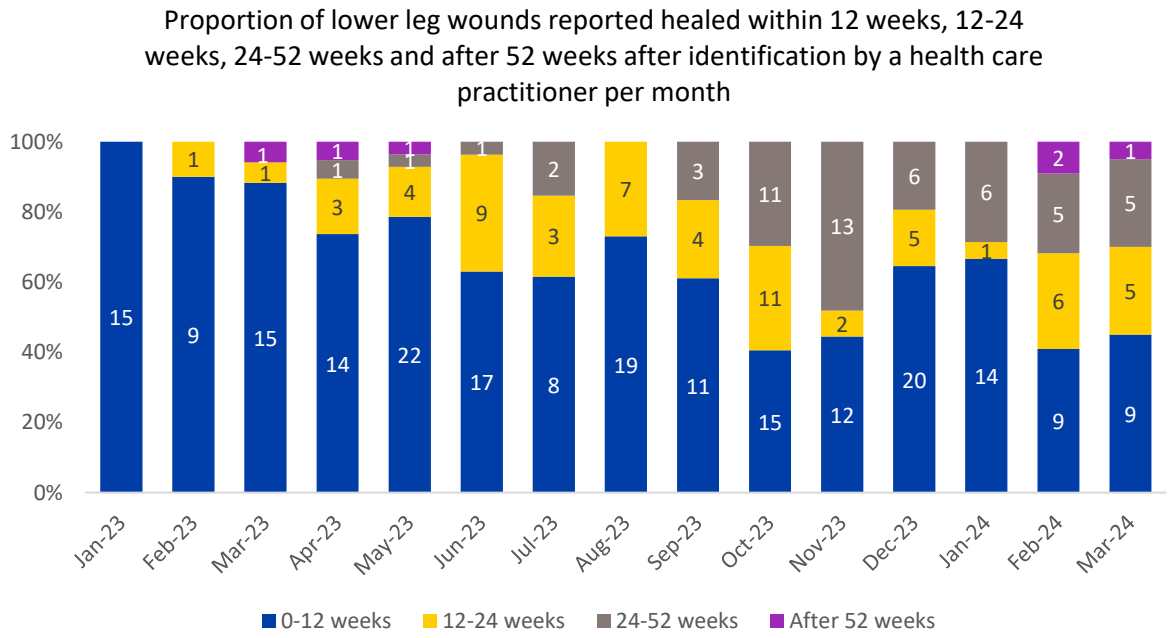


Figure 5 Proportion of lower leg wounds reported healed within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks after identification by a health care practitioner per month

From January 2023 to March 2024, 316 wounds were recorded as healed, of which 209 healed within 12 weeks, representing 66% of the healed cohort with 62 (20%) healed between 12 to 24 weeks, 54 (17%) healed between 24-52 weeks and 6 (2%) healed after 52 weeks. As shown in **Figure 5** during the reporting period, a trend indicating a decrease in the proportion of lower leg wounds that healed within 12 weeks and an increase of wounds healed between 12 to 52 weeks (yellow and grey) was observed. However, when considering other relevant metrics, the proportion of patients receiving strong compression treatment remained stable, even as the caseload increased, rather than decreasing. It is important to re-iterate that, as identified in qualitative findings, wound healing is affected by a range of factors related to patients' health and lifestyle, which may explain the variation in healing rates shown here.

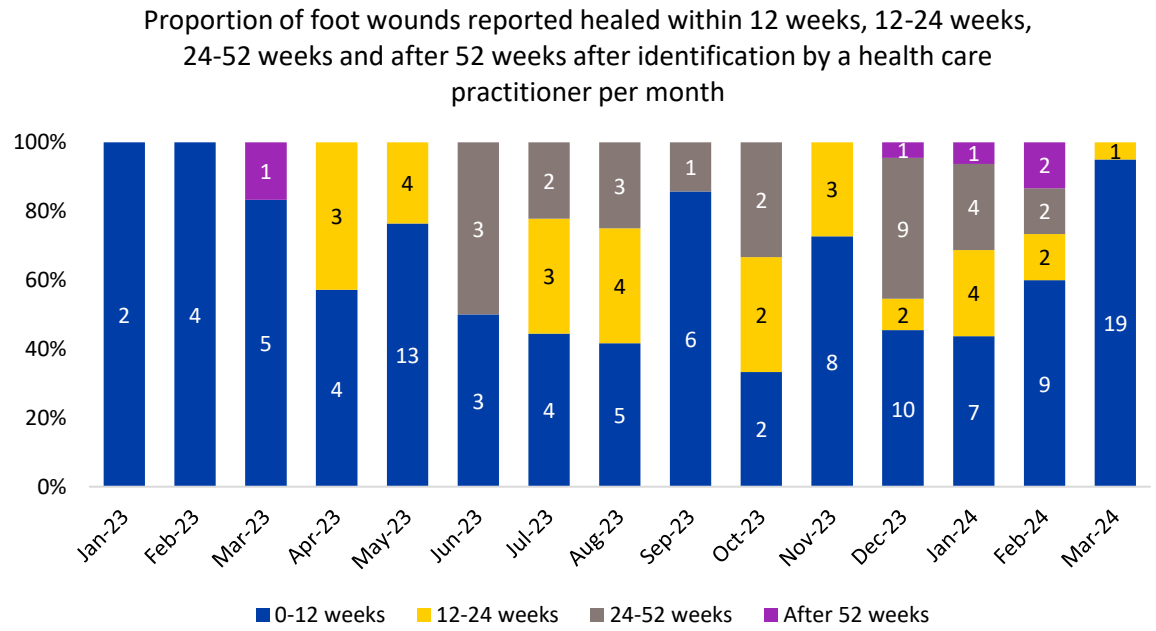


Figure 6 Proportion of foot wounds reported healed within 12 weeks, 12-24 weeks, 24-52 weeks, after 52 weeks after identification by a health care practitioner per month

In terms of foot wounds, as shown in **Figure 6**, 158 foot wounds were recorded as healed during the data capture period with 101 (64%) healed within 12 weeks, 28 (18%) healed between 12-24 weeks, 26 (16%) healed within 24-52 weeks and 5 (3%) healed after 52 weeks. Wounds healed between 12-52 weeks gradually increased, and patients healed within 12 weeks gradually decreased until February 2024, with a significant increase in March 2024.

6.2. Findings from staff surveys

Cornwall staff returned 24 surveys (from a distribution of 263 surveys, a 9% 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

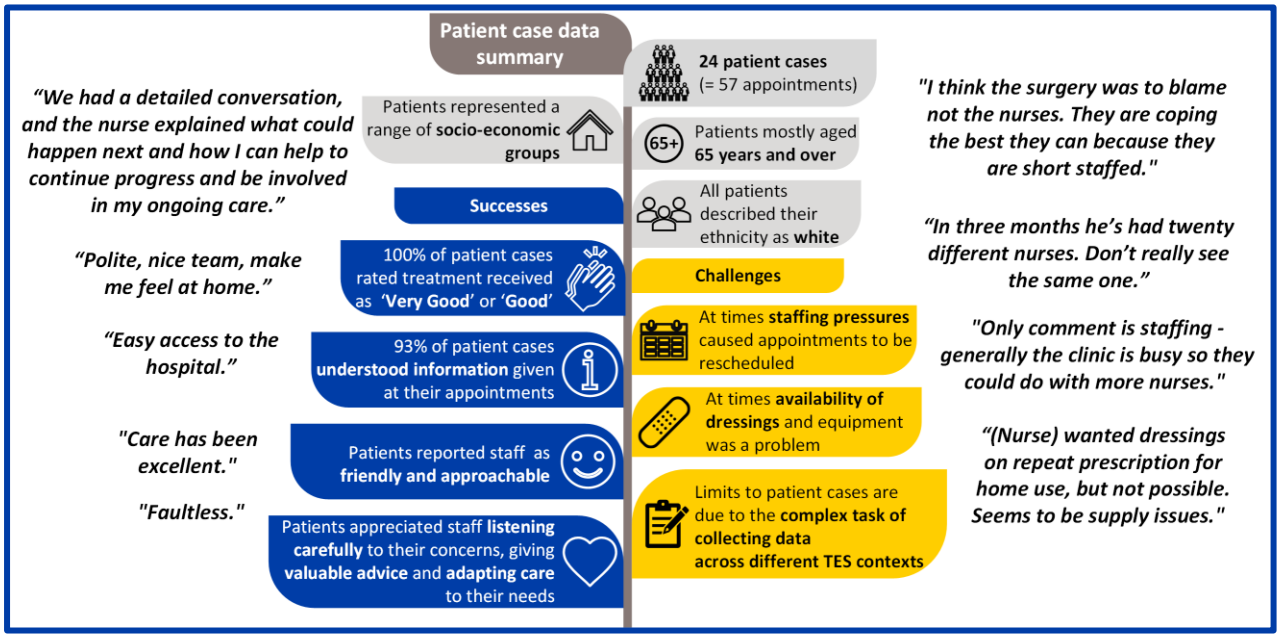
- Limited or reduced workforce capacity was the most reported barrier to the implementation of the NWCSP LLRs.
- A small proportion of patients do not engage well with self-care mainly due to their intolerance of compression treatment.
- The complex nature of wound management, often involving several 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

Cornwall provided five patient cases. Cases represented a range of ages from 56-64 years to 75 years and over, were predominantly female and were being treated for venous leg wounds (4) or mixed venous and arterial (1). Patients resided in areas of higher deprivation (IMD 1-2 and 3-4). Cornwall patient cases reported varying times within which they first sought help for their wound, one patient sought help within 48 hours, two within a week and one within a couple of weeks (there was no response to this question for one of the cases). In terms of outcomes reported by the end of data collection, four of the patient cases were continuing with professional care and one self-rated as

healing well/nearly healed. **Figure 7** below shows an overview of findings from patient cases across all TESs (programme level).

Figure 7 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 group findings

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.

Cornwall staff were enthusiastic about the NWCSP LLRs and the benefits for patients,

> *"We have the results to show that the actual initiative does work. People want to do it."* Cornwall interview 3

Staff also discussed several of the challenges outlined in Box . In terms of systems challenges, staff explained that there were some barriers to engaging the wider system, especially primary care and care homes,

> *"Because I think we've got something like 60 plus care homes, plus 57 GP surgeries. Literally two people, it's just impossible for them to go out and train every single one. What we want to try and do is bring the people to us, but it's that engagement that's been a little bit tricky".* Cornwall focus group

In terms of technology and data, staff described complexities relating to collecting metrics (e.g. issues such as interoperability) and a lack of clarity around the definition of terms (e.g. full care),

> *"It's a slog to get the data, input the data, make sure the team are actually inputting them… and the data is speaking to Rio and vice versa. Interoperability is just a massive, a massive issue."* Cornwall small focus group

> *"…we have spent an awful lot of time changing forms, trying to pick up metrics that actually don't hold an awful lot of meaning. There's been a recent change, I was on a meeting this morning…which was talking about how we will record patients who are having a full care. We've asked…what's full care? No one can quantify it. If you can't quantify it, we can't quantify it. We need to spend time looking after patients, not chasing data that's not going to be relevant."* Cornwall interview 3

Staff also explained the challenges that they had experienced with the implementation of WMDS, due to staffing pressures and resources shortages,

> *"So (name of company providing WMDS) came down and did some training, the team all set up, and then for whatever reason, several members of the team went off ill… some on leave… It was just life really. [The team] was then having to pick up extra work just to try and fight fire with fire."* Cornwall small focus group

> *"What I'm very conscious of, and I'm supposed to worry about this, was that we're in a financial recovery situation as a trust and a system really. What I wouldn't want to do is build a business case, essentially spending thousands of pounds on a system that doesn't necessarily do everything that we need it to do…"* Cornwall small focus group

For Cornwall, patient factors also related to region-specific challenges including a mix of urban areas with remote, rural, and coastal areas with pockets of high deprivation,

> *"We have quite a diverse geography really. We have some cultural high points of cities…then we have a lot of rurality as well where there isn't any provision at all, no bus links, no supportive functions at all for people. Even where we do have bus links, they're very poor and infrequent. To rely on people being able to attend appointments is very, very difficult." Cornwall interview 3*

6.5. Findings from the implementation tracker

A review of the implementation tracker across the three time periods (September-November 2023) revealed the following progress against the defined milestones. This has been supplemented with information from February 2024's TWC project updates.

Table 4 Implementation progress against defined milestones

Focus	Status update from implementation tracker	Status update from TWC project update February 24
Delivery of immediate and necessary care		Standard Operating Procedure (SOP) live, implementation plan agreed. Audit needed on most needed stock/stock levels.
Staff training to enable delivery of immediate and necessary care	Monitoring training on a monthly basis. Challenges with staff sickness. Difficulties in accessing HEE data and monitoring revised. Extra one-day refresher course added.	Meetings scheduled with key representatives to explore input from wider employees in the system.
Development of a business case for a new and dedicated service	A survey and three consultation workshops held to gather staff views on what a new and dedicated service should look like. Significant work involved with no guarantee of funding due to Trust financial status. Initial planning involved the mapping of current countywide CFT workforce provision. Discussions to continue on localised demand and capacity modelling. Involvement of estates to identify suitable locations.	Temporarily paused work on the new model due to current financial recovery status. Associated risk to the ongoing care service and further changes to service delivery.
Pilot of WMDS		Pilot with WMDS company (1) terminated and phones returned. Met with WMDS company (2) to explore their offering for WMDS, secured grant funding, however unable to pursue due to extra costs involved. Currently exploring another option. Review of Lessons Learnt Log from WMDS company (1) to identify what is required from a WMDS System ongoing.
Recruitment of patient leader		Ongoing

Data quality		Problem solving with Health Innovation South West to undertake sampling, auditing and review of data quality. Engaged with RiO team to ensure wound management clinic can input data into the system.

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
Version 1 October 2024	Circulated to TES for comment.		
Version 2 November 2024	Live	Final amendments completed.	Philippa Darnton

Appendix 1 Commentary on critical metrics and data points collated by Cornwall

Table 5 Commentary on critical metrics and data collection points collated by Cornwall

Cornwall	In scope data points collated by March 24: 12	In scope data points not collated by March 24: 4
Metrics collated by patient or wound	Metrics TWC001A-04B report by patients. Other metrics report by wounds.	
Biggest challenge	Challenges related to data quality in defining full care and assessment from HIN meant Cornwall were unable to report on these metrics.	
Key points to note	Caseload: All lower limb and foot wounds on caseload across Cornwall Partnership NHS Foundation Trust. • Lower limb wound caseload within community services (TWC001A) was reported from January 2023, since the programme launch. The caseload had significantly increased due to the integration of data from a newly created form within their system (RiO). As a result, both new patients and existing ones were being added to the caseload. In October 2023, this was addressed by the TES team and data cleansing related to healed patients was due to happen although this relied on members of staff to actively mark patients as healed on their IT system (which was not completed in some cases). This led to inflated caseload numbers. The numbers continued to rise each month in the aggregated dashboard (as of March 2024, number of patients with a lower limb wound on the caseload with community services stands at 2019). As of October 2023, date of death was pulled into the extract so they can exclude any deceased patients from caseload. • As of September 2023, the TES was unable to report on lower limb wound caseload within primary care (TWC001B) as this required primary care data which was unable to be accessed through the variety of different systems within different GP practices. • The foot wound referrals (TWC002A) did not increase in line with the caseload numbers (as of January 2023, 143-foot referrals compared to 79 in March 2024). This was explained by the strict criteria operated by podiatry services due to commissioning and capacity demand. • Similarly, as with foot wound referrals, lower limb referrals (TWC002B) did not match the increase in caseload numbers (as of January 2023, 323 lower limb referrals compared to 117 lower limb referrals in March 2023,). The TES expressed uncertainty about the decline in numbers but assured that they are accurate. Starting in January 2023, new forms were introduced for lower limb referrals, which means that patients already on the caseload	

	who would undergo a new assessment after that date would be reported as a new referral. • The TES was unable to capture full assessment and care to report on TWC003 and TWC004 throughout the reporting period because they were unable to define the term of full assessment and care. It was suggested that it could be assumed that those receiving strong compression also received full assessment. • In March 2023, the TES was originally reporting lower leg wounds treated with strong compression (TWC010) only on those assessed within the month reported. After a discussion with the TWC Central Team, this was changed to report all patients in compression as at the end of the month. Between January and March 2024, the average percentage of strong compression was 42%. The support from immediate and necessary care, along with education and training, contributed to the increase in this percentage.