

The Transforming Wound Care Programme

Test and Evaluation Site case report Norfolk and Waveney ICS – East Coast Community Care and Norfolk Community Health and Care





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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.

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TES Executive Summary

Norfolk and Waveney Integrated Care Board (ICB) project managed and co-ordinated the delivery of the Transforming Wound Care (TWC) programme with two community providers, East Coast Community Healthcare (ECCH) and Norfolk Community Health and Care (NCH&C). ECCH provides lower limb care for East Place and Waveney. NCH&C provides lower limb care to Central and West Norfolk. The project team comprised ICB representatives including the head of community commissioning (ICB), project manager, business intelligence manager, system integration, pathway redesign manager; and representatives from both providers which included tissue viability nurses, service leads, clinical quality director, professional clinical lead and digital programme lead and clinical safety officer.

Norfolk and Waveney ICB joined the TWC programme in September 2022 as one of eight Test and Evaluation Sites (TESs) recruited by the programme. The TES launched a transformation of their wound care pathways in January 2023 with the objective of delivering the National Wound Care Strategy Programme (NWCSP) Lower Limb Recommendations (LLRs) through dedicated services. They have improved their training and education programme for clinical staff. Closer cooperation between providers has benefited the service to patients.

At the end of the evaluation data collection period (March 2024), Norfolk and Waveney ICB reported implementation of the NWCSP LLRs via an early intervention pathway for all lower limb wound patients in primary care (including housebound patients). Norfolk & Waveney fully implemented two new clinical wound care pathways: the early intervention pathway to support primary care, and the lower limb pathway to support community care. Provider ECCH introduced a learning coach role via the tissue viability nurses to ensure learning is reflected in practice. Provider NCH&C extended the wound care course for all clinicians from two days to four days (incorporating the NWCSP training modules). An early intervention training video was completed as it was identified that some staff struggle to attend face to face learning. There was development of additional SystmOne templates to improve reporting metrics on wound care.

At the end of the evaluation data collection period (March 2024), the remaining areas of focus are wound management digital systems (WMDS) including integration issues for both providers. One key aspect was the automation of uploading images. Progress has been made by one of the WMDS providers, however, this required further testing, which took a protracted time to find a solution (12 months). NCH&C will keep their contract under review as manual duplication of data collection continues to take place. Following its six-month pilot of a WMDS and conducting a cost benefit analysis, ECCH have not at this point renewed their contract. There were specific technical issues that remained unresolved. These required better compatibility with ECCH reporting systems, the correct identification of wound tissue types and an app for use on all the Trust work phones.

Both providers contributed metrics data to the programme evaluation in relation to the number of patients with a lower limb wound on their caseloads, 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 September 2022 to March 2024 from the monthly wound care aggregated dashboard and the TES metrics returns. The TES also contributed qualitative data in the form of staff surveys, patient cases, a focus group, and implementation trackers.



Analysis of metrics data from NCH&C and ECCH indicated:

For ECCH

- ECCH, showed a gradual rise in the number of patients with wounds on the caseload from 357 in September 2022 to 417 in March 2024.
- From September 2022 till March 2024 ECCH received 1,181 new patients with lower leg wounds and provided 486 full assessments, covering 41% of new patients.
- For ECCH, a total of 589 patients were healed, with 60% of them healed within 12 weeks, followed by 22% healed between 12 to 24 weeks, 12% healed between 24 to 52 week and 6% healed after 52 weeks.

For NCH&C

- NCH&C's caseload for patients with lower limb wounds increased from 1,171 in October 2023 to 1,272 by March 2024; this caseload significantly increased within a four-month period (April to July 2023) due to the provider providing retrospective data for a larger cohort of patients than covered by the provider's TWC programme pilot sites.
- NCH&C received a total of 3,654 new patients with lower leg wounds from April 2023 to March 2024 and provided a total of 197 full assessments, covering 5% of the total new patients with lower leg wounds.
- NCH&C received a total of 460 new patients for foot wounds and provided a total of 38 full assessments, covering 8% of the new patients. This low proportion might be driven by the inclusion of other kinds of wounds in the cohort, such as diabetic foot wounds.
- NCH&C provided 344 instances of full care to new patients with lower leg wounds, covering 9% of new referrals with lower leg wounds. 54 new patients received full care for foot wounds, covering 11% of new patients with foot wounds.
- During the data capture period, NCH&C provided strong compression therapy to a total of 37 patients from a cohort of 45 patients identified as suitable for strong compression.
- For NCH&C, 84 patients were reported as healed between April 2023 and March 2024 with 82% of them healed within 12 weeks followed by 15% reported healed between 12 to 24 weeks. The TES reported challenges in collating this metric due to the complexity of reporting multiple wounds on a single leg and logging them in their system (as reported in national metrics meetings).

Qualitative data supplied by both providers (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 across the TESs 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 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 Norfolk and Waveney Integrated Care Board (ICB), one of eight Test and Evaluation Sites (TESs) captured as part of the Transforming Wound Care (TWC) programme. Along with the other TESs, both East Coast Community Healthcare (ECCH) and Norfolk Community Health and Care both (NCH&C) 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. These providers were 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 NCH&C and ECCH was used to address evaluation questions at a programme level rather than to evaluate and fully describe activities undertaken within the Norfolk and Waveney ICB. 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 the Norfolk and Waveney 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 both providers NCH&C and ECCH are included. Qualitative data supplied by both providers (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 Norfolk and Waveney ICB 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 reports¹.

2. Case summary

Norfolk and Waveney Integrated Care Board (ICB) collaborated on the delivery of the TWC programme with two community providers, ECCH and NCH&C. ECCH provides lower limb care for East place and Waveney. NCH&C provides lower limb care to Central and West Norfolk. The project team comprised ICB representatives such as: head of community commissioning (ICB), project manager, business intelligence manager, system integration, pathway redesign manager; and representatives from both providers which included tissue viability nurses, service leads, clinical quality director, professional clinical lead and digital programme lead and clinical safety officer.

Norfolk and Waveney ICB joined the TWC programme in September 2022 and launched a transformation of their wound care pathways in January 2023 with the objective of delivering the NWCSP LLRs through dedicated services. They continued to contribute data until March 2024.

At the end of the evaluation data collection period (March 2024), the Norfolk and Waveney ICB reported implementation of the NWCSP LLRs via an early intervention pathway for all lower limb wound patients in primary care. Norfolk & Waveney fully implemented two new clinical wound care pathways, of which one is the early intervention pathway to support primary care and the lower limb pathway to support community care. Staff received updated training on new pathways and processes. Provider ECCH introduced a learning coach role via the tissue viability nurses to ensure learning is reflected in practice. Provider NCH&C extended the wound care course for all clinicians from two days to four days (incorporating the NWCSP training modules). An early intervention training video was completed. There was development of additional SystmOne templates to improve reporting metrics on wound care.

3. Local context for lower limb wound care

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

3.1. Norfolk and Waveney locality description

Norfolk is a large county on the East coast of England with a significant coastline and large rural areas. It has areas of high deprivation. The two areas of highest deprivation covered by provider NCH&C are East Norwich and Kings Lynn. This includes two GP practices in East Norwich and one in Kings Lynn.

¹Technical reports:

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



Provider ECCH covers many rural coastal areas with a high level of deprivation particularly in the towns such as Great Yarmouth and Lowestoft. Public services are limited in rural areas and many individuals are also in the least or low deprived categories. This provider covers the whole of its area in the TES.

Subsequently, NCH&C have rolled out the service beyond the pilot sites to include West Norfolk and other areas within Norwich. Therefore, metrics data was adjusted to include this data.

3.2. Local health system infrastructure

Norfolk and Waveney TES focussed on four of its primary care networks (PCNs). The community providers were operating separate pathways for lower limb wounds, podiatry and diabetic pathways. This led to staff working in isolation of specialist services, and a lack of integration between podiatry pathways and community nursing pathways.

Population factors identified as relevant to wound services (other than deprivation) include:

- Difficulties in attending a lower limb clinic due to being housebound or limited public transport in rural areas.
- Some patients needing regular appointments because of inability to self-care to prevent a chronic wound developing or inability to apply a dressing or hosiery.
- People with poor literacy.
- Poor housing and living conditions impacting on delivery of care in the home. Patients in this group are also likely to experience longer healing times and have a higher likelihood of recurrence due to their living conditions and lifestyle.

3.3. TES objectives and service delivery and implementation plan

The priority for Norfolk and Waveney were those aged over 70 who have been housebound for longer than six months, living in areas of high deprivation and unable to access the specialist leg ulcer (lower limb wounds) clinics. The objectives of Norfolk and Waveney across both community providers were:

- To improve the clinical pathway for lower limb and leg ulcer wounds, implementing the NWCSP recommendations.
- To create an early intervention pathway for use in primary care.
- To improve lower limb wound care by upskilling community staff.
- To improve the use of data through digital technology and data collection for lower limb wound care.

An early intervention pathway was a priority to manage variation in practice in primary care and provide an opportunity for staff to receive wound care education. In addition, a clinical leg ulcer group was established in January 2022 to combine the two provider pathways.

Use of digital technology was another key objective. There was limited use of wound care digital management across providers. Improvements were sought to address this with a focus on integration with local electronic record systems (e.g. using SystmOne). ECCH piloted a new Wound Management Digital System (WMDS) for six months, using nine licenses after previously using another WMDS in the podiatry service. NCH&C used only one WMDS.



At the time of starting this project neither community provider was meeting the Commissioning for Quality and Innovation (CQUIN) target for lower limb wounds, currently 28 days. The recommended NWCSP LLRs timeline to full assessment is 14 days.

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 April 23 and March 2024 from the monthly wound care aggregated dashboard and the TES metrics returns.

Each provider has submitted the data monthly separately based on their own development and progress of NWSCP implementation. 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.

Metric	NCH&C	ECCH
Lower limb wound patients in community services (TWC001A)	Yes, the data reported the caseload of all types of wounds.	Yes
Foot wound referrals for new assessment (TWC002A)	Yes	Yes
Lower leg wound referrals for new assessment (TWC002B)	Yes, all types of foot wounds reported in this metrics such as diabetic foot.	Yes
Foot wounds patients receiving full assessment (TWC003A)	Yes	Unable to provide.
Lower leg wound patients receiving full assessment (TWC003B)	Yes	Yes
Foot wounds receiving full care ² (TWC004A)	Yes	Unable to provide.

Table 1 Norfolk and Waveney ICB metrics reporting from both providers



Lower leg wounds receiving full care ² (TWC004B)	Yes	Unable to provide.
Lower leg wounds treated with strong compression (TWC010)	Yes	Yes
Wounds healed within 12 weeks, 12-24 week, 24-52 weeks and after 52 weeks for lower leg wounds (TWC011A-D) and for foot wounds (TWC011E-H)	Yes, reported by patients, Foot wounds and lower leg wounds are reported together, Data is not representative, reminded by the TES.	Yes, lower leg wounds only ³ .

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.

Data source	TES contribution	Adaptation
Survey	Surveys were sent to 30 clinical staff and 15 data analysts.	None
Patient cases	Four: two from each provider.	None
Staff interviews or focus groups	One focus group (ECCH) Three interviews (NCH&C).	None
Implementation tracker	This was set up but not utilised.	Provided a detailed evaluation report that informed this data activity.

Table 2 Norfolk and Waveney contribution, and adaptations, by qualitative data source

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.

² Due to difficulties relating to definition it was agreed that metrics related to 'full care' could be excluded, although patients were provided with full care.

³ For ECCH, any foot wounds dealt with in the service were minimal so typically referred out or dealt with by podiatry, as quoted from the response through query feedback reported.



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 12 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

The following section presents a high-level view of metrics data that Norfolk and Waveney providers, NCH&C and ECCH, contributed to the programme evaluation in a series of graphs depicting findings at the TES level.

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. ECCH identified 15 (out of 17, two out of scope) data collection points within the scope of their TES, and nine out of the agreed data collection points were reported by March 2024, one unable to provide and five remained unreported. NCH&C identified 16 (out of 17) data collection points⁴ 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 both providers are provided in Appendices 1 and 2.

6.1. Findings from metrics data

Norfolk and Waveney provided data from two providers NCH&C and ECCH which are reported separately here.



⁴ Reporting here is based on six critical metrics with 17 data collection points only.



6.1.1. NCH&C metrics



Figure 1 Number of patients with a lower limb wound on the caseload per month (NHC&C)

Figure 1 shows a consistent increase in the total number of patients with lower limb wounds on the caseload until January 2024 which is followed by a modest decrease to March 2024. Notably, the caseload shows a significant increase, (more than doubling) within a four-month period (from April to July 2023). This is due to the provider manually pulling the data retrospectively for a larger cohort than that covered by the provider's TES pilot sites. Therefore, it is important to note the reported small numbers that follow might not be representative for the larger cohort.







Number of new referrals for lower leg wounds and number of referrals receiving full assessment for lower leg wounds in NCH&C

Number of patients referred for new assessment of lower leg wound

 Number of patients with a lower leg wound receiving full assessment in line with NWCSP lower limb recommendations

Figure 2 Number of new referrals for lower leg wounds and number of referrals receiving full assessment for lower leg wounds in NCH&C

Figure 2 illustrates the number of new referrals for the lower leg wounds and the number of patients receiving full assessment for lower leg wounds from between April 2023 and March 2024. NCH&C received a total of 3,654 new patients for the lower leg wounds and provided a total of 197 full assessment, covering 5% of the total new patients for lower leg wounds. The proportions are significantly lower, likely because referrals for lower leg wounds were reported within the larger cohort covered by NCH&C, rather than limited to the TES pilot cohort. Therefore, it is important to interpret this graph with caution.









Number of patients referred for new assessment of foot wound

Number of patients with a foot wound receiving full assessment in line with NWCSP lower limb recommendations

Figure 3 Number of new referrals for foot wounds and number of referrals receiving full assessment for foot wounds in NCH&C

Figure 3 shows the number of new referrals for the foot wounds (blue bar) and number of patients receiving full assessment for foot wounds (yellow line) from April 2023 to March 2024. NCH&C received a total of 460 new patients for foot wounds and provided a total of 38 full assessments, covering 8% of new patients. The low number of patients receiving full assessment compared to new referrals is observed in the data. This may be due to other foot wounds, such as diabetic foot wounds, being included in the cohort of new referrals with foot wounds, or because NCH&C reported this metric within the larger cohort covered by the provider rather than just the TES pilot cohort.



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Number of new referrals for lower leg wounds and number of referrals receiving full care for lower leg wounds in NCH&C

Figure 4 Number of new referrals for lower leg wounds and number of referrals receiving full care for lower leg wounds in NCH&C



Number of new referrals for foot wounds and number of referrals receiving full care for foot wounds in NCH&C

 Number of patients with a foot wound receiving full care in line with the NWCSP lower limb recommendations

Figure 5 Number of new referrals for foot wounds and number of referrals receiving full assessment for foot wounds in NCH&C

Figure 4 and **Figure 5** represent the number of instances of full care for lower leg wounds and foot wounds compared to the number of new referrals with lower leg wounds and foot wounds from April 2023 to March 2024 in NCH&C. NCH&C has provided 344 instances of full care to the new patients





with lower leg wounds, covering 9% of new referrals with lower leg wounds and 54 instances of full care to new patients with foot wounds, covering 11% of new patients with foot wounds.



Number of patients with a lower limb wound and an adequate alternal supply being treated in strong compression (40mmHg)
 Number of patients identified as suitable for strong compression

Number of patients identified as suitable for strong compression

Figure 6 Number of patients with a lower limb wound and an adequate arterial supply and number of patients being treated in strong compression (400mmHg) in NCH&C

Figure 6 shows patients with a lower limb wound who received strong compression each month from April 2023 to March 2024. The metric is a cumulative measurement where identified, but untreated patients suitable for strong compression can stay on the caseload in the following month until they can be treated. Treated patients also stay on the caseload for monitoring purposes and are removed once they are discharged. By January 2024, the cumulative number of patients identified as suitable for strong compression reached 45 from April 2023, but this number dropped to 17 by the end of March 2024. For patients receiving strong compression treatment, the total number of patients reached a maximum of 7 in October 2023, and this decreased to 4 by March 2024. NCH&C reported these variations were likely influenced by factors such as staff training and data quality concerns such as underreporting. These variations are considered typical for a small cohort and may not accurately reflect the overall implementation of strong compression in NCH&C.



Proportion of patients with lower limb wounds reported healed within 12 weeks, 12-24 weeks, 24-52 weeks, after 52 weeks by district nursing team after identification by a health care practitioner per month in NCH&C



■ 0-12 weeks ■ 12-24 weeks ■ 24-52 weeks ■ After 52 weeks

Figure 7 Proportion of lower limb wounds reported healed within 12 weeks, 12-24 weeks, 24-52 weeks, after 52 weeks by district nursing team after identification by a health care practitioner per month in NCH&C

Figure 7 depicts the proportion of patients recorded as healed within 12 weeks (blue), 12-24 weeks (yellow), 24-52 weeks (grey) and after 52 weeks (purple) each month from April 2023 to March 2024. During this period, a total of 84 patients were reported healed with 82% of these healed within 12 weeks followed by 15% of reported healed between 12 to 24 weeks. For five out of 12 months, the provider reported a 100% healing rate healed within 12 weeks. It is important to note the small numbers for the TWC pilot site which might not be representative for the larger cohort managed by NCH&C. TES reported challenges in collating this metric due to the complexity of reporting multiple wounds on a single leg and logging them in their system (as reported in national metrics meetings).

6.1.2. ECCH metrics

The following presents a high-level view of metrics data that ECCH contributed to the programme evaluation in a series of graphs depicting findings at the TES level.







Figure 8 Number of patients with a lower limb wound currently on the caseload per month (ECCH)

From September 2022 to June 2023, **Figure 8** shows a gradual rise in the number of patients with wounds on the caseload. The number remained consistently high and stable during the remaining reporting period (to March 2024). The increase in June 2023 was due to changes in how referrals for patients with lower limb wounds were reported, resulting in an increase in the number.



Number of new referrals for lower leg wounds and number of referrals receiving full assessment for lower leg wounds in ECCH

Number of patients referred for new assessment of lower leg wound

Number of patients with a lower leg wound receiving full assessment in line with NWCSP lower limb recommendations

Figure 9 Number of new referrals for lower leg wounds and number of referrals receiving full assessment for lower leg wounds in ECCH



Figure 9 above illustrates the monthly new referral numbers for lower leg wounds and number of full assessments conducted in ECCH from September 2022 to March 2024. During this period, ECCH received 1,181 new patients for lower leg wounds and provided 486 full assessments, covering 41% of new patients. The blue bars indicate fluctuations in new referrals for lower limb wounds with its peak in June 2023 with 105 patients referred for new assessment. Similarly to the caseload number, the peak in June 2023 for lower limb wound referrals was likely influenced by changes in the referral pathway for lower limb wounds. For number of full assessments, the proportion of patients receiving full assessment varies from 27% (September 2022) to 67% (July 2023). The proportion shows a significant fluctuation, but the reason remains uncertain. ECCH provided the same number of full care compared to full assessments each month and so it is assumed that once the full assessment is completed, the patients receive full care within the month as a follow-up.



Number of new referrals for foot wounds in ECCH

Number of patients referred for new assessment of foot wound

Figure 10 Number of new referrals for foot wounds in ECCH

Figure 10 illustrates the number of new referrals for foot wounds in ECCH from September 2022 to March 2024. A total of 152 patients were referred to ECCH. However, the TES does not assess or care for foot wounds directly; they have an existing service for non-diabetic feet (other cases are referred to podiatry), which explains the low foot wound numbers.





Figure 11 Proportion of lower limb wounds reported healed within 12 weeks, 12-24 weeks, 24-52 weeks, and after 52 weeks by district nursing team after identification by a health care practitioner per month in ECCH

Figure 11 displays the proportion of patients with lower limb wounds reported healed within 12 weeks, 12-24 weeks, 24-52 weeks and after 52 weeks from September 2022 to March 2024. A total of 589 patients were healed, with 60% of them healed within 12 weeks, followed by 22% healed between 12-24 weeks, 12% healed between 24-52 week, and 6% healed after 52 weeks. Fluctuations were observed in each proportion of healing rate but were treated as normal due to the small number in each time period. Additionally, due to missing data on patients receiving strong compression, it is not possible to draw conclusions solely from the healing rate.

6.2. Findings from staff surveys

Norfolk and Waveney staff returned 9 surveys (from a distribution of 45 surveys, a 20% 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-toface) 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 (WMDS 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

Of the four cases provided by Norfolk and Waveney, there were two male and two female. Two were between 65 and 74 years and two were 75+ years. They were all in less deprived IMD categories (5 and above). All were leg wounds and a mix of venous only or venous and arterial. Patients were followed up between three to five times during the data collection period. These patients were first seen between 24 and 48 hours after they first noticed their wound. One healed during the evaluation period. Patients were all positive about their treatment. **Figure 12** below shows an overview of findings from patient cases across all TESs (programme level).

Figure 12 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 of 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 WMDS 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 WMDS.

Norfolk and Waveney described patient factors hindering healing, for example, some mention of people preventing healing because nurse visits were the highlight of their week. This indicates the importance of social factors in wound healing,

"If they don't heal, we'll be coming in for longer. We do have some people that will scratch or cut the dressings down." Norfolk Interview 3



Norfolk and Waveney staff highlighted strong compression as a particular focus for patient resistance because of discomfort, lack of belief it would work, or dissatisfaction with its appearance,

"You discharge, you get everybody's legs lovely, and creams and everything, and they go off on their merry way, and two weeks later, they're back knocking on the door because they haven't put them on." Norfolk focus group

For Norfolk and Waveney, difficulties were experienced with spreading good practice to other parts of the system, for example GPs or hospital nurses, which can have a detrimental effect on patient care,

"Interviewee: I think as well, if they're going to the doctor surgery and they're not highlighting the need for compression--

Interviewer: They're not reinforcing, so you haven't got that backup and reinforcement from primary care. That is quite a big challenge.

Interviewee: I don't think it's because they don't want to. I just don't think they know about it. They've got so much other stuff to deal with, it's not on their priority list, is it?" Extract from Norfolk interview 1

Norfolk and Waveney staff now feel confident that patients are getting better care, and that this is leading to faster healing, improved outcomes and reduced contacts,

"Everyone's been pretty hot on trying to get something done quickly for the patient. At the end of the day, it helps them, and it helps us not having to see them as often." Norfolk interview 2

Norfolk and Waveney staff expressed issues with wound management digital systems,

"We're using a different system, so a lot of our work and written work and assessment is all done on SystmOne, and they don't communicate. We often end up having to do it twice because we don't have a proper record here on the Healthy.io website." Norfolk 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 Norfolk and Waveney. A review of the implementation tracker across four time periods (monthly between November 2023 and February 2024) revealed the following progress against the defined milestones:

- Low Staffing levels due to staff sickness and long-term vacancies were a problem for both providers, as with other providers operating frequently at Opel 4 (NHS Operational Pressures Escalation Level)
- A key benefit of the programme was an improvement to professional relationships between community providers, community nursing, and business intelligence teams.

6.5.1. Implementation progress

To implement a single clinical pathway for lower limb and leg ulcer wounds, implementing the NWCSP LLRs and an early intervention pathway for use in primary care.



- Two new pathways were agreed: Early Intervention Pathway and the Norfolk and Waverley Lower Limb pathway.
- A key activity to facilitate delivery of the early intervention pathway and improve consistency of clinical practice was the early intervention video (which focuses on recommendations for immediate and necessary care). There were delays with completing the video and getting the pathway underway.
- GP engagement requires further development, and plans are in place to create a slide deck as an engagement and education tool.
- Three pilot clinics were set up in Kings Lynn and in Norwich (NCH&C). The podiatry diabetic service has developed a home visit pathway for all referred housebound patients. Towards the end of the evaluation period more clinic pilots were established.
- ECCH community nurses are completing identification, immediate and necessary care and full assessment (patients either going to clinics or patient being seen at home) with zero days between immediate and necessary care, and full assessment. However, NCH&C do not have current capacity to meet the recommended targets including the Commissioning for Quality and Innovation (CQUIN) framework⁵ target of 28 days.
- There are supply issues with hosiery. In addition, there are complexities around funding arrangements within primary care and the use of the Doppler test. It is understood that complicated budget arrangements impinge on providing recommended wound care.

To improve lower limb wound care by upskilling community staff

• Training lead has implemented two-day training for new starters and additional training for the existing community staff at the two Norwich practices.

To improve the use of data through digital technology and data collection for lower limb wound care

- Further work is required to ensure the WMDS can function effectively, and this is in progress. ECCH will provide an options appraisal on the pilot of an WMDS.
- Future funding for WMDS will require allocation of funds.
- Integrating and automating metric data collection was more complex and time-consuming than anticipated. This highlighted a need for better communications between clinical staff and business intelligence staff on their respective roles and patient pathways.
- To ensure clinicians complete system data templates accurately requires further effort and pocketbook guides used by provider ECCH are indicated as being of potential use for NCH&C too.

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.

⁵ NHS England » Commissioning for Quality and Innovation



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 WMDS.

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

- 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 October 2024	Circulated to TES for comment.		
V2 November 2024	Live	Final amendments completed	Philippa Darnton

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Appendix 1: Commentary on the critical metrics and the data points collated by NCH&C and ECCH

Norfolk and Waveney: ECCH	In scope data points collated by March 2024: 9	In scope data points not collated by March 2024: 6	
Metrics collated by patient or wound	Report by patients.		
Biggest challenge	Very limited capacity within Business Intelligence team for data management and reporting (handled by one staff member working alongside the clinical leads).		
Key points to note	 Working alongside the clinical let Caseload: All patients with a let (population approximately 246,0) Lack of communication with provide commentary for low primary care (TWC001B) at made by primary care team. The peak in lower leg referrat patients being 'held' in prime from GP practices to the Intervention Pathway; it is patient referrals at that time. Although ECCH has an exist foot wounds, ECCH do not report foot would report foot would manage patients with of life care, when onward patients referred to the correferred out via the diabetic. The challenges with TWC receive a full assessment, a issues and the requirement Additionally, there might colleagues in primary care wimmediate necessary care. It was reported in April continued to be impacted (or the high levels of staff sickner planned care due to the exter and the arrangements to mata addition, and as highlighted the skillset to pull data (cappatients referred by December 2000). 	ads). ower limb wound within ECCH 000). h primary care. ECCH unable to wer limb wound caseload within is identification and referral is Is (TWC002B) showed the legacy ary care and now being referred ne newly implemented Early an accurate representation of e. ting service to see non-diabetic assess or care for foot wounds. bunds as feet are not in the leg he project. ECCH refer all feet to tric intervention is beneficial for ptions when the nursing teams nemote podiatry advice i.e. end referral is not possible). Most ommunity are diabetic and are foot pathway. 003B, where patients do not or were not recorded to have are connected to data quality at for additional staff training. t be some resistance from tho are not referring or providing 2023 that performance has on referral to assessment) due to ess, the impact on all community ended ICB Level 2 critical incident anage a vacancy in a key clinic. In a above, only one individual has acity issue). Templates aimed to 2023 however due to staff	

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 capacity and operational pressures this could not be reported on by March 2024 (TWC010). Staff training was reported as a challenge to ensure patients are marked as healed for TWC011 metrics.
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Norfolk and Waveney NCH&C	In scope data points collated by March 2024: 12	In scope data points not collated by March 2024: 4	
Metrics collated by patient or wound	Report by patients.		
Biggest challenge	The implementation of the data collection requirements e.g. template development to report metrics.		
Key points to note	scope data pointsIn scope data points not collated by March 2024: 12collated by March 2024: 12collated by March 2024: 4eport by patients.ne implementation of the data collection requirements e.g. emplate development to report metrics.aseload: Three pilot sites.Low number of referrals (TWC003A) throughout TES reporting period (April 2023-March 2024); however, the TES assured full assessment is for suitable patients that typically happens 14-28 days after referral. Reasons for no assessment included the wound having likely healed, the 		
The aim is for all sites within NC reporting and follow trust-wide poli		ithin NCH&C to use the same vide policy and pathway.	

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