Transforming Wound Care Technical Report 1: Staff survey findings

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This technical report along with accompanying technical reports provides a full account of all data sources for the evaluation of the Transforming Wound Care programme and should be read in conjunction with the full evaluation report of that programme.

Summary

The following report provides the full set of results from the staff survey undertaken as part of the evaluation for the Transforming Wound Care programme. These findings are aggregated across all eight TESs that took part.

Key points

- As part of the evaluation of the Transforming Wound Care (TWC) programme, Staff from all Test and Evaluation Sites (TESs) were invited to complete the survey. 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 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.

1. Introduction

This technical document reports the detailed findings from the staff survey conducted as part of the evaluation of the implementation of the Transforming Wound Care (TWC) programme.

2. Methods

2.1. Development of the survey

The staff survey was developed and designed by Health Innovation Wessex (HIW) in collaboration with the TWC Central Team to ensure reach to all relevant staff at each TES to address the evaluation questions. The survey included the following topics:

- Staff participant characteristics
- Training
- Patients and self-care management
- Impact on clinical pathway or service
- Metrics collection
- Health inequalities
- Support from health innovation network and TWC Central Team
- Environmental sustainability
- Perspectives of implementation process (NoMAD questionnaire[1], refer to **Section 2.1.1** below).

The finalised survey was uploaded to Microsoft Forms by HIW for online distribution only. Survey responses were collected and stored in Microsoft Forms within HIW's secure server.

2.1.1. NoMAD questionnaire

The survey included a normalisation measure development questionnaire (NoMAD)[1] to capture staff perspectives on the implementation of the TWC programme. The NoMAD questionnaire is underpinned by Normalisation Process Theory (NPT)[2] to understand implementation processes from the perspective of staff directly involved in the work of implementing complex interventions and how they become embedded and sustained (normalised) into 'business as usual' practice. Further detail of the NoMAD questionnaire and its interpretation is described in the findings section (**Section 3.10 NoMAD questionnaire**).

2.2. Survey versions

Two versions of the survey were created to target staff with different roles . The first survey targeted those in clinical and management roles. The second survey targeted those solely involved in metrics

[1] Finch TL, Rapley T, Girling M, Mair FS, Murray E, Treweek S, McColl E, Steen IN, May CR. (2013) Improving the normalization of complex interventions: measure development based on normalization process theory (NoMAD): study protocol. Implementation Science. 8:43, https://doi.org/10.1186/1748-5908-8-43.
[2] May, C., & Finch, T. (2009). Implementing, Embedding, and Integrating Practices: An Outline of Normalization Process Theory. Sociology, 43(3), 535-554. https://doi.org/10.1177/0038038509103208

collection and collation. Survey topics were selected based on staff role. The content of each survey is listed in **Table 1** below.

Table 1 Survey topics covered in each version of the staff survey

Survey topic	Clinical and management staff survey	Data analysts survey
1. Staff participant characteristics	Included	Included
2. Training	Included	
3. Patients and self-care management	Included	
4. Impact on clinical pathway or service	Included	
5. Metrics collection	Included	Included
6. Health inequalities	Included	Included
7. Support from health innovation network and TWC Central Team	Included	Included
8. Environmental sustainability	Included	
9. NoMAD questionnaire	Included	Included

Where the survey topics were included in both the clinical and management staff survey and the data analysts survey, the wording of the questions was adapted to suit the role of the staff, but the meaning of the question remained identical. For example, the question related to health inequalities was worded, "*Does your service support any targeted activities to address inequalities for any of the following identified patient groups?*" in the clinical and management staff survey. In the data analysts survey, the equivalent question stated, "*Does your department produce information to highlight health inequalities for any of the following identified patient groups in lower limb wound care services?*".

2.3. Survey distribution

A distribution strategy considered the timing and method of distributing the survey to each TES. As each TES was at different stages of implementation (*e.g.* pre-implementation, pilot phase, fully implemented phase, etc.), the timing of survey distribution was discussed with each TES's local health innovation network programme manager. The distribution of the survey involved a three-step process via email communication:

1. The first step was initiated by HIW evaluation team to each TES's health innovation network programme manager.
2. The second step involved a tailored approach from the health innovation network programme manager to the corresponding TES programme manager.
3. The final step was from TES programme managers to individual staff involved in the lower limb wound care services to invite them to complete the survey appropriate to their roles. The method of distribution at this stage was at the discretion of each TES programme manager to promote survey completion effectively.

To ascertain the response rate, each TES programme manager was asked to provide an estimated number of staff invited to complete the survey. Several reminders were sent during the data collection period to maximise the survey response.

The first survey distribution began mid-December 2023, and the survey link was closed for responses in mid-March 2024.

2.4. Survey analysis

Descriptive analysis of the responses was conducted for closed questions and categorisation for free-text comments. Most of the data analysis and data visualisation was done in Microsoft Excel using pivot tables and charts. Free-text comments obtained from open-ended questions were categorised using NVivo software for coding similar comments into groups. Survey data was aggregated across all sites and not at an individual TES level.

3. Findings

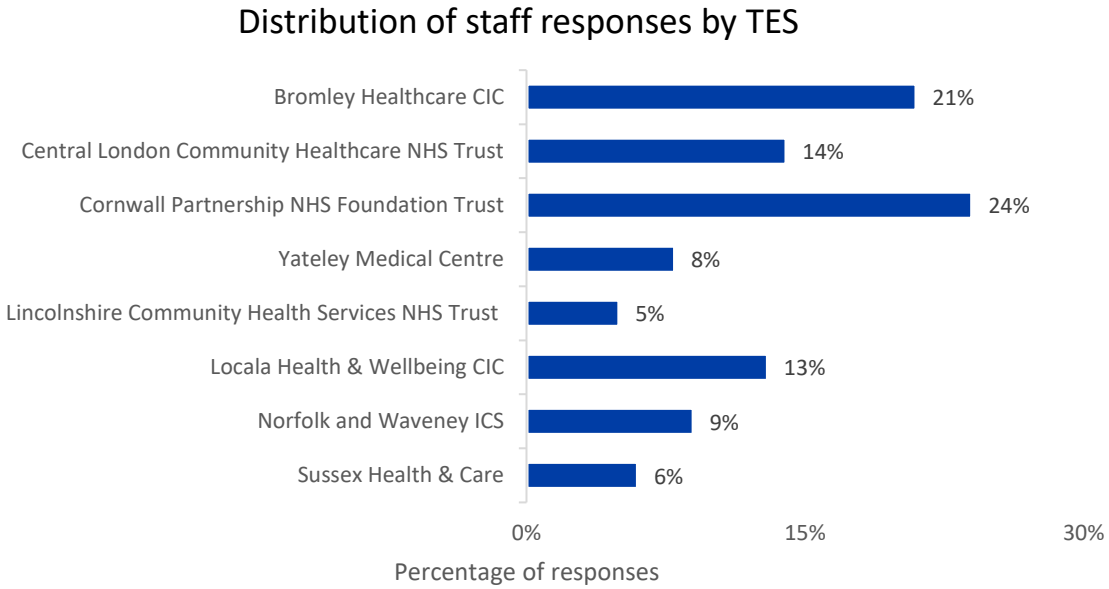
The survey was distributed to 523 staff in total. One hundred survey responses were received: 83 responses from clinical and management staff (17% response rate); and 17 responses from data analysts (40% response rate). The overall response rate across both versions of the survey was 19% (range of 9% -100% per TES). The clinical and management staff survey was not distributed in Sussex Health & Care TES as the TES was in pre-implementation phase at the time of survey data collection. The data analysts survey was not distributed by Cornwall Partnership NHS Foundation Trust TES.

The findings combine staff responses from both versions of the survey. The findings section is divided into the general survey questions and NoMAD questionnaire as set out in **Table 1**.

3.1. Staff participant characteristics

3.1.1. Which TES do you work in?

All staff responded to this question. Staff from all TESs responded to the survey, with some sites more than others. A quarter of responses overall came from Cornwall Partnership NHS Foundation Trust (24%) and a fifth from Bromley Healthcare Community Interest Company (CIC) (21%). The percentage of responses received from other TESs ranged from 6% to 14%. The distribution of the responses is shown in



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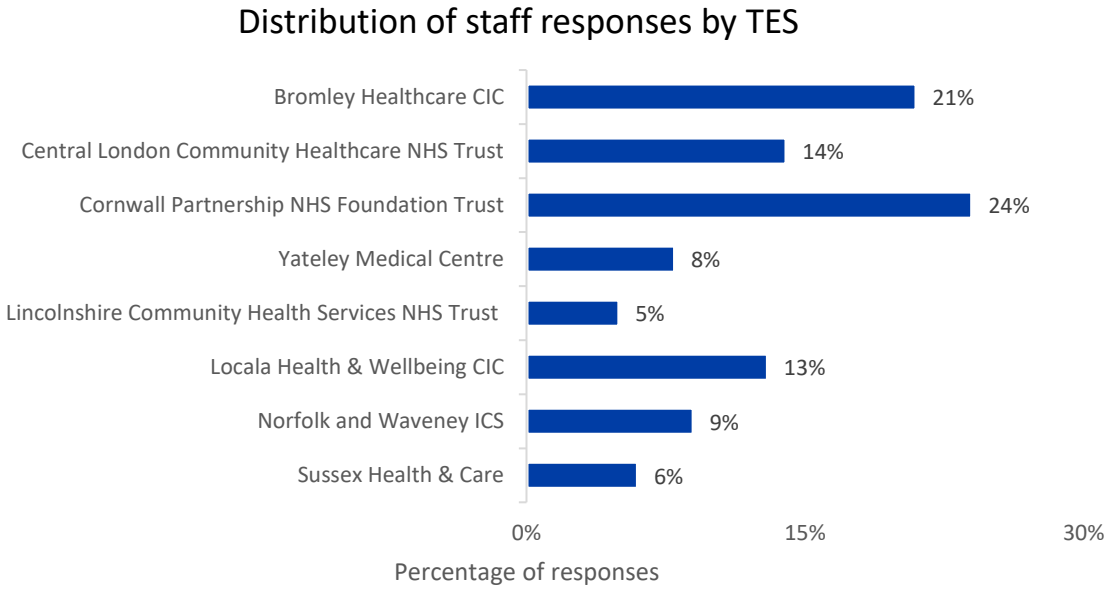


Figure 1 Distribution of staff responses by TES

3.1.2. What is your main job role?

All staff responded to this question. The main job roles of the staff were grouped into the following:

- Clinical nurses and associates (61%)
- Clinical assistants (6%)
- Team leads, matrons and managers (12%)
- Data analysts (17%)
- Podiatrists (4%)

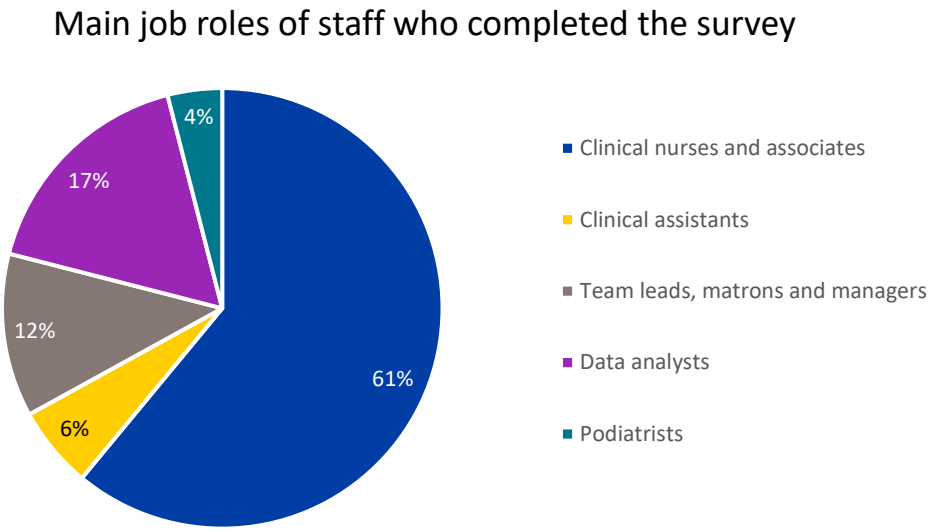


Figure 2 Distribution of staff main job roles

3.1.3. What is your NHS job band (or equivalent)?

All but one staff answered this question. Over half of the staff (65%) indicated band 6 or above (or equivalent) as their NHS job band or equivalent. Nearly a third of the staff (30%) indicated band 6 or equivalent. Nearly a quarter (22%) indicated band 5 (or equivalent).

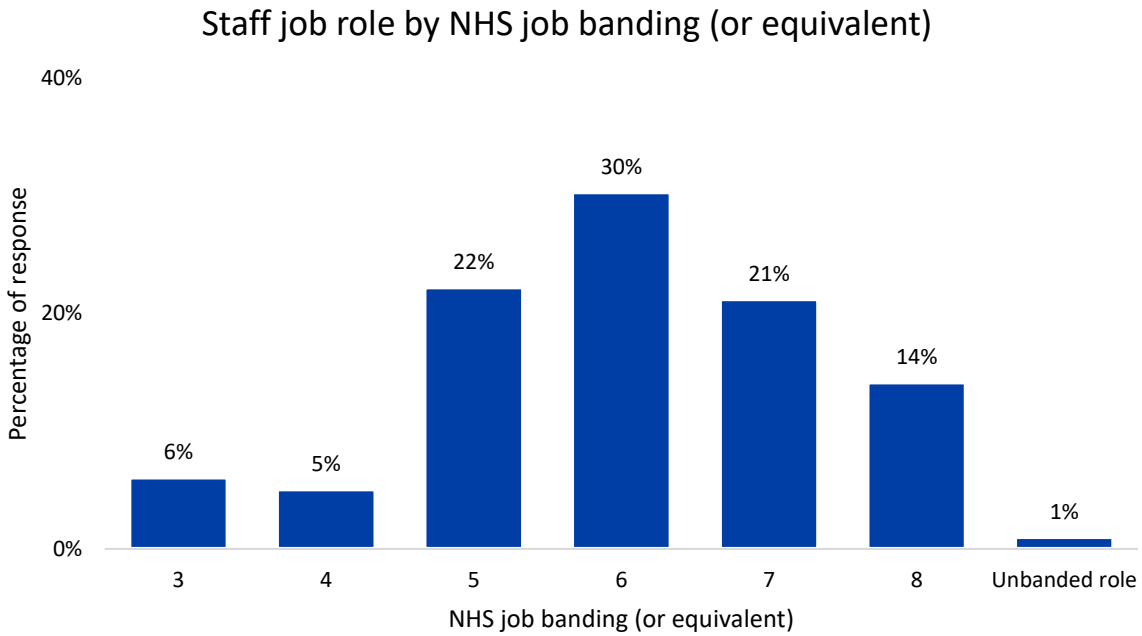


Figure 3 Distribution of staff job roles by NHS band (or equivalent)

3.1.4. How long have you worked in this role?

All staff answered this question. Nearly half of the staff indicated that they have been working in their roles for over five years. Nearly a quarter of the staff indicated that they have been working in their roles for one to two years.

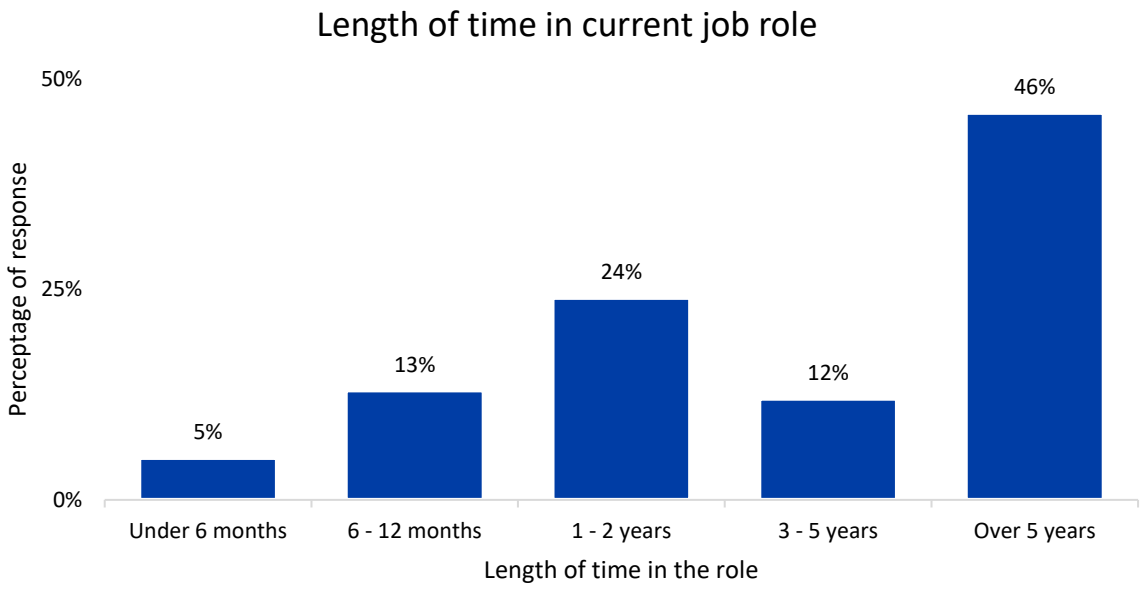


Figure 4 Distribution of length of time staff have been working in their roles

3.1.5. Summary of the participant characteristics

- Staff from all TESs participated in the staff survey.
- Over half of the staff stated that their main job role was clinical nurses or associates (61%).
- Over half of the staff were in NHS banding (or equivalent) of 6 or above (65%).
- Nearly half of the staff (46%) worked over five years in their role.

3.2. Training experience

Survey questions on clinical training as a part of the National Wound Care Strategy Programme (NWCSP) were included only in the clinical and management survey. A total of 83 staff were asked about their training experiences.

As part of the NWCSP initiatives, the NWCSP developed an e-learning training programme called the Wound Care Education for the Health and Care Workforce, underpinned by the Wound Care Core Capabilities Framework for England[3]. The training supported the development of Tier 1[4] and Tier 2[5]

[3] NHS England. About the Wound Care Education for the Health and Care Workforce programme. https://www.e-lfh.org.uk/programmes/wound-care-education-for-the-health-and-care-workforce/. Accessed 17 June 2024.

[4] Tier 1 training builds the capabilities that require a general knowledge and understanding of wound care and the skills which support the provision of that care.

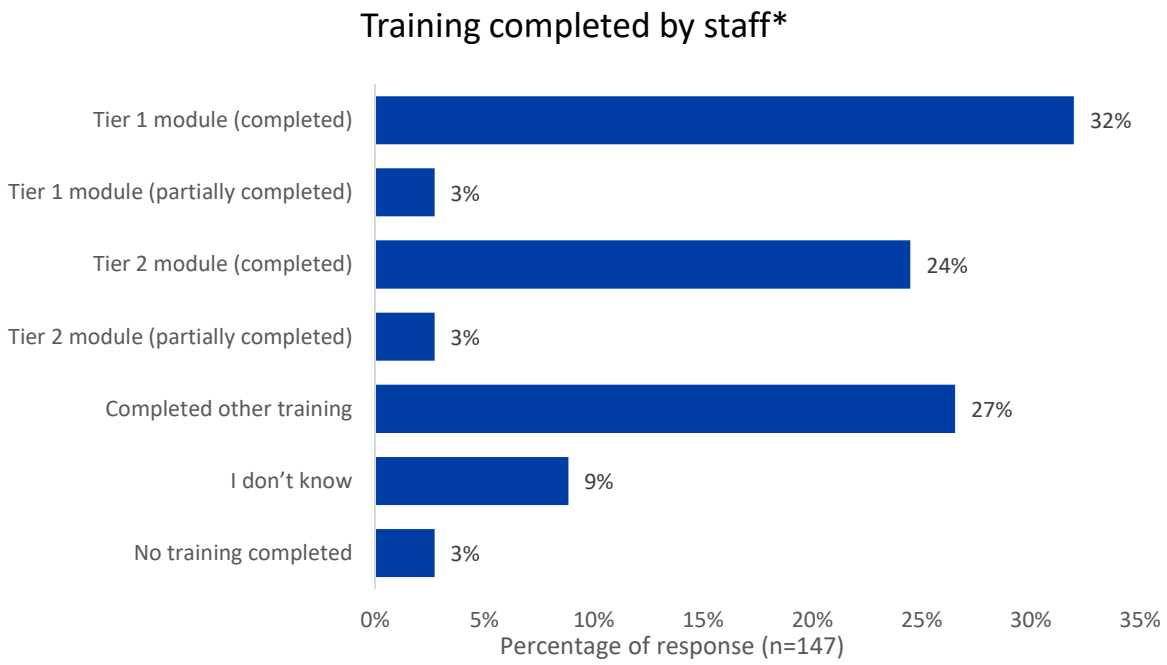
[5] Tier 2 training builds the capabilities that enable the provision of wound care independently and with a degree of critical analysis.

knowledge and skills set out in the framework. This e-learning training programme is accessible to all healthcare staff via NHS England's e-learning for healthcare platform.

Each TES determined their own training content and needs for their staff, in line with the Wound Care Core Capabilities Framework. No set training (e-learning or face-to-face) were directly guided by NWCSP or TWC programme.

3.2.1. What training have you completed in line with the Core Capabilities Framework?

Staff could answer more than one option for this question. A total of 147 responses from 80 staff were received. There were three staff who did not respond to this question.



*Tier 1 and 2 refer to the two e-learning modules from the Wound Care Education for the Health and Care Workforce Programme.

Figure 5 Distribution of training completed by staff

Two thirds of the staff (62%) stated that they completed Tier 1 and/or Tier 2 training (fully or partially) of the Wound Care Education for the Health and Care Workforce programme. A quarter (27%) of responses noted that staff completed training other than the Wound Care Education for the Health and Care Workforce. Of those who noted that they completed other training (sub-group of 39 staff), 25 staff also completed the Wound Care Education for the Health and Care Workforce programme (Tier 1 and/or 2, fully or partially) and 14 staff did not access Wound Care Education for the Health and Care Workforce programme.

A total of 42 staff left comments to describe other trainings they completed which were relevant to their role in lower limb wound care services. The comments were grouped into training content and training providers. The training content included an advanced leg ulcer and limb care course (accredited), compression techniques, management of diabetic foot, Doppler assessment, and general leg ulcer management. These training opportunities were delivered in a variety of providers and formats including the in-house team within a TES's trust or organisation, external training providers

certified in accredited professional development courses, online courses, tissue viability network, university modules, and product representatives from relevant clinical industries.

3.2.2. e-learning modules

Staff were asked whether they have completed an e-learning module as part of the training(s) related to lower limb wound care. E-learning module includes the Wound Care Education for the Health and Care Workforce programme and any in-house online training the staff may have completed as part of their role in lower limb wound care services. A total of 80 responses were collected.

Two thirds of the staff answered yes (66%); of which 33% of staff completed both the Wound Care Education for the Health and Care Workforce programme and in-house e-learning modules (e.g. trust or organisation's own e-learning programme), 15% completed only the Wound Care Education for the Health and Care Workforce programme and 19% completed only their in-house e-learning module.

For the remaining staff, a quarter of the staff (28%) stated that they have not accessed e-learning modules and 6% of the staff were not sure.

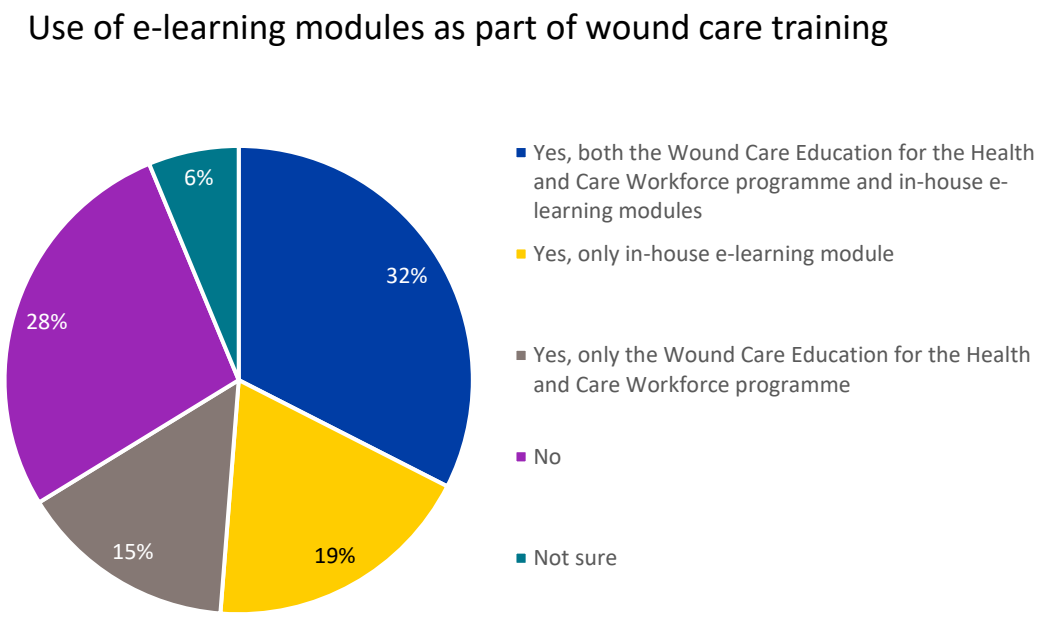


Figure 6 Distribution of staff using e-learning modules as part of their training related to lower limb wound care

The following section describes the responses collected from those who have completed an e-learning module (sub-total of 53 staff).

Staff were asked about the overall e-learning experience; 52 responses were collected. Of those who responded, 25% were very satisfied, 69% were satisfied, and 6% were neither satisfied nor dissatisfied.

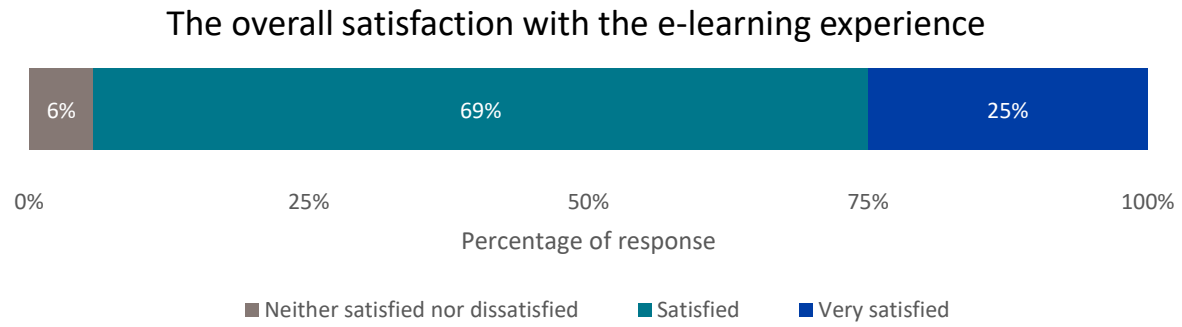


Figure 7 Staff overall satisfaction with the e-learning experience

Fifty-three staff responded to the question about ease of accessing the e-learning modules. Of those 53, 26% noted the access was very easy, 47% noted easy, 21% noted neutral, and 6% noted difficult.

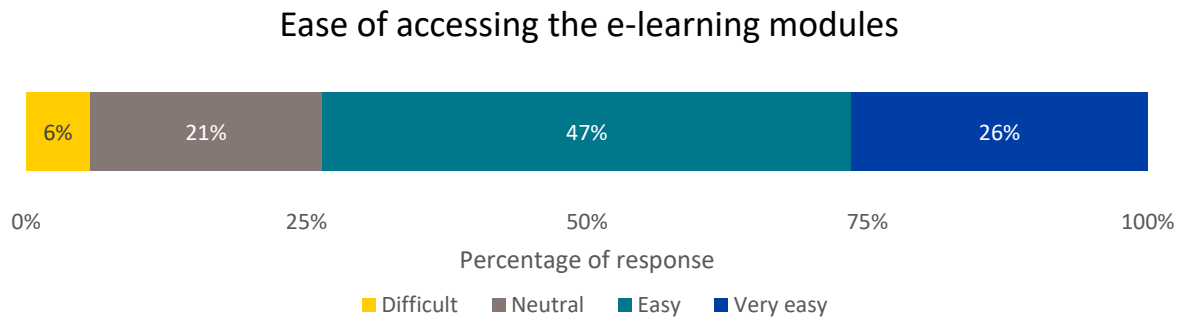


Figure 8 Staff perception of ease of accessing the e-learning modules

A total of 53 staff rated the overall quality of the e-learning and its resources. Of those, 19% stated the e-learning and its resources were excellent, 40% stated very good, 32% stated good, and 9% stated fair.

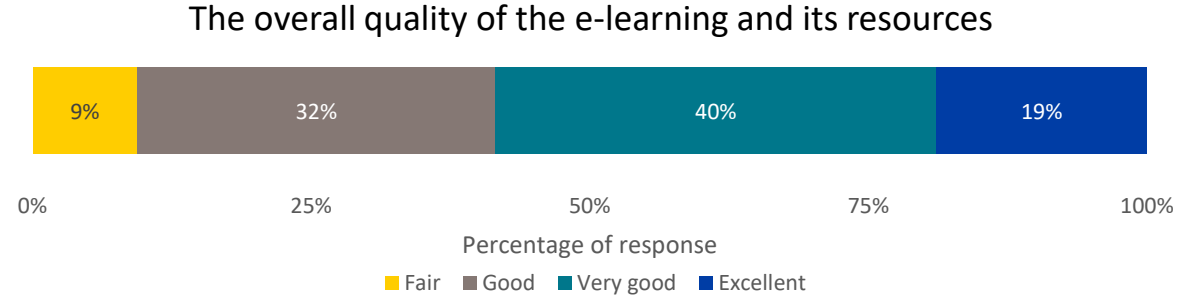


Figure 9 Staff perception of the overall quality of the e-learning modules and its resources

Staff were asked whether the e-learning module was relevant to their learning and development. A total of 75 responses were collected, of which 59% of the staff stated the e-learning was very relevant, 32% stated fairly relevant, 5% stated not relevant or irrelevant, 3% stated fairly irrelevant, and 1% stated not relevant at all.

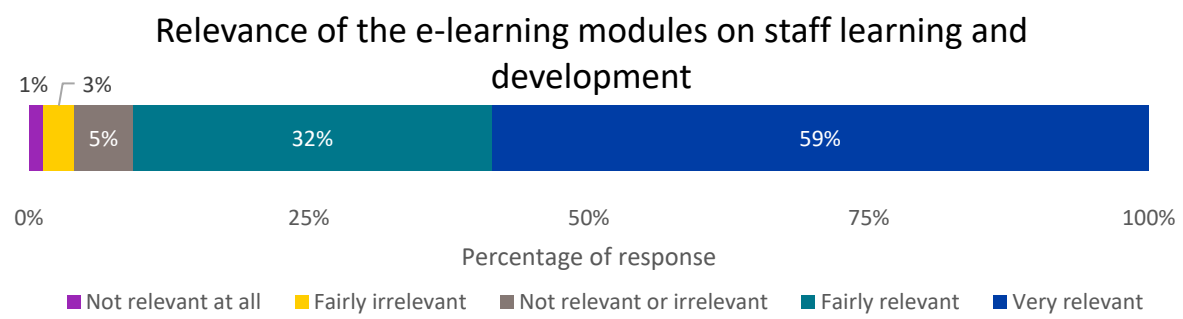


Figure 10 The perceived relevance of the e-learning modules on staff learning and development

3.2.3. Face-to-face training

Staff were asked whether they have had face-to-face training related to lower limb wound care. A total of 83 responses were collected, of which, 86% of the staff answered yes. 11 staff (14%) stated that they have not had face-to-face training.

This section describes the responses collected from those who have had face-to-face training (sub-total of 69 staff).

Staff were asked to rate the overall face-to-face training experience. A total of 69 responses were collected for this question. Of those who responded, 67% of staff were very satisfied, 30% were satisfied and 3% were neither satisfied nor dissatisfied.

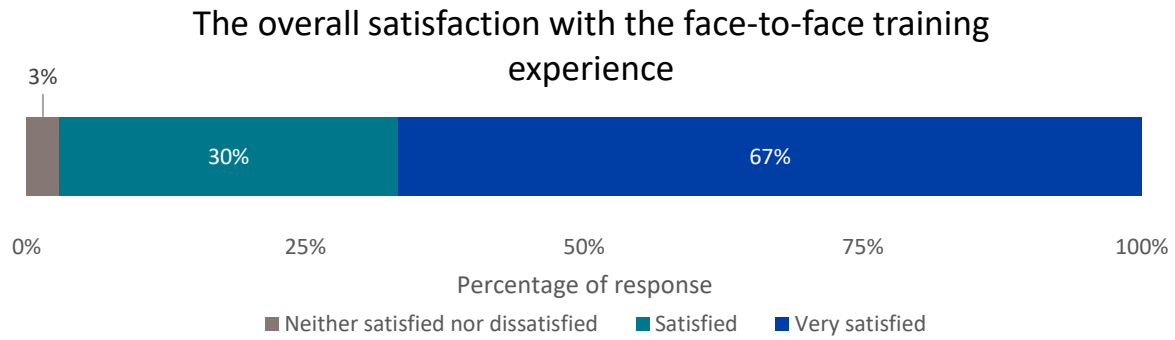


Figure 11 Staff overall satisfaction with the face-to-face training experience

Staff were asked how easy they found access to face-to-face training. A total of 69 responses were collected for this question. Of those who responded, 39% stated the access was very easy, 3% stated easy, 16% stated neutral, and 6% stated it was difficult to access.

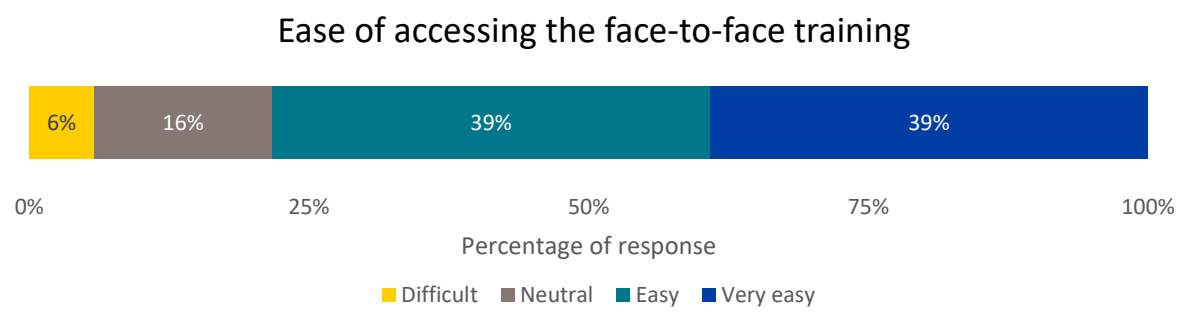


Figure 12 Staff perception of ease of accessing the face-to-face training

Staff were asked to rate the overall quality of the face-to-face training and its resources. Of those who responded (n=68), 46% stated the overall quality was excellent, 41% stated very good, and 13% stated good.

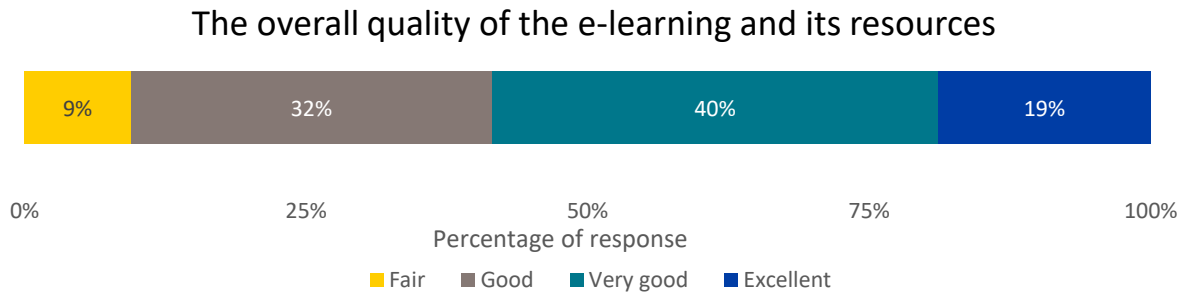


Figure 13 Staff perception of the overall quality of the face-to-face training and its resources

Staff were asked how relevant the face-to-face training was for their learning and development. Of those who responded (n=78), 79% of the staff stated the training was very relevant, 19% stated fairly relevant, and 1% stated not relevant at all.

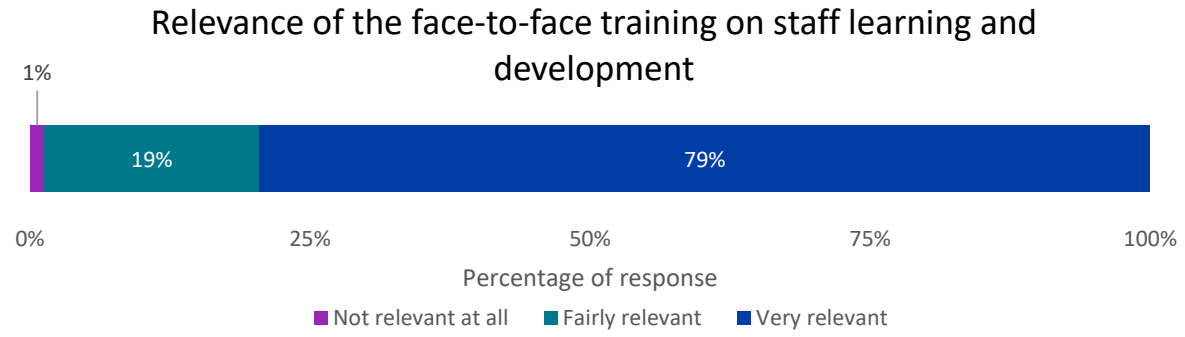


Figure 14 The perceived relevance of the face-to-face training on staff learning and development

A total of 20 staff left a comment about their experience of either e-learning or face-to-face training. The comments were grouped and summarised into the following points:

- Face-to-face trainings are preferred for practical elements of the training and the opportunity to ask any questions during the training.
- There seem to be fewer face-to-face courses, noticeably since the Covid-19 pandemic.

- There are challenges with finding spaces on the relevant courses and finding the time away from clinical duties to attend the training.
- Support from tissue viability nurses is helpful with staff training and providing specialist advice.
- There is a need for more refresher training for the staff who had previously received training to maintain consistency in standards.

3.2.4. Perceived staff confidence

Staff were asked a set of multiple statements to reflect their confidence in wound care. For each statement, a range of 74 to 76 responses were collected. The summary of the responses on a scale of strongly disagree to strongly agree is shown in Error! Reference source not found. below.

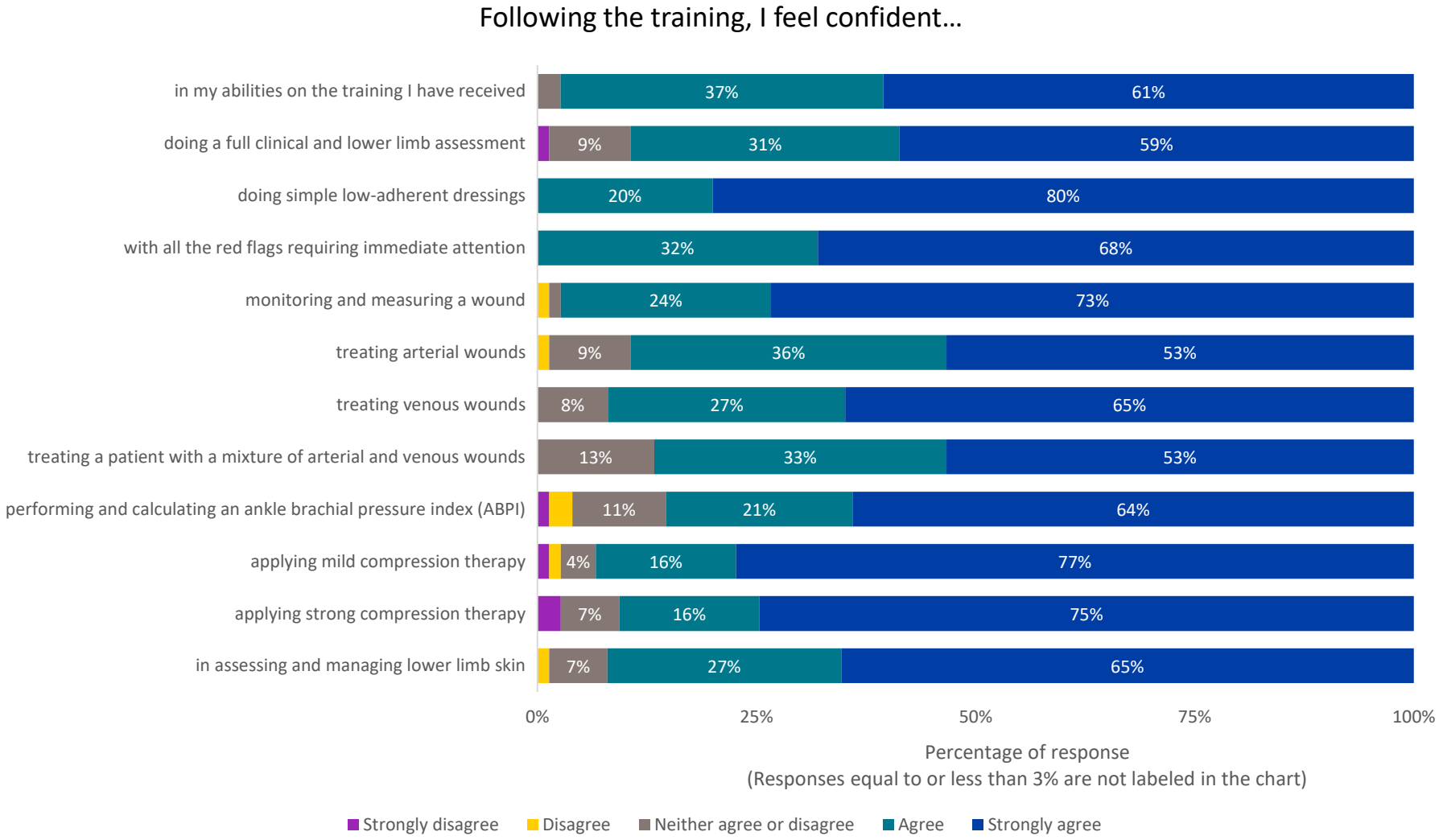


Figure 15 Staff response on perceived level of confidence after wound care training

3.2.5. Summary of the training experience

Key points

- A sub-group of 83 staff (clinical and management staff) were asked about their training experience.
- Common training programmes completed by staff were Tier 1 (31%) and Tier 2 (24%) of the Wound Care Education for the Health and Care Workforce programme.
- Other training included advanced leg ulcer and limb care management and skill-specific training such as compression bandaging, management of diabetic foot and Doppler assessment.
- Two thirds of staff (66%) had completed e-learning modules related to lower limb wound care.
- Over three quarters of staff (86%) had face-to-face training related to lower limb wound care.
- Responses indicate that staff prefer face-to-face training for practical elements and the opportunity to ask questions during the training.
- Tissue viability teams were noted as valuable colleagues for training, advice and support.

Successes

- Overall, responses on the experience of wound care training (e-learning or face-to-face). showed that training gave staff more confidence in providing wound care.
- 94% of staff were very satisfied or satisfied with their experience of the e-learning module.
- 97% of staff were very satisfied or satisfied with their experience of face-to-face training.

Challenge

- Availability of relevant training courses and finding the time away from clinical duties to attend the training were noted as challenges.

3.3. Patients and self-care management

Questions about patients and self-care management were included only in the clinical and management staff survey (completed by a sub-group of 83 staff).

3.3.1. Have you given either advice, support or education to help patients to care for their own wounds?

From 83 staff who responded to the clinical and management staff survey, 80 out of 83 staff (96%) answered this question. Of those who responded, 77 staff (93%) responded yes, 1 staff (1%) responded no, and 2 staff (2%) responded not sure.

3.3.2. What advice, support and education have you given on wound care?

Staff were asked about the advice, support and education they have given to patients for their wound care. The staff could answer more than one option for this question as well as enter their own text for details. A total of 270 entries from 77 staff were collected for this question.

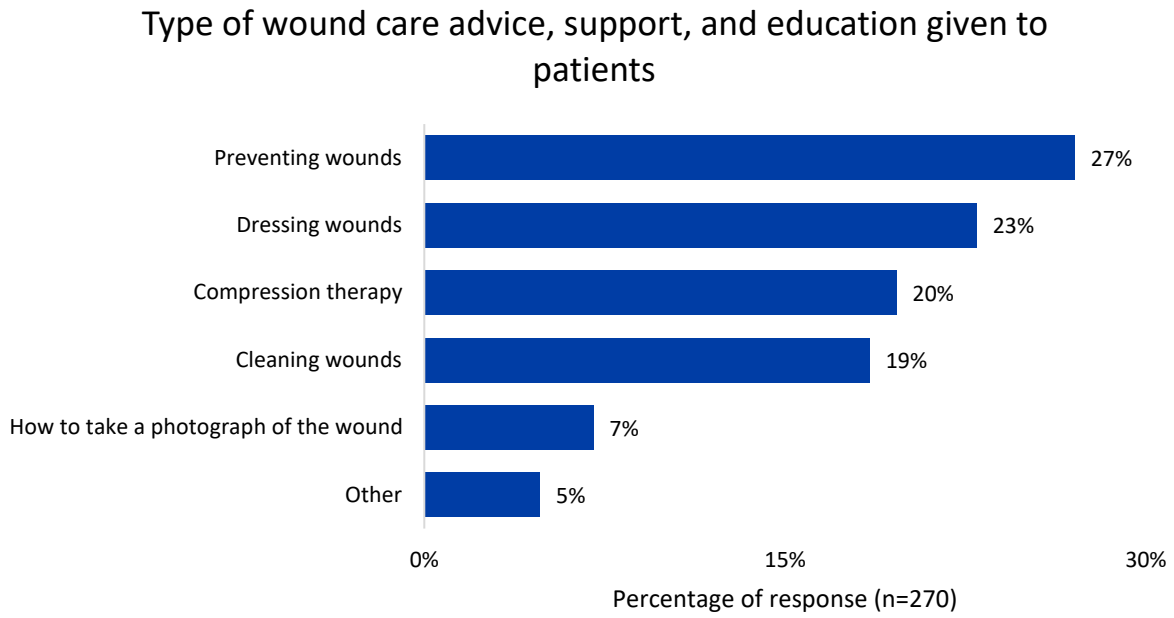


Figure 15 Type of wound care advice, support and education given by staff to patients

A total of 13 staff selected 'other' as one of their answers and included their own descriptions of any advice, support or education given to the patients. There were 23 distinct descriptions of advice, support or education given to the patients. These comments are summarised into the following categories:

- Nutrition, diet and healthy lifestyle
- Exercise and mobility
- How to spot an infection
- Self-care
- Skin care
- Signposting to other service.

3.3.3. How have you provided this advice, support or education to the patient?

Staff had the option to select multiple answers to respond to this question. A total of 171 answers were collected from 77 staff. Seven staff selected 'other' as one of their answers and provided their own description of the format in which the information was provided to the patient; the descriptions were categorised into referral to a clinical specialist, handwritten information and a printout of an online image or documents available from a website.

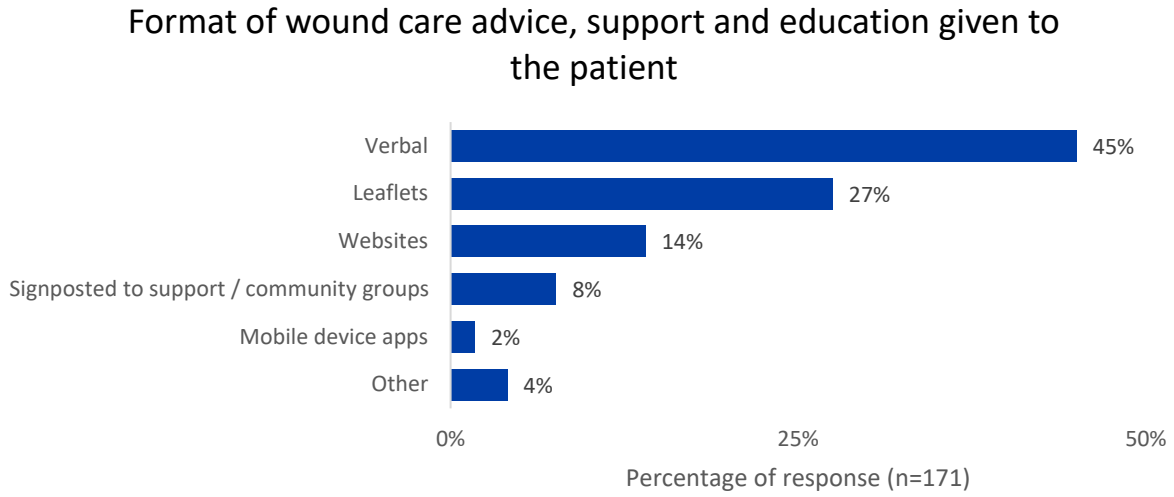


Figure 16 The format of wound care advice, support and education given by staff to patients

3.3.4. Do you think patients are responding well to the advice, support and education given by your team or service for their lower limb wound care?

A total of 77 staff answered this question. Of those who responded, nearly three-quarters of the staff answered yes (71%). The remaining staff responded either no (8%) or not sure (21%).

A range of comments were left by 58 staff to explain their response to the question. In summary, the comments indicated that, overall, patients are engaging positively with their wound care; however, there were comments reporting a proportion of patients who are not positively engaging with their wound care.

> *"Some patients are very keen to assist with healing, others don't follow advice."*

> *"Most patients are willing to self-help once explained the benefits, but we do have a growing number of non-concordant patients who take up a lot of time at each visit."*

Staff commented that patients show interest in taking responsibility and ownership of their wound care because they are keen to recover and prevent any recurrence. Staff reported providing basic education on wound care, clear explanation of treatments given and offering choice in the treatment products to help patients to feel empowered and give them the confidence to look after their wounds.

> *"Having an open mind set on wound care is vital - the patient needs clear advice, explanation, constant verbal support and feedback to feel involved in their care and have the best possible outcome however long it takes. Knowledge is power."*

Survey comments have also revealed that a proportion of patients did not actively engage well in their wound care. Patients have different levels of understanding of the information provided by the health professionals, and some have shown a dislike of treatments (e.g. bandages, hosiery and wraps). There were also comments about individuals with longer-term wounds becoming reliant on the input of healthcare professionals as chronic wounds tend to be more complicated and slower to heal.

"I don't feel patients want to take any ownership of their wounds and rely on us. A lot of patients do not like what we put on the wounds and remove them. We then get calls to say they need to be re-dressed."

"Depends on the ability of the patient to receive and interpret information."

3.3.5. Summary of patients and self-care management

Key points

- A sub-group of 83 staff (clinical and management staff) were asked to complete the questions about patients and self-care management.
- Most staff (93%) have given advice, support or education to help patients to care for their own wounds.
- Some of the common advice, support or education given on wound care included preventing wounds (27%), dressing of wounds (23%), compression therapy (20%) and cleaning wounds (19%).
- Nearly half of the advice, support or education was provided to the patients verbally (47%) and a quarter by leaflets (28%).

Successes

- Nearly three-quarters of the staff (71%) stated that patients responded well to the advice, support and education.
- Staff reported that generally patients are keen to take ownership and responsibility for their wound(s) to heal faster and minimise recurrence.

Challenge

- A proportion of patients, however, were reported to not actively engage well with the care due to their dislike of the compression therapy, and reliance on health professionals' input with more complex and long-term wounds that are slower to heal.

3.4. Impact on clinical pathway or service

Questions about the impact on the clinical pathway or service were included only in the clinical and management staff survey (completed by a sub-group of 83 staff).

3.4.1. Which elements of the NWCSP Lower Limb Recommendations has your TES delivered?

Out of 83 staff from the clinical and management staff survey, 82 staff answered this question. Staff could select more than one answer; a total of 235 answers were collected. The options for the answers included the following list:

- Immediate and necessary care (e.g. identification of red flags and immediate escalation, provide immediate care)
- Dedicated lower limb clinic or service
- Assessment, diagnostics and management (e.g. full assessment within 14 days, monitoring healing 4-weekly)
- Ongoing care (six-month review of compression garments, reassessments)
- None.

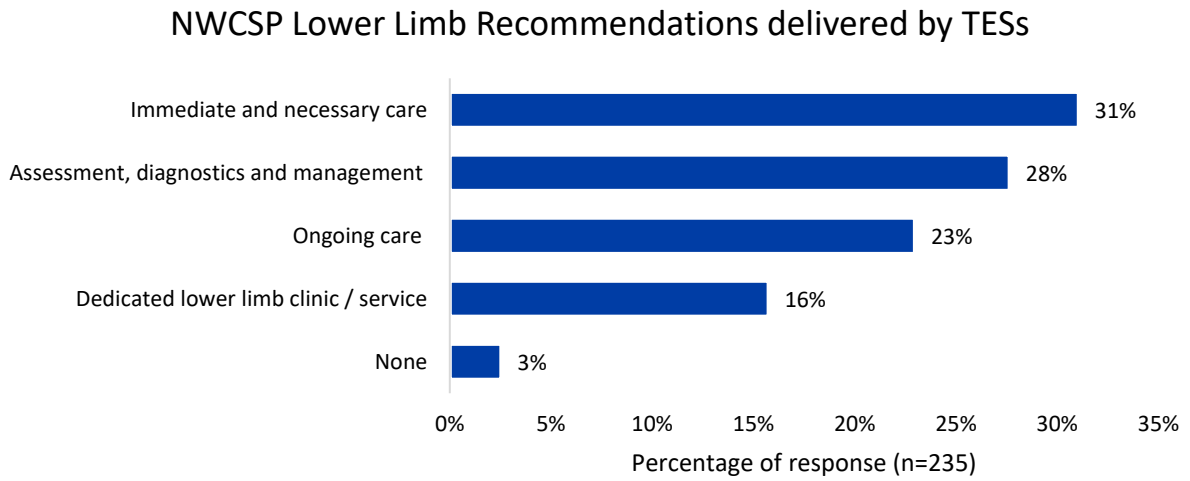


Figure 17 Elements of NWCSP Lower Limb Recommendations delivered by TESs

Comments were collected from 63 staff who described the impact of the TWC programme implementation for lower limb wound care. Positive changes to patient outcomes, service delivery and workforce were reported in the comments. The commonly reported impact on patient outcomes was improved healing rates, and reduction in re-occurrence of wounds. Positive changes to the service delivery included provision of earlier access to appropriate treatment (e.g. compression), consistency in their services, reduced overall appointments and caseload, and improved service efficiency. The staff also commented on their perceived improvement in staff confidence and satisfaction in managing wound care.

> *"We are noticing high levels of healing and patients are very satisfied and feel cared for due to this approach."*

> *"Putting wounds into compression on first visit is helping some heal within a week."*

> *"It has improved patient experience as pathways are initiated at first contact and clinicians have the skills and knowledge to select the correct treatment on first contact which leads to improved compliance and healing rates. It has reduced clinicians time and frequency of visit required. Improved patients' quality of life."*

There were a few comments noting inevitable challenges to the implementation of the TWC programme. The added pressure on an already reduced workforce was the most commented challenge. Three comments noted the initial burden of introducing a new process on staffing and staff time. One comment also noted that the benefit of the initial effort is now being demonstrated. There were comments from two staff who could not determine noticeable changes from the TWC programme.

> *"It has been very difficult over the past six months due to lack of staff and so lack of appointments, which has an indicative knock-on effect with appointment availability for time needed to undertake diagnostic tests and care planning and of course continuity of care. It's been a huge challenge."*

> *"Initially increased workload but now I have seen increased confidence within the team and improvement on wound healing."*

"[the new lower limb wound care service] is still a work in progress I would say… This is starting to improve and with it the new pathways are starting to come in to play and the relevance of these can be seen by patients and staff."

3.4.2. What activity or strategy had the most impact on delivering your lower limb service or pathway changes?

A total of 59 staff left comments for this question. The comments are summarised in the following paragraphs.

The most common activity reported to have impact was the application of strong or mild compression immediately after the full assessment.[6] The second most common response was workforce training and education based on the NWCSP Lower Limb Recommendations. With the clear recommendations outlined by NWCSP, services have implemented a dedicated clinic or pathway to consistently deliver timely and full assessment of the lower limb wound (including the assessment for red flags and early escalation), strong or mild compression and frequent follow-up appointments to regularly track the care progress. The link with tissue viability nurses or services has also been valuable to ensure the relevant workforce is supported and given appropriate training and advice to upskill in wound care.

"I found that a well completed, non-rushed first assessment has been the key to faster healing and more successful healing wounds."

"Seeing the information that early intervention not only improves patient care and outcome but saves time and resources."

3.4.3. What barriers prevented delivering your lower limb service or pathway changes?

A total of 54 staff left comments for this question. The common barrier appeared to be associated with already limited workforce capacity. Workforce issues were multifaceted, from not enough staff, variability in skill-mix, and not enough resources to release staff for training and development. This seemed to have a knock-on effect on the lower limb wound care clinic availability and the resultant increase in the volume of patients to see. Other challenges were noted, including commissioning arrangements and poor stock availability of some of the products used in compression treatment.

"The community team has been through the most challenging year I have ever worked (I joined the organisation in 2002) and this has to be taken into account in where we are currently in transforming lower leg wound care in our organisation."

"Lack of staff and therefore lack of appointments with a suitable amount of time to undertake these tests / care."

"Back when we started, there were obvious gaps in knowledge and experience, but this disparity is much improved now."

[6] Free text answers described variations of compression techniques (e.g. light, reduced, 20mmHg, Class 1, full or simply 'compression') at assessment; comments referred to assessment as initial, first, fast, or full assessment.

Patient factors were also mentioned as one of the challenges. The common challenging patient factor was around patients' tolerance of compression treatment. Other challenges included patients not following advice, complexity of addressing existing comorbidities (e.g. heart failure), and language barrier.

"1 out of 4 [patients] declined compression on first visit as 'too bulky'."

"Patient not willing to try compression or removing once home."

3.4.4. Summary of clinical pathway and service impact

Key points

- A sub-group of 83 staff (clinical and management staff) were asked to complete the questions about clinical pathway and service impact.
- Nearly a third of staff reported delivering immediate and necessary care (31%) and just over a quarter of staff reported delivering assessment, diagnostics and management (28%) as part of the NWCSP Lower Limb Recommendations.

Successes

- Wound healing rate was the most reported impact on patient outcomes.
- Introduction of compression therapy (mild or strong) after full assessment was the most reported impactful change.
- Staff also reported the impact of staff training and education on improved staff confidence and satisfaction in managing wounds.
- Establishing a clinical team or pathway dedicated to lower limb wound care brought consistent and continuous service for patient care.

Challenges

- Limited or reduced workforce capacity was the most reported barrier in delivering the NWSCP Lower Limb Recommendations.
- The availability of workforce created additional challenges such as limited capacity to create additional clinic times for new wound care, releasing staff to attend training, and inconsistencies in practice standard due to variable staff competencies.
- The complex nature of wound management (often involving patients with multiple comorbidities), patients' intolerance to compression therapy and navigating external service providers' interdependencies were also highlighted as challenges in delivering the NWCSP Lower Limb Recommendations.

3.5. Technology implementation

Questions about technology used in lower limb wound care were included only in the clinical and management staff survey (completed by a sub-group of 83 staff).

3.5.1. Are you using a Wound Management Digital System (WMDS) or any other technology as part of your involvement in the TWC programme?

A total of 82 responses were collected for this question. The survey included a set of identical questions to address separately the use of WMDS and any other technology as part of lower limb wound care. However, the responses were referring to both WMDS and any other technology interchangeably. Therefore, the following section covers the responses to both use of WMDS and any other technology as part of the lower limb service.

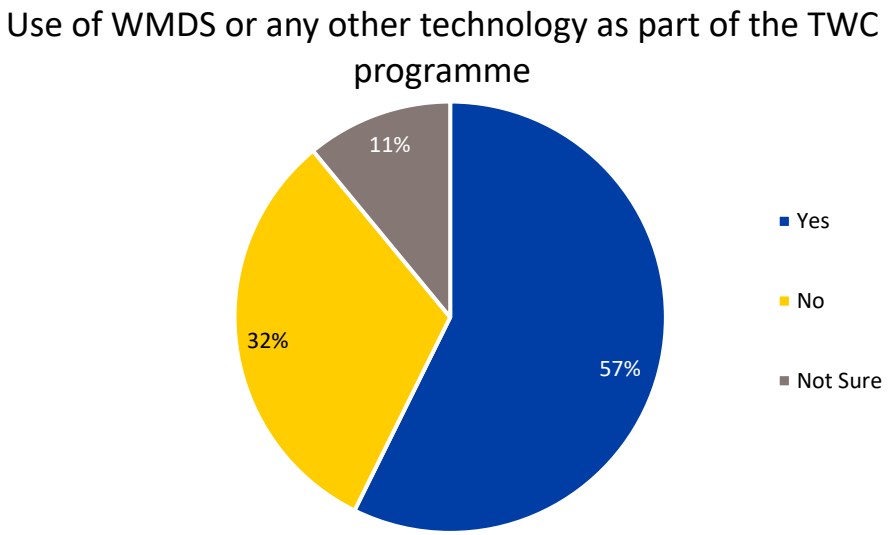


Figure 18 Are you using a WMDS or any other technology?

Of those who specified that they use a WMDS or any other technology (sub-group of 47 staff), 46 staff described their technologies. The list of WMDS and any other technology reported by the staff is described below:

WMDS

- eKare inSight™.
- Healthy.io Minuteful for Wound.

Other technologies

- Consultant Connect (a telemedicine system).
- MediUK Hosiery Hunter® (an app to help select a compression garment).
- MediUK MESI APBI MD TS (an automated wireless ankle-brachial index measuring device).

Technology integrated into existing electronic patient record system

- Isla (for EMIS and SystmOne).
- Ardens (for EMIS and SystmOne).

The same sub-group of staff was asked whether their WMDS is compatible with their local electronic patient record system (e.g. EMIS, SystmOne, RiO etc.). The responses included yes (85%), no (6%) and not sure (9%).

The same sub-group of staff were also asked whether the technology made a difference to their services or patient care. The responses included yes (77%), no (2%) and not sure (21%).

The staff shared comments on the difference their technology made to the service or patient care. The overall comments described how WMDS and other technologies help with accurate and consistent recording of patient care with improved oversight of the caseload. The benefits of these technologies included:

- Reduction in time to record and retrieve patient cases.
- Remote access to patient records.
- Storing images of wound to track the healing progress (or lack of) over time, or non-healing.
- Standardising the process of entering clinical data.

The key benefit seems to be the ability to store and review images of wounds. Staff can use the images taken over time to show patients their healing progression (or lack of progression) and highlight the importance of wound care. Some technologies also allow exporting or sharing of the wound images which help with the referral process.

> *"It has ensured all clinicians take a photo (which was not always being done before), it allows chronology and standardises measurements of wounds."*

> *"We are able to monitor the effectiveness of treatment much more accurately with exact wound measurements and the surface area of the wounds."*

> *"District nurse team can upload photo and tissue viability nurse can instantly see the wound."*

Some concerns about the use of technology were reported. For example, the technology is reliant on internet connectivity and camera quality can be variable.

> *" Difficult to get signal when on home visits sometimes data was lost due to this, so clinicians had to do back up documentation which took more time."*

3.5.2. Summary of technology implementation

Key points

- A sub-group of 83 staff (clinical and management staff) was asked about technology implementation.
- A variety of wound management digital systems and other technologies were used by TESs.

Successes

- Three quarters of staff (77%) indicated that the WMDS and other technology made a positive difference to their services or patient care.
- Accurate and consistent recording with improved oversight of patient care was the most reported positive impact of technology in the delivery of lower limb wound care.
- The ability to remotely access wound images to show progress or stagnation of healing are beneficial for both staff and patients to recognise the changes in wound status.

Challenge

- Variability in internet connectivity (especially in rural areas) and camera quality were highlighted as challenges relating to the use of technologies in lower limb wound care.

3.6. Metrics collection

3.6.1. What new data items on lower limb care have you collected on behalf of the TWC programme?

The questions about metrics collection were asked of all 100 staff. Of those, comments from 40 staff described the new metrics collected from their services that were not previously collected before the implementation of the TWC programme. The new metrics reported by staff are listed in the table below:

Table 2 List of new metrics reported by staff

Metrics	Examples of metric data described in the survey
Service	• Number of patients seen by services (e.g. for full assessments within or over 14 days of referral, Doppler, initial care, follow-up clinics, etc.). • Average number of patient contacts. • Average time from referral to full assessment. • Proportion of staff completing Tier 1 training.
Patient	• Identification of red flag symptoms. • Smoking status. • Type of patient cases (e.g. ambulatory, non-ambulatory).
Wound	• Wound location (e.g. foot, leg). • Number of wounds. • Ankle-brachial pressure index (ABPI). • Compression level. • Healing rate / time. • Proportion of healed wounds at 12, 24, 52 and over 52 weeks since the wound was initially identified.

3.6.2. What were the challenges in recording the data?

Out of 100 staff, 41 comments were collected for this question.

The two common challenges reported were ensuring data accuracy and the effort required for metrics collation. Challenges around data accuracy included minimising staff inconsistencies and human error in data entry, ensuring staff record the required metrics in a timely manner, and trusting that data entered by staff are an accurate reflection of the patient status and their care.

> *"Our new template is 33 pages long and you can sometimes miss a tick in a reporting box."*

The effort required to collect and collate metrics was another key challenge. Staff reported that data collection for metrics require multiple steps involving manual search and/or automated data-pull coding from their existing electronic patient record system to ensure the correct information is submitted each month. This challenge creates additional demands on resources in both time and staffing. There is also an increased risk of human error involved in the manual process of data search, extraction, and collation.

> *"As our EPR system was not set up to report these and the metrics meant that the pathway was complex and required multiple steps to record the information to enable robust and correct reporting."*

> *"Codes in Ardens template do not align with key language within wound care recommendations therefore data collection is a combination of electronic searches and manual data trawl."*

> *"We had to set up a manual spreadsheet to collect and summarise the data. This goes against our informal policy of no manual spreadsheets!"*

3.6.3. In your opinion, has collecting this additional data impacted positively or negatively on clinical staff?

Out of all 100 staff, 84 staff answered this question. The response options included a set of pre-selected response (positive impact, negative impact, not sure) and 'other' which allowed staff to type their own response. Six 'other' responses were collected; these included anticipated positive impact, both positive and negative impacts, and no impact.

> *"It will have a positive impact, but staff are needing to be educated around data collection and the importance of completing the template accurately."*

All responses were categorised into positive impact, negative impact, both positive and negative impacts, no impact or not sure. The breakdown of the responses is shown below in **Figure 19**:

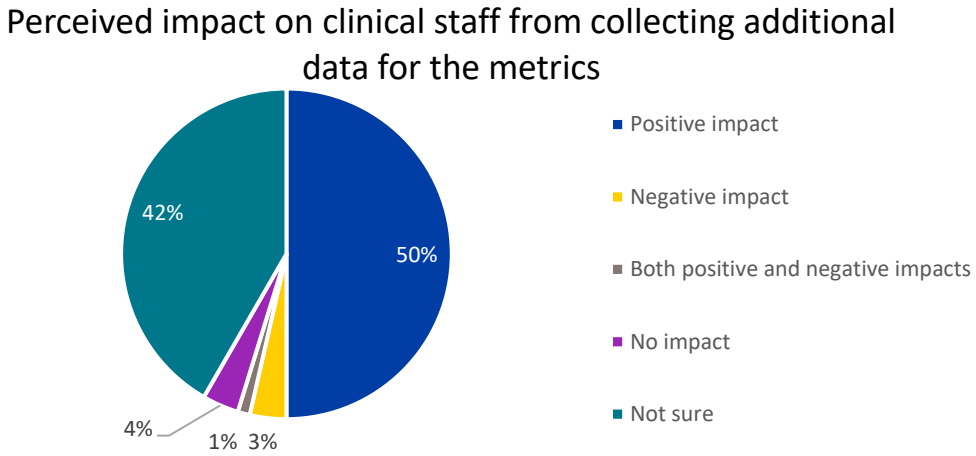


Figure 19 Perceived impact on clinical staff from collecting additional data for the metrics

3.6.4. In your opinion, should you continue to collect and report this additional data?

Out of 100 staff, 86 answered this question. The response options included a set of pre-selected responses (yes, no, not sure) and 'other' which allowed staff to type their own response. Seven 'other' responses were collected; examples of these comments are:

"Yes, but greater assistance needed to extract the data so it is less manual."

"It depends on what is done with the data, action needs to be taken and shared with teams in a positive way, to encourage further change, as we progress."

"If it has impacted positively on clinical staff, I think we should continue. If it has made no difference to clinical staff, or a negative impact I think we should stop."

All responses were categorised into yes, no, it depends, or not sure. The breakdown of the responses is shown below in Figure 19**Figure 20**:

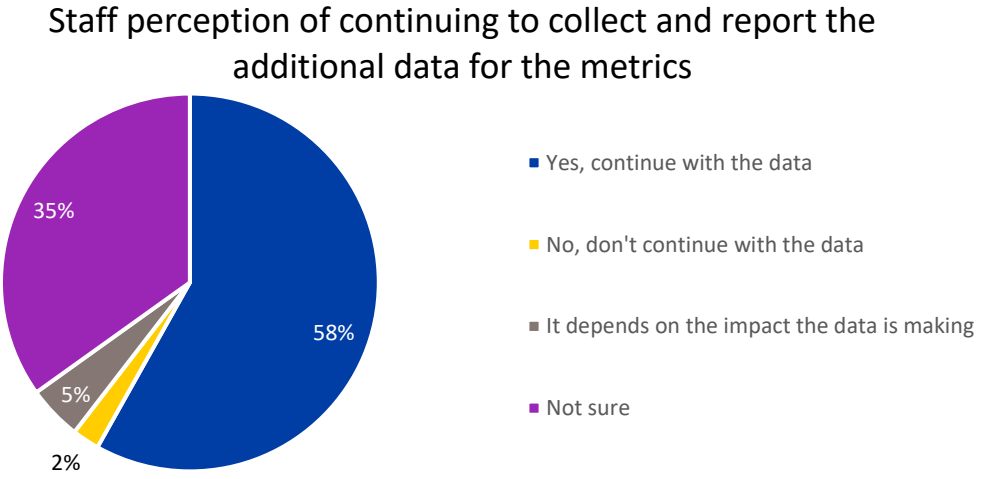


Figure 20 Staffs perception of continuing to collect and report the additional data for the metrics

3.6.5. Are the metrics collated manually or automated from local IT systems?

This question was included only in the data analysts survey (completed by a sub-group of 17 staff). All 17 staff responding to the data analysts survey responded to this question.

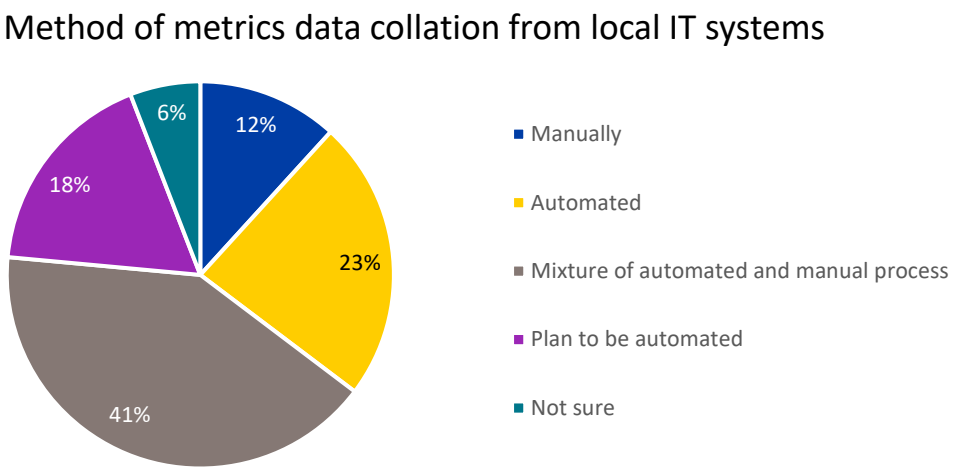


Figure 21 Metrics data collation method reported by data analysts

3.6.6. Summary of collecting TWC programme metrics

Key points

- A variety of new data items were reported as new metrics collected at TESs.
- Two-fifths of staff involved in data collation for the metrics (41%) stated that they have a mixture of automated and manual processes to collate data for the metrics.

Successes

- Half of staff (50%) reported a positive impact of data collection on clinical staff.
- Over half of staff (58%) agreed that the collection of metrics should be continued.

Challenges

- Data accuracy and time required for data collation were the most frequently reported challenges.
- 42% of staff were unsure of the impact of data collection on clinical staff.
- 35% of staff were unsure whether the collection of metrics should be continued.

3.7. Health Inequalities

NHS England describes health inequalities as unfair and avoidable differences in health across the population, and between different groups within society[7]. These include how long people are likely to live, the health conditions they may experience and the care that is available to them. People living in areas of high deprivation, those from ethnic minority communities and those from inclusion health

[7] NHS England. What are health inequalities? https://www.england.nhs.uk/about/equality/equality-hub/national-healthcare-inequalities-improvement-programme/what-are-healthcare-inequalities/. Accessed 17 June 2024.

groups, for example people experiencing homelessness, are most at risk of experiencing these inequalities.

The TWC programme is committed to ensuring that the provision of wound care services do not disadvantage individuals or groups who are under-served or have protected characteristics defined by the Equality Act 2010[8]. The TWC Central Team requested all TESs to develop an action plan addressing health inequality on particular groups of patients at programme level. The identified groups of patients at risk of experiencing health inequalities included:

- Homelessness.
- Disparity between diabetic foot care and non-diabetic foot care.
- People with addictions and substance misuse problems.
- Age.
- Gender.
- People from lower socio-economic background / living in deprived areas.
- People with low health literacy.
- People from minoritised ethnic background.
- People living in remote, rural and coastal locations.
- People with disabilities.

All staff who completed the survey were asked questions about health inequalities.

3.7.1. Does your service support any targeted activities to address inequalities for any of the following identified patient groups?

Out of 100 staff, 55 answered this question. The staff could select multiple answers for this question. Staff were also able to select 'other' and type their own response. A total of 253 answers were collected. Overall, identified patient groups and health inequality areas were addressed across the TES at programme level. Nearly half of targeted activities (47%) focused on age, people from lower socio-economic background / living in deprived areas, disparity between diabetic foot care and non-diabetic foot care and people with disability to address health inequalities. Other patient characteristics identified to address inequalities included housebound patients and armed forces veterans.

[8] Equality Act 2010, c15. https://www.legislation.gov.uk/ukpga/2010/15/contents. Accessed 17 June 2024.

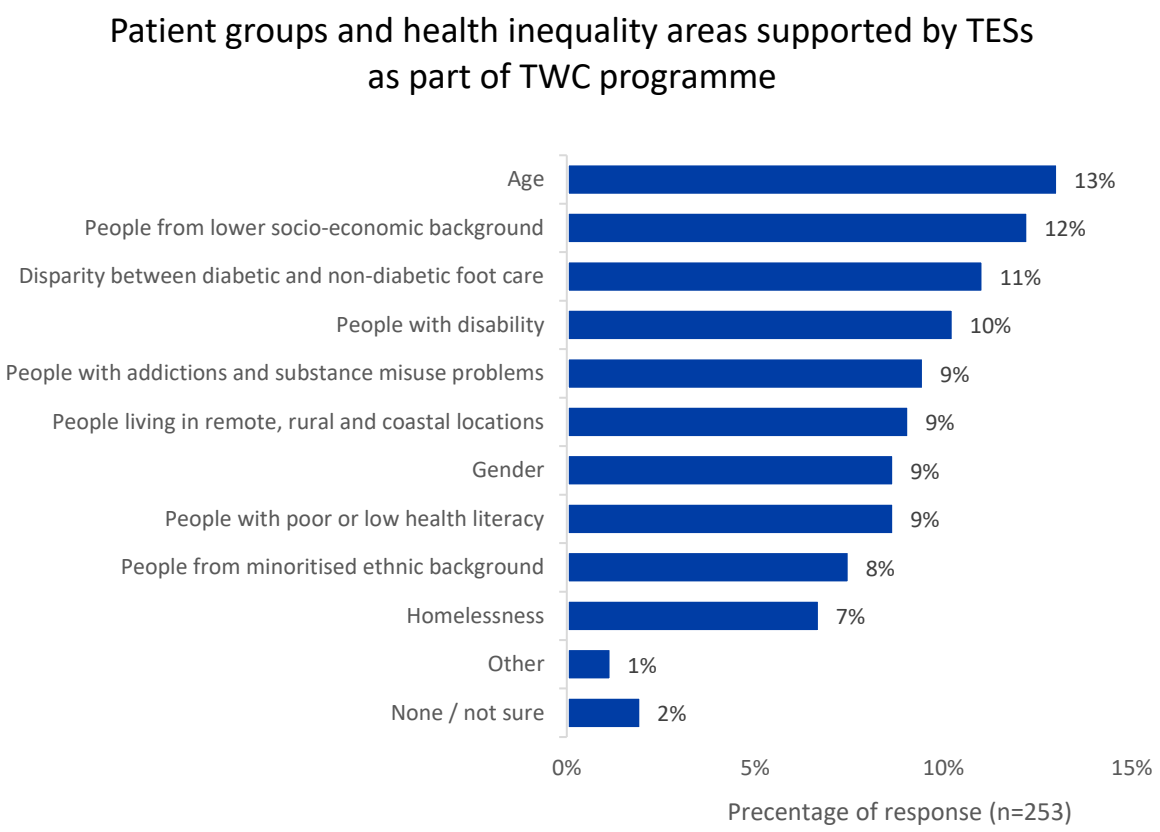


Figure 22 Distribution of patient groups and health inequality areas supported by TESs to address health inequalities as part of the TWC programme

There were 29 staff who left comments describing the targeted activities to address health inequalities. The targeted activities ranged from following the general policy set out by the service's host organisation, inclusive approaches to address individuals' needs, linking with the local networks (e.g. community and voluntary groups and social prescribers) for additional support, the use of an outreach mobile clinic services, and arranging transport services for those who struggle to travel to clinics.

> *"We see all the above without discrimination, we have a pick-up service to help transport patients to the clinic including wheelchair friendly vans, we have a mobile van available for general wound care in place."*

> *"We have a good relationship with our social prescribing team who have helped support patients in the above groups with wounds, by liaising with patients about their appointments, arranging transport or arranging daily dressings and housing for homeless patients."*

3.7.2. Summary of addressing health inequalities

- Each TES identified groups of patients at risk of experiencing health inequalities as areas of focus.
- Nearly half of targeted activities reported by the staff (47%) focused on age, people from lower socio-economic background / living in deprived areas, disparity between diabetic foot care and non-diabetic foot care and people with disability.
- Examples of the targeted activities included following general policy set out by the service's host organisation, inclusive approaches to address individual's needs, linking with the local networks for additional support, the use of an outreach mobile clinic services and arranging transport services for those who struggle to travel to clinics.

3.8. Support received from the local health innovation network and the TWC Central Team

3.8.1. Has the support from your local health innovation network enabled improvements at your TES?

This question was asked of all staff and a total of 94 responses were collected. Half of the staff (48%) noted that their local health innovation network enabled improvements at their TES. A similar percentage of staff (45%) noted not applicable (32%), less than a tenth of staff noted no (7%) and just over a tenth of staff preferred not to say (13%).

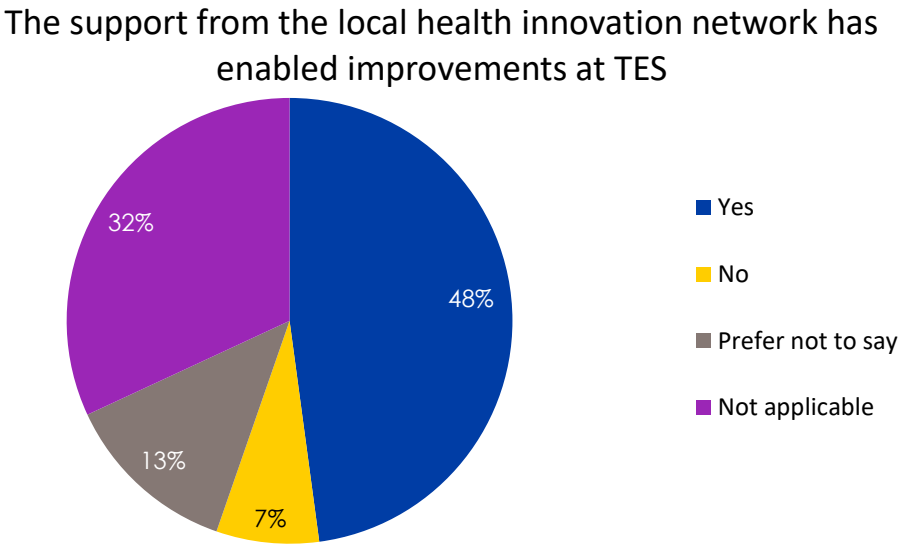


Figure 23 Staff perception of whether the support received from the local health innovation network has enabled improvements at their TES

3.8.2. Staff perception of the support received by the local health innovation network

All the staff were asked to respond to a set of statements to reflect their perception of the support received from their local health innovation network for the TWC programme implementation. For each statement, a range of 77 to 80 responses were collected. The percentage of staff who selected 'not applicable' to the statements ranged from a 27% to 37%. The visual distribution of the responses is shown in **Figure 24** below.

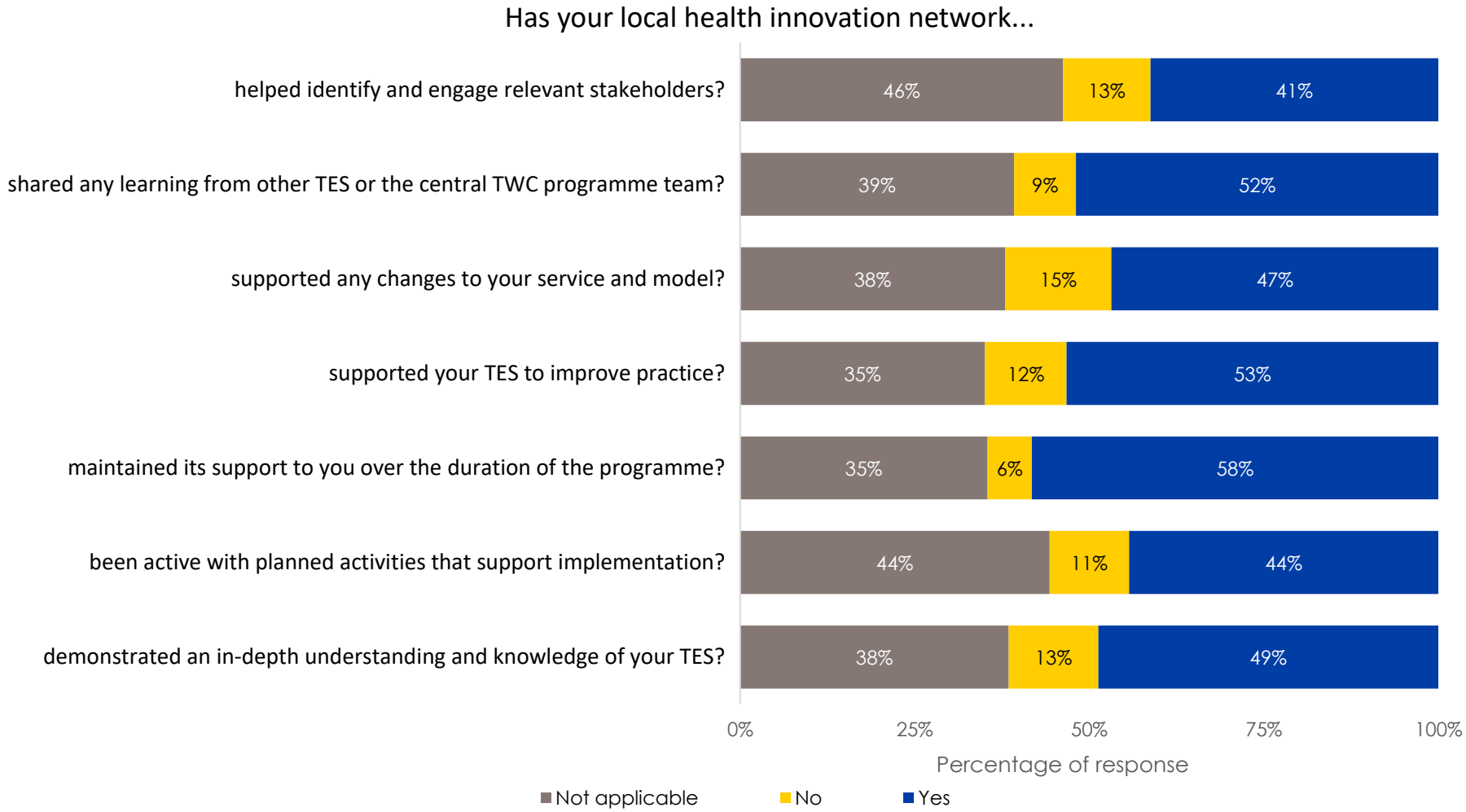


Figure 24 Staff response to perceived level of support received by the local health innovation network

There were 42 staff who left comments about their experiences with their local health innovation network. In summary, the comments were positive overall, with appreciation of their input in driving change by providing clear focus, guidance and support to those on the ground who are often under daily operational pressures. The local health innovation network was perceived as a useful contact for enabling regional and national connections (e.g. regular update meeting with TESs). Specific examples of support from the local health innovation were also reported; for example, support received with TES application process and assisting with project management (e.g. ensuring timely delivery and help with the logic model). Data analysts appreciated the regular contact with their local health innovation network to resolve any data issues. Its presence helped endorse the importance and value of data collection at the point of care.

> *"The support from the health innovation network has been incredible for all steps/progress. It is easy to be pulled in different directions and lose focus due to the 'day job', treading water rather than making progress."*

> *"Having input from the health innovation network has made the service take the data collection more seriously and put focus on the required data."*

There were 16 individual comments noting positive clinical impacts enabled by the support from the local health innovation network. In summary, the clinical impact perceived by the staff included overall improved wound healing rate, increase in staff skills, knowledge and competence and successful set-up of a new immediate and necessary care pathway.

There were comments from six staff who stated that they did not know about the health innovation network. One staff left a comment stating that there was less support than expected. Further detail of these comments is omitted to protect staff anonymity.

3.8.3. Has the support from the TWC Central Team enabled improvements to lower limb wound care at your TES?

A total of 87 staff answered this question. Over half of the staff (57%) noted that the TWC Central Team enabled improvements at their TES. Less than a tenth of the staff (8%) stated no and just over a tenth of the staff (12%) preferred not to say and nearly a quarter of staff stated not applicable (23%).

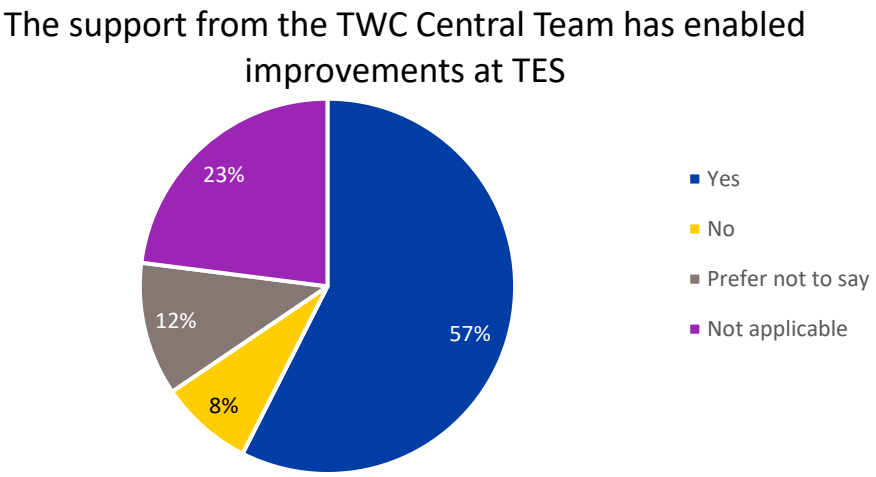


Figure 25 Staff perception of whether the support received from the TWC Central Team has enabled improvements at their TES

There were comments from 30 staff describing their experience with the TWC Central Team. Overall, the comments shared similar positive experiences to the support received from the local health innovation network. Most of the comments were related to the support on driving the change in lower limb wound care services. The key role of the TWC Central Team seemed to be the facilitation of programme implementation by connecting the TESs and providing the opportunity to share experiences with each other. Other comments included the TWC Central Team's support in promoting the importance of data capture and the use of technology to improve the lower limb wound care and services.

> *"The support has been essential. We could not have moved forward in such a way with such a wide audience without this support. Thankyou!"*

> *"Openness during TES monthly metrics meetings has helped develop shared understanding and understand the purpose behind metric template changes."*

> *"Having never been part of such a project it has been interesting to understand how data can impact clinical practice in a positive way."*

There were 13 comments highlighting the clinical impact enabled by the support of the TWC Central Team. Similar to the clinical impact described for local health innovation network support, the main comments for this question included: the introduction of compression treatment improving wound healing rates; and increased staff confidence and knowledge in the management of lower limb wounds.

There were comments from six staff who stated that they did not know about the TWC Central Team.

3.8.4. Summary of support received from the local health innovation network and the TWC Central Team

- Nearly half of staff (48%) stated that their local health innovation network enabled improvements to lower limb wound care at their TES.
- The input from the local health innovation networks was appreciated by staff, by driving change in lower limb wound care.
- Just over half of staff (57%) stated that the support from the TWC Central Team enabled improvements to their lower limb wound care.
- The input from the TWC Central Team was received positively, particularly in promoting the importance of data capture, the use of technology, and facilitating the programme implementation across all TESs.

3.9. Environmental sustainability

3.9.1. Has the implementation of the NWCSP Lower Limb Recommendations reduced use of wound dressings, bandages, hosiery and any other relevant products?

A total of 80 responses were collected for this question. Just over a third of staff (37%) stated that applying the NWCSP recommendations reduced the use of wound dressings and other relevant products. However, just over a tenth of staff (14%) stated this was not the case and nearly half of the staff (49%) were not sure.

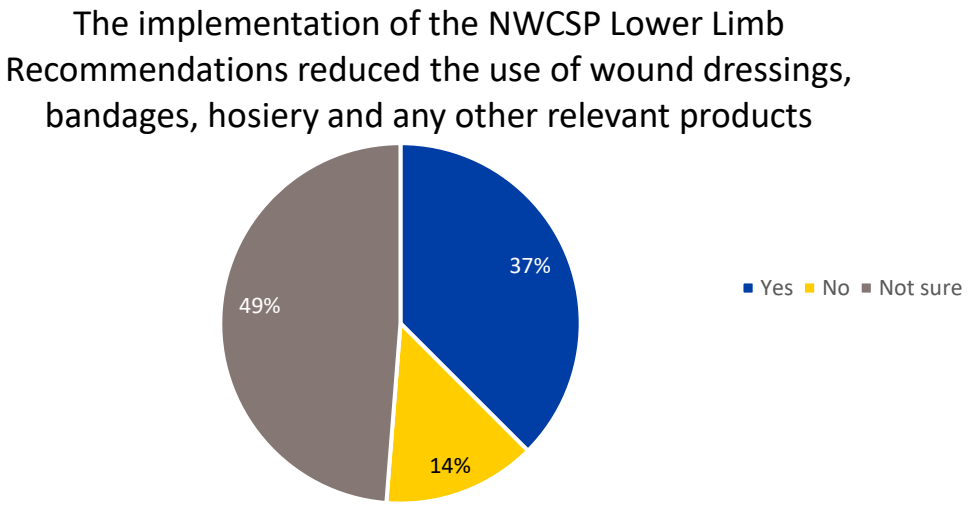


Figure 26 Staff perception of the reduction of the use of wound dressings, bandages, hosiery and any other relevant products since the implementation of the NWCSP Lower Limb Recommendations

3.10. NoMAD questionnaire

The NoMAD questionnaire, underpinned by NPT[2], measures the presence of four constructs to assess staff ability to mobilise, organise and engage in changing practice, as well as appraise and reflect on changes made, with the ambition to embed change as a routine practice. There are four constructs of the NoMAD questionnaire:

- **Coherence** (the mobilisation of a new practice) - how it is conceptualised and held together in action.
- **Cognitive participation** (participation in a new practice) - how members decide to engage.
- **Collective action** (enacting a practice) – how the new work is organised, and activities structured and constrained.
- **Reflexive monitoring** (the appraisal of a practice) – how the new practice is appraised and the effects of appraisal, i.e., how it is 'understood' and what changes the team make to accommodate the new practice.

The constructs of NoMAD questionnaire focus on what staff (i.e. staff involved in TWC programme) do rather than what they think or believe. It involves what sense people make of their activities, how they related to the work done by other colleagues, how they and others operate on tasks together, and how they appraise the impact of the new practice. The NoMAD questionnaire includes 20 statements across the four constructs and is rated on an agreement scale between 1-5 (strongly disagree – strongly agree).

All staff (n=100) were asked the screening question for the NoMAD questionnaire. The screening question asked the staff if they were involved at any time in supporting the delivery of NWCSP recommendations in their services. Forty staff stated yes, while 58 staff stated no, and three staff did not respond. Those who stated yes (40% of all staff) were invited to complete the NoMAD questionnaire. All but one staff from this sub-group (39 out of 40 eligible staff) responded to the NoMAD survey. Although responses were collected from staff across all TESs, the number of responses from each TES was low (ranging from one to eight responses per TES). To protect staff anonymity, TES-level analysis of the NoMAD survey was not conducted.

Table 3 below shows the combined score for each of the four constructs. The overall average score of the statements was positive (score of 4.3) with small differences between the constructs. Scores for each construct were above four (ratings of 1 'strongly disagree' to 5 'strongly agree') which suggested high agreement amongst the staff. The underlying assumption of the NoMAD questionnaire and the NPT is that higher ratings in each construct are suggestive of higher potential for the practice (i.e. the new lower limb services) to normalise. However, it is worth noting that the result presented here is a snapshot reflection of the programme at the time of data collection and it is open for further assessment in the future.

Table 3 Constructs of NoMAD survey and the average score

NoMAD constructs	Average score
Coherence	4.5
Cognitive participation	4.6
Collective action	4.1
Reflexive monitoring	4.3
Overall	**4.3**
Scoring: strongly agree=5; agree=4; neither agree nor disagree=3; disagree=2; strongly disagree=1	

The visual presentation of the response to each NoMAD questionnaire statement are shown in the series of figures below (**Figure 27** to **Figure 30**).

The first construct of NoMAD questionnaire (coherence) is about the work that staff do individually and collectively. The statements captured staff understanding of how practice based on the TWC programme differs from their usual ways of working, collective understanding of the purpose of the TWC programme, the individual's understanding of the impact on their specific tasks and responsibilities, and understanding the value, benefits and importance of the TWC programme. Response to the coherence statements showed good agreement (average score of 4.5, ranging from 4.3 to 4.6).

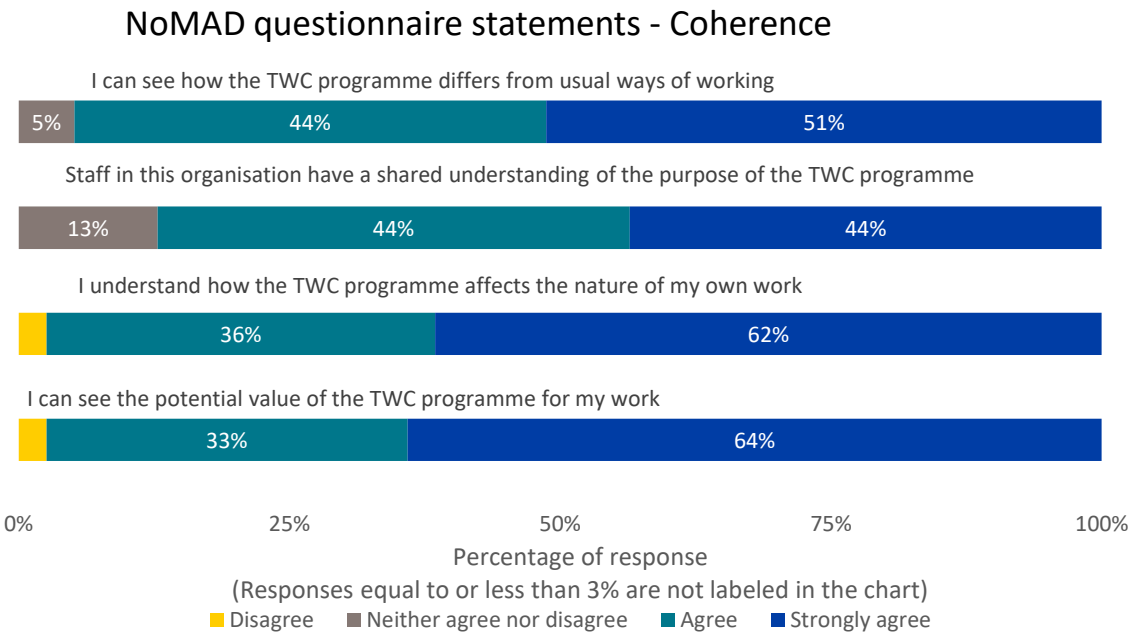


Figure 27 NoMAD questionnaire responses on coherence construct

The second construct (cognitive participation) is about the relational work that the staff do to build and sustain a community of practice. The associated statements captured staff understanding of who the key people driving the TWC programme are, the level of involvement and contribution the staff make, the need to make changes to collectively contribute to the TWC programme and the actions and process needed to continue with the TWC programme. Response to the cognitive participation statements showed good agreement (average score of 4.6, ranging from 4.5 to 4.7).

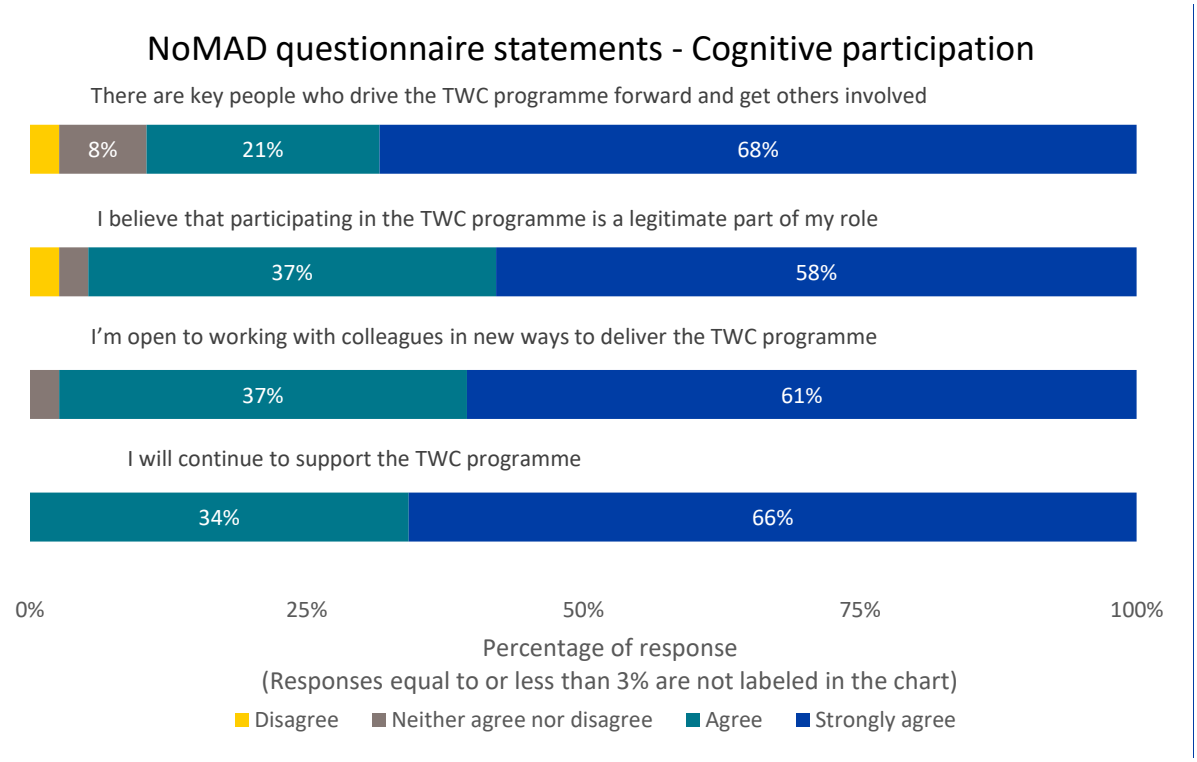


Figure 28 NoMAD questionnaire responses on cognitive participation construct

The third construct (collective action) is associated with the operational work that staff are involved to set up and integrate TWC programme into their ways of working. The statements on collective action cover staff understanding of the knowledge, skills, confidence and resources needed to integrate the new ways of working based on the TWC programme. Staff response to the cognitive collective action statements showed good agreement (average score of 4.1, ranging from 3.8 to 4.3).

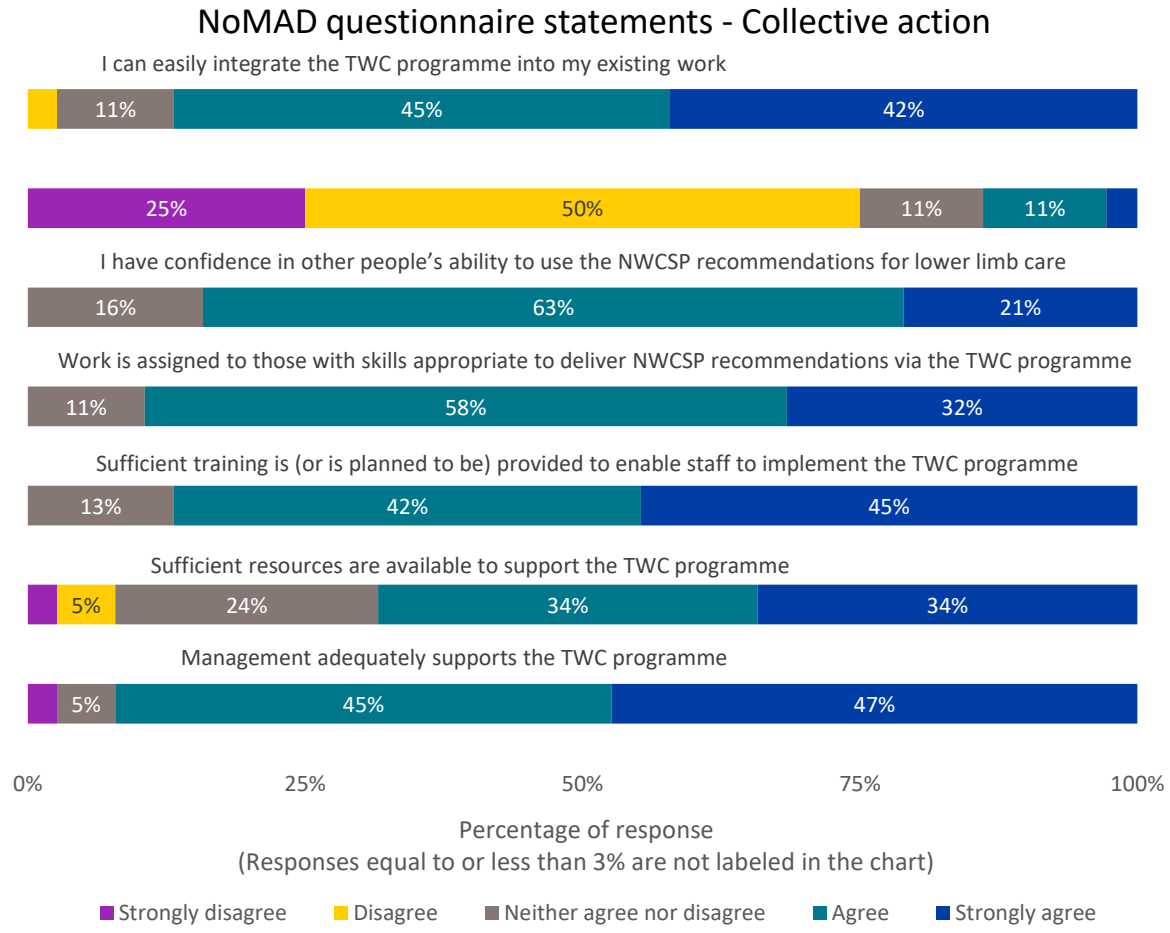


Figure 29 NoMAD questionnaire responses on collective action construct

The last construct (reflexive monitoring) is about what staff do to assess and understand the ways the TWC programme has impacted on their practice. The statements around reflexive monitoring cover staff understanding of the information about progress of the TWC programme, evaluation of the value the TWC programme has brought to their work, and the attempts to modify, if any, the TWC programme. Staff responses to the reflexive monitoring statements showed good agreement (average score of 4.3, ranging from 4.2 to 4.5).

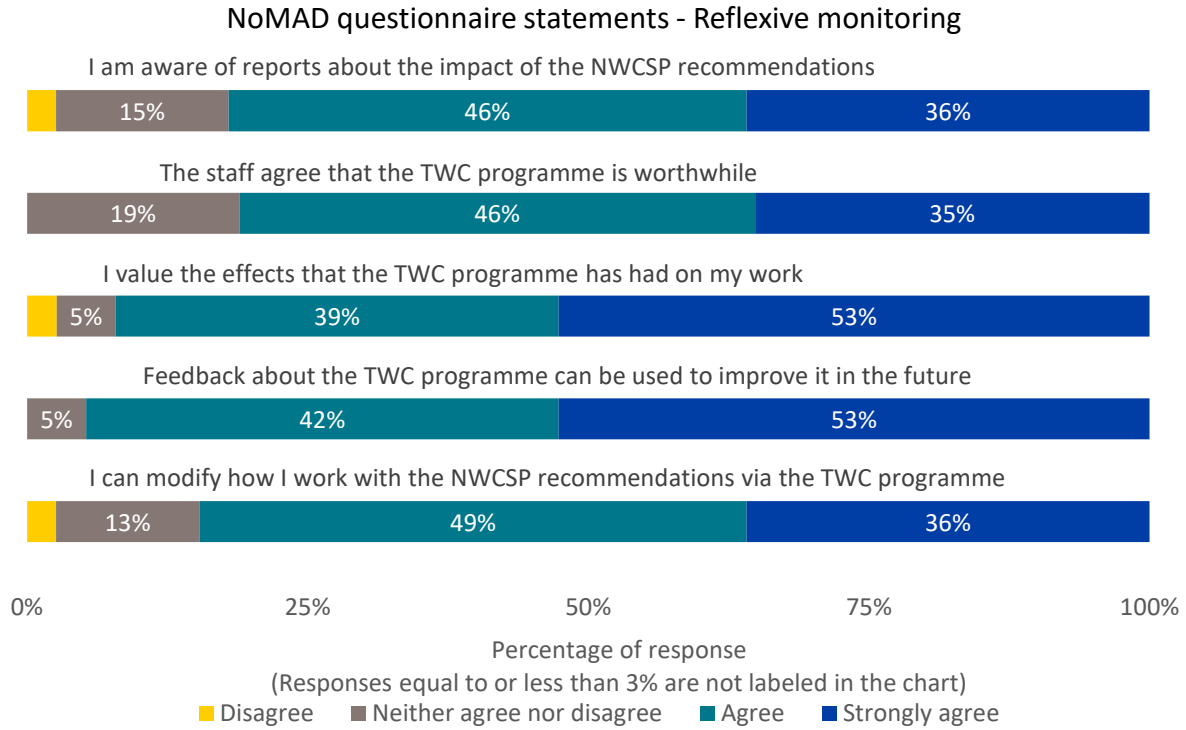


Figure 30 NoMAD questionnaire responses on reflexive monitoring construct

Exploring the responses in further detail, the first two constructs (coherence and cognitive engagement) scored relatively higher than the latter two constructs (collective action and reflexive monitoring). The small differences in the response to these constructs may suggest that the staff had a strong understanding of the TWC programme and its purposes (coherence) and who they needed to work with to put NWCSP Lower Limb Recommendations into practice (cognitive engagement). In comparison, the staff may have less confidence in how to integrate the TWC programme in their context (collective action) and how to determine the progress of TWC programme implementation (reflexive monitoring). The differences between scores are small, however, and the scores reflect the overall positive sentiments towards the implementation of the TWC programme.

4. Conclusion

The staff survey responses reflect the overall staff experience, impact and challenges faced in the implementation of the TWC programme. Survey responses were collected from staff across all TES to draw conclusions about the overall impact of the TWC programme. Overall, staff responses indicated a positive transformation of lower limb wound care and services at their TESs. However, the responses also highlighted the efforts required, challenges and difficulties experienced in the process of programme implementation, such as workforce capacity, patients' response to the new wound care approach (including compression treatments) and providing data for the metrics.

There is some parallel between the survey findings and the findings from other data collected, including the patient cases (refer to technical report 2), staff interviews (refer to technical report 3) and implementation tracker (refer to technical report 4). The synthesised findings and overall conclusions of the TWC programme evaluation are described in the main TWC programme evaluation report.

Version Control

Version	Status	Key Changes	Authorised by
V1 Oct 2024	Live		
V2 Nov 2024	Live	Final amendments completed	Philippa Darnton