



**National Wound Care
Strategy Programme**

**Lower
Limb
Wounds**

Implementing the Lower Limb Recommendations and Learnings from the First Tranche Implementation Sites

Final Evaluation Report

July 2024

Working in partnership with

**Health
Innovation
Network**

NHS



Explanatory notes on this Evaluation

This document is presented with the visual identity of the National Wound Care Strategy Programme (NWCSP) branding, an NHS England commissioned programme. It is important to clarify that the independent evaluation was conducted by PA Consulting, and neither NHS England nor the NWCSP had any influence over the findings and conclusions presented herein. We acknowledge and appreciate the thorough and impartial work conducted by PA Consulting.



Foreword

It is with great pride that I introduce the Final Evaluation Report 'Implementing the Lower Limb Recommendations and Learnings from the First Tranche Implementation Sites.' This report not only signifies a key moment in our ongoing commitment to improving healthcare outcomes but also highlights the significant strides we have made in enhancing wound care across England.

The ongoing work to improve wound care has focused on addressing the unwarranted variations in wound care services and to elevate the standard of care provided to individuals suffering from lower limb wounds. This initiative has been central to our aim to reduce patient suffering, improve healing rates, prevent complications, and, ultimately, deliver care that is both high in quality and cost-effective.

The findings and recommendations detailed in this report are a testament to the hard work and dedication of countless staff providing NHS services. Their commitment has resulted in improved healing rates, reduced recurrence of leg ulcers, and a more streamlined use of resources.

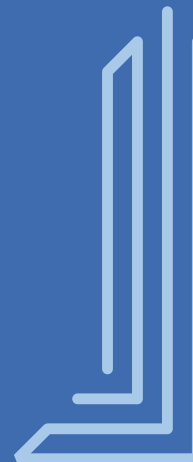
This work has not only improved outcomes for thousands of patients but also supported our environmental objectives by reducing the carbon footprint associated with healthcare delivery. It exemplifies how health innovation can align with ecological sustainability, advancing our goal towards a 'Net Zero' NHS.

The evaluation is a culmination of the hard work that has gone into improving lower limb wound services. It is a shining example of what we can achieve when we come together with a common purpose and a shared commitment to excellence. As we look to the future, the lessons learned from this work will undoubtedly influence and improve wound care practices across the NHS and beyond.

I invite all NHS staff and the wider public to engage with the findings of this report. Together, we can continue to drive improvements in patient care, making a lasting difference in the lives of those we serve.

Thank you to everyone who has played a part in this transformative work.

Charlotte McArdle
Deputy Chief Nursing Officer
NHS England



National Wound Care Strategy Programme (NWCSP) Lower Limb Workstream Final Evaluation

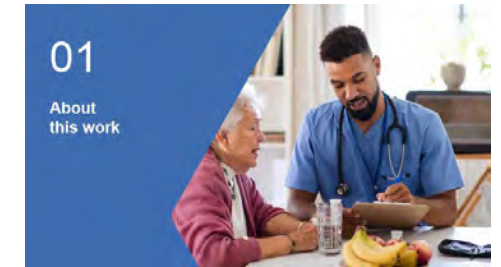
Contents

Please use the slide navigator opposite
by clicking directly on the image for quick
access to relevant section

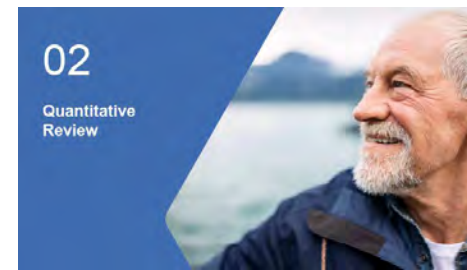
Executive Summary



About this work



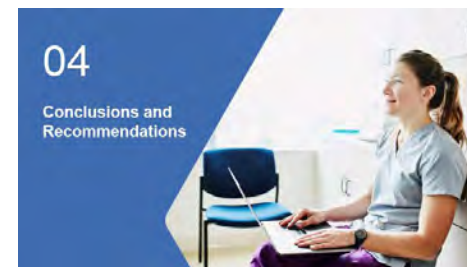
Quantitative Review



Qualitative Review



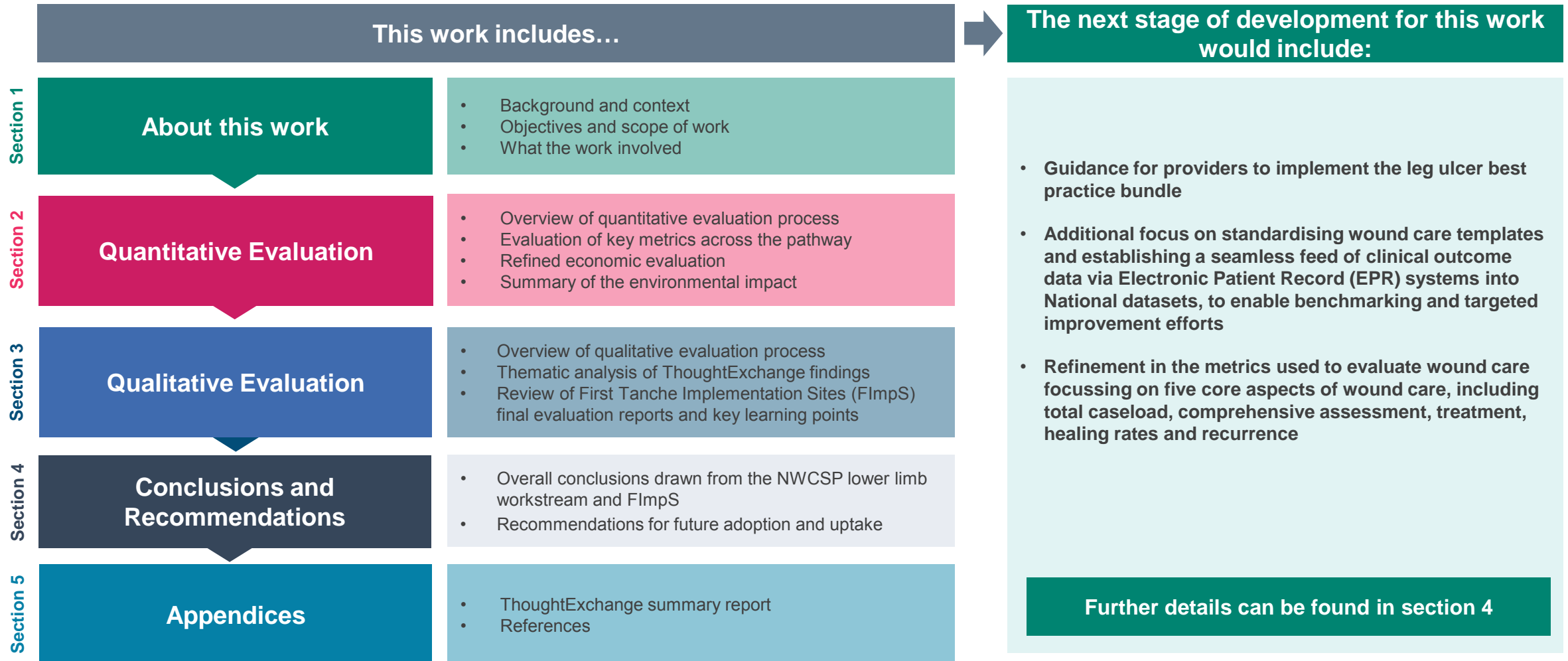
Conclusions and Recommendations



Appendices



This report is split up into several sections to outline the overall composition of the NWCSP Lower Limb Workstream Final Evaluation



Executive Summary



Based on the analysis in this review, there is a compelling case for adopting the principles of optimal lower limb wound care to improve outcomes

Since its inception in 2018, the National Wound Care Strategy Programme (NWCSP) lower limb workstream has **demonstrated the value of comprehensive lower limb wound care services** across the seven First Tranche Implementation Sites (FImpS), **significantly exceeding the implementation case assumptions in respect to clinical outcomes such as healing and recurrence rates**. In addition, refined **economic analysis suggests high value for money, combined with a positive environmental impact by reducing the carbon footprint**, in line with achieving sustainable service models.

What participants have said about the lower limb workstream:

“It has encouraged us to want to achieve excellence for people we work with and our colleagues - good for retention and wound healing”

“The project has undoubtedly improved lower limb wound care across the region”

“The NWCSP raised awareness within the organisation of not just lower limb wounds but all wounds”

“The NWCSP has been a vehicle for driving initiatives forward”

“Data and clinical delivery are intrinsically linked, but often seen as separate issues, so having a national drive around this has been very useful”

Lower Limb Workstream Summary Metrics



45% of patients on average receiving assessment within 14 days



52% leg ulcers healed at 0-12 weeks, rising to **69%** at 24 weeks



84% healing rate at 52 weeks for all lower limb wounds



14% recurrence rate for leg ulceration

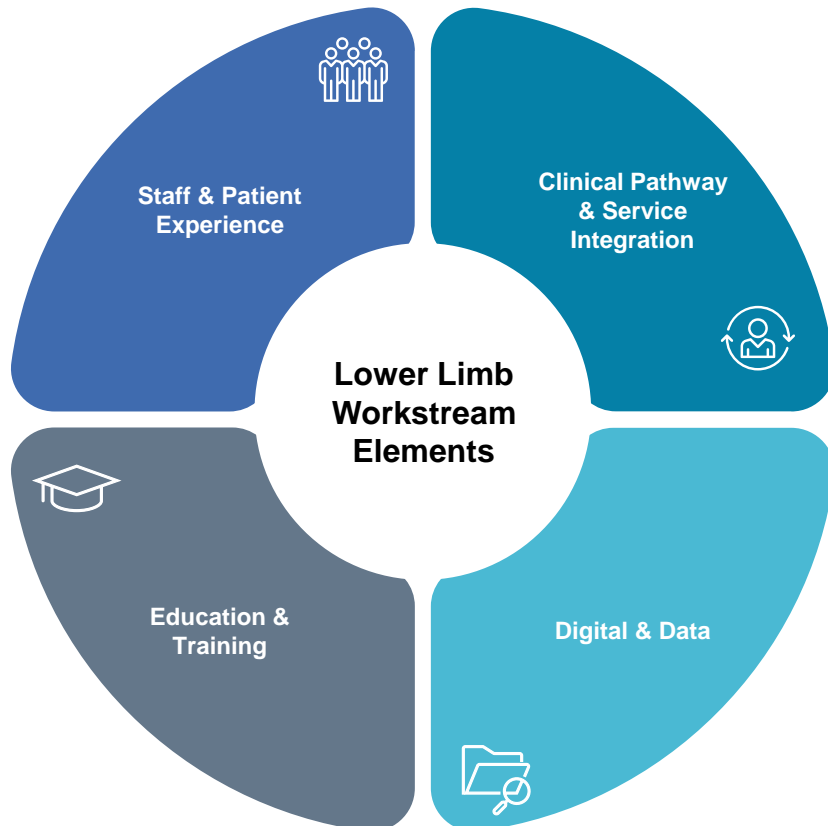


27.6 benefit-cost ratio based on outcomes achieved

Four key recommendations have been identified through the lessons learned from the First Tranche Implementation Sites to inform future adoption of lower limb wound care best practice

To complement the findings contained within this final evaluation in relation to the lower limb workstream elements, 4 key recommendations have been outlined with the aim of promoting future adoption and uptake of lower limb best practice wound care.

**Full details can be found within the [Conclusions and Recommendations section](#).*



- 1

Data collection should focus on five core aspects of wound care, including total caseload, comprehensive assessment, treatment, healing rates and recurrence. This standardisation will enable identification of unwarranted variation and targeted improvement efforts at both National and Regional levels.

National & Regional
- 2

ICBs should commission dedicated leg ulcer services at place level, requiring providers to report on agreed, standardised metrics. Implementation of the leg ulcer best practice bundle should be harnessed to achieve widespread adoption.

ICBs
- 3

Providers should give prominence to wound care as a transformation priority, on the strength of the clinical outcomes, value for money and positive staff and patient feedback as evidenced within this review. Equity of service provision should be addressed for diabetic and non-diabetic foot ulcers services.

Places & Providers
- 4

Digital Systems used to augment wound care services should demonstrate full integration with existing Electronic Patient Record systems, ensuring data collection is automated and captured in relevant national datasets - such as the Community Services Datasets - to avoid placing burden on clinicians to manually record metrics.

01

About this work



About the National Wound Care Strategy Programme – Lower Limb Workstream

In 2018, the National Wound Care Strategy Programme (NWCSP) was established by NHS England to address the unwarranted variation in wound care services in England, the lack of robust wound care information, and inadequate levels of wound care knowledge and skills across the health workforce. The lower limb workstream aimed to help systems to improve wound healing, prevent harm, reduce patient suffering, increase staff productivity, and deliver financial savings.

From the outset, the NWCSP sought to drive local improvement of the quality of care and outcomes for people with wounds (leg ulcers, pressure ulcers and surgical wound complications) through:

- Raising awareness of the burden and cost of wound care in England at system, regional and national levels
- Setting standards for clinical practice
- Developing educational frameworks and resources to upskill the workforce
- Implementing, testing and validating standards with local systems
- Developing implementation and measurement tools

The Lower Limb Workstream has continued to support implementation of the Leg¹ and Foot² Ulcer Recommendations through the seven First Tranche Implementation Sites (FImpS). The Transforming Wound Care (TWC) programme was subsequently established, which was a Health Innovation Network programme to further spread the lower limb quality improvement work for leg and foot ulcer care, building on the learning from the NWCSP lower limb workstream.



1 National Wound Care Strategy Programme, (2023) Recommendations for Leg Ulcers.
2 National Wound Care Strategy Programme: (2023) Recommendations for Foot Ulcers.

Requirements of this review, its deliverables and scope

Background and Context

The NWCSP lower limb workstream has now concluded, with the seven initial pilot sites - referred to as FImpS - having reached the end of their formal engagement with the programme.

The objective of this review – undertaken between February and March 2024 - is to conduct a final evaluation of the FImpS. This includes reviewing the extent to which the recommendations from the interim evaluation conducted in August 2022 have been implemented, testing key assumptions in the implementation case utilising available quantitative information and, in parallel, running a qualitative evaluation to inform future adoption of best practice lower limb wound care.

Requirements of Review

The specific requirements of this review are to:

- Conduct a quantitative evaluation of the implementation case using data from the FImpS, primarily focussed on key metrics such as first assessment, healing and recurrence rates
- In parallel, undertake a qualitative evaluation of the experiences of how the NWCSP recommendations have been adopted across the FImpS utilising the ThoughtExchange platform
- To identify lessons learned to inform the implementation of the NWCSP recommendations

The review included:	The review did not include:
<p>Quantitative evaluation has been based on the available data from the FImpS, primarily via the programme’s wound care dashboard.</p> <ul style="list-style-type: none"> • Analysis will aim to cover all seven implementation sites, contingent on the available data provided • Inclusion of artefacts in addition to FImpS wound care data, where this would add to the robustness of analysis • Analysis of outcomes using FImpS data versus that predicted by the model (to the extent that this is supported by available data) 	<ul style="list-style-type: none"> • Creation or use of datasets other than those used at mobilisation • Structural changes or rebuilding of the Implementation Case model • Material changes to the clinical model • Refresh of the Implementation Case document • Full analysis / evaluation of TWC programme or Test and Evaluation Site (TES) data
<p>Qualitative evaluation included:</p> <ul style="list-style-type: none"> • Key document review - programme / FImpS, including final evaluation documentation • Design and delivery of a suitable ThoughtExchange survey, distributed to all FImpS • Discussion with NWCSP National Team • Thematic analysis of findings generated from the ThoughtExchange, linked to implementation case • Conclusions and recommendations to inform future adoption of best practice lower limb wound care 	<ul style="list-style-type: none"> • Structured interviews with NWCSP central team and key staff from FImpS • Site visits to FImpS • External clinical review / quality review validation • Implementation planning (including costings) for the review’s recommendations

What has been done within the final evaluation of the NWCSP Lower Limb Workstream, and what are the next steps?



What the key metrics have told us about the programme

We have analysed and interpreted the data submitted via each implementation site and made available on the wound care dashboard, gauging real-world achievement against the proposed implementation case assumptions.



What participants have told us about the programme

The ThoughtExchange platform has been used to capture thoughts from participants within the lower limb workstream across all FImpS, alongside FImpS self-evaluations and artefacts provided to the NWCSP.



Conclusions & Recommendations

Consolidating the position from quantitative and qualitative analysis, we have been able to draw conclusions from the lower limb workstream and develop a series of recommendations for future adoption.

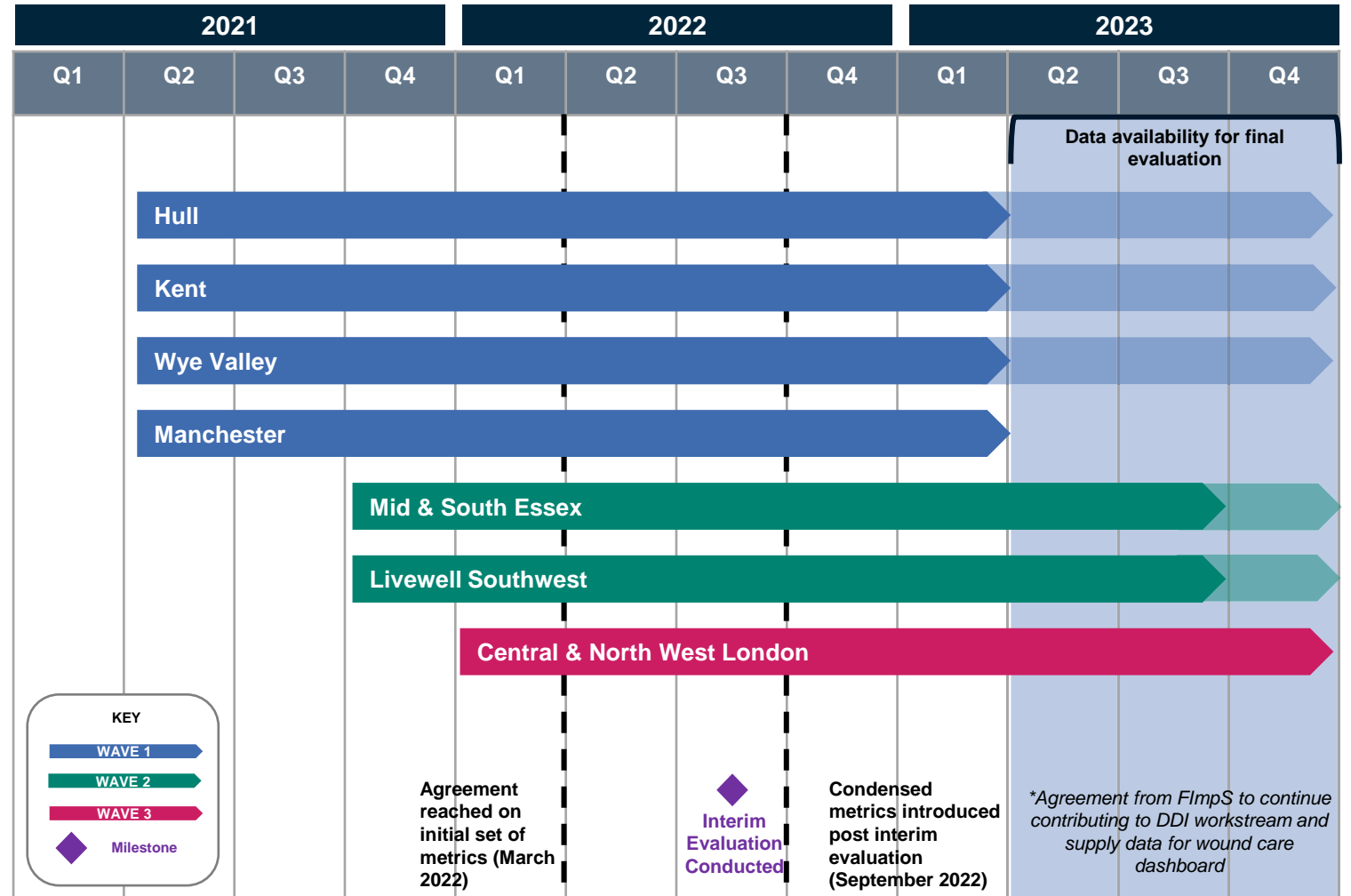
In evaluating the lower limb workstream, it is important to recognise the various stages of onboarding of each of the FImpS and the impact on data quality and completeness

In preparing this final evaluation, there are some important factors to contextualise, specifically in relation to data availability across each site. All FImpS were included in the programme for a period of two years. As shown in the chart, each of the seven initial sites were onboarded to the programme in three distinct waves. The primary objective for each site was to operationalise leg ulcer best practice recommendations, with the key learning points subsequently used to develop the leg ulcer best practice bundle.

In consideration of the wave one cohort, it is important to note that the initial agreed long list of 30 metrics were introduced when these sites were already one year into their respective involvement with the programme. In addition, this long list of metrics was subsequently refined following interim evaluation of the programme in August 2022, with a condensed list of 12 metrics introduced in September 2022.

Despite the end of formal involvement with the programme for wave one sites by the end of March 2023, many of the FImpS remained actively involved in the Digital, Data and Information (DDI) workstream beyond this point. Similarly, both wave two sites also continued to engage with the DDI workstream beyond their formal engagement with the programme. As a result, each of these sites continued to provide data returns to the wound care dashboard.

Given the improved completeness and quality observed in the wound care dashboard from this point, the quantitative analysis for this final evaluation focusses primarily on the period of March 2023 – December 2023.



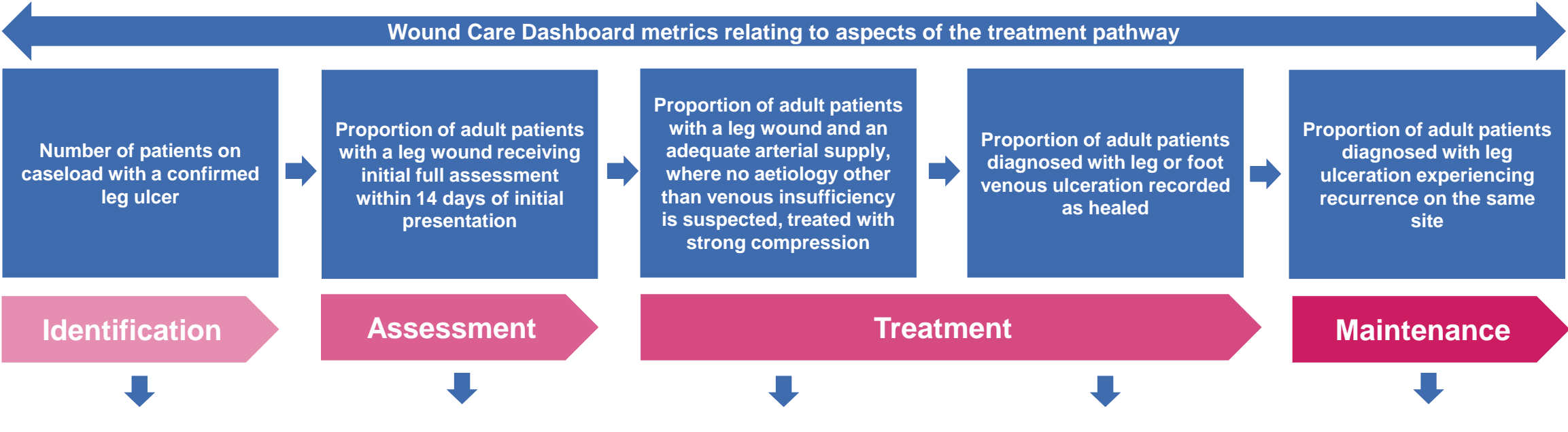
02

Quantitative
Review

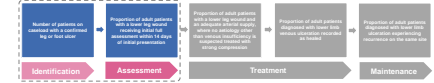


Quantitative analysis has been structured to align with the key metrics across the clinical pathway for lower limb wounds

Quantitative analysis for this final evaluation has focussed on the various elements of the wound care pathway aligned to the metrics captured by FImpS as shown below. As discussed in section 2, due to the dates of introduction for the agreed metrics via the wound care dashboard and subsequent condensed list of metrics following interim evaluation, this analysis focusses primarily on the available data spanning the period March – December 2023. All quantitative analysis in this section has been conducted on the NWCSP wound care dashboard, accurate as of December 2023.



We have consolidated the quantitative data available from the implementation sites – submitted via the wound care dashboard - to inform analysis against the implementation case and evidenced based best practice



Across the programme, 45% of leg ulcer patients received comprehensive assessment within 14 days of identification by a healthcare professional

This element focuses on establishing / improving dedicated leg ulcer services, staffed with clinicians with the appropriate knowledge, skills, equipment and time to deliver wound care. It ensures that patients receive a documented comprehensive assessment, diagnosis and treatment plan within 14 days of initial presentation.

Data in relation to this metric was available for analysis from six of the seven sites (Hull, Wye Valley, Kent, Livewell Southwest, Mid & South Essex and Central & North West London). Between the period March 2023 – December 2023, **a total number of 5,350 patients were included in analysis, with 2,413 recorded as having an assessment within 14 days of assessment, equating to 45.1%.**

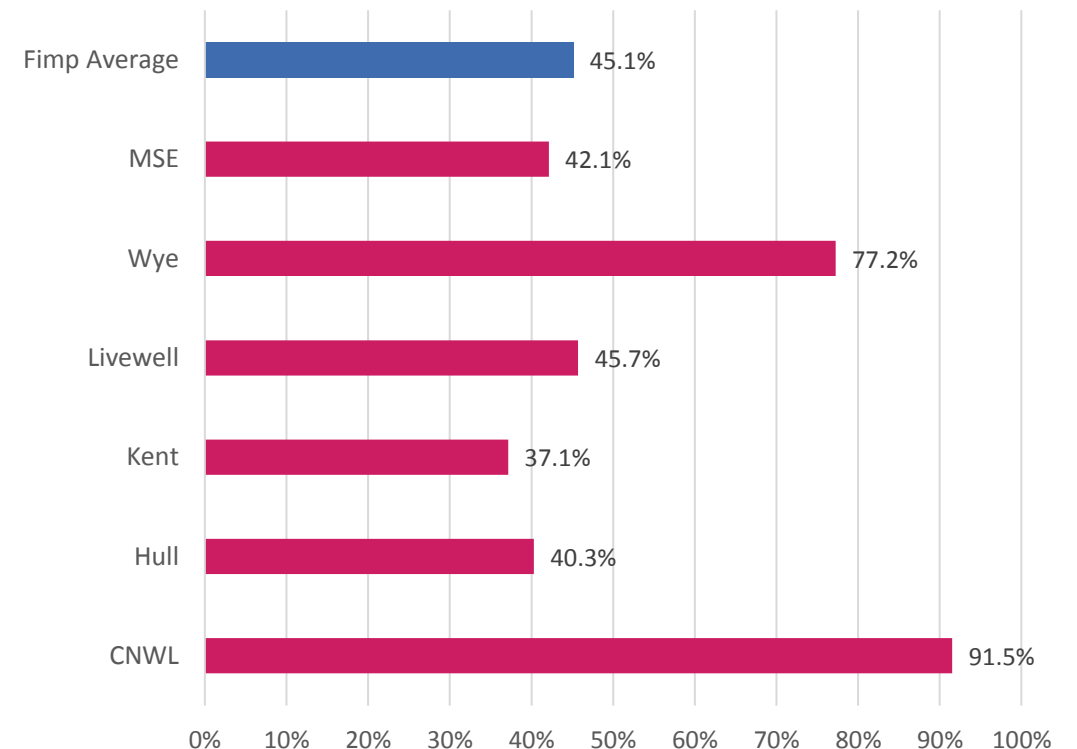
The graph opposite shows that completion of comprehensive assessment within 14 days of identification varied greatly between the sites who able to provide this data, from 37.1% in Kent, to 91.5% achieved in Central & North West London.

Whilst there are no baseline figures for comparison, **the average monthly figure has remained consistent (between 40-50%) across the period analysed**, highlighting the importance of ensuring a dedicated service is in-situ to achieve sustainability.

Due to gaps in data collection, **it is not currently possible to fully analyse the relationship between timely assessment, compression and healing.** For those with suspected venous leg ulceration and an adequate arterial supply identified at assessment, strong compression therapy should be offered.

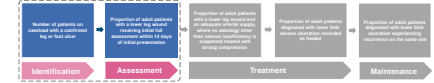
It should also be noted that **there is no single measure currently captured within the wound care dashboard which provides an understanding of total caseload for each site**, therefore proxy measures such as denominators for assessment and healing rates have been used to provide an estimate on caseload.

Percentage of patients who receive an assessment within 14 days by site



Key Findings:

- Across the lower limb workstream, 45.1% of patients recorded as having a lower limb ulcer were assessed fully within 14 days of identification



There is some evidence that achieving timely assessment may have a positive impact on early healing rates for leg ulcers

Due to gaps in data collection, it is challenging to analyse in detail the relationship between timely assessment, compression and healing. In some instances, however, **it is observed that there is a moderate to strong positive relationship between timely assessment and healing rates at 0-12 weeks.**

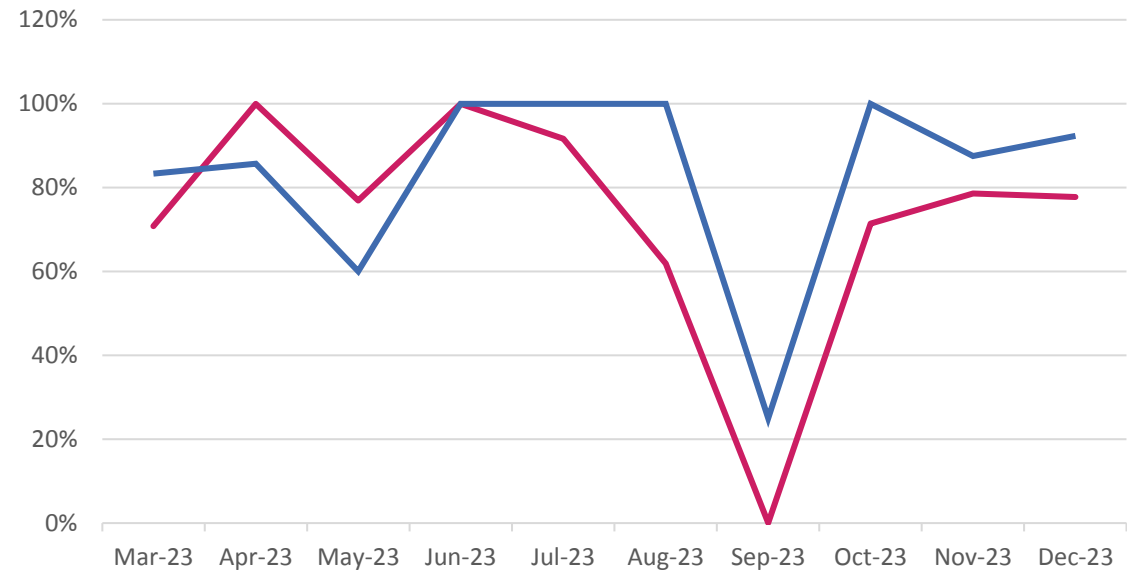
As shown in the figure opposite, plotting the relationship between assessment and healing rates achieved at 12 weeks for Wye Valley shows in this instance a strong positive relationship, with a correlation coefficient of 0.79. Whilst this is not replicated for each site, there are other observed instances with similar results when comparing early assessment and healing rates at 0-12 weeks, for example one provider within Mid and South Essex (North East London NHS Foundation Trust, with a correlation coefficient of 0.56 between variables).

As data sets evolve and achieve greater maturity, it may be useful to investigate these relationships further. **Although no causal relationship can be concluded, it is possible that achieving high compliance to timely assessment may lead to improved healing rates for lower limb ulcers.** It may be inferred from these findings that timely assessment enables commencement of the most appropriate treatment at the earliest opportunity in the patient pathway, which therefore results in the best opportunity for healing.

Key Findings

- Achieving higher rates of initial assessment has been found to positively correlate to healing rates at 0-12 weeks in some instances
- Further exploration of the relationship between timely assessment, compression and healing is needed to validate these findings

Comparing the relationship between assessment and healing rates at 0-12 weeks for Wye Valley



	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23
Ax	71%	100%	77%	100%	92%	62%	0%	71%	79%	78%
Healing 0-12	83%	86%	60%	100%	100%	100%	25%	100%	88%	92%



The application of strong compression appears variable across FImpS, however there are several factors identified from the literature which may explain this

Across the date range analysed (March 2023 – December 2023), of the total number of patients recorded as having a leg wound with adequate arterial supply and no other suspected aetiology of the wound other than venous insufficiency (2,132), **46.9% were treated with strong compression therapy** (999).

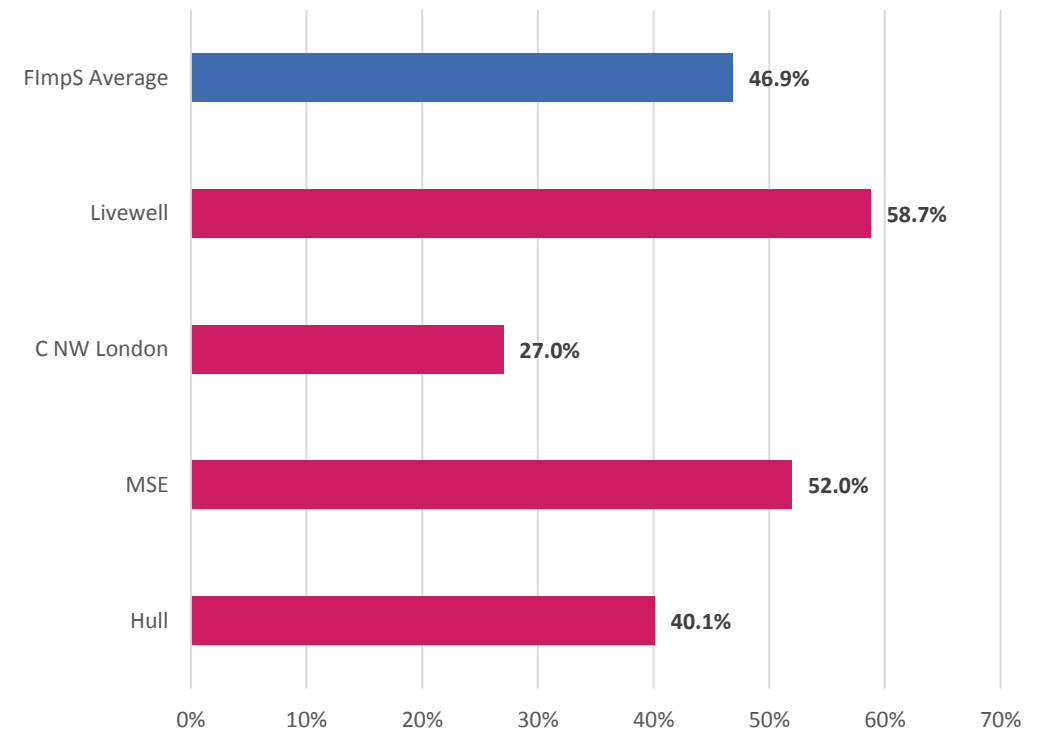
In isolation, the percentage of patients treated with strong compression therapy appears low, however this may be explained by accuracy in recording, or other known external factors as identified in the literature investigating the barriers to use of compression therapy in patients with venous leg ulcers³. Non-adherence and clinician anxiety around having the “confidence to compress” were themes which were reported by the FImpS Clinical Leads.

The limited ability to explore relationships between assessment, application of compression and healing rates is due to the nature of data capture. Of all FImpS, only Hull, Central & North West London and sub-sites of Mid & South Essex have captured these metrics consistently. Despite this limitation and the relatively low rate of compression application in Central & North West London, **comparison of compression versus healing rates for this site shows a moderately strong positive correlation coefficient of 0.47**. This is not however reproduced across other sites, therefore the relationships between these variables should be explored further.

Key Findings

- There is early evidence that the rate of compression may positively correlate to wound healing, however this is not currently replicated across sites
- Further exploration of the relationship between timely assessment, compression and healing is needed to validate these findings

Comparison of Strong Compression Application Across FImpS



³ Perry, C. et al., 2023. Barriers and facilitators to use of compression therapy by people with venous leg ulcers: A qualitative exploration. *Journal of Advanced Nursing*, 79(7), pp. 2568-2584.



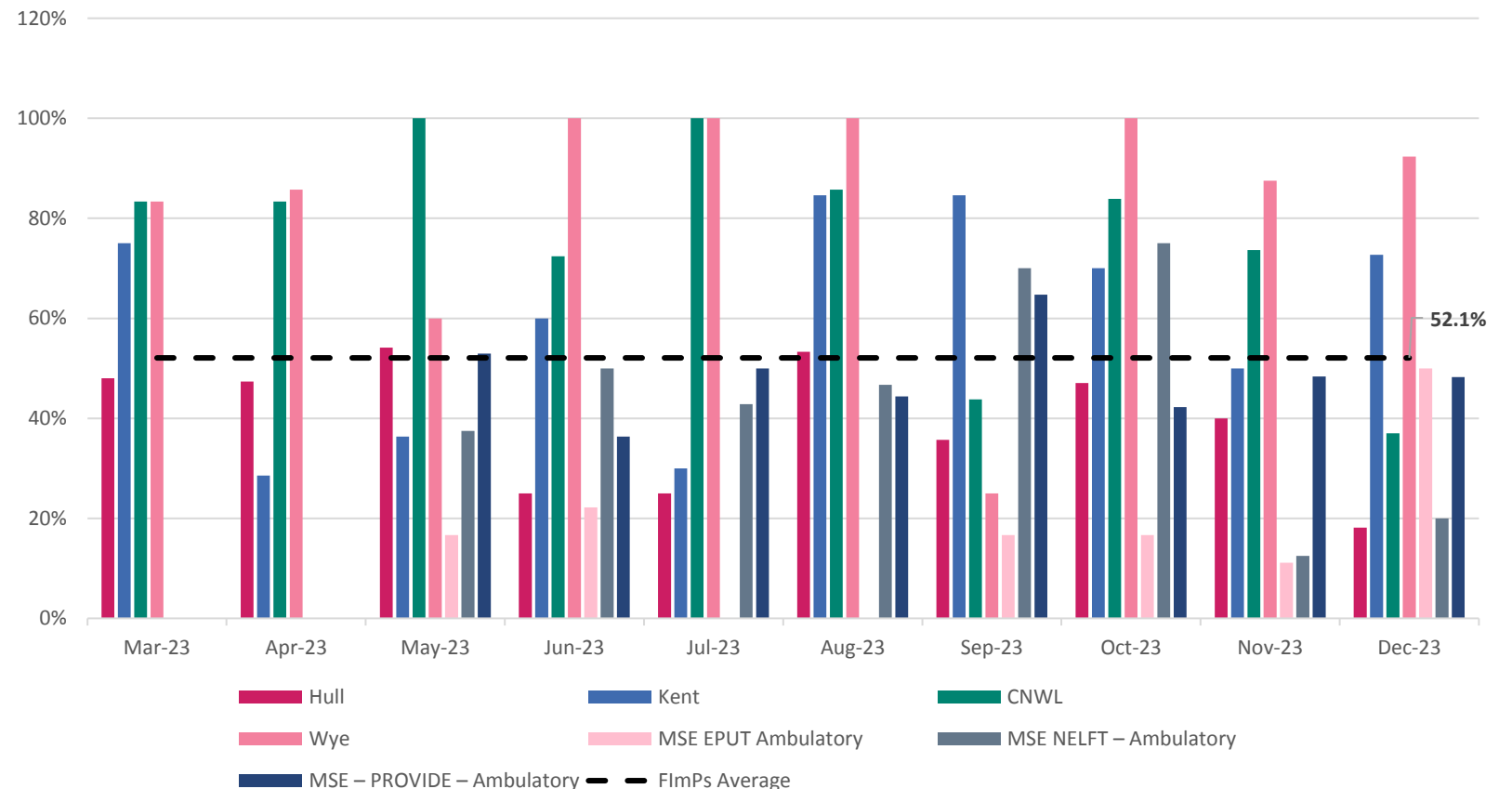
Several of the FImpS have delivered consistent venous leg ulcer healing rates at 0-12 weeks post identification, achieving higher healing rates than the stated baseline

When interpreting the data in relation to venous leg ulcer healing rates at 0-12 weeks post-identification, FImpS able to provide consistent data over a 6-month period have been included in the final analysis. Whilst there are data gaps remaining, it should be noted that there is considerable improvement in the availability of data returns showing healing rate in comparison to the interim evaluation, whereby data availability was limited.

The average of 52.1% healing rate at 12 weeks - across the sites able to provide consistent data - exceeds the national baseline for venous leg ulcers recorded as 37% at 52 weeks⁴.

Furthermore, **several sites such as Central & North West London, Wye Valley and Kent have not only exceeded the implementation case assumption of 61% wound healing at 52 weeks, but have achieved this healing rate within 12 weeks.**

Venous Leg Ulcer healing rates at 0-12 weeks by site



Key Findings

- The workstream has achieved an average leg ulcer healing rate of 52.1% at 0-12 weeks, greatly exceeding the stated baseline

4 Guest, J. F., Fuller, G. W. & Vowden, P., 2020. Cohort study evaluating the burden of wounds to the UK's National Health Service in 2017/2018: update from 2012/2013. *BMJ Open*, 10(12).



The vast majority of leg ulcer healing occurred within 24 weeks of identification, with the cumulative healing rates achieved at 52 weeks greatly exceeding the stated baseline

Analysing data from the same sites which were able to provide data on healing rates at 0-12 weeks, the healing rates at 12-24 weeks and 24-52 weeks respectively are provided in the figure opposite, alongside the cumulative position on total percentage of patients healed within 52 weeks.

The vast majority of healing has been found to occur within the early stages following identification. Notably, **over two-thirds (68.8%) of the overall healing for leg ulcers was found to occur at 24 weeks**, with a lower percentage of healing recorded as the time from identification increases. This may be in part explained by the complexity and chronicity of wounds included in the analysis. **Early healing is important as it is known from the available literature that resource usage associated with managing unhealed wounds is substantially greater than that of managing healed wounds⁴.**

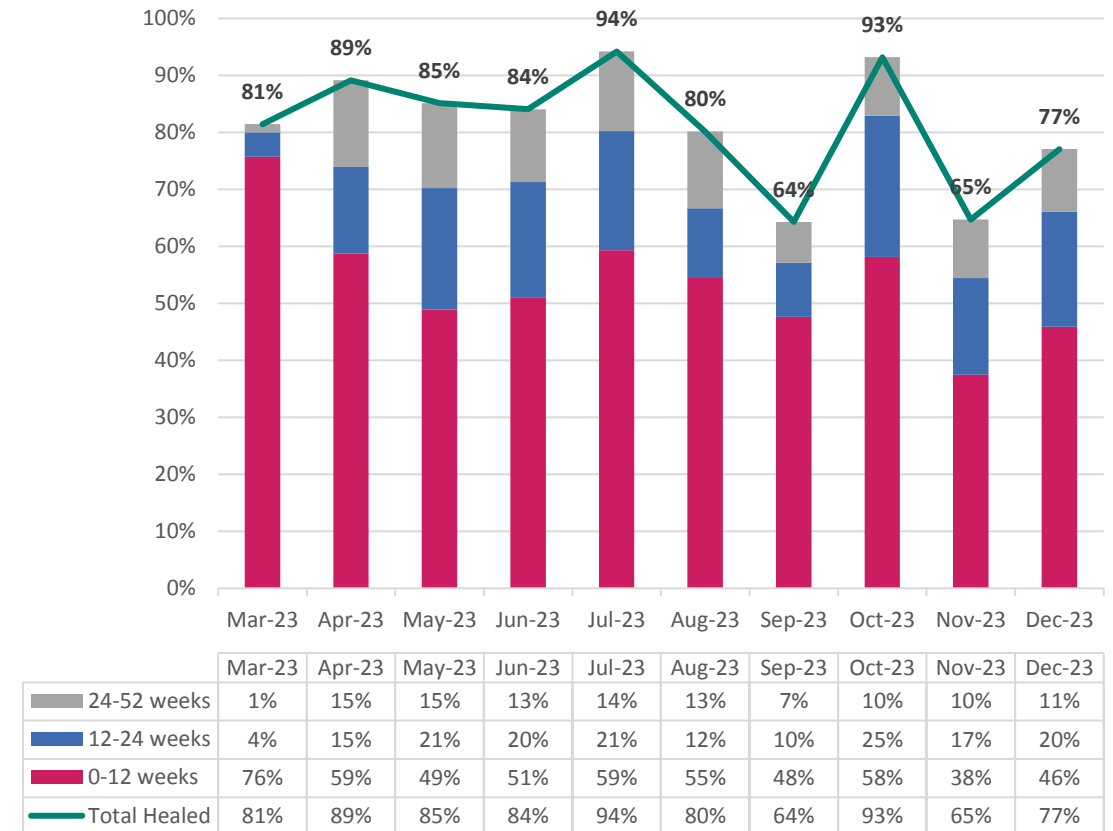
Healing at 52 weeks for venous leg ulcers was found to be 79.8%, which is significantly higher than the stated baseline of 37%.

Additionally, **the implementation case assumed that, on average between venous leg ulcers and mixed wounds, 61% of wounds would be healed within 52 weeks. Across the programme, this healing rate has been significantly exceeded.**

Key Findings

- For venous leg ulceration, the workstream has achieved an average healing rate of 79.8% at 52 weeks, which greatly exceeds the stated baseline of 37% and the implementation case assumption of 61%
- The profile of venous leg ulcer healing is non-linear, with over two-thirds of healing recorded at 24 weeks

Total % of Leg Ulcers Healed Within 52 weeks



4 Guest, J. F., Fuller, G. W. & Vowden, P., 2020. Cohort study evaluating the burden of wounds to the UK's National Health Service in 2017/2018: update from 2012/2013. *BMJ Open*, 10(12).



In line with venous leg ulcer healing, the cumulative healing rates achieved for both diabetic and non-diabetic foot ulcers are also consistently high

Reviewing the available data in respect to healing rates for leg ulcer, non-diabetic and diabetic foot ulceration, we can see from the table opposite that **consistently high healing rates have been achieved across each type of lower limb ulcer included within the lower limb workstream.**

Of the combined 1,726 patients able to be included in the analysis, 1,443 were recorded as ‘healed’ at 52 weeks post-identification by a healthcare professional, **representing an 83.6% healing rate across the lower limb wound care workstream.**

Despite a much lower denominator in comparison to leg ulcer cases, **cumulative healing rates for non-diabetic (88.7%) and diabetic (89.3%) foot ulcers are very high.** The lower volume of patients in respect to foot ulcers may be explained somewhat by the focus of each of the FImpS, recognising the difference in staff groups normally delivering care for leg and foot ulcers. Notably, several sites were primarily nurse led as opposed to podiatry, therefore were able to record leg ulcer care more readily.

Despite the high healing rates noted, this should be interpreted with a degree of caution. As data capture may cover only the discrete elements of the pathway delivered by each site, there may be further cohorts of patients who have not been fully captured in this analysis. For example, where sites may have documented the patients that attended their specific service - such as a dedicated community-based lower limb service - there are likely to be additional patients managed in primary or secondary care settings within their locality which are not represented in this analysis.

Key Findings

- The combined healing rate for lower limb ulceration is very high at 83.6%
- The profile of healing rates is similar for leg and foot ulcers, with the highest proportion occurring at 0-12 weeks and most healing occurring within 24 weeks
- Results should be interpreted with caution as data capture to date may not be fully reflective of the full demand across the pathway

	Leg Ulcer	Non-Diabetic Foot Ulcer	Diabetic Foot Ulcer	
Total number of patients	1019	186	521	
Total number of patients recorded as healed at 52 weeks	813	165	465	
Cumulative Healing Rates:	0-12 Weeks	52.1%	57.5%	63.9%
	12-24 Weeks	68.8%	76.9%	79.1%
	24-52 Weeks	79.8%	88.7%	89.3%



Overall, the recurrence rate across the programme is 14% for venous leg ulcers, however data on recurrence rates remains limited

Data on recurrence was limited, therefore values have been combined to provide an understanding across the programme. Of the four sites able to provide data returns in relation to recurrence for venous leg ulcer, there were a total of 1,216 patients included in the initial analysis spanning the period March 2023 – December 2023. However, as Kent accounted for 525 of these patients and returned a recurrence rate of 0, it has been assumed this is likely to be an error in recording and therefore these patients have been excluded from the final analysis.

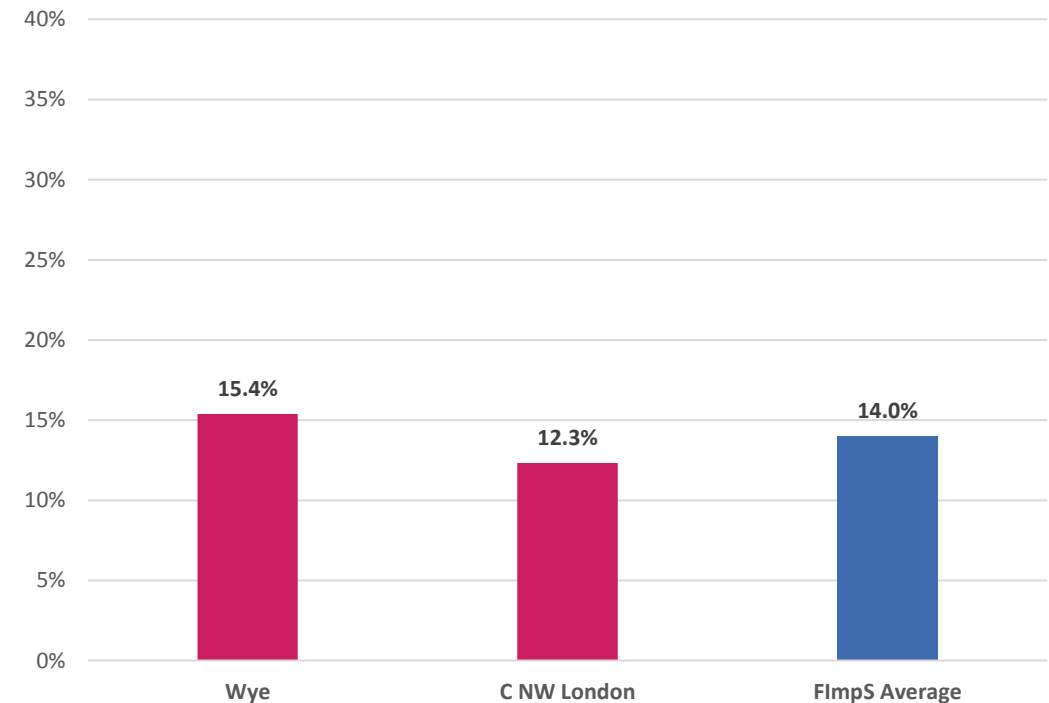
Of the remaining 691 patients included in the final analysis, 97 were recorded as experiencing a recurrence of their venous leg ulcer on the same site within 52 weeks of identification, providing a recurrence rate of 14% across the programme. This information has been summarised across the sites as shown opposite. Despite returning a high recurrence rate (68.4%) in comparison to other sites, it should be noted that Hull accounted for only 19 patients within the analysis, of which 13 experienced a recurrence on the same site, resulting in a skewed recurrence rate for this site. Analysis for recurrence rates in relation to foot ulceration was not possible due to minimal data recorded for this cohort.

There are several observed limitations in recording of recurrence. Firstly, it is important to consider that most robust available data available for analysis for the programme covers a period of less than 52 weeks, therefore it is likely that a proportion of patients earlier recorded as 'healed' may go on to experience a recurrence in future. Secondly, the interpretation of this metric may include existing patients on respective caseloads who are undergoing treatment for recurrence, therefore inconsistency in reporting should be considered when interpreting or extrapolating these results.

Key Findings

- Recurrent rate for leg ulcers was found to be 14% across the workstream, which is significantly lower than the implementation case assumption
- Data capture in relation to recurrence remains limited

Venous Leg Ulcer recurrence rate within 52 weeks of identification by site

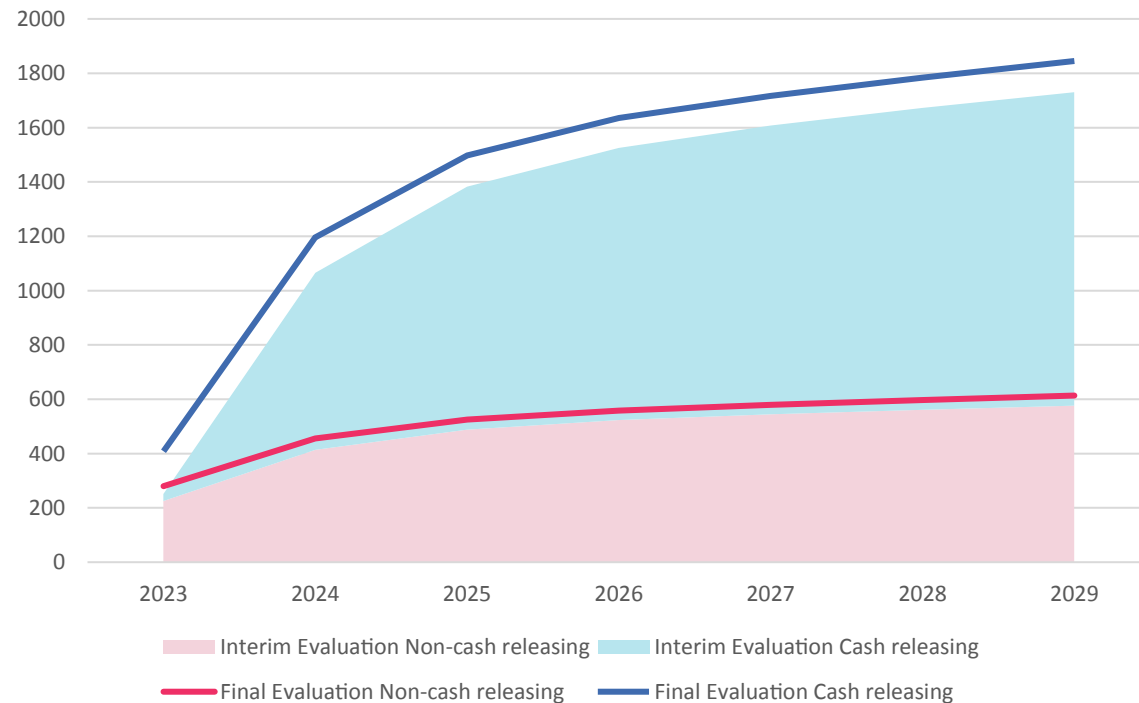


Since the Interim Evaluation, there have been increases in both cost and benefits of the economic evaluation

Since the Interim Evaluation, which had healing rate of 71% and recurrence rate of 6%, benefits have increased due to improvements in healing rates. This has led to an increase of 7% in net benefits till 2050.

Pay increases across the NHS above expected inflationary growth have meant that implementation costs of the national model would increase by 6.7%. The table below demonstrates the total estimated costs of implementation, summed till 2050.

Annual benefits, by cash releasing and non-cash releasing (£bn) - comparison of Interim and Final Evaluation



Cost till 2050 (£m)	Total value – Interim Evaluation	Total value – Final Evaluation
Clinic set-up costs	£0	£0.5
Clinic running costs	£891	£973
Leg club running costs	£197	£207
One-off training cost	£7	£8
Annual training cost	£6	£7
Programme management costs	£49	£49
Monitor and evaluation costs	£3	£3
Annual Data capture costs	£218	£218
One-off Data capture costs	£2	£2
Total	£1,373	£1,466

Notes: Pay growth has been calculated using:

1. NHS Terms & Conditions 23/24 – Pay bands and pay points April 2023
2. PSSRU Unit Costs of Health and Social Care 2019
3. Bank of England, Consumer Price Index

Delivery of the NWCSP lower limb workstream has enabled refinement in the understanding of the real-world benefits achievable from implementing optimal wound care

Comparison between baseline figures gathered from academic research, implementation case assumptions, and interim evaluation through to final review has provided an opportunity to better understand the impact of providing optimal wound care.

The progression from a conceptual, forward-looking base position, to incomplete real-world data at interim evaluation, through to richer data availability at this final evaluation has aided in refining this understanding. This is evident from the quality and quantity of data returns used at interim and final evaluation stages. For example, the interim evaluation position on healing rates at 52 weeks were based on data from two sites only, whilst final evaluation figures are based on information from five FImpS. Similarly, recurrence rates at interim evaluation were based on data from a single site (Wye Valley), whereas final evaluation figures are based on data from three sites.

Key Findings

One of the key factors when undertaking economic analysis is to understand the Benefit Cost Ratio (BCR) – the ratio of benefits to costs from an intervention i.e., the amount of benefits generated for every £1 of investment. By HM Treasury standards, above 4 is considered very high value for money

The table to the right gives the healing and recurrence rates for the implementation case, the baseline rate, the observed rate at interim and final evaluation, as well as the average BCR between them

The improvement in healing rate when compared to the implementation case and those observed during the interim evaluation have offset the additional cost due to pay increases above inflation – leading to a **BCR of 27.6**

Scenario	Healing rate %	Recurrence rate %	BCR
Baseline	47%	48%	-
Implementation case model	61%	37%	9.8
Observed scenario from interim evaluation	71% [based on 2 sites]	6% [based on 1 site]	27.5 [based on 2 sites]
Final evaluation (no adjustment for pay increase)	79%	14%	30.5
Final evaluation (with adjustment for pay increase)	79%	14%	27.6

Achieving the majority of healing within 24 weeks of identification can have a positive impact on service provision and the environment

As a key finding for this evaluation, **over two-thirds of all reported lower limb wound healing occurred within the first 24 weeks post-identification**. This non-linear profile of wound healing timescales has several potential impacts on service delivery and workforce, including:

- **Reduction in clinical time and overall number of visits required to provide care**
- **Reduction in dressings, associated wound care products and prescribed medication required to deliver clinical care**
- Ability to shift the focus of delivery from reactive treatment, to more pro-active and preventative measures

Furthermore, in line with sustainable models of care as set out by the Delivering a 'Net Zero' Health Service report⁵, new service models must focus on sustainability and reducing emissions. Optimising the location of care ensures that patients interact with the service in the most efficient place, which may be closer to, or even in, their home. Not only does this improve patient experience and offer greater access to care, but it also reduces emissions by helping to avoid unnecessary hospital visits and potential admissions.

Whilst work is in progress to validate the environmental impact in relation to the NWCSF recommendations, early indications suggest that the programme has had a positive impact. To quantify the carbon (net zero) impact of the programme, the NWCSF Team worked with the Health Innovation Network National Net Zero Lead to explore the potential carbon impact.⁶ Whilst there are recognised limitations in relation to available metrics, the underpinning methodology used was based primarily on a comparison of the national baseline for venous leg ulcers and the healing rates of leg ulcers at the FlmpS during the 10-months of data capture (March to Dec 23).

⁵ NHS England, 2020. Delivering a 'Net Zero' National Health Service, London: NHS England.

⁶ National Wound Care Strategy Programme FlmpS Evaluation: Carbon (Net Zero) Impact Report

There is a high degree of confidence that a healed leg ulcer has a lower carbon impact than an unhealed leg ulcer (annual variance of 656 kg CO₂e). A scenario has been modelled which shows that if all the patients that received best practice care in line with the Lower Limb Recommendations had received sub-optimal care, the estimated carbon impact would have been 693,446 CO₂e; an annual net impact (i.e. more carbon-intensive) of 473,305 kg CO₂e.

However, it can be difficult to understand carbon intensity based on kg CO₂e, so it is often common practice to turn this data into carbon equivalencies. For this evaluation, several carbon equivalencies were used. This is to give some form of scale and frame of reference to how carbon-intensive care is and the associated savings. The net annual impact of 473,305 kg CO₂e is equivalent to 1,764,690 car miles or 277 cars driven yearly. To absorb the same amount of carbon emissions, it would require planting 19,224 trees, covering an area equivalent to 3 football pitches, every year.

Although there are limitations to the current data, it is important to signal the potential carbon reduction impact of good patient care, to continue to develop new models of delivery and to support adoption of best practice.

As data in relation to wound care and outcomes continues to mature, further analysis in relation to carbon impact should be undertaken to increase the accuracy of the analysis and the assumptions.

Estimated carbon (net zero) impact from patients receiving optimal care during the lower limb workstream for leg ulcers:



473,305kg of CO₂e reduced during the programme, equivalent to;



1,764,960 car miles, or



277 cars driven in a year

03

Qualitative
Review



This qualitative review has been structured around intervention themes outlined within the implementation case, drawing on feedback from several sources

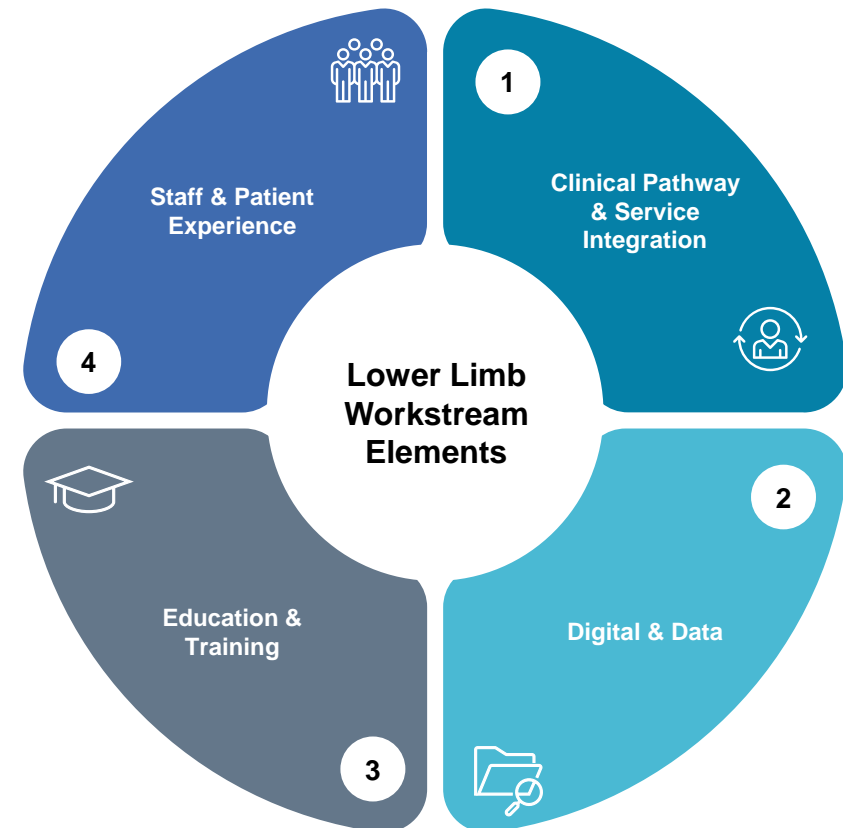
This section draws on several sources used to inform the final evaluation as outlined below:

- 1 ThoughtExchange survey** - 29 respondents and over 400 interactions with the platform, highlighting the key issues and alignment across sites
- 2 Review of FImpS self-completed final evaluation blueprints**, containing details of their specific programmes of work and progress
- 3 Desktop review of artefacts** and accompanying resources provided by FImpS

A core part of the review has been the interaction with clinical, analytical and programme management staff from across FImpS. This was achieved via the ThoughtExchange platform, which is a tool for multi-directional dialogue, enabling participants to anonymously share thoughts, and rate thoughts shared by others, to easily identify areas which most resonate with the group. This ThoughtExchange was sent to all sites from wave 1, 2 and 3 to gain their perspectives on the successes and challenges of the lower limb workstream. Additional details of the findings from the ThoughtExchange can be found in Appendix 1.

Overall, the ThoughtExchange responses indicate that the NWCSP lower limb workstream has been effective in driving initiatives forward, improving data collection, and facilitating knowledge sharing among various organisations. It has also helped in implementing a significant change to the pathway, improving patient outcomes, and providing a national picture of best practice. However, there are areas that need improvement such as poor-quality community datasets, difficulty in achieving integrated data requirements, and unrealistic data ambitions. There is also a need for better engagement from all primary care services, standardisation in wound care templates, and a more focused approach towards data.

The qualitative review section has been structured around 4 key pillars from the initial implementation case:



Provision of a dedicated service and achieving integration is seen as a cornerstone to achieving best practice wound care delivery



Findings from review:

Creation of a dedicated, integrated service has been a key priority for many of the implementation sites. Where the landscape is large and complex - with competing transformation priorities - it has been observed that there are significant challenges in agreeing new pathways of care and implementing concurrently. The scale of change has been challenging for several sites, for example Manchester, where most of the programme focus was on aligning delivery across multiple providers to remove unwarranted variation.

Mid and South Essex addressed similar challenges, acknowledging that there was disparity between their three partner organisations involved in the programme, as well as between different care settings, e.g. ambulatory versus homebound and inpatient settings. Working as a three-organisation collaborative involved not only aligning services and pathways to meet the standards outlined by the NWCSP, but also considering how the processes within the individual organisations needed to evolve to promote equity in care delivery.

Another example of successful implementation of dedicated lower limb services was Hull, who developed a fully integrated system of community and trust-based Multi-Disciplinary Team (MDT) clinics to develop seamless referrals from community podiatry and Tissue Viability Nursing (TVN) to bi-weekly specialist MDT clinics.

The comments below gathered from ThoughtExchange summarise the sentiments felt by staff in relation to the benefits of providing dedicated services:

“Through doing the project, we managed to get a dedicated Lower Limb Service and a team to see these patients”

“Better care and outcomes for patients. Assessment by someone who knows what they are doing”

“Management focus on wound care and regular updates to staff on performance drove further performance improvement”

“Improves staff morale and satisfaction that work is recognised and contributes to improving patient care”

Achieving integration and sustainability

Service integration has been a challenging issue in many of the FImpS. For example, Livewell Southwest highlighted initial inequity of service for foot ulceration in relation to vascular referrals, with no direct referral route for non-diabetic patients, despite local incidence of amputation similar between diabetic and non-diabetic foot ulcers. Enabling direct referrals however had unintentionally increased volumes of referrals into their vascular service and led to an increase in wait times. This was remedied by introducing a joint diagnostic community clinic with vascular and leg ulcer service colleagues, prioritising unhealed patients. In addition, recognising a significant delay in dermatology referrals, TVN access to advice and guidance was introduced, resulting in significant improvement in waiting times.

Incorporating a social aspect to leg ulcer care has also been a key area of success for some FImpS. For example, Wye Valley evidenced this via delivery of care through a community-based collaborative partnership, however noted that retaining emphasis on the clinical care aspect of wound care is imperative to ensure a sustainable delivery model.

Despite initial challenges in achieving integration, **69% of respondents to the ThoughtExchange agreed that improvements in leg and foot ulcer service delivery have been embedded and sustained since completion of the workstream.**

A leg ulcer best practice bundle of care has been developed throughout the course of the lower limb workstream, informed by evidence-based practice and learning from the FImpS. The leg ulcer best practice bundle should form the basis for adoption across providers, outlining interventions that are fundamental to improving healing rates, reducing reoccurrence, and reducing the overall burden of leg ulcer care.

Recommendations

Integration of dedicated wound care services should consider any possible effects on up or downstream services, to ensure no unintentional increase in waiting times for specialist intervention. Equity of access should be a key consideration for providers looking to implement lower limb best practice. Implementation of the leg ulcer best practice bundle should be harnessed for widespread adoption of best practice in relation to wound care.



Wound management digital systems are generally favoured by staff and patients; however, implementation needs to be carefully considered to ensure full integration

Findings from review:

The use of ‘Wound Management Digital Systems’ (WMDS) was planned by several of the FlmpS from the outset of the programme, with variable success in respect to implementation as shown in the below table.

Where a WMDS was planned and not implemented, rationale for this included prohibitive cost and lack of alignment with existing digital priorities / strategies within providers. This therefore led to decisions to pause progression after demonstration of solutions. The difficulty in implementing change has been captured succinctly from the ThoughtExchange:

“Most of the teams either focused on clinical pathway change or WMDS implementation - both didn’t seem achievable concurrently”

Issues regarding standardisation in recording clinical interactions within WMDS and clinical assessment flow proformas were required to be addressed and needed customisation to improve the user experience. The major issue identified however, relates to integration and interoperability with existing ‘Electronic Patient Records’ (EPR) systems, leading to issues with double-entry note keeping and manual recording of key metrics. Unless addressed, interoperability is likely to continue to be a barrier to widespread adoption of WMDS.

Flmp Site	Planned use of WMDS	Implemented	Digital solution used
Hull	No	No	
Manchester	Yes	No	
Wye Valley	Yes	Yes	eKare Insight
Kent	Yes (pre-existing)	Yes	Woundmatrix
Mid & South Essex	Yes (1 site)	Yes	Minuteful for Wound App (previously Healthy.io)
Livewell Southwest	Yes	Yes	Minuteful for Wound App (previously Healthy.io)
Central & Northwest London	Yes	No	

Proposed benefits of WMDS:

A patient evaluation survey conducted by Livewell Southwest in June 2022 found that of 48 patients who responded:

- 85% agreed that being able to see an image made them feel better about their wound(s)
- 96% wanted to see an image to help understand how their wound(s) were responding to treatment

Overall comments from this survey included:

“It’s good to see the improvement – or if it’s not – I can discuss any concerns I have with the team”

“Being able to see a photograph has made me feel better about my wound”

Additionally, Livewell Southwest also found that where staff had adopted the WMDS, they were almost universally in support of its usage, with 86% of staff surveyed indicating that they routinely shared images with their patients to highlight progress, and 90% agreeing that it was a useful tool in their daily practice. Other sites also highlighted the usefulness of digital images in accurately determining wound area, and its usefulness in providing remote senior clinical oversight to wound care. These findings were consistent with Mid & South Essex.

In contrast, sites such as Kent - who were attempting to increase the uptake of their pre-existing WMDS - identified that the system in usage was not intuitive to use and that the lack of a logical assessment flow was acting as a barrier to clinical usage. As a result, they focussed efforts on improving the useability of the system and a gradual increase in usage.

Recommendation

For digital systems to be utilised to their maximum potential, it is critical that any chosen solution has full integration with existing EPR systems. Implementation should be clinician led to lead to sustainable usage. Standardisation around assessment proformas and operating procedures may augment practice, however further evaluation is needed to determine any links between improved patient outcomes and the use of WMDS.



Data availability is critical to reduce unwarranted variation, and should focus on five core aspects of wound care to streamline collection and improvement efforts

Findings from review:

As an improvement programme, devoting attention to the recording of metrics was pertinent because of the renowned lack of data available in relation to wound care. A series of metrics were co-developed with - and requested from - each of the FImpS. This was done so with proof of concept in mind – is the data available, and can it be captured and supplied monthly.

Throughout the duration of the programme, data requirements have been condensed from an initial long list of circa 30 items, down to 12 key metrics. The timeframes for introduction of these metrics has meant that most sites have been unable to produce consistent, complete data returns for all metrics. Some of the feedback below captures the complexity in accurate data recording:

“Lack of collaborative working. Unable to get access to other provider's systems posed great difficulties in data validity”

“Asking for data needs to be very clear & concise, from robust systems.”

“The data ambitions were unrealistic.... difficult to baseline and show impact”

Where these metrics have been collected, it is evident that there has been inconsistency in the interpretation of some metrics, as shown by variation in denominators used with respect to healing rates for example. One of the key barriers highlighted in respect to robust data collection relates to the various strands of care involved in wound management, for example primary care, community services and secondary care providers, leading to difficulty in capturing the full demand across the services involved.

“Early on it was realised that many of the proposed metrics were not possible to achieve particularly within the primary and acute sector”

Robust analysis on the available data is challenging due to several factors, namely the staggered onboarding of sites and the changing list of metrics as the lower limb workstream has progressed.

Learning from data collection:

Despite the inherent difficulties in data collection discussed, improved patient outcomes can be evidenced as highlighted earlier within the quantitative analysis section of this final evaluation. Whilst this should be interpreted with some degree of caution due to variation in collection as described, the ability to show direct improvement from intervention is encouraging. The below feedback highlights the importance of real-world data:

“Data and clinical delivery and intrinsically linked, but often seen as separate issues, so having a national drive around this has been very useful”

Furthermore, 58% of respondents to the ThoughtExchange agreed that access to high quality local data about the performance of leg and foot ulcer services has improved since their participation in the lower limb workstream. The learning gathered from the initial FImpS has since been applied to the Transforming Wound Care (TWC) programme to further enhance data collection. The insights gained from evaluation of the TWC programme in due course should also inform future wound care metrics.

Beyond data collected via the woundcare dashboard during the programme, there has been a broad focus on alignment of good clinical documentation within EPRs and data availability in national datasets, such as the Community Services Datasets (CSDS). At the outset, there was little to no data available from many of the FImpS in relation to wound care on such datasets, however there is evidence to show that this has gradually improved over time for sites such as Hull, Livewell Southwest and Mid & South Essex. Work to validate this data remains ongoing, however will be key to local and national monitoring of outcomes, reporting for effective commissioning and addressing health inequalities.

Recommendation

Data collection should focus on five core aspects of wound care, including total caseload, comprehensive assessment, treatment, healing rates and recurrence. Capturing this information from existing EPR entries will avoid increased burden to clinicians. Harmonising clinical assessment templates and achieving best practice clinical documentation is key to ensuring high quality data around wound care. Local information about the service and its outcomes should be readily available to clinicians and harnessed to inform practice.



Education and training have been embedded within services, with an emphasis on ensuring staff have the requisite skills to deliver high standards of wound care

Findings from review:

In 2021, in partnership with Skills for Health, the NWCSP developed the 'Core Capabilities Framework', which was expanded in 2023 to include recommendations for education and a career framework. It was renamed 'The National Wound Care Workforce Framework', which identifies and describes the skills, knowledge and behaviours required to deliver high quality, person-centred wound care. It is designed to complement existing documents and provide a consistent, comprehensive framework developed by and for a multi-professional audience, only a few of whom usually work within a designated and defined wound care service.

As a national programme, the NWCSP have defined the capabilities (i.e. the overarching requirements) which incorporate the wound care knowledge, skills and behaviours, which practitioners need to demonstrate. Online education resources have been developed in partnership with NHS England to support the health and care workforce in developing the requisite wound care knowledge and skills.

Several of the FlmpS had a strong focus on education and training, however their approach varied on individual needs. For example, Kent and Livewell focussed on training in relation to accurate completion of wound care assessments, whereas Hull and Wye Valley focussed on standardising education across healthcare settings to ensure consistency in assessment and management. Wye Valley had a particular focus on utilising online education modules produced by NHS England as a baseline for lower limb care to good effect, reporting an increase in uptake of training. Of note, Wye Valley also observed reduction in non-elective admissions in relation to leg ulcers for 2020/21 in comparison to the previous year. Whilst there are likely to be many factors influencing this change, upskilling of the workforce may have made a positive contribution.

Kent conducted a lower limb training survey to gather staff feedback with positive results. Of 46 respondents, 93% found the training to be 'extremely' or 'very useful', and 86% indicating higher likelihood of commencing compression therapy than prior to training.

“The education modules offered are current and demonstrate a gold standard approach to wound care.”

The importance of sharing learning between sites and services:

In relation to the ThoughtExchange survey, **69% of respondents indicated that online education and training had been a useful resource in their service.** Over and above the formal education and training modules available, there is evidence to support more organic shared learning between sites involved in the lower limb workstream, as evidenced by the below comments which were strongly endorsed by peers through the ThoughtExchange:

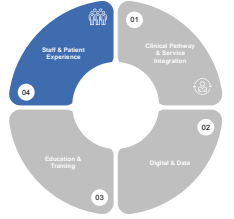
“Facilitated the sharing of learning between various organisations involved... the same problem can be approached from a range of angles, and sharing the learning has enabled us to find the approaches that work for us”

“Sharing knowledge and skill amongst the regional teams... shows standardised care and differences in demographic to support care and service delivery”

Recommendation

Standardising education will ensure consistency in assessment and management. Each service will have their own individual needs in relation to training and should consider various delivery methods to ensure uptake. At a national level, providing sites with the opportunity to share experience and learning, for example via a dedicated online FutureNHS Workspace for wound care, or developing communities of practice, are an integral aspect to adopting wound care standards.

Staff and patients have consistently provided positive feedback regarding their personal experiences of dedicated lower limb wound services



What patients have said about their experiences of wound care services:

Throughout the duration of the programme, several FImpS have conducted patient and staff experience surveys to gauge impact. This has included Wye Valley, Manchester, Central & North West London and Livewell Southwest.

Of a friends and family survey conducted by Hull in 2022, 86% of 208 respondents rated their overall experience of the service as 'very good'. Example patient feedback from this survey included:

“Absolutely faultless, so much was achieved. Having had an ulcer before I was aware of the problems involved. I arrived stressed and left relaxed”

“Staff were very efficient, pleasant and informative”

These findings are replicated in a similar patient feedback survey completed in Wye Valley, where all 22 respondents rated their experience of the service as 'very good'. Comments from the Wye Valley survey included:

“The service I receive is exceptional. The nurses are professional, approachable, friendly and caring. Cannot praise my experience highly enough and am very grateful”

Feedback gained from Central & North West London was similarly positive from a patient perspective, and included comments such as:

“Thank you for seeing my mother at home and ensuring we are looking after her legs well. She has not had an ulcer for the last 10 months”

The above comments highlight the consistent, positive patient feedback that has been captured at various stages of implementation and across multiple regions included within the lower limb workstream.

Raising awareness across organisations:

From the ThoughtExchange, 77% of respondents agreed that the profile of lower limb ulcer care had increased within their organisation, owing to their involvement in the workstream. One of the highest rated comments gathered via the ThoughtExchange highlights the value that respondents have placed on raising the profile of wound care:

“The NWCSF raised awareness within the organisation of not just lower limb wounds but all wounds”

An example of feedback from a vascular consultant in Hull captures the benefits noted from a first-hand clinical perspective:

“The alterations in early provision of care of venous ulcers and the enhanced use of full compression in the community, has meant that we are seeing a proportion of patients coming to our clinics who have already healed their ulcers, which was previously unimaginable. The altered pathways have been extremely effective in standardising a rapid provision of the best evidence-based care available for venous ulcers”

Whilst the overall feedback is overwhelmingly positive, there is some evidence that the foot care aspect requires greater focus;

“Less emphasis on the foot aspect of the project”

This may be emblematic of the different clinical groups involved in foot ulcer care in comparison to leg ulcers, however, should be carefully considered for future adoption.

Recommendation

Providers should give prominence to wound care as a transformation priority, on the strength of the clinical outcomes, value for money and positive staff and patient feedback as evidenced within this review. Service provision should continue to support shared decision making between practitioners and service users, enabling personalised care planning and embedding a continuous improvement approach.


04

Conclusions and Recommendations






In consideration of the findings in this evaluation, a series of recommendations have been developed to promote future adoption of dedicated wound services (1/2)

Drawing on the key findings throughout the quantitative and qualitative sections of this final evaluation, a series of recommendations have been developed and presented below with the aim of promoting future adoption and uptake of lower limb recommendations. **The four recommendations listed in bold are suggested as the key to future scaling of optimal wound care.**

Pillar	Conclusions	Recommendations
 <p>Clinical Pathway & Service Integration</p>	<ul style="list-style-type: none"> The lower limb workstream has exceeded the stated academic baseline, implementation case and interim findings, in relation to both wound healing and recurrence rates. The profile of wound healing is non-linear, with the greatest proportion of healing occurring at 0-12 weeks following identification. There is a strong economic case for adoption of dedicated lower limb wound care services, as shown by the updated benefit-cost ratio of 27.6 derived from this evaluation. The overall application of strong compression therapy in suitable cohorts is low. This may be in part relating to recording of the information and take into consideration factors such as patient preference, time and techniques used, clinical experience and other identified contraindications or precautions for this modality. Whilst there is some indication that completion of timely assessment and application of compression may positively correlate to healing rates, further work to substantiate these finding would bolster the case for adoption. Early indications suggest that delivery of optimal wound care is likely to have a positive environmental impact. Healing rates have been found to be consistently high across leg ulcers and foot ulcers, however it is evident that there is more to be done to join up foot ulcer care as part of dedicated services. 	<ul style="list-style-type: none"> NHS England should require Integrated Care Boards (ICBs) to commission dedicated leg ulcer services at place level. ICBs should commission dedicated leg ulcer services at place level, requiring providers to report on agreed, standardised metrics. Implementation of the leg ulcer best practice bundle should be harnessed to achieve widespread adoption. Providers should give prominence to wound care as a transformation priority, on the strength of the clinical outcomes, value for money and positive staff and patient feedback as evidenced within this review. Equity of service provision should be addressed for diabetic and non-diabetic foot ulcers services. Integration of dedicated wound care services should consider any possible effects on up or downstream services, to ensure no unintentional increase in waiting times for specialist intervention. Further exploration of the relationship between timely assessment, application of compression and healing rates is needed to validate the findings from this evaluation. Future adoption of wound care best practice should have a stronger emphasis on foot ulceration, ensuring the appropriate clinical teams are actively engaged.

In consideration of the findings in this evaluation, a series of recommendations have been developed to promote future adoption of dedicated wound services (2/2)

Pillar	Conclusions	Recommendations
 <p>Digital & Data</p>	<ul style="list-style-type: none"> Recording of key metrics has improved since the interim evaluation, however capturing outcomes is currently onerous for clinicians and as a result, inconsistencies remain in tracking outcomes of dedicated lower limb wound care services. Robust analysis on the available data is challenging due to several factors, namely the staggered onboarding of sites and the changing list of metrics as the lower limb workstream has progressed. Use of wound management digital systems (WMDS) have the potential to yield benefits in relation to patient experience and tracking wounds, however, need to be fully integrated with Electronic Patient Record (EPR) systems to avoid double-entry. Standardisation around assessment proformas and operating procedures may augment clinical practice, however further evaluation is needed to determine any links between improved patient outcomes and the use of WMDS. 	<ul style="list-style-type: none"> Data collection should focus on five core aspects of wound care, including total caseload, comprehensive assessment, treatment, healing rates and recurrence. This standardisation will enable identification of unwarranted variation and targeted improvement efforts at both national and regional levels. Digital Systems used to augment wound care services should demonstrate full integration with existing EPR systems, ensuring data collection is automated and captured in relevant national datasets - such as the Community Services Datasets (CSDS) - to avoid placing burden on clinicians to manually record metrics. Standardise wound care assessment templates, with a view to work towards standardising clinical data collection and reporting via EPR systems. Implementation of WMDS should be clinician led to achieve sustainable usage. Introducing a new digital technology into a workplace requires the workforce to accept and champion its usage. Lead clinicians should have credibility within their teams, should be early adopters and take steps to encourage their colleagues to implement appropriately.
 <p>Education & Training</p>	<ul style="list-style-type: none"> Utilising NHS England (formerly Health Education England) Tiers 1 and 2 training modules as a baseline for lower limb care has been well received by FImpS. Training and delivery methods need to be targeted to local service needs and priorities. 	<ul style="list-style-type: none"> Standardising education will ensure consistency in assessment and management. Each service will have their own individual needs in relation to training and should consider various delivery methods to ensure uptake. Providing services with a national forum to share learning is an integral aspect to adopting wound care standards.
 <p>Staff & Patient Experience</p>	<ul style="list-style-type: none"> The response to dedicated wound care services from both staff and patients has been overwhelmingly positive, as evidenced by engagement surveys carried out by several FImpS and the ThoughtExchange survey. 	<ul style="list-style-type: none"> Service provision should continue to support shared decision making between practitioners and service users, enabling personalised care planning and embedding a continuous improvement approach.

05

Appendices





APPENDIX 1:

ThoughtExchange – Participation Summary and Top Themes by Volume



29
Participants

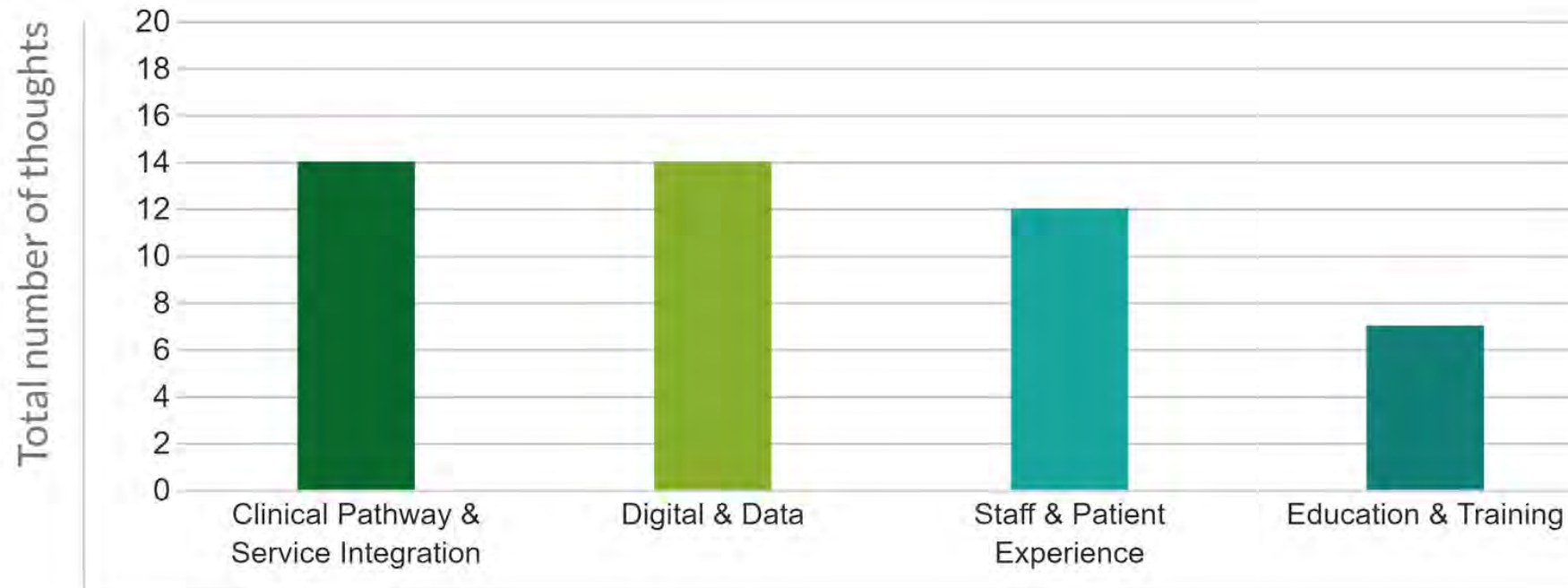


37
Thoughts



381
Ratings



Top Themes by Volume of Comments











ThoughtExchange highest-rated comments by participants in relation to the theme: ***Clinical Pathway & Service Integration***







Implementing immediate and necessary care for lower limb wounds Ensuring that patients receive the best possible care to optimise outcomes . 4.3  (17 )

Enabling standardisation and best practice Ensures quality of care and evidence based practice. 4.1  (7 )

Management focus on wound care and regular updates to staff on performance drove further performance improvement. Improves staff morale and satisfaction that work is recognised and contributes to improving patient care. 4.0  (18 )













That through doing the projected managed to get a dedicated Lower Limb Service and a team to see these patients. Better care and outcomes for patients. Assessment by someone who knows what they are doing. 4.0  (15 )

Our key issue to resolve is funding to sustain the whole pathway, including post healed wound support to reduce re-occurrence. 4.0  (12 )

The lower limb workstream has significantly raised the profile of lower limb care across all levels of the organisation. At ground level quality of care has improved, at senior level this means louder voices championing lower limb care and increased momentum for change . 3.8  (3 )



ThoughtExchange highest-rated comments by participants in relation to the theme: ***Education & Training***

- Implementing immediate and necessary care for lower limb wounds** Ensuring that patients receive the best possible care to optimise outcomes . 4.3  (17 )
- The NWCSP raised awareness within the organisation of not just lower limb wounds but all wounds. The opportunity to share good practice.** Better patient outcomes, more efficient ways of working, share knowledge and skills, better skill mix, joint working with other services ie podiatry. 4.2  (14 )
- Facilitated the sharing of learning between various organisations involved** The same problem can be approached from a range of angles, and sharing the learning has enabled us to find the approaches that work for us. 4.1  (14 )
- sharing knowledge and skill amongst the regional teams** shows standardised care and differences in demographic to support care and service delivery. 3.9  (12 )
- The capability document provided a solid baseline for clinical practice** To standardise and implement EBP. Requires adaptation for clinical practice. 3.4  (2 )
- No standardisation in wound care templates.** 3.0  (9 )







ThoughtExchange highest-rated comments by participants in relation to the theme: ***Staff & Patient Experience***



- The NWCSP raised awareness within the organisation of not just lower limb wounds but all wounds. The opportunity to share good practice.** Better patient outcomes, more efficient ways of working, share knowledge and skills, better skill mix, joint working with other services ie podiatry. 4.2  (14 )
- Enabling standardisation and best practice** Ensures quality of care and evidence based practice. 4.1  (7 )
- Management focus on wound care and regular updates to staff on performance drove further performance improvement.** Improves staff morale and satisfaction that work is recognised and contributes to improving patient care. 4.0  (18 )
- It has encouraged us to want to achieve excellence** for people we work with and our colleagues - good for retention and wound healing. 4.0  (5 )
- Being listened to by the central team.** We are always striving to give our stakeholders accurate information. However there can be severe constraints to being able to deliver this. 3.9  (8 )
- Engagement from all primary care services still needs to be achieved.** Standardise care throughout all care settings locally and nationally. 3.8  (18 )







ThoughtExchange highest-rated comments by participants in relation to the theme: ***Digital & Data***



Would recommend that FImpS should have invested in a bespoke Wound Care system with interoperability with main clinical system. Needs a lot of resource to keep manual records for WC metric reporting. 4.1  (18 )

It has helped provide a more national picture of best practice in terms of clinical delivery and data Data and clinical delivery and intrinsically linked, but often seen as separate issues, so having a national drive around this has been very useful. 4.0  (15 )

Early on it was realised that many of the proposed metrics were not possible to achieve particularly within the primary and acute sector. Without collaboration with primary care it was difficult to identify the wound origin date therefore healing rates weren't 100% accurate. 4.0  (9 )

Most of the teams either focused on clinical pathway change or WMDS implementation - both didn't seem achievable concurrently It is a considerable change programme and should be noted that there can be success and learning even if all objectives are not met. 3.9  (13 )

The data ambitions were unrealistic Difficult to baseline and show impact. 3.9  (13 )

A new focus on data has highlighted the gap we knew existed but without a baseline it was challenging to prove. NWCSP priorities have changed this Being able to report on. 3.9  (9 )

APPENDIX 2: References

1 National Wound Care Strategy Programme, 2023. Recommendations for Leg Ulcers.

2 National Wound Care Strategy Programme, 2023. Recommendations for Foot Ulcers.

3 Perry, C. et al., 2023. Barriers and facilitators to use of compression therapy by people with venous leg ulcers: A qualitative exploration. *Journal of Advanced Nursing*, 79(7), pp. 2568-2584.

4 Guest, J. F., Fuller, G. W. & Vowden, P., 2020. Cohort study evaluating the burden of wounds to the UK's National Health Service in 2017/2018: update from 2012/2013. *BMJ Open*, 10(12).

5 NHS England, 2020. Delivering a 'Net Zero' National Health Service, London: NHS England.

6 Health Innovation Network, 2024. Carbon (Net Zero) Impact of the National Wound Care Programme, s.l.: Health Innovation Network.

Acknowledgements

We would like to express our sincere gratitude to all the individuals and organisations who contributed to the success of the National Wound Care Strategy Programme (NWCSP) and its Lower Limb Workstream.

Firstly, we are deeply thankful to the staff at the First Tranche Implementation Sites for their dedication to implementing the Lower Limb Recommendations. Their time, collaborative approach, and commitment have made this evaluation and the positive findings possible. Special thanks go to the teams at Kent Community Health NHS Trust, Hull University Teaching Hospitals Trust & City Healthcare Partnership, Manchester Foundation Trust, Wye Valley NHS Trust, Mid and South Essex (MSE) Community Collaborative, Livewell Southwest, and Central and North West London NHS Foundation Trust.

We would also like to acknowledge the vision of Una Adderley, whose guidance has been pivotal to the programme. The delivery of the project would not have been possible without the efforts of Simon Wootton, whose leadership was instrumental in bringing this project to fruition.

For their work on Data, Digital, and Information, we extend our gratitude to Ann Jacklin and Mike Watson, who have been crucial to the project's success.

We are particularly thankful to our clinical leads, Krishna Gohil and Rachael Lee for their expertise in leg and foot ulceration, which has guided us through the complexities of clinical implementation, and again to Rachael Lee for ensuring smooth continuation and final delivery of the evaluation.

We also extend our gratitude to Pete Waddingham for his Net Zero work, contributing to our sustainability goals.

Thank you to the administrative and project support team who ensured the smooth delivery and coordination of the programme throughout.

Our advisory groups, including the Lower Limb Clinical Group and the Education Group, deserve special recognition for their work in advising, challenging, and co-producing resources. Their input has been invaluable.

We are also grateful for the efforts of the Royal College of Surgeons, the Vascular Society, and the respective working groups for their work on the vascular referral forms, which have been essential to our clinical processes.


The eLearning for Health Team has been instrumental in building the online education modules, providing crucial resources for ongoing learning and development.

The Wound Care Workforce Framework created by Skills for Health has been a foundational element of our project, and we thank them for their contributions.

Your collective efforts have been integral to the success of this project, and we are immensely thankful for your dedication and hard work.

Connect with us

 www.nationalwoundcarestrategy.net

 [NatWoundStrat](https://twitter.com/NatWoundStrat)

 NatWoundStrat@mft.nhs.net

