

# Health Impact Assessment

**National Wound Care Strategy Programme**

KSS Insights



September 2020

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# 1. Introduction

## 1.1. The National Wound Care Strategy Programme

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The National Wound Care Strategy Programme (NWCSP, 2020) has produced a report assessing the potential impact of national service changes aiming to improve the care and health outcomes of patients with chronic lower limb wounds. In addition to patient benefits such as improved wound healing rates and reduction in recurrence, the report suggests the programme could provide benefits for the workforce and financial benefits for the system.

Across England there were an estimated 739,000 leg ulcers in England in 2019, at an estimated cost to the system of around £3.1 billion annually (NWCSP, 2020). Chronic lower limb ulcers can have multiple physical, psychological, and social impacts on patients, affecting their daily lives (Phillips et al., 2017). Inequalities in access to evidence-based care and early access to diagnosis and treatment may exacerbate the rate of wound healing and recurrence.

Currently, care for chronic lower limb wounds is provided through multiple healthcare providers across different settings, such as general practice, care homes, or own homes. Care is often provided by practice or district nurses, with wound care frequently competing with other care priorities. The NWCSP looks at moving towards greater self-management of wound care, through lower limb specialist services providing care through clinics/social care models and at home. The key proposals outlined within the NWCSP report include changing the model of care provision to reduce unwarranted variation and support provision of equitable care, increasing the delivery of evidence based care, and improving data capture to support clinical decision making and monitoring of outcomes. In addition to the patient benefits of improvements in care and health outcomes, the report suggests after initial costs incurred through implementation, a potential net present value of £14.6bn over 30 years of implementation.

## 1.2. Health impact assessments

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Kent, Surrey, Sussex Academic Health Science Network (KSS AHSN) have been commissioned to produce a health impact assessment based on the implementation case proposed by the NWCSP. A health impact assessment (HIA) is a tool used to support the decision-making process surrounding implementation of new programmes, through identifying the potential health impacts both positive and negative (Davenport et al., 2006). The HIA encourages individuals to consider whether the general population, or more specific cohorts, may be affected by the programme. Health impact assessments are often

conducted for local projects, where there is often greater clarity and certainty on interventions (Davenport et al., 2006). The outcome of the HIA includes oversight of the potential health impacts of the intervention or programme, alongside recommendations on policy improvements or elements to consider.

## 2. Method

A desktop assessment approach was used to conduct the HIA, following the framework outlined by the Department of Health (2010) which uses a process of five stages (Figure 1). In addition to the implementation case, literature was sought for greater guidance and understanding.



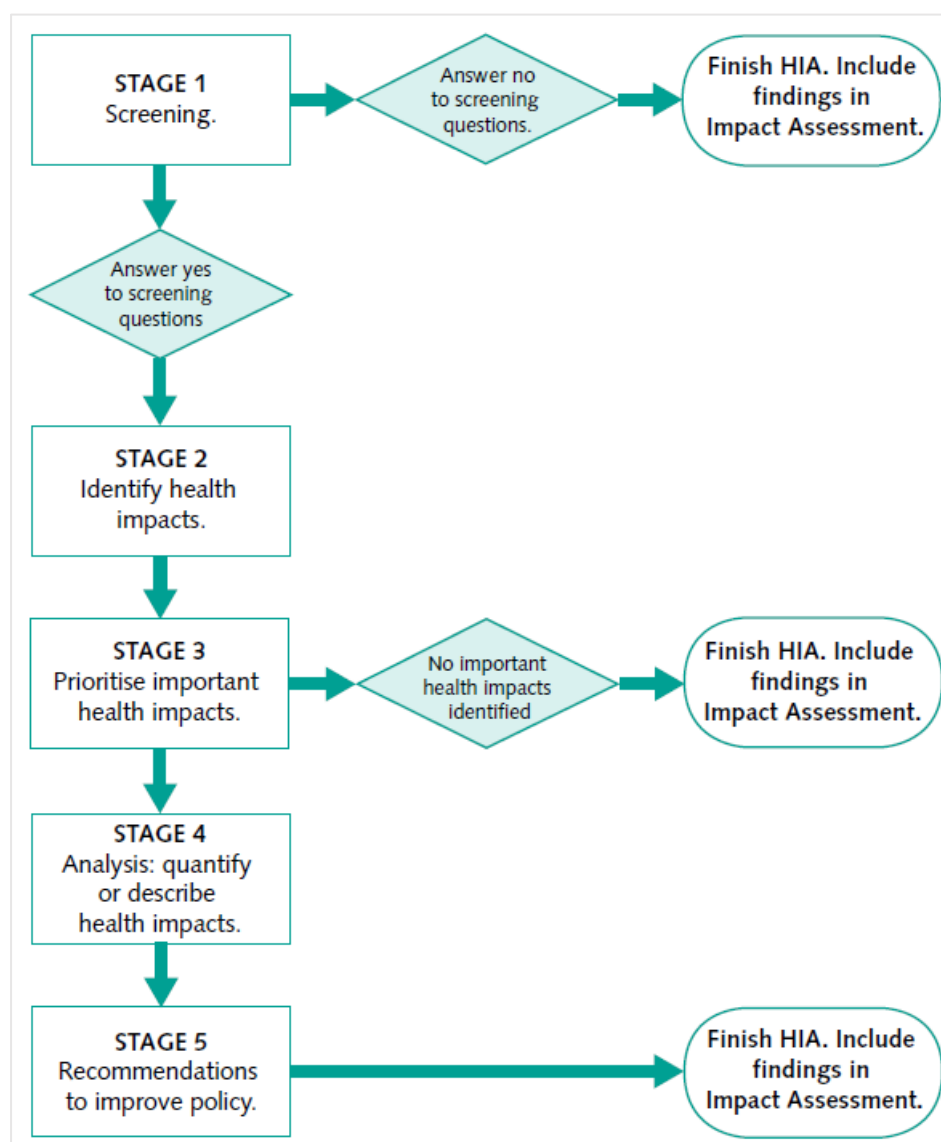


Figure 1: The five stages of a health impact assessment as outlined by the Department of Health (2010).

### 3. Stage 1: Screening

The following questions have been reviewed to determine whether to proceed with a HIA (Department of Health, 2010). Where the answer is yes, factors discussed shall be further explored in other stages of the assessment.

1) Will the proposal have a direct impact on health, mental health and wellbeing?

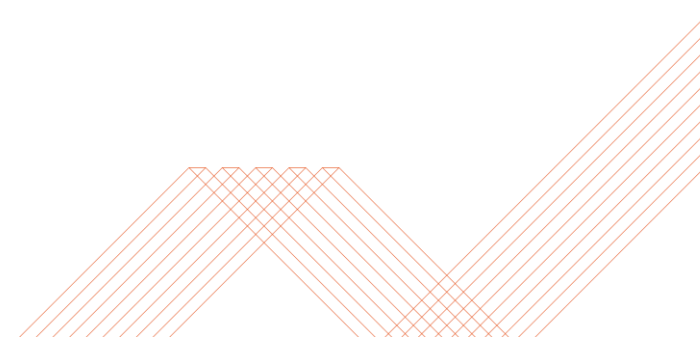
Yes, there will likely be a direct impact on individuals with chronic lower limb wounds through the NWCSP. As lower limb wounds are more prevalent amongst older people (Darwin et al., 2019), this cohort will be the most affected. Evidence also suggests that prevalence is higher amongst women (O’Meara et al., 2014). The programme aims to improve wound healing rates and reduce the recurrence of wounds, which may reduce pain and mobility issues whilst improving general wellbeing through absence of an unhealed wound. There may be wider benefits of improving independence through promotion of self-management and reducing social isolation through removing the unpleasant side effects of chronic wounds.

Venous leg ulcers account of 60-80% of lower limb ulcers (NICE, 2020), with UK prevalence estimated between 0.1-0.3% and increasing with age (Scottish Intercollegiate Guidelines Network, 2010). Figure 2 highlights the estimated number of leg ulcers predicted over the next 30 years, with and without implementation of the NWCSP recommendations. Without intervention, evidence suggests the scale of the problem will annually increase.

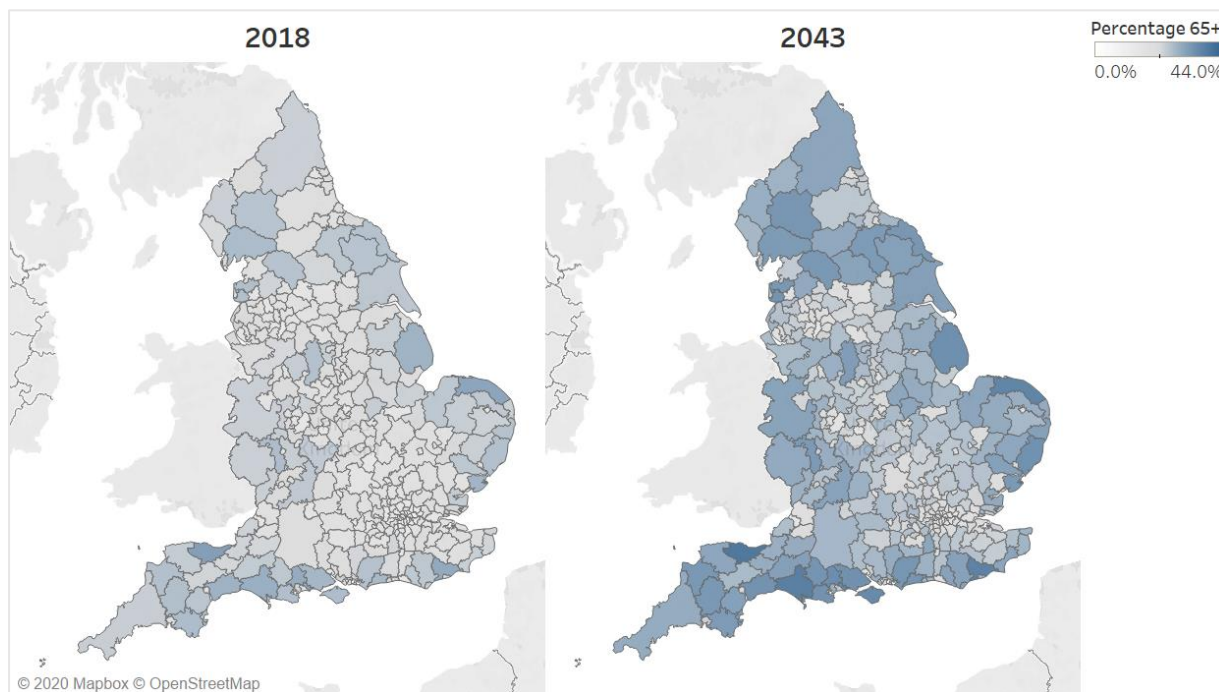


Figure 2: The estimated number of leg ulcers projected with continuation of current services, and with implementation of the NWCSP recommendations at a 30% annual reduction (Figure obtained from: NWCSP, 2020)

The proportion of older adults in local populations varies across England, with some areas having a higher proportion than others. As prevalence of lower limb wounds increases with age (Darwin et al., 2019), impact of NWCSP implementation may be greater within certain areas of the UK. Figure 3 shows the variation across England in the proportion of adults aged 65 years or over, with northern England and coastal areas having a higher proportion.



This also highlights the predicted increase in older adults by 2043 through population estimates.



**Figure 3: The proportion of adults aged 65 years and over by local authority across England, as of 2018 and projected for 2043 (Office for National Statistics, 2020).**

Figure 4 shows the areas rated by level of deprivation across England, from least to most deprived. Research suggests that leg ulcers amongst patients from the most deprived areas take longer to heal and have a higher likelihood of recurrence (Scottish Intercollegiate Guidelines Network, 2010). The impact of the programme could be greater for this population cohort, with potential opportunity to address these poorer health outcomes.



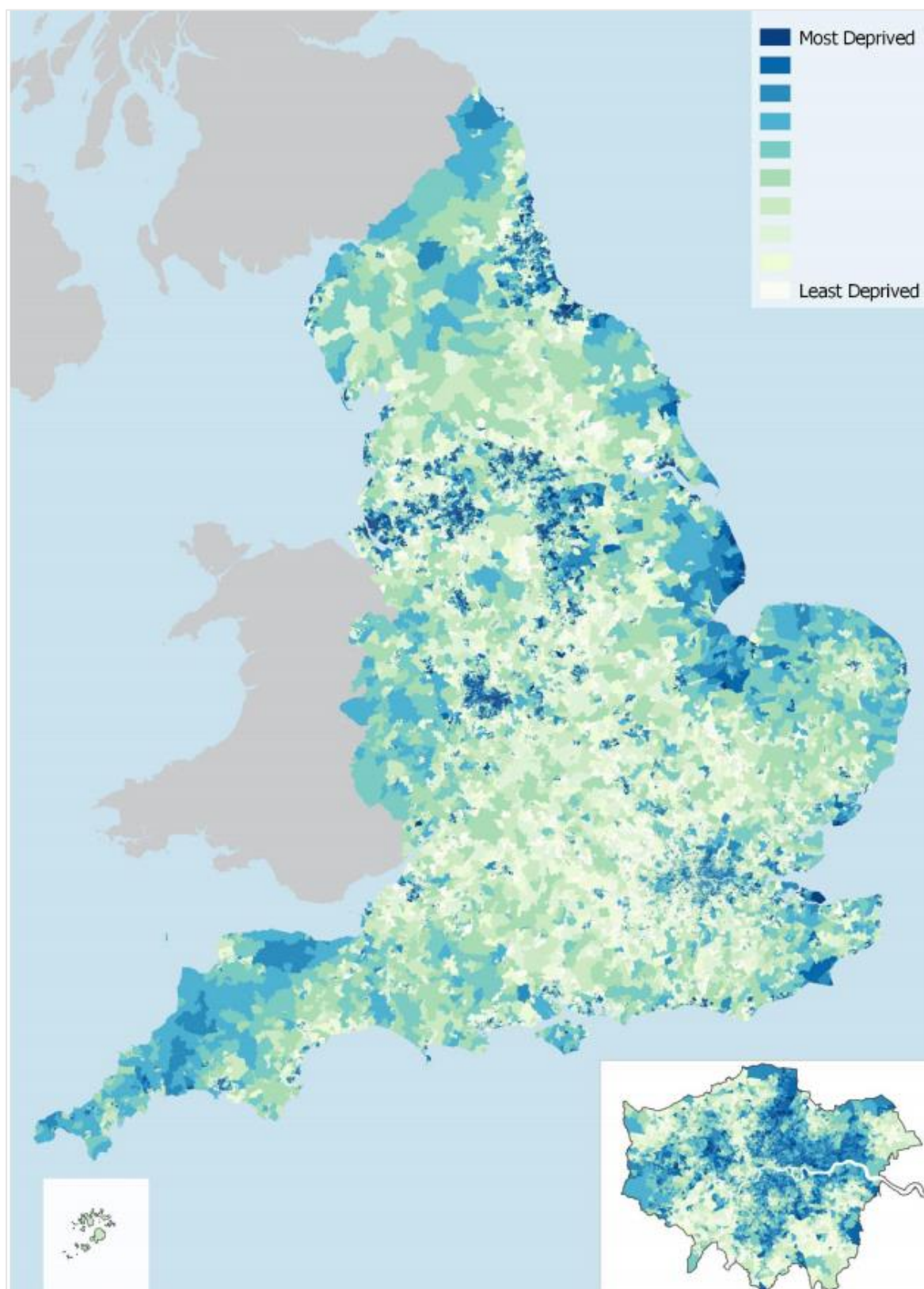


Figure 4: English Index of Multiple Deprivation map (Figure obtained from: Ministry of Housing, Communities & Local Government, 2019)





## **2) Will the policy have an impact on social, economic, and environmental living conditions that would indirectly affect health?**

Yes, providing further education for clinicians and upskilling the workforce may lead to greater job opportunities, and promote motivation and wellbeing within the workforce. Research has highlighted the need for consistent, high quality training interventions for staff involved in wound care treatment to build confidence in their decision making and improve the care provided (Gray et al., 2019). Previous research suggests that the skill of staff, and adoption of evidence-based care, is of greater importance than the setting in which wound care is delivered (Anderson, 2017), however other research has found greater outcomes in clinic settings (Scottish Intercollegiate Guidelines Network, 2010). After six months of treatment in specialist clinics healing rates of 70% were identified, compared to 45% from treatment in a community setting.

In any case, reducing variation in wound care and improving efficiencies within the system would likely provide opportunities for other areas of healthcare to benefit.

## **3) Will the proposal affect an individual's ability to improve their own health and wellbeing?**

Yes, where appropriate, individuals will receive education on managing and caring for their lower limb wounds, encouraging a self-care approach. Depending on the materials within the resources, individuals may be encouraged to make lifestyle changes to ease symptoms of underlying conditions to help prevent recurrence. Individuals at higher risk of poor health are likely to have low health literacy (Rowlands et al., 2015), with those with a greater need for health information often having the least access. In addition to being unable to access the information, they may lack the health literacy required to understand the information and adopt the suggestions (Furler et al., 2011). Designing health materials at a suitable health literacy level may support equitable access to information on wound care.

The programme may support individuals to improve their wellbeing; healing chronic wounds may improve individuals' mental state through removing the unpleasant physical, psychological, and social side effects of open sores. This may enable individuals to spend more time socialising and seeking opportunities to engage in activities which they enjoy.

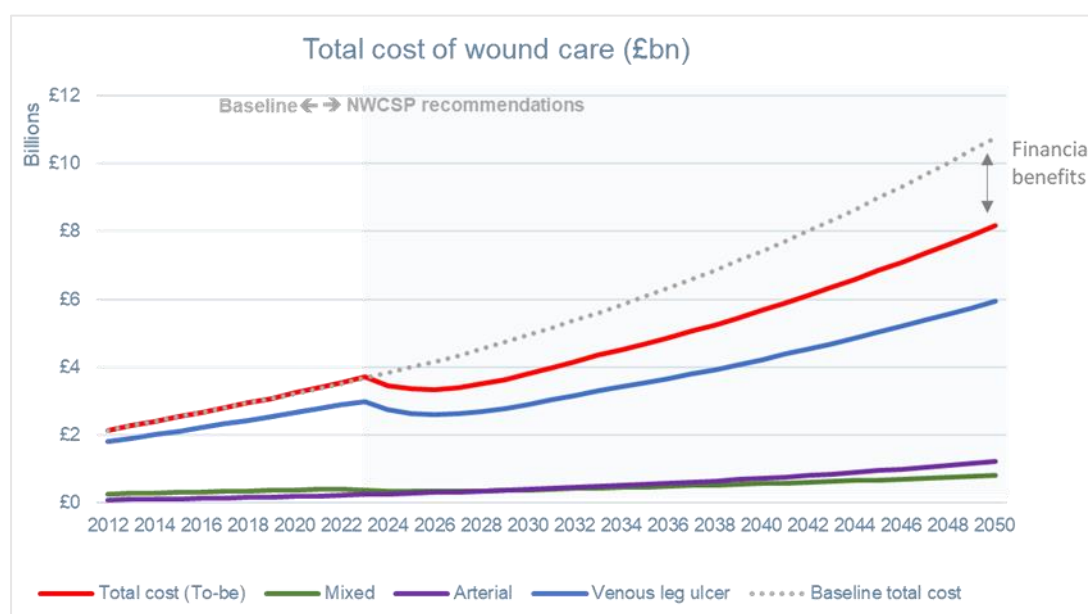
## **4) Will there be a change in demand for or access to health and social care services?**

Yes, through a change in service provision it appears there may initially be greater demand for care within a clinical setting. This would occur during the process of wound treatment, and as part of the lifelong follow-up service to reduce the risk of recurrence. In the long-term,



the initial increase in demand may reduce as recurrence of wounds declines (Figure 2). It is hoped that there would be less demand for amputations and surgery, as a result of individuals receiving standardised evidence-based care and earlier diagnosis and treatment. Earlier access to treatment may provide further health impacts; research highlighted within the implementation case suggests that earlier access to 'at risk' foot clinics could significantly reduce the risk of amputation (NWCSP, 2020). As chronic lower limb wounds frequently cause pain and multiple appointments with health and care staff, implementation of the NWCSP recommendations may see wider benefits, such as a reduction in pain medication and reduction in the number of appointments required per wound.

In 2012/13, it was estimated that the cost to the NHS of managing 2.2 million wounds (including diabetic ulcers) and their comorbidities ranged between £4.5-5.1 billion (Guest et al., 2015). With prevalence of wounds increasing (Figure 2), these costs have likely increased further (NWCSP, 2020). Implementing the NWCSP recommendations may provide an annual reduction in wound care costs of 15% (NWCSP, 2020; Figure 5).



**Figure 5: The potential reduction in cost of wound following implementation of the NWCSP recommendations (Figure obtained from: NWCSP, 2020)**

As each of the screening questions have been answered as 'yes', it appears that conducting an HIA on the NWCSP is appropriate. The following sections shall explore the potential health impacts of the programme and provide recommendations where appropriate.


## 4. Stages 2 and 3

### 4.1. Identification of health impacts

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This section lists the potential health impacts of the programme, categorised by whether the impact affects patients, the workforce, or the system. In some cases, the potential health impacts may be seen in more than one category, and additional health impacts may become apparent following programme implementation.

#### Potential impacts for patients

- Improved access to appropriate, standardised, evidence-based care
  - Improved lower limb wound heal rate
  - Reduction in recurrence of lower limb wounds
  - Reduction in time spent with unpleasant side effects or wider impacts (Briggs & Flemming, 2007; Green et al., 2014; Phillips et al., 2017) including, but not limited to:
    - Physical impact, such as pain, malodour, leakage (exudate), impaired mobility, and sleep disturbance
    - Psychological impact, such as depression, anxiety, embarrassment, low self-esteem, and coping strategies
    - Social impact on relationships, social activities, social isolation, and clothing restrictions
  - Promotion of self-care and management
  - Reduction in lower limb amputation
  - Potential impact of surgery, if chosen
  - Reduced risk of infection
  - Improved understanding of risk factors, treatment options, and management of wound care, through educational material
    - Equally, risk of low adherence if education materials are not in an appropriate format for all patients
  - Impact of having to attend clinics on some patients
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- Travel implications
- Time
- Cost
- Inclusion within a local support group through localised community care (e.g. initiatives such as The Leg Club)
  - Social inclusion
  - Social support and group morale
- Earlier diagnosis and access to treatment
- Access to staff with wound care training
- Fewer appointments
- Potential improved adherence to treatment

#### **Potential impacts on the workforce**

- Opportunities for additional training and upskilling
- Potential job opportunities
- Reduction in travel time to patient's place of residence
- Reduction in appointment time, or more time available to focus on other health needs
- Requirement to collect further data
- Potential requirement to discuss educational material and resources with patients
- Impact of moving to evidence-based care, if not already provided
- Increase in job satisfaction
- Potential disruption on workload and temporary pressures from implementing new programme and pathways

#### **Potential impacts on the system**



- Financial impact, including costs incurred through implementing the changes, and potential cash releasing and non-cash releasing benefits
- Change of structural environment and referral pathways
- Adoption of a standardised approach delivering evidence-based care
- Improvements in data quality and availability through increased collection
- Re-allocation of resource, such as through reducing the number of lower limb amputations required and improving efficiencies
- Greater integration of services
- Wider implementation of social care models, such as The Leg Club

## 4.2. Prioritisation of health impacts

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The implementation of the NWCSP guidelines will likely have a wide range of impacts on patients, the workforce, and the system. Reviewing the impacts across each category, the majority of the potential impacts identified would affect patients and their health outcomes and would therefore be considered the priority. Many of the health impacts identified across the cohorts address elements of the NHS Long Term Plan (2019): providing care at the right time in the optimal setting, capturing data to improve outcomes and support forward planning, upskilling staff, and addressing unwarranted variation in care and subsequent health outcomes. As such, these may also be considered important health impacts of the programme.

The most important impact is that of patient health, with the need to avoid inequalities in access to care, improving patient outcomes in health and wellbeing, and avoiding risk of harm. Due to the prevalence of lower limb wounds increasing with age, the impact of the programme will primarily be on the older patient population. Patients living in areas with poorer access to evidence-based care may see greater impact on their health outcomes compared to those who currently have such access. Conversely, there is the potential for variation to widen. If access to enhanced care is through attending clinics, certain groups may require more support to access these, such as patients with disabilities, lack of social support, or those living in areas of higher deprivation. The same impact may also be seen regarding provision of education materials and encouragement of self-management; materials should be made accessible in both format and content to ensure that all patients and their caregivers can understand and engage with the information delivered, to provide equal opportunities in achieving good health outcomes.



With regards to the effects on the system, certain areas may require more resources than others to reduce the pre-existing unwarranted variation and prevent further contrast. These areas may require extra time to implement changes and reach certain targets, which would impact when the benefits are realised at a patient level.

Stage 4 of this assessment shall explore the potential impacts with important health outcomes in greater detail.

## 5. Stage 4: Analysis of potential health impacts

### 5.1. Patients

Research highlights the extensive physical, psychological, and social impact of chronic lower limb wounds on individuals (Briggs & Flemming, 2007; Green et al., 2014; Phillips et al., 2017). As the programme aims to improve the healing rate of such wounds, whilst reducing recurrence, there is potential for considerable patient benefits in the medium and long term, both physical, psychological, and social. Such improvements on health and wellbeing may enable patients to focus on other areas of their health, or explore activities previously avoided due to their wounds. The NWCSP (2020) report identified that the programme could generate an average of 0.034 quality-adjusted life years (QALYs) per patient for those already receiving evidence-based care. Further benefits around QALYs may be realised through further research.

Including a social care model of wound care provision may help reduce feelings of social isolation and negative mood through interaction with other local individuals with lower limb wounds (White, 2016). Combined with educational materials and promotion of self-care, this may help to encourage adherence to treatment, and potentially impact on healing time and recurrence. With the COVID-19 pandemic, the extent of these health impacts is likely to be affected. Care provided within the community setting, such as through The Leg Club, may have to function in different ways, such as implementing appointments instead of drop-in sessions and reducing the size of social groups.

With a drive for providing standardised care within a clinic setting where possible, both positive and adverse health impacts may be realised. Such settings, staffed with clinicians with relevant training and experience of wound care, may provide greater access to standardised, evidence-based care and improve health outcomes. Previous research has noted that attending a clinic setting multiple times a week can be burdensome for some



patients (Green et al., 2013). Some patient cohorts may struggle to access a clinical setting on a frequent basis, due to issues such as complex comorbidities, transport, cost, or mobility. Patients who are socio-economically disadvantaged are more likely to have chronic conditions, which often have a negative impact both socially and economically (Furler et al., 2011). Where possible, transport arranged through social care models may support equitable access to such care, whilst adopting the same treatment guidelines within home care provision would help support those unable to travel. Research suggests complex patients experience poorer outcomes than those without additional complexity, with wounds taking longer to heal (Anderson, 2017). Changes to pathways for referral to vascular services, podiatry, and dermatology may provide a clearer route for clinicians and staff in the wider system and encourage earlier patient referral to such services.

The implementation proposal highlights the unwarranted variation in care provided for chronic lower limb wounds. As such, areas with lower levels of evidence-based care provision and poorer outcomes may require a greater level of support to reduce such variation. This element of the programme may need to be closely monitored to ensure that the divide in care provision does not increase further. With the increased prevalence of lower limb wounds amongst older people (Darwin et al., 2019), there may be natural variation in the geographical demand for services. Lower limb ulcers are commonly associated with issues with blood return in the venous system, or due to complications from peripheral arterial disease (NWCSP, 2020). Risk factors behind such conditions include older age, smoking, lack of physical activity, stress, and unhealthy eating habits (Anderson, 2008; Ashrani et al., 2009; NHS, 2017). Where there are areas within England with higher proportions of older people, there may be a higher demand for services.

Though self-management is often considered necessary in supporting patients with chronic conditions, encouraging self-management of wound care has the potential to cause further divide in inequality of care. Prevalence of chronic wounds is higher amongst the older population (Darwin et al., 2019). Research suggests that older patients with multiple conditions are at an increased risk of impaired cognitive function, and subsequently may be less likely to successfully adopt a self-management approach (Coventry et al., 2014). Furthermore, patients' engagement with self-management are thought to be influenced by their capacity, responsibility, and motivation, with all three factors adversely impacted by socioeconomic deprivation (Coventry et al., 2014).

Though not a direct health impact of the NWCSP, COVID-19 is thought to have had a detrimental effect on some patients' experiences of wound care. Some patients have struggled to get appointments within general practice or community nursing services, subsequently impacting their access to care, prescriptions, and dressings (Adderley, 2020). Such experiences may have exacerbated the problems faced by certain patients, further contributing to variation in care experience and placing increased demand on services. A drive in the uptake of technology has seen some wound care consultations occur remotely over telephone or video calls (Adderley, 2020). If these methods of consultation were

continued through the NWCSP implementation, care should be taken to ensure that those who are not able to use these methods are not adversely impacted. If such methods are adopted and patient cohorts that are able and willing to engage remotely do so, this may enable those who require home visits to have greater or earlier access to such.

## 5.2. Workforce

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Implementation of the recommendations proposed by the NWCSP would support the upskilling of staff and encourage them to adopt evidence-based care. Such factors may support the workforce to feel more motivated through higher levels of job satisfaction, and satisfaction with the quality of care provided. A move to more appointments within clinical settings may provide more time for focused wound care, allowing staff to concentrate on this concern.

Guest et al. (2017) found unhealed wounds to have 'substantially greater' resource usage compared to healed wounds, including 104% more community nurse visits, 40% more prescriptions, 20% more practice nurse visits, and 13% more GP visits. Though improving and standardising service provision, and increasing wound healing rates, implementing the NWCSP recommendations could reduce the burden on the workforce.

During initial implementation of the service changes, there may be a period of disruption and increased pressure. Such periods should be monitored to ensure that staff have a clear understanding of the changes being made and the perceived benefits of such. Incorporating staff feedback may support greater engagement and adherence to changes and identify further areas of improvement. Though additional data captured through the programme may support clinicians in their decision making and service forecasting it may, however, create greater administrative burden and negatively impact staff time and morale.

## 5.3. System

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Compared to healed venous leg ulcers, the costs of managing unhealed venous leg ulcers have been found to be 4-5 times higher (Guest et al., 2018). Through increasing the proportion of wounds healed, and reducing recurrence rates, the NWCSP could reduce resource the impact of chronic lower limbs on the system. Significant implementation costs will be seen within the first three years, at an estimated sum of £225 million, however the break-even point has been estimated as achievable within 4 years of programme implementation. Overall, the NWCSP may see a net present value of £14.6bn and a benefit cost ratio of 9.8 over 30 years of implementation. Whilst providing benefits for the service area of wound care and management, the improvement in efficiency of the service will allow

resources to be better allocated across healthcare to enable a better quality of service and improved health outcomes for a wider patient population.


Implementing the programme may pose initial risk to the system through restructuring of pathways and changes to service provision. Care should be taken to avoid creating further health inequalities.


## 6. Stage 5: Recommendations to improve policy

The following recommendations are suggested to either further improve the potential positive impacts or minimise risk of adverse impacts.

- Identify an implementation approach which ensures that areas with poorer health outcomes around wound care do not fall further behind.
- Consider content and format of patient educational materials to ensure equal accessibility to information provided for patients with various health literacies, disabilities, or first languages. Different formats such as booklets or videos may support different cohorts and encourage engagement with material.
- There is limited research into the effect of self-management interventions in socio-economically disadvantaged patients with chronic conditions (Van Hecke et al., 2017). Implementing the NWCSP's recommendations provides an opportunity to explore how individuals from the most deprived areas, those with socio-economic disadvantage, or those with low health literacy, engage with the self-management aspect of the programme and how this may be developed to support greater equality.
- Where appropriate, provide patients with options as to the location of their consultation or care provided to ensure that factors such as travel, or cost, do not restrict patients' access to sufficient care. In certain areas, this may include provision of transport through social care models.
- In addition to providing education to care staff providing wound care in patient's own homes, the programme may seek to consider potential training or educational resources for care homes to support staff in understanding elements of wound care.
- Ensure additional data capture provides meaningful insights and does not induce a data burden on pressured staff and systems.

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