

An initiative to improve wound management within community services across one Clinical Commissioning Group in England

KEY WORDS

- ▶ PDSA (Plan, Do, Study, Act)
- ▶ Quality improvement project
- ▶ Wound healing

Background and local problem: The objective of this quality improvement project (QIP) was to identify a) the number and type of wounds treated in primary and community care within a single Clinical Commissioning Group (CCG) and b) compare current wound care practice against local policy and best practice. An eight-step quality improvement plan was implemented and wound care practice and documentation re-audited a year later. **Results:** **Pre-implementation:** Sixty nurses and healthcare support workers were observed to deliver wound care, with the majority being registered nurses ($n=44/60$; 73.3%). Over the 3 week evaluation period, wound care was delivered to 147 patients with the majority treated in the patients' own home ($n=98$; 66.7%). The majority of patients had their skin assessed in both GP practices and in their own homes ($\chi^2=1.11, df=2, p=0.57$). Wounds were more likely to be photographed in patients' homes ($\chi^2=4.28; df=1, p=0.04$). All other direct observations of care occurred less frequently when care was delivered in patients' homes (appropriate wound care advice provided $\chi^2=6.38, df=1, p=0.01$; comprehensive wound assessment $\chi^2=5.67, df=1, p=0.02$; and appropriate primary dressing $\chi^2=10.80, df=2, p=0.005$). **Post-implementation:** Over the 1-week evaluation period, Welsh Wound Innovation Centre and CCG staff observed wound care provided to 77 patients. Thirty-four patients received wound care in GP practices, 43 patients in their own home. Notably, fewer omissions in wound care were observed and this difference approached statistical significance across four aspects of care with the sole exception of use of an appropriate primary dressing in GP practices ($\chi^2=3.31, df=2, p=0.19$) in both audits. **Conclusions:** This QIP identified that there were weaknesses in current practice (for example, under 40% of patients received an appropriate primary wound dressing when cared for in their own home) and documentation (for example, 50% of patients treated in their homes did not have a correct wound diagnosis). Re-evaluation after implementation of an eight-step improvement plan showed marked improvements in both wound care delivery and documentation especially where care was delivered in patients' homes. This project has shown how complex health care delivery across primary and community care can be improved through a focused QI approach.

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Wound prevention and management cost the NHS between £4.5 and £5.1 billion pounds each year (Guest et al, 2015) with significant harm to patients, along with waste and variation of care across the health care system. The importance of providing effective health care in the community was emphasised by the high number of patient visits to GP practices (10,815,655), Practice Nurses (19,744,618) and

Community Nurse visits (10,932,199) compared with specialist nurse visits (51,106) and hospital outpatient visits (4,277,334) (Guest et al, 2015). However, while the majority of wounds are managed in community settings, there is considerable scope for improvement in care delivery with around 30% of wounds lacking a differential diagnosis, preventing the delivery of appropriate care (Guest et al, 2015).

Box 1. The eight changes in practice instituted by Clinical Commissioning Group

1. A wound improvement project Clinical Leads Group was created, led by the CCG, which met monthly, with representation from community and practice nursing and specialist tissue viability services
2. Review and standardisation of local wound policies
3. Increased access to study days and training, including Local Enhanced Services payment for wound care study leave for Practice Nurses
4. Ongoing training on leg ulcer management and competency assessments
5. New system for assessing and reviewing patients. All new patients' initial assessments were to be undertaken by a suitably qualified nurse. Follow-up visits were then undertaken by the healthcare support workers Band 3 or 4 or a Band 5 qualified nurse. On every third patient visit, a qualified member of the team attended and a re-assessment undertaken
6. There were notes in the patients' home with a communication and treatment document, which was completed signed and dated at each visit. There was information for the patient and carers identifying the team leader and whom to contact in an emergency
7. Improved access to the Tissue Viability Service
8. Increased provision of cameras and wound measurement equipment.

In early 2016, wound care delivery within the Clinical Commissioning Group (CCG) was organised by several bodies, including a social enterprise and the NHS, with the perceptions that:

- ▶▶ There was no standardised approach to wound management in primary and community care
- ▶▶ Serious incidents of pressure ulceration occurred
- ▶▶ Nursing skills and knowledge had reduced over recent years
- ▶▶ Better access to specialist Tissue Viability Services was required.

Further, the Local Enhanced Services (LES) for leg ulcer care, which was to be introduced in Spring 2016, required new knowledge and skills training for Practice Nurses. Additionally, there needed to be commissioning

of leg ulcer care for GP practices that were not planning to take up the new LES. However, limited data was available locally to identify the scope and nature of the wounds encountered in primary and community care as well as knowledge deficits around current wound care practices and documentation in GP practices and in patients' own homes.

A service evaluation was initiated by the CCG to identify the burden posed by wounds, local wound care practices and the documentation of wound care. Local audits of wound care practice and documentation were to be undertaken by nurses drawn from the Welsh Wound Innovation Centre (WWIC) with the service evaluation managed jointly by the local Academic Health Science Network (AHSN), the CCG and WWIC. This report describes the results of the initial review along with its recommendations for improvement in wound care service delivery and an evaluation of wound care practice and documentation held a year after the implementation of the first review's recommendations. The purpose of the first review was to establish initial

baseline knowledge around wound care delivery across the CCG and then to identify improvements following the implementation of changes in the structure and process of wound care delivery within the CCG.

METHODS

This quality improvement project (QIP) has been reported following the SQUIRE (Standards for Quality Improvement Reporting Excellence) guidelines (Goodman et al, 2016). The initial wound audit tool was developed by the WWIC in part guided by their own data collection tool used to record care delivered in their NHS wound clinics. The use of the WWIC audit form as a foundation for the observational review ensured that the WWIC nurses were familiar with the data items and the order in which data was collected. This tool was extended through adding practice-related questions described in the clinical practice guideline documents used within the CCG, consisting of 84 items.

An electronic tool that had been piloted and reviewed by the WWIC staff and reviewed was used to collect the audit data. Six WWIC staff members performed the observations of wound care over 9.5 days in May 2016. Each member was experienced in both their wound knowledge and the provision of wound care to ensure consistency in data collection. During the observational period, these staff assessed whether wound dressings were appropriate based on known contraindications for specific dressing types with regard to either the condition of the wound and/or the surrounding skin. Wound care advice given to patients was assessed as being appropriate when the advice given matched the clinical circumstances of the wound. The staff also recorded if details of the wound care provided were entered into the appropriate patient record — this assessment was made either during the encounter with the patient by the WWIC observers or immediately after.

The CCG supported by the local AHSN developed a service improvement approach to taking forward the recommendations from the initial evaluation. The CCG instituted eight changes in practice (*Box 1*).

PLAN, DO, STUDY, ACT

Adopting a Plan, Do, Study, Act (PDSA) approach, the CCG asked the WWIC to undertake a further evaluation in 2017 to assess whether the changes instituted had yielded improvement and equally

Table 1. Number of nurses and healthcare support workers observed to provide wound care, along with patient demographic information and wound aetiology within the initial audit in 2016 within GP practices and in patients' own homes

	Patients' homes	GP practices
Nurses: Healthcare support workers observed	22:12	22:4
Patients (number of wounds of different aetiology): number with single wound (%)	94 (105): 55 (59.1%)	47 (51): 28 (59.6%)
Age; mean (SD); range	77.0 (15.1); 37–100	69.9 (14.0); 23–93
Gender (M:F)	28:66	33:14
Wound aetiology		
Venous leg ulcer	11	23
Lymphoedema	8	1
Pressure ulcer, category III	7	0
Mixed leg ulcer	6	6
Traumatic leg ulcer	6	0
Pressure ulcer, category II	5	0
Pressure ulcer, category IV	5	0
Orthopaedic surgical wound	5	0
Malignant/fungating wound	4	1
Arterial leg ulcer	2	4
Abscess	3	4
Laceration	1	3
Other	15	7
No reported aetiology	16	2

forms were completed if a patient had wounds of different aetiology; in 2017 a single form was used to report the care delivered and documented for each patient. Three WWIC staff members along with three senior members of the local nursing staff performed the observations of wound care over 3 days in October–November 2017. In the 2016 and 2017 audits, data was directly entered into SPSS Version 24 (SPSS Inc) and analysed by a WWIC investigator not involved in the data collection to reduce the risk of bias.

RESULTS

The 2016 audit

Table 1 details the number of caregivers and patients included in the audit along with patient demographic data and wound aetiology. Sixty nurses and healthcare support workers (HCSWs) were observed to deliver wound care with these mainly being registered nurses (n=44/60; 73.3%). Wound care was delivered to 147

Table 2. Direct observation of wound care provided by nurses and healthcare support workers within patients' homes and GP practices in the 2016 audit

Item observed	Patients' homes			GP practice		
	YES	NO	N/A	YES	NO	N/A
By patient (n=94 patients' homes and n=47 GP Practices)						
Was a skin assessment carried out (1 response missing in patients' homes)	53	40	0	30	17	0
By wound (n=105 patients' homes and n=51 GP practices)						
Was appropriate wound advice given	68	37	0	43	8	0
Was a comprehensive wound assessment/care plan completed?	31	74	0	25	26	0
Was the primary dressing appropriate?	61	41	3	43	7	1
Were wound photographs taken?	19	86	0	3	48	0

consider the areas to focus on for the future. To ensure sustainability, it was agreed that the audit team should include senior members of the local nursing teams (Practice Nurse and Community Matron from the Clinical Leads Group) and the Tissue Viability Team Leader for the community.

In 2016, separate

patients, with the majority treated in their own home (n=98; 66.7%). Most patients had a single wound, with the maximum number of wounds of 5, with >5 wounds reported for one patient treated at home. Of the 147 patients, six were observed to have no wounds at the time of the audit (two in GP practices; four in patients' homes); of these, one was stated to have a healed thigh pressure ulcer category II wound at the time of the audit.

Patients with healed or no wounds at the time of the 2016 audit were excluded from subsequent analysis. Patients treated in their own home or in a GP practice were of similar age; however, more males were treated in GP practices and females in their own homes (x²=20.9, df=1, p=0.000). It was rare for patients to have wounds of different aetiologies with eleven and four patients, respectively, having two different types of wounds treated in their home or GP Practice respectively. In both care settings, venous leg ulcers were the most common wound aetiology with pressure ulcers only seen in patients' homes. Sixteen (17.0%) of wounds treated in patients' homes had no reported wound aetiology, with 2 undiagnosed wounds treated in GP surgeries.

Table 2 documents five observations of practice: was the condition of the skin assessed, was appropriate wound care advice provided, was there a comprehensive wound assessment/care plan, was the primary dressing appropriate for the wound and surrounding skin and were wounds photographed? Most patients had their skin assessed in both GP practices and in their own homes (x²=1.11, df=2, p=0.57). Wounds were more likely to be photographed in patients' homes (x²=4.28; df=1, p=0.04), however, in

Table 3. Documentation of wound care provided by nurses and healthcare support workers within patients' homes and GP Practices in the 2016 audit

Item documented	Patients' homes			GP practices		
	YES	NO	N/A	YES	NO	N/A
By patient (n=94 patients' homes and n=47 GP practices)						
Was a skin assessment documented?	35	59	0	25	22	0
By wound (n=105 patients' homes and n=51 GP practices)						
Was the correct wound aetiology documented? (1 case missing patients' home)	47	47	Awaiting diagnosis (n=10)	36	10	Awaiting diagnosis (n=5)
Was wound size documented? (1 case missing GP practices)	12	93	0	9	41	0
Was the condition of the wound bed documented? (1 case missing GP practices)	36	69	0	35	15	0

both settings, fewer than 20% of wounds were photographed. All other direct observations occurred less frequently, when care was delivered in patients' homes (appropriate wound care advice provided $\chi^2=6.38, df=1, p=0.01$; comprehensive wound assessment $\chi^2=5.67, df=1, p=0.02$; appropriate primary dressing $\chi^2=10.80, df=2, p=0.005$).

Table 3 illustrates the number of observations of wound care where four elements of documentation were completed: was a skin assessment document, was the correct wound aetiology documented, was the wound size documented and was the condition of the wound bed documented? Correct documentation of wound aetiology and recording of the condition of the wound bed were carried out; more often where care was delivered in GP practices ($\chi^2=10.74; df=3, p=0.01$ and $\chi^2=19.36, df=2, p=0.00$ respectively). Documentation of a skin assessment was also more likely to be recorded in GP practices ($\chi^2=3.26, df=1, p=0.07$). There was no apparent difference in the recording of wound dimensions where care was delivered in patients' homes or GP practices, with only 21 wound dimensions recorded.

The 2017 audit

Over 4 days, WWIC and senior local nursing staff

Table 4. Number of nurses and healthcare support workers observed to provide wound care, along with patient demographic information and wound aetiology within the re-audit of practice in 2017 within GP practices and in patients' own homes

	Patients' homes	GP practices
Nurses: healthcare support workers observed	5:8	7:7
Patients (number of wounds of different aetiology): number with single wound (%)	40 (60): 27 (67.5%)	27 (35): 21 (77.8%)
Age; mean (SD); range	67.2 (17.6); 23–95	63.8 (15.9); 24–87
Gender (M:F)	20:20	12:15
Wound aetiology		
Pressure ulcer, category IV	9	0
Venous leg ulcer	8	6
Abscess	0	4
Neuro/ischaemic foot ulcer	1	3
Arterial leg ulcer	4	2
Mixed leg ulcer	4	0
Pressure ulcer, category II	4	0
Lymphoedema	3	2
Pressure ulcer, category III	3	0
Perianal surgical wound	3	1
Other	13	11
No reported aetiology	4	0
Awaiting diagnosis	4	6

observed the wound care provided to 77 patients. Thirty-four patients received wound care in GP practices with 43 attended in their own home. Wound care was mainly observed in patients' homes to be provided by HCSWs (8/13 caregivers observed) while wound care was provided by seven nurses and seven HCSWs in GP practices.

Of the 77 patients, ten were observed to have healed wounds at the time of the audit (seven in GP practices; three in patients' homes). All healed wounds were located on the foot or lower leg bar one pressure ulcer located on the buttock. Patients with healed wounds at the time of the audit were excluded from subsequent analysis.

Table 4 details patient demographic information and wound aetiology within the 2017 audit in patients' homes and GP practices. Full-thickness pressure ulcers (category III) were the most frequently encountered wounds where care was delivered in patients' homes with venous leg ulcers most prevalent in GP practices.

Table 5. Direct observation of wound care provided by nurses and healthcare support workers within patients' homes and GP practices in the 2017 audit

Item documented	Patients' homes			GP practices		
	YES	NO	N/A	YES	NO	N/A
Was a skin assessment carried out	31	9	0	23	4	0
Was appropriate wound advice given (1 response missing – patients' homes)	32	7	0	27	0	0
Was a comprehensive wound assessment/care plan completed?	31	9	0	22	5	0
Was the primary dressing appropriate? (1 response missing (patients' homes)	34	4	1	25	1	1
Were wound photographs taken?	13	26	1	8	19	0

Table 6. Documentation of wound care provided by nurses and healthcare support workers within patients' homes and GP practices in the 2017 audit

Item documented	Patients' homes			GP practices		
	YES	NO	N/A	YES	NO	N/A
Was a skin assessment documented?	23	16	1	22	5	0
Was the correct wound aetiology documented?	34	2	Awaiting diagnosis (n=4)	20	2	Awaiting diagnosis (n=5)
Was wound size documented?	17	22	1	16	10	1
Was the condition of the wound bed documented?	33	6	1	25	2	0

Few wounds had an unknown diagnosis (n=4, all treated in patients' homes), while ten wounds were awaiting a diagnosis at the time of the audit. The age of the patients treated at home or in GP surgeries was similar (mean age (SD) patients' homes 67.2 (17.6); GP practices 63.3 (15.9), t=-0.91, df=64, p=0.36) while similar numbers of males and females were treated in each care setting (x²=0.09, df=1, p=0.76).

Table 5 documents five observations of practice within the 2017 audit: was the condition of the skin assessed, was appropriate wound care advice provided, was there a comprehensive wound assessment/care plan, was the primary dressing appropriate for the wound and surrounding skin and were wounds

photographed? Similar proportions of patients at home or in GP practices had a skin assessment completed, wound photographs taken (although only 21 patients had their wound photographed), were allocated an appropriate primary dressing and a comprehensive wound assessment undertaken. Appropriate wound care advice was more commonly provided in GP practices (x²=5.23, df=1, p=0.02), although only seven patients (all treated at home) did not receive appropriate wound care advice.

Table 6 illustrates the number of observations of wound care where four elements of documentation were completed in the 2017 audit: was a skin assessment documented, was the correct wound aetiology documented, was wound size documented and was the condition of the wound bed documented? Across all four aspects of care documentation, similar proportions of patients had each of the four aspects of care documented, whether care was delivered in patients' homes or in GP practices.

CHANGES BETWEEN THE TWO AUDITS

HCSWs were observed providing wound care more often in 2017 than in 2016. In 2016, most wound care was observed to be performed by registered nurses with only 35.3% (n=12) and 15.4% (n=4) of observations performed by HCSWs in patients' homes and in GP practices respectively. In 2017, HCSWs were observed to perform at least 50% of the wound care observed during the audit in line with the new system for assessing and reviewing patients.

There appeared to be some differences between the demographics of the patients observed in 2016 and 2107. Patients, both at home and in GP practices, were older in the 2016 audit (GP practice 2016 mean (SD) 70.1 (13.9); 2017 63.3 (15.9); t=1.92, df=72, p=0.06: Patients' homes 2016 77.1 (15.2) 2017 67.2 (17.6), t=3.30, df=131, p=0.001). In 2016, more male patients were treated in GP practices than in 2017 (x²=3.61, df=1, p=0.06), while fewer female patients were treated at home in 2017 compared with the previous year (x²=4.98, df=1, p=0.03).

In both 2016 and 2017, wounds were most commonly encountered on the leg – either in GP practices and in patients' homes. However, while venous leg ulcers were the most common wound in GP practices in 2016 and 2017, there were more category IV pressure ulcers treated in patients' homes in 2017 than venous leg ulcers. There were fewer wounds in

Table 7. Percentage of wound care practices seen to be performed between 2016 and 2017 in GP practices and patients' homes. Absolute data shown in Tables 2 and 5

	GP practices		Significance of difference between audits	Patients' homes		Significance of difference between audits
	2016	2017		2016	2017	
Skin assessed	65.3%	85.2%	$X^2=3.33, df=1, p=0.07$	56.9%	77.5%	$X^2=6.00, df=2, p=0.05$
Appropriate wound care advice provided	84.9%	100%	$X^2=4.19, df=1, p=0.04$	64.8%	82.1%	$X^2=3.86, df=1, p=0.05$
Comprehensive wound assessment/ care plan	49.1%	81.5%	$X^2=5.90, df=1, p=0.01$	29.4%	77.5%	$X^2=28.52, df=1, p=0.00$
Appropriate primary dressing	86.0%	92.6%	$X^2=3.31, df=2, p=0.19$	39.8%	87.2%	$X^2=11.65, df=2, p=0.00$
Wound photographed	5.9%	29.6%	$X^2=8.01, df=1, p=0.00$	18.1%	33.3%	$X^2=5.99, df=2, p=0.05$

Table 8. Percentage of wound care documented in the 2016 and 2017 audits in GP practices and patients' homes. Absolute data shown in Tables 3 and 6

	GP practices		Significance of difference between audits	Patients' homes		Significance of difference between audits
	2016	2017		2016	2017	
Skin assessment documented	55.1%	81.5%	$X^2=5.15, df=1, p=0.02$	36.7%	57.5%	$X^2=8.16, df=2, p=0.02$
Correct aetiology documented	79.2%	90.9%	$X^2=2.67, df=2, p=0.26$	50.0%	94.4%	$X^2=22.93, df=2, p=0.00$
Wound size documented	17.3%	57.1%	$X^2=13.36, df=1, p=0.00$	11.9%	42.5%	$X^2=20.67, df=2, p=0.00$
Wound bed condition documented	67.3%	92.6%	$X^2=4.78, df=1, p=0.03$	33.0%	82.5%	$X^2=32.76, df=2, p=0.00$

2017 with an unknown aetiology. In 2016, there were 37 wounds with unknown aetiology, mainly treated in patients' homes ($n=30$), a year later ten wounds were awaiting diagnosis, with only four where the aetiology was unknown (all treated at home).

Significant improvements in the delivery of wound care were observed in both GP practices and in patients' homes. The proportion of patients having each aspect of wound care observed during the audit is shown in Table 7. In 2017, there were fewer gaps in the performance of appropriate wound care with the improvement over a year in four areas approaching or achieving statistical

significance. Appropriate wound dressings were generally used in GP practices in both audits ($\chi^2=3.31, df=2, p=0.19$).

Similar improvements were also seen in the documentation of delivered wound care in both GP practices and in patients' homes between 2016 and 2017. The proportion of patients having each aspect of wound care documented during the audit is shown in Table 8. There was a statistically significant improvement in the number of patients with documentation of wound care between 2016 and 2017 in both GP practices and patients' homes with one exception. The number of patients with an incorrect documented diagnosis of their wound in GP practices fell from eight to two between 2016 and 2017; however, this difference did not achieve significance ($\chi^2=2.67, df=2, p=0.26$).

DISCUSSION

This QIP was initiated due to local concerns within the CCG that there was variability in wound management practice across primary and community care and new LES required additional knowledge and skills training for GP Practice Nurses. An initial review held in 2016 identified the types of wounds treated in patients' home and in GP practices along with direct observations of wound care delivery and its documentation. Four key recommendations were identified:

- ▶▶ Standardisation of the content of wound management policy documents across the NHS, and GP surgeries should be encouraged.
- ▶▶ Wound photography should be encouraged to provide one part of the record of the progress of wounds over time, however, emphasis should be placed upon gaining consent for each photograph.
- ▶▶ In both care locations (GP practices and patients' homes), there were occasions where appropriate wound care was not delivered indicating the requirement for further education and training for staff working in patients' homes and in GP practices.
- ▶▶ Training should be developed to assist both Practice Nurses and Community Nurses better assess and report the appearance and progress of wounds.

Following the introduction of an eight-step plan to meet these recommendations and improve the delivery and documentation of wound care, current wound care delivery and documentation was re-evaluated in late 2017. The results highlighted marked

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improvements in the delivery of wound care observed in both GP practices and in patients' homes compared with 2016. For example, in GP practices the proportion of observations where appropriate wound care advice was observed increased from 84.9% to 100% of cases. In patients' homes allocation of an appropriate wound dressing increased from 39.8% (2016) to 87.2% of cases in 2017. Similar improvements were also seen in the documentation of delivered wound care in both GP practices and in patients' homes. For example, in 2016, 50% of patients seen in their homes had an incorrect wound aetiology documented, this fell to 5.6% in 2017.

This project adds to the multitude of studies where QI methods have been used to demonstrate changes in wound management across a range of health service providers, working within several healthcare systems (Couch et al, 2015; Chupp et al, 2017; Serena et al, 2017; Avruscio et al, 2017; Walker et al, 2017; Clark et al, 2018; Shieh et al, 2018)

The major limitation of this project was the change in patient demography between the two audits. While this factor may have influenced the results of the two audits, qualitative informal discussions with caregivers following the 2017 audit identified improvements in staff morale, improved access to education and the Tissue Viability Services and enhanced communication between staff and between staff and patients. These, albeit informal comments, do indicate real change in the service between audits with the changes in the practices observed and documented unlikely to have been artefacts of patient selection for inclusion in the audits.

One of the notable changes derived from the increased access for clinicians to education and training. As a consequence of the improvement plan, all wound care training sessions recorded pre- and post- knowledge and skill levels. The CCG undertook an impact assessment 3–6 months following the training, to determine the improvements that had been achieved and to identify any additional challenges that required further intervention at either a practical or managerial level. These changes were not specifically tested in the second audit but are indirectly reflected in the observed improvements in knowledge of wound aetiology and the requirement for skin assessment.

CONCLUSION

This QIP was initiated due to perceived shortfalls in the delivery of wound care across primary and community care. Through an initial review, the number and type of wounds managed in GP practices and patients' homes were identified, along with data about current wound care practice and its documentation. The baseline identified that there were weaknesses in current practice (for example under 40% of patients received an appropriate primary wound dressing when cared for in their own home) and documentation (for example, 50% of patients treated in their homes did not have a correct wound diagnosis). An eight-step improvement plan was developed and introduced in 2016–17 and an evaluation of wound care delivery and documentation was repeated in late 2017. The QI approach, incorporating a PDSA cycle of determining a baseline (observations), creating a plan (eight-step improvement plan) and evaluating (re-audit) established a marked improvement in both wound care delivery and documentation, especially where care was delivered in patients' homes. While encouraging, the PDSA highlighted that some aspects of wound care required further improvement – for example the use of photography and wound size measurements to provide objective indicators of progress towards healing. The local initiative to make cameras and wound measurement equipment available had increased the use of photographs of wounds, for example from 17.4% (patients' homes 2016) to 32.5% (patients' homes 2017). Further access to training on wound photography would appear to offer scope for wounds to be more frequently photographed in future. Similarly, wound size was rarely recorded in 2016, for example in patients' homes, wound dimensions were documented in 11.9% of cases in 2016, rising to 42.5% of patients in 2017. There would appear to be further scope for improvement in the recording of the size of wounds.

This project has shown how complex health care delivery across primary and community care can be improved through focus upon a small number of actions that can lead to marked improvements in the care delivered to patients.