Problem definition

**Problem**

Pressure ulcers place a heavy burden on the National Health Service; it is estimated that treatment costs £2.1 billion annually(National Institute for Health and Care Excellence, 2018). Current treatment plans are largely reactive, addressing the problem only once an ulcer has either already developed to stage one or progressed beyond it. Further increasing the patient’s severity.

**Proposed solution**

Our Solution will shift the dynamic from a reaction-based approach to an active preventive one. The system continuously tracks the patient’s sitting position and provides live feedback to the patient, as well as delivers alerts directly to the registered clinician. This early intervention can help prevent the condition from worsening.

**Impact**

Our solution provides much-needed support to the approximately 700,000 patients affected by this condition each year (Wood et al.,2019). Pressure-related injuries have been shown to be treatable in 95% of cases(Trust,n.d) if prompt and active care is given. Thus, incorporating monitoring and early intervention, our solution will:

1. Alleviate the financial burden on the health service, with projections to save £1.3 billion annually.
2. Improve the quality of care and reduce the workload on clinical staff.
3. Provide patients with greater comfort, confidence and peace of mind.

Reference:

National Institute for Health and Care Excellence (2018). *Pressure Ulcers: Prevention and Management*. [online] NICE. Available at: <https://www.nice.org.uk/guidance/cg179>.

Wood, J., Brown, B., Bartley, A., Margarida Batista Custódio Cavaco, A., Roberts, A.P., Santon, K. and Cook, S. (2019). Reducing pressure ulcers across multiple care settings using a collaborative approach. *BMJ Open Quality*, [online] 8(3). doi:https://doi.org/10.1136/bmjoq-2018-000409.

Trust, H.H.N.F. (n.d.). *Preventing pressure ulcers*. [online] Homerton Healthcare NHS Foundation Trust. Available at: <https://www.homerton.nhs.uk/preventing-pressure-ulcers>.

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