



What are they?

Macmillan understands that for a person living with cancer the physical environment they are treated in is vital to their wellbeing. That's why we help to fund and create 'healing' cancer environments that meet the needs of the patient, their family, carers and people seeking information about cancer.

Typical cancer environments can include hospitals, cancer units, in-patient units for palliative care and Macmillan information and support centres.

'To have a locally available service of high quality makes a great difference to my life. The surroundings are pleasant and less clinical and this makes me feel much more like an individual receiving a more personal service'

This Impact Brief is part of a suite of Impact Briefs which provide evidence about the impact of Macmillan's direct and indirect services, available at www.macmillan.org.uk/impactbriefs

Need



Each year just over **335,000** people are diagnosed with cancer in the UK.¹



People affected by cancer deserve to be treated and supported in physical environments which meet high quality standards.³

Reach



In 2014 Macmillan reached an estimated **78,872** cancer patients within our Macmillan clinical buildings across the UK.¹³



Macmillan has been creating therapeutic cancer environments for **35** years, planning and funding over **200** cancer care buildings.⁴

Impact



Patients with natural daylight in their rooms require less pain relief than patients without, and have shorter post-operative stays and less minor post-surgical complications.¹²



A physically and emotionally comfortable environment contributes to a user's wellbeing.¹⁶

www.macmillan.org.uk/impactbriefs

INTRODUCTION

Macmillan provides over 200 enhanced physical environments which cater for the information, support and treatment needs of people affected by cancer. Macmillan knows that the environment is important and that the design of cancer care buildings can have an impact on the way people feel and respond to treatment. Macmillan cancer environments aim to improve personal wellbeing and contribute to positive results from treatment.

Macmillan aims to work in partnership with NHS trusts to provide high quality environments for people affected by cancer, whether building from scratch or upgrading an existing environment. The key to this is an understanding of the physical and emotional needs of cancer patients. It is essential that individuals are treated in a space that is convenient and accessible, somewhere that promotes privacy and dignity, that supports comfort and wellbeing, and offers choice and control.

SUMMARY OF KEY FINDINGS

- **Importance in health policy**
Cancer care is increasingly recognised as an important element in national health policy, this includes the need for patients to be treated in high quality physical environments that meet their needs. Both current and future capacity needs should be met.
- **Macmillan clinical environments**
Macmillan has been funding and creating therapeutic cancer environments for 35 years, in collaboration with the NHS and other providers. In 2013 over 80,000 people were reached in Macmillan clinical buildings across the UK.
- **Improved patient outcomes**
Good treatment environments can increase the wellbeing of cancer patients, and have also been shown to improve treatment results.
- **Positive impact on staff**
High quality cancer environments also result in positive changes for staff. They are better able to deliver care, well designed buildings lead to improved staff morale and reduction in unscheduled absences.
- **Positive feedback and high satisfaction levels**
An evaluation of three Macmillan clinical environments in Northampton, Hereford & Antrim highlights the impact of Macmillan environments. All three received positive feedback and high satisfaction ratings amongst users in key areas such as privacy and dignity, physical access, lighting, temperature, having access to the natural environment as well as spaces to receive social support from family and friends.

DETAILED FINDINGS

1. What is the issue?

Each year just over 335,000 people are diagnosed with cancer in the UK;¹ they will be treated or supported in a cancer environment such as a hospital, cancer unit or in-patient units for palliative care.

Since cancer patients often spend significant time in a variety of cancer environments during their cancer journey, from diagnosis through to post cancer and end of life care, so the environment forms an important element of their experience and outcomes.

National health policy

The Cancer Reform Strategy 2007 outlined government proposals to improve patient outcomes and quality of care, the Strategy acknowledged that people affected by cancer deserve to be treated and supported in physical environments which meet high quality standards. The 2011 Improving outcomes: A strategy for cancer (England's current cancer strategy) also supports the need for treatment and care environments that protect and care for all patients, and aims to ensure patient experience is positive.² However this need for high quality is not currently met at an equal level across England.^{3, 4}

Cancer care has increasingly been a key part of national health policy in the last decade, this includes highlighting the need for providers to ensure better treatment is offered through improved environments. In particular, it is recommended that care is delivered in an appropriate setting and that services are future-proofed, ensuring cancer environments take emerging needs into account by building for the future.^{3, 5, 6, 7}

There is a need to ensure key areas are considered and taken into account for individual cancer environments - including improvements in capacity, patient experience and accommodating modernising changes in practice. The NHS, working with organisations such as Macmillan, should ensure that environments have suitable capacity for services which match current demand and have the ability to grow with forecasted future increases in demand.

The need for and national commitment to improving cancer services is also demonstrated by the requirement for providers to achieve ambitious targets for timely diagnostics and treatment for potential cancer patients. Recent reports by the Department of Health also reaffirm the committed to putting patients at the very heart of their care, ensuring patient choice and the provision of appropriate, timely care at the chosen point of access.^{8, 9, 10}

Requirements from quality environments

The identified need to improve the patient experience can be achieved in a number of ways, primarily by improving the quality of the environment in which treatments are delivered (ensuring that they are well furnished and create a pleasant atmosphere); and improving privacy and dignity during treatment and discussions with healthcare professionals, this has been frequently mentioned in patient feedback at sites. Good environments contribute to high quality care and improve patient outcomes – this is independent of the ailment of the patient.

The Department of Health recommends that project teams creating cancer environments should take into account the views of all users at the onset of the planning and design process. It also recommends that regardless of the setting or basis of treatment delivery, the privacy, dignity and comfort of patients should be seen as key. In addition, the DH looks at key environmental features of cancer treatment facilities - highlighting the importance of external views and access to gardens where possible, providing the ability to control temperature locally, as some patients are very sensitive to temperature, as well recommending that environments include positive distraction such as interesting artwork.¹¹

Healthcare staff

Researchers looking at cancer treatment environments in the US found rigorous studies that link the physical environment to improved patient and staff outcomes in these areas:

- Reduced staff stress and fatigue resulting in increased effectiveness in delivering care
- Improved patient safety
- Improved overall healthcare quality.¹²

2. What is Macmillan doing to address the issue?

Macmillan helps to fund the design, construction and furnishing of cancer care centres. We also provide furniture, decoration and fittings to create a relaxing and healing environment. Types of clinical building include palliative care units chemotherapy suites, out-patient information and support centres and general cancer care centres.¹³

In 2014, we reached an estimated 78,872 cancer patients who were treated within Macmillan clinical buildings across the UK.¹³

In 2012 Macmillan invested over £11 million in services which directly improved cancer support for people affected by cancer - including £8 million spent on buildings. In 2012 University College Hospital in London opened a new cancer centre which cost over £100 million. Macmillan contributed over £10 million to the project. In 2014 Macmillan's investment in Macmillan cancer buildings was around £7.9 million.¹⁴

Macmillan has been creating therapeutic cancer environments for 35 years, in this time over 200 cancer care buildings

*'To have a locally available service of high quality makes a great difference to my life. The surroundings are pleasant and less clinical and this makes me feel much more like an individual receiving a more personal service.'*⁴

**Cancer patient
Macmillan Chemotherapy unit
Prince Charles Hospital, Wales**

'I can only wish the rest of the NHS was up to the same standard as what is received from the Macmillan Unit'

**Cancer patient Macmillan
Chemotherapy unit
Prince Charles Hospital,
Wales**

for the NHS and other providers have been planned and funded by Macmillan.⁴

Chemotherapy units are an example of a cancer care environment provided by Macmillan. A typical Macmillan chemotherapy unit might include a treatment suite for 10 to 20 patients (although some are much larger), an outpatient suite and an information and support centre; co-located in one place to maximise their accessibility for users.

Palliative care units are another example of a Macmillan cancer environment. These now tend to be inpatient facilities, reflecting the progressive development of home and near-home care for patients with late stage cancer. Whether acute or palliative, Macmillan environments have generous space standards, high quality finishes and fittings, enhanced patient facilities such as relatives' overnight rooms, quiet rooms, comfortable waiting lounges, therapeutic gardens and carefully chosen art; this is usually on top of the standards already required of other NHS facilities.

Cost of typical Macmillan Cancer Clinical Environments^{15*}

These are typical costs for cancer environments funded by Macmillan, enabling Macmillan and its partner organisations to create relaxing and healing environments for cancer patients.

Environment	Cost
A new chemotherapy suite in a local hospital	Between £200,000 and £600,000
A new oncology and outpatient unit in a hospital	Between £3 million and £7 million

Please note: Macmillan may not fund the full costs of these environments, as they are often developed in partnership with other organisations.

*For more detailed costs of these and other Macmillan services see be.macmillan.org.uk to download The Cost of Macmillan's Services fact sheet.

3. What is the impact of high quality clinical environments?

Impact of three improved Macmillan clinical environments

Macmillan provides clinical environments at the highest standards, taking the needs of all those who use the environment into account, including cancer patients, families, friends and health care professionals.

The NHS's Achieving Excellence Design Evaluation Toolkit (AEDET) was used to evaluate three flagship Macmillan cancer environments:

- The Palliative Care Unit, Antrim Area Hospital
- The Macmillan Renton Unit, Wye Valley NHS Trust, Hereford
- The Macmillan Haematology Unit, Northampton General Hospital

All three scored well, towards the top of the AEDET 6 point scale, the majority received a score of between a 5/6 and 6/6. This is especially a huge improvement for Hereford, before the facility was replaced by Macmillan Hereford was scored between 2/6 and 3/6.^{16, 17}

The AEDET toolkit evaluates the functionality, build quality and impact of clinical environments. It allows comparison between different sites and criteria to be made. The AEDET toolkit is a major influence, assisting the NHS in determining and managing their design requirements.⁴

Impact on staff

Post occupancy evaluation results show that 100% of staff at Northampton felt safe and secure, 66% thought the building enhanced productivity and 92% felt they were consequently able to work to a standard they were happy with; 88% of staff at Hereford and Antrim agreed. 67% at Hereford and Antrim also thought the location of the cancer environment facilitated communication with other departments.^{16, 17}

Changes in patient and staff behaviour

Investment in high quality environments leads to positive changes in behaviour in both staff and patients. Patients are more likely to have greater social interaction, both with one another and with staff members, leading to a decrease in isolated passive behaviour. Generally there are more positive attitudes to refurbished areas, as newer buildings are described as being more pleasant and cheerful and patients are more likely to use the hospital again. Higher quality environments also lead to improved staff morale and reduction in unscheduled absences.

Physical and emotional comfort

A physically and emotionally comfortable environment contributes to a user's wellbeing – and this was felt almost universally across the three sites. 92% of users thought the waiting area was comfortable at Northampton, and 93% felt the environment had variety of lighting, and a light & airy feel, with 95% at Hereford & Antrim of the same opinion.^{16, 17}

93% of users at Northampton felt that the unit did not look or feel clinical and was described as the best part of the hospital, 74% at Hereford and Antrim felt the same.^{16, 17}

Overall staff at Northampton reported that the users experience was '*much more comfortable, relaxing*'. There was '*,more space less cramped*', with a '*modern new feeling*'. The improvements in the treatment room included '*more chairs and more space*' with users able to '*see the nurses better*' and also improved privacy with '*separate treatment and consultation areas*'. The staff reported that they felt able to deliver '*better care as [they] aren't battling with environment*'. The layout was described as '*exceptionally practical*' with a '*beautiful design*'.¹⁶

Key features

Privacy and dignity

Being treated with dignity and respect are core to the values of Macmillan. Privacy and dignity at all stages of patient care are key to giving cancer patients control over their situation and ensuring they receive personalised care. 93% of users of the treatment area at Northampton felt privacy was protected, with 91% agreeing at Hereford and 100% at Antrim. 78% of users at Northampton also felt their privacy was protected at the Reception & Waiting area.

Physical access

Ease of access to an environment is essential to reduce stress in patients and their families especially as treatment is a physically and emotionally demanding process requiring multiple visits. An easily accessible environment is also well integrated into the wider service environment – for example having more signage is associated with faster journeys, less hesitation, a lower number of questions being asked and in reduced stress. The evaluation of Northampton showed that 79% of users thought the unit was easy to find.¹⁶

Lighting

Bright light in an environment, whether natural or artificial, leads to improvements for patient such as a reduction in the length of stay, level of depression and agitation, as well as better sleep quality. Patients in brighter conditions also benefit from feeling less stress and less pain, using 22% less analgesic medication per hour in one study.¹² In an evaluation of Northampton the introduction of natural light via a sun tube in the main treatment area improved quality of lighting, and was described as creating a lovely feeling. As a result of lighting improvement, 96% of patients and staff said they the interior felt light and airy, and that there was sufficient variety in lighting.¹⁶

Temperature

Temperature is also important for comfort only 7% of users asked at Northampton felt the temperature was not appropriate.¹⁶



*'Connection to nature. Nature is integral to the building. Ability to be outside lifts the spirits.'*⁴

**Cancer patient
User of Macmillan cancer building**

Natural environment

Having visual exposure to nature improves both physical and emotional outcomes in cancer patients, such as pain and anxiety. The “natural view” could include both the natural landscape outside a cancer environment, or a painted natural scene inside.¹²

Patients with natural views or environments require less pain relief than patients without, and

have shorter post-operative stays and less minor post-surgical complications. On an emotional level, a natural environment can contribute to reducing anxiety and stress and to promoting positive moods and feelings. This contrasts to patients who have views of built scenes, which may worsen stress. There is a strong patient preference for natural views.¹²

100% of patients at Antrim and Hereford could easily see outside plants, vegetation and nature. Hospital gardens give patients exposure to nature as well as enabling social support, providing opportunities for positive escapes, and control over the clinical setting. This in turn improves both patient and family satisfaction with the quality of care. The garden at Herford was liked by everyone.¹⁷

Social support

A variety of evidence supports the role of social support in reducing stress and improving recovery. A better environment also means that friends and family visit patients for longer. Approximately 80% of patients at all 3 Macmillan sites evaluated felt that there was adequate space for family members and that they were made to feel welcome.^{16, 17}

CONCLUSION

With more people being diagnosed with cancer each year, the need for high quality cancer environments to support them will similarly rise.

Macmillan funding and created cancer environments aid people affected by cancer by improving personal wellbeing, helping to achieve positive treatment outcomes and also contribute to staff satisfaction and performance.

Macmillan continues to fund and create Cancer Clinical Environments with our partner organisations, and urgently needs more charitable donations to keep these facilities supporting cancer patients and their families. Go to www.macmillan.org.uk/donate or call 0300 1000 200 to make a donation.

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