Feature Article

A logic model approach: understanding the impact of local Macmillan cancer information and support services in the UK

Ruth Carlyle
Macmillan Cancer Support, London, United Kingdom

Abstract

Health information services are increasingly expected to demonstrate their impacts. One mechanism for doing so is to use a logic model. This article outlines the application of a logic model approach to the development and evaluation of local Macmillan cancer information and support services in the UK. It exemplifies the value of enabling service providers and other stakeholders to work together to agree the intended impacts of a service and how these will be measured. The logic model itself provides a clear graphic to illustrate how service activities lead to outputs, outcomes and impacts. This approach could be used more widely in health libraries and information services.

Key words: consumer health information; information centers; charities; evaluation; patient outcome assessment.

Introduction

Health information services and libraries are increasingly called upon to demonstrate the impacts that their services have on organisations, communities and the lives of service users. This article outlines the response of Macmillan Cancer Support to this need to demonstrate the impact of health information services. Macmillan is a UK-wide charity that develops local cancer services, including cancer information and support services, in partnership with local organisations, such as National Health Service (NHS) hospitals and local authorities (the local government bodies in the UK). Macmillan has adopted a logic model approach to developing and evaluating these local cancer information and support services. This article introduces the logic model approach and uses Macmillan cancer information and support services to illustrate the elements within the logic model: rationale; resources/inputs; activities; outputs; outcomes; and impacts. The article suggests that applying a logic model helps to distinguish between outputs, outcomes and impacts; it also enables service providers to demonstrate the inputs and activities needed to deliver the impacts. This approach could be of benefit to health libraries and other health information services.

Taking a logic model approach

A logic model illustrates graphically how services operate. It is developed as a group exercise, enabling service providers and key stakeholders to reach consensus on what it is that the service is trying to change and how the service delivers impacts (1). A logic model presents the elements of service delivery and intended results as a series of steps. As illustrated in *Figure 1*, the logic model is read from left to right with each step dependent on the preceding stage.

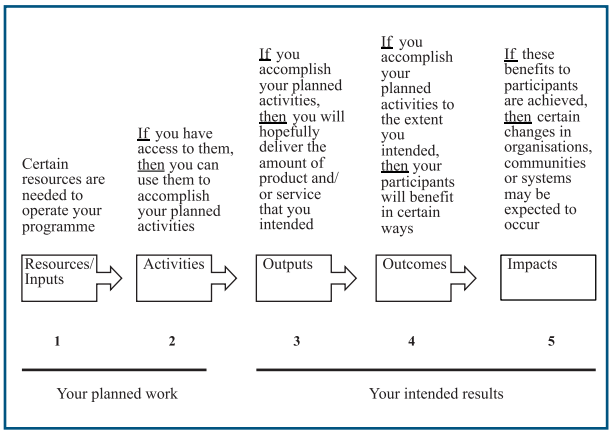


Figure 1. *Reading a logic model (with permission of the W.K. Kellogg Foundation (1)*

Address for correspondence: Ruth Carlyle, Head of Support and Well-being, Macmillan Cancer Support, 89 Albert Embankment, London SE1 7UQ, United Kingdom. Tel: +44 20 7840 4698. E-mail: rcarlyle@macmillan.org.uk

Macmillan works with a wide range of local partners, operating in very different contexts to develop local cancer information and support services. The local contexts determine much of the impact that a service either desires or is able to produce. In the simple logic model developed with local Macmillan services, therefore, the local rationale for the service is included as an overarching factor (see *Figure 2*).

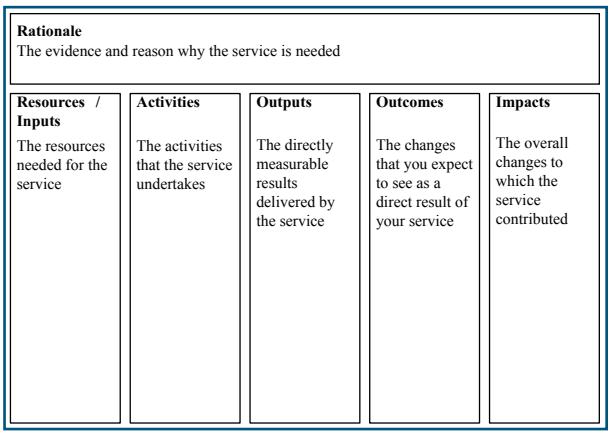


Figure 2. *Simple logic model template*

The ideal sequence for developing a logic model is to start with the outcomes that you expect to see, then the outputs, the impact, the resources and finally the activities (1). This sequence has the benefit of ensuring that current activities do not become the focus of discussion. In practice, conversations tend to flow between the steps, but it is important to ensure sufficient focus on the outputs, outcomes and impact. For ease of sequencing the narrative in this article, it opens with the rationale and then each of the steps in the logic model, using Macmillan cancer information and support services as an example.

Rationale for local Macmillan cancer information and support services

The cancer story is changing. People are being diagnosed earlier, treated better and in many cases living longer. In the UK, we have approximately 2.5 million people living with cancer or following a cancer treatment; by 2030, there will be 4 million people living with or beyond cancer (2). This increase will not be matched by an increase in NHS personnel. Even with the current numbers, analysis in 2013 of free text responses to Patient Reported Outcome Measures for cancer services demonstrated the need for improved access to information and support (3). People living with or beyond cancer generally have a higher health-related quality of life and lower levels of depression and anxiety if their information needs have been fulfilled (4). A systematic literature review by the Patient Information Forum in 2013 demonstrated a wide range of benefits from health information services and resources, including: improved knowledge, understanding and recall; greater self-management and self-care; increased patient engagement; and increased patient satisfaction (5).

Given this evidence, the generic rationale across the logic model is that: there is an increasing demand; current information and support needs are not being met; and local cancer information and support services could meet this need. Within specific localities, there will be particular issues, such as low health literacy, which indicate the impacts that services could have in particular communities.

Resources/Inputs

Macmillan Cancer Support has developed nearly 200 local cancer information and support services across the UK in partnership with NHS hospitals and other organisations. We also run three mobile information and support services, operating on a similar model to mobile libraries.

Space, people and resources are needed as inputs for the local services. Services operate most effectively if they are delivered in a series of rooms: a welcome area; a core delivery area in which information materials are available; a quiet room, sometimes used for specialist services such as benefits advice; and an office. The services are run by a professional manager working with volunteers. Managers are advised on high-quality materials produced by Macmillan and other organisations and the services are also expected to operate within Macmillan's quality framework (6, 7).

Activities

The Macmillan cancer information and support services provide a drop-in service for anyone with an interest in cancer, including people with cancer, families, friends and health professionals. In addition to cancer information, local services provide emotional support and host specialist

services, such as physical activity programmes. They work with people affected by cancer to help them to identify their needs and then support them to access services to meet those needs.

Outputs

The outputs are the directly measurable results of the service activity. The local cancer information and support services supported 275,000 people in 2014; and the mobile and support services helped 79,000 people (8). These output figures do not look as impressive as the numbers of people helped through Macmillan's print (3.43 million) and digital resources (4.05 million), which is where services need to be considered in terms of their outcomes and impacts, not just the outputs.

Outcomes

The outcomes are the changes we would expect to see as a direct result of the cancer information and support service's activity. They are more difficult to measure than the outputs of service activity, as they require an ongoing contact with the service user to see whether they acted on information provided by the service. In order to do this, local services request consent to make a follow-up telephone call at a time relevant to the actions discussed with the service user.

The outcomes reported by service users are principally being able to access specialist services identified through the information and support service, notably financial support services and physical activity services. Timely information with support also means that service users feel able to manage their cancer better.

Impacts

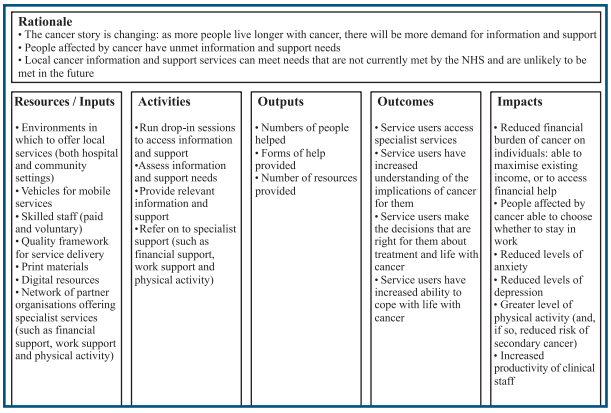
The impacts are the overall changes to which the service is contributing. Impacts may be at an individual level or wider.

The individual impacts can be analysed through a combination of follow-up contacts and data from the wider web of services. From this, we can tell that the cancer information and support services help to reduce the financial burden of cancer on individuals, through: access to work support services that help people with cancer and their carers to stay in work; access to financial guidance to help people to maximise the income benefit of pensions and other financial resources that they already hold; and access to benefits advice, with a measurable impact on income if grants or welfare benefits are received.

Some organisational and individual impacts may benefit from external evaluation to verify them, particularly if an economic analysis is required. Macmillan worked with the Office for Public Management and the NHS Institution for Innovation and Improvement to review the impact of the hospital-based Macmillan cancer information and support service in Salford as a case study (9). In terms of individual benefits, the external review identified that every £1 invested in the annual budget of the service generated £1.57 in monetised benefits to individuals. These benefits were a combination of funds through grants and charitable funding, with non-statutory well-being activities, such as holidays and make-up demonstrations. For the healthcare system, productivity gains for the service were estimated at £36,864 in time released for clinical nurse specialists to concentrate on core clinical tasks; or a monetised benefit of £0.74 for every £1 invested in the service (9).

Conclusion

Discussion of the rationale, inputs, activities, outputs, outcomes and impacts of Macmillan cancer information and support services leads to a completed logic model template similar to that in *Figure 3*. Some examples of logic models use images rather than words. What they have in common is a presentation on a single sheet of how the resources lead to activities that then generate outputs, outcomes and impacts. Creating the logic model



Rationale
- The cancer story is changing; as more people live longer with cancer, there will be more demand for information and support
- People affected by cancer have unmet information and support needs
- Local cancer information and support services can meet needs that are not currently met by the NHS and are unlikely to be met in the future

Resources / Inputs	Activities	Outputs	Outcomes	Impacts
• Environments in which to offer local services (both hospital and community settings) • Vehicles for mobile services • Skilled staff (paid and voluntary) • Quality framework for service delivery • Print materials • Digital resources • Network of partner organisations offering specialist services (such as financial support, work support and physical activity)	•Run drop-in sessions to access information and support •Assess information and support needs •Provide relevant information and support •Refer on to specialist support (such as financial support, work support and physical activity)	• Numbers of people helped • Forms of help provided • Number of resources provided	• Service users access specialist services • Service users have increased understanding of the implications of cancer for them • Service users make the decisions that are right for them about treatment and life with cancer • Service users have increased ability to cope with life with cancer	• Reduced financial burden of cancer on individuals: able to maximise existing income, or to access financial help • People affected by cancer able to choose whether to stay in work • Reduced levels of anxiety • Reduced levels of depression • Greater level of physical activity (and, if so, reduced risk of secondary cancer) • Increased productivity of clinical staff

Figure 3. *Generalised logic model for local Macmillan cancer information and support services*

provides a helpful focus for discussion; either showing that there is already agreement on how the processes lead to impacts, or generating that consensus. Once a logic model is in place, it is a tool to explain the service and to review the measures that are being used in evaluations.

In an era when health information services are expected to demonstrate their value, the logic model approach provides a way of thinking about services that moves beyond activities and outputs to considering the outcomes and impacts that services may already be having and how these could be measured. The clear process flow also enables service providers to demonstrate the inputs/resources that they need in order to deliver the services that will lead to the outputs, outcomes and impacts. Health information services may wish to consider adopting the logic model approach when demonstrating their impact.

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