
2 The National Evaluation Framework

2.1 Purpose of the National Evaluation

The overall purpose of the National Evaluation is to measure the roll-out and effectiveness of the SHCI.

The basis of the National Evaluation is explored in more detail in the following Section.

2.2 Background

The task for the national evaluator was to develop and then implement a robust National Evaluation Framework (NEF) which addressed the three hypotheses for the SHCI, and the nine evaluation questions that emerged from these. The work described here builds on earlier work by the University of Wollongong (Centre for Health Service Development, 2000) in considering the original design of the NEF for the SHCI and in leading the early consultation about it. As part of that early consultation process, the evaluation questions were developed in conjunction with the DPs in a “bottom up” approach to ensure best fit with the focus of the DPs.

In January 2002, DoHA appointed a consortium as the national evaluators of the SHCI DPs. This consortium was led by PricewaterhouseCoopers (PwC) and included Effective Healthcare Australia and the Department of Public Health and Community Medicine, the University of Sydney at Westmead (known collectively as the ‘University of Sydney’). While these two other organisations were included in the consortium, PwC was solely contracted to DoHA for the delivery and implementation of the NEF of the SHCI.

At the time of appointment of the PwC Consortium, all of the DPs were established and the majority of local evaluators had been appointed.

As a consequence, the timely delivery and implementation of the NEF were core issues raised in the early discussions with DPs. Most DPs had already started to develop systems and processes for their self-management programs, and at least one DP had begun to recruit clients to a pilot self-management program when the national evaluator was appointed in early 2002.

To facilitate this, a number of principles were adopted by the national evaluation team to guide the development and implementation of the NEF.

2.2.1 Guiding principles for the National Evaluation

Collaborative approach with DPs and their local evaluators

Establishment of an effective working relationship between the local evaluators, the DPs and the national evaluation team was seen as the critical feature of developing and implementing the National Evaluation. A structured collaborative approach to reaching agreement with the DPs on finalising the NEF was the only way to achieve a successful outcome. Strong emphasis was placed on communication with the DPs in the design of the evaluation. Commencing with early consultation within weeks of the appointment of the national evaluator, intensive consultation continued with the DPs during the design process.

The aim throughout was to reach agreement about a NEF which would meet the needs of the SHCI funder but also be of use to the local self-management programs. In essence, the approach was one of treating the National Evaluation as a collaboration which would maximise co-operation between the national and local evaluations and would help to foster communication and experience-sharing between the DPs. This collaborative and co-operative relationship underpinned the success of the National Evaluation.

This approach also helped maximise the quality of the evidence since a “goodness of fit” with the activities of the DPs and the local evaluations was ensured.

Expectation Management

It was important to emphasise with the DPs and local evaluators that the national evaluation team understood that the SHCI was a demonstration program, and not a trial, whilst still reiterating the need for a rigorous evaluation. However, to obtain ‘buy-in’ from the DPs in this regards, it was necessary for the national evaluators to demonstrate to the DPs that they understood their content and focus as well as own their priorities for evaluation.

As a result it was critical to build in flexibility to the agreed NEF to reflect the DPs diversity. In practical terms, this equated to ensuring that expected achievements and actual achievements at the DP level were reflected.

2.3 Methodological considerations

2.3.1 *Defining and measuring success of a national program of Demonstration Projects*

Beyond consideration of the evaluation of core elements of self-management at the client level, the DPs of the SHCI had two key features which critically impinged on the design of the National Evaluation. First, the projects were DPs rather than controlled trials. Second, and a related point, the DPs were not part of an efficacy trial evaluating self-management for having a chronic condition. Rather they were part of a program of implementation of the self-management approach in the Australian context.

2.3.1.1 *Demonstration Projects versus trials*

As was stressed in Section 1, the DPs were not efficacy trials for a SMI, that is, they were not randomised control trials or variations thereof. As a consequence, they did not consist of a standardised intervention and there were no control groups.

DPs are particularly suitable for situations where there is a perceived problem with a system, and there is a desire to foster continuous performance/quality improvement through enabling people within the system to develop appropriate solutions. However, the potential downside of using the DP or action research methodology is that it provides very different evidence to that provided by clinical trials. In part, this is because outside the confines of trial methodologies with their rigorous adherence to study protocols, DPs may be changed during implementation. In effect this means that the intervention, or independent variable, may change over the course of the study, a feature that has been termed 're-invention' (25).

From the perspective of the National Evaluation of the SHCI, the implications of the DP methodology were clear. A strong emphasis on process evaluation was seen as critical in order to enable inferences to be drawn about the differential effectiveness of delivery and implementation variations. This was also entirely in keeping with the philosophy of directing the evaluation towards understanding how best to implement self-management programs in the Australian context (21).

2.3.1.2 *Defining the SHCI: evaluation lessons for widespread dissemination*

Collectively, the DPs have the potential to improve understanding about how to most effectively develop SMIs in Australia and to provide Australian-specific information for future policy options for better management of chronic conditions taking a health promotion approach.

Key considerations for the National Evaluation, therefore, were how such a health promotion approach might work under real-world conditions in

community settings, and to understand the potential population-based impact of widespread implementation of self-management. Specifically, the evaluation needed to consider the range of dimensions that might influence the potential public health significance of implementation.

Considerations of how to evaluate the potential public health impact of innovative health promotion programs have been canvassed in detail in the literature (21). Central to these considerations is the notion that the evidence needs to be broadened to take into account several key dimensions in addition to efficacy for individual participants to reflect the combined effect of a range of individual level and organisational or health system level factors (21).

At the individual level, evidence of efficacy through improved biological outcomes (for example, disease risk factors) and service use needs to be evaluated. However, in addition, evidence needs to be obtained which helps to understand the extent to which a program has been able to reach its target population in the first place, together with features inherent in health promotion impact, such as, satisfaction and the quality of life of clients.

At the organisational level, three dimensions are thought to contribute to the ultimate public health potential of a program. They relate to the extent to which:

1. Relevant settings (for example, health care practitioners, health care practices, settings and/or communities) take up the innovation;
2. The program can be delivered outside the confines of the research setting, under real-world conditions; and
3. The program becomes sustainable.

As a consequence, the National Evaluation of the SHCI needed to go well beyond assessment of effect at the individual client level. To reflect this, the conceptual framework for the National Evaluation addressed five main evaluation domains: the client; the carer/family/significant other; the community; the HSP; and the health service system.

It was also clear that the National Evaluation needed to address dimensions beyond efficacy of self-management. Dimensions such as potential SHCI reach, extent of take-up of the innovation by HSPs and the community, and the potential for sustainability, were critical for understanding the national lessons of the SHCI.

2.3.1.3 Action research approach

The National Evaluation was a time series, albeit over a relatively short period of time (18 months - 2 years). A clear implication of the nature of the evaluation being action research oriented rather than trial oriented was the potential contribution of early feedback of experience. Producing results

throughout the SHCI, so that the processes could be modified and the evaluation adapted if necessary, was therefore a highly desirable part of the evaluation (as opposed to representing a contaminant of outcomes).

As indicated above, the national evaluation team responded to early input from the DPs and also prescribed to a 'Early Wins' philosophy in which results were reported on throughout the evaluation to the DPs. A number of meetings were held throughout the evaluation to feedback results from the National Evaluation and also to receive updates on progress from the DPs themselves. For example:

- Sharing Health Care Workshop, Hobart, 9-10 December 2002;
- National Chronic Condition Self-Management Conference, Melbourne, 12-14 November 2003;
- National Evaluation Workshop, Sydney, 22 April 2004; and
- National Evaluation Workshop, Indigenous DPs, Darwin, 16 August 2004.

2.3.1.4 Length of follow-up

Considering the timeframe over which the evaluation was to be conducted (no DP was going to run for more than 18 months), it was considered that changes in outcome could be evident for client and carer domains. However, the degree to which any such change could be observed in the longer term (i.e. sustained) could not be measured.

At the community level, the timeframe was considered too short for outcome change to have developed to a measurable extent. Nevertheless, impact indicators of community level change were included, to provide early markers of potential gains.

2.3.1.5 Triangulation

Triangulation is the utilisation of different data sources (for example, evaluator collected data and DP collected data) and methods of data collection (both qualitative and quantitative) to provide a more complete picture of the topic being studied. From which, any conclusions drawn can be viewed with more confidence since the multiple sources of evidence should provide confirmatory support.

The conceptual framework for the National Evaluation used triangulation to increase the robustness of the evidence base of the evaluation. A range of data was sought for the National Evaluation, using a variety of methods (for example, interviews, questionnaires, process mapping) and sources (for example, national evaluator collected, local evaluator collected and DP collected).

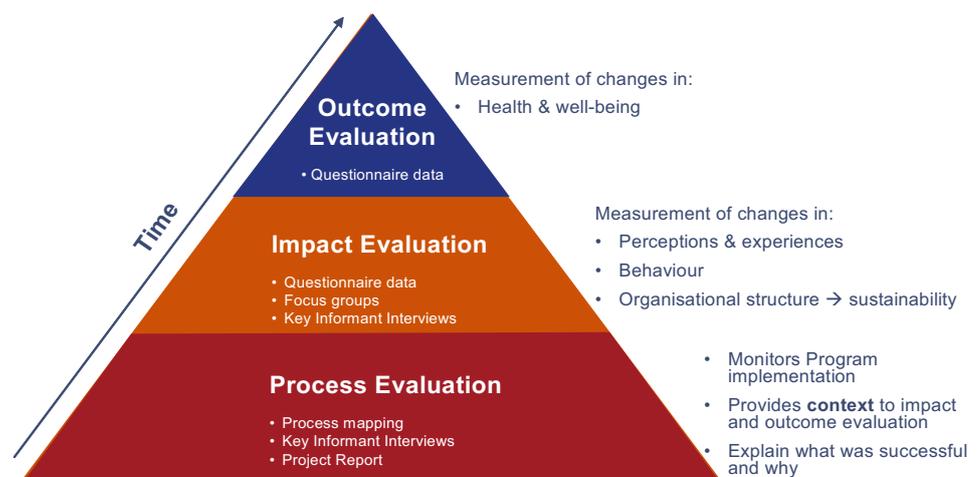
2.4 Conceptual framework

The conceptual framework for the SHCI aimed to provide a comprehensive and logically integrated approach to the specification of the evaluation of the SHCI. The starting point for the conceptual framework was the public health approach to program evaluation. From this approach, three core components were specified:

- **Process evaluation:** monitors SHCI implementation from the perspective of self-management program delivery (for example, care related processes) and broader organisational factors at both a DP and health system level. It also provides contextual information for the impact and outcome evaluations, helping to explain what was successful and why.
- **Impact evaluation:** measures changes in modifiable risk (for example, health behaviours) and protective factors (for example, perceptions and experiences of the SHCI) as well as community capacity and the potential for ongoing sustainability.
- **Outcome evaluation:** measures changes in the health and wellbeing of the target population(s) or program participants.

A graphical representation of the National Evaluation is provided in Figure 1, from which it can be seen that the process evaluation underpins the whole approach, whilst at the same time providing a context for the impact and outcome evaluations, and being the platform for the action research approach.

Figure 1 Overview of the SHCI Conceptual Framework



In addition, the SHCI inputs (for example, resources, operations and activities) directly influenced the processes, impacts and outcomes being evaluated. As a consequence, these were also taken into account as part of the development of the conceptual framework.

2.4.1 Hypotheses and evaluation questions

The NEF was developed from the hypotheses and evaluation questions which were identified at a workshop for the DPs, held in February 2001. These are listed in Table 10 and Table 11.

Table 10 Hypotheses

Hypothesis 1	That learning self-management principles will improve: <ul style="list-style-type: none"> a) The health-related quality of life for people with chronic conditions, particularly those with co morbidities; b) The carer/family/significant others perceptions and experiences of the health-related quality of life for people with chronic conditions; and c) The health/wellbeing of communities.
Hypothesis 2	That learning self-management principles will help facilitate among HSPs, improvements in awareness and understanding about the benefits of self-management and consequent behaviour changes, as well as improving communication between GPs, people with chronic conditions and their families, and other health professionals.
Hypothesis 3	That learning self-management principles will result in more appropriate use of health services.

Table 11 Evaluation Questions

Evaluation Question 1	Which recruitment strategies are most successful in recruiting which clients/groups of clients?
Evaluation Question 2	Which clients/groups of clients are most likely to participate in which DP self-management programs?
Evaluation Question 3	What other factors influence participation rates and in which direction?
Evaluation Question 4	How and by how much does the form/structure of self-management education influence the health behaviours and health outcomes of clients?
Evaluation Question 5	How and by how much does the type, intensity and frequency of client support and follow-up influence the health behaviours and health outcomes of clients?
Evaluation Question 6	How and by how much does the SHCI intervention components influence community outcomes?
Evaluation Question 7	What is the level of client and carer/family/significant other satisfaction associated with each DP self-management program? What factors influence this?
Evaluation Question 8	What is the level of behaviour modification by HSPs? What factors influence this?
Evaluation Question 9	What factors affect the sustainability of the program?

2.4.2 *Domains*

From the Hypotheses and Evaluation Questions five domains were identified, around which the National Evaluation was based. The domains and their definitions are listed below.

- **Client:** participants recruited to the DP self-management programs.
- **Carer/family/significant other:** a person who may be a family member, friend, relative or other who regularly helps the client formally or informally with managing their life.
- **Community:** is DP specific since there are a number of ways in which Community can be defined. Some examples include geographic, relational (ethnic, culture or religion) or political (where a group is engaged in a common political/social action/change).
- **HSP:** a formal member of the health system, with a health-related qualification, who is involved in the development and/or implementation of health planning and/or service delivery. HSPs need to be distinguished from the evaluation of lay providers of health-related planning. The evaluation of lay providers is considered under the client domain.
- **Health Service System:** is the context within which the DP self-management programs were delivered: from decision making at policy level to the formal delivery of health care services and its location.

2.4.3 *Conceptual framework*

Through a close examination of the DP proposals and discussions with DoHA and the DPs, it was possible to identify the relevant DP inputs and associated evaluation dimensions to develop the conceptual framework for the National Evaluation of the SHCI. Table 12 presents the conceptual framework for the National Evaluation. The conceptual framework is presented in the form of a program logic map. Program logic (26) allows schematic representation of the main elements of the evaluation, in order to make explicit the conceptualisation of logical relationships between the inputs (or activities) to the SHCI, the processes of the SHCI, and the measurable impacts and outcomes of the SHCI.

Table 12 The conceptual framework

Evaluation Domain and associated Hypotheses and Evaluation Questions (EQ)	Inputs	Evaluation Components		
		Processes	Impacts	Outcomes
Client Hypothesis 1 EQ 1, 2, 3, 4, 5, 7, 9	<ul style="list-style-type: none"> Recruitment strategy 	<ul style="list-style-type: none"> Marketing Reach Recruitment 	<ul style="list-style-type: none"> Self-management behaviour Self efficacy Perceptions and experiences with the DP self-management program 	<ul style="list-style-type: none"> Health status/health related Quality of life Functional status Social function Psychological distress Overall wellbeing Service use
	<ul style="list-style-type: none"> Self-management model 	Features of model: <ul style="list-style-type: none"> Enrolment Education of clients Education of personnel 		
	<ul style="list-style-type: none"> Care/self-management strategy 	<ul style="list-style-type: none"> Care/self-management planning 		
	<ul style="list-style-type: none"> Support services 	<ul style="list-style-type: none"> Support from program 		
Carer/Family/ Significant Other Hypothesis 1 EQ 1, 2, 3, 4, 5, 7, 9	<ul style="list-style-type: none"> Recruitment strategy 	<ul style="list-style-type: none"> Marketing Reach Recruitment 	<ul style="list-style-type: none"> Perceptions and experiences with the DP self-management program 	N/A
	<ul style="list-style-type: none"> Self-management model 	<ul style="list-style-type: none"> Education of carers Support from program 		
	<ul style="list-style-type: none"> Support services 			
Community Hypothesis 1 EQ 1, 2, 3, 6, 7, 9	<ul style="list-style-type: none"> Recruitment strategy Health promotional model 	<ul style="list-style-type: none"> Reach Health promotion 	<ul style="list-style-type: none"> Perceptions and experiences with the DP self-management program 	N/A
	<ul style="list-style-type: none"> Health planning strategy Support services Capacity 	<ul style="list-style-type: none"> Health planning Community support services Organisational development Workforce development Resource allocation 	Sustainability: <ul style="list-style-type: none"> Network partnerships Knowledge transfer Problem solving Infrastructure 	
Health Service Providers Hypothesis 2 EQ 5, 6, 8, 9	<ul style="list-style-type: none"> Recruitment strategy 	<ul style="list-style-type: none"> Marketing Reach Recruitment 	<ul style="list-style-type: none"> Satisfaction with the DP self-management program 	N/A
	<ul style="list-style-type: none"> Self-management model 	<ul style="list-style-type: none"> Education of providers 		
	<ul style="list-style-type: none"> Support services 	<ul style="list-style-type: none"> Support from the DP self-management program 		
Health Service System Hypothesis 3 EQ 8, 9	<ul style="list-style-type: none"> Structural support 	<ul style="list-style-type: none"> Infrastructure development Governance Integration 	N/A	N/A

The public health approach (i.e. the process, impact and outcome evaluation components) was applied to each of the five evaluation domains. While the table has presented these as parallel rows, they should be seen as interlinking branches of the evaluation, whose collective influence is of potential importance to the success of the SHCI. A graphical representation of the National Evaluation is provided in Figure 1 from which it can be seen that the process evaluation underpins the whole approach, whilst at the same time providing a context for the impact and outcome evaluations, and being the platform for the action research approach.

To make the impacts and outcomes more explicit, and for the purposes of representing the program logic, the conceptual framework considers the evaluation domains as separate components. The synthesis of the results (see Discussion Section to be included) has allowed for consideration of the interaction between and relative importance of components in achieving outcomes.

The inputs identified in the first column illustrate the core common activities identified for the National Evaluation. As indicated above, a guiding principle underlying the design of the evaluation was the need to identify characteristics of key, common DP self-management program features for analysis against some standard impact and outcome measures.

In the development of the conceptual framework, it was recognised that it was not possible to measure any of the five evaluation domain exhaustively. Rather, the conceptual framework aimed to provide comprehensive coverage across key evaluation dimensions for each of the major evaluation domains. Together, the evaluation domains and their evaluation dimensions address the range of individual and organisational factors that need to be considered to provide lessons about implementation of self-management approaches in the Australian context.

Outcome measures were deemed not applicable for several of the evaluation domains in the conceptual framework, either because of the nature of the domain (HSP and health service system domains) or because of the timeframe over which the evaluation will be conducted (community domain). At the community level, for example, the timeframe (18 months) was considered too short for outcome change to have developed to a measurable extent. Nevertheless, impact indicators of community level change were included, to provide early markers of potential gains. Given the client/carer/community outcome focus of the SHCI, changes in the HSP and health service system domains were regarded as impact factors.

A description of the tools used to measure all of the dimensions of the conceptual framework is outlined in Section 3.

2.5 Implementation of the National Evaluation Framework

2.5.1 PricewaterhouseCoopers

PwC was solely contracted to DoHA for the implementation of the National Evaluation, so following the development of the conceptual framework and NEF, Sydney University no longer took an active role in the National Evaluation.

2.5.2 Memorandum of Understanding

The Memorandum of Understanding (MOU) was a tri-partite agreement designed to document the roles, responsibilities and functions of the national evaluator, the DP and the local evaluator, in regards to the collection of information for the national minimum data set for the National Evaluation.

The national evaluator developed a proforma of the MOU which contained the core elements of the:

- Components of the NEF;
- Data collection and management methodology; and
- Samples of the proposed instrumentation to be used as part of the National Evaluation (for example, National Evaluation questionnaires, project report template, focus group thematic guide).

The content of these elements was developed through consultation with the DPs, local evaluators and DoHA (including the National Evaluation Workshop, Sydney, 14-15 March 2003).

The MOU proforma was then individualised to reflect the varying characteristics of the individuals DPs. However, the reporting requirements could not differ significantly in order for the national evaluator to maintain adequate comparability across the DPs. The MOU highlight the roles and responsibilities of the following components:

- Statement of principles;
- Project management;
- Data collection and management (including client numbers, data entry, analysis, reporting etc);
- Informed consent;
- Knowledge sharing (including communication channels, access to national data, rights of publication and intellectual property etc);

- Quality assurance (including response rate, DP records, data components etc); and
- MOU review and expiry.

Following this process, the MOU was signed off by the national evaluator, the DP and the local evaluator.

2.5.3 Data collection and management

A data collection and management guide was developed as a formal element of the NEF, in consultation with the DPs, local evaluators and DoHA. The aim of the guide was:

- To provide practical and generic data collection and management assistance to the DPs and local evaluators; and
- To ensure that data submitted to the national evaluator was complete, accurate and timely.

The guide was prepared on that basis that all DPs were entering their questionnaire data locally, and was designed to accompany the National Evaluation data dictionary and the data management databases.

A data dictionary was developed to assist the DPs and their local evaluators in the coding, entry and interpretation of data.

In addition to the data dictionary, each DP received a DP specific data management database. These Access databases provided forms in which the questionnaire data could be entered directly into, as well as a number of data management functions (for example, batch status report, batch contents report, compiling data to be sent to the national evaluator and amalgamating client data for DP analysis).

In addition, each DP was allocated a contact person within the national evaluation team to liaise with regarding data collection and management, along with other general queries and comments. This allowed for the development of the relationship between the national evaluator and the DPs and local evaluators.