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1 Introduction

This is the evaluation framework for Cancer Australia's National Lung Cancer Program (NLCP) as proposed by the Centre for Health Service Development (CHSD), University of Wollongong.

The NLCP is a new program of Cancer Australia that has been funded for an initial four year period from 2009 – 2013. The total budget allocation across this period is \$6.83 million.

In designing the methodology for the program evaluation it is essential to be clear about the purpose of the evaluation. For the NLCP, program evaluation has two key purposes to:

- Assess progress against the program objectives and;
- Determine if the program is operating appropriately, effectively and efficiently.

1.1 Background

1.1.1 Summative and formative evaluation

In assessing progress against the NLCP objectives there are both summative and formative evaluation tasks. Summative evaluation ascertains whether and to what extent the program was implemented as intended and the desired/anticipated results achieved. This form of evaluation usually occurs near the end-point of a program. The purpose is to ensure accountability and value for money with the results of the evaluation informing any future planning decisions, policy and resource allocation. This is evaluation for judgement ('How did the NLCP do?').

Formative evaluation more commonly occurs throughout the life of the program as it uses the results of the evaluation to inform the ongoing development and improvement of the program. It aims to improve the program throughout its implementation. This is evaluation for learning ('How can the NLCP learn and get better as it goes?').

Cancer Australia is committed to improving the delivery of their programs and ensuring that the organisation as a whole monitors performance and delivers against the outcomes documented in the Cancer Australia Strategic Plan 2011-2014¹.

1.1.2 Lapsing program evaluation

The NLCP has been funded by the Australian Government for a specified period. As this funding period draws to a close an assessment can be made as to whether the program is meeting its stated objectives. In order to secure further funding the NLCP will be subject to the Department of Finance and Deregulation's evaluation requirements for ongoing funding of a lapsing or terminating program. This requires an assessment of the program's appropriateness, efficiency and effectiveness.

'Program evaluation involves the systematic and objective assessment of government programs or parts of programs, to assist the Government and other decision-makers to:

- *assess the continued relevance and priority of program objectives in the light of current circumstances, including government policy changes (that is, appropriateness of the program);*
- *test whether the program outcomes achieve stated objectives (that is, its effectiveness); and*

¹ Australian Government, Cancer Australia (August 2011). [Cancer Australia: Strategic Plan 2011 – 2014](#).

- ascertain whether there are better ways of achieving these objectives (that is, its efficiency)^{1,2}

1.2 Factors influencing the evaluation framework

The design of the NLCP evaluation framework must accommodate several factors. These include the distinction between monitoring and evaluation; the foundation provided by the NLCP program logic and the integration required with the broader performance evaluation processes within Cancer Australia.

1.2.1 Monitoring and evaluation

The NLCP will need to monitor its performance through a small suite of Key Performance Indicators (KPIs). For example, the projects that are funded must operate in accordance with an agreed project management framework. Each project is monitored to ensure that milestones are achieved and that the expected outputs are delivered. The program as a whole has a defined budget allocation and officers of Cancer Australia monitor expenditure carefully throughout the financial year to ensure that funds are used appropriately. Monitoring is something that occurs on an ongoing basis and generates data that can be used to inform the evaluation when it occurs.

The evaluation framework aims to build upon these existing sources of information gathered through routine monitoring and data collection. A range of additional data will need to be collected as a 'snapshot' to answer the evaluation questions that form the core of the evaluation framework. Suggested NLCP Key Performance Indicators for 'monitoring' purposes are included in Table 1 below.

Table 1 NLCP Key Performance Indicators

Program Objective	Key Performance Indicator
Increasing research to build the evidence around lung cancer	<ol style="list-style-type: none"> 1. Number of NLCP publications that provide evidence to inform priorities for cancer control 2. Number of citations of NLCP funded scholarly publications
Increasing support and guidance for health professionals (through clinical guidelines and evidence based information)	<ol style="list-style-type: none"> 3. Number of support and guidance projects completed on time and within budget 4. Number of web hits/downloads recorded for the new model of care, and/or clinical guidelines 5. Number of health professionals participating in spaced education activities and/or using clinical guidelines.
Improving data and reporting for lung cancer.	<ol style="list-style-type: none"> 6. Number of downloads recorded for "Lung Cancer in Australia" and "Report to the Nation on Lung Cancer"
Increasing engagement and effective partnerships for the delivery of improved lung cancer care.	<ol style="list-style-type: none"> 7. Number of conjoint activities/partnerships with other cancer organisations in which the NLCP has a leadership role 8. Number of NLCP projects and engagement activities demonstrating alignment with the CA National Framework for Consumer Involvement in Cancer Control 9. Number of NLCP projects that have evidence of formal collaboration with organisations external to CA
	<ol style="list-style-type: none"> 10. Departmental actual expenditure in a financial year comes within 10% of the original budget

² Tune, D. (2010) Speaking Notes: *Evaluation: Renewed Strategic Emphasis*. Department of Finance and Deregulation. Available at <http://www.finance.gov.au/presentations/docs/speaking-notes-for-David-Tune-presentation-18-08-2010.pdf> accessed 23 March 2011.

1.2.2 Program logic and objectives

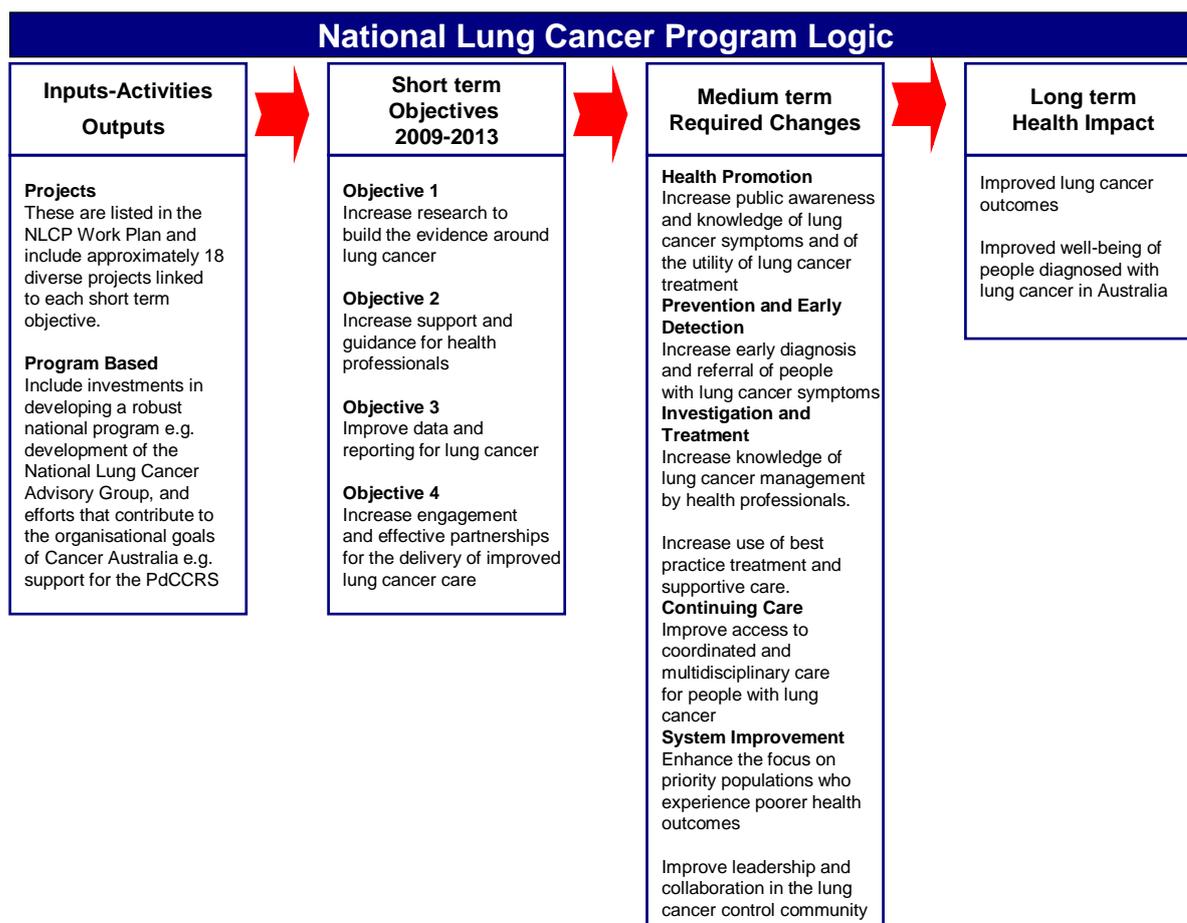
Developing the program logic is an important first step in an evaluation as it helps to make explicit the program’s design and what the program is trying to achieve. The program logic for NLCP has been documented separately and is included as Appendix 1³. A summary diagram is provided in Figure 1 below.

The program logic also drives the evaluation framework. This logic model establishes the links between the Program’s inputs, activities, outputs, outcomes and impact. For example, one way of thinking about ‘appropriateness’ is by asking the question: ‘Is the NLCP doing the right things?’ A logic model can test the assumptions behind the activities in train and the causal link between the strategies chosen and the desired outcomes.

The NLCP has three core objectives which guide the projects that are funded:

- Increase research to build the evidence around lung cancer
- Increase support and guidance for health professionals
- Improve data and reporting for lung cancer.

Figure 1 Cancer Australia National Lung Cancer Program Logic



³ Thompson C, Samsa P and Eagar K (2011) Evaluation Services for Cancer Australia’s National Lung Cancer Program: Program Logic, Centre for Health Service Development, University of Wollongong.

The NLCP as an initiative of Cancer Australia has a role in national leadership and coordination. Consequently an additional opportunistic objective arises from the way the NLCP works with organisations and jurisdictions which is to:

‘Increase engagement and effective partnerships for the delivery of improved lung cancer care’.⁴

1.2.3 Cancer Australia Outcomes Hierarchy

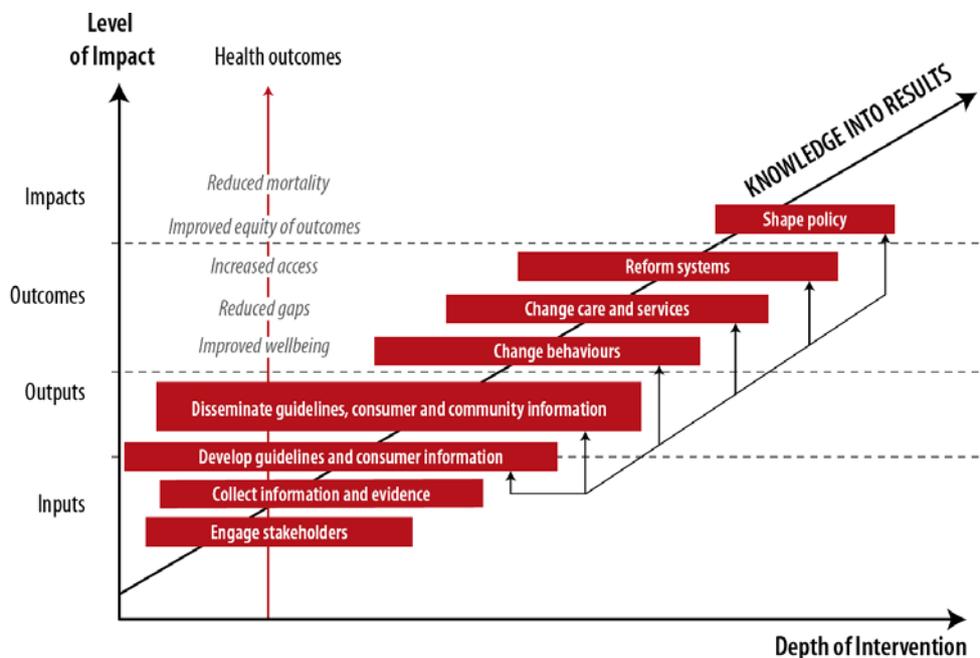
Cancer Australia was established to benefit all Australians who are diagnosed with cancer, their families and carers. Cancer Australia has four key outcomes which each program area contributes to. These outcomes are to generate:

- Improvements in national coordination of cancer control and advice to Government
- Improvements in cancer outcomes across the continuum of care
- Improvements in the delivery of cancer care and the patient experience
- Improvements in community knowledge that have the potential to impact on cancer outcomes.⁵

Cancer Australia has identified how the organisation’s inputs and outputs as a whole can progressively build to generate improved health outcomes for the Australian community, (refer to Figure 2).

This hierarchy of outcomes shows that before higher order health outcomes can be achieved, such as reduced mortality and the reform of systems and policy, there are preceding steps or ‘foundation’ activities that need to be completed. The work of the NLCP in its first phase of operation has concentrated on these base building blocks or ‘foundation’ activities.

Figure 2 Interventions to Improve Cancer Outcomes⁶



⁴Cancer Australia Lung Cancer Program. Available at <http://canceraustralia.gov.au/about-us/priorities-and-programs/lung-cancer-program> accessed 29 July 2011.

⁵ Australian Government, Cancer Australia (August 2011). *Cancer Australia: Strategic Plan 2011 – 2014*, pp.19-20.

⁶ Ibid, p. 22.

2 Evaluation strategy

The evaluation strategy has been designed to allow a judgment as to how successfully the NLCP has been implemented, whether the desired results have been achieved and what lessons have been learnt that will lay the ground-work for the future.

This program level evaluation does not seek to make judgements about the quality of outputs of individual projects. The program-level evaluation will, in many respects, be a ‘roll-up’ of project achievements, constraints and successes, driven from the perspective of the evaluation framework. Given the diversity of projects there are no common outcomes that can be identified across all projects, rather what is important is that projects align with the objectives of the NLCP and are implemented as intended.

2.1 Elements of the evaluation

The cancer community is diverse and the NLCP aims to achieve improvements for consumers, health providers and the broader health system, each of which needs to be considered in the evaluation:

- Level 1: Impact on, and outcomes for, consumers (lung cancer patients, families, carers, friends, communities)
- Level 2: Impact on, and outcomes for, health providers (professionals, volunteers, organisations)
- Level 3: Impact on, and outcomes for, the system (structures and processes, networks, relationships).

Figure 3 National Lung Cancer Program - Evaluation Elements

Evaluation Hierarchy	What did you do?	How did it go?	Can you keep it going?	What has been learnt?	Are your lessons useful for someone else?	Who did you tell?
	Program/Project Delivery	Program/Project Impact	Program/Project Sustainability	Program/Project Capacity Building	Program/Project Generalisability	Dissemination
Level 1: Consumers (people with lung cancer, their carers, family, friends, communities)						
Level 2: Health providers (professionals, volunteers, organisations)						
Level 3: System for managing lung cancer control (structure, processes, networks, relationships)						

The evaluation framework is built around six program elements: program delivery, program impact, sustainability, capacity building, generalisability and dissemination. Not all elements are relevant to every project and objective of the NLCP. The shading in Figure 3 is to indicate that the main focus of program delivery for the NLCP in this first funding phase, is in supporting health providers/professionals (Level 2). This will in turn impact on people with lung cancer and the system for lung cancer control.

The concepts of sustainability, capacity-building, generalisability and dissemination are mainly issues for the delivery of the NLCP at Level 2. A brief explanation of these six areas is provided below.

2.1.1 Program delivery

Program delivery (implementation) includes what was done and how it was done. Through interviews with key stakeholders and review of project documentation it is possible to explore the lessons learned about program implementation. The NLCP has funded a series of projects that comprise the primary work or outputs of the program; a current project list is included as Appendix 2.

2.1.2 Program impact

The program as a whole is aiming to have an impact at three levels: the level of the consumer, health service provider and broader health or cancer control system. Individual projects within the program may be aiming to have an impact at one, two or all three of these levels. As the projects are all quite different in nature it is logical to group the achievements in relation to each of the key program objectives.

2.1.3 Sustainability

The various definitions of sustainability coalesce around two main ideas - sustainability of the direct improvements made as part of a program, and the sustainability of the techniques and approaches learnt as part of the program as well as any indirect benefits. Evaluation of sustainability is closely aligned with the issue of capacity building (e.g. increased capability and skills, increased resources) and any changes in structures and systems that 'anchor' or embed changes and facilitate sustainability.

Several projects funded through the NLCP are not intended to be sustained. They have contributed to short term outputs and may inform future initiatives but were not designed to be ongoing. An example is the provision of travel grants for specialist lung care nurses to attend the 14th World Conference on Lung Cancer. This one-off activity aimed to build the capacity of these nurses to contribute to the organisation of the next World Conference on Lung Cancer as it will be held in Australia in 2013. Due to the short life of the NLCP and implementation stage of many projects, sustainability is not a major focus of this evaluation.

2.1.4 Capacity building

Within the context of the NLCP, specifically the objectives of the program, capacity building has two main components:

- Developing resources such as clinical guidelines, resources and other materials to support evidence-based practice.
- Other activities to improve the ongoing capacity of the NLCP e.g. development of a lung cancer dataset and the Wiki platform.

Where possible data will be collected to demonstrate the extent to which the program has built capacity in these areas.

2.1.5 Generalisability

As one program within Cancer Australia, the NLCP aims to transform data and information into knowledge that can be applied in different contexts. This issue can be examined by looking at how the NLCP might leverage off the broader organisation of Cancer Australia and conversely how the NLCP contributes to the achievements of Cancer Australia. By reviewing the outputs of the NLCP and seeking the opinion of those involved in the program it will also be possible to investigate the extent to which the lessons learnt may be applied elsewhere.

2.1.6 Dissemination – sharing of knowledge

The issue of dissemination (who else learnt about the projects?) is closely linked to the issue of generalisability (are the lessons useful for someone else?). The capacity of the NLCP to communicate about successful projects, throughout the wider cancer control sector, is important. This includes examination of the formal and informal mechanisms and processes for disseminating improvements.

2.2 *Appropriateness, Efficiency and Effectiveness*

In addition to the six program elements described in Section 2.1, the evaluation framework also needs to capture data that will explain how the NLCP has addressed the Australian Government's requirements for appropriateness, efficiency and effectiveness.

One way of thinking about 'appropriateness' is by asking the question: 'Is the NLCP doing the right things?' Appropriateness can be explored through the following questions:

- Is the program consistent with Government priorities?
- Is there still a need for this program; are there any alternative strategies to address the need?
- What are the consequences of not continuing this program?

Efficiency is defined as the extent to which the use of inputs is minimised for a given level of outputs, or outputs are maximised for the given level of inputs. Efficiency is concerned with:

- inputs – the resources used
- the processes by which the program is delivered
- outputs – the deliverables or products delivered by the program (for example, number of resources delivered, scholarships or grants awarded, health providers who accessed training etc.)

Effectiveness describes the extent to which the program's outputs have made a positive contribution to the specified outcome. Effectiveness indicators are used to assess the degree of success in achieving outcomes. Evaluating effectiveness involves asking the questions:

- Which factors affect achievement of outcomes?
- Are there any cause-effect interpretations as to whether the outcomes were caused by the program, or caused by external factors?
- Were there any unanticipated outcomes which are contributing to the achievement of objectives or impacting negatively on consumers or health providers?

Evaluation questions that will address appropriateness, efficiency and effectiveness are integrated throughout the evaluation framework. An example of how these issues are addressed is provided in Table 2

Table 2 Addressing Appropriateness, Efficiency and Effectiveness

FOCUS	EVALUATION QUESTIONS
APPROPRIATENESS	
Current government priorities	Is the program consistent with Government priorities?
Key program initiatives	Is there an optimal mix of individual initiatives that could meet overall Program objectives?
Key program initiatives	Are the individual initiatives themselves appropriate?
Continuing need	Is there still a need for this program? Has the burden of disease generated by lung cancer diminished?
Key program initiatives	Are there any clear gaps in the Program that might need to be filled by additional projects?
Australian government funding	Is the Program likely to continue in the absence of government funding? What are the consequences of not continuing this program?
Possible improvements	What are some possible improvements that might be considered to increase Program appropriateness and/or sustainability?
EFFICIENCY	
Duplication	Is there any duplication in Program initiatives that might be reduced to improve efficiency?
Administration	Could the inputs, processes, outputs and administration of the Program and its projects be improved?
Possible improvements	What are some possible improvements that might be considered to increase Program efficiency?
EFFECTIVENESS	
Program objectives	To what extent has the Program and individual funded projects, been successful in achieving agreed objectives?
Outcomes	What are the key outputs and short term outcomes achieved as a result of funding the Program?
Contribution to organisational goals	Has the NLCP added value to the work of CA in its plan to roll out tumour-based programs? What are the lessons learnt for CA in expanding its work?
Possible improvements	What are some possible improvements that might be considered to improve Program effectiveness?

3 Evaluation framework

The evaluation framework has been designed to focus on the building blocks of the NLCP which will be contributing to the next project phase. These activities provide the foundation necessary to establish and maintain the program e.g. the development of the National Lung Cancer Advisory Group.

Most of the projects funded in this first phase of the NLCP will only be in the initial stages of implementation at the time of the evaluation, therefore evidence from this phase of the program will mainly be output related. The program logic has been developed to ensure that program outputs, where appropriate, can be built upon and contribute to medium and longer term improvements in health outcomes.

3.1 Target groups

The key target groups being addressed by the Program are consumers, health providers and partner organisations with which the NLCP aims to collaborate. Not every project addresses all target groups.

The consumers include:

- People with lung cancer, their carers and families
- The general community.

The providers include:

- Primary care providers (including GPs, Practice Nurses, allied health professionals, Aboriginal Health workers etc.)
- Specialist lung service providers (including respiratory physicians, oncologists, surgeons, lung nurses etc.).

The partner organisations include:

- Organisations with a focus on cancer consumers
- Organisations with a focus on health service providers working in the lung cancer or related fields.

The NLCP also has responsibility for ensuring that it extends its reach to disadvantaged communities including those living in rural and remote Australia, people of Aboriginal and Torres Strait Islander backgrounds, people of Culturally and Linguistically Diverse backgrounds and those of low socio-economic status.

3.2 Evaluation questions

A range of evaluation questions are provided in

Table 3 that cover the evaluation elements described in Section 2.1. These questions are linked to the Program objectives and short term outcomes specified in the program logic. They aim to address the outputs and outcomes of the NLCP for consumers, service providers and the broader health system. Each evaluation question is also coded against the three lapsing program criteria: “A” for appropriateness, “E1” for efficiency and “E” for effectiveness.

Table 3 Evaluation Framework to Address NLCP Objectives

OBJECTIVES	EVALUATION QUESTIONS	MEASURES	DATA SOURCES
Level 1: Processes, impacts and outcomes for consumers (cancer sufferers, families, carers, friends, communities)			
Increasing research to build the evidence around lung cancer Increasing engagement and effective partnerships for the delivery of improved lung cancer care.	A	DELIVERY Were appropriate consumer projects selected to be funded?	Percentage of funded consumer related projects that align with NLCAG priorities Documentary review of NLCAG minutes and consumer project plans/progress reports Stakeholder interview: CA CEO, Chair & NLCAG members, Program staff
	EI	DELIVERY Were the consumer projects completed as intended? <ul style="list-style-type: none"> ▪ Translation of lung cancer DVD ▪ Review of lung cancer patient information ▪ Promotion of key messages to the community on symptoms and early detection of lung cancer 	Percentage of consumer projects that were completed on time and on budget Project records, (milestones, deliverables) Budget reports
	EI	Were consumers involved in the NLCP?	Level of compliance/alignment of projects with the principles of the National Framework for Consumer Involvement in Cancer Control Consumer involvement audit tool Stakeholder interviews: consumer representative(s) NLCAG; CA personnel; other nominated groups.
	E	IMPACT Were lung cancer DVDs for consumers produced in community languages?	Number of lung cancer related DVDs produced in each of twelve community languages Project records
	E	Did health professionals have improved access to evidence based consumer resources?	Number of downloads from Australian Lung Foundation web-site Website analysis
	E	What efforts were made to incorporate the requirements of ATSI and CALD consumers in the Stigma and Nihilism and Model of Care projects of the NLCP?	Evidence of effort to address the requirements of ATSI and CALD consumers in relevant projects of the NLCP Audit tool for use prior to contract finalisation

OBJECTIVES	EVALUATION QUESTIONS		MEASURES	DATA SOURCES
	E	DISSEMINATION Were there any dissemination activities?	Numbers of workshops, presentations, publications	Dissemination Log
Level 2: Processes, impacts and outcomes for providers (professionals, volunteers, organisations)				
Increasing research to build the evidence around lung cancer	A	DELIVERY Were the appropriate research projects selected to be funded?	Level of alignment with documented NLCAG research priorities	Documentary review of NLCAG minutes and research project plans/progress reports Stakeholder interview: CA CEO, Chair & NLCAG members, Program staff
	EI	DELIVERY Were the research projects completed as intended? <ul style="list-style-type: none"> ▪ Research and report on the effects of stigma and nihilistic views on lung cancer outcomes ▪ Model of Care for the management of lung cancer ▪ PdCCRS – Lung cancer research priorities (Project 1: Alternative lengthening of telomeres in lung cancer) ▪ PdCCRS – Lung cancer research priorities (Project 2: Identifying therapeutic targets by profiling DNA repairing lung cancer) ▪ PdCCRS - Lung cancer research priorities (Additional projects in alignment with agreed lung cancer research priorities 2011-2013) ▪ Lung cancer risk factor research ▪ Investigating the symptoms in lung cancer 	Percentage of research projects completed on time and on budget Level of compliance with agreed project milestones	Project records/progress reports, (milestones, deliverables) Budget reports
	E	IMPACT What impact did the PdCCRS research reports generate?	Number of items submitted for publication Number of items placed on the Cancer Australia web-site	Project records Web analysis
	E	What impact did the systematic review on the effects of stigma and nihilistic views on lung cancer outcomes have within the Australian cancer control sector?	Systematic review published in a peer reviewed journal Number of citations post publication	Project records Citation report (note, citations may not appear for some time after publication)
	E	Did all research projects contribute to building the evidence around lung cancer?	Number of research projects that have prepared and/or submitted a publication	Project records Review with CA staff

OBJECTIVES	EVALUATION QUESTIONS	MEASURES	DATA SOURCES
	E DISSEMINATION Were the research outputs disseminated?	Number of conference presentations/workshops by NLCP staff, and by Projects related personnel Number of publications published, or planned for publication	Dissemination Log
Increasing support and guidance for health professionals (through clinical guidelines and evidence based information)	A DELIVERY Were appropriate support and guidance projects selected to be funded?	Level of alignment with documented NLCAG priorities	Documentary review of NLCAG minutes and relevant project plans/progress reports Stakeholder interview: CA CEO, Chair & NLCAG members, Program staff
	EI DELIVERY Were the support and guidance projects delivered as intended? <ul style="list-style-type: none"> ▪ The development and validation of clinical indicators for optimal lung cancer care ▪ Updating the 2004 Clinical Practice Guidelines for the prevention, diagnosis and management of lung cancer ▪ Travel grants for IASLC 14th World Conference on Lung Cancer in Amsterdam ▪ Translating Research into Practice (TRIP) clinical fellowship for lung cancer ▪ Lung Cancer Spaced Education program for GPs ▪ Development of a Lung Cancer Risk factor assessment tool for General Practitioners 	Percentage of support and guidance projects completed on time and on budget	Project records/progress reports, (milestones, deliverables) Budget reports
	E IMPACT What impact did the support and guidance projects have?	Evidence of improved information, guidelines and support for GPs in lung cancer management Contribution of the NLCP to increased confidence, knowledge and capacity of health professionals to manage lung cancer within the primary care setting	Project report records relating to providers using new models of care, guidelines and consumer resources Web downloads of resources Stakeholder interviews: health provider organisations
	E Was the Lung Cancer Spaced Education program for GPs used?	Numbers of GPs completing education program activities	Project documentation and records

OBJECTIVES	EVALUATION QUESTIONS		MEASURES	DATA SOURCES
	E	<p>CAPACITY BUILDING</p> <p>Did the Travel Grants project improve the capacity of the service system?</p>	<p>Number of lung cancer nurses participating in travel grants projects</p> <p>Number of lung cancer nurses with a travel grant who are contributing to the 15th World Conference on Lung Cancer in Australia</p>	<p>Stakeholder interview: ALF, NLCP staff, NLCAG members</p> <p>Survey - lung cancer nurse network</p>
	E	<p>DISSEMINATION</p> <p>Did the Translating Research into Practice (TRIP) clinical fellowship for lung cancer disseminate knowledge to the service sector?</p>	<p>Number of knowledge dissemination activities</p>	<p>CA staff, NLCP staff, NLCAG members, TRIP fellows</p> <p>Dissemination Log</p>
Improving data and reporting for lung cancer.	A	<p>DELIVERY</p> <p>Were appropriate data and information projects selected to be funded?</p>	<p>Level of alignment with documented NLCAG priorities</p>	<p>Documentary review of NLCAG minutes and relevant project plans/progress reports</p> <p>Stakeholder interview: CA CEO, Chair & NLCAG members, Program staff</p>
	EI	<p>DELIVERY</p> <p>Were the data projects delivered as intended?</p> <ul style="list-style-type: none"> ▪ Development and pilot testing of Lung Cancer Data Set Specification ▪ Capturing information on clinical stage, metastases at diagnosis and cancer recurrence employing IT solutions 	<p>Percentage of support and guidance projects completed on time and on budget</p>	<p>Project records/progress reports, (milestones, deliverables)</p> <p>Budget reports</p>
	E	<p>IMPACT</p> <p>What were the major lessons learned through the development and implementation of the data and reporting projects?</p>	<p>Document unintended consequences for Cancer Australia</p> <p>Document major lessons learned and program gaps</p>	<p>Stakeholder discussion, CA staff, NLCP staff, NLCAG, Project staff</p> <p>Dissemination log</p>
	E	<p>SUSTAINABILITY</p> <p>How will the data and reporting improvements be sustained?</p>	<p>Level of partnerships instituted to support adoption of data and reporting initiatives</p> <p>Final version of dataset endorsed by the National Data Standards Group</p>	<p>Documentary review of NLCAG minutes and relevant project plans/progress reports</p> <p>Stakeholder interview: CA CEO, Chair & NLCAG members, Program staff</p> <p>Dissemination log</p>
	E	<p>CAPACITY BUILDING</p> <p>Was there improved access to data relating to lung cancer?</p>	<p>Number of downloads from AIHW web-site of lung cancer report</p>	<p>Web analysis</p> <p>AIHW publication effectiveness feedback forms</p>
Increasing engagement and effective partnerships for the delivery of improved lung cancer care.	EI	<p>DELIVERY</p> <p>How frequently has the NLCAG met and what is the level of participation?</p>	<p>Number of meetings of the NLCAG and pattern of attendance of members</p>	<p>Documentary review of NLCAG minutes/papers</p>

OBJECTIVES	EVALUATION QUESTIONS		MEASURES	DATA SOURCES
	E/A	IMPACT What contribution has the NLCAG made to the work of the NLCP?	Evidence of engagement with NLCAG members Evidence of consistency of program initiatives with Australian Government priorities	Stakeholder interview, CA staff, NLCP staff, NLCAG, Projects staff Documentary sources: Portfolio Budget Statements
		What is the contribution of expert clinicians and service providers to the NLCP?	Participation of experts/service providers in project working groups Attendance of members of the NLCAG at advisory group meetings	Meeting attendance audit tool
		What other partnerships has the NLCP developed through the work of the Program?	Evidence of increased networking and collaboration within the lung cancer control community	Stakeholder interview, CA staff, NLCP staff, NLCAG, Projects staff Partnership survey
Level 3: Processes, impacts and outcomes for the system (structures, processes, networks, relationships)				
Increasing research to build the evidence around lung cancer Increasing support and guidance for health professionals (through clinical guidelines and evidence based information) Improving data and reporting for lung cancer.	EI E	DELIVERY Were the data and reporting projects delivered as intended? <ul style="list-style-type: none"> ▪ AIHW Report: Lung Cancer in Australia ▪ Report to the Nation on Lung Cancer in Australia 	Percentage of data and reporting projects completed on time and on budget	Project records, (milestones, deliverables) Budget reports
		IMPACT Was there increased knowledge of the extent and effect of lung cancer amongst the Australian public and policy makers?	Number of downloads of reports "Lung Cancer in Australia" and "Report to the Nation on Lung Cancer in Australia"	Website analysis Publication satisfaction survey Media monitoring
Increasing engagement and effective partnerships for the delivery of improved lung cancer care.	A	DELIVERY Was the balance of effort appropriate in the allocation of funds between the key program objectives?	Percentage of Program expenditure per core objective	Document analysis of project expenditure Stakeholder interview: NLCP staff, NLCAG members

OBJECTIVES	EVALUATION QUESTIONS	MEASURES	DATA SOURCES
	<p>EI</p> <p>DELIVERY</p> <p>Did the NLCP engage and partner with relevant organisations?</p> <p>Did the NLCP engage with other jurisdictions through the Model of Care project and dissemination of the Multidisciplinary Team Directory?</p>	<p>Participation in relevant meetings, with</p> <p>Professional Associations</p> <ul style="list-style-type: none"> ▪ RACGP ▪ Medical Oncology Group of Australia ▪ Clinical Oncological Society of Australia <p>Other Professional Networks</p> <ul style="list-style-type: none"> ▪ ALF (specialist lung nurses) ▪ Cancer Council Australia ▪ Universities/Research centres <p>Government:</p> <ul style="list-style-type: none"> ▪ DOHA ▪ State Jurisdictions 	<p>Documentary records e.g. minutes of meetings</p> <p>Stakeholder interviews</p> <p>Key partner organisations, survey (relationship tool)</p>
	<p>A</p> <p>IMPACT</p> <p>Is there still a need for this program?</p>	<p>Evidence of burden of disease generated by lung cancer in the Australian community</p>	<p>Documentary sources including NLCP publications developed through AIHW</p>
	<p>A</p> <p>IMPACT</p> <p>Is the NLCP likely to continue in the absence of government funding?</p>	<p>Perceptions of the consequences of not continuing this Program amongst key stakeholders</p>	<p>Stakeholder interview: CA CEO and Chair, NLCP staff, members of the NLCAG</p> <p>Surveys -Use of relationship tool with key partners</p>
	<p>E</p> <p>IMPACT</p> <p>Did the NLCP increase networking and collaboration within the lung cancer control community?</p>	<p>Perceptions of networking and collaboration within the lung cancer control community amongst the NLCP and key stakeholders</p>	<p>Stakeholder interview: CA CEO and Chair, NLCP staff, members of the NLCAG</p> <p>Surveys -Use of relationship tool with key partners</p>
	<p>A/E</p> <p>SUSTAINABILITY</p> <p>What are some possible improvements that might increase Program sustainability and effectiveness?</p>	<p>Perceptions of areas of focus for the future from key stakeholders</p>	<p>Stakeholder interview: CA CEO and Chair, NLCP staff, members of the NLCAG</p> <p>Surveys -Use of relationship tool with key partners</p>
	<p>EI</p> <p>Is there any duplication in Program initiatives that might be reduced to improve efficiency?</p>	<p>Evidence of project duplication within CA</p>	<p>Stakeholder interview: CA CEO and Chair, NLCP staff,</p>
	<p>E</p> <p>DISSEMINATION</p> <p>Has the groundwork been developed for further dissemination of work that is completed?</p>	<p>Description of foundation activities contributing to the knowledge hub within CA</p>	<p>Stakeholder interview: CA CEO and Chair, NLCP staff, members of the NLCAG</p>

4 Methodological issues and data sources

Clear, well-articulated questions form the basis of designing the evaluation, however not all questions to be answered by the evaluation can be made explicit at the beginning of the evaluation. Some questions will emerge over the course of the evaluation as data is collected and analysed. Some questions may need to be modified as the evaluation progresses, usually due to the lack of appropriate means to collect the required data.

One issue in understanding the impact of the NLCP relates to the level of evidence. This can either be at the level of 'beyond reasonable doubt' typically used in scientific research, or at the level of 'on the balance of probabilities' typically used by policy makers and decision makers. The aim is to frame the interpretation of the data, both quantitative and qualitative, according to the latter.

4.1 Sources of data

The primary data sources listed in the evaluation framework include documentary sources, stakeholder interviews, audit tools, surveys, dissemination logs, media monitoring and web analysis. Each is described in turn below.

4.1.1 Documentary sources

A range of documents will be analysed during the evaluation to provide evidence of appropriateness, efficiency and effectiveness. These include internal documentation relating to the policies and operation of CA and the NLCP as well as external Government policies, documents and legislation relevant to the area of cancer control.

A key documentary source includes the project plans, progress and budget reports. These reports will be examined to see whether project milestones were met and projects were completed on budget. The review of these reports may be supported by the development of a project checklist and/or reporting template.

Minutes of meetings arranged and attended by NLCP staff with other lung cancer control agencies will be reviewed to understand the nature of NLCP engagement with these agencies. The records of meetings of the NLCAG are another valuable resource that captures the work and decisions of this group.

4.1.2 Stakeholder interviews

Interviews are a rich source of qualitative data and allow more complex issues to be investigated and understood. Therefore interviews with a range of key stakeholders will be an important data collection tool. The selection of interviewees will be based on the need to:

- inform the program-level evaluation
- guide and check the validity of findings from data analysis
- check the quality of the data collected by other means
- inform the dimensions of sustainability and dissemination
- understand the process of program development and establishment.

Potential interviewees will be invited to consent and provided with a Participant Information Sheet that will detail the purpose of the interview, and how the information gathered in the interview will be used and stored.

Interviews that are likely to be short will be conducted by phone and recorded by the taking of notes. In some cases an email response will be appropriate and will serve as the data collection

method. Longer interviews may need to be recorded digitally. The interviewer will make notes as soon as possible after each interview to record their own observations and key points. Some time later the interviewer will listen to the recording and extract the salient points and quotations from the interviews. Recordings will be retained to allow for further analysis at a later date if there is a need to do so.

In some cases it may be more efficient to use on-line survey tools when similar questions are to be asked of a larger group of stakeholders.

The National Lung Cancer Advisory Group

The National Lung Cancer Advisory Group guides the NLCP and consists of a range of clinicians, bureaucrats and consumers. The opinions of Group members will be sought on the range of activities of the Program and how these activities align with priorities set by NLCAG. Their opinions may be sought by individual interview, group discussion, or via an on-line survey.

Staff of Cancer Australia external to the NLCP

Several staff of CA have ongoing contact with the work of the Program. Their views will be sought on how the project management of the NLCP may be improved, the effectiveness of the funded projects and how the work of the NLCP aligns with the work of Cancer Australia, for example in relation to the PdCCRS and mechanisms for consumer engagement. This information may be sought by interview or an on-line survey.

NLCP staff

The staff with day to day responsibility for the operations of the NLCP are an important resource. Their views will be sought on the effectiveness of the projects, and how improvements can be made, for example to consumer involvement. Because of the depth of their knowledge, this will be best done by interview.

Cancer Australia CEO and Chair

These individuals are well positioned to comment on the strategic impact of the NLCP and how the NLCP currently contributes, and how in the future its work is planned to contribute, to the work of Cancer Australia. Their input on these issues and how the NLCP aligns with Australian Government policies and priorities will be sought by interview.

Cancer Australia's National Consumer Advisory Group

The National Consumer Advisory Group provides formal advice to Cancer Australia on matters of concern to consumers. Group members may have contributed at different times to the work of the NLCP. If appropriate they will be asked to provide feedback on the appropriateness of the work of the NLCP for consumers, and how it has impacted on consumers. This input will be sought by an on-line survey.

Project staff

The vast majority of NLCP projects have been contracted out to a diverse group of researchers, consultants and health service providers. It may be appropriate to gain the input of a sample of these project contributors in relation to how the projects could have been implemented more effectively and efficiently. This will be done via an on-line survey.

Key partner organisations

A number of organisations will be identified as key partner organisations by the NLCP and Cancer Australia, for example, the NLCP works closely with the Australian Lung Foundation and the Cancer Council of Australia. These organisations will be interviewed as to whether the NLCP has increased networking and collaboration within the lung cancer control community.

4.1.3 Surveys

Online surveys will be used to determine the effectiveness of NLCP activities in certain areas. These will be developed using the Survey Monkey application as it is web based and can efficiently collate quantitative survey results.

- A relationship tool may be used with other lung cancer control agencies to identify any perceived changes in their relationship with the NLCP, and networking and collaboration between agencies in this sector
- A range of service providers could be surveyed to explore their use of resources provided by the NLCP. These service providers may include:
 - Professional associations such as the Royal Australian College of General Practitioners, Clinical Oncological Society of Australia etc.
 - Special interest service providers such as the Australian Lung Foundation
 - Non-government organisations such as Cancer Council Australia
 - Australian Government and State Government jurisdictions (in relation to specific and relevant projects)

Another option may be to identify users of the NLCP web-site and ask them to participate in a survey to evaluate web based information resources relating to lung cancer.

4.1.4 Audit tools

The analysis of documentary and web sources can be streamlined through the use of an appropriate audit tool. In some cases standardised and validated tools may be available; in other instances it may be useful to produce customised audit tools. These tools will be used to structure the assessment of Program performance in several areas. For example the level of consumer involvement in projects and/or efforts to incorporate the requirements of disadvantaged groups could be measured through the use of consumer involvement audit tools.

4.1.5 Dissemination logs

It may be useful to track dissemination activities of projects as they proceed over the ensuing months. A dissemination log could be created to assist NLCP staff to keep records of a range of project related dissemination activities e.g. conference presentations; resource distribution, etc.

4.1.6 Media monitoring and web analysis

Usage of the NLCP web-site could be analysed to determine downloads of resources provided on the web-site. This could be restricted to key publications such as the proposed Australian Institute of Health and Welfare (AIHW) report “Lung Cancer in Australia”. AIHW provides a satisfaction or ‘publication effectiveness’ survey for documents downloaded from their web-site. This could also be linked to the CA web-site and will provide feedback on users’ satisfaction. Google Scholar can be used to track citations of any scholarly publications that arise out of NLCP projects. There should also be an expectation that any publications will be jointly produced with CA.

Media monitoring may be used to identify mentions of the work of the NLCP that are broadcast in the mainstream media in order to determine the reach of NLCP messages to the general public. CA may already have a media monitoring service engaged.

4.2 Next steps

The next step in this process is refinement of the evaluation questions and key performance indicators in collaboration with staff or the NLCP. It will then be possible to develop the tools to support data collection for the evaluation.

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APPENDIX 1 - Cancer Australia National Lung Cancer Program Logic

Inputs		Activities	Outputs	Short Term Outcomes 2009 - 2013	Medium Term Outcomes	Long Term Health Impact	
		Current Projects					
		Increase research to build the evidence around lung cancer					
		<p>Project 1 - Stigma and nihilistic views on lung cancer outcomes</p> <p>Project 2a - Research into telemeres</p> <p>Project 2b - Research identifying therapeutic targets by profiling DNA repairing lung cancer</p> <p>Project 2c - Research into lung cancer priorities</p> <p>Project 3 - Lung cancer risk factor research</p>	<p>Reports</p> <p>Publications</p> <p>Risk factor assessment tool</p>	<p>Increased evidence on the effects of stigma and nihilism on lung cancer outcomes in Australia</p> <p>Expanded knowledge and understanding of lung cancer causes, risk factors and therapies</p>	<p>Health Promotion</p> <p>Increase public awareness and knowledge of lung cancer symptoms and of the utility of lung cancer treatment</p>	<p>Improved lung cancer outcomes</p>	
		Increase support and guidance for health professionals					
		<p>Project 4 - Model of Care for the management of lung cancer</p> <p>Project 5 - Updating Clinical Practice Guidelines for the prevention, diagnosis and management of lung cancer</p> <p>Project 6 - Investigating the symptoms in lung cancer</p> <p>Project 7 - Translation of lung cancer DVD</p> <p>Project 8 - Review of lung cancer patient information</p> <p>Project 9 - Travel grants for ASCO 14th World Conference on Lung Cancer in Amsterdam</p> <p>Project 10 - Translating Research into Practice (TRIP) clinical fellowship for lung cancer</p> <p>Project 11 - Development and validation of clinical indicators for optimal lung cancer care</p> <p>Project 12 - Promotion of key community messages on symptoms and early detection</p> <p>Project 13 - Development of a lung cancer risk assessment tool for GPs</p> <p>Project 14 - Lung cancer spaced education program for GPs</p>	<p>Model of care</p> <p>Updated Clinical Practice Guidelines and Clinical Indicators</p> <p>Reports</p> <p>Lung cancer DVDs</p> <p>Attendance of nurses at 14th World Conference on Lung Cancer</p> <p>Clinical fellowship awarded</p> <p>GP Education Programs</p>	<p>Availability of best practice model of care to support consistent management of people with lung cancer</p> <p>Improved information, guidelines and support for GPs in lung cancer management</p> <p>Increased knowledge and capacity of health professionals to manage lung cancer within the primary care setting</p> <p>Increased availability of appropriate consumer resources</p>	<p>Investigation and Treatment</p> <p>Increase knowledge of lung cancer management by health professionals.</p> <p>Increase use of best practice treatment and supportive care.</p> <p>Continuing Care</p> <p>Improve access to coordinated and multidisciplinary care for people with lung cancer</p> <p>System Improvement</p> <p>Enhance the focus on priority populations who experience poorer health outcomes</p> <p>Improve leadership and collaboration in the lung cancer control community</p>	<p>Improved well-being of people diagnosed with lung cancer in Australia</p>	
<p>Financial Resources:</p> <p>Project budget allocation</p> <p>Human Resources:</p> <p>Designated lung cancer program staff</p> <p>Governance Resources</p> <p>Cancer Australia infrastructure, systems and support</p>	Evaluation Scope						
		Improve data and reporting for lung cancer					
		<p>Project 11 - Development and pilot testing of Lung Cancer Data Set Specification</p> <p>Project 12 - AIHW Report: Lung Cancer in Australia</p> <p>Project 13 - Capturing information on clinical stage, metastases at diagnosis and cancer recurrence employing IT solutions</p> <p>Project 14 - Report to the Nation on lung cancer in Australia</p>	<p>Data set specification and associated data dictionary</p> <p>Reports</p> <p>IT solution</p>	<p>Increased knowledge of extent and effect of lung cancer</p> <p>Improved access to data relating to lung cancer</p>			
		Increase engagement and effective partnerships for the delivery of improved cancer care					
		<p>Program based initiatives</p>	<p>National Lung Cancer Advisory Group</p> <p>Partnership with the ALF</p>	<p>Increased networking and collaboration within the lung cancer control community</p>			

Appendix 2 National Lung Cancer Program Project List

Project Number	Project Title
1	Research and report on the effects of stigma and nihilistic views on lung cancer outcomes
2a	PdCCRS – Lung cancer research priorities (Project 1: Alternative lengthening of telomeres in lung cancer)
2b	PdCCRS – Lung cancer research priorities (Project 2: Identifying therapeutic targets by profiling DNA repairing lung cancer)
2c	PdCCRS - Lung cancer research priorities (Additional projects in alignment with agreed lung cancer research priorities 2011-2013)
3	Lung cancer risk factor research
4	Model of Care for the management of lung cancer
5	Updating the 2004 Clinical Practice Guidelines for the prevention, diagnosis and management of lung cancer
6	Investigating the symptoms in lung cancer
7	Translation of lung cancer DVD
8	Review of lung cancer patient information
9	Travel grants for IASLC 14th World Conference on Lung Cancer in Amsterdam
10	Translating Research into Practice (TRIP) clinical fellowship for lung cancer
11	Development and pilot testing of Lung Cancer Data Set Specification
12	AIHW Report: Lung Cancer in Australia
13	Capturing information on clinical stage, metastases at diagnosis and cancer recurrence employing IT solutions
14	Report to the Nation on Lung Cancer in Australia – This will be a report derived from the AIHW report that will provide easily accessible information about advances in cancer control for the general public including the media
15	The development and validation of clinical indicators for optimal lung cancer care – This will be a suite of clinical indicators for best practice in lung cancer that will be validated in the clinical setting.
16	Promotion of key messages to the community on symptoms and early detection of lung cancer - This will be printed and on-line information resources for people affected by lung cancer to support the early detection and identification of lung cancer symptoms.
17	Development of a Lung Cancer Risk factor assessment tool for General Practitioners - this will include undertaking a feasibility of developing a risk factor assessment tool for GPs and if feasible development of the tool.
18	Lung Cancer Spaced Education program for GPs - This will include spaced education activities that will be linked to Cancer Australia resources developed under the GP guide project

