CanNET

Cancer Service Networks
National Demonstration Program

Linking regional and metropolitan cancer services for better cancer outcomes

Australian Government

Cancer Australia

SIGGINS MILLER

CanNET National Support and Evaluation Service

Final National Evaluation Report

Siggins Miller

August 2009

Executive summary

The *Cancer Services Network National Demonstration Program* (CanNET) is an initiative of Cancer Australia. It has provided seed funding to develop seven cancer service networks (one in each State and the Northern Territory), and to build the evidence for multidisciplinary team (MDT) diagnosis and treatment through managed clinical networks (MCNs). CanNET was initially funded from February 2007 to May 2009 under the Australian Government's *Strengthening Cancer Care* initiative. Its wider aim is to improve outcomes and reduce disparities in outcomes for people affected by cancer across Australia.

This report is the final volume in a series of reports on the national evaluation of the CanNET program. It presents a high level summary of the outcomes of CanNET program across all seven networks. It is a short-term evaluation after two years. It is not realistic to assume that CanNET would have measurable impacts on outcomes for people affected by cancer in such a short time, therefore the evaluation describes the inputs, processes, outputs and intermediate outcomes (at the consumer, provider and system level) that mark clear progress towards the desired long-term effects.

Key findings and lessons learned

The large number of different and complementary data sources that informed the national evaluation suggest that significant progress has been made towards achieving the agreed intermediate outcomes for the program, at the consumer, provider and system level. Importantly, cancer experts that were consulted with as part of the national evaluation also agree that, in the long term, these intermediate outcomes will contribute to improving outcomes and reducing disparities in outcomes for people affected by cancer.

Impacts and outcomes for consumers

- Cancer consumers were regularly engaged in the process of network development in most jurisdictions to ensure that cancer services are patient-centred and reflect the points of view of those directly affected by cancer.
  - CanNET Victoria, in particular, had strong outcomes in this area and provides an excellent model for a robust consumer participation strategy. More than 128 consumers from across 20 towns in the region were consulted, and a consumer network comprising at least 70 consumers was set up to facilitate ongoing consumer involvement in cancer service improvement activities (see case study in Section 4.2 for more detailed information).
- The networks' activities in the area of consumer engagement resulted in consumers' feeling more confident and competent to contribute to service planning and delivery, and to make decisions about their own care.
- There also appear to have been increases in network members' recognition of the importance and value of consumer engagement in service delivery and planning in most networks.
- An impressive array of cancer-related resources were developed through CanNET to increase consumers' awareness of the range of available services, treatment options, and referral pathways. For example:
  - All the networks developed a Directory of Services that provides consumers and service providers with up-to-date information about their closest multidisciplinary cancer assessment team.
  - CanNET NT also developed flips charts and DVDs for Indigenous consumers that place a strong emphasis on prevention and the benefits of early detection of cancer (see case study in Section 4.2 for more detailed information).
- It is reasonable to assume that, collectively, these outputs will have some flow-on effect of improving consumer access to cancer services in the future.

Impacts and outcomes for providers

- Clinicians from across the networks were provided a wide range of cancer-related professional development opportunities to support the service improvements introduced through CanNET.
- More than 1,196 health care providers from across Australia participated in these professional development activities (including GPs and other primary care providers, medical specialists, nurses, and allied health care providers).
- More than 50% of the networks' local governing body members agreed that the available professional development opportunities have increased the skills and knowledge of staff working in cancer care.
- 71% of network members agreed that the benefits associated with participating in the CanNET networks at least exceeded the drawbacks (23% felt that the benefits *greatly* exceeded the drawbacks).

Impacts and outcomes for the system

- All of the CanNET networks made considerable progress towards establishing a local cancer service network.
- State or Territory-wide cancer plans, which are built on the principles and key elements of CanNET and promote the development of cancer service networks, were also developed for the NT and Tasmania (the only two Australian jurisdictions without agreed cancer plans).
- More than 50% of the networks' local governing body members agreed that network development had the following impacts on service delivery: (a) enhanced service planning by bringing together a range of people who would not normally come into contact with one another; (b) improved the way that different professionals and services work as a team; (c) improved information sharing between professionals providing cancer care; (d) established processes to link regional/rural health professionals with metropolitan counterparts; (e) improved multidisciplinary approaches to cancer care; and (f) better engagement with the primary care sector.
  - CanNET WA was especially successful in developing an effective cancer service network between Perth and the Great Southern region. The establishment of this network resulted in: (a) 190 patients being discussed in the new MDT at Albany Regional Hospital within project timeframes; (b) a 25% increase in shared care arrangements between the regions; (c) a reported increase in the quantity and complexity of regionally delivered cancer services, and associated reductions in travel time for regional consumers; and (d) a 30% increase in referrals from Greater Southern to radiation services at Sir Charles Gardner Hospital in Perth (see case study in Section 4.1 for more detailed information).
- At least 19 MDTs can be identified within the 'CanNET footprint', including new regional and State-wide MDTs (see Table 3 in Section 4.3 for more detailed information about the MDTs established within each network). It is reasonable to assume that the establishment of these MDTs will contribute towards improving outcomes and reducing disparities in outcomes for people affected by cancer in the long-term, because the literature demonstrates that MDTs provide better quality care than individuals working in isolation.
  - CanNET SA had particularly strong outcomes in the area of multidisciplinary care. In total, three new MDTs were established through the project, including a general regional MDT in Mt Gambier and two State-wide MDTs: one focusing on upper gastrointestinal cancer; and the other on adolescents and young adults with cancer (see case study in Section 4.3 for more detailed information).
  - There was also a marked increase in the number of MDTs in each of the three AHSs that comprise CanNET NSW. The total number of MDTs within the CanNET NSW region increased from 38 to 47 (~ 24% growth) between 2006 and 2008. In contrast, the total number of MDTs across the other 7 AHSs within NSW increased from 105 to 113 (~ 13% growth) during the same period (see case study in Section 4.3 for more detailed information).
- At least ten State or Territory-wide pathways and 16 network-wide pathways were developed for a range of different tumour streams to improve quality and consistency in practice, and increase

efficiency of referral systems for specialist opinion and treatment (see Table 4 in Section 4.4 for more detailed information about the referral pathways developed by each network).

- Some of the CanNET networks piloted or further developed new and innovative roles for cancer care in their local jurisdictions and were able to demonstrate that roles such as cancer care coordinators, MDT coordinators and MDT administrators make the introduction and maintenance of quality MDTs less of a burden for clinicians.
- Some of the CanNET networks also developed or enhanced data and communication systems to improve information sharing to support coordinated multidisciplinary care. For example:
  - CanNET Queensland further developed an existing leading edge State-wide communication and data system for cancer care, Queensland Oncology On-line (QOOL; see case study in Section 4.3 for more detailed information).
  - CanNET Tasmania developed a provider information exchange hub to improve information transfer and exchange capacity between parts of the system (see case study in Section 4.3 for more detailed information).
- In terms of the sustainability, more than 80% of the networks' local governing body members agreed that they want the changes that CanNET has achieved to continue. However, there was consensus that there is still a need for continuing investment to ensure the networks reach their full potential and to embed initiatives into the system and promote sustained change.

Variation in progress across the seven cancer service networks has helped to identify enablers and barriers of effective network development. Collectively, these data illustrate the need for and importance of a comprehensive change management strategy to support network development. A comprehensive change management strategy requires a top-down, bottom-up approach. Such a comprehensive approach should combine effective governance with multidisciplinary clinical leadership to create and promote a compelling vision, complemented with broad ranging stakeholder engagement and involvement mechanisms, and continued and varied communication processes. It also appears to be particularly effective to establish a sense of urgency and need for change using local data fed back to clinicians in a timely manner, and to maximise stakeholder buy-in and commitment by having realistic and achievable project plans that involve a phased or stepwise approach to network development, and by publicising early wins to offer stakeholders proof that the new model or way of working can provide results superior to existing practices.

Conclusions

The CanNET program as a whole has made a substantial contribution to developing cancer service networks and building capacity in regional and rural areas in the interests of ensuring that all Australians have access to best evidence based cancer care, regardless of where they live. There has been significant progress made towards achieving the agreed intermediate outcomes for the program during its first two years and stakeholders agree that these intermediate outcomes will contribute towards improving outcomes and reducing disparities in outcomes for people affected by cancer, in the long-term.

Although it is still early days, the data gathered through the national evaluation show that, while establishing MCNs is a difficult process, if sufficient planning and organisation occurs and effective change management strategies are implemented, MCNs should result in improved coordination and collaboration among services, better care outcomes for consumers and more equitable and cost effective health care for the Australian population. The national evaluation has also yielded greater understanding of the conditions that must be in place for change to happen in the health care system, and identified key roles that policy makers, reformers and health service executives and managers can play in supporting change.

While the effects and outcomes of the CanNET program are promising, it remains at an early stage in establishing cancer service networks across Australia. There is still much to be done and learnt, and a clear need for ongoing support of the jurisdictional cancer service networks. This is a significant cultural change for which CanNET has effectively primed the system by developing a strong foundation and trialling the important building blocks for effective network development. The

sustainability of these achievements now depends on each jurisdiction's building on that experience to embed the changes to date and to plan for the next stages of change and quality improvement.

Cancer Australia has been a good custodian for the CanNET program in its first phase, and is best placed to carry the initiative forward. Funding from this source is clearly tagged for innovation and for creation of the space to trial innovation and demonstrate change proactively.

Recommendations

We propose the following recommendations for consideration in the next phase of the CanNET initiative (the rationale for these proposals is set out in greater detail in Section 5 of the report):

Recommendation 1: The results from the national and local evaluations should be used as the basis for developing an individual service agreement with each jurisdiction for the next phase.

Recommendation 2: National governance of the next phase should be enhanced by engaging senior representatives from clinical and policy areas of each State and Territory who can focus on establishing a set of agreed national safety and quality standards for cancer networks.

Recommendation 3: A National Support and Evaluation Service should remain a component of the CanNET program in the next phase.

Recommendation 4: That the key role of clinical leaders in continuing network development be supported by funding clinical leaders' time to focus on engaging colleagues in the change agenda, and providing training and support to help clinicians develop the leadership and management skills they need in the role.

Recommendation 5: That future network development focus special attention on access to cancer care services for disadvantaged or rural and underserved groups (such as Aboriginal and Torres Strait Islander peoples).

Recommendation 6: That future network development focus special attention on engaging primary care providers and the private sector.

Recommendation 7: That future network development examine whether a range of innovative and redesigned roles of the types developed in the NHS could be trialled in cancer care in Australia.

Recommendation 8: That future network development address the human, system, structural and financial resource implications of the set up and change management tasks necessary to promote trial adoption of different ways of working and the embedding of change, including full costings of the long term recurrent implications of any changes.

Recommendation 9: That Cancer Australia develops a national process for collating and sharing the information and impressive array of resources developed through CanNET to date, to maximise the return on this important investment.

Table of contents

Executive summary ... **iii**

Acronyms and abbreviations ... **viii**

Acknowledgements ... **ix**

Section 1: Introduction ... **1**

1.1 Overview and key messages ... 1

1.2 Structure and content of the current report ... 3

Section 2: The CanNET program ... **4**

2.1 The evidence base ... 4

2.2 The policy context ... 5

2.3 The objectives of the CanNET program ... 6

2.4 The key elements of the CanNET program ... 7

2.5 The seven CanNET networks ... 8

2.6 Governance ... 10

2.7 CanNET National Support and Evaluation Service ... 13

Section 3: Evaluation methodology ... **15**

3.1 Context and scope of the evaluation ... 15

3.2 CanNET national evaluation framework ... 15

3.3 Data sources and analysis ... 16

Section 4: Key findings and lessons learned ... **17**

4.1 Network development ... 17

4.2 Consumer engagement ... 19

4.3 Multidisciplinary care and primary care involvement ... 20

4.4 Agreed referral pathways ... 23

4.5 Continuing professional development ... 24

4.6 Role redesign ... 25

4.7 Quality assurance ... 25

4.8 Key success factors: enablers and barriers for network development ... 25

Section 5: Conclusions and recommendations ... **30**

5.1 Conclusions ... 30

5.2 Recommendations ... 32

References: ... **36**

Appendix A: Key achievements and challenges for each CanNET network ... **39**

Appendix B: Key messages ... **53**

Acronyms and abbreviations

AHBI	Australian Better Health Initiative
AHS	Area Health Service
AYA	Adolescents and Young Adults
CanNET	Cancer Service Networks National Demonstration Program
CHSD	Centre for Health Service Development
CMC	Clinical Management Committee
CPD	Continuing Professional Development
EdCaN	National Cancer Nursing Education
GI	Gastrointestinal
GP	General Practitioner
Hume RICS	Hume Regional Integrated Cancer Service
ICS	Integrated Cancer Service
MCN	Managed Clinical Networks
MDT	Multidisciplinary Teams
NEMICS	North Eastern Metropolitan Integrated Cancer Service
NHMRC	National Health and Medical Research Council
NHPAC	National Health Priority Action Council
NHS	National Health Service
NMG	Network Management Group
NSES	National Support and Evaluation Service
NSW	New South Wales
NT	Northern Territory
OASys	Oncology Analysis System
QLD	Queensland
QOOL	Queensland Oncology On-line
QCCAT	Queensland Cancer Control and Analysis Team
QCCLG	Queensland Cancer Control and Leadership Group
SA	Southern Australia
TAS	Tasmania
TCNEP	Tasmanian Cancer Network Establishment Program
VIC	Victoria
WA	Western Australia
WACPN	Western Australian Cancer and Palliative Care Network
WHO	World Health Organization

The Siggins Miller Evaluation Team

Dr Mary-Ellen Miller, Director and Principal Consultant: Adjunct Professor, School of Psychology, Griffith University; Adjunct Senior Lecturer, School of Health Sciences, University of Queensland; Chair, All Hallows' School Council

Professor Ian Siggins, Chief Executive and Principal Consultant: Adjunct Professor, School of Medicine, University of Queensland

Professor Ken Donald AO, Associate: Emeritus Professor of Medicine, University of Queensland; Assistant Commissioner, Medical Health Quality and Complaints Commission, Queensland; Director of Pathology, Royal Darwin Hospital

Dr Crissa Sumner-Armstrong, Senior Consultant and Project Manager: Chair, College of Organisational Psychologists, Queensland

Dr Sally Hsueh-Chih Lai, Senior Consultant

Ms Geraldine Cleary, Senior Consultant

Ms Bonnie Ho, Consultant

Assisted by:
Ms Jessica Staskiewicz, Research Assistant
Mr Terrence Lu, Research Assistant

Acknowledgements:

Siggins Miller sincerely thanks everyone who contributed to the evaluation of this important and exciting national initiative. In particular, we acknowledge the support of Ms Rita Evans, Dr Joanne Ramadge and Dr Jane Phillips from Cancer Australia; members of the CanNET National Steering Committee, all the State and Territory CanNET project teams, as well as all the individuals and organisations that voluntarily gave up their time to complete surveys or participate in interviews and focus groups. The CanNET national evaluation would not have been possible without the significant contributions made by all of these groups.

Cancer Services Network National Demonstration Program (CanNET)
National Evaluation Report

Section 1: Introduction

1.1 Overview of the CanNET program and its contribution

1.1.1 Background information

Cancer is a major concern for our community and a national health priority area. Although Australia's cancer survival rates are very good by world standards, there are significant inequities for specific population groups, including Aboriginal and Torres Strait Islander peoples and people living in rural, regional and remote Australia. Opportunities remain to produce better outcomes and quality of life by improving the organisation and delivery of cancer control services across the spectrum of care.

In order to address these issues, Cancer Australia provided funding for the Cancer Services Network National Demonstration (CanNET) Program from February 2007 to May 2009. The CanNET program is funded under the *Mentoring for Regional Hospitals and Cancer Professionals* component of the Australian Government's 2004 election policy initiative, *Strengthening Cancer Care*. The program aimed to improve outcomes and reduce disparities in outcomes for people affected by cancer by providing high quality, clinically effective and coordinated cancer services across Australia. Seed funding was provided to enable the development of a cancer service network in seven jurisdictions and build the body of evidence for managed clinical networks (MCNs) for cancer care across Australia. Together, the seven cancer service networks have the potential of providing coverage for over eight million Australians.

The CanNET program was underpinned by agreed national and international policies and frameworks, in particular the National Health Priority Action Council's National Service Improvement Framework for Cancer (NHPAC 2006). In this way, the program contributed to practical implementation of this important framework.

The model for the CanNET program was also drawn largely from the MCNs successfully implemented by the National Health Service (NHS) in Scotland and England across specialties (such as neurology) and diseases (such as diabetes and cancer). These networks have facilitated health service and workforce reforms, including development and acceptance of new or expanded roles to address workforce shortages and increasing demand. They have also provided a mechanism to focus on improving quality at both process and outcome level. They are based on a set of core principles such as consumer involvement, evidence-based practice, clinical audit, multidisciplinary teams, and strong governance (NHS 2005).

1.1.2 Overview of impacts, outcomes and lessons learned

Over all, the CanNET national evaluation identified that the program added value and made a substantial contribution to developing cancer service networks across Australia and building capacity in regional and rural areas to ensure that all Australians have access to best evidence based cancer care, regardless of where they live. There has been significant progress made towards achieving the agreed intermediate outcomes for the program during its first two years and stakeholders agree that, in the long term, these intermediate outcomes will contribute to improving outcomes and reducing disparities in outcomes for people affected by cancer.

Cancer consumers were regularly engaged in the process of network development in most jurisdictions to ensure that cancer services were patient-centred and reflected the points of view of those directly affected by cancer. The available data suggests that these activities have resulted in consumers' feeling more confident and competent to contribute to service planning and delivery, and to make decisions about their own care. There also appear to have been increases in network members' recognition of the importance and value of consumer engagement in service delivery and planning in most networks.

An impressive array of cancer-related resources was also developed to increase consumers' awareness of the range of available services, treatment options, and referral pathways. For example, all the networks developed a Directory of Services that, at a minimum, provides consumers and service providers with up-to-date information about their closest multidisciplinary cancer assessment team. It is reasonable to assume that, collectively, these outputs will have some flow-on effect of improving consumer access to cancer services in the future.

Clinicians from across the CanNET networks were provided a wide range of cancer-related professional development opportunities to support the service improvements. More than 1,196 health care providers from across Australia participated in these professional development activities (including GPs and other primary care providers, medical specialists, nurses, and allied health care providers), and more than 50% of the networks' local governing body members agreed that the activities contributed to increases in skills and knowledge. Importantly, 71% of network members agreed that the benefits associated with participating in the CanNET networks at least exceeded the drawbacks (23% felt that the benefits greatly exceeded the drawbacks).

All of the CanNET networks made considerable progress towards establishing a local cancer service network. CanNET NT and Tasmania also developed State or Territory-wide cancer plans, which are built on the principles and key elements of CanNET and promote the development of cancer service networks. More than 50% of the networks' local governing body members agreed that network development had the following impacts on service delivery:

- Enhanced service planning by bringing together a range of people who would not normally come into contact with one another;
- Improved the way that different professionals and services work as a team;
- Improved information sharing between professionals providing cancer care;
- Established processes to link regional/rural health professionals with metropolitan counterparts;
- Improved multidisciplinary approaches to cancer care; and
- Better engagement with the primary care sector.

At least 19 multidisciplinary teams (MDTs) can be identified within the 'CanNET footprint', including new regional and State-wide MDTs (see Table 3 in Section 4.3 for more detailed information about the MDTs established within each network). This is significant achievement, for the literature demonstrates that MDTs provide better quality care than individuals working in isolation[1]. MDT discussions frequently result in positive changes to patients' treatment plans, and are associated with better continuity and coordination in care and higher patient satisfaction, amongst other things. It is therefore reasonable to assume that the establishment of these MDTs will contribute towards improving outcomes and reducing disparities in outcomes for people affected by cancer in the long-term.

At least ten State or Territory-wide pathways and 16 network-wide pathways were also developed for a range of different tumour streams to improve quality and consistency in practice, and increase efficiency of referral systems for specialist opinion and treatment (see Table 4 in Section 4.4 for more detailed information about the referral pathways developed by each network).

In addition to the above, some of the CanNET networks piloted or further developed new and innovative roles for cancer care in their local jurisdictions and were able to demonstrate that roles such as cancer care coordinators, MDT coordinators and MDT administrators make the introduction and maintenance of quality MDTs less of a burden for clinicians. Other networks developed or enhanced data and communication systems to improve information sharing to support coordinated multidisciplinary care.

The variation in progress and performance across the seven cancer service networks has helped identify enablers and barriers of effective network development and build the evidence base for

[1] CanNET National Support and Evaluation Service (Siggins Miller 2008). *Managed Clinical Networks - a literature review*, Cancer Australia. Canberra. http://www.canceraustralia.gov.au/cannet-homepage/multidisciplinary-care/overview.aspx

MCNs. In addition, it yielded greater understanding of the conditions that must be in place for change to happen in the health care system, and identified key roles that policy makers, reformers and health service executives and managers can play in supporting change.

Collectively, the data gathered through the CanNET national evaluation suggest that although establishing a MCN is a difficult process requiring much effort and cost, if sufficient planning and organisation occur and effective change management strategies are implemented, MCNs should result in improved coordination and collaboration among services, better care outcomes for consumers, and more equitable and cost-effective health care for the Australian population.

1.2 Structure and content of the report

This report is the final in a series that report on the national evaluation of Cancer Australia's CanNET program. It has been prepared with the key objective of building the evidence base for MCNs for cancer care across Australia, and presents a high level summary of the outcomes of the CanNET program across all seven cancer service networks. It is complemented by two background papers, one that discusses the evaluation methodology, and another that presents in detail the data that informed the national evaluation.

Section 2 discusses the CanNET program in more detail, including the associated evidence and policy context, the objectives and key elements of the program, and governance at both the national and local level. It also describes location, coverage, and focus of the seven cancer service networks, and introduces the CanNET National Support and Evaluation Service (NSES).

Section 3 briefly discusses the context and scope of the CanNET national evaluation, and introduces the national evaluation framework and associated data sources. Section 4 focuses on the over-all achievements of the program in each of the key elements, and the higher level lessons learned about enablers and barriers of effective network development. More specific information about the local activity in each of the seven CanNET networks can be found in Appendix A.

Finally, Section 5 presents our general conclusions about the contribution and added value of the CanNET program, and proposes a number of recommendations for continuing development of cancer service networks across Australia.

We have also included a brief summary of the key messages presented in the current report as Appendix B. This appendix can be adapted and used to promote and market the CanNET program to external stakeholders and policy makers who want know about the short and sharp implications of the initiative.

Other key reports prepared through the NSES include:

- *Managed Clinical Networks - a literature review* (2008). http://www.canceraustralia.gov.au/cannet-homepage/multidisciplinary-care/overview.aspx
- *2nd CanNET National Workshop Report* (September 2007). http://www.canceraustralia.gov.au/cannet-homepage/about-cannet/cannet-bulletins-and-reports.aspx
- *3rd CanNET National Workshop Report* (May 2008). http://www.canceraustralia.gov.au/cannet-homepage/about-cannet/cannet-bulletins-and-reports.aspx
- *4th CanNET National Workshop Report* (June 2009). http://www.canceraustralia.gov.au/cannet-homepage/about-cannet/cannet-bulletins-and-reports.aspx
- *CanNET NSES Progress Report #1* (December 2007), Pr*ogress Report #2* (June 2008), and *Progress Report #3* (December 2008)

Section 2: The CanNET program

The CanNET program is funded under the second phase of the *Mentoring for Regional Hospitals and Cancer Professionals* component of the Australian Government's *Strengthening Cancer Care* initiative. It provided seed funding to develop seven cancer service networks across Australia (one in each State and the Northern Territory).

In total, Cancer Australia has provided up to $8 million for the CanNET program. Up to $7 million was distributed evenly among the seven cancer service networks for the period February 2007 to May 2009. The remaining $1 million provided funding for a national collaboration strategy, and other national governance and management expenses.

CanNET provides a platform to support consumers and clinicians to work in partnership in order to narrow the gap between current evidence and practice, by developing processes and systems to link health care providers effectively across wide geographical areas and organisations into single cancer service networks. The initiative also has the Australian, State and Territory governments working collaboratively with consumers and primary, secondary and tertiary health professionals to improve outcomes and reduce disparities in outcomes for people affected by cancer.

In the following sections, we discuss the evidence base and policy context that underpins the CanNET program in more detail. We also present the objectives and key elements of the program, and describe the seven cancer service networks established through CanNET. We then discuss program governance at both the national and local level, and the role of the CanNET National Support and Evaluation Service (NSES).

2.1 The evidence base

Health policy makers, nationally and internationally, have increasingly recognised the need for cooperation and collaboration, to overcome the inevitable limitations of health care working in isolation (Baker & Lorimer 2000; Scott & Hofmeyer 2007). Traditional hierarchies of primary, secondary and tertiary care do not match what patients and service users wish to see: fast access, accurate diagnosis, and patient centred care pathways. In a fast changing and technologically advancing health system, the roles of doctors, nurses and allied health professionals are changing significantly, and the notion of professional boundaries has become outdated (Baker 2002). In order for health care systems to become more flexible and responsive to their users, many believe they must move away from traditional hierarchical structures and practices (Conner 2001; Edwards 2002; Woods 2001). These concepts are especially pertinent to the diagnosis, treatment and care of people with cancers.

2.1.1 Managed clinical networks

Managed clinical networks (MCNs) are increasingly drawn into mainstream policy and decision-making in recognition that they have the potential to address many of the problems identified in traditional health service delivery, including poor coordination among health services, and the need for improved access, more equitable provision, better use of limited resources, and quality patient-centred care (Baker 2002; Baker & Lorimer 2000; Scott & Hofmeyer 2007). MCNs represent a shift from buildings and organisations towards services and patients (Cropper, Hopper & Spencer 2002; Woods 2001).

MCNs have been defined as: *"…linked groups of health professionals and organisations from primary, secondary, and tertiary care working in a coordinated manner, unconstrained by existing professional and [organisational] boundaries to ensure equitable provision of high quality effective services"* (Scottish Executive Health Department 2002).

MCNs seek to develop locally delivered, quality assured care, through cooperation among formerly separate clinical services and their managed integration (Woods 2001). They focus primarily on involving patients actively in designing and building seamless services around the patient's journey, so that the best treatment gets to the right patient, at the right time, in the most appropriate place, and

is delivered by the most qualified and skilled professionals with the greatest resources (Baker 2002; Conner 2001; Woods 2001).

2.1.2 Multidisciplinary teams

A key element of MCNs is multidisciplinary care and multidisciplinary teams (MDTs) (Baker 2002; Collins 2000; Woods 2001). MDTs operate as a group of healthcare professionals from different backgrounds working as a 'virtual team' to deal with a particular problem (Baker 2002; Carter, Garside & Black 2003). They involve the structured cooperation of primary, secondary and tertiary healthcare providers and different health professions (Baker 2002; Baker & Lorimer 2000; Carter *et al* 2003; Woods 2001). A variety of arrangements is possible, operating on different scales. They can be within primary care, across primary, acute and community care, within a health district, or across health districts or larger geographical areas (Cropper *et al* 2002; Woods 2001). They can cover a specific disease, specialty, location or function (Baker & Lorimer 2000; Cropper *et al* 2002; Woods 2001). Additionally, they may be made up of a series of local diagnostic and treatment networks including hospitals, general practitioners, health care cooperatives, community or intermediate hospitals, local health promotion services, and ambulance services (Baker & Lorimer 2000; Scott & Hofmeyer 2007).

The available literature demonstrates that MDTs provide better quality care than individuals working in isolation[2]. MDT discussions frequently result in positive changes to patients' treatment plans, and are associated with better continuity and coordination in care and higher patient satisfaction, amongst other things.

Readers are referred to our previous literature review for more detailed discussion of the theoretical and conceptual literature associated with MCNs, and empirical research studies that have focused on MCNs and MDTs.

2.2 The policy context

As mentioned above, the CanNET program was also underpinned by agreed national and international policies and frameworks, including the World Health Organization's policies and guidelines for the development of national cancer control programs (WHO 2002), and the National Health Priority Action Council's National Service Improvement Framework for Cancer (NHPAC 2006).

2.2.1 WHO's National Cancer Control Programs: policies and managerial guidelines

The WHO's policies and guidelines for developing national cancer control programs are designed to reduce cancer incidence and mortality and improve quality of life of cancer patients, through the systematic and equitable implementation of evidence-based strategies for prevention, early detection, diagnosis, treatment, and palliation, making the best use of available resources (WHO 2002). The policies and guidelines argue that establishing a national cancer control program offers the most rational means of achieving a substantial degree of cancer control, even where resources are severely limited. The CanNET program forms one part of the Australian Government's comprehensive national cancer control program. It is an evidence-based initiative that focuses on elements that span the entire patient journey.

The WHO guidelines acknowledge that objectives and priorities need to be tailored to local needs and contexts, and suggest that a flexible approach is needed as political, socioeconomic and epidemiological situations vary and evolve. In line with these recommendations, the CanNET program employed a flexible design based around a number of key elements and broad objectives. This enabled stakeholders to tailor their projects to meet local needs and align with the local context.

The WHO guidelines also acknowledge that processes should be managed to meet the requirements and needs of customers, providers and other stakeholders. However, they suggest that some key

---

[2] CanNET National Support and Evaluation Service (Siggins Miller 2008). *Managed Clinical Networks - a literature review*, Cancer Australia. Canberra. http://www.canceraustralia.gov.au/cannet-homepage/multidisciplinary-care/overview.aspx

processes to be considered in implementing most national cancer control programs are setting up a demonstration area; step by step implementation; optimising existing resources; organising activities with a systematic approach; education and training; and monitoring and evaluation.

The CanNET program is built around the same key processes: each of the seven cancer service networks has been set up as a demonstration site that will inform future cancer service network initiatives across Australia, and the whole national program offers a systematic approach that incorporates education, training, ongoing monitoring and evaluation processes, and aims to optimise existing resources.

2.2.2 NHPAC's National Service Improvement Framework for Cancer

The NHPAC's National Service Improvement Framework for Cancer (2006) is one of five disease-specific National Service Improvement Frameworks that support the National Chronic Disease Strategy. That Strategy is the overarching framework for improving prevention and care of chronic disease across Australia. The five supporting National Service Improvement Frameworks are tools to drive improvement in health services for people with conditions listed as national health priorities and to achieve better health outcomes for all Australians, included disadvantaged groups. Each is structured to reflect the phases of the patient journey - reducing risk, finding disease early, managing acute conditions, long term care, and care in the advanced stages of disease.

Both the National Service Improvement Framework for Cancer and the CanNET program:

- are based on the needs of people with cancer;
- recognise that cancer control is complex and high quality health care depends on effective partnerships among national, State and Territory governments and public, private and non-government organisations;
- recognise that a large part of the journey for people with cancer takes place in the community, where primary care providers are the cornerstones of continuing care;
- advocate for the establishment of multidisciplinary, integrated and networked cancer services to improve continuity of care;
- consider providing the best cancer care to all Australians;
- recognise that some communities and individuals need special programs and services to ensure that they can access appropriate cancer care; and
- draw on existing international and national plans.

Readers are referred to our previous literature review for more detailed discussion of Australian and international policies and frameworks for cancer control, and major international, national, State and Territory policies and frameworks specific to using multidisciplinary teams for cancer care.[3]

2.3 The objectives of the CanNET program

The objectives of the cancer service networks established under the CanNET program were to:

- ensure that cancer services reflect the point of view of those directly affected by cancer
- ensure those directly affected by cancer are involved as an integral part of CanNET development, so that the patient experiences coordinated care without being aware of professional and administrative boundaries
- reduce time between assessment and diagnosis, and diagnosis to treatment, by looking at services from the patient's perspective and ensuring that the care pathway is as coordinated as possible, particularly across the joint management that includes primary and tertiary care
- increase efficiency of referral systems for specialist opinion and treatment
- develop a strong multidisciplinary approach to cancer control that actively includes allied health and primary care, and which supports rural and regional provision of cancer services

[3] ibid

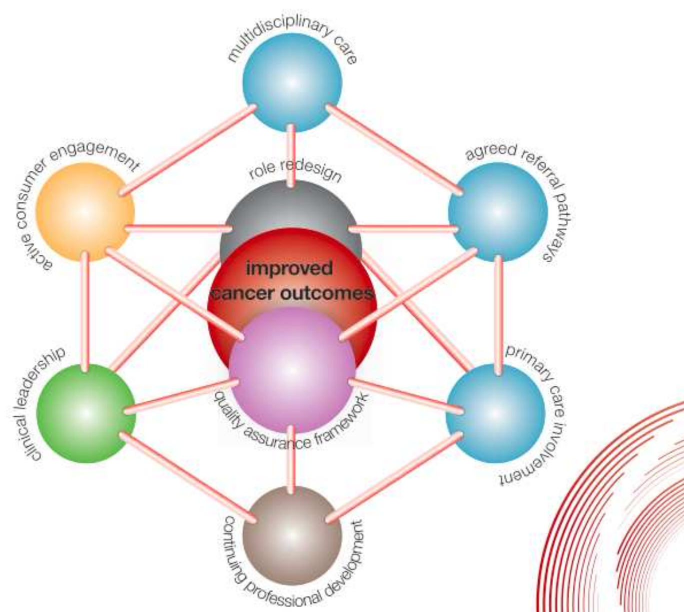
- improve quality through responding to the results of audit and the development of a formal quality assurance program
- address workforce issues through the development of innovative roles and new ways of working for health professionals, especially primary care
- enhance service planning by bringing together a range of people who would not normally come into contact with one another
- avoid duplication of effort by being part of a national program, and building on the experience and expertise on other networks across Australia and internationally

2.4 The key elements of the CanNET program

Similar to the model of MCNs from the NHS in Scotland and England (NHS 2005), the CanNET program was built around a number of key elements or building blocks (also see Figure 1):

- *Active consumer engagement* and information provision to ensure that cancer services reflect the views of people directly affected by cancer
- *Formalised links* and *agreed referral pathways* between health professionals working in regional, rural and remote areas and those in major metropolitan cancer services to enable consumers to have as much of their treatment as close to home as safely possible; develop systems and process to improve clinical expertise; and encourage best use of physical and intellectual resources across the network
- Promotion of *multidisciplinary care* to ensure that there is an integrated and coordinated team approach to health care in which medical and allied health care professionals consider all relevant treatment options and collaboratively develop an individual treatment plan for each patient. This element of the program also involves developing better mechanisms for *primary care involvement* and a Directory of Services to help consumers and primary care providers locate their nearest multidisciplinary cancer assessment and treatment team
- A framework and range of activities to support *continuous professional development*
- *Enhanced communication and data systems* that span traditional organisational boundaries, provide more accurate and timely information about patient care and treatment, and enhance continuity of care for patients
- Development of a system that provides information to assist with *quality improvement activities* (including *role redesign*)

Figure 1. Key elements of the CanNET program



2.4.1 *Stakeholders feedback about program design*

The majority of network members spoke positively about the CanNET program's design. While they felt the general aims and objectives were loosely defined and sometimes difficult to understand, they agreed that this allowed flexibility and enabled them to tailor their project to meet local needs.

Many network members said that stakeholders were willing to engage with and participate in the CanNET program because they could see the value in its design and intent. For example, a number of experienced clinicians were prepared to step out of senior clinical roles to take on project roles, because they saw an opportunity to contribute to improving the system through the CanNET program. Representatives from a number of the cancer service networks said specifically that the CanNET philosophy and model was a key driver of change and provided a new way to think about cancer services. They thought the program was successful because it included all the central elements of effective cancer service networks. Most network members also agreed that being part of the national program, and being able to badge their local project as part of a broader Cancer Australia initiative, contributed to their success in engaging a wide range of interested parties.

Although the CanNET program is trying to build the evidence for MCNs for cancer care across Australia, the emerging nature of this model of service delivery may have prompted some resistance to change. Stakeholders' other concerns about the design of the program were related to the two-year timeframe. Embedding and sustaining this kind of change in the health care system demands considerable time, effort and commitment. The development of cancer service networks and introduction of a new way of working is a complex task that largely depends on the buy-in and good will of many health care providers, who are already under considerable workload pressure.

2.5 The seven CanNET networks

The development of each cancer service network was aligned with existing national and state policies, programs and infrastructure, such as accreditation and other quality assurance mechanisms, clinical information systems and other information technology infrastructure. They built on existing work already being implemented or planned by State and Territory governments.

In other words, the CanNET program was conceived and implemented slightly differently in each jurisdiction, based on their local needs and capacity. Nevertheless, a review of the jurisdictions' local project plans (original and revised) revealed that each network had a good spread of strategies across the key elements of the program. More detailed information about this review can be found in Background Paper 2, which presents in detail the data that informed the national evaluation.

The lead agency, location, coverage, and focus of the selected sites are outlined in Table 1. It was also up to each jurisdiction to determine the coverage or geographical spread of their network and, as can be seen below, there was considerable variation across the jurisdictions.

Table 1. Information about the seven cancer service networks

Jurisdiction and lead agency	Network	Key focus
New South Wales (CanNET NSW): Cancer Institute, NSW	Linking the Northern Sydney and Central Coast, Hunter New England and the North Coast Area Health Services Population 2.4 million	*No tumour stream specific focus* Matched funding to build upon a range of Cancer Institute initiatives Strengthening the delivery multidisciplinary care Piloting new online meeting technology Developing agreed cancer referral pathways for six tumour streams Piloting of continuing professional development material Exploring role redesign

Jurisdiction and lead agency	Network	Key focus
Northern Territory (CanNET NT): Department of Health and Families	Territory-wide cancer service network Population 202,793	*No tumour stream specific focus* Developing a Territory-wide Cancer Plan Promote and enhance multidisciplinary care and use of telehealth Developing a general MDT in Alice Springs with links to specialists in Adelaide Developing agreed cancer referral pathways for five tumour streams Up-skilling of the workforce, including Aboriginal Health Workers Developing resources for Indigenous consumers
Queensland (CanNET Queensland): Queensland Cancer Control and Analysis Team (QCCAT), Queensland Health	12 cancer practice improvement groups (mini clinician networks)	*Specific focus on breast, lung and upper gastrointestinal (GI) cancer* Strengthening multidisciplinary care in breast, lung, and upper GI cancer Improving communication with primary care providers Promoting and supporting cancer care coordinator and MDT coordinator roles Testing the use of novel IT applications to improve care delivery, data collection and continuing professional development
South Australia (CanNET SA): Department of Health	State-wide cancer service network Population 1.54 million	*Specific focus on upper GI cancer, lymphoma and adolescents and young adults with cancer (AYA)* Conducting extensive consumer consultations Developing agreed cancer referral pathways across the state for upper GI cancer, lymphoma and AYA Developing a general MDT in Mt Gambier with links to specialists in Adelaide Developing two State-wide MDTs for upper GI cancer and AYA Increasing the cancer care competencies of health care providers at several rural nodes Piloting the MDT administrator role
Tasmania (CanNET Tasmania): Department of Health and Human Services	State-wide cancer service network Population 482,236	*Specific focus on lung and colorectal cancer* Developing a State-wide Cancer Plan Developing a consumer information portal Developing a multidisciplinary care protocol and agreed referral pathways for lung and bowel cancer Establishing three new MDTs: one for lung cancer and two for colorectal cancer Formalising links with interstate services for less common cancers Developing an information exchange hub to facilitate information sharing between providers Piloting the cancer care coordinator role

Jurisdiction and lead agency	Network	Key focus
Victoria (CanNET Victoria): Department of Human Services	Linking the Hume Regional Integrated Cancer Service (Hume RICS) & the North Eastern Metropolitan Integrated Cancer Service (NEMICS) into one network Population 1.6 million	*Specific focus on lung cancer* Linking outer metropolitan areas into the network Conducting extensive consumer consultations Developing and implementing a consumer participation strategy (including a consumer network) Facilitating consumer advocacy training Linking regional and rural clinicians into metropolitan lung cancer MDTs through a new online meeting technology Developing three agreed referral pathways: referral pathway between GPs and MDTs; a patient information pathway; and a supportive care pathway for lung cancer patients Enhancing the role of primary care providers Piloting of continuing professional development material
Western Australia (CanNET WA): Department of Health, WA Cancer and Palliative Care Network (WACPN)	Link metropolitan cancer services with the Great Southern Population 60,000	*No tumour stream specific focus* Focus on increasing cancer control capacity in Albany Establishing a general MDT in Albany linked to cancer specialists in Perth Developing a database to support the MDT in Albany Trialling a new web-based software that enables providers to securely share patient information Increasing the cancer care competencies of regional and rural health care providers, including Aboriginal Health Workers Scoping the capacity of other regional areas where the model could be rolled out

2.6 Governance

2.6.1 National governance

At the national level, governance for the program was provided by Cancer Australia and the CanNET National Steering Committee. Cancer Australia appointed a CanNET Program Manager, who reported to Cancer Australia's National Manager for Quality and Professional Development until halfway through the program. Following a restructure of Cancer Australia, the CanNET program was overseen by Cancer Australia's Deputy CEO and National Manager of Education and Service Development. Only one of the cancer networks reported that this change over caused any disruption to their project.

The CanNET Program Manager worked closely with each of the CanNET project teams to implement key strategies in each of the cancer service networks' plans and to support the CanNET national collaboration strategy. This entailed developing a CanNET design concept and national website,[4] preparing regular (~ 6-monthly) CanNET information bulletins,[5] developing communication templates for newsletters and PowerPoint presentations and other resources, including glossaries[6] and a template for a Directory of Services based around multidisciplinary initial cancer assessment teams.[7]

---

[4] CanNET national website: http://www.canceraustralia.gov.au/cannet-homepage.aspx

[5] CanNET Information Bulletins #1 - 4. Available from: http://www.canceraustralia.gov.au/cannet-homepage/about-cannet/cannet-bulletins-and-reports.aspx

[6] CanNET glossary (key terms and phrases) and evaluation glossary. Available from: http://www.canceraustralia.gov.au/cannet-homepage/quality-improvement/national-tools-and-resources.aspx

[7] CanNET Directory of Services template. Available from: http://www.canceraustralia.gov.au/cannet-homepage/multidisciplinary-care/overview.aspx

In addition, the Cancer Australia team actively developed links with related Cancer Australia initiatives funded through the *Strengthening Cancer Care* initiative, including the Cancer Learning initiative and the National Cancer Nursing Education (EdCaN) project.

The reporting arrangements for the CanNET program required each of the demonstration sites and the NSES to submit four quarterly progress reports (on 1 October 2007; 1 February 2008; 1 July 2008; and 1/ December 2008), and a final project report to the CanNET Program Manager (on 31 May 2009). The CanNET Program Manager reviewed all the reports, and made alterations to the design or implementation of the program as necessary in consultation with the responsible National Manager.

For example, after reviewing the demonstration sites' third quarterly progress reports, which identified a significant under-spend in all jurisdictions, both the CanNET Program Manager and the Deputy CEO made a round of mid-point network visits. They met with a wide range of stakeholders in each jurisdiction during these visits, including project teams, Commonwealth State officers, State health departments, and clinicians. They attended meetings with the local project manager and made optimal use of the available levers of change in the contract.

During these network visits, Cancer Australia also worked with each CanNET project team to revise their project plans for the remainder of the program (original project plans were very ambitious and needed to reduce their scope to be more realistic).

The majority of the network members found Cancer Australia to be very accessible, responsive and supportive. They felt Cancer Australia was willing to listen and assist with problems. Only a couple of the networks felt Cancer Australia was not considerate of their local constraints, particularly in the early stages of the project.

A CanNET National Steering Committee was established to provide strategic guidance to ensure consistency, reduce duplication, and facilitate a national approach to network development and evaluation that would build the evidence for cancer service networks in Australia. The National Steering Committee originally comprised four consumer representatives, a rural primary care provider, a quality assurance specialist, two evaluation specialists, a representative from Cancer Learning (a related Cancer Australia initiative), and officers from Cancer Australia itself, including the CEO, the National Manager of Quality and Professional Development, and later the Deputy CEO and National Manager of Education and Service Development, and the CanNET Program Manager. At one of the initial Steering Committee meetings, it was suggested that there was a need for more clinical expertise on the committee, but this suggestion was not actioned.

Except for the consumer and Cancer Australia representatives, there were high levels of turnover in the Committee throughout the program. One consumer representative resigned in the early stages and was replaced by a rural consumer representative. The quality assurance specialist and one of the evaluation specialists also resigned midway through the project and were not replaced. The aspect of the CanNET program where Steering Committee members had the greatest involvement was the national evaluation.

The CanNET National Steering Committee was not representative of some key stakeholder groups (clinical and the jurisdictions), and provided very little program direction, except in relation to evaluation. Nevertheless, most networks were satisfied that the contract and program management Cancer Australia had provided was effective.

2.6.2 Local governance

Each cancer service network established through the CanNET program was also required to establish a local governing body. All the local governing bodies included project staff members and representatives from the lead agency. Further details about the governing bodies for the local projects is summarised in Table 2.

Some of the networks (CanNET Queensland, SA and Tasmania) linked to existing cancer advisory or leadership groups with a broader scope and set of priorities, while the rest established project specific governing bodies. Most of the networks that linked to existing cancer advisory or leadership groups

eventually established a smaller sub-group that had a vested interest in the CanNET program and could provide project-specific governance. There have been some variations in the membership of local governing bodies during the project, but most have maintained wide representation.

Regardless of the approach networks adopted, they found it was important to have direct links with key decision makers through the project governing body. Effective local level governing bodies were also characterised by a strong consumer viewpoint, dedicated and involved members who could effectively manage disagreements and differing views, and members linked to a range of related cancer initiatives and organisations.

Table 2. Local governing body arrangements

Cancer Service Network	Governing bodies	Representation
CanNET NT	Network Management Group (NMG) - project specific	Key clinicians (including oncologist, haematologist, cancer support nurse), community health, GP, palliative care, consumer and Cancer Council Lead agency (Department of Health and Families NT) representatives and project staff
CanNET NSW	Clinical Management Committee (CMC) - project specific	NSW Health, Area Health Services (AHSs; Directors of Cancer Services and Cancer Service Development Managers), local hospital, GP, consumer and Cancer Voices Lead agency (Cancer Institute NSW) representatives and project staff
CanNET Queensland	Queensland Cancer Control and Leadership Group (CCLG) - broader responsibility than CanNET also developed a sub-group of 'project sponsors' for CanNET	Medical and Nursing Directors of Cancer Services from each of the AHSs, Chair and Network Manager Haematology Network, Deputy Director General, Policy Planning and Resourcing Lead agency (QCCAT) representatives and project staff
CanNET SA	Cancer Clinical Network Steering Committee - broader responsibility than CanNET also developed a subcommittee to specifically focus on CanNET (referred to as CanNET SA Project Oversight Group)	Royal Adelaide Hospital (including Clinical Director of Cancer Centre, and Radiation Oncologist), Country Health SA (Chief Medical Advisor and Network Development Manager), Flinders Medical Centre (including Director of Centre for Innovation in Cancer, and Heads of Medical Oncology and Department of Surgery), Repatriation General Hospital, Institute of Medical and Veterinary Science (Haematologist), Women's and Children's Hospital, Aboriginal Health Council SA, GP, allied health, senior academics, consumers and Cancer Council Lead agency (Department of Health SA) representatives and project staff
CanNET Tasmania	Tasmanian Cancer Network Establishment Program (TCNEP) Steering Committee - broader responsibility than CanNET TCNEP Advisory Group	TCNEP Steering Committee: Lead agency (Department of Health and Human Services DHHS, Tasmania) representatives, Cancer Screening and Control Services, Cancer Council and project staff TCNEP Advisory Group: Lead agency (Department of Health and Hum an Services, Tasmania) representatives, local health services, consultant surgeon, GP, Cancer Council
CanNET Victoria:	CanNET Victoria Steering Committee - project specific	NEMICS and Hume RICS (including clinical directors, program managers and a regional nurse coordinator), local health service, GP and consumer Lead agency (Department Human Services, Victoria) representatives and project staff

CanNET WA:	CanNET WA Steering Committee – project specific	Clinical Manager Oncology, Regional Medical Director, key clinicians (including general physician, general surgeon, pathologist, chief of medical imaging, regional cancer nurse coordinator, clinical nurse oncology unit, pharmacist), allied health, population health, palliative care, consumer and Cancer Council Lead agency (WACPN) representatives and project staff

2.6.3 Project management

State and Territory CanNET project teams worked in close collaboration with local governing bodies and clinical leaders. Project teams ranged in size from two to about eight (including members of an external project management group appointed by CanNET NSW). They generally comprised a project manager or principal project officer and a number of project officers. In general, project teams of three or less members were found to be too small for the task.

In general, the most effective project teams had a strong project manager (often from a nursing background) and wide range of different skill sets and strengths among team members, including members with a clinical background, understanding of regional and rural issues, and an ability to work collaboratively. Having a clinical background gave team members credibility and stakeholder buy-in, and was particularly beneficial in the field and in negotiating with clinicians.

Many cancer service networks also found it useful to recruit local clinicians from within the network area to form the project team, because they could capitalise on their existing relationships with potential network members. The most effective arrangement appeared to involve project team members based in both metropolitan and regional/rural areas across the network: this approach maximised stakeholder buy-in across the network. It was suggested that additional skills, experience and support that would help project teams drive similar initiatives in future included experience in managing change and research projects; experience in bureaucracy; report writing skills; IT knowledge; and administrative support.

There was substantial turnover in several State and Territory CanNET project teams, particularly in CanNET Tasmania and also in the CanNET Queensland, NT and NSW project teams. Although greater levels of turnover in the team appeared to be associated with slower progress and lesser outcomes in some networks, others were able to manage such handovers effectively with minimal disruption to the project. Those networks that managed turnover in project teams more effectively generally had larger project teams that were less dependent on specific personnel and/or implemented strategies to manage transitions effectively. For example, ensuring that previous project team members agreed to stay involved in relevant governing bodies to ensure a smooth transition and minimal disruption to the project.

2.7 CanNET National Support and Evaluation Service

A National Support and Evaluation Service (NSES) was another important and unique feature in the design of the CanNET program. The purpose of the CanNET NSES, provided by Siggins Miller, was twofold:

1) Evaluate the over-all CanNET program by:
   a) supporting a common evaluation approach, tools and reporting for each of the networks to undertake their own evaluation; and
   b) measuring the impact and outcome of the over-all national program.
2) Support the cancer service networks to ensure consistency and reduce duplication by:
   a) developing standardised resources;
   b) sharing knowledge and expertise in developing managed cancer networks; and
   c) operating as a national program.

In addition, the NSES was responsible for convening the CanNET National Steering Committee and providing secretariat duties. A significant emerging element of our role as the NSES has been to provide change management advice and support to Cancer Australia and the State and Territory CanNET project teams.

The NSES developed the CanNET National Collaboration Strategy in partnership with Cancer Australia to provide a framework for supporting the cancer networks and to ensure consistency and reduce duplication.

The aim of the CanNET National Collaboration Strategy was:

- To build stakeholders' awareness of the CanNET program, partners and collaborators, key elements, anticipated benefits and outcomes;
- To ensure consistency of key messages and presentation of CanNET materials; and
- To encourage and facilitate knowledge transfer, information sharing and discussion of learnings and challenges between CanNET networks.

The CanNET National Collaboration Strategy incorporated a range of strategies to encourage and facilitate knowledge transfer, information sharing and discussion of learnings and challenges between networks, including a CanNET national website, national workshops and teleconferences, CanNET Communiqués and CanNET Information Bulletins.

2.7.1 Stakeholders feedback about the NSES

Network members generally found the NSES a useful resource. It served as a central contact to enable collaboration among project teams in the early stages of the project. After project teams had been linked by the NSES, they often continued to liaise directly with one another - this was particularly evident in later stages of the program, and illustrates that the National Collaboration Strategy was effective in facilitating information sharing and knowledge transfer. A number of the networks also said that they found the workshops facilitated by the NSES to help them develop local program logic models were particularly useful in providing focus and direction for their project.

A few network members reported that they found it difficult to keep up with the amount of information the NSES disseminated, but this tended to improve after the CanNET Communiqués were introduced to streamline email communication between the NSES and project teams.

The majority of network members also spoke very positively about the CanNET National Collaboration Strategy during network visits. They said that it helped them to source information, resources and templates. They also found it useful to hear about what other areas were doing, and reassuring to hear that they were grappling with the same challenges and issues.

> *"There is a real sense of everyone working toward a common goal... We have developed lasting relationships with people and groups that will be professionally useful and personally fulfilling"* (network member).

The communication strategies that network members found most effective were included the national workshops, CanNET Communiqués and the national website. They said they enjoyed the national workshops because they offered them networking opportunities, and set the scene for ongoing collaboration. They also appreciated the Communiqués because they could read them at their leisure and choose to follow up information of specific interest to them through the national website and references provided.

It was suggested that the CanNET National Collaboration Strategy could have been improved by having more regular face-to-face workshops/meetings, and assigning one network as the lead for each of the key elements of the program (lead networks would pilot interventions in this area in detail and share their learnings with the other networks).

Section 3: Evaluation methodology

In order to meet the multiple requirements of the national evaluation of the CanNET program, the NSES developed a monitoring and evaluation framework built on an action-reflection model. This model has been combined with a program logic approach to evaluation that encourages a focus on inputs, processes and outputs, not only on outcomes. Outcome matrices were developed for each intermediate outcome identified in the CanNET program logic model to make explicit its success criteria and data sources. In line with systems theory, the NSES also conducted a contribution analysis to assess the extent to which external factors may have influenced the findings of the national evaluation.

The following sections provide further information about the context and scope of the CanNET national evaluation. They also present and discuss the national evaluation framework and associated data sources. Readers are referred to Background Paper 1 for more detailed information about the evaluation methodology.

3.1 Context and scope of the evaluation

The current evaluation is a short-term (two-year) evaluation of the CanNET program. It is not realistic to assume that the CanNET program would have a measurable impact on outcomes for people affected by cancer within this timeframe. For this reason, the evaluation focuses on inputs, processes, outputs and intermediate outcomes, which signal progress towards ultimate, long-term outcomes. The evaluation is also qualitative and focussed on the developmental aspects of MCNs, rather than measuring changes in patient experiences or outcomes. It is based on a broad approach to evaluation that provides enough data to showcase the divergence of effort across jurisdictions, and enable key success factors to be identified to build the evidence base and inform the continuing development of MCNs for cancer care across Australia.

3.2 CanNET national evaluation framework

In line with the palliative care evaluation framework of the University of Wollongong's Centre for Health Service Development (CHSD; Eagar *et al* 2004), the CanNET national evaluation framework focuses on intermediate outcomes at three different levels:

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

Specifically, the national evaluation framework focussed on ten intermediate outcomes and a number of associated success criteria. The first three intermediate outcomes are associated with the program's impact on and outcomes for consumers:

1) Improved patient/carer experiences and journeys across the networks
2) Increased awareness of, and access to, cancer services within the networks
3) Increased involvement of consumers in decisions about their own care

The next two intermediate outcomes focus on the impact on and outcomes for providers:

4) Increased availability, accessibility and involvement in continuing professional development (CPD)
5) Positive or neutral effects on provider work experiences and attitudes

The last five intermediate outcomes focus on the impact on and outcomes for the system:

6) CanNET networks developed
7) Improvements in service delivery at the system level
8) Networks result in innovations to address workforce issues

9) Networks are designed to ensure that experiences and findings are shared with other regions, services and/or organisations involved in cancer control (generalisability and dissemination)

10) Links are established with existing services, organisations and/or government departments within each network to ensure sustainability program outcomes (sustainability)

3.3 Data sources and analysis

The CanNET national evaluation has also been a mixed-method evaluation using a variety of qualitative and quantitative data sources, including routine program documentation and consultations (via surveys, telephone interviews and focus groups) with a wide range of stakeholders.

Routine data sources included State and Territory-based CanNET project teams' implementation, communication, generalisability and sustainability plans, quarterly progress reports and newsletters, meeting, teleconference and workshop agendas, minutes, attendance lists and evaluation forms. The non-routine data sources included:

- CanNET dissemination log
- CanNET network assessment questionnaire
- CanNET sustainability capacity building and generalisability tool
- GP survey
- Health care provider consultations
- Network visits (and focus groups with the State and Territory-based CanNET project teams and their local governing bodies)

The CanNET national evaluation did not include consultations with consumers because Cancer Australia partnered with five of the seven cancer service networks to conduct the CanNET consumer survey. They engaged another external consultancy, Campbell Research & Consulting, to coordinate development and implementation of the survey. The jurisdictions involved included CanNET NT, SA, WA, Tasmania and Queensland. CanNET NSW chose not to participate as they had been involved in a recent State-wide consumer survey, while CanNET Victoria was already committed to piloting a consumer survey being developed by the Cancer Council Victoria.

The CanNET consumer survey will provide a baseline snapshot of the perceptions and experiences that people affected by cancer have with cancer care delivery across Australia, in various health care sectors and geographical locations. Together, the findings from the CanNET national evaluation and consumer survey will provide valuable information to guide future network development.

The process of synthesising the data collected through the national evaluation involved collating and comparing information from documentation and literature reviews, and from stakeholder consultations and network visits. The findings were then interpreted in relation to the agreed objectives and intermediate outcomes of the CanNET program. Findings emerging were also assessed for strength and validity in repeated discussions with Cancer Australia, the CanNET National Steering Committee, State and Territory CanNET project teams, and their local governing bodies.

Section 4: Key findings and lessons learned

The goal of the national evaluation was not to compare and contrast the individual results and achievements of each cancer service network. Rather, we were asked to reflect on the contribution and added value of the CanNET program as a whole, and thus build the evidence for cancer service networks across Australia.

In the following sections we discuss the over-all achievements of the program in relation to each of the key elements, and higher level lessons learned about enablers and barriers of effective network development. An overview of the local activity in each of the seven CanNET networks can be found in Appendix A. Background Paper 2 presents in further detail the data that informed the evaluation.

4.1 Network development

CanNET brought people together around a common agreed model, and provided an overarching strategic framework for cancer services. It has helped increase recognition of the need to move towards a network-based model of service delivery, enabled links to be developed among services, and resulted in some improvements in communication among providers. The majority of local governing body members also agreed that the CanNET program enhanced service planning by bringing together a range of people who would not normally come into contact with one another, and supported professionals and services to work better as a team.

All the demonstration sites appear to have developed the strong foundation required for effective network development and functioning (relationships, links, agreed protocols, and supporting infrastructure). Although these elements have been embedded in the networks to differing extents, and with differing success, this is all that could be realistically expected in the ambitious two year timeframe. It requires a significant amount of focused effort, time and commitment to persuade people to work differently, especially when the majority of health care providers are already under considerable workload pressure and in some instances are themselves aware that they lack the management and change management skills necessary to expedite change. In a system where resources and time are constrained, CanNET has created some space in the resource environment to allow the relationships and processes that will underpin culture change and practical developments of the service systems to be established.

Case study:

The cancer service network between Perth and the Greater Southern region in WA

CanNET WA was especially successful in building cancer care capacity in regional and rural areas through network development. An effective cancer service network was established between Perth and the Great Southern by establishing a general MDT at Albany Regional Hospital. This MDT meets fortnightly and uses videoconferencing to link to cancer specialists from tertiary centres in Perth. A database has also been developed to support the MDT by generating meeting agendas, producing management plans, and enabling data analysis. Moreover, processes have been put in place to ensure that consumers give consent to have their case discussed by the Albany-based MDT, are informed about MDT recommendations, and can make their own treatment choices. Processes have also been established to ensure that an Aboriginal Health Worker is invited to participate in the Albany-based MDT when an Indigenous consumer is being discussed.

Collectively, these developments resulted in:

- 190 patients being discussed in the general MDT at Albany Regional Hospital within project timeframes
- A 25% increase in shared care arrangements between the regions (in which a patient's who sees an oncologist or haematologist in Perth is able to have all or some of their chemotherapy regime administered in Albany)
- A reported increase in the quantity and complexity of regionally delivered cancer services, in particular chemotherapy
- Reduced travel time (as a flow on effect of the increase in regionally delivered cancer services)
- A 30% increase in referrals from Greater Southern to radiation services at Sir Charles Gardner Hospital in Perth

Another important contribution of the CanNET program has been the development of Cancer Plans for the NT and Tasmania. Importantly, these Cancer Plans are built on the principles and key elements of CanNET program and thus promote the development of cancer service networks. This is a particularly noteworthy development because Tasmania and the NT were the only jurisdictions previously without comprehensive Cancer Plans.

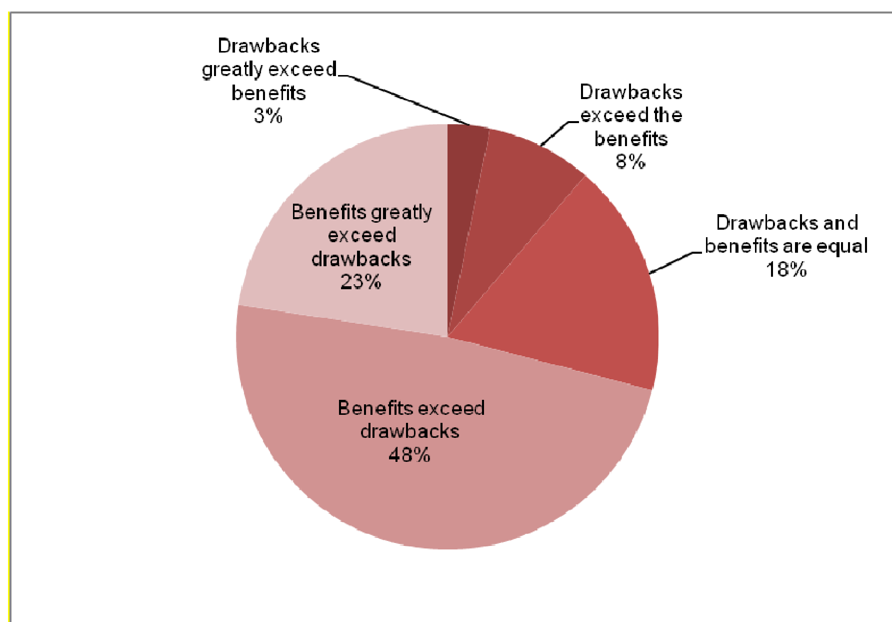
More than 50% of the networks' local governing body members agreed with the following statements about the impact of network development on service delivery:

- CanNET has enhanced service planning by bringing together a range of people who would not normally come into contact with one another
- Different professionals and services now work better as a team to improve the services that people receive
- CanNET has improved the way that professionals providing cancer care in our area communicate with each other
- CanNET was effective in improving information sharing between professionals providing cancer care
- CanNET has established processes to link regional/rural health professionals with metropolitan counterparts
- CanNET has resulted in improved multidisciplinary approaches to cancer care
- CanNET has resulted in better engagement with the primary care sector

Furthermore, approximately 40% of the health care providers who participated in telephone interviews to inform the national evaluation believed that the development of the CanNET networks had positively changed the way they deliver cancer services. The remaining network members (60%) believed that the CanNET program was still at an early stage of implementation and was yet to have a flow on impact on their service delivery.

It should also be noted that the CanNET program was generally perceived to have increased workload for health care providers. Workload pressures, whether from a high existing workload or increased workload following the implementation of CanNET, were perceived as a factor limiting participation in cancer service networks, and their sustainability. However, there were also some encouraging evaluation findings in relation to sustainability. At a national level, 71% of network members agreed that the benefits associated with participating in the networks exceeded the drawbacks (23% felt that the benefits *greatly* exceeded the drawbacks; see Figure 2).

Figure 2. Perceived benefits vs. drawbacks of participating in the cancer service networks



This is noteworthy because a key factor that will influence people's willingness to continue to participate in networks is their perception of the associated benefits and drawbacks. Furthermore, more than 80% of the networks' local governing body members agreed that they want the changes that CanNET has achieved to continue. This is encouraging in terms of the sustainability of the networks given that these individuals will play a key role in embedding the achievements into the local service system in a sustainable way. The majority of the networks have already started to progress their sustainability plans by linking their CanNET work with ongoing initiatives that are being coordinated at the jurisdictional level to develop cancer service networks. However, there was consensus that there is still a need for continuing investment to ensure that the networks reach their full potential and to embed initiatives into the system and promote sustained change.

4.2 Consumer engagement

There were high levels of consumer engagement in service planning and delivery across most of the cancer service networks. CanNET Victoria and SA had strong outcomes in this area and provide excellent models for a robust consumer participation strategy to help cancer service networks engage and involve consumers effectively in service planning and delivery and evaluation.

In addition to having active consumer representatives on their governing bodies and working groups and facilitating consumer advocacy training sessions, CanNET SA and Victoria conducted extensive consumer consultations.

Case study:

CanNET Victoria's consumer participation strategy and network

CanNET Victoria commissioned a project to consult widely with consumers to: a) inform planning activities; and b) develop a consumer participation strategy and framework:

- In total, 128 consumers participated in a group meeting or individual interview, across 20 different towns in the region
- A robust consumer participation strategy and network, as well as a consumer stories booklet were developed through these consultations
- The consumer network includes over 70 consumers and was set up to facilitate consumer involvement in a range of cancer service improvement activities across the network

The CanNET Victoria project also commissioned another consultancy specifically targeting hard to reach consumers - this consultancy has yet to be completed.

Telephone interviews were conducted with a sample of consumers who participated in the CanNET Victoria project through the local evaluation:

- Consumers reported a high level of satisfaction with the opportunities available for them to take part in the project, as well as with the support that was provided to enable them to participate
- There was general agreement among consumers that they felt more confident and competent to contribute to service planning and delivery, and to make decisions about their own care, as a result of taking part in the consumer network

Five of the seven networks (CanNET NT, SA, WA, Tasmania and Queensland) partnered with Cancer Australia to conduct the CanNET consumer survey (see Section 3.3). This survey will provide these jurisdictions with baseline information about the perceptions and experiences that people affected by cancer have with cancer care delivery, and enable the networks to track improvements over time.

In these ways, CanNET has supported the jurisdictions to develop substantial knowledge, information and resources on consumer engagement in service delivery and planning. It also appears to have contributed to increases in the network members' recognition of the importance and value of consumer engagement in service delivery and planning in most networks.

Case study:

CanNET NT's resources for Indigenous consumers

One key element of the CanNET NT project focused on developing, promoting and disseminating resources for Indigenous consumers (in the form of flip charts and DVDs).

- The resources were developed following extensive consultation with Indigenous consumers and clinicians
- They follow the cancer journey (from prevention, through early intervention, diagnosis, treatment and aftercare to remission, cure or palliative care) and place a strong emphasis on prevention and the benefits of early detection of cancer
- The DVD has been translated into the five most common Indigenous languages used in the NT, as well as into English
- The flip chart is colourful, pictorial and sensitive to both women's and men's health business
- The resources will be distributed to all government and non-government remote health centres, hospitals and key stakeholders

The consultations conducted for the national evaluation also suggest that the networks' activities have increased consumers' awareness of the range of available services, treatment options, and referral pathways by developing and disseminating a number of new resources. For example, each cancer service network is developing a Directory of Services that, at a minimum, provides consumers and service providers with up-to-date information about their closest multidisciplinary cancer assessment team. The majority of the networks also developed websites that provide access to information on services for both providers and consumers. In light of these outputs, it is not surprising that more than 50% of the networks' local governing body members agreed that CanNET has resulted in increased access to information about the cancer journey and the availability of services.

It is reasonable to assume that, collectively, these outcomes will have some flow-on effect of improving consumer access to cancer services in the future. However, consumer awareness of and access to cancer services will also be influenced by education level, literacy and health literacy, socio-economic status and geographic location. None of the networks developed specific strategies to address these determinants of access (with the exception of CanNET NT, who developed resources specifically for Aboriginal consumers).

The resources developed by each of the networks will also continue to inform State and Territory approaches to consumer engagement and involvement in service delivery and planning into the future (in cancer care and other areas of health). In this way, CanNET programs outcomes in this area will be sustained. The consumer advocacy and representation training delivered across a number of the networks will also support sustainability.

4.3 Multidisciplinary care and primary care involvement

Coordinated multidisciplinary care, in which medical and allied health care professionals consider all relevant treatment options and collaboratively develop an individual treatment plan for each patient, was central to the CanNET model. The national evaluation found that there have been some improvements in network members' recognition and understanding of multidisciplinary care and MDTs. The great majority of the health care providers who were consulted believed that MDTs were the desirable approach, but there was some variation in their understanding of the definition and purpose of MDTs, and some concern about the effect on workload pressure.

All the CanNET networks either established new MDTs, or supported existing MDTs to improve their quality through audit and review processes. The national evaluation identified at least 19 MDTs within the 'CanNET footprint'. However, it is reasonable to assume that the activities coordinated through CanNET have supported and contributed to establishment of additional MDTs across Australia that could not be specifically identified through the national evaluation.

A range of different MDT models were implemented across the networks. They included regional MDTs (most of which were not tumour stream specific), and State-wide MDTs for specific tumour

streams. The development of new State-wide MDTs is a particularly noteworthy achievement which required extensive negotiations with a large number of clinicians.

Processes to link regional and rural clinicians into metropolitan-based MDTs (either through existing videoconferencing facilitates or new online meeting technologies such as WebEx and Attend Anywhere) were also established in all seven networks. CanNET Victoria and NSW projects were particularly effective in illustrating the potential of new and emerging online meeting technologies to link regional and rural clinicians and services into metropolitan MDTs.

Table 3 below provides an overview of the increase in, or enhancement of, MDTs within each of the seven CanNET networks. Following this, the work conducted by CanNET SA and NSW in relation to this element of the program is presented as detailed case studies.

Table 3. Increase in MDTs within each CanNET network

Cancer Service Network	New or enhanced MDTs within the region
CanNET NT	Established a general MDT in Alice Springs, with links to Royal Adelaide Hospital for radiology and pathology input, and the Department of Medicine at the Alice Springs Hospital for administrative support. Also, enhanced two existing MDTs (head and neck cancer and surgery/oncology) in Darwin to improve their quality through audit and review processes, and developing a range of supporting guidelines, protocols and templates.
CanNET NSW	Nine new MDTs (including general and tumour specific) emerged across the three AHS's that comprise CanNET NSW.
CanNET Queensland	Linked breast cancer services at Bundaberg with the breast cancer MDT at the Royal Brisbane and Women's Hospital, and breast cancer services at Gympie Hospital to the Nambour Hospital breast MDT via weekly videoconferences. Also supporting a number of existing MDTs to improve their quality through audit and review processes.
CanNET SA	Established a general MDT in Mt Gambier with links to specialists in Adelaide, as well as two State-wide MDTs, one focusing on upper GI cancer; and the other on AYA with cancer. All three MDTs have both public and private involvement.
CanNET Tasmania	Established three new MDTs, one focusing on lung cancer in the north of the state, and two GI MDTs (one in the north and one in the south). Also developed links between Tasmania and the Peter MacCallum Cancer Centre in Victoria for rare cancers.
CanNET Victoria:	Linked regional and rural clinicians into metropolitan lung cancer MDTs in Melbourne through a new online meeting technology (Cisco WebEx).
CanNET WA:	Established a general MDT at Albany Regional Hospital that uses videoconferencing to link to cancer specialists from tertiary centres in Perth.

Case studies:

MDTs established through CanNET SA

CanNET SA in particular had considerable success establishing a number of new MDTs. The membership of these newly formed MDTs has continued to grow over time, and they include both public and private involvement, GPs, and a number of allied health and supportive care providers. Education sessions also occur within the MDT meetings, and standard MDT meeting documentation and protocols have been developed to support the MDTs.

Three new MDTs were established in total. A general MDT was established in Mt Gambier, with links to specialists in Adelaide:

- The Mt Gambier-based MDT meets fortnightly utilising a combination of video and teleconference technology to link multiple rural and metropolitan sites
- 13 MDT meetings were conducted between October, 2008 and May, 2009

Two State-wide MDTs have also been established: one focusing on upper GI cancer; and the other on AYA with cancer.

- The State-wide upper GI MDT is coordinated across 4 health sites with over 30 regular attendees
- This MDT meets fortnightly utilising a combination of video and teleconference technology
- 10 MDT meetings conducted between December, 2008 and May, 2009

Increase in MDTs across CanNET NSW

CanNET NSW has supported existing MDTs and MDT coordinators to improve their processes through a range of activities based on the Institute for Healthcare Improvements Breakthrough Collaborative Model.

Although CanNET NSW did not itself establish any new MDTs, there was a marked increase in the number of MDTs in each of the three AHS during the project, and it is reasonable to assume that the project contributed to some extent. The total number of MDTs within the CanNET NSW region increased from 38 to 47 (~ 24% growth) between 2006 and 2008. In contrast, the total number of MDTs across the other 7 AHSs within NSW increased from 105 to 113 (~ 13% growth) during the same period.

Increase in MDTs across each AHS in CanNET NSW:

- The greatest increase in the number of MDTs was in the North Coast AHS, rising from nine in 2006 to 14 in 2008
- In the Hunter New England AHS, MDTs rose from nine in 2006 to 12 in 2008
- One new MDT was also established in the Northern Sydney and Central Coast AHS, taking the total MDTs in the region to 21

Some of the networks also developed or enhanced data and communication systems to improve information sharing and support coordinated, multidisciplinary care through CanNET.

Case studies:

Enhancement of data and communication systems through CanNET Queensland

CanNET Queensland had a particularly strong focus on this element of the program. They were able to further develop an existing leading edge State-wide communication and data system for cancer care, Queensland Oncology On-line (QOOL).

QOOL is an innovative system that integrates existing data silos and makes available just-in-time clinical information for multidisciplinary case conferencing, service improvement, monitoring safety and quality and research. It has been enhanced specifically to facilitate MDT meetings through the CanNET program by developing and embedding a MDT treatment summary in the system, and a process to allow information about psychological care needs to be uploaded and shared. CanNET Queensland also accelerated the tasks and activities required to enable external access to the QOOL system, and identified specific data needs for some groups which will be built into the system overtime.

CanNET Tasmania's provider information exchange hub

Amongst other things, CanNET Tasmania developed a provider information exchange hub to improve information transfer and exchange capacity between parts of the system. The provider information exchange hub has been designed to allow oncology patient information to be exchanged between DHHS, private hospitals and GPs.

The provider information exchange hub includes components such as:

- Electronic referrals from GPs to State-wide oncology system and have those referrals integrated automatically into the patients oncology record
- Details of proposed oncology treatment and summary of treatment sent electronically from the State-wide oncology system to GPs (given patient consent) and integrated into the GP patient record
- Pathology and radiology results sent electronically from the DHHS and private labs to the State-wide oncology system

In addition, all of the networks have developed a range of guidelines, protocols and templates to promote multidisciplinary care and support MDTs. For example, they all developed Directories of multidisciplinary cancer assessment and treatment teams to promote MDTs to consumers and primary care providers. The networks hoped that these Directories would be not only a useful resource but also a catalyst for wider change. In order for this goal to be fully realised, there is a need to embed the Directories in an ongoing change management and marketing strategy that educates the target audience (primary care providers and consumers) about the importance and value of MDTs, and supports the establishment and enhancement of MDTs across Australia. It will also be important for

the Directories to be underpinned by accountability, scope of practice, audit, and quality assurance processes and systems.

Clearly, the CanNET networks have a number of important inroads in terms of establishing multidisciplinary care processes and MDTs. This is a significant achievement, since the literature demonstrates that MDTs provide better quality care than individuals working in isolation[8]. MDT discussions often produce positive changes in patients' treatment plans and are associated with better continuity in care and higher patient satisfaction, amongst other things. The national evaluation also found that, where MDTs had been established, clinicians felt more secure making joint decisions, and were more confident in their decisions because there was shared agreement. There is, however, still a considerable amount of work to be done in this area.

In particular, engagement of GP and the private sector was found challenging for most networks and was identified as an area for improvement. Nevertheless, 84% of GPs who responded to the CanNET GP survey indicated that they would consider participating in MDT meetings or case conferences for their cancer patients in the future if offered the opportunity. Much of the work done elsewhere on GP engagement in continuity of care, or in the reduction of avoidable hospital admissions, has focussed on the hospital or specialist side of the equation - discharge summaries, or the quality of the communication back to the GP after a specialist referral. In the case of cancer care, the experience in CanNET suggests a need to look more deeply at constraints and enablers on the general practice side of the equation.

There is also a need for further work to define minimum caseloads for MDTs to ensure quality and safety.

4.4 Agreed referral pathways

The majority of the CanNET networks developed agreed referral pathways in order to improve quality and consistency in practice. Importantly, the referral pathways contained discussion by MDTs to promote multidisciplinary care, and criteria for appropriate interstate liaison and referral where needed.

At least ten State or Territory-wide pathways and 16 network-wide pathways were developed for a range of different tumour streams. In many instances, however, the agreed referral pathways have not yet been implemented because of a lack of time, personnel, equipment, database resources, or financial resources in general.

The following table provides an overview of the referral pathways that were developed by each of the seven CanNET networks.

Table 4. New referral pathways developed by each CanNET network

Cancer Service Network	New referral pathways developed
CanNET NT	Developed Territory-wide referral and treatment pathways that encompass MDT discussion and criteria for appropriate interstate liaison and referral for five tumour streams: breast cancer (the most common cancer for Indigenous and non-Indigenous females); prostate cancer (the most common cancer for non-Indigenous males); lung cancer (the most common cancer for Indigenous males), bowel cancer; and head and neck cancer.
CanNET NSW	Developed network-wide referral pathways between GPs and specialists for six tumour types (lung and mesothelioma, prostate, bone, head and neck, soft tissue, and colorectal cancer).
CanNET Queensland	Mapped existing network-wide referral pathways for one high and one low volume cancer (breast and upper GI) and identified bottlenecks and areas for improvement.

[8] CanNET National Support and Evaluation Service (2008). *Managed Clinical Networks - a literature review*, Cancer Australia. Canberra. http://www.canceraustralia.gov.au/cannet-homepage/multidisciplinary-care/overview.aspx

CanNET SA	Developed State-wide referral pathways for upper GI cancer, lymphoma, and AYA with cancer, which include key performance indicators and timeliness benchmarks to assist monitoring and evaluation, and incorporate the National Health and Medical Research Council (NHMRC) guidelines for psychosocial care of adults with cancer to ensure that patients are assessed for psychosocial distress.
CanNET Tasmania	Developed State-wide referral pathways for lung and colorectal cancer (based on the Victorian Government Department of Human Services Patient Management Frameworks).
CanNET Victoria:	Developed three network-wide referral pathways to improve access to services, including a referral pathway from GPs to MDTs; a referral pathway for supportive care; and a patient information pathway.
CanNET WA:	Developed network-wide referral pathways for breast, colorectal, prostate, melanoma and urological cancers.

4.5 Continuing professional development

Continuing professional development (CPD) was a key element of the CanNET program and a strong focus for all the cancer service networks. Network members agreed that CPD was integral to supporting service improvements being introduced through CanNET. CPD opportunities were also found to be an effective strategy to develop local champions in some networks.

All of the networks provided cancer-related professional education and development opportunities to a wide range of health care providers - GPs and other primary care providers, nurses, allied health care providers. More than 1,196 health care providers from across Australia participated in CPD activities through the CanNET program. These opportunities were generally taken up and received more positively by nurses and allied health care providers than by GPs and medical specialists. Some of the most well received CPD activities across the networks included mentoring and clinical placements, as well as conference funding and scholarships.

The qualitative data gathered through interviews with health care providers from each network suggested that the CanNET program was perceived to have had only a small impact on increasing service providers' knowledge and skills, however the data collected through post-session evaluation forms in a number of the networks was more positive. The data from the post-session feedback forms suggests that in general participants were very satisfied with the delivery and content of the CPD activities, and thought that they had increased their level of knowledge, understanding and/or skills. They also indicated that they found the networking opportunities and sharing of knowledge among various health service providers and consumers during these activities particularly valuable. In line with this, more than 50% of the networks' local governing body members agreed that CanNET has increased the skills and knowledge of staff working in cancer care.

Network members also said that participating in MDT discussions indirectly provided them with valuable CPD opportunities.

The networks collaborated with some of Cancer Australia's related initiatives that were funded through the *Strengthening Cancer Care* initiative to increase availability, accessibility and involvement in cancer-related CPD. All of the networks used some aspect of the CPD framework and/or learning resources that have been developed through the Cancer Learning initiative. Some of the networks also participated in pilot projects that were coordinated through Cancer Learning. Similarly, the National Cancer Nursing Education (EdCaN) framework and learning resources were piloted in a number of the networks.

Some of the networks also integrated their local mentoring projects funded under the first phase of the *Mentoring for Regional Hospitals and Cancer Professionals* component of the *Strengthening Cancer Care* initiative. In some instances, these initiatives have provided a model for ongoing cancer mentoring programs and have been built into existing processes and structures in a sustainable way. The national evaluation also found that network members generally saw the related Cancer Australia initiatives as complementary rather than competing projects, and the collaboration was mutually beneficial.

Not surprisingly, the most commonly identified barrier to accessing CPD opportunities was lack of time from staff shortages, workload, or family commitments.

4.6 Role redesign

Some of the CanNET networks have piloted or further developed new and innovative roles for cancer care in their local jurisdictions. This is noteworthy because the current skills shortage, increasing demand for cancer care services, and the ongoing development of new models of care together require more flexibility in the roles played by cancer care providers.

CanNET has illustrated that roles such as cancer care coordinators, MDT coordinators and MDT administrators are key facilitators of coordinated, multidisciplinary care and make the introduction and maintenance of quality MDTs less of a burden for clinicians. For example, CanNET Queensland focused on promotion and marketing of the new cancer care coordinator role in the Central and Southern AHSs, and developed a consistent approach for new MDT coordinators to review multidisciplinary practices and processes across Southern AHS. In addition, the CanNET Queensland coordinated a working group to focus on professional development for, and the sustainability of, the new cancer care coordinator role in the state. CanNET Tasmania supported a pilot of two cancer care coordinator roles in Tasmania, while the MDT administrator role was piloted through CanNET SA for the newly established State-wide upper GI and AYA MDTs. CanNET NSW also illustrated that the role of GPs in cancer care may be enhanced by focusing on their role in follow-up (and this can be effective in reducing travel requirements for regional and rural consumers).

Although CanNET (particularly in CanNET NSW) also enhanced understanding of, and prompted much discussion about, other roles that have been developed or redesigned to improve cancer care internationally (such as radiation therapist lead review clinics, GP review oncology clinicians and the role of non-nurses as cancer care coordinators), the networks are yet to pilot such roles.

4.7 Quality assurance

All the cancer service networks participated in a range of quality improvement activities, including the CanNET consumer survey (see Section 3.3) and audits of patient file notes or MDT processes. For example, CanNET NT improved the quality of existing MDTs in Darwin by auditing their processes and providing them with comprehensive feedback to support ongoing quality improvements. They also conducted a comprehensive patient audit that included reviewing case file notes and follow-up patient interviews (to review timeliness standards and investigate the difference between what was recorded in case file notes compared to the patients' experiences). On the other hand, CanNET NSW investigated potential structures to ensure that the quality of the care and services provided by the network is appropriately and effectively governed, and implemented the Cancer Registry across the network to ensure that information on the stage, treatment and intermediate outcomes of cancer patients can be aggregated and analysed across the three AHSs

CanNET Tasmania and Victoria developed quality assurance programs for their local networks. Many of the other networks adopted their existing State-wide quality assurance policies and programs to avoid duplication of effort.

In the future, it will be important that a set of agreed national safety and quality standards for cancer service networks are identified and monitored, since the literature on MCNs is relatively new and still emerging. Amongst other things, effective national quality assurance systems would enable networks to monitor the appropriateness of MDT decisions on patient outcomes, and thus contribute greatly to the body of relevant evidence.

4.8 Key success factors: enablers and barriers for network development

The national evaluation of CanNET clearly illustrates the need for and importance of a comprehensive change management strategy to support network development. All the demonstration sites experienced some level of resistance to change from some clinicians within the network's scope. Some were apathetic and neither supported nor opposed the changes; others could see the virtue in

what was proposed, and were willing to contribute to making it happen; and still others actively opposed the change. Those sites that appear to have made the most progress in network development are those that implemented a comprehensive change management strategy to support the service improvements.

This is not surprising, since the CanNET program is trying to implement a new way of working - shifting clinicians from working as individuals to working as members of a multidisciplinary network and team. This is a significant cultural change that goes against a culture of clinical individualism and traditional medical models of training, and represents a move away from inherited hierarchical structures. It also builds on the growing emphasis on team practice in many areas of health care - an emphasis now actively taught in medical, nursing, and allied health training, and for which Cancer Australia has been a major catalyst, in this and its other programs.

The following sections discuss a number of enablers and barriers for effective change management and network development. The success factors could be identified from the variations in progress and performance across the seven CanNET networks. Collectively, the networks' experiences highlight the importance of a number of the key processes indentified in Kotter's well known 8-step change model (1996): establishing a sense of urgency and need for change; forming a powerful guiding coalition; creating a vision; communicating the vision; empowering others to act on the vision; planning for and creating short term wins; consolidating improvements and producing more change; and institutionalising new approaches.

4.8.1 Clinical leadership

Clinical leaders were appointed in each of the CanNET networks. There is a growing body of literature which argues that clinical leadership must be in place for effective change in the health care sector (Ham 2003; Reinerstsen 1998; Ward 2005).

In line with the NHS's experience (NHS 2005), the national evaluation found that effective clinical leadership was a critical success factor for network development. Those cancer service networks and regions within them that struggled with clinical leadership also made less progress and in general had poorer outcomes. Clinical leaders: *"…define what the future should look like, align people with that vision and inspire them to make it happen despite the obstacles"* (Reinertsen 1998).

In other words, clinical leaders engage people who are difficult to engage, service as role models for their peers, and pioneer an environment in which quality improvements can thrive. They are potential leverage points for improvements in the health care sector because, compared with workers in many other contexts, clinicians have a large measure of control in health care organisations. That is, health care organisations tend to 'have an inverted power structure, in which people at the bottom generally have greater influence over decision-making and day-to-day business than do those who are nominally in control at the top' (Ward 2005). Consequently, the ability of reformers (managers, policy makers etc) to influence decision making in health services is constrained, and there is a need to rely on collegial mechanisms and clinical leaders who can persuade their colleagues to do things differently. In general, clinicians are more likely to be influenced by leaders who are also clinicians because they believe they have 'walked a mile in their colleagues' shoes' and view them as trustworthy, confident, articulate and willing to make mistakes (Reinerstsen 1998).

The evaluation also found that clinical leaders take some of the strain off project teams and provide them with extra impact when it was needed. Collectively, the CanNET experience illustrates the importance of forming a powerful guiding coalition by engaging respected clinicians who can create a vision, promote the network to their peers and make change happen where it is needed.

The majority of network members who were consulted supported a multidisciplinary approach to clinical leadership that includes medical, nursing and allied health care provider clinical leaders. They also highlighted the importance of developing clinical leaders at all levels of the network, including senior decision makers and clinicians delivering services on the ground.

The national evaluation recorded some key barriers to effective clinical leadership, including workloads; clinicians' lacking the leadership skills required for the role; and a lack of adequate

support for clinicians who take leadership roles. Many networks found that clinicians with the right skills, interest and personality to become clinical leaders had limited available time and were often bombarded by a number of competing projects and initiatives. A critical element in successful network development appears to be the ability to free up the time of clinical leaders to allow them to pursue the larger change agenda.

Network members also commented that clinical leadership are “two words that do not go together naturally, but when they do, it is very effective” and discussed how being an effective clinical leader requires a set of skills different from being a good clinician. Similarly, the literature acknowledges the importance of supporting and equipping clinical leaders with the high level skills they will need (eg leading and developing teams, understanding organisational systems, processes and interdependencies, redesigning services etc). It also suggests that there must be recognition and reward systems in place for clinical leaders, and organisational cultures that value and encourage clinical leadership as vehicle for improving service delivery and performance (Ham 2003; Reinerstsen 1998).

Where clinical leadership potential appears, it is often starved of the time and resources it needs to be realised. The health system increasingly asks clinicians in all disciplines to lead their colleagues in ways that challenge deeply held convictions about ‘the way we do things around here’ and who must maintain control. For individuals who are trained to manage individual cases and guard their professional autonomy above all else, the effect of being asked to take on leadership roles in the consumer interest is considerable, and not often acknowledged. There is even a risk that those who take up the challenge may be overburdened by the pressures of leadership, and in the absence of support may abandon the task and dismiss the program as a failure.

During the early stages of the CanNET program, there was some discussion about potential training and support options for clinical leaders, but this was not progressed. Innovative strategies discussed by network members to encourage and support clinical leaders included clinical leadership training; linking clinical leaders at the national level; enabling clinical leaders to visit other cancer service networks to share learnings and experiences; and helping them collectively publish a paper on the importance of clinical leadership in establishing MCNs.

Lessons Learned:

Forming a powerful guiding coalition, by engaging respected clinicians who can create a vision, promote the network to their peers and make change happen where it is needed, is critical for effective change.

But remember that:

- Being an effective clinical leader requires a different set of skills to being a good clinician
- Clinical leaders need to be supported and equipped with the high level leadership skills they will require for their role

4.8.2 Stakeholder engagement and involvement

Cancer Australia’s *Invitation to Apply* to participate in the CanNET program stated that each demonstration site must develop a project implementation plan that was strongly inclusive and consultative. These requirements align with literature that says getting out and talking to a wide range of the people who will be affected by the change is an important change process (Moran & Brightman 2000).

The CanNET evaluation confirmed that a top-down, bottom-up approach was critical to successful network development. In addition to effective local governance and clinical leadership, it was critical that a broad range of stakeholders across all regions, levels, services and sectors were effectively engaged as early as possible to ensure the network would be relevant to people on the ground and meet local needs and interests. Across the networks, it was apparent that areas where broad stakeholder engagement was lacking faced significantly greater difficulty and achieved considerably less.

Lessons Learned:

The importance of linking top-down and bottom-up approaches to performance improvement has never been greater. On this link, nothing less than the future of organised health-care systems depends (Ham 2003).

Consider engaging and involving a broad range of stakeholders by:

- Using consumer stories and personal experiences
- Forming multidisciplinary working groups to drive specific elements of the project
- Presenting local data to highlight gaps and areas for improvement
- Meeting with key stakeholders (eg GPs) on a more personal level

Network members found that it was particularly important to engage senior management and executive levels effectively in the local cancer service networks, since their level of commitment and buy-in was another key success factor. They also stressed the importance and value of consumer engagement. Consumer stories and personal experiences were very effective in obtaining stakeholder buy-in and commitment.

Further, the national evaluation highlighted the value of having members of the network project team employed by, and based in, both metropolitan and regional/rural areas to achieve the best outcomes. This approach helps to maximise stakeholder buy-in and commitment across all regions within a network. Many CanNET networks found that they were able to engage stakeholders effectively in the process of network development by collecting and analysing local data, and presenting this information to highlight gaps and areas for improvement that the network could address. This process appeared to be particularly effective in establishing a sense of urgency and the need for change.

There is an important difference between 'engagement' and 'involvement': stakeholder engagement refers to efforts to obtain either feedback or ideas, while involvement means bringing people into taskforces, working groups, and the like. Network members said their experience confirmed that both engagement and involvement of partners were important contributors to success.

A number of the CanNET networks involved stakeholders in network development, and empowered them to act on the vision by establishing multidisciplinary working groups comprised of key network members and consumers. These working groups were tasked with driving a specific element of the project and supported by members of the local project team. After the working groups proceeded through the normal stages of group maturity, they were very effective in driving change, since they generally had more credibility and influence than the project team itself.

It was suggested that this approach resulted in 'peer pressure for change', helped stakeholders get used to multidisciplinary groups, and therefore helped drive cultural change. Some networks found that having consumer representatives on the working groups was particularly effective because it helped keep clinicians focused on the issues of greatest importance.

It is not surprising that creating these opportunities for network members to participate in working groups to drive and implement change was an important success factor. Change can be exciting and stimulating for those who are directly involved in it and threatening for those who are not involved (Gill 2003). It is also important continually to involve more and more people in the change process and build momentum until a critical mass' is achieved (Moran & Brightman 2000). If the change enjoys a broad base of support, it is less likely that old ways of doing things will creep back into practice.

In terms of areas for improvement, many of the networks had difficulty engaging GPs. Those networks that had most success in doing so visited GP clinics, and it was effective because it gave them the opportunity to meet the GP on a personal level.

Private sector engagement was also problematic for most the networks. They attributed this to the absence of financial incentives for networking or MDT processes. Interestingly, one of the networks commented that some clinicians who practised in both the public and private sectors behaved quite

differently in the two sectors: they supported MDT processes in the public sector, but argued against these processes in the private sector.

4.8.3 Communication

Continuing and varied communication across the networks was identified as critical to network development. In total, 1,146 dissemination activities were recorded by the State and Territory CanNET project teams between December 2007 and January 2009. These dissemination activities were estimated to have reached 35,139 individuals (including project stakeholders and the broader cancer/palliative care community). The CanNET networks that appear to have had poor communication processes also had lower levels of stakeholder commitment, and the least impact on local models of service delivery.

Clear and consistent communication has been found to be critical to the success of change projects (Jackson 2001). It can be the key to overcoming fear and uncertainty that often accompanies change. Communication has to be well planned, and these plans need to be clear about how to get the right information to the right people, at the right time, in the right medium.

The CanNET national evaluation found that face-to-face networking events and activities were one of the most effective strategies to engage stakeholders and develop the relationships required for network development. A number of the networks also said that local newsletters were also an effective communication strategy.

Lessons Learned:

Communication has to be well planned, and these plans need to be clear about how to get the right information to the right people, at the right time, in the right medium.

4.8.4 Creating short term wins

The CanNET national evaluation highlights the importance of having realistic and achievable project plans for network development. Stakeholders are likely to be more willing to participate in projects when they are achievable. Realistic project plans also allow project teams to achieve some early wins that provide potential participants with proof that the new model can provide results superior to 'the old way of doing things'.

Lessons Learned:

Realistic project plans also allow for early wins that provide stakeholders with proof that the new model can provide results superior to 'the old way of doing things'.

Although the majority of the CanNET networks believed their original project plans were too ambitious and unrealistic, and did not take into account how long it took to build the foundation for network development, they had recognised this by the mid-point of the project, and successfully refocused their plans accordingly. Revisions to project plans generally involved narrowing the scope to focus on one or two key achievements in each program area, and better alignment with the local context and different foundations each cancer service network was building on. A number of networks also decided to focus on a single key regional area as a pilot network (for example, CanNET NT focused on Alice Springs, CanNET SA focused on Mt Gambier, and CanNET Victoria focused on the Mitchell-Murrindindi region).

These experiences reinforce the need for a phased or stepwise approach to developing a cancer service network. They also emphasise the importance of remaining focused on what is realistic and achievable, building on current momentum in the local region, developing links with existing jurisdictional policies and priorities, and planning for and creating short term wins. Collectively, these strategies appear to be effective in engaging stakeholders in the process of network development and promoting buy-in and commitment.

Section 5: Conclusions and recommendations

We now present our general conclusions about the contribution and added value of the CanNET program. We also propose a number of recommendations for the continuing development of cancer service networks across Australia.

5.1 Conclusions

There is no doubt that the CanNET program as a whole made a substantial contribution to developing cancer service networks and building capacity in regional and rural areas in the interests of ensuring that all Australians have access to best evidence based cancer care, regardless of where they live. Moreover, cancer experts agree that the intermediate outcomes that have been achieved to date will contribute to improving outcomes and reducing disparities in outcomes for people affected by cancer, in the long term.

It is not possible definitively to measure the independent contribution of CanNET to observed impacts and outcomes owing to the range of contextual factors in play, the extent to which CanNET was integrated into existing jurisdictional structures and processes, and the differing starting points for each network. Nevertheless, the large number of different and complementary data sources that have informed the national evaluation all point in a similar direction: they indicate that the CanNET program added value and made a substantial contribution to the observed outcomes. The congruence among these various lines of evidence generates reasonable confidence in the findings of this evaluation and dispels uncertainty about the contribution CanNET has made.

The CanNET program made a substantial contribution to building capacity in regional and rural areas in the interests of ensuring that all Australians have access to best evidence based cancer care, regardless of where they live.

The program provided opportunities for policy makers from Australian, State and Territory governments to work collaboratively with consumers and primary, secondary and tertiary health professionals to develop processes and systems to improve cancer care. In this way, CanNET also provided the health system with enough experience to allow each jurisdiction to describe what the ideal system would look like in their context, and to understand in some detail the professional, system and structural and financial barriers to change, and the enablers of successful change in the consumer interest. The sustainability of the achievements to date now depends on each jurisdiction's building on that experience to embed these changes and plan for the next stages of development and quality improvement.

The sustainability of the achievements to date now depends on each jurisdiction's building on that experience to embed these changes and plan for the next stages of development and quality improvement.

While the effects and outcomes of the CanNET program are promising, they remain at an early stage in establishing cancer service networks widely across Australia. There is still much to be done and learnt, and a clear need for ongoing support of the jurisdictional cancer service networks. The relatively short nature of CanNET was a major challenge, given that the initiative is trying to implement a new way of working for clinicians. This is a significant cultural change for which CanNET has effectively primed the system by developing a strong foundation and trialling the important building blocks (relationships, links and supporting infrastructure) for effective network development. It is often forgotten that one aspect of the sustainability of a new way of doing things is whether or not it has been given enough time to be implemented properly or as planned, so that people can see whether it is worth sustaining.

Although it is still early days, the findings from the national evaluation of CanNET point to the potential for cancer service networks to improve outcomes and reduce disparities in outcomes for people affected by cancer, by providing high quality, clinically effective and coordinated cancer

services. The findings also suggest that MCNs may be a useful model that other areas of health, especially other complex chronic diseases, can learn from and build on. They appear to offer particular advantages in the Australian context because they provide scope for linking rural/regional health care services and providers with metropolitan cancer services, to ensure that all Australians have access to best evidence based care, regardless of where they live.

> ***The national evaluation findings illustrate the potential of managed clinical networks to improve outcomes, and reduce disparities in outcomes, for patients.***
>
> ***Managed clinical networks offer particular advantages in the Australian context because they provide scope for linking rural/regional health care services and specialist services in metropolitan areas.***

The somewhat mixed picture in the progress made by the seven CanNET networks has also helped identify important enablers and barriers for effective network development and build the evidence for MCNs for cancer care (and potentially the management of other complex chronic diseases). In particular, the national evaluation illustrates the need for, and importance of, a comprehensive change management strategy to support network development. A comprehensive change management strategy requires a top-down, bottom-up approach. Such a comprehensive approach should combine effective governance with multidisciplinary clinical leadership to create and promote a compelling vision, complemented with broad ranging stakeholder engagement and involvement mechanisms, and continued and varied communication processes. It also appears to be particularly effective to establish a sense of urgency and need for change using local data fed back to clinicians in a timely manner, and to maximise stakeholder buy-in and commitment by having realistic and achievable project plans that involve a phased or stepwise approach to network development, and by publicising early wins to offer stakeholders proof that the new model or way of working can provide results superior to existing practices.

These findings have a number of important implications and messages for health care reformers, policy makers and health service executives and managers more broadly. They illustrate clearly that short term, one-off interventions to improve health system performance and efficiency rarely result in the level and nature of sustained second order change and improvement that the health system requires in the public interest.[9] In fact, promulgation of such approaches has significantly contributed to the change weariness of the health system previously demonstrated across sectors and time (Rogers & Shoemaker 1971; Rogers 1995).

Effective sustainable change in the health care system requires a series of incremental steps (as opposed to a ‘big bang’), and the patience of reformers and policy makers. It depends on creating adequate time and space for clinicians and health service managers in partnership to review existing practices and trial new and innovative ways of delivering services in a low risk environment. In contrast, the ‘big bang’ approach is likely to be effective only when all stakeholders agree that there is an imminent threat and need for change, and it is self-evident how the change will make things better. These ideas are not new or ground breaking and have been previously discussed by researchers and consultants (eg Ham, 2005). Nevertheless, CanNET provides strong and convincing evidence that a stepwise or phased approach is a more effective way to achieve sustainable change in the health care system.

The national evaluation yields greater understanding of the conditions that must be in place for change to happen in the health care system. One critical condition is to engage, develop and support strong clinical leaders from within medicine, nursing and allied health to convince their colleagues to do things differently and to establish an environment in which quality improvements can thrive. Health service executives and managers therefore have an important role to play in providing and equipping

---

[9] Second order change (or transformational change) challenges widely shared assumptions, and reframes social systems. On the other hand, first order change does not call into question the existing culture, mission/purpose, or organisational paradigm (Toffler 1970)

clinical leaders with the time, space, resources, information and skills required to make change happen.

This change should also involve developing organisational cultures that recognise and value the critical role that clinicians play in service redesign and health care improvement, and provide rewards and incentives for clinicians to step up and take on leadership roles. In the current system "the incentives for respected clinicians to become leaders are by no means obvious, especially when management has to compete for time and attention with clinical work, research, opportunities to enhance personal income, and leisure time" (Ham 2005). Evidence for the importance of clinical leadership suggests that reformers and policy makers should focus on framing the change agenda *and* building the capacity and readiness of clinicians and organisations to bring about change.

Effective sustainable network development requires a comprehensive change management strategy, a phased or stepwise approach, and the right mixture of interventions, at the right level of intensity at each level of personnel, organisation and system.

It is important to acknowledge, however, that clinical leadership is necessary but not sufficient for sustained change. There is a need for clinical leaders to work in mutually respectful ways with reformers, policy makers and health service executives and managers to develop supportive cultures and environments at organisational and system levels that are free of sabotage, self-interest and other potential derailers, if the change is to be sustained in the long term. In the case of cancer care, this involves developing such supportive cultures, systems and processes that sustain multidisciplinary care and networks. This is a critical step in change management because the sustained performance of the health system is as complexly determined as patient outcomes, and requires the right mixture of interventions, at the right level of intensity at each level of personnel, organisation and system.

Taking this evidence-based approach to change management is also critical to avoiding unintended severe negative consequences for future change, such as increasing the change-weariness of the health system or disengaging potential clinical leaders of the future. It was apparent in the national evaluation of CanNET that the best outcomes were achieved when all these elements came together. Well thought out and comprehensive intervention designs such as CanNET that address the individual, organisational and system level determinants for effective change are superior to more simplistic interventions, and more likely to result in long term sustained change.

5.2 Recommendations

The information we have reported here, and our direct observation of the seven CanNET demonstration projects, give rise to the following reflections on CanNET's next phase.

If Cancer Australia set out to demonstrate that potential value of cancer services networks, they have certainly achieved their goal. But if it set out to develop cancer service networks across Australia, there is clearly a need for a continuing investment to ensure that the networks reach their full potential and to embed initiatives into the system and promote sustained change.

If Cancer Australia is able to secure ongoing funding for this area of work, we recommend that CanNET be maintained at the same high level, refined and refocused on the basis of the current evaluation. This level of ongoing investment is justifiable because sustaining the focus on cancer service network development is critical to improving outcomes for consumers and delivering more equitable and cost effective health care to the Australian population. Moreover, because the CanNET program has primed the system for change, and put some of the initial building blocks in place for establishing cancer networks, events would begin to accelerate if something like this was funded again. There is also a risk that key stakeholders would be disappointed and disengaged if the existing momentum did not continue.

We believe that Cancer Australia may be best placed to carry the initiative forward because the agency has been a good custodian for the CanNET program in its first phase, and there are some roles that are best performed centrally (implementing mechanisms to enable collaboration at a national

level, and creating a national infrastructure to support network development, such as communication technologies). There is also a risk that State or Territory funding would be channelled into core operations, whereas funding from Cancer Australia is clearly tagged for innovation and creation of the space to trial innovation and manage change proactively.

We put forward the following recommendations for consideration in the next phase of the CanNET initiative.

Recommendation 1: The results from the national and local evaluations should be used as the basis for developing an individual service agreement with each jurisdiction for the next phase.

There is a need for tailored approaches and funding agreements. Future funding should be mindful of demonstrated commitment, readiness for change, and capacity for change and leadership at all levels of the system. Future funding should also specifically target remedial action where the required prerequisites for change are absent or not well enough developed.

Recommendation 2: National governance of the next phase should be enhanced by engaging senior representatives from clinical and policy areas of each State and Territory who can focus on establishing a set of agreed national safety and quality standards for cancer networks.

The National Steering Committee for the next phase of the program could be tasked with developing a set of agreed national safety and quality standards for cancer networks. The Committee would need to include senior representatives from clinical and policy areas of each State and Territory for this task; the current National Steering Committee had limited clinical expertise, and the jurisdictions were not represented. The standards would also need to be developed in an open and inclusive way with representatives from the networks and consumers.

The agreed national safety and quality standards should:

- focus on clinical issues, and data useful for clinicians to know, but not to the exclusion of non-clinical factors that affect quality of care
- be written in simple language
- be based on evidence and other recognised standards and guidelines
- be clear, achievable, and measureable
- focus on improving outcomes of care and treatment for patients
- be related to the patient’s journey
- be reviewed regularly to remain up-to-date and relevant

Too many standards could be counter-productive if they obscured focus and made collecting data too great a burden, but one or two essential standards could be included for each element of the program (eg minimum caseloads for MDTs; the proportion of patients consenting to their case being discussed by an MDT; time between referral and discussion or diagnosis by an MDT; the proportion of GPs offered opportunity to take part in MDTs; the proportion of GPs informed about MDT recommendations and given a copy of treatment plan; time from diagnosis to treatment).

It will be important that quality assurance systems are implemented to monitor and inform development and functioning of the networks in future because the literature on MCNs and MDTs is relatively new and still emerging. Amongst other things, effective quality assurance systems would enable the networks to monitor the appropriateness of MDT decisions on patient outcomes and further develop the evidence base.

Recommendation 3: A National Support and Evaluation Service should remain a component of the CanNET program in the next phase

Cancer Australia is to be congratulated on its plan to include a National Support and Evaluation Service in the design of the CanNET program. The networks found the strategy of national collaboration a valuable resource, and its workshops, teleconferences, communiqués and allowed

them to share their knowledge, expertise and resources, and to start developing a genuinely national cancer network.

Building evaluation into the program was also an effective strategy that encouraged the networks to reflect regularly on their progress and refocus their strategies accordingly. The evaluation of the next phase of the program should focus on measuring the networks' performance against a set of agreed national safety and quality standards for cancer networks, and investigating why networks were or were not able to meet the standards.

The evaluation of the next phase of CanNET should also be built into the design and pre-contracting stage. Some of the design issues that became apparent at the jurisdictional level during Cancer Australia's mid-point network visits could have been avoided using a program logic approach and tools that build evaluative thinking into program design and implementation from the very beginning. This would allow for the trialability of concepts and program ideas virtually and prevent the potential loss of time and momentum in the next phase of the program. It would be an especially valuable approach given that the jurisdictions need to maintain the momentum and gains made in the first phase of CanNET and are already familiar with this approach the program evaluation.

Recommendation 4: That the key role of clinical leaders in continuing network development be supported by:

- funding clinical leaders' time to focus on engaging colleagues in the change agenda
- providing training and support to help clinicians develop the leadership and management skills they need in the role

Recommendation 5: That future network development focus special attention on access to cancer care services for disadvantaged or rural and underserved groups (such as Aboriginal and Torres Strait Islander peoples).

Consumer awareness of and access to cancer services is influenced by education level, literacy and health literacy, socio-economic status and geographic location. However, to date, none of the CanNET networks has developed specific strategies to address these determinants of access (with the exception of CanNET NT, which developed resources specifically for Aboriginal consumers).

Recommendation 6: That future network development focus special attention on engaging primary care providers and the private sector.

The majority of the CanNET networks found it particularly challenging to engage GPs and the private sector and identified this as an area for improvement. Their experience suggests a need to look more deeply at constraints and enablers on the general practice and private sector side of the equation.

Recommendation 7: That future network development examine whether a range of innovative and redesigned roles of the types developed in the NHS could be trialled in cancer care in Australia.

The combination of the current skills shortage, the increasing demand for cancer care services and the ongoing development of new models of care means that there is a need for more flexibility in cancer care providers' roles. The United Kingdom NHS has already developed a range of innovative and redesigned roles that could be trialled in cancer networks across Australia.

Although CanNET prompted much discussion about role redesign, the networks are yet to pilot many of the innovative and redesigned roles that have been have been developed and introduced to improve cancer care internationally. Further, many of these roles have the potential to make to introduction and maintenance of quality MCNs and MDTs less of a burden for health care providers. This is particularly important because the CanNET program was generally seen to have increased workload pressures for health care providers, which is a critical factor to consider in relation to the sustainability of the networks.

Recommendation 8: That future network development address the human, system, structural and financial resource implications of the set up and change management tasks necessary to promote

trial adoption of different ways of working and the embedding of change, including full costings of the long term recurrent implications of any changes.

The CanNET program does not exist in a political, cultural or social vacuum. The CanNET national evaluation has therefore paid close attention to the external environment where the program was operating, and how this context affected how the program's reach, penetration and success. Some important contextual factors that appear to have affected the reach, penetration and success of the CanNET program include existing professional or facility or health area turf wars and silos; engrained cultures, attitudes, values and behaviours; the change weariness of the health system; lack of drivers, incentives and rewards in the health system at organisational and personnel levels to promote multidisciplinary care processes and network arrangements; and a lack of incentives and rewards for innovation (instead of reinforcing the existing system of care). If MCNs are to become common practice across Australia, these and related contextual factors must be addressed.

Recommendation 9: That Cancer Australia develops a national process for collating and sharing the information and impressive array of resources developed through CanNET to date, to maximise the return on this important investment.

References:

Academy for Health Services Research and Health Policy (2000). *The Rural Health Network Profile Tool* (Available from: http://academyhealth.org/ruralhealth/profiletool.pdf)

Australian Commission on Safety and Quality in Health Care (2006). *Measurement for Improvement Toolkit*. Canberra, ACT: Commonwealth of Australia

Baker C (2002). *What are managed clinical networks?* Newmarket: Hayward Medical Communications

Baker CD & Lorimer AR (2000). Cardiology: The development of a managed clinical network. *British Medical Journal, 321*, 1152-1153

Beisecker AE & Beisecker TD (1990). Patient information seeking behaviors when communicating with doctors. *Medical Care 28,* 19-28

Blanchard CG, Labrecque MS, Ruckdeschel JC & Blanchard EB (1988). Information and decision-making preferences of hospitalized adult cancer patients. *Social Science and Medicine 27*, 1139-1145

The Cancer Council Australia (2005). *Building Effective Cancer Support Groups.* Australian Government Department of Health and Ageing

Carter S, Garside P, & Black A (2003). Multidisciplinary team working, clinical networks, and chambers; opportunities to work differently in the NHS. *Quality and Safety in Health Care, 4,* Retrieved 27 August 2007 from Expanded Academic ASAP Gale University of Queensland http://findgalegroupcomezproxylibraryuqeduau

Centre for the Advancement of Collaborative Strategies in Health (2001). *The Partnership Self-Assessment Tool* (Available from: http://www.cacsh.org/psat.html)

Collins K (2000). Managed clinical networks: Time to act. *Nursing Management, 6*, 13-15

Conner M (2001). Developing network-based services in the NHS. *International Journal of Health Care Quality Assurance, 14,* 237-44

Coulter, A (1997). Partnerships with patients: The pros and cons of shared clinical decision-making. *Journal of Health Services Research and Policy 2,* 112-121

Cropper S, Hopper A, & Spencer, SA (2002). Managed clinical networks: Multilateral collaboration as a basis for the future organisation of paediatric services? *Archives of Disease in Childhood 5,* Retrieved 27 August 2007 from Expanded Academic ASAP Gale University of Queensland http://findgalegroupcomezproxylibraryuqeduau/itx/infomark

Davison BJ, Degner LF & Morgan TR (1995). Information and decision-making preferences of men with prostate cancer. *Oncological Nursing Forum 22,* 1401-1408

Deber R & Sharpe N (1999). One million decisions at the micro-level: patient choice. In Drache D & Sullivan T (eds), *Market Limits in Health Reform, Public success, private failure,* 275-291. London & New York: Routledge

Degner LF & Sloan JA (1992). Decision making during serious illness: what role do patients really want to play? *Journal of Clinical Epidemiology 45,* 941-950

Eagar K, Cranny C & Fildes D (2004). *Evaluation and Palliative Care: A guide to the evaluation of palliative care services and programs*. Centre for Health Service Development, University of Wollongong

Eagar K, Senior K, Fildes D, Quinsey K, Owen A, Yeatman H, Gordon R & Posner, N (2003). *The Palliative Care Evaluation Tool Kit: A compendium of tools to aid in the evaluation of palliative care projects*. Centre for Health Service Development, University of Wollongong (Available from: www.health.gov.au/palliativecare)

Edwards N (2002). Clinical Networks: Advantages include flexibility, strength, speed, and focus on clinical issues. *British Medical Journal, 324*, 63

Funnell SC (2000). Developing and using a program theory matrix for program evaluation and performance monitoring. In Rogers PJ, Hacsi TA, Petrosino A & Huebner TA (eds.) Program theory in evaluation: Challenges and opportunities. *New Directions for Evaluation, 87*, 91-101

Gill R (2003). Change management or change leadership. *Journal of Change Management, 3(4),* 307-318

Greene JC & Caracelli VJ (2002). Making paradigmatic sense of mixed method practice. In Tashakkori A & Teddlie C (eds), *Handbook of Mixed Methods in Social Behavioural Research*. Thousand Oaks, CA: Sage. See also Greene JC & Abma T (eds) (2001). *Responsive Evaluation: Roots and Wings, New Directions for Program Evaluation*. San Francisco, CA: Jossey-Bass

Hack TF, Degner LF & Dyck DG (1994). Relationship between preferences for decisional control and illness information among women with breast cancer: a quantitative and qualitative analysis. *Social Science and Medicine 39,* 279-289

Ham C (2003). Improving the performance of health services: The role of clinical leadership. *Lancet, 361,* 1978-1980

Hope T (1996). *Evidence-Based Patient Choice*. London: King's Fund Publishing

Jackson S (2001). *Leadership and Change Management: Leading Change*. Cranfield University Royal Military College of Science, Shrivenham

Kotter JP (1996). *Leading Change*. Harvard Business School Press, Boston MA

LaFond AK, Brown L & Macintyre K (2002). Mapping capacity in the health sector: a conceptual framework. *International Journal of Health Planning and Management* 17, 3-22

Mayne J (2001). Addressing attribution through contribution analysis: Using performance measures sensibly. *Canadian Journal of Program Evaluation, 16,* p. 9

Miller ME (2000). *Doctor-patient communication and collaboration in elective surgery*. Brisbane: University of Queensland Department of Social and Preventive Medicine

Moran JW & Brightman BK (2000). Leading organizational change. *Journal of Workplace Learning, 12(2),* 66-74

National Health Priority Action Council (NHPAC; 2005). *National Service Improvement Framework for Cancer*. Australian Government Department of Health and Ageing, Canberra

National Health Service (NHS) of Scotland (2005). Network briefings: Key lessons for network management in health care (Available from: www.sehd.scot.nhs.uk/mels/HDL2002_69.pdf)

Nuffield Institute for Health in the United Kingdom (2000). *The Partnership Assessment Tool* (Available from: http://www.icn.csip.org.uk/icn/index.cfm?pid=102&catalogueContentID=292)

Reinertsen JL (1998). Physicians as leaders in the improvement of health care systems. *Annals of Internal Medicine, 128(10),* 833-838

Rogers, EM (1995). *Diffusion of Innovations* (4th ed). Free Press: New York

Rogers EM & Shoemaker FF (1971). *Communication of Innovations: A cross-cultural approach* (2nd ed). Free Press: New York

Scott C & Hofmeyer A (2007). Networks and social capital: a relational approach to primary healthcare reform. *Health Research Policy and Systems 5*, 1-28

Sheehan, K (2001). Email survey response rates: A review. *Journal of Computer-Mediated Communication, 6* (2)

Strull WM, Lo B & Charles G. (1984). Do patients want to participate in medical decision making? *Journal of the American Medical Association, 252,* 2990-2994

Stufflebeam DL (1997). A standards-based perspective on evaluation. In Stake RE & Mabry L (eds), *Advances in Program Evaluation, Vol. 3: Evaluation and the postmodern dilemma* (61-88). Greenwich, CT: JAI Press Inc

Stufflebeam DL (2002). *A checklist organizer: Guidance for choosing and applying evaluation checklists*. Kalamazoo: Western Michigan University Evaluation Center

Sutherland HJ, Llewellyn-Thomas HA, Lockwood GA, Tritchler DL, Till JE (1989). Cancer patients: Their desire for information and participation in treatment decisions. *Journal of the Royal Society of Medicine 82,* 260-263

Toffler A (1971). *Future Shock*. Bantam: New York

Tuckman B (1965). Developmental sequence in small groups. *Psychological Bulletin, 63*(6), 384-399

Ward M (2005). *Leadership and clinically managed networks Queensland Health System Review Final Report.* Retrieved 27 August 2007 from: http://wwwhealthqldgovau/health_sys_review/final/

Woods KJ (2001). The development of integrated health care models in Scotland. *Journal of Integrated Care, 1*, 1-10

World Health Organisation (WHO; 2002). *National cancer control programmes: policies and managerial guidelines.* 2nd Edition World Health Organisation, Geneva

Weston WW & Brown JB (1989). The importance of patients' beliefs. In Stewart M, Roter DL (eds) *Communicating with medical patients*, pp. 77-82. Newbury Park, London, New Delhi: Sage Publications

Appendix A: Overview of the key achievements and challenges for each of the seven cancer service networks

The following summary sheets report on local activity within each of the seven CanNET networks only. They do not include higher level impacts about the successes or not of particular areas reported in the body of the national evaluation report.

CanNET NSW

Key Achievements:

Impact and outcomes for consumers (including patients, carers, families, friends and communities)

- CanNET NSW stimulated conversations about consumer participation in MDT meetings across the network; however, specific strategies to pilot this have not yet been implemented
- Stakeholders from CanNET NSW said that access to regional services in the Hunter Area Health Services (AHS) region had been improved by focusing on the GP's role in follow-up and that this had reduced travel requirements for local consumers
- A consumer survey was conducted as part of a larger state consumer satisfaction survey within NSW Health

Impact and outcomes for providers (including health care professionals, volunteers and organisations)

- Wherever possible, project initiatives were complemented by capacity building sessions and information workshops to support the service improvements. For example, the Cancer Learning multidisciplinary toolkit was also piloted with a group of nurses and MDT coordinators. MDT coordinators and leaders from CanNET NSW also participated in an online Cancer Learning forum that aimed to support them to implemented service improvements initiatives in their MDTs.
- CanNET NSW is coordinating two EdCaN pilot projects, at the North Coast Cancer Institute Coffs Harbour and Port Macquarie, and at Tamworth Base Hospital. The projects both aim to enhance the skills, knowledge and competence of junior nursing staff and provide educational support for ward staff.
- Stakeholders from CanNET NSW reported that the project resulted in improved relationships and communication between AHS Directors of Cancer Services
- The CanNET NSW project has also explored the role of GPs in cancer care. Stakeholders reported that GP engagement has improved in Hunter New England AHS.

Impact and outcomes for the system (including structures, processes, networks and relationships)

- CanNET NSW has supported existing MDTs and MDT coordinators to improve their processes through a range of activities based on the Institute for Healthcare Improvements Breakthrough Collaborative Model
- There was a marked increase in the number of MDTs in each of the three AHS during the project, and it is reasonable to assume that the project contributed to some extent to this increase. The greatest increase in the number of MDTs was in the North Coast AHS, rising from nine in 2006 to 14 in 2008. In the Hunter New England AHS, MDTs rose from nine in 2006 to 12 in 2008. One more MDT was also established in the Northern Sydney and Central Coast AHS, taking the total MDTs within the area covered by CanNET NSW to 21. The Cancer Institute NSW will shortly be releasing a MDT Survey monograph which describes this data in greater detail.
- CanNET NSW is developing a Directory of Multidisciplinary Cancer Assessment and Treatment Teams in line with the agreed national template for the Directory of Services. The Directory is being linked to an existing NSW Health database to ensure its sustainability.
- Agreed referral pathways are being developed between GPs and specialists for six tumour types. The team have utilised the various tumour specific craft groups to provide input into these agreed referral pathways.

- CanNET NSW has piloted online meeting technology (*Attend Anywhere*) to link rural and outer urban areas with specialist centres in an effort to improve communication for better diagnosis and management
- CanNET NSW also focused on fully implementing the Cancer Registry across the network to ensure that information on the stage, treatment and intermediate outcomes of cancer patients can be aggregated and analysed across the three AHSs
- The project also addressed innovative and redesigned roles for cancer care. In particular, it has enhanced understanding and discussion about potential new roles for each AHS (such as radiations therapists, advanced practice nurses, the role of primary care in cancer care review and follow-up and nurse practitioners).
- CanNET NSW has investigated potential structures to ensure that the quality of the care and services provided by the network is appropriately and effectively governed
- Although, there was a concerted effort to maximise the sustainability of project outcomes, network members firmly believe that they need additional time and support to embed these achievements into the system and ensure that changes can be sustained
- The lessons learned and tools developed through CanNET NSW have been shared with other regions, services and organisations involved in cancer control

Key Challenges:

- There was some initial concern about the possibility of achieving outcomes through CanNET, but stakeholder buy-in improved after the project achieved a few small wins
- Working with three AHS with very different levels of pre-existing capacity and resources
- At the outset the project team was keen to explore the possibility of implementing a network credentialing process but this proved difficult to progress due to differences across the three AHS
- Moving clinicians from working as individuals to part of a multidisciplinary network in a short timeframe was problematic
- Despite the access to resources to support the development of a clinical network, local workforce and workload issues often made it difficult to recruit health professionals into short term positions to drive various aspects of the project.
- The adoption of multidisciplinary care processes and network arrangements were largely dependent upon local clinical champions supporting and driving these changes. There appeared to be few supports within the existing health system to promote these new ways of working.
- MDT processes challenging to embed due to a range of current processes that worked against MDTs

CanNET NT

Key Achievements:

Impact and outcomes for consumers (including patients, carers, families, friends and communities)

- A general monthly MDT is being established in Alice Springs through CanNET NT to improve consumer access to cancer services (and in particular multidisciplinary care). This MDT will have links to Royal Adelaide Hospital for radiology and pathology input, and the Department of Medicine at the Alice Springs Hospital for administrative support.
- A network website, resources for Indigenous consumers (flip charts and DVDs) in the top 5 main indigenous languages plus English, a Directory of Services and agreed referral pathways for five tumour streams are being produced in an effort to improving access to information about the availability of cancer-related services
- Network members agreed that CanNET NT has resulted in increased access to information about the cancer journey and the availability of services
- A consumer training course conducted as part of CanNET has resulted in increased consumer confidence to participate in service planning and delivery
- CanNET NT also partnered with four of the other CanNET cancer service networks and Cancer Australia to conduct the CanNET consumer survey, which will provide a baseline snapshot of the perceptions and experiences that people affected by cancer have with cancer care delivery to inform ongoing service delivery and planning

Impact and outcomes for providers (including health care professionals, volunteers and organisations)

- In an effort to enhance the role of primary care providers in cancer care, CanNET NT developed templates to assist MDTs to provide treatment information to primary care providers, and a template for primary care providers to refer to specialist public clinics or MDTs
- A wide range of continuing professional development opportunities have been made available to health care providers through the project (workshops and training sessions, and clinical placements at the Royal Adelaide Hospital)
- In partnership with the NT Cancer Council a series of Aboriginal peer education workshops were conducted in several locations for Aboriginal Health Workers and interested Aboriginal people affected by cancer
- The local mentoring project funded under the *Strengthening Cancer Care* initiative was integrated into the CanNET NT project and provided a model for an ongoing NT cancer mentoring program
- Network members generally perceived the CanNET project to have contributed to, or resulted in, better engagement with the primary care sector; increased awareness of the advantages of working in MDTs; improvements in knowledge and skills in relation to cancer care; improved communication between health care providers; and improved links and relationships between health care providers

Impact and outcomes for the system (including structures, processes, networks and relationships)

- CanNET NT resulted in development of a number of frameworks and resources to promote a collaborative, Territory-wide approach to the delivery of cancer services, including a 10-year Cancer Plan for the Northern Territory
- The data collected suggest that the project also developed a strong foundation (ie relationships, links and supporting infrastructure) required for effective network development
- CanNET NT focused on improving multidisciplinary approaches to cancer care by establishing a new general MDT in Alice Springs; supporting existing MDTs in Darwin to improve their quality through audit and review processes; and developing a range of guidelines, protocols and templates to promote multidisciplinary care and support MDTs, as well as a Directory of Services to help consumers and primary care providers locate their nearest multidisciplinary cancer assessment and treatment team

- The project also focused on increasing the efficiency of referral systems by developing a Directory of Services, and agreed referral pathways for five tumour streams that encompass MDT discussion and criteria for appropriate interstate liaison and referral
- A number of the activities coordinated through CanNET NT have contributed to an increased focus on best practice and quality care, including the CanNET consumer survey, and MDT and patient audits (including case file review and follow-up interviews with patients)
- The lessons learned and tools developed through CanNET NT have been shared with other regions, services and organisations involved in cancer control
- Although, there was a concerted effort to maximise the sustainability of project outcomes, network members firmly believe that they need additional time and support, and a central driver (a network coordinator), to embed these achievements into the system and ensure that changes can be sustained

Key Challenges:

- GP engagement
- Engagement and consultation with Indigenous consumers
- Also, developing the MDT in Alice Springs was thought to be more challenging because there was no clinical leader appointed in this region
- Project timeframes, because the CanNET is trying to achieve cultural change in the health care system - moving clinicians from working as individuals to part of a multidisciplinary network and in MDTs
- Despite the access to resources to support the development of a clinical network, local workforce and workload issues often made it difficult to recruit health professionals into short term positions to drive various aspects of the project

CanNET Queensland

Key Achievements:

Impact and outcomes for consumers (including patients, carers, families, friends and communities)

- Consumers were represented on a number of the 12 working parties and reviewed many project outputs, including the psychosocial support needs screening tool, survivorship plan and the Directory of Multidisciplinary Cancer Assessment and Treatment Teams
- A hand-held patient record, referred to as a 'survivorship plan', was developed through CanNET Queensland to improve access to information for consumers
- CanNET Queensland also partnered with four of the other CanNET cancer service networks and Cancer Australia to conduct the CanNET consumer survey, which will provide a baseline snapshot of the perceptions and experiences that people affected by cancer have with cancer care delivery to inform ongoing service delivery and planning

Impact and outcomes for providers (including health care professionals, volunteers and organisations)

- CanNET Queensland has been driven by twelve cancer practice improvement groups (working groups or mini clinician networks). Members of these groups have been provided with CPD opportunities, including activities to develop leadership and change management skills.
- CanNET Queensland has focused on promoting a new cancer care coordinator role in the Central and Southern AHSs
- A working group was supported to focus on professional development for Queensland's new cancer care coordinator role
- The project resulted in developing a consistent approach for new MDT coordinators to review multidisciplinary practices in Southern AHS
- A key element of the project has been improving communication with practice nurses and GPs but establishing this took considerable time and effort

Impact and outcomes for the system (including structures, processes, networks and relationships)

- Multidisciplinary care has been a key component. The project has supported existing breast, lung and upper gastrointestinal (GI) cancer MDTs to improve their quality and standardise processes, and enabled smaller teams in isolated areas to tap into expertise through links with existing MDTs. Breast cancer services at Bundaberg link with the breast cancer MDT at the Royal Brisbane and Women's Hospital, and breast cancer services at Gympie Hospital link to the Nambour Hospital breast MDT in weekly videoconferences.
- In line with national agreements, CanNET Queensland is developing a Directory of Multidisciplinary Cancer Assessment and Treatment Teams - linked to Queensland Oncology On-line (QOOL).
- CanNET Queensland has enhanced QOOL, an existing State-wide communication and data system for cancer care. This IT system integrates existing data silos and makes available just-in-time clinical information for multidisciplinary case conferencing, service improvement, monitoring safety and quality and research. It has been enhanced specifically to facilitate MDT meetings through the CanNET program by developing and embedding a treatment summary in the system, and a process to allow information about psychosocial care needs to be uploaded and shared.
- A standard psychosocial support needs screening tool was developed to improve access to allied health services across all tumour streams
- The lessons learned and tools developed through CanNET Queensland have been shared with other regions, services and organisations involved in cancer control

Key Challenges:

- Private sector engagement - some health care providers who practised in both the public and private sectors behaved very differently in each sector: they supported MDT processes in the public sector, but argued against these processes in the private sector.
- Consumer consultation/engagement - there wasn't a consumer representative on CanNET Queensland's governing body
- Local governance - working with an existing cancer advisory/ leadership group with a broader scope and set of priorities was problematic (there was a need to establish a smaller group of project sponsors)
- Despite the access to resources to support the development of a clinical network, local workforce and workload issues often made it difficult to recruit health professionals into short term positions to drive various aspects of the project

CanNET SA

Key Achievements:

Impact and outcomes for consumers (including patients, carers, families, friends and communities)

- CanNET SA had a strong focus on consumer engagement. The SA project team collaborated with the Australian Better Health Initiative (ABHI) Rural Cancer Coordinators to run a series of focus groups for both clinicians and consumers in four major regional centres (Pt Lincoln, Whyalla, Berri and Mt Gambier) to gather information about access to local services for screening, diagnosis and treatment and referral for cancer specialist review and treatment planning. The data collected through the consultations has been analysed, and the results have been published in a report about key concerns and issues for rural cancer service delivery.
- CanNET SA also partnered with four of the other CanNET cancer service networks and Cancer Australia to conduct the CanNET consumer survey, which will provide a baseline snapshot of the perceptions and experiences that people affected by cancer have with cancer care delivery to inform ongoing service delivery and planning

Impact and outcomes for providers (including health care professionals, volunteers and organisations)

- Stakeholder from CanNET SA reported that the project increased recognition of the importance and value of the consumer perspective among health care providers
- CanNET SA provided three rural scholarships for generalist nurses to develop specific skills in cancer. Stakeholders commented that these nurses have since become local champions for the network.
- CanNET SA successfully integrated the previous local mentoring project funded under the *Strengthening Cancer Care* initiative. The mentoring project has provided education and training opportunities for rural and regional providers, and will be sustained permanently through arrangements with Country Health SA.
- Clinicians from the network reported feeling more secure making decisions through a MDT and were also more confident in their decisions because there was shared agreement (especially for people with more complex care needs)

Impact and outcomes for the system (including structures, processes, networks and relationships)

- CanNET SA established a highly successful pilot regional node at Mt Gambier. Access to safe chemotherapy was improved in the region, and a general MDT was established. This MDT has links to specialists in Adelaide, and its membership has continued to grow. Two GPs, allied health, and supportive care providers participate in each meeting.
- The project also resulted in the development of two State-wide MDTs, one focusing on upper GI cancer; and the other on adolescents and young adults (AYA) with cancer and enhancing the Mt Gambia MDT.
- All three MDTs that have been established through the project have both public and private involvement
- In an effort to support multidisciplinary care processes, CanNET SA also conducted an audit of existing telehealth facilities in rural/regional areas and gave input into data and communication initiatives being conducted at the state level. The project identified IT issues for services to enable links into MDTs.
- A Directory of Multidisciplinary Cancer Assessment and Treatment Teams is being developed in line with the national guidelines
- The MDT administrator role is also being piloted to support the upper GI and AYA MDTs. The local evaluation reports on a time-and-motion study of the MDT administrator role and the prospect of rolling it out across the South Australia.
- The project sponsored development of three referral pathways: upper GI, lymphoma, and adolescents and young adults with cancer. These referral pathways include their own key

performance indicators and timeliness benchmarks to assist monitoring and evaluation. They also incorporate the National Health and Medical Research Council (NHMRC) guidelines for psychosocial care of adults with cancer, to ensure patients are assessed for psychosocial distress.

- The lessons learned and tools developed through CanNET SA have been shared with other regions, services and organisations involved in cancer control
- Although, there was a concerted effort to maximise the sustainability of project outcomes, network members firmly believe that they need additional time and support to embed these achievements into the system and ensure that changes can be sustained

Key Challenges:

- The original project plan for the network was very broad and ambitious. At the mid point there was a need to narrow the scope and focus on one or two key achievements within each key element and to develop a smaller pilot network.
- Working with an existing cancer advisory/ leadership group with a broader scope and set of priorities. Part way through the project it was decided that there was a need to establish a smaller project specific oversight committee with a vested interest in CanNET to provide specific directions to the project team.
- As CanNET is trying to achieve cultural change in the health care system by moving clinicians from working as individuals to part of a multidisciplinary network and in MDTs, it was difficult to achieve this given the tight project timeframes.
- The adoption of multidisciplinary care processes and network arrangements were largely dependent upon local clinical champions supporting and driving these changes. There appeared to be few supports within the existing health system to promote these new ways of working.
- Despite the access to resources to support the development of a clinical network, local workforce and workload issues often made it difficult to recruit health professionals into short term positions to drive various aspects of the project.

CanNET Tasmania

Key Achievements:

Impact and outcomes for consumers (including patients, carers, families, friends and communities)

- A number of activities were coordinated to engage consumers in service planning and delivery, including a series of cancer consumer group forums, focus groups and individual consultations. The findings from these consultations have been fed into the development of the DHHS's broader State-wide Community and Consumer Engagement Policy.
- CanNET Tasmania also partnered with four of the other CanNET cancer service networks and Cancer Australia to conduct the CanNET consumer survey, which will provide a baseline snapshot of the perceptions and experiences that people affected by cancer have with cancer care delivery to inform ongoing service delivery and planning
- In relation to consumer engagement and involvement in decisions about their own care, the multi-disciplinary protocol that has been developed includes a template for patients to provide consent for MDT discussions. The baseline and follow-up mini-audit of lung and colorectal cancer cases also suggests considerable improvement in consumer involvement in decisions about their own care over time.
- CanNET Tasmania attempted to increase consumer access to timely information, appropriate to the stage of their cancer journey, by developing a Directory of Services and a consumer information portal
- One key strategy to improve consumer access to coordinated and integrated care being implemented through the project is the introduction and piloting of the cancer care coordinator's role in Tasmania

Impact and outcomes for providers (including health care professionals, volunteers and organisations)

- Continuing professional development (CPD) was a key element of CanNET Tasmania. The project resulted in the development of a local CPD framework and a 12-month implementation plan. A number of cancer-related CPD activities were also coordinated or facilitated through CanNET Tasmania, including a number of activities based on the Cancer Learning resources.
- The health professional consultations suggest that the majority of network members believe that the project has not significantly affected their knowledge and skills related to cancer care, but it should be noted that a number of cancer-related CPD activities were coordinated after these consultations took place.
- Health care providers across the network perceived CanNET Tasmania to have had little impact so far on their work experiences and attitudes

Impact and outcomes for the system (including structures, processes, networks and relationships)

- CanNET Tasmania resulted in development of frameworks and resources to promote a collaborative, State-wide approach to the delivery of cancer services, including a 5 - 10-year Cancer Plan for Tasmania
- The project focused on improving multidisciplinary processes by developing a multidisciplinary care protocol and a range of supporting tools and templates; establishing three new MDTs (one focusing on lung cancer, and two colorectal MDTs); supporting existing MDTs to improve their quality; and developing links for rare cancers with specialists/MDTs at the Peter MacCallum Cancer Centre in Victoria. The project also led to the identification of two available online meeting technology systems to support links into MDTs.
- A Directory of Multidisciplinary Cancer Assessment and Treatment Teams is being developed in line with the national guidelines
- CanNET Tasmania also led to the development of a quality assurance framework for the network, and agreed referral pathways for lung and colorectal cancer (based on the Victorian Government Department of Human Services Patient Management Frameworks)

- In relation to data and communication systems, the project developed a provider information exchange hub to improve information transfer and exchange capacity between parts of the system, and identified new technologies to support online meetings and MDT links
- The lessons learned and tools developed through CanNET Tasmania have been shared with other regions, services and organisations involved in cancer control
- Considerable effort has been made to maximise the sustainability of outcomes by working collaboratively with related State initiatives and programs, and building the capacity of existing services and health professionals. Plans are also in place to hand responsibility for most of the ongoing work required to support and develop the network to the recently appointed DHHS Clinical Network Policy Project Officer (Cancer).

Key Challenges:

- High levels of turnover in Department, Steering Committee and project team
- Using the Steering Committee and Advisory Group as reporting mechanisms rather than engaging them to provide guidance and direction for the project
- Engaging a wide range of stakeholders (including allied health and supportive care providers) in MDTs (rather than primarily medical specialists)
- Challenges progressing a consumer participation strategy due to a need to link it to an overall DHHS consumer policy with different approaches and timeframes
- Project timeframes, because the CanNET is trying to achieve cultural change in the health care system - moving clinicians from working as individuals to part of a multidisciplinary network and in MDTs
- Despite the access to resources to support the development of a clinical network, local workforce and workload issues often made it difficult to recruit health professionals into short term positions to drive various aspects of the project

CanNET Victoria

Key Achievements:

Impact and outcomes for consumers (including patients, carers, families, friends and communities)

- Extensive consultations have been conducted with over 128 consumers from across 20 different towns. Another consultancy specifically targeting hard to reach consumers has also been commissioned and is currently underway.
- A consumer stories booklet was developed through the consumer consultations
- A robust consumer participation strategy and network was also developed to facilitate consumer involvement in a range of cancer service improvement activities across the CanNET Victoria region. The consumer network includes over 70 consumers with an interest in improving cancer services at an individual, service or system level.
- Consumer advocacy training sessions have been facilitated through the project
- Consumers reported a high level of satisfaction with the opportunities available for them to take part in CanNET Victoria, as well as with the support that was provided to enable them to participate
- There was also consensus among consumers that they felt more confident and competent to contribute to service planning and delivery, and to make decisions about their own care, as a result of taking part in the consumer network
- Network members tended to agree that the project has increased health care providers understanding of rural/regional consumers, and shifted their perceptions in relation to the role of consumers in improving cancer services
- CanNET Victoria is also collaborating with the Victorian Cancer Council and Cancer Voices Victoria on the PROSPECT study. This study involves surveying people who have experienced cancer to reveal the effects of cancer service reforms on outcomes, including those in the psychosocial domain.

Impact and outcomes for providers (including health care professionals, volunteers and organisations)

- CanNET Victoria has implemented a number of strategies to ensure health professionals have access to an agreed referral pathway for lung cancer. A Directory is being developed to provide consumers and service providers with up to date information about their closest MDT. Three referral pathways have also been developed, but are yet to be implemented including: a referral pathway from GPs to MDTs; and a referral pathway for supportive care for lung cancer patients.
- A wide range of continuing professional development activities were made available to health professionals (and project team members) to facilitate service improvements. CanNET Victoria participated in both the Cancer Learning and the EdCaN pilots, and funded six people to attend the second Australian Lung Cancer Conference on the Gold Coast in August 2008.
- A number of different resources have also been promoted to health care providers across the network, including the Cancer Learning resources, the Victorian lung cancer Patient Management Framework and National Health and Medical Research Council's (NHMRC) lung cancer guidelines for GPs
- Network members generally perceived the CanNET project to have contributed to, or resulted in, improved communication between health care providers; increased awareness of the advantages of working in MDTs; improved linkages and relationships between health care providers; increased opportunities for peer support and review; and improvements in the way health care providers view their job or their work environment

Impact and outcomes for the system (including structures, processes, networks and relationships)

- The data collected suggest that the project developed a strong foundation (ie relationships, links and supporting infrastructure) required for effective network development

- Rather than establishing new MDTs, CanNET Victoria focused on linking regional and rural clinicians into metropolitan lung cancer MDTs through a new online meeting technology (Cisco WebEx). The project team worked with staff from NEMICS and clinical staff to develop Terms of Reference to support MDT linkages, as well as a number of supporting protocols.
- The feedback from network members who have participated in MDT meetings involving the new online meeting technology has been very positive, with overwhelming willingness to continue to be involved in future
- In relation to enhancing the role of primary care provider (in particular GPs) in cancer care, network members reported that CanNET Victoria has started to change perceptions about GP participation in MDTs
- A number of the activities coordinated through the project have also contributed to an increased focus on best practice and quality care. These activities have included developing a quality assurance framework and conducting a number of clinical audits.
- The lessons learned and tools developed through CanNET Victoria have been shared with other organisations, ICSs and jurisdictions
- Although, there was a concerted effort to maximise the sustainability of project outcomes, network members firmly believe that they need additional time and support for the network to reach its potential and sustain its impact in the longer term

Key Challenges:

- Attempting to establish referral pathways that didn't follow established transport routes wasn't always successful because networks happen along established transport routes. Despite developing links with a metropolitan tertiary cancer centre, patients preferred to travel to another tertiary centre because of established transport links that made the journey easier and less time consuming.
- Having the majority of project team members based in metropolitan areas (rather than spilt across metropolitan and regional/rural areas of the network)
- Bushfires impacted adversely on the primary care and consumer work that was planned to be undertaken in Jan-May 09
- Project timeframes, because the CanNET is trying to achieve cultural change in the health care system - moving clinicians from working as individuals to part of a multidisciplinary network and in MDTs
- Despite the access to resources to support the development of a clinical network, local workforce and workload issues often made it difficult to recruit health professionals into short term positions to drive various aspects of the project.
- The adoption of multidisciplinary care processes and network arrangements were largely dependent upon local clinical champions supporting and driving these changes. There appeared to be few supports within the existing health system to promote these new ways of working.
- Gaining support for new technology takes time and significant effort.

CanNET WA

Key Achievements:

Impact and outcomes for consumers (including patients, carers, families, friends and communities)

- CanNET WA partnered with four of the other CanNET cancer service networks and Cancer Australia to conduct the CanNET consumer survey, which will provide a baseline snapshot of the perceptions and experiences that people affected by cancer have with cancer care delivery to inform ongoing service delivery and planning
- The project also resulted in production of the *My Journey* booklet for consumers, a hand-held patient record that includes diagnosis details, care plan and medication details, appointment and travel details, key contacts, and health care team details. It also includes a number of useful websites and a cancer-related glossary.
- Processes were put in place to ensure that consumers give verbal consent to have their case discussed by the new Albany-based MDT, and are informed about MDT recommendations, but still able to make their own treatment choices

Impact and outcomes for providers (including health care professionals, volunteers and organisations)

- Professional development has been a strong focus of CanNET WA. Cancer specialists from Perth were engaged to visit Albany fortnightly for local clinics and created CPD opportunities for local providers. A program has also been implemented to allow nurses from the Great Southern region to spend time in tertiary settings to develop their oncology skills.
- CanNET WA also provided a comprehensive training program for Aboriginal Health Workers and coordinated a regional cancer study day
- A credentialing process for rural/regional nurses to become competent in chemotherapy has been developed
- Stakeholders reported that Perth-based clinicians are more confident referring to Albany for some cancer services as a result of the local project and the established links with Perth specialists (they noted that there has been an increase in the number of shared care agreements between Albany and Perth)

Impact and outcomes for the system (including structures, processes, networks and relationships)

- A key achievement has been establishment of a general MDT at Albany Hospital. This MDT meets fortnightly and uses videoconferencing to link to cancer specialists from tertiary centres in Perth. Processes have been put in place to ensure that consumers give consent to have their case discussed at the MDT, are informed about MDT recommendations, and are supported to make their own treatment choices.
- A database has also been developed to support the MDT by generating meeting agendas, producing management plans, and enabling data analysis
- CanNET WA was the first network to complete an online State-wide Directory of Multidisciplinary Cancer Assessment and Treatment Teams (launched in November 2008). The template developed by WA has served as a model for directories in other jurisdictions.
- CanNET WA is trialling a web-based software (*MMEx*) developed by the University of WA's Centre for Software Practice. It allows connected health professionals to send information securely, while maintaining the privacy and security of that information.
- The lessons learned and tools developed through CanNET WA have been shared with other regions, services and organisations involved in cancer control
- Initial scoping has been conducted to determine the capacity of other regional areas where the model developed between Perth and the Greater Southern could be rolled out
- Stakeholders expressed hope that the recent State election promise of $10 million over the next two years to increase regional cancer services would be used to sustain project outcomes and roll out the CanNET WA model to other areas across the State

Key Challenges:

- Workforce issues meant that the local project manager was unable to be appointed to the position and was in an acting part time role throughout the project
- The lead time required to get visiting medical specialists on board and to integrate supportive technology into the local system
- Despite the access to resources to support the development of a clinical network, local workforce and workload issues often made it difficult to recruit health professionals into short term positions to drive various aspects of the project

Appendix B: Key messages

Background information

- *Cancer Services Network National Demonstration Program* (CanNET) was an initiative of Cancer Australia funded from February 2007 to May 2009 under the *Mentoring for Regional Hospitals and Cancer Professionals* component of the Australian Government's 2004 election policy initiative, *Strengthening Cancer Care*.
- Ultimately, CanNET aimed to: (a) improve outcomes and reduce disparities in outcomes for people affected by cancer (particularly for people living in rural and regional areas, and Aboriginal and Torres Strait Islander peoples) by linking regional and metropolitan cancer services; and (b) build the evidence base for managed clinical networks (MCNs) for cancer care across Australia.
- Cancer Australia partnered with State and Territory governments to establish seven cancer service networks, one in each State and one in the Northern Territory. Together, the seven cancer service networks have the potential of providing coverage for over eight million Australians.
- Each of the cancer service networks is different but all are underpinned by key elements to improve cancer care and outcomes: active consumer engagement; clinical leadership; multidisciplinary care; primary care involvement; agreed referral pathways; continuing professional development; role redesign; and quality assurance frameworks.
- The model for the CanNET program was drawn largely from the MCNs successfully implemented by the National Health Service (NHS) in the United Kingdom.
- CanNET was also underpinned by the National Health Priority Action Council's National Service Improvement Framework for Cancer (NHPAC 2006).
- It is not realistic to assume that the CanNET program would have a measurable impact on outcomes for people affected by cancer during its initial two years. For this reason, the national evaluation focused on inputs, processes, outputs and intermediate outcomes (at the consumer, provider and system level) that mark clear progress towards the desired long-term effects.

Impacts and outcomes

There has been significant progress made towards achieving the agreed intermediate outcomes for the CanNET program during its first two years and stakeholders agree that, in the long term, these intermediate outcomes will contribute to improving outcomes and reducing disparities in outcomes for people affected by cancer.

Impacts and outcomes for consumers

- Cancer consumers were regularly engaged in the process of network development in most jurisdictions to ensure that cancer services were patient-centred and reflected the points of view of those directly affected by cancer.
- The networks' activities in the area of consumer engagement resulted in consumers' feeling more confident and competent to contribute to service planning and delivery, and to make decisions about their own care.
- There also appear to have been increases in network members' recognition of the importance and value of consumer engagement in service delivery and planning in most networks.
- An impressive array of cancer-related resources was also developed to increase consumers' awareness of the range of available services, treatment options, and referral pathways. For example, all the networks developed a Directory of Services that, at a minimum, provides consumers and service providers with up-to-date information about their closest multidisciplinary cancer assessment team.
- It is reasonable to assume that, collectively, these outputs will have some flow-on effect of improving consumer access to cancer services in the future.

Impacts and outcomes for providers

- Clinicians from across the CanNET networks were provided a wide range of cancer-related professional development opportunities to support the service improvements.
- More than 1,196 health care providers from across Australia participated in these professional development activities (including GPs and other primary care providers, medical specialists, nurses, and allied health care providers).
- 71% of network members agreed that the benefits associated with participating in the CanNET networks at least exceeded the drawbacks (23% felt that the benefits greatly exceeded the drawbacks).

Impacts and outcomes for the system

- All of the CanNET networks made considerable progress towards establishing a local cancer service network. CanNET NT and Tasmania also developed State or Territory-wide cancer plans, which are built on the principles and key elements of CanNET and promote the development of cancer service networks.
- Network development had the following impacts on service delivery: (a) enhanced service planning; (b) improved the way that different professionals and services work as a team; (c) improved information sharing between professionals providing cancer care; (d) established processes to link regional/rural health professionals with metropolitan counterparts; (e) improved multidisciplinary approaches to cancer care; and (f) better engagement with the primary care sector.
- At least 19 MDTs can be identified within the 'CanNET footprint', including new regional and State-wide MDTs.
- At least ten State or Territory-wide pathways and 16 network-wide pathways were developed for a range of different tumour streams to improve quality and consistency in practice, and increase efficiency of referral systems for specialist opinion and treatment.
- Some of the CanNET networks piloted or further developed new and innovative roles for cancer care in their local jurisdictions and were able to demonstrate that roles such as cancer care coordinators, MDT coordinators and MDT administrators make the introduction and maintenance of quality MDTs less of a burden for clinicians.
- Some of the CanNET networks also developed or enhanced data and communication systems to improve information sharing to support coordinated multidisciplinary care.

Lessons learned

- MCNs offer particular advantages in the Australian context. They provide scope for linking rural/regional services and providers with their counterparts in metropolitan areas, to ensure that all Australians have access to best evidence based care, regardless of where they live.
- Variation in progress across the seven cancer service networks helped to identify enablers and barriers of effective network development, and key roles that policy makers, reformers and health service executives and managers can play in supporting change.
- Collectively, these data illustrate the need for and importance of a comprehensive change management strategy to support network development. A comprehensive change management strategy requires:
  - a top-down, bottom-up approach;
  - effective governance and multidisciplinary clinical leadership;
  - broad ranging stakeholder engagement and involvement mechanisms;
  - continued and varied communication processes;
  - establishing a sense of urgency and need for change using local data;
  - having realistic and achievable project plans that involve a phased or stepwise approach; and
  - publicising early wins to offer stakeholders proof that the new model or way of working can provide results superior to existing practices.