

The National Demonstration Hospitals Program

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Abstract

Fifty-five public hospitals in all Australian States and Territories participated in the first two phases of National Demonstration Hospitals Program (NDHP). The program was established in 1994 as part of a commitment by the then Department of Health and Family Services to reduce waiting times and improve health outcomes for patients. The program uses a collaborative approach to assist public hospitals to improve service delivery and patient care outcomes. Key results from Phases 1 and 2 of the NDHP have confirmed that identification of industry best practice, collaboration, knowledge sharing and innovation are key elements required to achieve positive health care reforms.

Introduction

Today's clinicians are required to continually review how they manage health care services, deliver cost efficiencies and improve patient care. Access to innovative and efficient models of practice is essential, however, prior to programs such as the National Demonstration Hospitals Program (NDHP) little information about managing new innovations was freely available. Instead, clinicians were left to re-invent the wheel and, in many cases, were left to repeat the mistakes. Kleiner and Roth (1997, p.172-3) suggest that '... mistakes get repeated... Most important, the old ways of thinking that led to the mistakes are never discussed. Ask individuals about those major events, however, and they often will tell you that they understand exactly what went wrong (or right)'. They conclude that '... in corporate life, even when experience is a good teacher, it's still only a private tutor.'

Recognising that successful innovation did exist in the healthcare industry, the then Commonwealth Department of Health and Family Services explored options to provide clinicians with opportunities to take advantage of evidenced best practice. A formalised process was needed to foster an environment where clinicians could discuss service delivery problems, build trust outside normal work practice boundaries and facilitate the transfer of best practice knowledge between organisations. The transfer of knowledge was not just to be a copying exercise; rather, it was to be a learning process that would be adaptive to specific organisational circumstances.

In 1994 the Department established the NDHP as part of a commitment to reduce waiting times and improve health outcomes for patients. NDHP Phase 1 (NDHP-1) tested the validity of a collaborative approach to achieve long-term reforms in both the management and delivery of health care services. Phase 1 also evidenced that a collaborative program could successfully facilitate widespread clinical and administrative changes necessary to make improvements in both patient care and service management. Funding for NDHP Phase 2 (NDHP-2) was provided following strong industry support and improved performance in NDHP-1 hospitals.

The Program

The NDHP is a national program based on evidence, experience and knowledge and is easily adapted to suit different socio-political and organisational circumstances. The program has supported two major national activities. Firstly, consortia were formed and led by lead hospitals with experience and expertise in developing a model of best practice. Lead hospitals supported a group of collaborating hospitals to either implement new

services or to refine and re-engineer existing practice. This process identified and reflected the concerns of all stakeholders including patients, clinical staff, hospital executives, consumer groups, professional bodies and funding agencies. Secondly, the NDHP has promoted health service research by funding service enhancement projects that have further tested the elements of best practice.

NDHP-1 was funded to overcome clinically inappropriate waiting times for elective surgery. NDHP-2 was funded to identify and document principles for integrated bed management, addressing the management of all types of hospital admissions. Best practice, ongoing health service research, collaboration, evaluation and dissemination were key elements of both NDHP-1 and NDHP-2. Funding directly supported clinicians to be innovative and accountable for improving the delivery of health services.

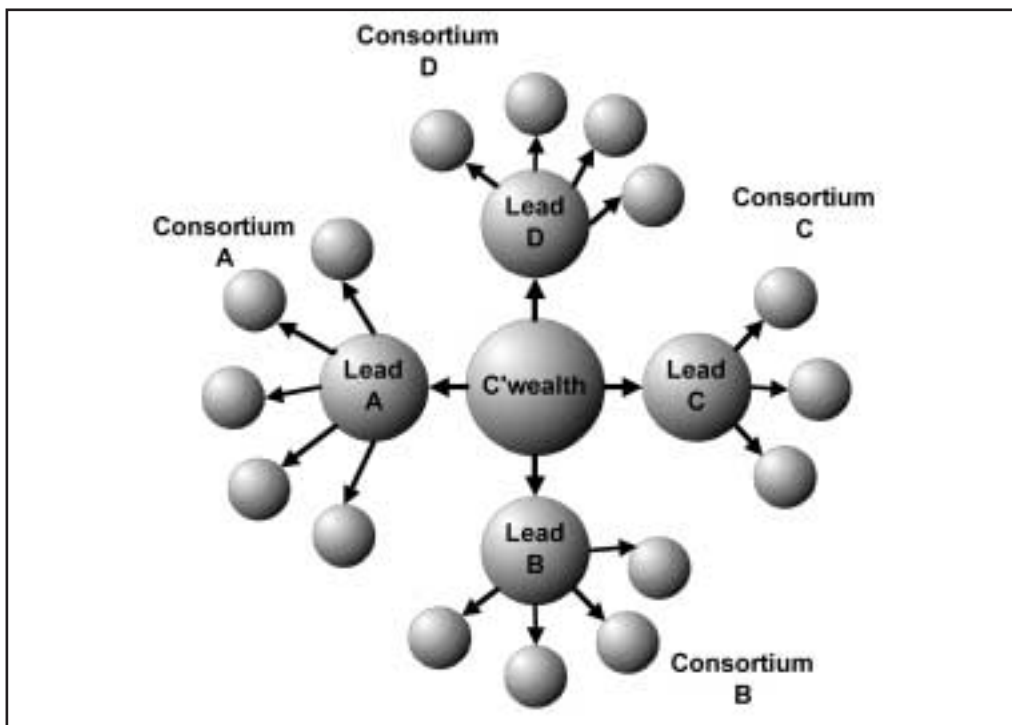
Innovation: Innovation has in many cases taken clinicians back to the basics. For example, the definition of Integrated Bed Management agreed to in NDHP-2 seems relatively straightforward. 'Integrated bed management is defined as the management of all admissions, stays, transfers, and discharges by a hospital within a framework that integrates and co-ordinates all processes related to these activities. To do this the organisation must balance the access demands of the emergency department, elective surgical and medical patients to available beds' (Commonwealth Department of Health and Aged Care, 1999b, p.3).

The very first principle needed to integrate the management of all hospital admissions was to have '... an organisation led commitment to manage all hospital beds' (Commonwealth Department of Health and Aged Care, 1999b, p.5). Drucker (1998, p.157) suggests that '... if an innovation does not aim at leadership from the beginning, it is unlikely to be innovative enough'. The NDHP demonstrated that executive support was essential to make any improvements in the management of hospital beds. Many NDHP-2 innovations were based on simple strategies frequently overlooked. This supports Drucker's (1998, p.156) opinion that '... to be effective, an innovation has to be simple, and it has to be focused.' He argues that the greatest praise an innovation can receive is for people to say 'This is obvious! Why didn't I think of it? Its so simple!'

Evidenced best practice: The NDHP is founded on the principle that lead hospitals can transfer their best practice models to other hospitals that are willing to learn from their experience. Lead hospitals evidenced successful development and operation of best practice in delivery of health care services. This included evaluation criteria of the model, existence of baseline data and performance outcomes. Lead hospitals had developed a plan to share their findings, demonstrated experience of working co-operatively with other hospitals and had the capacity to assist other hospitals transfer relevant aspects of the model. Importantly, senior management, senior medical and nursing personnel at lead hospitals all recognised the value of, and supported the best practice model. Finally, lead hospitals were continually learning and improving their services. Collaborating hospitals were equally important program partners who used the lead hospital's experience and knowledge to improve their own services.

Collaboration: Collaboration in the NDHP has overcome many knowledge management issues facing the health industry. Initial fieldwork done before the NDHP confirmed that a number of hospitals around Australia had implemented innovative and efficient models to manage elective surgery. Some innovative models had become the subject of discussion and interest within the health system, and clinical staff were being approached to describe their models. However, the transfer of knowledge in health care has not always been particularly well executed. Hospitals have largely relied on external publications and attendance at conferences for new ideas. Only a relatively small number of staff were supported to visit other hospitals to learn of their achievements, or to act in a consultant capacity to other hospitals.

Additionally, rivalry between hospital staff often precluded the transfer of innovation and sharing of ideas at the local level. Hansen et al (1999, p.107) suggest that '... knowledge is closely tied to the person who developed it and is shared mainly through direct person-to-person contacts'. Formalised collaboration in the NDHP actively supported the transfer of best practice knowledge. Collaboration was achieved by grouping hospitals into formal consortia. Each consortium comprised one lead hospital and a number of collaborating hospitals. Consortium contracts confirmed the responsibilities of both the collaborating hospitals and the lead hospital. NDHP-1 had seven consortia comprising thirty-nine hospitals and NDHP-2 had five consortia comprising twenty-nine hospitals. Thirteen hospitals participated in both NDHP-1 and NDHP-2. Figure 1 shows the relationship between consortia and the Commonwealth.



Collaboration has provided a powerful means to assist project planning and implementation. Hospitals do not work in isolation. Networking and collegiate support enjoyed by NDHP hospitals has provided a substantial resource to educate and persuade clinical staff to support programs. Peer support and peer pressure provided through the NDHP has been very important to achieving success. A critical element of the collaboration model is that all hospitals voluntarily applied to participate. Participating hospitals were given a funding incentive to participate in the program. Hansen et al (1999, p.113) claim that there needs to be incentives for people to participate in knowledge sharing. They suggest that '... real incentives - not small enticements - are required to get people to take those steps... Managers need to reward people for sharing knowledge directly with other people'. A key objective of the NDHP has been the promotion of free information exchange and networking between hospitals. The Commonwealth provided funding for collaboration and subsequent knowledge sharing to occur. Lead hospitals were funded to manage consortium activities and further research and improve their models. Collaborating hospitals were funded to transfer knowledge to improve their service delivery processes.

Funding: The NDHP was allocated funds from the 1993-94 Commonwealth Budget to address clinically inappropriate waiting times for elective surgery. \$11 million was allocated to NDHP-1 and \$7.5 million to NDHP-2. The NDHP was distinctly different from previous Commonwealth reform programs. The emphasis was shifted from throughput programs to a model that supported management and clinical practice reforms. The NDHP directly funded groups of clinicians in lead hospitals. The contractual relationship between the Commonwealth and lead hospitals resulted in direct accountability for the progress of projects and for the expenditure of funds. Funding of collaborating hospitals, through the lead hospitals, extended direct accountability to all NDHP hospitals. This funding arrangement has had a significant impact on the results of the program.

Results and discussion

The NDHP evaluation has continued to develop with successive phases of the program. Validated and reliable data are needed to evaluate quantifiable differences associated with improving service processes. At the commencement of NDHP-1 (1995) the collection of the minimum data set proved to be a difficult task for many project staff. Many project staff had never been involved with either the collection or analysis of data before the program. Furthermore, the use of performance data in many organisations had previously been restricted to data required for official government reporting. The collection of a minimum data set was an achievement in NDHP-1 and has remained a major focus of the program. NDHP-2 results are included to evidence program achievements gained from improving processes that contributed to managing hospital beds better. The following results are drawn from the quantitative performance evaluation of NDHP-2 (Commonwealth Department of Health and Aged Care, 1999a).

“Fifteen hospitals (79 per cent) reporting on waiting lists achieved a reduction in the number of the most urgent (Category 1) Waiting List patients waiting undue times. The number waiting undue times reduced by 62 per cent overall.

Nineteen hospitals (90 per cent) reduced Category 2 Waiting List patients waiting undue times. The number waiting undue times reduced by 67 per cent overall. This was achieved despite an overall reduction of 1 per cent in total admissions because of resource issues and industrial disputes. Thus, bed management appears to have helped hospitals to considerably improve the timeliness of services to higher urgency categories of waiting list patients.

NDHP-2 was associated with reduced waiting list clearance times for more clinically urgent Category 1 patients where times reduced an average 14 per cent (2 days), and Category 2 where reductions were 23 per cent (17 days). Overall, clearance times were unchanged as lower urgency waiting numbers built up.

Efficiencies were associated with length of stay and bed management. In 86 per cent of NDHP hospitals, the average stays reduced. The program achieved (an) overall length of stay reduction of 0.3 of a day or 7 per cent.

Significant reductions were achieved for the difficult-to-reduce multi day length of stays, which decreased by 0.6 days or 7 per cent. Medical patient length of stay reduced 9 per cent across the program suggesting that attention to medical rather than surgical length of stays has paid off. Same day stays were unchanged thus the efficiency gains are not associated only with substitution of same day stay patients for multi day stay patients. Staffed available beds reduced 3.6 per cent and case rates per bed (bed throughput or number of patients per staffed bed per month) were improved 2.3 per cent.

Demand on emergency outpatient departments decreased overall mainly by controlling the volume of less urgent Triage 4 & 5 non admitted outpatients, possibly more appropriately treated elsewhere.

Pre-admission assessments for multi day stay patients increased at 79 per cent of hospitals, and by 13 per cent overall.

Day of Surgery Admissions for Multi Day Stay patients improved by 12 per cent overall and at 74 per cent (20 of 27) of hospitals reporting this measure.

Better service was provided to elective surgery clients as cancellations of elective surgery on the planned day of admission decreased an average 8 per cent in 64 per cent (18 of 28) NDHP hospitals reporting the measure.

Deferred planned admissions reduced by 19 per cent overall and in 71 per cent (17 of 24) of reporting hospitals.

An NDHP-2 gross efficiency estimate gain is unreliable until data can be compared from common six monthly periods with similar seasonality. Given the evident reductions in length of stay, bed-days and available beds required, NDHP-2 should lead to a significant decrease in cost per separation. Evidence to date suggests a benefit to cost ratio for the program will be in the vicinity of 9:1.”

Quantitative performance measures were a major focus of the program evaluation in both NDHP-1 and NDHP-2. Greene (1999, p.163.) argues that ‘... in today’s results orientated accountability milieu, the standards for judgements of program quality are clearly program outcomes and not program processes...’ However, the NDHP evaluation also aimed to evidence patient satisfaction, staff satisfaction and acceptance of

projects. Qualitative evaluation methods were used to better understand the systems and processes underpinning the delivery of care. Used in this manner, the results of the qualitative activities provided staff with information to continually improve services. Staff satisfaction surveys, patient satisfaction surveys, focus groups, interviews and content analysis of medical records were some of the methods used in NDHP-1 and NDHP-2. These qualitative activities helped to show what was actually occurring in the delivery of services and the perceptions of the service stakeholders. This provided a baseline from which to measure improved performance and the impact of new services. Any review of results must acknowledge that the quantitative improvements would not have been achieved without knowledge made available from the qualitative activities.

The evaluation of the NDHP has firmly established the benefits that can be achieved by facilitating hospitals to pursue best practice initiatives. Decreased length of stay, increased day of surgery admissions, reduced cancellations on the day of surgery, improved operating room utilisation, reduced unplanned re-admissions and improved waiting list management are all outcomes of the program. In both NDHP-1 and NDHP-2 results were achieved by improving processes for managing: the allocation of all hospital beds, waiting lists, pre-admission services, operating suite services, discharge planning, integration of services, links with community services, key performance data and team work across disciplines.

Key action components of project management

While the program results have supported that the NDHP works there have been important lessons learnt. Securing program action was very difficult in many projects. For example, in NDHP-2 it was not always easy to secure support from the Chief Executive Officer to review the existing bed management strategies. While the NDHP provided a framework to implement reforms, program success ultimately hinged on project management approaches. Key components identified for successful project management have been drawn from the lessons and experience of NDHP Phase 1 and Phase 2.

Executive staff support the project: Projects need to be supported by the Chief Executive Officer. This support provides leadership and legitimacy for the project, acknowledgement of the need for change to improve performance, acknowledgement that the organisation is ready for change, knowledge of organisational strategic plans, and approval to allocate appropriate resources to support the project.

A Steering Committee oversees the project: Committee membership should include a hospital executive, project leaders and the major stakeholders who are directly and indirectly affected by the project. The Committee requires terms of reference with clear working guidelines.

Clinical staff lead projects that directly affect patient care: Clinicians have actively welcomed the opportunity to participate in programs that reform and improve the processes used to manage health care. They are subject matter experts who have solutions for implementing and sustaining positive reforms. A key success factor of the NDHP has been a high degree of clinical accountability for all projects.

A stakeholder analysis is completed: The context of a project can only be fully appreciated by understanding stakeholders' concerns and requirements. A project is potentially flawed if stakeholders' concerns are not identified and addressed before the project is implemented. A stakeholder analysis is one of the most critical project tasks.

Organisational culture is identified: The project team needs to identify who will accept and support changes, and who will resist the changes. Staff may have legitimate concerns that need to be addressed. It is important that all staff are informed about why the project should be implemented. Data should be used as supportive evidence so that those likely to resist change don't believe it is another change for change sake. Project staff need to ensure that the project is not perceived as doing more with less.

A project manager is appointed: The appointment of a dedicated project manager is essential. The project manager is responsible for implementing and evaluating project strategies and reporting the outcomes of the project. The project manager also plays a key role in motivating the working teams for the entire project period.

Projects are planned: The project should be planned in stages and linked with the strategic aims of the organisation.

Project timeframes are established and maintained: Realistic timeframes should be established for all change management projects and regularly reviewed.

A project budget is allocated and achieved: Human, physical and financial resources are required to undertake a project. Resources are required to develop ideas, liaise with staff, participate in working teams, implement the project strategies, collect data, analyse data, and disseminate outcomes. Minimum physical resources include office space and equipment, information technology and telecommunications equipment.

Project education is incorporated into the project plan: Staff education is required to: highlight complex issues, give background information, identify areas of duplication and inefficiency, highlight a rigorous analysis of key processes, and increase awareness of performance data.

Project teams are empowered to undertake the project: Teamwork generates a strong sense of project ownership. High performance teams promote employee involvement, initiative at the shop floor level, and bring staff together to implement common project goals.

Project teams are accountable for implementing and evaluating the project: Accountability for implementing and evaluating projects should be given to project teams. All team member responsibilities must be clearly documented. Each team member should be accountable for specific project deliverables. This spreads the ownership of the project to a much wider group than the Steering Committee. The importance of giving teams accountability is that they then own the projects and encourage their peers to accept the changes. Ownership of the project is a powerful tool to successfully implement change.

Reporting: Project outcomes must be reported back to the executive and staff. This ensures that project decisions are based on evidence.

Project staff have a flexible management style: A flexible management approach is essential to implement change. Projects must be designed to meet specific political, organisational and social requirements.

Staff are rewarded and recognised for the project achievements: Successful change management is steered by a project sponsor, Steering Committee, and project officers. However, all staff involved in the project should be acknowledged for the work they complete. This includes staff at the work-face and support staff (eg, finance and information technology personnel) who are integral to project success. Individuals and the collective effort should be recognised.

The greatest threats to managing a successful project are the cultural, structural and power interests that exist between different service stakeholders. While models, such as integrating the management of all hospital beds, are in theory easy to support, they are very difficult to implement. A key lesson from the NDHP has been that lasting changes in health service delivery can only be achieved by adopting a management style that learns from both successful and unsuccessful outcomes, builds on experience and addresses the interests of all the major stakeholders.

Conclusion

There has been limited information available on how change in Australian health services should best be managed. Furthermore, few general guidelines documenting how systems actually work at a clinical level exist. The NDHP has supported work that directly addresses these issues. Senior clinicians have used clinical expertise, innovation, flexibility, enthusiasm and determination to improve patient care and the systems used to deliver that care. Anecdotal evidence from all NDHP hospitals supports the value of the program. Moreover, all reports from NDHP-1 and NDHP-2 hospitals recommended that the program continue to be funded.

The NDHP has achieved micro level reform through collaboration between political, professional and managerial groups. NDHP-1 and NDHP-2 identified that improvement is still needed to improve linkages in the continuum of care across acute and non-acute health care services. NDHP Phase 3 is now focusing on identifying systems and processes to link and co-ordinate services delivered by the acute care sector across the pre-admission, inpatient and post acute care period. Although the NDHP approach does not offer certainty nor guarantee success it does provide a tested road map for undertaking health service research and change projects to implement successful health care reforms.

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