Integration between GPs and hospitals: lessons from a division-hospital program

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Abstract

The aim of the study reported here was to evaluate current initiatives in GP-hospital integration and highlight areas where further research, development and evaluation are required. Seven pre-existing GP-hospital programs were selected and given supplementary funding to allow for more effective evaluation. These local evaluations were then incorporated into a national program on GP-hospital collaboration.

We found that the seven projects made substantial progress towards their goals, and in the process highlighted important aspects of successful collaboration. The collective evaluation of DHIP identified expected benefits of collaboration for patients (improved access to services, reduced anxiety, and fewer post discharge complications), for GPs (increased involvement in acute care and in hospital decision making), and for service organisations (stronger working relationships, increased capacity, and greater efficiency). Barriers to service integration were also identified, including the different cultures of Divisions and hospitals, their lack of internal coherence and the Commonwealth-state divide.

The evaluation showed that much has been achieved in building the relationships and the capacity needed for GP-hospital collaboration, and that effective models exist. The current challenge is to extend successful models across health areas and make effective collaboration part of the normal system of care. Substantial progress towards integrated care relies on a shift from a focus on systems within general practice or hospital environments to a patient centred approach. This will require general practice, hospitals, community services and consumer organisations to form long term partnerships and move beyond their currently disjointed view of acute and community care. The development of practical indicators for integrated care will support the process and facilitate shared learning across Commonwealth and state divides.

Introduction

There is increasing recognition of the need to improve the integration between GPs and hospitals in order to reduce demand for hospital beds and provide better integration of patients back into the community (Isaac, Gijsbers, Wyman, Martyres, Garrow 1997). Ineffective communication between health care services has been identified as a cause of adverse events in general practice and in hospitals (Bhasale, Miller, Ried Britt 1998 & Wilson, Runciman, Gibberd, Harrison, Newby, Hamilton 1995).

The Divisions and Hospitals Integration Program (DHIP) was a national program to learn about the current state of GP-hospital collaboration through a co-ordinated evaluation of seven GP-hospital integration projects and dissemination of achievements and lessons from the program. The aim of DHIP was to improve the

integration of care between hospitals and general practitioners through Divisions of General Practice by identifying elements of successful collaboration. This paper describes the results of DHIP and uses this information to discuss future directions for collaboration between acute and primary care providers.

Methods

Seven established GP-hospital projects from across Australia were selected by the DHIP Consortium and funded by the Commonwealth Department of Health and Aged Care over 12 months from February 1999 to January 2000 to further develop and evaluate exisiting collaborative activities. The funding was provided to Divisions of General Practice through the Australian Divisions of General Practice (ADGP) and co-ordinated by the Centre for General Practice Integration Studies (CGPIS), University of New South Wales. The local projects and their evaluation methods are summarised below.

Local evaluations

The Adelaide North East project aimed to co-ordinate home-based care to reduce unnecessary hospital admissions, optimise discharge planning, reduce duplication of patient investigations and enhance the link between hospitals and GPs during admission. Committee members were surveyed to identify attitudes to collaboration and to provide feedback on the collaborative process. The medical, nursing and clerical staff at the hospital were surveyed to gauge their awareness of the project, monitor improvements and use of the GP Information Directory and seek input on ways to further improve communication with GPs. A GP and practice manager survey was conducted to identify improvements in communication and random samples of bed cards were audited fortnightly to determine the proportion that included GP details (Bubner & Pappin, 1999).

The Brisbane Southside Collaboration project aimed to improve existing arrangements for antenatal and postnatal shared care. The model of collaboration was evaluated along with aspects of the patient care it supported using a literature review, an audit of patient held records, review of the hospital database, document analysis, attitudinal measure of inter-professional collaboration, GP, stakeholder and patient interviews (Prasad-Ildes, 1999).

The Central Bayside project involved accrediting general practitioners and co-ordinating their role in the pre-admission assessment of elective surgical patients. This project involved five Divisions of General Practice and four hospital sites. Two surveys of accredited GPs were undertaken: the GP referral survey to measure how many admission forms GPs had completed in the first six months of the project, and the GP satisfaction survey (Allwell, 1999).

The Northern Tasmanian project aimed to improve continuity of care for patients transferring between hospital and primary care by using information technology to improve the quality and timeliness of patient information provided by the hospital to the GP. Process evaluation strategies included a literature and project review, GP survey, face to face interviews with stakeholders, consumer focus group, GP-IT focus group, staff audit of time taken to respond to requests for information, review of enquires and requests for information, and trial transmissions of electronic communication audited against minimum datasets (Lefevre, 2000).

The Western Australia project involved evaluating the model of funding and service delivery used in the HomeWard 2000 Program, which provided home-based acute care for patients who would have otherwise required hospitalisation. It reviewed the level of awareness and uptake among GPs, Emergency Department staff, Silver Chain registered nurses and patients. Data were collected using a patient audit, a GP survey, GP telephone interviews, a focus groups with the acute care team, face to face interviews with Emergency Department consultants and registered nurses, and a patient satisfaction survey (Langston, 1999).

The Hunter Integration Taskforce is a formal collaborative structure between the Division of General Practice and the Area Health Service. This project evaluated the Taskforce and analysed the implementation of an unplanned admissions communication system. Specific tools used included an attitude survey, key informant interviews, document analysis, observational analysis of HIT meetings, a patient information pro forma, a Medical Officer survey, a GP phone survey and an established communication system - DOCFACS (Squance, Heading & Gardnir, 1999).

The NSW Central West project aimed to improve continuity of care across two rural base hospitals and one rural psychiatric hospital. This involved developing procedures for communication between general practitioners and hospitals. Evaluation strategies included audits of medical records and stakeholder satisfaction surveys to identify the uptake of communication strategies (Backhous, Chapman & Hickey, 1999).

Each local team evaluated its activity against its own objectives, using similar methods where possible across the projects. Methods used by the projects to evaluate their collaborative process include document analysis, management committee questionnaire (using a standardised instrument) and stakeholder attitudinal surveys and focus groups.

National evaluation

The CGPIS collated findings at the national level using two strategies. First, a national conference was held to showcase DHIP and each of the projects, to identify critical issues for collaboration, and promote future opportunities for developing Division and hospital collaborations. Each project presented their achievements and discussed barriers to project development. The second strategy involved a collective evaluation of DHIP. The content of the seven project final reports was analysed to identify prominent issues and potential solutions to barriers of integrated patient care.

Results

The results are divided into three categories: benefits, barriers and critical elements for successful collaboration. The projects identified the benefits that they expected for patients, GPs and the organisations from collaborating. (Table 1).

Table 1: Benefits identified in evaluations of DHIP projects

	Adelaide	Brisbane	Central Bayside	Tas	GPDWA Ltd	Hunter	NSW Central West
Benefits for patients							
Greater continuity of care	✓		✓	✓			✓
Convenience, Choice		✓	✓		✓		
Reduced patient anxiety			✓	✓	✓		
Fewer post discharge complications.				✓			✓
Improved standards of consent	✓			✓			✓
Benefits for GPs							
Better communication		✓		✓			✓
Involved in pre-admission			✓				✓
Involved during hospitalisation	✓					✓	✓
Involved in discharge planning		✓			✓		✓
Involved in hospital decision making	✓	✓				✓	✓
Benefits for organisations (Hospitals and Divisions of General Practice)							
Stronger working relationship						✓	✓
Increased capacity	✓	✓	✓	✓	✓	✓	✓
Emerging opportunities					✓	✓	✓
Greater efficiency	✓	✓	✓	✓	✓	✓	✓
Multi-divisions and hospital collaboration		✓	✓		✓		

Perceived benefits for patients

Most projects expected to see benefits such as greater patient choice and convenience. For example, it was reported that there was "... (greater) convenience, less waiting time, wider patient choice and compliance" and "... that care delivery will be improved by allowing patients to attend the clinic of their choice".

Patient benefits proved difficult to measure, largely because of the short timeframe available for DHIP. However Brisbane Southside Collaboration and General Practice Divisions of Western Australia Ltd evaluated patient responses to the services they provided. The Brisbane project found that patients appreciated the greater convenience care in general practice provided, and patients in the HomeWard 2000 Program valued being able to receive care at home rather than in hospital.

Northern Tasmania, Adelaide North East and NSW Central West reported improved processes and standards for patient consent. In Northern Tasmania for example, the Division worked with the hospitals to develop improved standards. Structures and processes need to be implemented to move from the current systems of obtaining implied consent to systems of informed and overt consent. This was particularly important as the new electronic communication system was intended to make the transfer of information easier.

Benefits for GPs

GP-hospital collaboration was expected to benefit GPs through better communication and provision of information about their patients and greater involvement with acute care and in decision making within the hospital. Most of the projects expected to improve communication between the hospital and GPs.

The Brisbane Southside Collaboration found that GPs were satisfied with the improvements in communication and information sharing that had been achieved, and an examination of patient records showed that there was a greater sharing of information across service providers. The NSW Central West project found that GPs, particularly non-VMOs, valued being involved in pre-admission care as it enabled them to provide input into discharge planning and gave them an opportunity to review the patient's history and current treatment in preparation for admission.

Most of the DHIP projects attempted to increase GP involvement in acute care. The Brisbane Southside Collaboration found that GPs valued involvement with patient care throughout the entire pregnancy. GPs identified maintaining contact with patients and following women through their pregnancy and being able to care for their babies as benefits of collaboration. One GP, when asked about the usefulness of the shared care protocol, said "... personally I really enjoy it. I don't want to offload this aspect of my work to the hospital, it is the one thing I really enjoy about general practice, it also provides continuity of care."

It appears that being involved in one aspect of hospitalisation may also help promote involvement at other stages of care. Central Bayside found that "... through contact with patients in the pre-admission stage, the GP becomes more actively involved in discharge planning and referral to other hospital programs".

Projects also extended the role of GPs in acute care outside the hospital. The Adelaide North East program increased referrals from the Emergency Department to its GP Home Link diversionary program by 39% and the HomeWard 2000 Program in Perth involved a limited number of GPs in acute care in the community. It was clear from the HomeWard 2000 Program that the process of involving GPs in new roles takes time.

Benefits for organisations (Hospitals and Divisions)

Collaboration was expected to help organisations to increase the efficiency of patient care by reducing duplication of investigations (Adelaide North East, Central Bayside, Brisbane Southside, Hunter, NSW Central West); increase the efficiency of arrangements for elective surgery (Central Bayside, NSW Central West); reduce clerical work associated with admissions (Northern Tasmania); reduce the number of patients unnecessarily treated in hospital (Adelaide North East, General Practice Divisions of Western Australia Ltd); rationalise the role of GPs and state health services in service provision (Hunter Integration Taskforce); and improve the quality of patient care at the hospital/community interface as a legitimate role for Divisions (NSW Central West).

The Hunter Integration Taskforce neatly described the potential benefits for organisations as improved health care, more appropriate planning and delivery of services and better resource utilisation.

The Adelaide North East and General Practice Divisions of Western Australia Ltd established that a number of patients were successfully diverted from hospital care. The broader pre-admission program, of which the Central Bayside project is a part, has also led to reductions in the rates of cancellation of surgery. The NSW Central West pre admission systems enabled access to GP held pathology thereby reducing duplication. Other projects expected "... fewer post discharge complications leading to fewer readmissions related to preventable post discharge complications" but were unable to demonstrate this in the available time frame.

Another significant benefit was that all projects felt that they had increased the capacity for collaboration between Divisions and hospitals in the future. This is particularly important in a time of rapid change when GPs and hospitals may find themselves facing challenges or opportunities that they cannot take up on their own.

Successful collaboration can lead to stronger relationships between organisations, which can in turn provide a foundation for integration of care. A recent survey reported that more than half of the Divisions of General Practice across Australia have developed formal health service agreements covering a range of topics and issues from shared resources to the detailed contractual obligations of the various parties in delivering program outputs. Such agreements appear frequently to arise from the experience of working together and provide a framework within which further collaboration can develop (Traynor, Powell Davies & Harris, 1999).

Five of the seven projects funded through DHIP discussed formal written agreements. The Hunter Integration Taskforce heads of agreement document set out the principles, which underpinned the agreement. The evaluation found that formal Taskforce documents such as the Agreement "... were considered to be a vital part of the collaborative process as they set the basic functioning framework."

Barriers

Communication can break down within the general practice or hospital sectors as well as between them. For example in the HomeWard 2000 Program the Division found it hard to engage GPs. The Northern Tasmania project was hampered by was poor communication within the hospital about computer upgrades; and Hunter Integration Taskforce noted that "... information transfer (within the Taskforce) did not always include all members, which has the potential to alienate members."

Five of the seven DHIP projects identified resource constraints (including commitment and support, time and financial and other factors) as crucial issues. High level commitment from participating organisations and good planning are needed to ensure that a realistic level of resources and support are available.

Adelaide North East Division of General Practice commented that the 'ever changing' environment of the hospital disrupted the implementation of the project. As personnel within the hospital changed their replacements needed to be educated and motivated. General Practice Divisions of Western Australia Ltd also identified staff rotations within the hospital as a barrier to change. It was reported that "... continual staff rotations, probably prevented greater implementation of the Program, and movement towards the maintenance stage of diffusion for the Emergency Department. "

All of the DHIP projects recognised that cultural differences exist between GPs and hospitals, and Northern Tasmania also highlighted the differing organisational priorities, agendas, cultures and subcultures that exist between the various departments and disciplines within hospitals. The Hunter Integration Taskforce reviewed in some detail the way that cultural differences acted as a barrier to collaboration between the Area Health Service and the Division. These arose in part from the size, role and funding arrangements for the organisations and included different priorities, approaches to risk taking, accountability and budgeting styles. The DHIP evaluation as a whole concluded that while cultural differences need to be negotiated, they can be transcended if there is good will.

Local DHIP projects identified a number of elements as critical for collaborative initiatives: collaborative planning, communication and dissemination, appropriate management structures, adequate resources, evaluation with feedback to participants, an area wide approach and taking care to address cultural differences. Table 2 outlines the evaluation tools used by DHIP projects to measure the success of their collaborative initiatives.

Table 2: Evaluation tools used by DHIP projects

	Adelaide	Brisbane	Central Bayside	Tas	GPDWA Ltd	Hunter	NSW Central West
Management committee effectiveness (includes attitudes to collaboration)	✓		✓			✓	✓
GP survey	✓		✓	✓	✓		✓
GP interview		✓			✓	✓	
Patient interview		✓					
Consumer focus group				✓			
Patient satisfaction survey					✓		
Hospital staff survey	✓					✓	✓
Stakeholder interview		✓		✓	✓	✓	✓
Hospital staff audit				✓			
GP-IT focus group				✓			
GP acute care team focus group					✓		
Literature review		✓		✓			
Observational analysis						✓	
Audit of patient records		✓	✓		✓		✓
Document analysis		✓				✓	
Review of hospital database containing GP details		✓					

Discussion

DHIP provided a useful overview of the current state of GP-hospital integration It included seven varied projects from across Australia. Its major limitation was the lack of time for the program. Nine months was too short to allow for collaborative planning, uptake of initiatives by GPs and hospital staff and outcomes-based evaluation.

Although hospitals were involved as partners, the DHIP was based in Divisions of General Practice and had a predominantly general practice perspective. This acts as a counterbalance to other, more hospital focused initiatives such as the National Demonstration Hospitals Program (Commonwealth Department of Health and Aged Care & Australian Resource Centre for Hospital Innovation, 1999), but remains a somewhat one-sided approach.

Importantly, the projects were limited in the extent to which they incorporated the patient's perspective. This is a significant gap. There needs to be a shift in perspective of GP-hospital integration towards a more patient oriented focus, with the emphasis on the best system for the patients rather than negotiating where they fit into existing systems.

There is general support amongst governments and service providers for collaboration across primary and acute care, but at a practical level the priorities for the different players rarely coincide. This is in part a consequence of having general practice and hospitals working within different systems with different arrangements for funding and remuneration. While establishing stronger working relationships and capacity for collaboration may make a difference, more systemic reform may be needed to encourage a more concerted approach.

Divisions of General Practice have a crucial role to play. They provide the infrastructure to access GPs and for GP issues to be represented at the local level. The General Practice Strategy Review Group (1999)

recommended "... That Divisions of General Practice provide a corporate identity for all GPs at the local level, serving to improve health services and population health outcomes through the provision of an organisational infrastructure with clinical, management and professional support for GPs."

GP-hospital collaboration is difficult. It takes time, resources and capacity to collaborate. It also requires effective communication at all levels. Traditionally communication within the health system has had a strong element of passing on information and of telling others what to do. The experience of the DHIP projects confirms the importance of communication and the need to go beyond simplistic approaches. It requires formal and informal elements and a range of methods that cater to the needs of different participants. Communication methods need to be simple and reliable enough that the benefits outweigh the costs for all parties.

"Cultural differences" are the visible face of many deeper differences in areas such as training, clinical experience, organisational arrangements, working conditions, systems of payment and relationships to patients. Managing cultural differences requires an understanding and acceptance of the different styles of working. DHIP showed that this can be achieved with good will and the opportunity to work together on projects of mutual interest - although this was less successfully with community health and patients/consumers.

The recent introduction of the Medicare items for care planning (including discharge planning) is one attempt to deal with a stumbling block to GP involvement in acute care. However even with this removed, the cultural differences will still have to be worked through as GPs and hospitals negotiate how to make use of the opportunity.

Most of the Divisions and hospitals reported that DHIP contributed to a significant improvement in their capacity to collaborate in the future. Kanter (1994) describes the complexities of collaborative arrangements and highlights the importance of building relationships as a long-term strategy for collaboration.

Alliances are living systems that evolve progressively in the their possibilities. Beyond the immediate reasons they have for entering into a relationship, the connection offers the parties an option on the future, opening new doors and unforeseen opportunities. Successful alliances involve collaboration (creating new value together) rather than mere exchange (getting something back for what you put in). Partners value the skills each brings to the alliance. Alliances require a dense web of interpersonal connections and internal infrastructures that enhance learning (Kanter, 1994 p.97).

A number of lessons can be drawn from DHIP for the local level, for State and Territory and Commonwealth Governments, and for research, evaluation and development. Divisions and hospitals should take up issues which are important for both organisations, which will make sense to their relevant clinicians and which are likely to improve patient care. All stakeholders should be involved in planning, working towards a shared view of the problems that need to be overcome and ensuring the right incentives are in place to foster this at the local level. This will require continued work on relationships, capacity and work towards improving systems of care over the longer term. Better systems for communication and exchange of information, particularly between clinicians is critical in this and in seizing the opportunity provided by the Enhanced Primary Care program.

DHIP demonstrated a number of areas where there is scope for further research evaluation and development. They included the particular issues for acute care integration in rural and regional areas; patient and community perspectives on integration of care and ways of incorporating these into program planning and management, including the outcomes that are valued, the situations in which integration is most critical, and ways of measuring this type of consumer satisfaction; and the development and use of practical indicators of critical elements of integration, including communication between service providers, completeness of care and patient satisfaction.

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References

Allwell L 1999, '*The Community Based Pre-Admission Management Project*', Central Bayside Division of General Practice.

Backhous W, Chapman L & Hickey N 1999, *'Divisions and Hospitals Integration Program (DHIP)'*, NSW Central West Division of General Practice.

Bhasale A, Miller G, Reid S & Britt H 1998, 'Analysing potential harm in Australian general practice: an incident-monitoring study', *Medical Journal of Australia*, Volume 169, pp 73-76.

Bubner T & Pappin J 1999, *'A Continuum of Care: Home - Hospital - Home Evaluation Report'*, Adelaide North East Division of General Practice.

Commonwealth Department of Health and Aged Care & Australian Resource Centre for Hospital Innovation 1999, '*National Demonstration Hospitals Program: Phase 3 Background Paper*', University of Newcastle.

General Practice Strategy Review Group 1998, *'General Practice: changing the future through partnerships',* Commonwealth Department of Health and Family Services.

Isaac D, Gijsbers A, Wyman K, Martyres R & Garrow B 1997, 'The GP-Hospital interface: attitudes of general practitioners to tertiary teaching hospitals', *Medical Journal of Australia*, Volume 166, pp 9-12.

Kanter RM 1994, 'Collaborative Advantage', *Harvard Business Review*, July-August p 96-108.

Langston C & Rosenburg M 1999, *'Diffusion of HomeWard 2000',* The General Practice Divisions of Western Australia Ltd. and The Health Promotion Evaluation Unit, University of Western Australia.

Lefevre K 2000, *'Northern Tasmanian Hospital to GP Electronic Communication Trial',* Northern Tasmania Division of General Practice.

Prasad-Ildes R 1999, *'Sharing the care: does it work in practice? A case study of a partnership in the provision of antenatal and postnatal care between General Practitioners and the Mater Mothers' Hospital*', The Brisbane Southside Collaboration.

Squance M, Heading G & Gardnir L 1999, *'The Evaluation of the Hunter Integration Taskforce*', Hunter Area Health Service and Hunter Urban Division of General Practice.

Traynor V, Powell Davies PG & Harris M 1999, 'Using Health Service Agreements to Build Better Partnerships', *Effective Collaboration Series, No 1.* Integration SERU, Centre for GP Integration Studies, School of Community Medicine, University of NSW.

Wilson R, Runciman W, Gibberd R, Harrison B, Newby L & Hamilton J 1995, 'The Quality in Australian Health Care Study', *Medical Journal of Australia*, Volume 163, pp 458-471.