

Department of Human Services

HOSPITAL IN THE HOME (HITH) Service Sustainability Grant Projects:

Summary Report of Projects

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1. Background

1.1 HITH Service Sustainability Funding

The Hospital in the Home (HITH) Program is an initiative of the State government, commenced in 1995, to provide consumers with greater options in health care during acute illness. HITH services were designed to integrate a component of home based care, either as part of a hospital acute stay or as an alternative to hospital-based care.

Initially the Government provided \$8 million over two years to establish new and innovative service models to deliver HITH care. In 1996 the Government provided \$20 million dollars over four years to develop and provide home-based care. The 1998/99 financial year is the third year of funding for the program, with the funding due to cease at the end of the 1999/2000 financial year.

Funding has been provided as an incentive for HITH service provision, service development and monitoring, evaluation and review. Incentive funding has taken the form of a per diem incentive payment for each bed day in HITH. Metropolitan hospitals account for the largest proportion of HITH bed days.

In the 1998/99 financial year the Government allocated funding for service sustainability projects.

The purpose of the service sustainability funding was to provide the Health Care Networks with the capacity to:

- Review current systems to establish more effective and efficient service models
- Undertake local costing analysis
- Develop medium and longer term strategies for the continuation of HITH services beyond 1999-2000 in the context of overall demand management strategies.

1.2 Funding Awarded

The following grant payments were made to the Health Care Networks to undertake service sustainability projects:

Health Care Network	Grant Allocation
Austin and Repatriation Medical Centre	\$ 45,000
Barwon Health	\$ 45,000
Inner and Eastern & Barwon	\$ 80,000
Mercy	\$ 15,000
North Western	\$ 80,000
Peninsula	\$ 35,000
Southern	\$ 50,000
St Vincent's Hospital	\$ 20,000
Women's and Children's	\$ 50,000
Total Allocation	\$ 420,000

1.3 Purpose of the Report

This report presents a summary of the Project Reports provided by the Health Care Networks which received service sustainability grants.

Reports summarized in this Report are those received from Austin and Repatriation Medical Centre, Barwon Health (Geelong Hospital), Inner and Eastern Health Care Network (incorporating the Alfred, Angliss, Box Hill, Maroondah and Peter MacCallum Hospitals), North Western Health Care Network (Royal Melbourne, Northern, Werribee, Western, and Williamstown Hospitals), Peninsula Health Care Network, Southern Health Care Network, and Women's and Children's Health Care Network. Reports were not available from the Mercy or St Vincent's projects.

This Report summarises each service sustainability project under the following criteria:

- Overall objectives of the project
- Methodology used
- The outcomes of the project
- Key issues raised during the project.

Each project is then compared in a matrix format, to identify common performance indicators used, common issues raised, and outcomes achieved. Not all project reports covered the information listed above, and this is noted accordingly.

2. Brief Summary of Each Service Sustainability Project

2.1 Austin and Repatriation Medical Centre (A&RMC)

Aims and Objectives

The overall aim of the service sustainability project was to collect, analyse and evaluate information to consolidate HITH as an integral part of the A&RMC's business.

Specific objectives of the project were to:

- Evaluate costs of the HITH program and assess its financial viability as an alternative to inpatient care
- Measure the program's performance by measuring patient response and perceptions of HITH care
- Market the concept of home-based acute care by targeting community groups, health care providers, and internal and external health professionals
- Advertise HITH's presence and acceptance within A&RMC as a legitimate business unit.

Four areas were targeted for evaluation, each with a separate methodology:

- A cost benefit analysis of the contracted model of service delivery
- Consumer and carer satisfaction survey
- Development and implementation of a HITH marketing plan
- Relocation of HITH to a prominent and functional area within A&RMC.

Methodology

The cost benefit analysis involved extraction of data, for the 1997/98 financial year, from the General Ledger, Transition II clinical costing system, and the HITH database and interdepartmental reports. Data was analyzed in terms of component cost, DRGs of HITH clients, and HITH care types.

The patient/carer satisfaction survey targeted all HITH clients involved in the program between July and December 1998. Each client was contacted by telephone and asked to participate in the survey – 208 of the 421 patients agreed to participate (of the remainder, 45 patients had died, 94 were not contactable, 24 were unwell or in hospital, 15 did not read English, and 35 did not give consent). A survey form was then sent to participating clients.

The final two evaluations are currently in progress, and involve marketing the HITH service to a wide range of community, multicultural and veteran groups, as well as internally to A&RMC itself.

Outcomes

The cost benefit analysis identified overall costs for the HITH service at an average of \$ 117.61 per patient bedday, and the split of costs between direct service (variable) and infrastructure/case management(non-variable) was 52%:48%.

The DRG analysis focused on selected DRGs only, and analyzed costs of those DRGs for bed-based (hospital) patients, and for HITH patients, and determined that the cost of provision of services for like DRGs was considerably reduced for HITH patients.

The overall outcomes of the cost benefit analysis included:

- Confirmation that the costing model developed could be applied to HITH patients – in particular, that the methodology used for calculation of direct service costs was valid.
- Revision of the indirect cost component for HITH patients, to a standard calculation across all HITH patients
- Use of HITH care types, rather than DRGs, is a better indicator of predicted HITH expenditure
- The model of HITH service developed by A&RMC is a viable financial alternative to inpatient care
- The data analyzed in this project confirms that HITH is cost effective, and should be incorporated into clinical pathways
- Identification of those DRGs that would benefit from early intervention of a HITH service.

The patient/carer satisfaction survey returned the following results:

- A response rate of 57% to the survey questionnaire, with 87% of returns completed by patients, and the remainder by carer/other
- Location of the HITH service was predominantly in normal address
- 91% of respondents indicated English as the main language spoken at home, 58% of respondents were female, 69% of respondents were aged 60 years and over, 24% between 40 and 59 years, and 13% between 20 and 39 years
- 96% of respondents indicated their satisfaction with the HITH service as excellent or good
- 93% would use HITH again, and 93% would recommend HITH to others
- More than one third of respondents indicated that the hospital doctor informed them of the HITH program, 29% from the ward nursing staff, and 27% from the HITH case manager
- 72% of respondents believed they had the right to refuse services – 2 patients believed that the hospital had told them they had to leave.
- 97% believed information about the service was clearly explained, especially about symptoms in relation to their illness, operation and medications – the majority believed the information received was sufficient for their needs
- 84% of respondents advised that carers were informed of the service
- 89% believed that they had sufficient time to prepare for transfer to home
- The majority of respondents understood the role of the case manager, and the majority of respondents received nursing services predominantly.
- Respondents indicated general satisfaction with the nursing services provided, and that they were advised of the time of nurse visits, and in the majority of occasions this time was met. Only 13% were visited by the same nurse, 53% by two or three nurses, and 34% by more than five different nurses. The majority of respondents knew how to contact the nurse if required.
- All respondents found the response to their calls prompt or adequate, and 86% knew the process to follow if needing to return to hospital.

2.2 Barwon Health – Geelong Hospital

The HITH sustainability project of Barwon Health was undertaken by the same team of analysts working with the Inner and Eastern Health Care Network (VCACI).

The purpose of the Barwon project was to provided the Health Care Network with the capacity to:

- Review the provision of services by Barwon Health for the 1997/98 year.
- Identify opportunities to establish more effective and efficient service models.
- Undertake a costing analysis for the HITH program.
- Develop medium and longer term strategies for continuation of HITH services beyond 1999-2000 in the context of overall hospital demand management strategies.

Methodology

The approach/methodology used in this project included:

- Development of HITH review tools
- Data collection, analysis and validation
- Analysis of patient/carer satisfaction surveys
- Preparation of interim report
- Feedback interviews
- Finalisation of Barwon Health report

The results of the Barwon report were then integrated into a single report covering both Barwon Health and Inner and Eastern Health Care Network.

Outcomes

The key findings of the Barwon project included:

- High regard by key stakeholders and patients/carers for the HITH program, particularly the confidence and expertise of HITH staff; the equality of disciplines with the HITH program promoting a multidisciplinary approach; open communication, flexibility and willingness to negotiate within the HITH program and with external service providers; and the specialist streams provided within the HITH program (obstetrics, paediatrics and diabetes)
- High degree of satisfaction report by HITH nursing staff in relation to their roles, in particular the quality of the one to one nurse/patient relationship
- Formalization of the role of the Infectious Disease Unit within the HITH program, which has raised the profile of the program among medical consultants and promoted the multidisciplinary concept of HITH.

Some limitations were noted with respect to:

- Some ability of external nursing service providers to respond in a timely manner to referrals, leading to limiting of the number of referrals accepted due to overall workload – the unpredictable HITH workload, availability of qualified staff, geographical location of patients, and workload of local government all affect the management of HITH patients by external providers
- Increased demand for HACC services in the Geelong area (beyond current resources) has increased the workload for district nursing, which has limited their capacity to respond to HITH
- Income from fees charged for providing HITH care is not considered by district nursing services to cover costs
- Difficulty in gaining access to allied health staff required for HITH programs, despite purchasing these services from Grace MacKellar Centre and Geelong Hospital
- Limitation on HITH resources has led to difficulties in providing education for HITH staff and externally, to market the HITH program, to attend conferences, and to cover annual leave
- Insufficient resources allocation for Pharmacy services from the Pharmacy Department of Geelong Hospital, despite increased workload.

The project identified the need for improvement in communications between professionals (despite the high degree of satisfaction reported above) , in areas such as more explicit referral information (including co-morbidities and social circumstances), reduction of conflicting information when dealing with more than one HITH professional, clearer delineation of medical management and the role of the general practitioner, and improved feedback to service providers regarding care provided and patient outcomes.

The issues and strategies identified in Barwon's project are included in Section 4 below.

2.3 Inner and Eastern Health Care Network

Aims and Objectives

The Inner and Eastern Health Care Network (comprising the Alfred, Angliss, Box Hill, Maroondah and Peter MacCallum hospitals) undertook a service sustainability project analysing the service and cost benefits of the HITH programs operating in the Health Care Network. The team analysing this Network's HITH program also conducted the analysis of the Barwon HITH program (see above).

The purpose of the project was to provided the Health Care Network with the capacity to:

- Review the provision of services by the Inner and Eastern Health Care Network for the 1997/98 year.
- Identify opportunities to establish more effective and efficient service models.
- Undertake a costing analysis for each HITH program of the Health Care Network
- Develop medium and longer term strategies for continuation of HITH services beyond 1999-2000 in the context of overall hospital demand management strategies.

Methodology

The approach/methodology used in this project included:

- Development of HITH review tools
- Data collection, analysis and validation
- Analysis of patient/carer satisfaction surveys
- Preparation of hospital-specific interim reports
- Feedback interviews
- Finalisation of hospital-specific reports

The results of the Inner and Eastern report were then integrated into a single report covering both Barwon Health and Inner and Eastern Health Care Network.

Outcomes

The key findings of the project included:

- The degree of variability between the HITH programs offered by the Health Care Network, in type of service provision, types of patients managed on the program, and cost allocation methods.
- Lack of appropriate information technology to support the HITH program, specifically to analyse basic activity and performance measures, in order to assess the cost-benefit and outcomes of the programs
- Lack of collection of patient outcome data, other than anecdotal evidence.
- Limited collection of ACHS clinical indicator data, and variation in the collection strategies used.
- Unrealistically high readmission rates within 28 days (as determined from VIMD data), indicating that advice to coding staff at the hospitals needs to be improved.
- Low incidence of adverse events for HITH patients, indicating that the HITH program appears to be a very safe model of care delivery from the perspectives of patients and staff.
- Positive results from patient/carer satisfaction surveys conducted within the last three years, with the majority of patients expressing high levels of satisfaction with service. The impact of HITH on carers has also been analyzed, with carers generally supportive of HITH services, but identifying increased stress and tiredness, and the need for more information generally, in relation to HITH services and operation.
- Identification of a trend towards longer length of stay for non-same day HITH episodes compared with overall hospital and state length of stay for comparative DRGs. Causes of this trend suggested by the Health Care Network include:
 - patient selection bias (patients likely to require longer hospital stay are more likely to be referred for HITH care)
 - perception that there is less pressure to discharge HITH patients because they do not occupy a hospital bed
 - less frequent medical review, resulting in patients awaiting review prior to discharge, because of the absence of clear discharge criteria
 - trend towards the use of broad-spectrum antibiotics with lower sensitivities for some infections managed through HITH, which may prolong recovery time.
- Despite increased length of stay in HITH, nursing hours per patient are significantly lower in HITH programs than average nursing hours for similar patients in inpatient care. The exception to this is home chemotherapy patients, where the costs are marginally higher. Otherwise the HITH program offers a more efficient use of nursing resources.
- Inverse correlation for HITH efficiency between size of hospital and corresponding complexity of patients – so that smaller hospitals tend to be more efficient than larger hospitals. This is considered to be due to the higher level of overhead (infrastructure) costs of the larger hospitals (thereby increasing the HITH bed day cost), the higher degree of complexity in HITH patients of the larger hospitals (thereby requiring greater levels of services), and a greater number of 'outlier' (or longer length of stay) in HITH patients of the larger hospitals (again increasing the overall HITH cost per separation).

- Cost-efficiency achieved in HITH service delivery, compared with inpatient care on a daily basis. It is also a cost-effective option, despite longer length of stay, for a number of diagnostic categories analyzed.

2.4 North Western Health Care Network

Aims and Objectives

North Western Health Care Network comprises Royal Melbourne, Northern, Werribee, Western and Williamstown hospitals, and provides HITH services from each of these campuses.

The aim of the HITH sustainability project was to determine the requirements for a sustainable HITH program, following withdrawal of incentive funding in June 2000, through:

- Identification of optimum scale and mixture of service content for the provision of cost effective HITH services across the Health Care Network
- Accurate determination of infrastructure investment requirements for:
 - training and education of clinical service staff
 - administrative support of HITH programs
 - start up costs of new clinical activity
 - information technology support
- Identification of barriers to the more effective utilisation of HITH from the perspective of:
 - patients and carers
 - service providers
 - fund-holders and managers.

Methodology

The methodology used in the project has included:

- In depth interviews with key internal and external informants, to establish:
 - activity levels of each service within the Health Care Network
 - educational requirements for HITH service practitioners
 - infrastructure and logistic support of each service
 - opportunities to increase utilization of HITH for conditions which are profitable under HITH
 - emerging areas for the use of HITH in new areas of clinical activity
 - barriers to the use of HITH
- Analysis of VIMD information, Health Care Network costing information, and additional data from HITH service providers at each Health Care Network hospital
- SWOT analysis of current services.

Outcomes

The project confirmed that HITH programs make an effective contribution toward cost minimisation of acute hospital services, and, although only a small part of overall services, enable increased throughput at lower cost.

Patient and carer support was strong, and the Health Care Network HITH programs benchmark favourably against other major Melbourne HITH service providers. The financial performance of HITH services at Northern, Western and Williamstown hospitals is sound, and each service should remain viable, especially if they increase their capacity above 1997/98 service levels. The RMH HITH program has a higher infrastructure cost allocation than the other campuses, leading to expenditure levels exceeding revenue. Excluding these infrastructure costs confirms that the RMH program also provides patient care at a lower day cost than inpatient care.

The project made a number of recommendations, some of which refer to internal operations and structuring of services within the Health Care Network. In respect of sustainability the project recommended:

- HITH programs to be maintained as an active and integrated service within each of the acute hospitals
- Coordination between sites to be improved by continuing with the decentralized service, but zoning the service to cover the whole of the Health Care Network's catchment area – this would allow a patient to remain under the care of the parent HITH/hospital service, but be provided with the home service by another, geographically closer HITH service within the Health Care Network
- An advisory group to be established to provide overall policy direction for the HITH program, with the group sponsored by a Health Care Network executive member to ensure that the service direction is compatible with Health Care Network directions. The group would monitor overall performance of the HITH programs for the Health Care Network.
- HITH Funding to be based on WIES equivalent allocation, with associated activity targets. Incentive funding, if continued, should be used for further business development
- Improvements to be implemented in the process of clinical review by medical staff, with development of standardised methodology for monitoring and review of patients and a more comprehensive approach to clinical review generally. The issue of patient review when the patient is at home needs to be addressed.
- Incorporation of new services, such as Broadmeadows Health Service, into the HITH program – to ensure that new acute services are fully supported by HITH programs
- Review of data entry and discharge coding practices is required, to ensure that patients entering the HITH program are not inadvertently coded as discharged from hospital – this issue affects both risk management and revenue collection
- Provision of information about HITH programs to NESB communities, in appropriate language and format
- Examination of appropriateness of HITH services for single day stay patients.

Strengths of the HITH programs included the high volume of direct transfers to HITH services, favourable benchmarking against other HITH providers, and development of innovative service delivery models.

Weaknesses included comparatively high length of stay at Western hospital, and internal confusion between HITH programs and Post-Acute Care programs (both in terms of patient eligibility and funding).

2.5 Peninsula Health Care Network

Aims and Objectives

The aims of the Peninsula project were to:

- Examine the possible expansion of HITH to the Rosebud hospital of the Health Care Network, through examining the relevant DRG throughput of HITH services, and a discussion with relevant stakeholders (Deliverable 1)
- Draft a nursing policy and procedures manual appropriate for HITH services (Deliverable 2)
- Report on a billing schedule for transfers from other metropolitan hospitals to the Frankston HITH service (Deliverable 3)
- Review medical and nursing staffing at the Frankston HITH (Deliverable 4)

The Health Care Network had previously submitted to the Department of Human Services a costing study of its HITH programs, and so did not include costing information in this report.

In that study, senior management of the Health Care Network indicated support for the continuing provision of HITH programs.

Deliverable 1 Methodology

The project examined five selected DRG categories, to look at volume of patient activity for these categories.

The project conducted discussions with medical and administrative staff, noting that the views of these staff are critical to the development of the HITH program.

Deliverable 1 Outcomes

The outcomes of the DRG review identified two possible models for delivery of HITH services at Rosebud:

- Expansion of the Frankston HITH nursing staff to cover referrals, direct care and oncall for Rosebud patients, with medical care provided by local general practitioners linked with the oncall roster for all HITH patients
- Establishment of a nursing position at Rosebud to manage all Rosebud HITH care, and assist with the Frankston program when possible. Medical care as noted in the option above.

The project report appears to favour the first option.

Discussions with key stakeholders identified, for the Rosebud service:

- Lack of incentive to develop HITH services, because of reasonably low occupancy rates at the hospital
- No central emergency department to review management and admission matters (whereas at Frankston, a key element of the HITH program is the central liaison between the emergency department and the HITH unit)

- Little cooperation between general medical practices in the Rosebud area, which may mitigate against treatment of patients transferring from another practice. In addition the relatively busy general practices rely on hospital admission to reduce home visits while maintaining income, and development of a service which increases home visits may not be supported.
- Ongoing tensions between the Frankston and Rosebud campuses (arising from amalgamation as the Peninsula Health Care Network) may mitigate against effective operation of HITH services.

The project recommended no expansion of HITH services to Rosebud hospital at this time, but with continuing education and information to relevant stakeholders, and continued management of HITH patients from the Frankston campus.

No information was presented in this report about HITH activity levels or costing (as noted in Aims and Objectives above).

Deliverable 2 Outcomes

The final draft of the Frankston HITH Nursing Policy, Procedures and Orientation Manual has been completed.

Deliverable 3 Outcomes

The project determined that it would be better, at this time, to treat HITH transfer patients in the same fashion as all other transfers, and not to seek payment from the transferring hospital for HITH patients.

Deliverable 4 Outcomes

Review of medical and nursing staff of the Frankston HITH service was completed, with recommendations for increased medical and nursing staffing, due to increased HITH workloads.

2.6 Southern Health Care Network

Aims and Objectives

The project aims were to:

- Develop a model to predict the value of HITH for various conditions
- Identify the financial savings (or otherwise) achieved by substituting HITH care for in-hospital care
- Compare the total cost of care (in-hospital + HITH) with the reimbursement (casemix + HITH incentive payment)
- For certain conditions treated during 1996/97, determine in-hospital costs using the Transition clinical information system at Monash Medical Centre (MMC) for comparison to HITH costs.

Methodology

The methodology used in this project included:

- Evaluation of the last day in-hospital stay versus the average bed day cost of the HITH service
- Exclusion of pharmacy, allied health, medical and imaging costs from the estimate of the last day in-hospital stay costs, due to extreme variability – therefore the inpatient costs are more likely to be an underestimation of costs.
- Selection of sample of patients grouped by DRG represented 72% of cases handled by HITH and 68% of the WIES generated by HITH separations
- Reconciliation of data between the HITH database and the Transition database
- Analysis of data on a number of performance indicators.

Outcomes

- The costing methodology (with the exclusions noted above) indicated that, for the top 7 DRGs, the HITH bed day cost was significantly lower than the average cost of last day inpatient stay
- HITH daily cost is less than the variable revenue received (average variable WIES payment per day), and considerably less than the estimated last day inpatient stay cost
- HITH is therefore demonstrably a financially sustainable alternative to in-hospital care for certain medical and post-surgical conditions
- Financial savings are generated from two sources – the reduction in HITH bed day cost compared with the in-hospital cost, and the comparison of HITH bed day cost with the WIES earnings received.

There was no information provided in the report on matters other than costings.

2.7 Women's and Children's Health Care Network

Aims and Objectives

The main aims of the project were to:

- Accurately cost HITH services, to enable comparison with inpatient care
- Ensure that the organisation structure is sufficient to support the shift from inpatient to HITH care
- Develop and implement integrated management funding and service provision models of all types of home-based care alongside models of inpatient care
- Determine strategies to engender cultural change towards community-based acute care within the clinical environment.

The Royal Children's Hospital (RCH) and the Royal Women's Hospital (RWH) each developed projects in accordance with these aims.

Methodology

The methodologies used in each project are included in the interim report submitted to DHS on 1 March 1999.

RCH Outcomes

The major outcomes for the RCH project include:

- Patient activity levels (as indicated by admission to service) have remained static over the past two years in the HITH program, due to:
 - current short length of stay for children requiring acute care
 - targeting of specific patient groups which may be suitable for HITH care
 - more appropriate service provision (through programs such as Post Acute Care) for families that previously have received transitional support through HITH
 - general increase in home-based care for families with children with chronic conditions, resulting in hospital admission only for the most extreme period of illness which is therefore not amenable to HITH care.
- Enhanced working relationships between HITH and hospital staff
- High level of satisfaction with HITH services reported from families
- Integration of all home-based services into a discretely funded RCH Home and Community Care service that supports relative efficiencies through centralized data collection and a relatively small infrastructure.
- HITH liaison nurses appointed to hospital units.

RWH Outcomes

The outcomes of the RWH project include:

- Development of three specific HITH programs – the Maternity project, the Surgical Project, and the Neonatal Project
- HITH services delivered as part of a coordinated home-based service system which maintains the capacity to discriminate and respond to differing levels of clinical need for care
- HITH sustainability has been addressed through review and redistribution of resources and funding internally (from a range of sources) to allow continued HITH provision.

3. Comparison of HITH Outcomes by Participating Hospital

Table 1. Service Information 1997/98, as presented in the Service Sustainability Reports

Hospital	Av cost per Sep'n	Av cost per patient day	Av HITH LOS cf Inpatient LOS	Nursing Hrs per patient visit	No of HITH beddays	No of sep'ns	Total visits p.a.	Av cost per visit	Unplanned readm within 28 days	No of adverse events	Av WIES	% HITH sep'ns cf total sep'ns
Alfred	\$ 1456	\$ 106	13.7 : 4.1	3.2	4753	366	4406	\$ 121	7%	4	4.9	1%
Angliss	\$ 98	\$ 37	2.6 : 3.7	1.0	3600	1406	2393	\$ 57	2%	1	0.8	8%
Barwon	\$ 559	\$ 94	5.9 : 3.3	2.2	4443	751	5111	\$ 82	4%	2	1.6	2%
Box Hill	\$ 814	\$ 157	6.2 : 3.6	1.0	1380	484	1747	\$ 118	1%	1	1.2	2%
Maroondah	\$ 260	\$ 69	3.0 : 4.4	1.0	1800	650	2162	\$ 62	3%	0	0.9	4%
Peter MacCallum	\$ 520	\$ 505	1.0 : 3.4	2.2	915	300	915	N/A	0.1%	0	0.2	8%
RMH	\$ 3284	\$ 361	7.9 : N/A	1.17	3883	758	5410	\$ 311	3%	N/A	1.2	0.8%
Northern	N/A	N/A	5.1 : N/A	1.08	1227	240	1018	\$ 61	1%	N/A	N/A	1.2%
Werribee	N/A	N/A	4.4 : N/A	N/A	717	317	N/A	N/A	1%	N/A	N/A	0.4%
Western	\$ 1356	\$ 226	6.9 : N/A	1.38	2106	307	2961	\$ 226	3%	N/A	1.1	1.0%
Williamstown	\$ 238	N/A	1.9 : N/A	0.93	146	74	213	\$ 83	0	N/A	N/A	1.4%
Southern	N/A	\$ 134	11.6 : N/A	N/A	2789	N/A	N/A	N/A	3%	N/A	4.4	N/A
Peninsula	N/A	N/A	6.8 : N/A	N/A	1746	281	N/A	N/A	2%	N/A	N/A	N/A
Austin Repat	N/A	\$ 118	9.6 : N/A	N/A	4337	597	N/A	N/A	2%	N/A	N/A	N/A
Women's & Children	N/A	N/A	5.0 : N/A	N/A	N/A	N/A	N/A	N/A	12 (number)	0	N/A	N/A

N.B.: HITH bedday and separations data for the Inner and Eastern group have been estimated from graphs presented in that report. Data has been extracted from the North Western report (Section 4) for A&RMC, Inner & Eastern, Southern and Peninsula, where that data is relevant to this report, but not included in the individual reports of those Health Care Networks. It is apparent that hospitals have used different methods in costing separations, patient days, and cost per visit, with some hospitals including full costs (including infrastructure and overheads) and other hospitals direct costs, with minor component of infrastructure costs. In addition, there were discrepancies in the reporting of these costs in some reports.

Table 2: Cost Summary 1997/98

Hospital	HITH Incentive Funding	WIES/HITH Funding	Total HITH Funding	Total Cost of Program	Surplus (Deficit)	% of total cost funded by HITH funding as advised by hospital	DHS Incentive Funding 1997/98 (as advised by DHS)
Alfred	\$ 261,140	Not advised	Not advised	\$ 533,053	N/A	49%	\$ 258,369
Angliss	\$ 204,490	Not advised	Not advised	\$ 138,333	N/A	100%	\$ 180,370
Austin Repat	Not advised	Not advised	Not advised	N/A	N/A	N/A	\$ 235,427
Barwon	\$ 214,286	Not advised	Not advised	\$ 487,013	N/A	44%	\$ 244,979
Box Hill	Not Advised	Not advised	Not advised	\$ 174,277	N/A	N/A	\$ 78,455
Maroondah	\$ 105,229	Not advised	Not advised	\$ 133,201	N/A	79%	\$ 105,227
Peter MacCallum	\$ 50,553	Not advised	Not advised	\$ 462,369	N/A	11%	\$ 61,604
Northern	Not advised	Not advised	Not advised	N/A	N/A	N/A	\$ 50,830
RMH General	\$ 262,205	\$ 1,082,427	\$ 1,344,632	\$ 1,454,858	(\$110,226)	92%	\$ 211,857
Cardiac	\$ 25,799	\$ 196,173	\$ 221,972	\$ 239,400	(\$ 17,428)		N/A
Peninsula	Not advised	Not advised	Not advised	N/A	N/A	N/A	\$ 96,160
Southern MMC Dandenong	Not advised	Not advised	Not advised	N/A	N/A	N/A	\$ 154,037 \$ 86,816
Werribee	Not advised	Not advised	Not advised	N/A	N/A	N/A	\$ 39,062
Western	Not advised	\$ 702,111	Not advised	\$ 539,061	N/A	N/A	\$ 111,954
Williamstown	Not advised	Not advised	Not advised	N/A	N/A	N/A	\$ 7,956
Women's/Children RCH	Not advised	Not advised	Not advised	\$ 171,120	N/A	N/A	\$ 76,135
RWH	Not advised	Not advised	Not advised	Not advised	N/A	N/A	\$ 27,811

N.B.: The deficit in funding reported by RMH is attributed by RMH to its higher level of infrastructure costs allocated to the HITH program, when compared with the infrastructure costs of other hospitals in the Health Care Network.

4. Summary of Major Issues Arising from Projects

Hospitals which undertook service sustainability projects identified major issues and strategies in respect of sustainability, as follows:

4.1 Major Issues

- Lack of appropriate information technology to support the HITH program, specifically to analyse basic activity and performance measures, in order to assess the cost-benefit and outcomes of the programs
- Lack of collection of patient outcome data, other than anecdotal evidence.
- Limited collection of ACHS clinical indicator data, and variation in the collection strategies used.
- The need to establish and maintain standards across the continuum of care
- The need to develop guidelines for the management of privately insured patients
- The integration of a HITH component of care into all clinical pathways
- Education, preparation and supervision of health care providers working in HITH programs
- Effective marketing internally and externally of HITH services
- Improved communication with general practitioners and other external health professionals
- Improved communication with and information for carers and patients
- Improved delineation between the different community care programs (HITH, PAC, HACC)
- Staff and patient safety
- Improved interdisciplinary communication, between all professionals working with the HITH patient
- Level of reimbursement by hospitals for general practitioners and other external professionals
- The need to revise the indirect (infrastructure) cost component for HITH patients, to a standard calculation across all HITH patients. Currently hospitals allocate infrastructure costs at varying rates. To enable appropriate comparison between HITH programs, it may be appropriate to set a standard rate for infrastructure cost allocation to HITH programs, for all participating hospitals
- Continued identification of those DRGs that would benefit from early intervention of a HITH service.
- The degree of variability between the HITH programs offered by the Health Care Networks, in type of service provision, types of patients managed on the program, and cost allocation methods.
- Review of data entry and discharge coding practices is required, to ensure that patients entering the HITH program are not inadvertently coded as discharged from hospital – this issue affects both risk management and revenue collection

- Identification of a trend towards longer length of stay for non-same day HITH episodes compared with overall hospital and state length of stay for comparative DRGs. Causes of this trend suggested by the Health Care Networks include:
 - patient selection bias (patients likely to require longer hospital stay are more likely to be referred for HITH care)
 - perception that there is less pressure to discharge HITH patients because they do not occupy a hospital bed
 - less frequent medical review, resulting in patients awaiting review prior to discharge, because of the absence of clear discharge criteria
 - trend towards the use of broad-spectrum antibiotics with lower sensitivities for some infections managed through HITH, which may prolong recovery time.
- Improvements to be implemented in the process of clinical review by medical staff, with development of standardised methodology for monitoring and review of patients and a more comprehensive approach to clinical review generally. The issue of patient review when the patient is at home needs to be addressed.
- Incorporation of new services, such as Broadmeadows Health Service, into the HITH program – to ensure that new acute services are fully supported by HITH programs
- Provision of information about HITH programs to NESB communities, in appropriate language and format
- Examination of appropriateness of HITH services for single day stay patients.

4.2 Strategies for Continuation or Improvement of HITH Services

The following strategies were identified by hospitals as part of their service sustainability projects.

Austin & Repatriation Medical Centre

A&RMC identified the need for internal marketing of the HITH program, in order for HITH to become an accepted modality of care within A&RMC.

The Centre has targeted both internal and external communities to market the program, concentrating on community organisations, veteran groups, multicultural groups and community health organisations.

The Centre will also relocate HITH to a larger expanded area situated closer to major areas of activity and to the main patient entry, in order to enhance the profile of HITH within the A&RMC and the community.

Barwon Health Care Network

The Barwon report did not identify specific strategies for continuation or improvement of HITH services beyond June 2000, but noted that the HITH program would need to be included in Barwon's Strategic Plan, once the reorganisation and restructuring of Barwon Health had been completed.

Inner and Eastern Health Care Network

- Identification of new patient groups for diversification of service provision
- Continued marketing of HITH services internally and externally, with focus on specific growth areas
- Increased adoption of existing technology for improving efficiency of service delivery
- Increased focus on identification and education of patients for enhanced involvement in their own care
- Analysis of reasons for longer length of stay in HITH, to optimize HITH patient length of stay
- Exploration of the potential for increased referral between programs in accordance with geographical considerations
- Incorporation of HITH into clinical pathways, so that HITH becomes a matter of routine consideration for specific diagnostic groups.

North West Health Care Network

- Improved coordination between sites by continuing with the decentralized service, but zoning the service to cover the whole of the Health Care Network's catchment area – this would allow a patient to remain under the care of the parent HITH/hospital service, but be provided with the home service by another, geographically closer HITH service within the Health Care Network
- Establishment of an advisory group to provide overall policy direction for the HITH program, with the group sponsored by a Health Care Network executive member to ensure that the service direction is compatible with Health Care Network directions. The group would monitor overall performance of the HITH programs for the Health Care Network.
- HITH Funding to be based on WIES equivalent allocation, with associated activity targets. Incentive funding, if continued, should be used for further business development

Peninsula Health Care Network

The Peninsula report identified two options for continuation/expansion of HITH services, and appears to prefer the first model:

- Expansion of the Frankston HITH nursing staff to cover referrals, direct care and oncall for Rosebud patients, with medical care provided by local general practitioners linked with the oncall roster for all HITH patients
- Establishment of a nursing position at Rosebud to manage all Rosebud HITH care, and assist with the Frankston program when possible. Medical care as noted in the option above.

Southern Health Care Network

The Southern Health Care Network did not identify specific strategies for continuation or improvement of HITH services beyond June 2000.

Women's and Children's Health Care Network

The Health Care Network developed two plans for HITH sustainability:

The RCH plan for 1999-2000 includes:

- Implementation of the KPMG HITH Service Audit recommendations (due to be completed by December 1999)
- Development of Statewide Paediatric HITH services (due June 2000)
- Development of Statewide Paediatric Home and Community Care services, including HITH, Post-Acute Care, Palliative Care, and Family Choice program.

This last strategic direction is seen by RCH as taking HITH into a sustainable future, by linking it with a number of like programs, to enable development of comprehensive protocols, maintenance of standards, and allocation of funding packages which use local service providers. The Statewide Paediatric Home and Community Care Service would incorporate other hospitals currently providing paediatric care.

RCH will approach DHS to discuss the development of this model to ensure a sustainable statewide service.

The RWH plan for 1999-2000 includes:

- Continued implementation of the KPMG HITH Service Audit recommendations
- Implementation of the Care Exchange Project – designed to improve quality of care through use of an appropriate care environment, to provide efficiencies in service delivery costs, and to extend the boundaries at which Maternity HITH is currently offered. This Project is designed to develop care exchange relationships with other hospitals such as Monash Medical Centre and the Mercy Hospital for Women.