

---

## GP Gateway Progress Report 28 February 2001

<b>1</b>	<b><i>Project Deliverables</i></b> .....	<b>3</b>
<b>2</b>	<b><i>Background</i></b> .....	<b>3</b>
2.1	Network.....	3
2.2	Intranet Resources .....	3
2.3	GP Working Party .....	4
2.4	Steering Committee.....	4
2.5	Website Applications.....	5
<b>3</b>	<b><i>Current Status</i></b> .....	<b>6</b>
<b>4</b>	<b><i>Comment on Outcomes</i></b> .....	<b>6</b>
<b>5</b>	<b><i>Issues</i></b> .....	<b>7</b>
5.1	Participation in the GP Working Party.....	7
5.2	Evolving understanding of Privacy.....	8
5.2.1	GPs in a Practice.....	8
5.2.2	Recording of GP and Consent .....	8
5.2.3	Logging Access .....	9
5.3	Multiple names for a GP.....	9
5.4	Multiple identifiers for a patient.....	9
5.5	Saving documents electronically .....	9
5.6	Ownership of data on the website.....	9
5.7	Changing computer systems at the Area Health Service .....	10
5.8	Possible changes to network structure for GPs.....	10
<b>6</b>	<b><i>Lessons Learned</i></b> .....	<b>10</b>
6.1	Presentations .....	10
6.2	Access to the system by hospital staff .....	11
6.3	Facility to communicate changes to patient demographics.....	11
6.4	GPs skills in web browsing techniques .....	11
6.5	Forms.....	11
6.6	Suitability of the website to other regions .....	12
<b>7</b>	<b><i>Appendix A: Clinical and Administrative Patient Data</i></b> .....	<b>13</b>
<b>8</b>	<b><i>Appendix B: GP Working Party Training Program</i></b> .....	<b>14</b>
<b>9</b>	<b><i>Appendix C: Layout of Website</i></b> .....	<b>16</b>
<b>10</b>	<b><i>Appendix D: Project Risk Assessment</i></b> .....	<b>18</b>

---

<b>11</b>	<b>Appendix E: Website Screen Images.....</b>	<b>19</b>
<b>12</b>	<b>Appendix F: Project Issues Paper .....</b>	<b>20</b>
<b>13</b>	<b>Appendix G: Privacy and Consent Issues Paper.....</b>	<b>25</b>
<b>14</b>	<b>Appendix H: Newsletter Articles.....</b>	<b>30</b>
<b>15</b>	<b>Appendix I: Affiliation Framework Document .....</b>	<b>31</b>
<b>16</b>	<b>Financial Statement.....</b>	<b>32</b>
<b>17</b>	<b>Further Information.....</b>	<b>33</b>

## **1 Project Deliverables**

1. An interface based on web-technology that will enable GPs to access hospital information on patients in their care, with sufficient speed as to make its use feasible in short patient consultations
2. An agreed accreditation process that gives GPs authority to access data held by hospitals in the local Area Health Service (Illawarra Area Health Service)
3. A system of improved data security and transfer between computers of Area Health Services' hospitals and local GPs
4. Interim and final reports that describe the development of the interface and its evaluation.

## **2 Background**

The project commenced on 31 July 2001. Contact was first made with the GP Liaison Representative, the Wollongong Hospital Executive and the Information Services Department Manager at the Illawarra Area Health Service (IAHS), to define the scope for development of the project. The Wollongong Hospital, having the most clinical services in the IAHS, was nominated by the IAHS Wollongong Hospital Executive as the site to participate in the first design phase. The website would be published on the IAHS intranet. Two hospital executives were nominated as the line of report for project staff to the Wollongong Hospital Executive.

The Surgery department and the Cancer Care department had expressed an interest in communicating patient information to GPs prior to the start of the project. The Wollongong Hospital Executive indicated that these two in-house systems should be the first to be developed on the website, forming the proof of concept of the project and the basis for future developments.

### **2.1 Network**

Almost 45% of Illawarra GPs are able to dialin to the IAHS network and access the intranet and e-mail facilities. The Illawarra Division of General Practice (IDGP) has a permanent link to the IAHS network that allows access to the intranet and to the services required for website development.

### **2.2 Intranet Resources**

The intranet environment consists of a development server and a production server. The operating system is Microsoft based and the interface tools being used are the NSW Health standard, Navigator and Cold Fusion. Where possible, the patient data is read directly from the source systems. There are two exceptions so far, a daily data extraction process has been setup for pathology results and also for the current list of patient demographics.

A formalised procedure exists for the publication of the website from the development to the production environment.

---

### **2.3 GP Working Party**

In August 2000, an e-mail was sent to GP members asking for participation in the project. Nine GPs responded to the initial e-mail and the GP Working Party was formed.

Two meetings have been held with the GP Working Party.

1. The first meeting, in August 2000, set out the design philosophy and the layout of the webpages and produced a priority list of patient information to be included on the website.

A selection of internet sites, each illustrating a specific design technique, was displayed to the GPs. Text, graphics, colour, navigation and animation were discussed. The GPs unanimously decided on clear, concise text as their preferred webpage layout. The information should be summarised where possible with the option to drill-down to more detailed information as required. Patient information was discussed at length. Clinically based patient information including investigation results i.e. pathology results and radiology reports, and discharge medications were of greatest priority with information from surgery, cancer, etc seen as relevant but of lesser priority in day-to-day general practice.

2. For the second meeting, in December 2000, GPs were able to use an operational version of the prototype website to assess its features. The GPs suggested improvements and enhancements to further clarify the information being displayed including:

- adding an alert for casualty patients and deceased patients,
- including selected patient demographics at the top of each page of information in case the GP wanted to print the page,
- adding the discharge status so that if a patient was transferred out of the area the GP would be informed,
- producing an on-line form to notify the hospital's Medical Records department of a change to the patient's demographics e.g. naming of a baby, name change through marriage, change of address, death of a former patient,
- limiting page content to one page where possible (minimal scrolling to view information),
- indicating how up-to-date is the information being displayed.

The updates were implemented and a demonstration website

<http://www.idgp.org.au/cidemo/gpgateway.htm> has been made available on the IDGP internet site to give all GPs and stakeholders the opportunity to comment.

### **2.4 Steering Committee**

The IDGP-IAHS IT Projects Committee is the steering committee for the project. A DocMail steering committee was established for the duration of the DocMail Project (National Innovations Funding Pool 1999) and this committee was restructured, including three additional members, to become the IDGP-IAHS IT Projects Committee. Members include IDGP Management (CEO and Operations Manager), Project Coordinator, IAHS Executives (Health Services, Clinical

Services) and IAHS managers (Medical Records, IT, Medical Administration, Nursing Services). The IDGP and the IAHS felt that information technology was becoming more integrated into healthcare and there should be a committee formed to address IT issues as they arise.

## **2.5 Website Applications**

The electronic sources of data used in the hospital are distributed and often disparate. The patient administration system (PAS) contains the list of patient identifiers referenced by other systems. The PAS has been setup to record inpatient data only.

The organisation of the hospital has many departments operating outpatient services. Each major department has chosen a computer application specific to their needs. Most of the systems incorporate a common unique patient identifier taken from the PAS, so there is the potential to track patient information across systems. Some of the systems are proprietary, where information is kept self contained and extraction programs are required to provide the information in a form suitable for use on the website.

For the GP to have access to the patient's information, the patient must first provide a GP name and grant consent at each occasion of service. The GP name and consent details are recorded in the PAS at the time of the patient's booking and/or admission to hospital.

The Cancer system, being an outpatient system, does not record the GP name or patient consent so modifications are required to the application to include the GP name and consent. There is associated user acceptance testing and staff training. The upgrade is currently in the testing phase.

The Surgery system is an inpatient system and links to an occasion of service in the PAS. The GP name and patient consent are referenced from the appropriate entry in the PAS and do not need to be recorded in the Surgery system.

The Pathology results are available through a data extraction process. The nature of the process precludes the website accessing realtime results. The webpage contains a note indicating the timeliness of the results. With the introduction of the new pathology system at the end of February 2001, it may be possible to introduce access to realtime results. Pathology results are available to the GP for samples collected during the patient's occasion of service where the GP name and consent are contemporaneous. For a GP to access pathology results from the website, the GP name and patient consent are referenced from the appropriate entry in the PAS.

The rules for publishing other systems to the website are being investigated on a case-by-case basis. As illustrated above, the guidelines for GP access to patient information are often complex.

### 3 Current Status

The first stage of the website development is nearing completion. The website is currently being reviewed by selected departmental staff, business managers and executives of the Illawarra Area Health Service (IAHS). Following the review and the setup of the security system, the website will be made available to the GPs in the Working Party. Issues relating to patient consent need to be fully addressed before the website can be made available to all Illawarra GPs.

A demonstration website has been published to the Illawarra Division of General Practice (IDGP) website <http://www.idgp.org.au/cidemo/gpgateway.htm>  
Feedback about the website has been positive.

### 4 Comment on Outcomes

Description of Outcomes for the Period	Indicators
<ul style="list-style-type: none"> <li><i>Accreditation process initiated</i></li> </ul>	<ul style="list-style-type: none"> <li><i>50 GP Members accredited to IAHS</i></li> </ul>
<p><b>Progress:</b> The accreditation process is being directed by the IAHS Director of Medical Services during the first half of 2001. The GP affiliation framework document (see Appendix I) has been approved by the IDGP Board and the IAHS/IDGP Liaison Committee. To date, no GP members have been formally accredited. The issue of GP accreditation has been taken to a State level to permit uniformity of process. Negotiations are to commence 8<sup>th</sup> March 2001 between IDGP CEO, Dr Peter Clyne (RACGP), Lea Samuels (NSW State Health) and State Health legal advisors.</p>	
<ul style="list-style-type: none"> <li><i>Clinical and clerical data selected</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Map of website documented</i></li> <li><i>Steering Committee agreement on Web Map</i></li> </ul>
<p><b>Progress:</b> A website layout map has been documented and is included in the text of this report (see Appendix C). The GP Working Party has defined the list of clinical and administrative data (see Appendix A) that would be beneficial to their patients care. Approval was granted by the IDGP-IAHS IT Projects Committee, in the February 2001 meeting, for the website to be rolled out to GP Working Party Members.</p>	
<ul style="list-style-type: none"> <li><i>Prototype 1 developed</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Initial prototype developed</i></li> </ul>

<p><b>Progress:</b> The initial prototype has been established, a demonstration site has been published for comment and the integration of the security system is underway (see section 5.3). The timeliness of delivery of the requested patient data onto the website is dependent on the availability of the data sources (some are proprietary) and the timeframe for the changeover to new applications e.g. pathology changes in February 2001. Development of the website will proceed with the existing systems with the majority of changes due in the following 1-4 years.</p>	
<ul style="list-style-type: none"> <li>• <i>Training program developed for pilot GPs to use web technology</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Training program documented</i></li> </ul>
<p><b>Progress:</b> A training worksheet has been developed to guide GPs in the operation of the website. The website uses standard web browser techniques. The proficiency of the Working Party GPs in the use of a web browser was displayed at the second meeting (see section 2.3). Training should be straightforward for the GPs in the Working Party.</p>	
<ul style="list-style-type: none"> <li>• <i>Report to ADGP</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Report completed</i></li> <li>• <i>Report received by ADGP</i></li> </ul>
<p><b>Progress:</b> Report compiled</p>	

## 5 Issues

A number of privacy and confidentiality issues have been identified and a list of associated questions has been compiled and forwarded to the IAHS executive and NSW Health for resolution (see Appendix G).

A number of issues surrounding the setup and implementation of the project have been documented and forwarded to the Wollongong Hospital Clinical Committee and the IAHS Executive for their assessment and prioritisation (see Appendix F).

The major project issues have been outlined below.

### 5.1 Participation in the GP Working Party

Attempts have been made to recruit 10 GPs for the working party but to date 9 GPs are participating. Web page design is a specialised skill not commonly found amongst GPs. The project is fortunate to have an enthusiastic group of GP participants who are keen to contribute and to learn. There is no expected

detriment to the project in having fewer GPs participating in the Working Party than was expected.

## **5.2 Evolving understanding of Privacy**

The rules for GP access to electronic public hospital-based patient information is directed by the State and Federal privacy legislation and policies and the guidelines of the IAHS. The present understanding and interpretation gives GPs access to data where the patient has nominated the GP and granted consent at the time of admission to hospital or at the beginning of an intervention. Consent is contemporaneous and needs to be requested for each admission or outpatient intervention. The privacy paper (see Appendix G) has been forwarded to NSW Health for clarification of the issues.

### **5.2.1 GPs in a Practice**

GPs who work together in a Practice have asked that a facility be available where patient information could be available to all the GPs in the practice. The GPs believe that most often the patient of a multi-GP practice expects each GP to be able to access their information as required. If the patient was to grant informed consent to a Practice as their GP, any GP in the Practice could then access the patient's information for that occasion of service. The patient would need to be informed that if they nominated a Practice, all the GPs in the Practice would be able to access the patient's information for the current admission or intervention. NSW Health has been approached to develop a standard procedure and wording that will allow the patient to grant informed consent for a Practice to access their information.

### **5.2.2 Recording of GP and Consent**

The key factor to the GPs usability of the system is the accuracy of recording the patient's GP and consent. The previous understanding of the privacy guidelines suggested that a consent of Yes or Undecided would permit the nominated GP to access the patient's information. Review of the guidelines now suggests that consent of Yes is the only response where the GP can access the patient's information. The new guidelines are being introduced.

Suggestion has been made to the IDGP-IAHS IT Projects Committee that informed consent should be promoted to the community. The idea being that when the patient arrives at the hospital they would be knowledgeable of the consent issues and would be able to articulate their decision to the question of consent. Various health related community groups and consumer advocates will be approached to progress the issue.

In the current patient administration system, consent can only be recorded once per occasion of service. The facility is not available to record consent for each element of data recorded about the patient. If the patient requested that only some components of their information should be available to the nominated GP, the request could not be accomplished electronically using the current structure.

### **5.2.3 Logging Access**

The patient has the right to know who has accessed their information. Access to the website by all people will be logged but how much detail is required to be logged is not yet known e.g. date and time of access, the username that has accessed a webpage, the data elements that were viewed on the webpage? NSW Health has been asked to provide guidance on the level of website logging required to comply with legal requirements.

### **5.3 Multiple names for a GP**

Within the health systems there are many synonyms for the one GP. Having multiple GP identifiers has meant the development of a security matrix to code the applications and the GP name/s used within the applications. Discussion is underway at State and Commonwealth level to produce a unique provider identifier but indications are that a resolution will not be available during the timeframe of this project.

### **5.4 Multiple identifiers for a patient**

The possibility exists for a patient to be issued with more than one identifier. Processes are in place to supersede identifiers in the case of the multiple identifiers being found. There is a risk that other peripheral systems that use the same list of identifiers may select an identifier that has since become superseded. The effect is that checks should be made for all identifiers for a patient across all systems to ensure that all the information about the patient is located.

### **5.5 Saving documents electronically**

The website relies on accessing patient information that has been recorded electronically. There are many places within the hospital system where information about a patient is recorded electronically. Often there is no standard storage process for the documents nor a minimum set of data recorded within the documents.

The effect is that the document cannot always be linked to a unique patient i.e. the patient identifier is not recorded in the document. The GP cannot be given access to the document because a link to the authority for GP access cannot be established e.g. the GP name is not recorded in the document or the patient's consent for release of the information to the GP was not available electronically. Also, many documents are typed using a word processing package, printed, then deleted usually because the PC ran out of disk space or the belief that the document would not be of use to others in an electronic format.

These issues have been raised with IAHS management and will require further discussion.

### **5.6 Ownership of data on the website**

The website displays data that is present in the underlying data sources of the IAHS and does not attempt to make an assessment of the relevance of the data. An appropriate disclaimer needs to be developed to indicate that care has been

taken when producing the website but the data displayed is open to the interpretation of the viewer. NSW Health and IAHS have been asked to define who is the body ultimately responsible for the data presented on the website.

### **5.7 Changing computer systems at the Area Health Service**

Over the coming 2 years there are to be many changes to the core patient information and management systems at IAHS including the main patient administration system, introduction of a point of care clinical system, community health system, radiology system and upgrade of the emergency department system. First in the list is the change out of the pathology system on 24 February 2001.

In such a transient environment, there will be an ongoing maintenance component to the GP Gateway interfaces and possibly the data elements represented on the web pages. The IAHS and IDGP are aware of the situation. The design philosophy, navigation structure and electronic forms should remain consistent.

### **5.8 Possible changes to network structure for GPs**

The IDGP is designing a network solution for GPs to continuously access the internet during business hours. The work being completed on GP Gateway is for an intranet solution. A move by GPs to fulltime internet access would preclude them accessing the intranet. In the near future, GPs will be asked to pay additional fees for access to the IAHS network if they wish to access patient information. At this stage it is not known how many GPs will access the intranet if they are required to fund their access. Liaison is underway with the IAHS to assess the cost to GPs for continuation of GP access to the intranet. The move to the internet is beyond the scope of this project both in development time and the likely costs of providing patient information over the internet.

## **6 Lessons Learned**

### **6.1 Presentations**

Steps have been taken to promote the aims of the project to consumers, GPs, hospital staff and local health service providers. Consultation with a wide range of health and community groups has greatly assisted in understanding the issues related to electronic communication of patient details, patient consent and public perceptions. The website has introduced a Frequently Asked Questions page, to assist GPs in answering patient inquiries about the website and notes on clinical pages giving the timeliness of the patient information being displayed. These enhancements are a direct result of suggestions during the presentations.

Presentations detailing the background to the project and including a demonstration of the website have been conducted with IDGP staff, the IDGP Community Consultative Committee (CCC), a large number of Departments and Executive within IAHS, the Illawarra Business Chamber and the NSW Minister for Health. A future presentation has been scheduled with the NSW Director General of Health on 21 March 2001.

---

## **6.2 Access to the system by hospital staff**

The website is designed by GPs for GPs but during the presentations, described above, many hospital staff have expressed interest in using components of the website for their day-to-day work.

- Pre-admissions staff would like to validate the information provided by the patient on their pre-admission forms,
- Emergency Department staff would like to send electronic referrals to ambulatory care as a time saving measure, rather than sending a paper request form,
- Medical Records staff would like a quick way to access patient information, by occasion of service, from various computer systems.

Their perceived benefit of the system is that one sign-on is required to access patient information from various clinical systems rather than the current system of logging on to each individual system with its associated username and password. A security system will be implemented to profile each user to the applications that they are authorised to access.

## **6.3 Facility to communicate changes to patient demographics**

One of the maintenance issues of the underlying PAS is keeping the patient demographics up to date so that the patient can be accurately identified. The GP will generally see the patient more often than the hospital system so the GP has the potential to be more up to date with the patient's contact details. As a way of notifying changes to patient contact details from the GP to the hospital, a facility will be incorporated into the website for the GP to indicate that the demographics have changed. An e-mail, including the patient's new contact details, will be generated and sent to the Medical Records Department who will update the patient's demographics in the PAS. Common changes are babies being named, deceased patients, name change through marriage. The intention is that when the patient arrives at the hospital, the patient's demographic details will be correct in the PAS, assisting the process of patient identification.

## **6.4 GPs skills in web browsing techniques**

Since the start of the project, the computing skills of the GP Working Group have advanced. Many GPs in the working group indicated that the website was easy to navigate and that training in web browser techniques would be a short and straight forward process. The website incorporates design components common to the world wide web including a minimal number of clicks to access information, dropdown selection lists, links targeted to common pathways for accessing information and a single sign-on for website authentication.

## **6.5 Forms**

Considerable effort has been contributed towards creating electronic forms for GPs to refer patients to hospital services e.g. ambulatory care, respiratory medicine, community health, emergency department and shared care notifications.

The GP will be able to complete the referral form on the website and the referral will be sent by e-mail to the appropriate hospital department. Interested departments are setting up a central intake e-mail account to receive the referrals. The forms will follow the IAHS form approval process prior to publication on the website.

IAHS staff have requested electronic forms for responding to GP referrals. GPs have suggested that proforma-style requests would be most suitable so that information such as change to medications or abnormal results can be easily identified within the text of the correspondence.

### **6.6 Suitability of the website to other regions**

The design features of the website, the page layouts and forms have the potential to be transferable to other health regions.

It is not possible at this stage to write generalised data inquiry programs. The sources of patient data are often specific to a hospital or Area Health Service with many being written in-house or as part of a consortium arrangement.

## 7 Appendix A: Clinical and Administrative Patient Data

GPs in the Working Party have requested the following information be provided on the website:

<b>System</b>	<b>Data Requirements</b>
<b>Antenatal</b>	Baby births Statistics including height, weight, APGAR
<b>Bookings</b>	Future bookings for the patient at the hospital clinics
<b>Cancer Care</b>	Clinic Treating Doctor Treatment provided Appointment date Patient attendance
<b>Discharge Summary</b>	Date of discharge Discharge Diagnosis Full discharge summary document
<b>History</b>	List of previous interventions for the patient including inpatient and outpatient services
<b>Investigations</b>	All to include Date of Test and Test Performed
Pathology	Haematology Biochemistry Microbiology Hystopathology
Imaging	CT Scan MRI Ultrasound X-Ray
Nuclear Medicine	
<b>Pharmacy</b>	Discharge Medications Medication Plan
<b>Theatre</b>	Date of Surgery Surgery Performed Surgeon Pathology results, where applicable Final Diagnosis
<b>Allied Health</b>	All to include Date of consultation and the Interventions Diabetes Physiotherapy Rehabilitation
<b>Surgeons Waiting List</b>	List of Surgeons Waiting list time per surgeon
<b>Pathology Companies</b>	List of local pathology companies Link to pathology results per patient

## 8 Appendix B: GP Working Party Training Program

### Overview

The GP Gateway website has been developed for use with Microsoft Internet Explorer version 4.01 and above.

The screen layout has been designed primarily by the GP Working Party with the assistance of the web developer and the project coordinator.

Operation of the website follows standard navigation keys and links exist on most pages to return to the homepage or return to the main client information page or to advance to more related information.

### Web Browser ShortCut Keys

Key Sequence	Action
Alt-Left Arrow	Back one page
Alt-Right Arrow	Forward one page
Ctrl-Down Arrow	Move in increments down the page
Ctrl-End	Go to the end of the page
Ctrl-Home	Go to the top of the page
Ctrl-Mouse Click	Make multiple selections from the dropdown list Remove selections from the dropdown list
Ctrl-Up Arrow	Move in increments up the page
Space Bar	Insert a ✓ in a checkbox
Tab	Move between form fields and links (URLs) on the page

### Terminology Used on the Web Site

Terminology	Definition
Client ID	Hospital identifier for the patient
Disclaimer	Statement detailing the way privacy and confidentiality has been integrated into the website and the process used to present client information throughout the website.
Name Search	Find a client's name using a character search on family name and/or first name
FAQ	Frequently Asked Questions from members of the community.
GP Contact Details	The demographics of a GP as recorded in the hospital database.
Home	The front page of the website
Inpatient List	List of clients who are currently inpatients in any of the hospitals within the local Area Health Service.

## Features of Client Information

### *Antenatal*

A summary of previous pregnancies and a list of infants born are displayed. A link is available to details about each pregnancy. For each infant, a link is available to further details about the infant.

### *Bookings*

The list of future bookings are displayed where the details are available from the computerised appointment systems around the IAHS.

### *Cancer Care*

The bookings for Cancer treatment are provided in reverse date order. If a client has not attended an appointment, the time seen will be zero.

### *Discharge Referrals*

A search through the discharge referral letters generated by the Medical Records department produces a list of the client's documents. Each of the client's discharge referral documents can be viewed as text or in the original format of the document.

### *History*

A summary of the bookings and admissions is displayed where the client has nominated the current GP and granted consent. A link is available on each episode to give details of the movements of the client during their hospital stay or the changes to the booking status for waiting list clients. The link to **Transfers** displays the movements between hospitals, consultants and health service providers and the associated investigations during the client's hospital stay.

### *Pathology*

A list of episodes, excluding bookings, is displayed.

Click on the pathology link to view the list of pathology tests that were conducted during the time the client was an inpatient.

Click on the pathology results link to display the test results.

The test results can be filtered into the various pathology departments e.g. biochemistry, haematology, etc. Click on the appropriate department to display the results from the selected department.

### *Surgery*

A summary of the surgery performed is displayed.

Click on the date link to view details of the surgery including the surgery team and any implants.

If a specimen is sent to pathology, click the specimen link to view the list of pathology tests that were conducted from the time of the surgery up until the client's discharge date.

## Health Services

### *Aged Care*

If the client has been referred to Aged Care Services, the current assessment status is displayed.

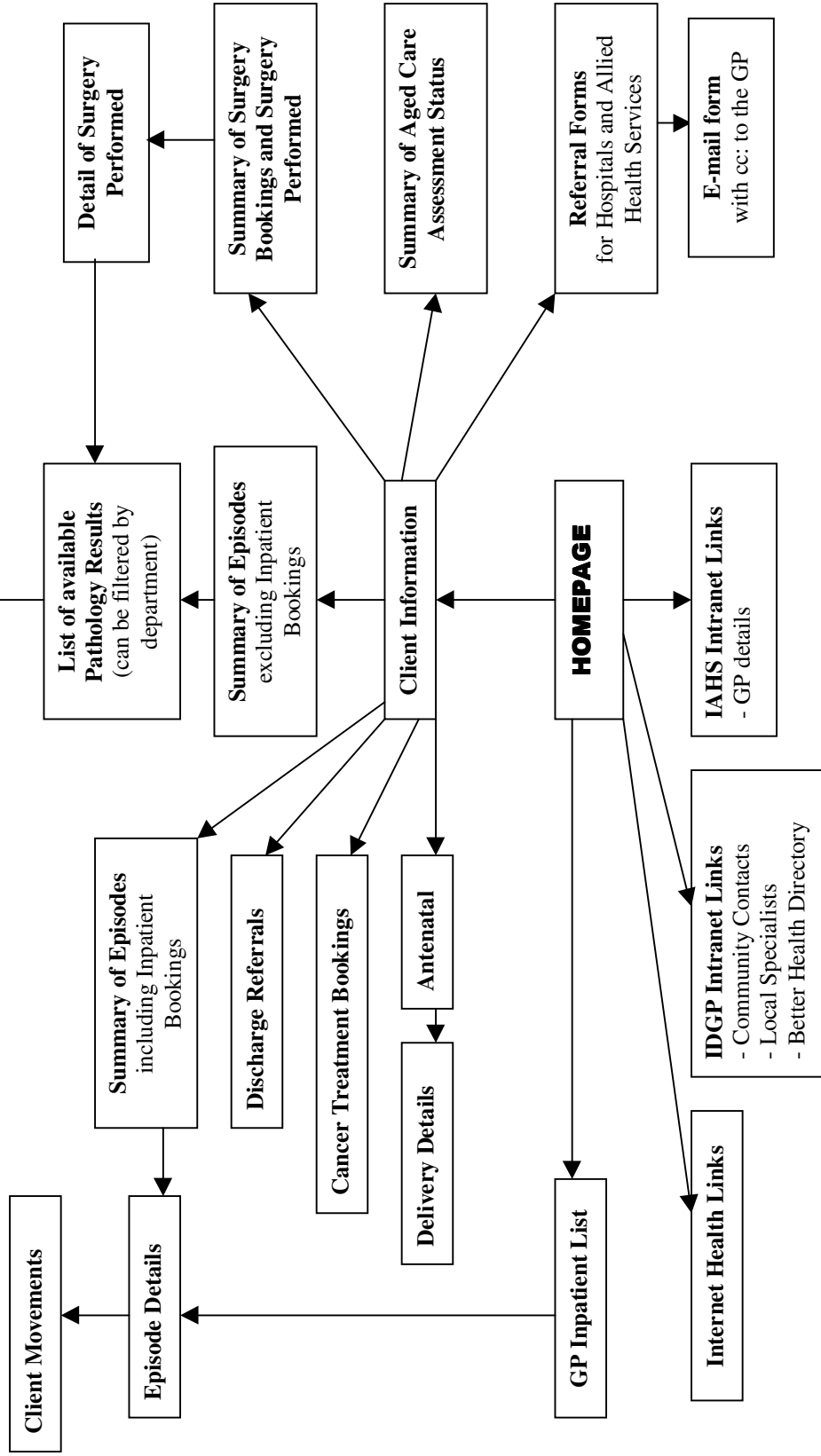
## Forms

Forms are available to:

- send referrals for selected hospital services and
- to notify the Antenatal shared care team of client consultations that have been conducted as part of the client's shared care program.

## 9 Appendix C: Layout of Website

### Navigation Map of present GP Gateway Website



Investigations are underway to assess the requirements for access to Discharge Medications, Radiology Reports and Emergency Department diagnoses.

Initial discussions with the Outpatient Services Department indicate that information from their new patient booking system may be achievable.

## 10 Appendix D: Project Risk Assessment

Risk	Impact	Comment
<p><u>1. Performance</u></p> <p>1.1 Dialup connection not adequate</p> <p>1.2 Connection speed not adequate</p> <p>1.3 Data search speed not timely</p>	<p>High</p> <p>Medium</p> <p>Medium</p>	<p>1.1 GPs do not have permanent connection to the health network.</p> <p>1.2 Dialup modem is the method GPs use to connect to the health network.</p> <p>1.3 The patient information is not indexed by GP.</p>
<p><u>2. Access to information</u></p> <p>2.1 Privacy rulings need to be applied.</p> <p>2.2 All patient data is not recorded electronically.</p> <p>2.3 Consent and GP are not electronically recorded in all hospital systems.</p> <p>2.4 Hospital policies are not defined regarding the information available to GPs.</p> <p>2.5 Lack of participation by hospital department managers and their staff.</p> <p>2.6 Change of major feeder systems is planned e.g. laboratory system, patient admission system.</p>	<p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>Low</p> <p>High</p>	<p>2.1 How to apply privacy rulings is not fully understood.</p> <p>2.2 Most clinical information is stored in paper-based systems.</p> <p>2.3 Outpatient systems e.g. cancer care, do not record patient consent or GP.</p> <p>2.4 Issues relating to GP access to patient information have been raised with IAHS management.</p> <p>2.6 Replacement of major software starting 24 February 2001.</p>
<p><u>3. Implementation</u></p> <p>3.1 Access to an analyst familiar with the data sets may be restricted.</p> <p>3.2 Hospital priorities may change overtime.</p> <p>3.3 GPs not willing to use the system.</p> <p>3.4 Staff may change at the hospital's Information Systems Department.</p> <p>3.5 Project management may change at IDGP.</p> <p>3.6 Adequate resources may not be available to meet the GP requirements.</p>	<p>Medium</p> <p>Low</p> <p>Low</p> <p>Low</p> <p>Low</p> <p>High</p>	<p>3.1 Limited number of hospital staff who know the data integration components of the systems.</p> <p>3.6 A large number of business systems are not fully electronic and/or do not have privacy provisions.</p>
<p><u>4. Sustainability</u></p> <p>4.1 No benefits may be realisable to the hospital and its departments.</p>	<p>Low</p>	<p>4.1 Many hospital staff have expressed interest in using the system.</p>
<p><u>5. Participation</u></p> <p>5.1 GPs are not familiar enough with web technology to contribute to the development of the web interface.</p>	<p>Low</p>	<p>5.1 90% of the anticipated number of GPs are currently participating in the web interface design</p>

## 11 Appendix E: Website Screen Images

A demonstration of the website is available on the IAHS intranet

<http://internal.iahs.nsw.gov.au/cidemo/gpgateway.htm>

and the IDGP internet site

<http://www.idgp.org.au>

## 12 Appendix F: Project Issues Paper

Issues of implementation and sustainability of the GP Gateway Project.

	SUBJECT	IMPORTANCE
<a href="#">1</a>	GP and Consent are not being recorded accurately.	HIGH
<a href="#">2</a>	Clinical documents are not being saved electronically.	HIGH
<a href="#">3</a>	The complete medication list for a patient is not available when required.	HIGH
<a href="#">4</a>	Information presented through the website needs an owner.	HIGH
<a href="#">5</a>	Audit trail of access to a patient's record.	HIGH
<a href="#">6</a>	Levels of patient consent.	Medium
<a href="#">7</a>	GP access to patient demographics would assist electronic referrals.	Medium
<a href="#">8</a>	Common naming standards do not exist for GPs.	Medium
<a href="#">9</a>	Standards are needed for creating clinical documents.	Medium
<a href="#">10</a>	Single sign-on for users.	Medium
<a href="#">11</a>	Information no longer available with new PAS and POCCS.	Medium
<a href="#">12</a>	Consent can only be recorded for one GP.	Medium
<a href="#">13</a>	What is informed consent.	Medium
<a href="#">14</a>	GPs need a single point of entry to health information.	Medium
<a href="#">15</a>	Website has potential for use by IAHS staff.	Low
<a href="#">16</a>	A centralised e-mail account to accept electronic referrals.	Low
<a href="#">17</a>	Response by e-mail to GP requests sent by e-mail.	Low
<a href="#">18</a>	Capacity for more documents to be created electronically.	Low
<a href="#">19</a>	Use of electronic referrals and digital signatures after 1 July 2001.	Low

### 1. GP and Consent are not being recorded accurately.

At the time of admission, the patient is usually asked to nominate a GP and provide consent. Up until recently, if the patient was unsure of consent but gave a GP name, the GP would be notified of the patient episode. Changes to privacy have meant that patient information is available to the GP when patient consent is Y (yes). Consent is often being recorded as U(unsure) which means no DocMail to the GP and no information about the episode on the website for the GP.

At various times recently, a GP has insisted that their patient has nominated them at the time of admission but no correspondence from the hospital has been received by the GP. Two issues have been identified:

- A patient was transferred between hospitals. The GP was recorded as 'unknown' at the receiving hospital even though a GP had been nominated at the previous hospital.
- Neither GP nor consent were entered i.e. both were blank.

### 2. Clinical documents are not being saved electronically.

Clinical patient information is being typed into a Microsoft Word document and printed but not saved electronically. Staff suggested two main reasons for their actions:

1. The PC ran out of disk space.
2. The patient information would not be of use to others in an electronic format.

---

ISD has sent an e-mail to Business Managers, General Managers and Service Directors on 15/01/2001 explaining how documents can be stored on a server and the costs involved.

### **3. The complete medication list for a patient is not available when required.**

Medications that the patient has brought with them to hospital, stopped taking in hospital and been discharged with, are at the top of the list of information that the GPs have requested. Providing the discharge medications in the discharge referral does not deliver the information to the GP in the timeframe it is required.

The NSW Health Minister, Mr Knowles, at a recent presentation of the GP Gateway website, presumed that links to Pharmacy would be in place on the website as a priority issue. The complete list of medications for each patient is not available electronically in STOCCA. Speaking with Rosemary Bourke, there are several outstanding issues:

- The indemnity statements to include with the medication list need to be defined.
- The upgrade to STOCCA is said to include a GP referral template.
- Additional staff are required for data entry.

### **4. Information presented through the website needs an owner.**

If an issue arises over the validity of information presented on the website, is there a body with the responsibility for the information? Are disclaimers needed on appropriate pages e.g. quality assurance measures that have been taken prior to information being made available on the website? Lea Samuels is following up this issue.

### **5. Audit trail of access to a patient's record may be required.**

Logging access to the website is available in the web software e.g. date and time of access, the user who accessed the information and the website pages that were visited.

Is it sufficient to know that the GP visited a web page or is additional logging needed of exactly what was seen at the time? The pages on the website are likely to change over time. Information displayed on a webpage today may contain different elements to the information displayed on the same webpage in the future. Lea Samuels is contacting Meno Schilling about this issue.

### **6. Levels of patient consent.**

If a patient grants consent, does it mean that all information recorded about them by the hospital for that episode is available to the nominated GP? Are there boundaries to the release of patient information such as financial class, next of kin, mother's maiden name,... HOSPAS records consent but the level/s of access is not recorded.

### **7. GP access to patient demographics would assist electronic referrals.**

The GP will be able to use a form on the website to e-mail a referral to the hospital.

Can the GP select a patient's demographics from the list of patients recorded in HOSPAS and issue the referral?

Current understanding of privacy is that the GP has access to the patient's information for the episode where the patient has nominated the GP. HOSPAS stores current ATS information for around 3 years after which time it is archived. Many patients who see the GP regularly would not have been an inpatient in the last 3 years. I understand that the CHIME system treats access to patient demographics differently to access to clinical information.

#### **8. Common naming standards do not exist for GPs, AMOs, VMOs, local specialists.**

Each computer system has physicians coded in a different way e.g. Dr Smith may also be known as Dr J Smith; SmithJ; SmithJS,Wollongong; Dr John Smith,...

A naming convention would streamline electronic access to patient details for GPs. NSW Health is investigating a single GP identifier but an outcome is not available as yet. Suggestions for a unique identifier at IAHS include provider number, the existing HOSPAS codes and payroll number, where other numbers/codes do not exist.

#### **9. Standards are needed for creating clinical documents.**

If MRN, GP, consent and date of consent were recorded in each clinical document, where appropriate, the patient's GP would be able to view the documents from the website e.g. discharge referrals, dietary management plan, cancer care treatment diary, renal treatment letters. If the filename and location of the document were standardised, all documents relating to the patient could be easily identified.

#### **10. Single sign-on for users.**

The website has the potential to offer users a single point of access to computer systems that would normally require a separate username and password e.g. theatre, pathology, hospas. The website does not have the built-in security of the underlying systems. If a user is granted access to the website, the full functionality of the website is available i.e. the ability to e-mail referrals, search for a patient and view appropriate patient clinical information. Does IAHS support the concept of a single sign on?

Are there reasons for a "security matrix" to be developed that would detail the website pages that could be accessed by each user?

#### **11. Information no longer available with new PAS and POCCS.**

The patient information available on the website is based on HOSPAS. The current understanding is that the new PAS and POCCS would not permit access to patient records from the website.

#### **12. Consent can only be recorded for one GP.**

The patient will no longer be able to nominate a Practice as their GP. In HOS PAS, only one GP can be entered for each episode. Each GP will be able to access interventions for the patient where the patient has specifically named

them, even though in their own surgery the patient record is shared. Lea Samuels, NSW Health, is sourcing documentation that details the ruling.

**13. What is informed consent.**

After speaking with IAHS staff, I understand that the patient may not be well informed about the GP and consent questions that are asked at the time of admission. Some GPs and IAHS staff have indicated their interest in developing an information pamphlet/poster/leaflet that would give details to the patient about consent and delivery of their health information to their nominated GP. *Would IAHS support the patient education initiative?*

**14. GPs need a single point of entry to health information.**

GPs are being encouraged to connect to the internet as the point of access for the majority of their information needs e.g. pathology results, authority numbers for prescriptions, electronic billing to Medicare and in the future - validation of digital signatures. If patient information was available via the internet, local and Shoalhaven GPs with internet access may have the possibility of accessing their patients' information electronically. Would IAHS support access to patient information from the internet?

**15. Website has potential for use by IAHS staff.**

The website has been developed principally for GPs. Speaking with many IAHS staff, it would appear that the website may be potentially useful in a range of hospital situations e.g. Preadmissions staff could validate the information provided on the patient's preadmission form and staff could use the referral forms to e-mail referrals other departments. The perceived benefits appear to be in the centralised nature of the links to the patient's information. Less time is spent finding the required information. Does IAHS management see the website as being a useful resource for staff?

**16. A centralised e-mail account to accept electronic referrals.**

GPs will be able to e-mail a request for a service for a patient using a form on the website. The forms would be more effective if there was a centralised intake e-mail account for each department to receive the e-mail correspondence from GPs, rather than sending the same e-mail to many staff members. An example is the ichintake e-mail address used by Community Health. It may be important to keep e-mail correspondence for a period of time. Deletion and archive of e-mail may be an issue.

**17. Response by e-mail to GP requests sent by e-mail.**

IAHS staff have asked for electronic forms to be developed to respond to GP requests and referrals. GPs have suggested that proformas for common correspondence would help to easily identify abnormalities or changes to a patient's care - rather than reading through a lengthy letter. For IAHS staff to correspond with GPs by e-mail, staff would require access to a networked PC and a personal e-mail account.

**18. Capacity for more documents to be created electronically.**

Wollongong Hospital is the only hospital in the Area that has discharge summaries available electronically. Are there plans to have other hospitals creating electronic patient documents?

**19. Use of electronic referrals and digital signatures after 1 July 2001.**

GPs will have the option to send electronic referrals following the introduction of the Electronic Transactions Act (ETA) on 1 July 2001. Referrals that are sent electronically and contain a valid electronic signature can be considered as valid referrals for the purpose of a Medicare claim. Would the IAHS be supportive of a move to electronic referrals?

---

## 13 Appendix G: Privacy and Consent Issues Paper

### Issues of Privacy, Confidentiality and Consent

#### **Discharge Summaries**

A patient is admitted to hospital and nominates a GP at the time of admission. When the patient is discharged, a discharge summary is forwarded from the hospital to the nominated GP.

- Does the patient need to consent before the discharge summary is sent to the nominated GP?
- If the patient said No to consent, should the discharge summary be sent to the nominated GP?
- If the patient consent is Unknown, should the discharge summary be sent to the nominated GP?

#### **Consent**

The patient gives verbal or written consent at the time of admission and the consent is recorded electronically in the ATS.

- Is the patient required to give signed consent before consent can be recorded electronically?
- 

#### **Who can view the patient's record**

A patient nominates a GP at the time of admission but has not recorded consent i.e. the consent status is Unknown.

- Can the nominated GP access the patient's record?
- Can the nominated GP receive DocMail from the hospital?

#### **A patient nominates a Medical Centre as their GP.**

At the time of admission, the patient nominates a Medical Centre as their GP. The patient may not remember the GP's name.

- Who from the Medical Centre can access the patient's record?
- Who from the Medical Centre can view the patient's discharge summary?
- Can the Medical Centre nominate a GP who practices there to be the recipient of the DocMail messages and the discharge summaries on behalf of the Medical Centre?

#### **Viewing patient records via the Intranet**

The patient nominates a GP at the time of admission for the current hospital stay. The nominated GP wants to view the patient's history from the ATS via the hospital intranet.

- Does the GP need to have the patient's signed or verbal consent to view the patient's history electronically?

- Does the GP need to have the patient's consent each time the patient's history is viewed electronically?
- Can the GP view the full list of previous episodes of care for the patient? Some episodes may not have the current GP as the nominated GP.
- Which data fields of the hospital ATS patient record can the patient's nominated GP view?

### **Access to Diagnoses**

The DIMAST contains ICD codes and patient administrative information for episodes since the start of the HOSPAS system (around 15 years). The ATS is available only for the last 3 years. Note: The old DIMAST (>3years) does not contain the patient consent status nor the patient's nominated GP.

- Can the DIMAST be decoded to provide an historic list of diagnoses for a patient?
- Can the patient's nominated GP view the DIMAST records of the patient's diagnoses?
- Can the patient's nominated GP view the discharge diagnoses from the DIMAST prior to the discharge summary being available?

### **Nominated GP changes**

A patient has nominated a GP at the time of admission. During the time of hospitalisation or shortly after, the nominated GP has handed over care of their patients to another GP. This could be due to holiday relief, locum, retirement, death, etc.

- Can the alternate GP view the patient's record?
- In case of the nominated GP leaving general practice, can the patient's new GP view the patient's history previously accessible by the nominated GP?

The patient has decided to change their nominated GP part way through a stay in hospital.

- Is there need to retract patient information sent to the first GP?

The GP's name has been incorrectly recorded in the ATS at the time of the patient's admission. The GP has been sent a DocMail message about the patient's admission. The staff/patient discovers the error and the nominated GP is corrected in the ATS.

- Is there need for a process to retrieve messages already sent to the incorrect GP?
- Do the messages sent to the incorrect GP need to be sent to the correct GP?
- Does the correct GP need to be notified that messages were sent to the incorrect GP?

---

### **Access to the MRN**

Access to patient information is fastest for the patient's GP if the patient's MRN is known.

- Can a GP search the whole PMI for a patient's MRN?
- Can a GP search for a patient's MRN using a limited PMI consisting of patient's that have nominated the GP?
- What PMI search criteria can be used e.g. surname, first name, age, date of birth, sex, suburb, postcode, address, medicare number?
- What information can be displayed from the PMI to assist the GP to identify the patient's MRN? e.g. surname, first name, age, date of birth, sex, suburb, postcode, address, medicare number, DVA number, next of kin, mother's maiden name?
- If the patient's consent is No, does that exclude the patient from being displayed on the MRN list returned by the search program? Note: patient consent is only recorded on the ATS and not the PMI.

### **Access to other systems**

A patient has nominated a GP at the time of admission and consent is recorded in the ATS as Yes or Unknown i.e. not No. The nominated GP wants to access information from other computer systems within the hospital that have recorded patient data during the current episode of care e.g. cancer care, renal, theatre.

- Is patient consent in the ATS sufficient documentation to allow the nominated GP to access information recorded in other systems?

### **Emergency Department (ED)**

When a patient presents at ED, consent is not requested from the patient.

- Can discharge summaries be sent from the Emergency Department?

### **Access to multiple systems**

The patient has records in many different service-centric systems/applications for the current episode of care e.g. theatre, cancer care. The patient's nominated GP wants to view the patient's records e.g. the patient's family want to know about the patient's current condition.

- Does the GP have to login to each system to see if a record exists for the patient?
- Can the GP be shown that a record exists in each of the systems?
- If the GP is granted access to one system, is that sufficient authentication to allow access to the other systems?
- How much information can be displayed about the patient record on the front screen?
- Is the information that can be displayed dependent on the user e.g. nurse, bed clerk, AMO, casualty GP, accounts clerk, admissions clerk, patient's GP?

- Can the GP see future bookings for the patient?

### **Seeking expert advice**

An AMO is assigned to a patient and wishes to seek advice from another health professional about the patient's care.

- Can the other health professional view the same data about the patient as the AMO?

A VMO has been contacted at home about a hospital patient's condition and wants to access further information.

- Can the VMO remotely access the patient's electronic record?
- Does the VMO have the same access rights to the record as if they were working within the hospital?

### **Enhanced Primary Care**

The patient's nominated GP is participating in a case conference or care plan review about the patient with two other health-related professionals. The GP has received patient consent prior to the conference. The conversation may be conducted via teleconference.

- Can all participants view the patient's hospital records? Only the patient's GP may have documented consent.
- Can all participants access the same electronic view of the patient's hospital records?

### **Hospital Visits**

A GP visits a patient in hospital and records notes in the patient's record. Later, the GP wants to view the notes made in the patient's record.

- How much information in the patient's record can the GP view? e.g. just the GP's notes, the patient demographics and the GP's notes, all the information about the current episode, all of the patient's records.

### **Maternity**

A baby is born to a patient that has nominated a GP at the time of admission.

- When the patient record is created for the baby, does it have the same nominated GP and consent status as the mother? Or does the mother need to explicitly give a nominated GP and consent for each child born?

### **Health Status**

A HIV patient nominates a GP and gives consent at the time of admission.

- Can the GP view the patient's record?
- Can patient consent override any privacy ruling associated with the limited disclosure of information of HIV patients?

- Does the ruling apply equally to patients in mental health, sexual health, etc.

### **Public and Private Practice**

A local GP is a VMO at a local hospital and works in a private practice.

- Is patient consent required for the GP to view the patient's record? As a VMO in the hospital consent is not required to view the patient's record.
- If the VMO is caring for a patient in hospital and is also the patient's nominated GP, what information can the GP view? Is it the same information that is provided within the hospital?

### **Shared Care**

A GP provides antenatal care for a patient co-jointly with a hospital-based midwife. The hospital stores antenatal information about the patient electronically.

- Does the patient need to give consent for the GP to view the patient's record?
- Does the patient need to give consent for the GP to receive a postnatal discharge letter?
- Does the patient need to give consent for the postnatal discharge letter to be forwarded to the Early Childhood Centre?

## **14 Appendix H: Newsletter Articles**

Newsletter articles about the GP Gateway project have been published in the IDGP GP News, Alliance of NSW Divisions Reverb magazine and the IAHS Information Services Department Newsletter.

## **15 Appendix I: Affiliation Framework Document**

## 16 Financial Statement

## **17 Further Information**

Further details about the GP Gateway project are available by contacting:

Illawarra Division of General Practice

Phone (02) 4226 7052

Fax (02) 4226 9485

E-mail: [ldgp@ldgp.org.au](mailto:ldgp@ldgp.org.au)