HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON FAMILY AND COMMUNITY AFFAIRS

Reference: Health information management and telemedicine

CANBERRA

Wednesday, 4 September 1996

OFFICIAL HANSARD REPORT

CANBERRA

HOUSE OF REPRESENTATIVES STANDING COMMITTEE
ON FAMILY AND COMMUNITY AFFAIRS

Members:

Mr Slipper (Chairman)
Mr Quick (Deputy Chairman)

Mr Ross Cameron	Mr Kerr
Ms Ellis	Ms Macklin
Mrs Elson	Mr Allan Morris
Mr Forrest	Dr Nelson
Mrs Grace	Mrs Vale
Mrs De-Anne Kelly	Mrs West

Matters referred to inquiry into and report on:

The potential of developments in information management and information technology in the health sector to improve health care delivery and to increase Australia's international competitiveness with particular reference to:

the current status of pilot projects already commenced and an evaluation of their potential for further development;

the costs and benefits of providing advanced telecommunications and computer technology to general practitioners and other health care professionals throughout Australia, particularly in rural and remote areas;

ethical, privacy and legal issues which may arise with wide application of this technology and transfer of confidential patient information;

the development of standards for the coding and dissemination of medical information;

the feasibility of Australia becoming a regional or international leader in the development and marketing of this new technology; and

the implications of the wider development and implementation of medical practice through telemedicine for public and private health outlays, including the Medicare Benefits Schedule.

WITNESSES

HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON FAMILY AND COMMUNITY AFFAIRS

Health Information Management and Telemedicine

CANBERRA

Wednesday, 4 September 1996

Present

Mr Slipper (Chairman)

Mr Ross Cameron	Mr Quick
Mrs Elson	Mrs Vale
Mr Forrest	Mrs West
Dr Nelson	

The committee met at 9.02 a.m.

Mr Slipper took the chair.

CHAIRMAN—I declare this meeting open. Today is the start of our Telemedicine inquiry. During the course of this inquiry we will be taking evidence from right around the country. I am particularly pleased to open this first day of public hearings on our inquiry into Health Information Management and Telemedicine, as referred by the Minister for Health and Family Services, the Honourable Michael Wooldridge, in June this year. The committee is looking at a range of matters relating to the potential of developments in information management and Information Technology in the health sector to improve health care delivery and to increase Australia's international competitiveness.

The main issues to be resolved by the inquiry are to establish an appropriate role for government in setting standards and guidelines for the evolving industry, to address issues of data security and the privacy rights of patients, to examine the impact on the medical profession and the community generally of new procedures enabling medicine to be practised across state, national and international boundaries, and to look at the strength of current Australian knowledge and expertise in the area.

In the minister's letter of referral, he said that the inquiry would 'greatly assist the government and the wider community to obtain a better understanding of this important emerging policy area'. The committee will address the potential of this technology to assist health practitioners improve health status and patient care in all parts of Australia, whether this be in hospital or home settings in urban and remote or rural areas.

We have been overwhelmed by the response we have received from throughout the country to the advertisements we have placed advertising this inquiry. To date we have received a total of 109 submissions from a wide range of organisations and individuals with an interest in the inquiry. I would like to take this opportunity to thank those who have made a contribution and whose cooperation has greatly assisted our efforts to come to grips with the complex issues being considered by this inquiry.

The committee, in commencing its round of public hearings in Canberra, will take evidence from major government departments and agencies and peak industry groups. The program will continue with a further public hearing in Brisbane on 20 September, followed by Adelaide, Melbourne and Sydney in November and the remaining capital cities and some rural areas being covered next year.

For this reason, the evidence to be given today will provide the basis for the initial exploration of the key issues and will assist in preparation for the further hearing program. To assist us in this task, I am pleased to be able to welcome representatives from the Department of Health and Family Services who are appearing before us today.

[9.02 a.m.]

DUNLOP, Ms Marion Helen, Assistant Secretary, Planning and Evaluation Branch, Office of Aboriginal and Torres Strait Islander Health Services, Department of Health and Family Services, GPO Box 9848, Canberra, Australian Capital Territory 2601

GIFFORD, Ms Jean, Acting Director, Strategic Development Section, General Practice Branch, Health Benefits Division, Department of Health and Family Services, GPO Box 9848, Canberra, Australian Capital Territory 2601

GRAHAM, Dr David, Assistant Secretary, Pharmaceutical Benefits Branch, Health Benefits Division, Department of Health and Family Services, GPO Box 9848, Canberra, Australian Capital Territory 2601

HEATH, Dr Ian, First Assistant Secretary, Information Services Division, Department of Health and Family Services, GPO Box 9848, Canberra, Australian Capital Territory 2601

WHITFIELD, Mr Alan, Assistant Secretary, Information Management Branch, Department of Health and Family Services, GPO Box 9848, Canberra, Australian Capital Territory 2601

CHAIRMAN—I now call witnesses from the Department of Health and Family Services to be sworn in. Before we commence the questioning, I seek leave of the committee to authorise publication of submissions numbered 60 to 109 in connection with the inquiry of this committee. These will be published in a separate volume of evidence. There being no objection, it is so ordered.

We have received a submission forwarded to us by the Commonwealth Department of Health and Family Services. That submission has been published, circulated, read and, hopefully, digested by our members. I would like to invite someone on behalf of the department to give us perhaps a five-minute opening statement elucidating some key elements of your submission or perhaps highlighting aspects that you would like us to focus upon in particular.

Dr Heath—Thank you, Mr Chairman, and we welcome the opportunity to do so. The department, in preparing its submission, tried to put before the committee evidence of the rich field that the committee I think is about to start to explore from our perspective.

CHAIRMAN—I hope it is not a minefield!

Dr Heath—No, I think it is just a rich field. From our perspective, there is a lot of activity going on within the department and within the broad health sector which comes within the terms of reference of the committee. The department has been pursuing for a

number of years involvement in aspects of the areas that the committee is inquiring into. I guess the broad conclusion which the submission tries to put before you is that at this stage, as we see it, we are at a very rich and interesting point in the evolution of the use of information management and Information Technology for health. We believe developments are happening at a pace which, from the evidence we have put before you, I think suggests that it is very hard to keep track even of all the things that are happening across the whole sector.

The clear conclusions that we have put before you are that at this stage there is indeed a need for broader strategies and broader directions to be brought to this area. While we have been exploring these things from our perspective, we believe the inquiry that this committee is launching is going to be a critical part of actually helping national perspectives and national government come to grips with how these directions should be set. So, as I said at the beginning, we took the very strong view that what we should try to do for the committee is effectively trawl through all of the things that we were involved in and try to put those before the committee as significant and serious information.

Quite clearly from the submission, we are doing a lot of work in the GP area dealing with that particular sector, a sector which we have seen for a variety of reasons as being critical to health sector management overall, and an area where their involvement in information management and their use of Information Technology we saw as being critical for how things could develop.

We have a significant interest in how information management and Information Technology can be used in rural and remote areas, particularly because of our Aboriginal health reference, and we have been involved in a range of activities trying to develop national perspectives working with organisations such as the Australian Institute of Health and Welfare and the various state governments, with National Health Information Modelling and those sorts of things.

Basically, the message from us at this stage is that we believe it is a very rich area. It is very diverse at this stage, requires a lot of effort to start to focus what a national perspective might be on this, but that is the point where we are at. We welcome the committee's inquiry because we believe that will help us focus ourselves on those sorts of things.

CHAIRMAN—I think one of the points that you highlight is the key role that general practitioners will play in this area. From reading the material, it seems quite disturbing that, while there has been an increase in the use of computers in surgeries for the purpose of practice management—some 40 per cent of surgeries might have computers for that purpose—I think the use of computers in relation to medical advice is much lower, some 13 per cent.

From my experience in law practice, it seems that what you need to do is to offer

some very real incentives to the doctors. Clearly they have been convinced by their accountants that to introduce computers for the purpose of practice management is a positive thing, but as yet they have not been sufficiently persuaded that it is worth all of the time, trouble and re-education necessary to adopt this relatively new medium for the purposes of health care itself. I do not know whether you would like to comment on whether you are going to offer incentives, because we cannot rely on the generosity of human nature, or whether indeed you intend to have a mixture of a carrot and stick approach.

Dr Heath—I might hand that one to my colleague on my left. I will just say one thing about the adoption of technology in general practices. As the submission suggests, the adoption is not occurring at the doctor's desk. It is occurring in the practices, the accounting and, to some extent, the record keeping, but not at the doctor's desk. We have put a lot of effort into putting in place not systemic incentives, but experimental incentives—pilot incentives—to individual practices to explore what is going to work at the doctor's clinic or desk and to get to the point where, I think, we could answer your next question. If David or Jean wanted to explore that next point, I think they should.

Dr Graham—I think the low use of computers in general practice is probably surprising. There is also an opportunity in the sense that as computers move into general practice, both the profession and the government should be trying to set up a system where the computer network or whatever evolves actually meets the needs of the community in the longer term. One of the concerns would be if a very fragmented approach occurred in general practice and the result was many software and hardware packages which were neither supportable nor networkable in the longer term. That would be a concern and we would have to backtrack at that point in time.

At this point in time, we are very keen to try to look at the broad area. For instance, we had a consultant from IBM look at this issue and try to work out the issues and the cost-effective benefits of introducing computers into general practice. The experience overseas has been that the way to go is not to just have the government subsidise free computers for all general practitioners. It needs a lot more underpinning than that, such as education and other incentives which might be non-financial, as well as financial incentives.

At this point the government has not come to a conclusion on that. It is starting to evolve a strategy of moving forward with the profession in introducing computers in a logical manner. But whether that is a financial incentive or whether there are other incentives, we do not know. For instance, there are major incentives for the general practitioner in be able to supply such things as Consumer Product Information and to be able to have better medical records through a computer database than hand held or written medical records. There are a lot of other incentives which may be indirect for the medical profession to move in this direction.

Mr QUICK—On page 22 of your submission—it really worried me when I read it—you state:

There are currently no mechanisms for making national advances in health IT. Not only are health areas within states moving along independent paths, state-wide IT developments are to some extent dictating directions for state health. National co-ordination would thus need to extend beyond the health portfolio for resolution of some issues.

Are we having the rail gauge repeated in Australian health Information Technology? How does your department see its role in linking with not only the states but also the colleges, the GPs and the pharmacists to have an overall strategy?

Dr Heath—I think the words in the submission are trying to reflect what is on the ground. Yes, there are issues. I think David was just saying that there are dangers of a very fragmented outcome on the ground now. I think the issue which we are struggling with at the moment is how you influence that from not happening. The whole history of the market place that is out there in Information Technology now has been a series of steps where at various points in time you had, in your words, the rail gauge effect, where incompatibilities came in and there were difficulties with all of that. It is easy to see that that is the danger that is out there. It is not as easy to see how you can actually take—I do not want to use the word—some control over that and stop that from happening. We are talking about state governments and Commonwealth governments and there is a long series of issues. We live in a federation and a federation has those indices about it of people having different views on how things should happen.

There is also a network of private practitioners, who are essentially independent operators. The hospitals have a fairly independent role within their own structures. It is not a simple thing to say that if we did X, the whole of that very diverse and complex health sector would all fall into line.

The work that has been going on through the Commonwealth/state health information agreement, for example, is work that is trying to put in place a broad national framework which we are trying to get people to line up with. The individual states, as this comment suggests—certainly South Australia and Victoria, to name two—are looking at the whole of government Information Technology issues, of which the health sector is just a player. How we actually bring that into line is the issue which we as an agency have been actively looking at.

I think that is very much inside the terms of reference of this committee to try to see if there is a way in which we can line up this very diverse sector and try to keep it in some focused way. There will be elements of diversity which we should not try to force out of the system just because it is untidy. It will happen that way to some extent.

CHAIRMAN—The department notes that it may be useful to differentiate between the use of the terms ‘information management’, ‘Information Technology’ and

'Telemedicine'. The term 'information management' can be used, as you have said, to describe the storage, flow and management processes of information in any form, including paper or electronic. 'Information Technology' apparently refers to the technologies used in the service of information management and the term 'IT' is used to mean new information technologies which permit electronic, as opposed to paper based, management of information. The department uses the term 'IT' to mean technologies which include computers and telecommunications systems, including faxes, modems and satellites.

In your submission, 'Telemedicine' refers to the more specific application of technology to assist in the transfer of information electronically so that diagnosis and/or clinical management can occur remotely or can be supported by electronic relayed information. In the case of the term 'Telemedicine', the Commonwealth Department of Communications and the Arts uses the term 'Telehealth'. The department itself, on page 39 of its submission, uses the term 'Telehealth' when discussing health care in remote Aboriginal communities.

What are the views of the department for the universal application of IM, IT and Telemedicine as defined in the department's submission?

Dr Heath—The uses are what I believe the submission was trying to put in some detail before the committee. We believe that there are significant opportunities and benefits to be derived from improved information management, whatever technology you use. Across the health sector probably the clearest examples of that are the issues about moving information about an episode of care with an individual from the service provider. There is a lot of anecdotal and some further evidence around. When a patient moves from an examination with a GP to a hospital setting to another setting, what tends to happen is that the records and the information about that episode of care do not get easily moved with the person.

So at each point in the process the information is reinvented. From a cost efficiency point of view that tends to lead to further tests and extra examinations which have already been done in an earlier setting but were not transmitted in some way to go with the patient.

It is a significant issue from a better care aspect. If we can improve that sort of information management, the department would suggest that we would get better care of individuals and it would also be more efficient.

Whether Information Technology has appropriate solutions and can be used to handle that better information management, there are a number of examples in the submission which indicate the sorts of things that people are exploring with that from some sort of electronic record being available, to multiple service providers, smartcards and those sorts of things.

There is that whole area of those sorts of issues which can be explored, but there is no question in our mind that improved outcomes can be achieved if we can manage that information better across the sector. But the point of the submission is saying that that is not a trivial task. The issues associated with doing that are not trivial and there is not just a simple solution sitting there. That is one example of where that sort of improvement can be.

CHAIRMAN—What is the likelihood though of getting common definitions?

Dr Heath—One of the things which the department has been doing with others has been funding work on trying to get the information model coding classification type work done so there are more and more opportunities for the sector to adopt common standards. How far down that path we can go, I think is going to be the critical test. You asked the question earlier about whether we were suggesting a carrot-and-stick model. I think we are to some extent. I cannot imagine the health sector adopting mandated standards. I do not know where they are going to come from.

The health sector will adopt standards if we—and I think that is a role that we see as part of our role but we are not the only player—promote the development of standards with the industry, with the sector, with the other governments involved. They will be adopted provided we get that sort of process right. People will adopt standards if they can see the process and they are involved in it.

CHAIRMAN—One of the problems we have is that different bodies, different departments, different groups, seem to use different terms to refer to the same activity. It would be helpful to the committee, and I dare say it would be helpful to the community, if the key players could at least work out what the word 'Telemedicine' was meant to mean, what the word 'Telehealth' was meant to mean and so on.

Mr FORREST—Is there a place in there too for a term that refers specifically to the real-time situation? There is the database access to information that a clinical person might use to make a diagnosis, but then there is the real-time situation which I am interested in with a person hundreds or thousands of kilometres away with a GP, a specialist at the other end, transfer of clinical information, and a diagnosis being made in real-time. Is there a place for that teleconsulting type term?

Dr Heath—We tried to define Telemedicine as that: that is, direct use of electronic communication as part of the clinical practice, the actual hands-on diagnosis. I think we tried—and, Mr Chairman, as you have pointed out, perhaps unsuccessfully—to try and define our terms at the beginning, and by the time we had got all of our information in one place and edited it and re-edited it, it sounds like we did not quite stick to our own definitions right through. I think it is a difficult area.

We tried to use the word 'Telemedicine' consistently to mean using technology

when you are trying to make a clinical step, a diagnosis, actually treat somebody, as opposed to information management, which was just the moving of information and data around and IT being the vehicle of moving those sorts of things around, be it by phone lines, multi-media cables, satellites, faxes or whatever.

Mrs WEST—Could you summarise the points made in the submission by giving an overview of the current status of technologically based Health Information Management and Telemedicine through projects funded by the Commonwealth and supported by the department?

Dr Heath—Could you ask that question again? Are you asking me to summarise the projects or summarise the technology that is underlying the projects?

Mrs WEST—I just want an overview of the current status of technologically based Health Information Management and Telemedicine through projects funded by the Commonwealth and supported by the department.

Ms Gifford—I do not think we are well placed to do that at this stage because the projects have been very diverse, many of them have not completed their work, and the reports of their progress are not in. We have completed a series of large demonstration projects which were initiated fairly early in the life of the General Practice Strategy and those have been evaluated. Those were fairly diverse, they were very early efforts at seeing what could be achieved in bringing new information technologies to general practice.

We can draw some overall lessons, which are more about how you proceed to introduce technology than about how the technology will actually work now. One of the real difficulties about trying to make advances in this area is that the technologies are changing so rapidly that if you have a project which was trialling early technologies, by the time the trial has finished those technologies have been superseded. And so you can learn that that approach was not very useful, but that does not then tell you whether the failure was because Information Technology will not assist general practice or whether it was simply that the early systems were very primitive. We already know that there have been major advances over the sorts of things that were being trialled in those early projects.

However, what we do know and the thing that comes through very consistently from all of those early projects is that it is very important to be clear about what we are trying to achieve and to be very focused on giving support to the change management process and to have support at every point. I think the early projects were very ambitious. We know so much more now than we did when we started. We can look back and recognise that those projects were always going to have a great struggle because they were trying to do everything that people could see might be able to be done.

As we get deeper into what is actually involved, we are becoming much more aware that we need to sort out some of the basic foundation elements before we can expect our system to actually work for it to support a general practitioner. I think this is one of the lessons that is not always recognised when we look to see how computerisation in particular has been able to support other industry change.

You have to realise that what you are trying to do to support general practice in the clinical sense—this is going back to your concern about how it has been moved in to support practice accounting and so on but we do not have very much clinical application—we are beginning to understand that the process of computerisation that supports clinical practice is a very different issue from simply moving in and doing some automation of a processing kind of exercise.

What you are actually trying to do at the clinical end is to support decision-making, to supplement what the GP is doing, not simply to replace some paperwork that might be managing the billing and so on. So you cannot make a direct comparison between the computerisation of pharmacy, which is essentially about automating stocktaking, to one that would really work to support a GP in the process of clinical decision-making. You are going into a second order of computer application which is really getting close to the artificial intelligence end of what computers may be able to do for us.

There are some simple things that a computer could do for a GP on their desk. Filling out a prescription looks to be one of those that really will provide assistance. But if we are actually wanting to get a system that will do some of the other things that we talk about in the submission, then that is a very much more difficult exercise and we have to tackle some of the major infrastructure issues that are required to support that.

So we need to define a medical terminology that the computer can understand so the computer can interact with a knowledge source somewhere else—like a drug interaction, adverse reaction kind of thing—and know what it is dealing with and can tell the doctor. That is not a trivial exercise. So we are pulling back from trying to get things set up, in place and working and are focusing now on getting some of those basic building blocks in place, like an agreed medical terminology, knowledge bases like medicine resources information, that machines can understand and can deal with. Then we need to get those build into a system that will work in real-time for a GP and not interfere with their normal practice. I think the systems are not quite there ready for a GP to really be supportive, to do all of the things that in the future we think a system will be able to do.

Mrs ELSON—The department has outlined improvements to health outcomes, both to the individual and the population as a whole, through the adoption of telecommunications technologies. The department also notes that standardisation of the definition, concepts, et cetera, are essential if IM is to realise its potential through modern technology. Could the department explain to the committee the various points it has

identified on standardisation on page 3 of its submission.

Dr Heath—You are looking at the points on page 3 about standardisation, definitions and concepts?

Mrs ELSON—Yes, and also it indicates that, for technology to be useful, compatible systems will need to be designed and implemented and the work force appropriately trained. What solutions does the department have for addressing the problem of incompatibility of technological systems? Would the sole use of Internet for information management, with appropriate safeguards and standard codes, eliminate the problems which the department refers to in its submission on page 3?

Dr Heath—Let us go into the technology for just a moment. On the issue of using the various vehicles, I think it is quite clear from a technological point of view that the Internet type delivery is opening wide opportunities for a sharing of information broadly. It is changing computing quite dramatically and will have significant flow-ons here. It is not that level of incompatibility that will give us the problems for Health Information Management.

The level of incompatibility is going to be at the level of calling the same thing the same thing, the coding, the standardisation of what people are referring to. If we are going to move clinical information from one point to another point—to go back to my earlier example of a patient moving through different service providers—then each of those points is going to have to understand exactly what that information means and use the same meanings, otherwise you are opening another danger of a person being treated as though something else has happened to them because the information went through in a form that was not understood at each level.

For population health areas, which we refer to as one of the opportunities, that is also critical. We cannot do good population health research or those sorts of things unless we can link the same activities in some way and, therefore, the same definitions. So from my point of view—and I am coming at this largely from a computing point of view and my colleagues on my left and to my far right are coming from some of the delivery ends of it—I do not see the problems as systems problems. I do not see that we are going to end up with the world we had in the 1960s where there were proprietary computer systems on everybody's desks and they were all spaghetti and they could not talk to each other and all of that.

The world has got more open in computing terms than that. The platforms on which this will run—whatever it is—are going to be within the broad bounds of compatibility, with some exceptions as there always will be. But it will be at a layer above that that we will strike the problem, the level at which people have adopted applications and software and the way they have, above that, defined their terms and classified their data, is where the issues of compatibility will arise.

The work we have been doing with National Health Information Modelling, the work we have been funding through the National Coding Centre and those sorts of things is why, as Jean mentioned before, we have been tackling that level because we do not see it as a technological problem, we see it as a problem at that level.

CHAIRMAN—I do not want to restrict the answers but, bearing in mind that we must finish at 10.00 a.m., it would be appreciated if answers could be as short as possible. Harry, do you have a question related to the previous one?

Mr QUICK—Yes. You mentioned four projects on page 22—PANACEA, MYQUEST, SAPPHIRE, and the Good European Health Record—and I am interested to follow up what Ms Gifford said about projects. I am interested in who initiates them. Are they departmentally driven? Are they from the AMA? Are they from the colleges, the training institutions? Do we have health professionals involved in any of these programs overseas? Do we borrow them and trial them? Who sets the priorities for these projects?

Ms Gifford—The projects that you mentioned are ones that are being done overseas. We have no involvement in them. They are merely examples of the kind of work that is occurring elsewhere around some of those building blocks issues.

Mr QUICK—So we do not sort of say to people, 'Look, if you are a visiting doctor, you can come to the department and we can fund something so you can go away and actually participate in these' or do we sit back and wait—and it is a bit like whether we have VHS or the old system, the BETA system—for the rest of the world to decide for us, like we are waiting for the states to come to some arrangement and, as a department, even though we have got a national perspective, we will sit back and wait. Or are you being reactive?

Ms Gifford—I think we are being both proactive and reactive. There is an interest around the world in trying to pick the standards that are internationally going to be the live ones. So we are certainly very interested in approaches to coding that are being adopted by the largest number of countries and so on. It is not necessarily going to be in our interest to be isolated in some of these choices but, on the other hand, where there is not an international picture emerging we need to be prepared to make our own choices. So I think we are doing both.

In answer to your question of where the projects have come from, the projects in the general practice area have come from different roots. Largely, they have been on the basis of submissions. Most of them have come through our divisions and projects grants program, and have been as much about assisting divisions of general practice to become established and to have a solid work base, as they have been about the actual elements that the project—

Mr QUICK—So the department has not put up $500,000 to say to some of the

GPs out there who are leading in this technology, 'You come up with something that will deal with Australia's conditions and we will fund your research'? Are you doing those sorts of things?

Ms Gifford—We are certainly planning that as our next stage, yes.

Mr QUICK—So there is nothing in this year's budget? Has the department put submissions into the minister to say, 'Look, we like this as a top priority. All these exciting things are happening. We don't want to be left behind.'

Ms Gifford—We are certainly communicating with the minister. I think we need first to be resolved in what is going to be the most efficacious approach.

Mr ROSS CAMERON—I share Dr Heath's sense of excitement about the possibilities here and have benefited from having Dr John Yu and the new Children's Hospital in my electorate, and they are doing some just fantastic things. Even at the simple end, the hospital has the capability to enter into a network, for example, a person's X-rays, and that just means that they can then be accessed by anyone on the network throughout the hospital, which saves you lugging them from one site to the next, to the next, and waiting for them.

The other exciting thing they do are these teleclinics, if you like, in other parts of the world where they have got expertise in the hospital and technology in the hospital which they can make available to a remote site in, say, a developing country somewhere in Asia or the Pacific.

I have a couple of questions following on from that. It seems to me that you have got these unbelievably expensive diagnostic tools which there are never enough of to go around. There are incredibly hard decisions you have to make as a public institution about where you are going to put your money and where you are not going to put it. How does the department make a decision about where public health, if you like, is going to get the most bang for the buck in this kind of investment, which is inevitably very expensive? Also, where do you see Australia as having a genuinely competitive leading edge capability across the sector in terms of industry development? I am also interested to know whether we could really lead from the front, in terms of our relationships in some of the developing world countries, through remote medicine.

Dr Heath—I am mindful of Mr Chairman's timing restraints. They are a large set of questions. Let me start at the tail end of that and go backwards.

I think we are of the view that there are a number of opportunities for Australia to take a lead in this area. The end of our submission very briefly summarises work we have been doing as part of the G7 countries' interest in this area. We have been the coordinating point for a range of players within Australia to try to get our technology and

our ways of dealing with these things up into that marketplace, if you like. It is a marketplace that will not be buying, but it is certainly going to showcase what Australia can do in this area.

There are a number of quite exciting possibilities, I think, being explored there. Organisations such as the children's hospital in your area have certainly done some wonderful things in terms of their own internal backbone, but also externally. Some of the projects we are looking at in that G7 context are really quite exciting, because they are allowing us to take a very high level of medical expertise, which is something which this country has got, and move it long distances and use it.

Now that can be mundane, or it can be as exciting as the work that is going on out of St Vincent's in Melbourne. They are actually doing medical work for mining companies in Papua New Guinea and offshore oil rigs, and that is genuine Telemedicine in that sense. They are doing that on a daily basis in a way that other places are still talking about. I do not think we show that around enough and talk enough about how that is.

As the submission suggests, we also think that, because of our distances inside this country, Telemedicine type approaches must be opportunities we look at either for access and equity reasons, because of those remote distances, or for efficiency reasons. You mentioned the expensive equipment, but it is the expensive medical knowledge as well. We have specialists sitting in one place, and it is their knowledge. If it could be provided to the GP dealing with somebody thousands of miles away, that is a far more effective way of using that. Those steps, I think, are there.

Your first question—of how we actually help hospitals or organisations get more bang for their buck in terms of this—is the harder one. At the moment we are finding the examples which will start to demonstrate to ourselves, the hospitals, the Gps and the health sector where the advantages really are. Technology is a very pernicious thing. People get sucked in by it, and you can spend an awful lot of money on it and get very little result. So we are trying to use the projects at various levels to find and then demonstrate where the bang for the buck actually is in terms of efficiency or effectiveness. We believe that will help lead to what we should do.

Mrs VALE—Have you come to an agreement with the state and Commonwealth health ministers in relation to the cooperation between the states and the Commonwealth on standardisation?

Dr Heath—I am not sure that I can answer all of that, and my colleagues on my left might like to chip in. Briefly, there is a National Health Information Agreement. That is at a very broad level, but it is a Commonwealth-state agreement. All of the Casemix work that we have been heavily involved in for quite some time, and have been the major funder of, is essentially done inside Commonwealth-state agreements, and there are mechanisms and processes that keep those agreements running.

Those are the areas where there are clear successes on the ground, if you like, of people working cooperatively to define those sorts of things. There are opportunities to do more of that, but it is less clear how they will work out. We mentioned the COAG processes in the submission in a couple of places. That is a vehicle which is trying to reach new agreements about how these things work, and health information is going to be a significant part of it. But the agreements are not there yet. The top politics of that is not yet finalised, let alone the level of which we are talking.

Mrs VALE—It is still in the development stage?

Dr Heath—Yes.

Dr NELSON—I have a couple of questions about the privacy issues. First, in the submission you made reference to the Privacy Commissioner expressing concern about the use of Information Technology and how that has led to an explosion in demand from a variety of sources. You also made some observations about privacy and confidentiality issues in the way medical practice is basically structured at the moment, largely with paper. Have you sought any legal advice as to whether the Privacy Act can or should be extended to the private sector?

Secondly, I note on page 8 of the submission a statement in relation to Medicare patient identifier numbers. You said:

> The issue of the use of the Medicare card number as a unique identifier has been referred to the Australian Health Minister's Conference for consideration.

I would just like to know what exactly has been referred to AHMAC for consideration. Thirdly, is there overall agreement in relation to the unique patient identifier with Medicare numbers at the moment?

Dr Heath—On the privacy issue, I am not aware of us seeking any legal advice about that at this stage. The department is of the view that we are very conscious of the privacy issues associated with medical information. We see that as one of the areas where there is a high degree of sensitivity. In terms of how the increased opportunities for that privacy to be breached should be managed and balanced, the submission indicates that, in the run-up to the March federal election, both major political parties were of the view that the Privacy Act should be extended to the private sector. Whether it is the exact Privacy Act as it stands at the moment or its principles, we have not explored that, but we think some mechanism like that might be required to clear the way for some of these things.

In relation to what has been exactly referred to the Health Minister's Conference, I do not know more than what is in the submission. The unique identifier issue is one of those coding issues. Ultimately, you are not going to be able to proceed very far if you cannot track the same person from episode of care to episode of care, either to take their

records with them or, in a de-identified form, to do an analysis of what is happening with population health. We do not have any way of doing that at the moment.

The Medicare number is not a unique identifier as it stands at the moment. It is a commonly suggested opportunity, and we are saying no more than that. It is an opportunity if that is what people want to do. Somewhere in this 'step into this world', we are going to have to deal with our views on unique identifiers. Are we comfortable with them? Can we live with them or can we not? If we cannot, that will be a limiter to what some of these things can do. If we can, the obverse of that, to my mind at least and as is in the submission, is how we deal with the privacy issues that run with going down that path.

Mr ROSS CAMERON—Is our inability to resolve the privacy issue acting as a brake on the capabilities of the technology?

Dr Heath—I am not sure I know the answer to that, and I do not know whether the department knows. When we went through the GP grants process in this area—and we tabled that as one of the attachments to the submission—there was some work done with the royal college to get agreements about how all of the technology and the data would be handled to address the privacy issue. That was put in place, and all of the projects have been done on top of that agreement. Whether that has been an inhibitor or not, I am not prepared to say.

Ms Gifford—I think it depends on what level you are talking about in terms of privacy and confidentiality. I do not think that simply changing the method of handling records, from paper based to electronic based, is presenting problems. However, if we are talking about doing new things with information that we have not done before—we are talking about being able to move to an outcomes based understanding of what our health delivery is providing—then we do need to be able to track patient episodes in a way that we cannot do now. I do not believe that we can really do that until we have sorted out some of these basic privacy issues that relate to identifying patients and linking them in ways that we currently do not do.

Mr ROSS CAMERON—It seems to me that privacy has been served historically in a large measure not by positive policy prescriptions but by the inability of the information to be pushed out across a wide circle. Now we have that capability—for example, on something like the Internet—to reach the whole world in seconds without any concern for privacy. It just seems to me that, in an area where people are sensitive about information going out, we will not be able to get the benefits of the technology unless we can give some reassurance that these issues are going to be respected.

Dr Graham—I think the privacy issue is an area that really does need to be debated. Many of the privacy restrictions that are in place at the moment are historic, and we really do not know the community attitudes towards them.

I mentioned yesterday that the Australian Pharmaceutical Advisory Council had set up a group that was looking at privacy issues and the use of pharmaceutical information to feed back to doctors. Many of the provisions under the National Health Act are very restrictive in terms of what information can be fed back to doctors, even when it is in the patient's interest. So there does need to be a debate in this area. One of the things that came out of that APAC discussion was that the consumers represented in that group were not as concerned about privacy as the doctor, who felt that the consumer should be concerned about privacy.

CHAIRMAN—We are going to call the Privacy Commissioner before the committee to give evidence. I must say that, from looking at various submissions, privacy always seems to be something that impedes—whether it be through the PharmaNet trial or a similar trial to that which occurred in British Columbia. I think it was a very appropriate question, so we are looking forward to questioning the Privacy Commissioner on that point as well.

Dr NELSON—The medicare card number is a unique identifier being discussed at AHMAC. Is the department aware of what the discussion was, and did the department prepare a submission on it? If so, can we get a copy of it?

Dr Heath—I would have to take that on notice, unless my colleagues know the answers. I do not believe the discussion has yet occurred.

CHAIRMAN—Can you get back to the secretary of the committee with that information, if it is available? If it is not available, can you let us have that information also?

Mr FORREST—My first question follows on from the theme we have been discussing. The whole issue of the ethical and the privacy thing fascinates me; they are real challenges. I would like to give you a real example. We have just sent a daughter across on a youth exchange. At home one night, we searched the Internet, and we found a site and checked out the immunisation requirements and so forth. It looked pretty right; she was covered for what she needed. But my wife did not want to trust it. She said, 'There is no signature on the bottom of this page.' So she insisted on seeing the family doctor and she went.

I was interested about the suggestion in your submission that patients might end up knowing more about their condition than their doctors and that there are real threats here for the medical profession. If this technology changes the relationship between the patient and the doctor, the medical profession would be threatened by it and the advantages would not be ensuing. I would be interested in your comments on that, particularly if somebody has access to information and makes a decision which affects their health. Then there is the legal question. Can you offer some comments on that? My second question is about rural and remote areas, and I will get to that.

Dr Heath—Those issues are touched on at various points. Quite clearly, the source of information, how reliable it is and how it can be relied on are critical issues. What we are trying to suggest in the submission is that we do see the doctor-patient relationship actually shifting and some of the pressures on that shift are going to be driven by the technology. For example, if doctors can get access to a far better range of information at their desktop because of the technology, then they will be forced to adopt it to make sure that they are doing practice up to a standard. There will be that pressure on the system.

The reverse pressure will be the other one we mentioned: it is an enabler of consumers to get access to an enormous amount of information which was otherwise arcane and belonging to the profession. That will now be brought to the clinic or practice and the doctors will have to deal with that. I think that is already happening. We are just saying that technology is going to actually be a greater enabler of that. How that relationship changes I think is going to be something which will be driven out of this sort of area.

Mr FORREST—The emphasis always needs to be on technology providing a better diagnosis service.

Dr Heath—The technology and its information can provide the doctor with better, more up-to-date information, but it can also provide the consumer with information which otherwise they are not getting or could not easily get.

Mrs VALE—Is it too much of a quantum leap into the future to suggest that perhaps at some stage patients will be able to bypass the doctor and use their own technology on their own desks?

Dr Heath—I do not think it is too much of a quantum leap in the sense of saying that I think technology, Internet type of technology particularly, is actually giving people far greater access to information about their medical conditions than they could normally get. People do not go to libraries and plough through old books—doctors, by necessity, deal with people in brief episodes—but now, if you have got a name for your condition, you can go onto the Internet and see what you can find. An enormous wealth of information and misinformation is available to consumers out there.

Ms Gifford—I think the role will change in that the doctor will be the person who assists the patient to understand the information they have access to. As someone said, there will be all kinds of information that people will have access to. They will need assistance in interpreting, understanding and validating information that they have.

Mr QUICK—That will result in changes in the remuneration structure, surely, because you would have a person at home in bed with access to a computer talking to the local GP about some of those things. How do you organise your payment structure to cope with something like that? Is it a home visit? Is it a consultation? You have got two

structures, I guess: technology on one hand and how to sort that out, and then all this other bureaucratic stuff that seems to be a mountain we can never climb.

Dr Heath—I think our submission says that that is a good question.

Mrs WEST—What is your time frame for the implementation of the whole process?

Dr Heath—I do not think there is a whole process. I think this is a series of processes. One of the key processes we talk about in the submission is the development work we have been doing about Gps. The next step of that we see is trying to promote some work which will help define better what would work and what would be useful and what sort of a more standard product, a desktop if you like, we could have. We would see that that work would be going on over the next couple of years. Meanwhile, the Internet is going to roll past us before we have seen it. The access to information issue is going to be there anyway and it is not going to be in our control. So it depends which bit of it you talk about.

Mrs WEST—How is your department managing the strategies—it will have to be the multi-facet approach, obviously—to overcome what seems to be the primary hurdle of ethics and legals? Do you have an ethics and legal committee, subcommittee or working party to deal with those concerns now so that you can proceed into the other avenues? I believe that is basically the major obstacle.

Dr Heath—We have an ethics committee and a privacy committee. They combine on various topics but they work separately. The ethics committee is mostly focused on work that we are doing, supporting research and those sorts of things, whereas the privacy committee is dealing closer to the issues that are here. So these issues are talked through there when we are proposing to do something.

Mrs WEST—Do they have a time frame for dealing with this issue? That seems to be the crucial part in the whole process. If you do not deal with that then nothing else can proceed, basically.

Dr Heath—I think the answer to that is no because I do not think we are directly trying to deal with 'the privacy issue'. We see privacy as an issue with trying to implement down these tracks, but we are not saying, 'The world of privacy must change in some particular direction.' We are saying, 'This is what we want to try to achieve. These are the privacy issues. How can they be dealt with in this context? Are they blockers or enablers?'

Mr FORREST—I was disappointed with the report at page 32 where it says that the cost effectiveness of Telemedicine is not being clearly demonstrated. Cocos Island and Christmas Island are parts of Australia. It is a long way out there and we probably have

about 10,000 Australian permanent residents there. Cost effectiveness could not be demonstrated when we do not have to cope with the cost of bringing patients all that distance or taking a specialist out to see them? This technology offers immense benefits that way. What evidence have you already established that supports a statement that cost effectiveness cannot be demonstrated?

Dr Heath—I guess there are a couple of different levels of that. I think the cost effectiveness issue is quite clear. In particular cases we would be of the view that the cost effectiveness is looking good. Telemedicine as we have defined it is about clinical practice using remote technology. Remoteness could be from you to me. You could be in another room or at least down the street. The issue concerning us with cost effectiveness is that to go down that path fully requires more than just the telephone lines. Most of the Telemedicine activity that is going on at the moment is using fairly low level activity across a fairly low level network. It is the balancing of the expansion of that infrastructure and costing that into what we are doing versus that issue.

I think those words are there as a caution, saying that we think Telemedicine is going to happen and there are lots of promising things happening there, but we are not prepared to say at the moment that in all of its implementations and all of its guises it is absolutely cost effective and the only way to go. We are being quite cautious about that. That is because the underlying infrastructure costs of some of these technologies are very high and frequently they are not brought to the table when you are actually looking at a particular thing.

Mr FORREST—I think it does need a total equation, though. The cost of transporting patients or specialists one way or the other has to be part of a total equation.

Dr Heath—Yes. I agree that where we are using it now, on the existing infrastructure, cost effectiveness is often demonstrated. The sentence you quoted goes on to talk about whether, if we move into this broad band world and that is brought into the equation, it is still cost effective. That is what has not yet been demonstrated.

CHAIRMAN—This morning's proceedings with the department were obviously only preliminary discussions. I dare say we will invite the department back before the committee prior to the conclusion of our inquiry.

[10.21 a.m]

BRYANT, Mr Simon, Senior Officer, Information and Communications Services Branch, Department of Communications and the Arts, GPO Box 2154, Canberra, Australian Capital Territory 2601

STEWART, Mr Brian, Assistant Secretary, Information and Communications Services Branch, Department of Communications and the Arts, GPO Box 2154, Canberra, Australian Capital Territory 2601

CHAIRMAN—I now call witnesses from the Department of Communications and the Arts to be sworn in. I welcome the representatives from the Department of Communications and the Arts. For the benefit of the committee, could you let us have a five minute summary. We have your submission. We have published it and circulated it, but there might be some aspects that you would like us to particularly take notice of at this point prior to our asking questions.

Mr Stewart—I thought I might talk about what our role is, rather than go through the whole submission because there are some things you might want to pursue with us. I thought it might be useful to describe our role in the broad setting and then link it to Telemedicine.

The government, under its administrative arrangements orders, has given the Department of Communications and the Arts the responsibility for national policy issues for on-line services. I guess we see our role as trying to draw together a lot of what is happening across government and across the country on on-line services.

In terms of the traditional roles that the public service would have, I guess we have all three: we have a program role, a policy role and a coordination role in terms of on-line services. The one program we have at the moment is a small program to provide community access for on-line services. That was announced in the budget. The minister is considering how to implement that particular program. It will cost $2 million.

We also have responsibility for some policy areas. We obviously have responsibility for infrastructure issues. I do not personally have responsibility for some of the physical infrastructure issues, but on-line services have some high level infrastructure they have to operate. It is quite a competitive market and there are some quite important regulatory issues which we have responsibility for as well. We have responsibility for the broad question of community access to on-line services and we have responsibility for content regulation for on-line services as well. So we have a broad policy role.

Moving a bit beyond those areas, which may be of lesser interest to the committee, we have a whole of government coordination role. It is our role to ensure that the departments and agencies across the Commonwealth are alert to the possibilities for on-line services in both policy and service delivery, they are aware of the issues, they are

aware of what is happening and they are talking to each other and the role of on-line services and policy development is happening in a coordinated fashion.

The government has a number of mechanisms for doing that. Inside the government there is a body called the Government Information Services Policy Board, which deals with how the government is using Information Technology itself. Our secretary, Mr Stevens, chairs the committee of senior officials which looks at broad policy issues beyond just government use—use in youth education, health and legal issues. So there are two quite senior mechanisms inside the Commonwealth which we use to coordinate on-line services policy.

In addition, the new government has created two new bodies to provide advice and to coordinate the broad area of on-line services. One is going to be called the Information Policy Advisory Council. It is a senior body of predominantly private sector people chaired by Dr Terry Cutler from Cutler and Associates. That body will be providing high level advice to the government on its whole on-line policy framework from regulatory issues through to applications, legal issues, community issues and the like. There are 17 people on that committee, which is a peak advisory body.

There is also the Online Government Council. Senator Alston has just written to the states and territories proposing that there be a ministerial council between the Commonwealth and the states to coordinate both policy and practice of on-line services. We see those two bodies as particularly providing coordination and advice across the whole on-line services area.

I think that there are a number of Commonwealth applications which will really be key drivers for on-line services. Telemedicine is one, but certainly education will be another. The delivery of some social payments will be one in the future. We see these as being key drivers because they will influence how the infrastructure is run out across the country and how some of the policy issues are being developed. We see Telemedicine as being one of a number of very key applications. We are quite keen to ensure that Telemedicine, as it is practised in the Commonwealth and the states, is very much part of the mainstream on-line services agenda.

CHAIRMAN—We asked the previous department for some clarification on definitions. We see that you use the term 'Telehealth' a lot. How do you relate Telehealth to Telemedicine? Do you think it is likely that your department, the previous department and perhaps others with an interest in this matter could at least come to a common definition of what you all mean with respect to certain items?

Mr Stewart—I am probably guilty of using those terms interchangeably. I had not drawn a particular distinction. We focus on the rural and remote use of telecommunications to provide health services. I notice in discussions with the department that they have focused very much on the use of computers by doctors. That is an area that

we have not been particularly involved in. I guess our particular role is in a network sense. It certainly is not of use in Information Technology equipment in health. Where we become particularly involved with it is when it is operating in a network sense. I have not particularly used those terms. I do not know whether Mr Bryant wants to add anything.

Mr Bryant—We used the term 'Telehealth' in our submission based on a growing trend, certainly in the international literature, to define Telehealth as the broad spectrum of information services and IT applications for health services generally. Interestingly, the Department of Health funded a consultancy last year looking at rural Telehealth services called 'Project for rural health: communications and Information Technology'. They actually quite specifically define Telehealth as that range of services which would include, for example, delivery of information to the public via, for example, the Internet. It might include training by network and the delivery of clinical information and clinical services—the broad spectrum of services. Traditionally, Telemedicine is starting to be recognised—although there still is confusion across the world—as the clinical practice of medicine by remote means.

CHAIRMAN—Your department states that both Telstra and Optus are rolling out their HFC networks in major urban centres at a rapid rate. I think we have read about that. A lot of us represent rural and regional Australia. Could you therefore elaborate on the method of access to broadband services for medical practitioners in urban areas compared with access or lack of access for medical practitioners in rural and remote areas. Also, what problems do you see being faced by those requiring access to broadband services in rural and remote areas? Do you see the day when all medical practitioners in all parts of the country will have access to broadband services?

Mr Stewart—Perhaps I could respond to that in two parts. There is a question about what is happening to the infrastructure and there is a question about what infrastructure you actually need. The government is quite committed to the roll-out of the hybrid fibre-optic coaxial broadband network being driven by commercial factors, not any sort of direction. It is a little hard to know precisely where the network is being rolled out at the moment because it is clearly a commercial-in-confidence matter for the two players doing it.

I think our expectation is that it certainly will not reach all of the country. There is an issue about access. If you need broadband access beyond some of the major urban centres, there will be an issue. That is an issue which is true for all the large, developed countries. I guess the US and Canada have similar concerns. They are quite large countries and they have areas which are quite sparsely settled. If there is a need for broadband access in those remote areas, all countries have a similar problem. Australia, Canada, the US and those sorts of countries are working on those solutions together.

CHAIRMAN—Have they achieved more than we have?

Mr Stewart—I do not think so. Perhaps in the US a little bit more, because they are pioneering some wireless technologies, which Mr Bryant can talk a bit more about if you wish to pursue that. So I think the broadband will become available in rural and remote areas of Australia in a similar time frame to the US and Canada, when satellite technology and wireless technology are further developed, and there are some encouraging projects on the planning boards at the moment.

CHAIRMAN—But maybe never.

Mr Stewart—No, I do not think that is true. Certainly some of the low-orbit satellite systems which are looking to provide broadband access in rural and remote areas are probably only up to a handful of years away, actually.

CHAIRMAN—Mr Bryant, could you just outline briefly those technologies referred to by Mr Stewart.

Mr Bryant—In terms of rural and remote access, I suppose the committee has already referred to the importance of the Internet and the Internet protocol type services for the delivery of certain kinds of Telehealth services. We have been very interested in looking at how quickly that is happening in rural areas. So we have been on a project to consult with the key infrastructure providers, backbone providers, in terms of Internet protocol services.

I think it is fair to say that we are very much encouraged by both the speed and the intent of those backbone providers to roll out IP services into rural and regional areas. There have been plans confided to us to try and reach up to 95 and higher per cent of the population with local call access to IP services within two years.

CHAIRMAN—What proportion of the area of Australia would that be?

Mr Bryant—That is a very good question. It is difficult to estimate. The very remote parts of Australia are currently served by Telstra's digital radio concentrator service, which we understand is being progressively upgraded to a higher capacity which will include ISDN capacity. So that would probably be two to three per cent of the population, I guess. But we would expect that local call access would roll out to townships of 10,000 and greater, or cities of 10,000 and greater, and I think probably, as the economies of scale become better and as the costs trend down—which they seem to be doing—we would expect that that population level would decrease. So you might have populations of 5,000. And there are certain mechanisms that those regional and rural centres can undertake themselves in terms of pooling their resources to attract service providers into their areas that we are trying to encourage as well.

In terms of the wireless technologies that Mr Stewart referred to—

CHAIRMAN—In America?

Mr Bryant—Yes, there are some very interesting technologies coming out of America. For example, one that we have been interested in and pursued to some extent, and we understand now that an Australian company is taking up this technology in a prototype way, is to provide wireless Internet protocol services. The claim is—and it is quite substantiated, I think, because they are selling the technology—that they can provide IP servers of ISDN capacity, which is 64 kilobits per second—which is a fairly high bandwidth, certainly much higher than dial-up modem—a distance of 30 kilometres or more.

That is a far better performance than ISDN can do at the moment, in terms of getting out beyond the exchange. There are these types of technologies coming in and there are lots of them about and there is a great deal of activity, certainly in the United States, in trying to develop these technologies. We would see that that would be enhancing the network as it currently is and would provide the capacity to get out beyond where the systems like ISDN and wired systems are currently going.

Mr FORREST—I do not want to be parochial, but my electorate has 82 townships, and only three of them have populations more than 10,000. In fact, they just scrape in at that. So what happens to the other 79, in terms of your two-year program? Are you saying that they will never have access to—

Mr Bryant—I do not believe so. What I am saying is that the service providers are talking about local call points of presence in those centres. You have still got the problem, I guess, in terms of the price for the smaller townships that you refer to, outlying those regional centres, having to call in at STD rates into that point of presence to get—

Mr FORREST—So you are only referring to the local call?

Mr Bryant—Yes.

Mr Stewart—I think there is going to be quite a range of technologies being developed and the one which excites me the most is some of these low-orbit satellites. There is a firm called Teledesic which is looking to put up some low-orbit satellites. It is in excess of 800 satellites which are in a moving pattern across the earth. The presentations I have received from Teledesic talk about a transfer rate of two megabits per second anywhere on the earth. So I think that the concern people had about getting cables out to remote areas is probably going to disappear over time. There is going to be a whole range of wireless, satellite and a combination of cable technologies which is going to provide a lot of opportunities.

The real question, which is the second part of the one I think the chairman asked, is what actual access you really need. There certainly has been, I think, in Telehealth a bit

of a concern about getting access to technologies and I think there is a question of what you really need. For a lot of Telehealth applications—if I am using the right term there—you only need either a narrowband or a mediumband access. The question about broadband is really that there are not many places where you need broadband. You certainly would not need it to a farm. You would only need it, I suspect, to major rural centres.

Mr Bryant—I think that the project that I referred to—the project for rural health communications and Information Technology—identified that the key issue for rural Telehealth services in terms of technology is the delivery of ISDN capacity, which is 128 up to 144 kilobits per second. Clearly, there are some Telehealth applications, particularly in the Telemedicine area, which do require broadband capacity. They are essentially the high quality imaging requirements—teleradiology and so forth—but, as the project for rural health communications identified, the majority of Telehealth services, at this point in time at least, require ISDN capacity.

There seems to be no doubt now that, with the government's commitment to speeding up the delivery of ISDN services under Telstra's Future Mode of Operation program, the vast majority of—virtually all—rural centres will have ISDN capacity within two years. That is the estimation.

Mr ROSS CAMERON—If you talk about the low-earth orbiting satellites and Teledesic, what you are going to see in terms of the infrastructure is going to change. We will leap over cable, if you like, and go into the radio spectrum. Then, as you say, you can talk about the gluttony of something like high-resolution images in terms of bandwidth. The exciting thing is that it will mean that from wherever you are in the world, basically, you will be able to go straight from a desktop to the satellite to an information source on any subject. Then does the key resource not become the radio frequency spectrum? As I understand it, it is a limited resource. We cannot increase the spectrum, so how do we ensure availability of the spectrum for something like public health?

Mr Stewart—I am not sure I can fully answer the question. I may have to take some of that on notice, I suspect. You used the term 'leaping over cable' and I am not sure I would necessarily characterise it like that. I think there is going to be a whole range of technologies which is going to be used. The use of spectrums in the city is going to be quite intense, I expect, and I think that the cable will be in quite heavy use in the cities for some time to come.

The question of spectrum is a difficult one. The government has just announced a move towards the auctioning of spectrum capacity. The question you asked was really about how we are going to reserve things for Telehealth. I probably could not answer that question off the top of my head, unless Simon could add to it. We probably would have to take that one on notice, I suspect.

CHAIRMAN—Yes, in fact, with any matters on which you have to give us additional information, if you could pass that on the secretariat we could then circulate it to committee members.

Dr NELSON—Could you discuss what you see as the consequences, or perhaps even the benefits, of deregulation of the telecommunication system, particularly in terms of access to rural and remote areas of broadband online services and the maintenance of lines and equipment? What changes do you anticipate in those particular areas and, in particular, I suppose, what benefits, if any, do you see flowing from it?

Mr Stewart—A lot of the concerns which people in the outback and rural and remote Australia have we see as being addressed to some extent by the post-1997 reforms the government is going to introduce on telecommunications. We think that there are a lot of really exciting, innovative technologies out there, and that a really vibrant, healthy, competitive telecommunications market is the best way to be stimulating those activities. There is a lot of demand out in the bush. There are a lot of firms which are looking for nationwide access for business purposes which are really trying to drive their businesses out across all of Australia. A very competitive telecommunications market we think is going to provide the best quality and price of service for those firms.

With respect to the question about lines and access, I think the government has committed itself to including in the post-1997 scheme a guarantee of service quality. The government is committed to ensuring that the quality of service does not decline with competition. I am not sure if I picked up all of the question.

Dr NELSON—No, that is fine. What about benefits? Whilst I do not represent a rural area myself, will there be benefits also in terms of pricing? Are we likely to see that as a consequence of deregulation?

Mr Stewart—I think even now, with the limited competition that you have got in the telecommunications market, there are quite substantial price falls which are occurring. And the on-line market is a funny market because it actually operates one level up from the standard telecommunications market. People providing Internet protocol services operate as a virtual network on top of the physical network and that market is already incredibly competitive. Mr Bryant has already referred to the plans of some of these people to roll out services. The rate of the roll-out of those services in rural and remote Australia I find actually breathtaking and the price advantages which people are getting out there are quite phenomenal.

I think that post-1997 there is going to be a lot of capacity for communities to do things. Certainly in other countries there was a really strong development of community based networks where communities can themselves either build things or get carriers post-1997 to come in and do things for them. So you can really see a lot of rejuvenation of rural areas through this because there is going to be competition, there is going to be the

scope for communities to do things for themselves. I think there is going to be a wide range of players offering services and quite substantial price drops, and I think that the runs are already partly on the board for that.

Dr NELSON—This is possibly provocative, but would you have a view then on whether the public ownership of Telstra would be make any difference to that?

Mr Stewart—I do not think I do. The government is committed to the sale of one-third of Telstra and that is government policy.

Dr NELSON—Would you agree, then, that, irrespective of the ownership—public ownership or otherwise—of Telstra, the competitive market post-1997 is going to have a favourable impact on pricing in remote and rural areas?

Mr Stewart—My comments are about competition rather than the question of ownership and I think the benefits of competition are certainly clearly demonstrated out there in the market. We are fairly confident that they are going to accelerate in the post-1997 environment.

Mr QUICK—Along these lines, we heard from the Department of Health and Family Services about the states moving along independent paths. Are we seeing what happened in the 1800s in England with this proliferation of railways and it just went ahead and no-one had total control of it all and it ended up, as I mentioned earlier, that Australia ended up with eight different railway gauges? What is the role of your department in coordination and liaison to ensure that there is access and equity right across Australia irrespective of where you live, and if you live out of Sydney or Melbourne you have got the same quality of service? Do you have a role to ensure that this is going to take place?

Mr Stewart—Perhaps I will take that in two parts. There is a question about different railway tracks and the question about how you guarantee a degree of equity and access. The image of the railway tracks is quite often used in this area and I think at the end of the day probably that analogy is not going to come to pass. The reason the Internet has taken off is that there were people trying, I guess, to build different railway tracks, and even as recently as probably 12 or 15 months ago there were major corporate players like Microsoft who were looking to build private networks which were quite separate—different railway tracks, in a sense. And the reason the Internet has taken off is that it is basically the same standard being used by everybody. It is virtually independent of the IT system that you are running it across. It is virtually independent of the carriage system you are running it across. And so we have, almost by default, a standard gauge for railway tracks across the world now for the information society. So I do not think that is a real threat.

The question of how you coordinate a program like Telehealth or even education, which is everywhere—both the Commonwealth and the states have an interest—I think is

a challenge, as in any area of policy where there are shared responsibilities between levels of government. I think that is a question which both the health minister and the education minister, for example, would be looking to pursue with their state colleagues. Senator Alston is quite keen to pursue it also at a broad whole of government level with his on-line government council. So I think there are a number of forums where we are looking to try and ensure that both the practice of these applications and the technology are happening in a very consistent fashion.

In terms of the equity of access, the government is quite committed to equity of access. We think that the competition roll-out for on-line services is really encouraging because we think, as Mr Bryant said, there is going to be almost total coverage of the population in the not too distant future. The government is committed to that. It is monitoring what is happening out there. The minister has said he is quite keen to see whether there are any stumbling blocks to access. Certainly for the telephone service, the government is committed to the retention of the standard telephone service and the minister has announced a review of the standard telephone service which is taking place at the moment to assess whether it is up to date for the current technological environment.

Mrs ELSON—Within the telemedecine and Telehealth context, could the department discuss the Internet protocol and clarify the functions of Intranet?

Mr Bryant—In simple terms, Intranets are virtual private networks using Internet protocols. In terms of benefits that that can supply both to corporate users and to community users who want a secure network, functionality—that means they can have the same sorts of functionality that Internet provides in terms of worldwide web type functionality. It certainly provides a cheaper network and it provides a gateway, an interface into the Internet as well. So it has got all those advantages.

In terms of where Intranets are going, it is our understanding that certainly the corporate world is adopting Intranets very quickly, as opposed to proprietary networks that do not talk to the Internet.

CHAIRMAN—Security presumably is a lot better.

Mr Bryant—Yes, security, as I understand it, is not a problem with Intranets and for that reason they are very popular. A figure that may interest the committee that I read in the international literature is that up to, I think, 70 per cent of IP servers—the sophisticated computers that provide content to the Internet—are now being purchased for Intranet type applications rather than Internet. So the Intranet is certainly taking off.

CHAIRMAN—So you say the general public is perhaps being forced into the Intranet? If I understood correctly, I think what you said was that a lot of the information which is currently available on the Internet might in future be only available on the private networks.

Mr Bryant—I am sorry, Mr Chairman, I must have given the wrong impression there. What I was saying was that the Internet itself is growing and the information on the Internet is growing very quickly. What is growing faster is corporate information and organisational information on Intranet type applications where companies and organisations which would have a need to have security in terms of sending information to their satellite centres are adopting those sorts of technologies.

Mr FORREST—Is there some scope for the use of the Intranets to manage the difficulties with the ethical and privacy issues? On a national level, who would be in the best position to manage a system like that? Is there some step rather than the broad thing where the whole world can see my medical record, that it is managed in a way through an Intranet? Really I need to know who would be able to manage that.

Mr Bryant—In terms of security issues, I think that is certainly the case, that Intranet type applications can provide security where you need security. I do not profess to be an expert on Telehealth, but it seems to me that a lot of the problems with privacy and the development of Telehealth services are in the human infrastructure systems, if you like, that need to be set up to ensure that the transfer of sensitive medical information electronically is fully protected. That is not so much about the technology, it is about the system that needs to be put in place to ensure that proper privacy is ensured.

CHAIRMAN—Could the department elaborate on its facilitation role in the G7 information society pilot projects as mentioned on page 6 of your submission?

Mr Stewart—These pilot projects came out of an information society conference held in Brussels in February 1995. There are 11 of them. We became aware of them shortly after the G7 countries basically decided to do them. We went into a fairly intensive negotiation and lobbying exercise to try to get accepted into as many as possible. In the event, we have been accepted for six.

Our role in the very first instance was the awareness role and a central role to try and both lobby the G7 countries to accept us and find a department here to take responsibility. We do not actually run each of those pilot projects anymore; there are project coordinators for each of them. In the case of Telehealth, it is shared between the department of health—Mr Whitfield was here previously—and the Department of Industry, Science and Tourism. Our role actually was to create a niche, get accepted by the G7, which we were, and then to interest departments.

Our role now is one of basic facilitating and coordinating. I chair a committee which meets once every couple of months to share experiences. We are involved in environment, broadband inter-connectivity, small and medium enterprises, government on-line, Telemedicine and the library program. There are quite a lot of things happening across those projects which are useful to share, so we basically facilitate that.

I also attended the information and society development conference in South Africa from May 13-15, which was a follow-up to the conference of last year. We were able to further pursue our claims in Telemedicine. Mr Whitfield and some medicos from one of the Brisbane hospitals came with us and we were able to pursue some of our claims with the Europeans, particularly for getting access to Telemedicine projects they are developing. I think our role is very much one of liaising with the G7 countries and trying to make sure the six departments who are involved in these projects are working in a collaborative fashion.

CHAIRMAN—Could the department discuss the significant role in promoting and encouraging the development of the multimedia industry through the establishment of Australian Multimedia Enterprise?

Mr Stewart—That is a very topical question as I am about to assume responsibility for that enterprise. I have not had much experience with it to date. The government is quite committed to creating a multimedia enterprise industry and particularly one which is on-line. If you after particular detail, I might have to take that one on notice because it is one of my new responsibilities.

CHAIRMAN—Could you get back to us on that? Given its involvement in the international arena, does the department have a view as to the extent Australia has the capacities to play a role, both regionally and internationally, not only at the multilateral level but through bilaterally negotiated agreements?

Mr Stewart—I think we have quite an important role to play. The G7 one is a little bit difficult because we are not a G7 partner. I think we have quite a strong role to play in the APEC area. There are also some APEC pilot projects and we are quite actively involved in those projects. This very week Senator Alston is chairing a meeting of APEC telecommunications ministers up on the Gold Coast, which is a bit of coup for Australia I think. We are quite actively involved in a range of APEC pilot projects. One of our coordination roles is to try to ensure that our involvement in the G7 pilot projects is consistent with and does not duplicate what is happening with the APEC pilot projects, and those two operate quite closely.

I think the bilateral thing gets a little bit hard because it is a global society and it tends to remove bilateralism—to some extent the nature of the beast. I think in the Asian-Pacific region we have a major role to play and we are playing a major role with that particular set of pilot projects.

Mrs WEST—Of particular importance to the inquiry is the question of privacy and standards. Could you explain the department's stand on questions of privacy—how it is going to be safeguarded and how it will be changed or affected after deregulation?

Mr Stewart—I guess we see privacy as being one of the absolutely critical issues

for the uptake of on-line services. It is particularly true of Telehealth and Telemedicine, but it is true of any application. I think on-line services really will not be taken up in any country until people feel really comfortable about the environment they are operating in. I guess one of the roles we have to play is setting in place a complete regulatory environment so that both individuals and firms feel quite comfortable with the environment they are operating in. I guess for firms I would put security at the top of the list and for individuals I would put privacy at the top of the list.

There have been a lot of recommendations, as you would probably be aware. The Broadband Services Expert Group report had a recommendation that there should be a comprehensive solution to privacy. The House of Representatives Standing Committee of Constitutional and Legal Affairs had a recommendation. There have been some other recommendations as well. I think it is well recognised that privacy is an issue. The previous government made an in-principle announcement as part of the Innovate Australia statement last year for the development of the comprehensive privacy regime. We were quite instrumental in the development of that recommendation. We worked quite closely with the privacy branch of the Attorney-General's Department. The current government also made some commitments to develop a privacy regime. I understand that the standing committee of Attorneys-General has a working party on privacy and we work quite closely with the people servicing that committee.

I guess they recognise the particular challenges that the on-line environment faces. We do not see that privacy concerns can be addressed just for on-line services. There is really a move towards greater concerns about privacy across the country—across community and across all sectors of business—but it is particularly relevant for on-line services and Telemedicine. We are working quite closely with the Attorney-General's department as the Attorney-General considers his options, I guess, for how to implement the election commitments.

CHAIRMAN—Thank you very much for coming before the committee this morning. We might well invite you back at some time in the future if we want certain points clarified, but we appreciate your attendance this morning and thank you.

[10.59 a.m.]

GREGG, Mr Michael John, Chief Executive, Health Communication Network Ltd, 34-36 Chandos Street, St Leonards, New South Wales 2065

GROVER, Mr Christopher, Finance Manager/Company Secretary, Health Communication Network Ltd, 34-36 Chandos Street, St Leonards, New South Wales 2065

ROSS, Mr Ian, Technology Manager, Health Communication Network Ltd, 31 Thesiger Court, Deakin West, Australian Capital Territory 2600

CHAIRMAN—I now call witnesses from the Health Communication Network to be sworn in. Would you like to give us a brief opening statement, outlining some aspects of the submission?

Mr Gregg—Thank you, Mr Chairman. First let me introduce the Health Communication Network. We were set up with seed capital from the Commonwealth and with the support of AHMAC with the aim of becoming a communications based network dedicated to the health sector and allowing health professionals to obtain the right information at the right time. We were set up to be a stand-alone commercial operation but with efficiency gains for health, and improved health outcomes being the result of our work. Our early work involved a number of pilot projects which are well documented in our submission.

While HCN was being formed, the Internet grew from being what was really an academic tool into what we think will become the primary means of electronic communication of health information. We are talking about anything from simple referrals and pathology results reporting, through to electronic Medicare claims. With our primary goal in mind but also a healthy eye on our financial viability, we have concentrated on specific Internet based services with revenue potential. We see the advantage of the Internet being, as some of the committee have already said, that it is an open system available to nearly anybody and it opens up a worldwide market. It is also user friendly and it is becoming more so.

Health information is extremely sensitive and you may be thinking that it should not be carried on the Internet. I guess our view is that there is so much money and brain power being applied to the problem of security on the net that any security problems that are not fixed already will be fixed soon. I would put to you that full banking will soon be available on the net. Do your banking records have a lesser need for security than health? I guess a breach in either area leads to big headlines, but—

CHAIRMAN—Some people might disagree with that.

Mr Gregg—Yes, of course, it is contentious. They both have a high need. HCN

provides a range of Internet services, including the provision of health information—maybe health knowledge is a better way of putting that. We are aiming to provide a wide range of useful health knowledge on-line, in brief form or in full text form, in an easy to use format. We are talking about a one-stop health information shop, I guess. We are talking about health journals, health databases, clinical guidelines, textbooks, consumer information, gold standard information via the Internet.

We are concentrating on Australian information. Australia has a huge national resource of expertise in health, and that expertise is producing lots of written material which is very valuable and saleable overseas. The risk we see is that overseas the Internet is being utilised very quickly, and Australia needs to move fast or that market as it exists now, and which will grow and grow, is going to be grabbed by American and European health journal publishers, educators and guidelines producers. We see that there needs to be a real acceptance that the net represents a big threat, but also a huge opportunity for the Australian health sector.

At the same time, there is an enormous flow-in of information into the Australian health sector. We see much of this being carried by the Internet. The time is now right for the development of such services, and we are working on a number of projects in that area.

Our paper did not attempt to address the whole range of matters being addressed by the committee. We are, of course, very interested in the adoption by GPs and other professionals of computers. Obviously, it is very hard for us to sell health information to people who do not have computers. We think that there is not one show-stopper, and that more practitioners will start to use computers clinically when there are enough pay-offs. And pay-offs can be in the business sense of making them more efficient in their business or in enabling them to give better health care.

One doctor said to me last week that his view was that you could plonk a computer on every GP's desk tomorrow and some of them may remain unused for quite a long period of time until there were enough reasons to make them invest the time and energy into the process of changing their whole work practices.

CHAIRMAN—Do you think financial incentives are necessary?

Mr Gregg—I certainly think there is a sense of waiting out there for some money to arrive. If you are asking me if that is going to be the only reason, then no, I do not think so.

Mr QUICK—What is happening in the training of new doctors—the ones who are coming through the system who are in second and third year?

Mr Gregg—Obviously, they are used to having computers.

Mr QUICK—Are they carrying their laptops around with them? Is that the stage which they are at?

Mr Gregg—The people coming out of the universities are used to using the Internet; they are used to using their PCs as part of their lives.

CHAIRMAN—I wonder if there is a computer subject in a medical degree.

Mrs WEST—There would have to be. They do all their assignments on them. How long have you been operational?

Mr Gregg—We formed this company in June last year.

Mrs WEST—And how many people would be involved in your whole group?

Mr Gregg—Fifteen, plus contractors as required.

CHAIRMAN—I read on page 8 of your submission where you said that it was never intended that you would continue to be an ongoing user of government funds but, rather, would become a commercial enterprise able to be floated publicly. How much do you at this present time absorb taxpayers' dollars? How close are you to be being able to be floated successfully? Will we read about you in the next budget?

Mr Gregg—We were provided with seed capital. Half of that capital was provided as a long-term loan; half was provided as equity. We have a business plan that sees us being in the black by the middle of next year.

CHAIRMAN—Are you moving towards that successfully?

Mr Gregg—Yes.

Mrs WEST—Are your staff medically trained? From what fields of expertise are they?

Mr Gregg—Some of our staff have come from health backgrounds, some have come from the department, some have come from commercial backgrounds. There is a range. Some have an information background.

CHAIRMAN—Could you describe in brief your role in relation to the Department of Health and Family Services? Do you report directly to the minister, or do you only report to your own board of directors? How do you inform your constituency about the status of pilot projects and the ongoing activities of the company?

Mr Gregg—We have a private board, but on that board is a representative from

the department.

CHAIRMAN—Is the board appointed by the minister?

Mr Gregg—The chairman was appointed by the minister, yes.

CHAIRMAN—And other members also?

Mr Grover—Just for clarification, we are a public company, registered under the Corporations Law. All of our shares are basically owned by the Commonwealth government.

CHAIRMAN—Like Telstra up until the present time? It is a public company with one shareholder, the Minister for Communications and the Arts.

Mr Grover—Each of our board members was invited to be board members by the minister at the time, but they go through the normal process of appointment according to the Corporations Law. Ian Lindenmayer, the current deputy secretary of the Department of Health, is a director of the company and he is appointed by virtue of the Commonwealth shareholding.

CHAIRMAN—And do you report to the minister?

Mr Grover—We report to the Commonwealth, which I understand reports to the minister on our activities. We report to the Commonwealth according to our loan agreement. There are a number of details in that that require a reporting process.

CHAIRMAN—And to whom in the Commonwealth do you report?

Mr Grover—To the Commonwealth Department of Health and Family Services.

Mr Gregg—There is a need for us to get computers on desks. It was mentioned that consumers will have access to information more than ever before. We see that as a powerful driver for practitioners. If you doubt that, just visit a doctor about a particular treatment and do a search on the Internet, take some information with you and see the effect it has. I guess the Internet is going to be such a powerful tool anyway, that health professionals are quickly recognising that, with or without consumers rushing in the door with guidelines in their hands.

Another area that I think is important is, is the use of e-mail. E-mail is very much a quiet achiever of Telemedicine. It is a very powerful tool for, say, a rural practitioner to compare notes with colleagues across the country, to get peer support that is so often missed by isolated practitioners. It is a very good tool for specialists from different parts of the world to compare notes daily or hourly, rather than every time they visit a

conference together. There are other factors such as electronic pathology results, electronic script writing as mentioned before, and continuing professional education.

I guess we see a very broad definition of Telemedicine as health care at a distance. We see information provision via the Internet as being a very important part of Telemedicine and that is where we can see that we can make a real difference. We see our immediate role being to make Australian health knowledge commercially available on the Internet to Australian practitioners and to the world market.

CHAIRMAN—I see your broad definition of Telemedicine. We have asked earlier witnesses about the confusion out there as to what Telemedicine means, what Telehealth means. As you have said, you have got a broad definition, but would you agree that the various definitions and names for the same service out there in the community, and in, I suppose, the professional area, is creating confusion and inhibits the effective use and growth of this important technology? It is pretty clear that the words Telemedicine and Telehealth mean different things to different people. Do you think that is unsatisfactory and is it possible to get some kind of common standard?

Mr Gregg—Yes. I guess it causes confusion because a lot of people write about Telemedicine and concentrate on the more high-tech ends of Telemedicine. I guess that is one of the reasons why we have chosen a much broader definition. I do not know how you go about getting that standard.

CHAIRMAN—Are you going to sit down with the Department of Communications and the Arts and the Department of Health and Family Services and just try to nut something out that would at least be common to federal government funded bodies?

Mr Ross—I think one of the problems is that, from a technology point of view, you are talking about quite a wide range of technology. It is all about telecommunications but, as the Department of Communications and the Arts referred to, there is narrowband, mediumband and broadband. The electronic mail that we have just mentioned does not require much in the way of bandwidth at all. It is not something where you have to be on-line to each other when you are communicating.

You prepare your electronic mail message off-line, you make a connection, it goes up to an electronic post office and is delivered at some later point—anything from a few second to a much later time, depending on when the recipient checks their mail. In comparison, the teleconsulting that was mentioned earlier, on-line videoconferencing, uses quite a different set of technology, and the issues are quite different as well.

Generally, all those pieces of technology are fine. It is the procedural issues around them that become the issue. What are the payment mechanisms for teleconsulting? Are they covered under Medicare? Who is responsible? What are the legal issues? There is a

whole range of issues and the trouble is that they are quite different in different parts of this whole range of areas called Telemedicine.

Mr FORREST—I would like to give an example to the committee of the power of the Internet. I have a constituent with a disorder called glycogen storage disease. It is a new genetic thing that is not much known about, and I am now on a server where I get all the information every day on innovations with respect to this disease. I get this all printed off and I hand it to her. It is direct, it is on-line and it is happening every day. I see great scope in this whole technology, and that is basically an e-mail service. There is a doctor in Edinburgh, there is another doctor in Norway and there is one in Texas in the USA.

I was disappointed to hear in evidence earlier that the cost-effectiveness of Telemedicine is not yet demonstrated. I am hoping that your network is able to offer some comment and demonstrate that there is cost-effectiveness, especially in respect to the provision of better health services to rural and remote areas and other isolated communities. Have you undertaken any work that can give us some better facts on the cost-effectiveness, the potential to save money?

Mr Ross—Prior to the creation of the company HCN Ltd, a number of pilot projects were undertaken by the Commonwealth Department of Health and Family Services—under a different name at the time—to show a number of areas where improved communication using telecommunications could be of benefit. There is information about those projects in our submission, and they are probably similar to other projects that you will hear reported from different players.

The prime objective of those projects was to demonstrate what was possible. There was not a lot of attention paid to how they would become ongoing services. They were pilots; they were experiments. It certainly demonstrated that in various situations benefits could be gained. I think the cost-benefit issue is a much more complicated area, as we heard in an earlier submission, because you have such a huge range.

Your subscription to an overseas electronic mail list server is a very low-cost use of communication in health which I would say is clearly cost justified. Once you get into a much higher bandwidth communication, videoconferencing into remote areas, then clearly you have to do a few more sums to work out what the case is. I do not think there is a black-and-white answer for the whole of Telemedicine in that area.

Mr FORREST—Have any of the pilots that you have conducted specifically applied to a really remote area and an on-line diagnosis that can demonstrate the effectiveness?

Mr Ross—There are two pilot projects that are mentioned in our submission. One was teleradiology between Wagga Wagga Base Hospital and a number of towns in that district. It was to allow the on-call orthopaedic surgeon in Wagga to receive X-rays which

had been taken at the country hospitals and for which the local clinician required some advice, the main question probably being, 'Should I send this person into Wagga or can I manage the condition here?' It was not diagnostic. It was a management question to confirm what kind of management should be required for the patient.

The technology worked quite well in that situation. The use of the tool was clear, the issues that became relevant were administrative questions. Was the equipment located in the appropriate part of the hospital to make it easy to use? Did it fit in with the work practices at the time? In that particular case, were the evaluation procedures that were put in because it was a pilot project so unwieldy that it was actually limiting the good potential of if the tool had just been made available and made to work? I understand that that equipment is still being used by some practitioners in that district.

The second example is a videoconferencing example in South Australia where Glenside hospital, the major psychiatric hospital in Adelaide, has videoconferencing equipment and they use it to keep in touch with mental health teams in a number of country towns in South Australia. That is being used for peer support where the mental health teams, which consist perhaps of nurses and general practitioners, are able to talk over cases with the specialists in the city because the specialist does not visit as often as would be useful.

It is also being used for consultations, where you have got a situation where a patient is with family or with the practitioner, or both, or a nurse at their local hospital or in the local TAFE college perhaps, depending on where the facilities are located, and they are able to consult with the psychiatrist in the city. That has worked very well, because psychiatry is not a hands-on specialty.

Again, you come down, even at the videoconferencing level and remote diagnostic level, to the question about which speciality you are talking about. It works well with psychiatry, it works well with skin diseases quite often because you can just put a camera there and the remote clinician can see what is going on, but if you need hands-on contact, obviously Telemedicine in that sense is not as significant.

Just briefly to finish off there, one of the issues that will become relevant to your committee—and I am sure many of our colleagues from other organisations will make submissions to you about it—is the funding issue. Both of those pilot projects were only feasible to operate because they existed within the public health system. Once you cross the boundary into private practitioners or between states, you then have an issue of who is paying for what component of the work. Is it Medicare funded? Is it state health funded? Is the hospital paying? How is the practitioner going to be reimbursed for their time?

Mr QUICK—Following on from that, on page 16 of HCN's report it says that the study by the Department of Human Services and Health and the IBM consulting group claimed that $145 million per annum could be saved by full implementation of medication

management and electronic prescribing in office based practices. Why have we not leapt at that chance? Later on on that page you claim:

An extension of electronic prescribing is to send the generator script electronically to the pharmacist who is going to dispense it. This could work very well using the Internet, with of course, security safeguards in place.

So how far advanced are we on that? That is a huge saving—$145 million a year.

Mr Gregg—I think we were just covering some of the material that was covering broader issues and giving you some materials to discuss various issues. We were not putting forward that $145 million should be spent today and putting a case for that.

Mr QUICK—No, I thought it was a saving. It was claimed that $145 million could be saved by a full implementation, and yet the Department of Health and Family Services did not even mention that.

Mr Ross—I think at that point you need to go back to that original IBM report and work out how much money they wanted to spend in order to save that.

Mr QUICK—What other costs in order to save $145 million—do you know?

Mr Ross—I am not as familiar with that report as—

CHAIRMAN—Could you perhaps get back to us on that. I must say I saw the same figure and I certainly believe $145 million is a lot of money, but I was surprised the savings would have been only $145 million. But, if you could perhaps get back to the committee with that additional—

Mr Ross—I think probably the best thing is to get hold of that report.

Mr QUICK—That is only one narrow area, surely, of the whole Telemedicine, Telehealth area.

Mrs VALE—Mr Ross, could I just get back to the pilot programs—your pilot projects. How does HCN actually target specific areas of health care to run a pilot and how do you monitor them and how do you evaluate them?

Mr Ross—I think I should make a distinction here between Health Communication Network Ltd that I am sitting here representing and the Commonwealth, which funded those pilots before the creation of this company. I will explain what the Commonwealth did in that situation. They basically advertised for and sought out organisations that could demonstrate relatively quickly the type of applications in telecommunications and health that would show an improvement in either effectiveness or efficiency or savings or in

better outcomes, and selected a range of projects—six projects—that were a broad type of technology spread as well as different parts of the health system as well as different parts of the country.

Those projects were funded for 12 months and the evaluation and monitoring of those projects varied depending on what it was. Some have not completed yet. There is one in Royal Brisbane Hospital which has really only become operational this year and they are still in the evaluation phase. Others have done initial evaluations and I understand the Commonwealth is now seeking out the final reports on some of those projects. I am not sure whether that quite answers the question.

Mrs VALE—Yes. What developments do you think have taken place in those areas that were selected for the pilots, apart from the ones that are still ongoing?

Mr Ross—I think one issue is related to Health Communication Network, and obviously we are interested in learning from those pilots that were part of our history and making use of them. We have made use of our learnings in various areas in terms of electronic mail, discussion forums, not only e-mail discussion forums such as the list server that was mentioned earlier but other types of forums where the issues are not the technology, they are about encouraging groups of people to communicate together and to share information and collaborate. I think probably the greatest learnings in all of those projects, as mentioned by a previous person at this table, were in relation to change management, understanding how the technology can be integrated with the work practices of each of these people and how to encourage communication in places where perhaps the communication had not happened before and certainly had not happened using the same technology.

Mrs VALE—Is this part of the promotion that you are doing for HCN?

Mr Ross—I do not understand.

Mrs VALE—The forums that you were saying that you were having.

Mr Ross—I am using the term there to represent discussion groups electronically. One of the uses of electronic mail is sending information from one person to another—GP to a specialist, say. But one of the great ways of supporting each other in the health area is to have an electronic discussion group. So, instead of having to get together at a conference to discuss a particular field, we are able to send e-mail to each other. We do not even have to be on a teleconference at the same time, we simply send a message to an electronic forum. Others come along later and see what we have written and respond to that and I come across in a couple of days time and continue the discussion in a slow kind of sense. It is the terminology you might have heard of, the bulletin board system. It is an extension of that. It is like a paper bulletin board. You put something on the board stating your view, somebody comes along and writes on it or pins up something related to it. So a

threaded discussion occurs in an electronic forum.

Mrs VALE—Are you actively marketing your services?

Mr Gregg—Yes, we are.

Mrs VALE—And how are you doing that?

Mr Gregg—We are exhibiting at various health conferences, we have sales people now who are working in the sector, we are telemarketing, we direct mail, we are advertising—the usual.

Mr QUICK—I have just been finding some information—the report that I referred to, final report, volume 1. It is interesting to note on page 59 of the report that the total implementation cost will be $95,240,000 over two years. On page 1 and page 2, it says that $145 million per annum from the national health budget could be saved and over an initial five-year period it can offer a direct net cost saving benefit of over $330 million to the government. The potential 10-year net cost saving to the government is over $850 million. So there are huge cost benefits to the government—

CHAIRMAN—To the taxpayer.

Mr QUICK—To the taxpayer, yes. I am amazed that the Department of Health and Family Services did not alert us to it. That is nearly $1 billion that could be ploughed back—

Mr Gregg—I guess I should point out that we were referring to that trying to cover broad issues in our report. That is one view. We are not here advocating necessarily the particular view in that—

Mr QUICK—But surely for less than $100 million you get an 800 per cent benefit back to the taxpayer. Why are we so slow? As you say on the last page, the last sentence:

Australia is in danger of missing the boat.

And the sentence before:

The Internet market for health information is a world one and potentially huge.

Mr Gregg—Sure.

Mr QUICK—And if we can save $850 million over a 10-year period, why are we pussyfooting around?

CHAIRMAN—Do I take the silence as indicating you agree with Mr Quick but you think it would be impolitic to do so audibly?

Mr Gregg—We certainly agree that the Internet is a massive opportunity. Australia is well placed to capitalise on that opportunity because we have the expertise; we have the produced knowledge that is coming out of that to capitalise on it. There is certainly an opportunity. We just would not like to necessarily combine that with something that is in the IBM consultancy report which we have referred to just to cover broad issues in our report.

Mr QUICK—That is just one area of prescribing—$850 million saving in one particular area in the health issue. You are obviously in it long term to make a profit and you see a huge potential. As I say, the last sentence in your report is:

Australia is in danger of missing the boat.

We heard today and yesterday on another related issue that privacy seems to be the huge stumbling block.

Mr FORREST—I just want to follow up Mr Quick's question now. I would like to hear from your network what suggestions you can offer to get past the stumbling blocks Mr Quick has referred to. Can you offer any suggestions about how we get around these constraints—the ethical and the privacy and the legal issues? We really have got to get on with it as a nation.

Mr Gregg—In connection with delivery of what service?

Mr FORREST—It is a broad issue. The medical profession will be worried because they are currently concerned about how they are going to get paid for any on-line consultancies they do. The public are concerned because their privacy is perceived to be at risk. There has to be a solution to all of this, because we have got to get on with participating in the use of this technology. I have got rural people who have much to gain, who do not have to travel for five and six hours to see a specialist but could, in their own home in comfort, surrounded by their families, have access to the best specialists in the world and, if need be, if it is not available in Australia, somewhere else. Yet it is not happening because we are bogged down on these other issues.

Mr Ross—I think the range of uses for telecommunications is great. Some of them have very low privacy or security requirements. If you are talking about practitioners receiving education, continuing medical education or communicating in a general sense with each other about best practice, then security and privacy are not necessarily an issue.

In our submission, appendix 6 has a discussion on some of the issues related to that and related to the type of security problems that need to be resolved, particularly in

relation to the Internet. We have mentioned in that appendix that our board of directors has adopted an ethical and policy framework, which unfortunately we have neglected to put into the document, so we will supply that to you. Basically, from our point of view, we have consulted with people in this area and have a framework that we are happy to be working within.

Then we are addressing each of the products and services that we are offering within that framework so that where there is no need for security, such as access to biomedical literature, access to Medline and other databases that are providing quality advice, we know how to deal with that. In more secure areas, we believe that encryption and the scrambling of messages and unscrambling at the other end is probably going to be the most secure method of transmission, in which case it will be possible to move information across the Internet without having the closed networks that has been talked about in a previous submission.

I think there are a number of things happening in that area to do with encryption, public key encryption systems and the procedures that will go around them that will make that quite feasible before long. A lot of them are procedural, thinking about procedures within hospitals and within practices at the moment and extending that to the electronic world.

Mrs ELSON—The HCN suggests that specialists practising and teaching in hospitals would be very keen to put this information on the Internet but because they are giving their skills and time they would expect some sort of reimbursement through the Medicare system for electronic consultation. Could the HCN suggest a model for Medicare reimbursements if Telemedicine is used? Would the same model apply for consultations between doctors in rural and remote areas and specialists in capital cities?

Mr Gregg—I do not think we would see it as our place to be putting models of Medicare. I do not think that is particularly our place or our expertise. We were just trying to canvass again some of the issues in a broad sense.

Mrs WEST—You have indicated that while 40 per cent of GPs have installed computers to aid in practice management only 14 per cent use computers in the clinical side of their practice. To what extent are GPs deterred from using PCs in the clinical area of practice because they fear traditional elements of general practice will be diminished?

Mr Gregg—I think there are a number of reasons that we have put in our submission covering reasons why GPs would be reluctant in terms of fear and uncertainty about the new technology, fear of interrupting the normal consultation with their patient, how their patient is going to view having a PC on the desk and how the GP is going to use it in a positive way. There are all those sorts of reasons.

On the other side of it, there is enormous pressure—peer pressure and pressure

from family and the community—for people to embrace PCs. You feel left behind if you do not have a PC. On the other hand, only a small percentage of GPs are using PCs for clinical reasons. So obviously, in the balance, they do not see enough reasons at the moment to invest their time and energy in making the transition.

Mrs WEST—I would say they would not have time, actually. If you are working a 60-hour week or an 80-hour week, when do you find time to sit behind a PC and do your work? You are basically getting people in and out and your overtime is taken up with calls, so when do you sit down with a PC and do what you have to do?

Mr Gregg—It is a matter of time for the transition and it is also a matter of justifying that in the future you are going to save time by using the PC. I think maybe that is where the uncertainty is. Take for example computerising patient records instead of having them on paper. Sure, there are advantages in that, but does it actually save a GP time tomorrow so that he or she can work more efficiently?

Mrs WEST—I am just wondering how they could fit the time in because of the number of commitments to their patients. Maybe if they had fewer patients. Would that be a solution? Fewer patients and more time?

CHAIRMAN—Evidence indicates that a lot of general practitioners have very low incomes.

Dr NELSON—I would very much agree with that, Mr Chairman.

Mr Gregg—I must say I will make a couple of comments there. I recently took my dog to the vet to get it vaccinated and the vet spent more time looking at the computer that was on his desk than at my dog.

CHAIRMAN—Not the Medicare card.

Mr Gregg—I think for doctors, and it is reflected in the fact that about 40 per cent have got them for administrative reasons and about 14 per cent are using them clinically, that with the sort of information that people often exchange with a doctor, the computer can become an intrusive part of the consultation. I think that is one part of it and also that doctors are concerned about the computer in a sense becoming an abstraction from what the primary exercise of the consultation is.

I think there is also some inherent, and perhaps to a degree healthy, mistrust of computers in the community in relation to health issues. I think Mr Ross made the point very well that, in terms of communication, continuing education, having access to information, which people like Mr Forrest get off the Internet, that is the particular driver and interest that I think GPs will increasingly have. But in terms of clinical information, there is material there that people do not feel comfortable about you putting into the

computer, such as that they have had an abortion or have had particular problems.

CHAIRMAN—Thank you very much for coming along to give evidence to the committee this morning. We would like you to send any information that you have undertaken to give to us to our secretary and he will pass it around to the members of the committee. Thank you very much.

[11.40 a.m.]

ANGELI, Mrs Judy, National Account Executive, Telstra, Traego Court, Fern Hill Park, Bruce, Australian Capital Territory 2617

KENNEDY, Ms Lyn, Research Officer, Telstra, Traego Court, Fern Hill Park, Bruce, Australian Capital Territory 2617

NASH, Mr David, Executive General Manager, Federal Government and ACT State Manager, Telstra, Traego Court, Fern Hill Park, Bruce, Australian Capital Territory 2617

CHAIRMAN—I now call witnesses from Telstra to be sworn in. Welcome. We have received your submission and we have circulated it and hopefully digested it. Could you just outline some highlights of it that you would like us to consider particularly.

Mrs Angeli—In brief, our submission is to show that Telstra has a longstanding interest in the information management issues within the health sector. We continue to be involved in the new developments in Telemedicine and we believe that the use of telecommunications technologies will greatly increase efficiency within the sector. We expect that the use of these technologies with the specialised applications built upon them will fundamentally change the way in which health services are delivered nationally and internationally.

However, we see that the development of these applications will only occur through partnerships and, to that end, we have been undertaking trials and research with government departments, practitioners and vendors. We believe it is essential that government and professional bodies, however, need to demonstrate their preparedness to take a lead role in facilitating this change.

It is a time of change for telecommunication providers—and I think some of that has been alluded to this morning—as it is a time of change for the health sector. Telstra looks forward to continuing to expand its role in this field, in close collaboration with government and health care professionals.

CHAIRMAN—Usually, as chairman, I ask a few questions at this time, but Mr Forrest, who represents a rural and regional part of Victoria, has to leave at 12 o'clock and he has asked if he could first question Telstra about some pertinent and relevant matters—no doubt relevant to our inquiry!

Mr FORREST—Indeed it is. I do not like to be parochial but a lot of Australia is rural and remote. But I am interested in the program for the roll-out of broadband services. I am encouraged to see it happening but it is very, very slow and what worries me is that as technology rolls on there will be a time when the satellite will take over, and

I saw it happen with the analog technology of mobile phones—it did not come to rural Australia and now it is a battle to get digital because the technology has taken over. I am very worried that the new technology will overtake the hybrid fibre-optic proposal now and my rural areas will still never get the latest technology. Could you advise the committee as to the nature of your program to make sure that rural Australians do not miss out on what I see as an exciting access to health care through Telemedicine?

Mr Nash—I do not have the full detail this morning of the broadband, and it is changing. We are working with the government currently to determine the ISDN, the FMO roll-out across rural Australia, but as we do that we see new developments in technology that quicken the pace of that particular roll-out. I think it is important to note also that much of the technology that can be rolled out, if it is rolled out on a commercial basis—that is, a demand for a particular application, and that is why I think the collaborative side of working with the medical practitioners is important—then we can target more specifically where the technology needs to go to and what it can be used for.

In particular, I think the government has a role to play in that the OGIT, the Office of Government Information Technology, is currently looking at using telecommunications to have access to government facilities in regional and remote areas and is discussing with us on a commercial basis how particular services can be rolled out. I think there is an excellent opportunity for OGIT to be involved in using the government's purchasing power in much of rural and remote Australia and for access to services for government to include medical facilities, because very much of the infrastructure that is required, the broadband or the narrow band capability, is also required for applications for government service. So there is a commonality in the infrastructure itself.

Mr FORREST—I would like to give you an example, because included in a large number of submissions before the committee is one from Manangatang Hospital, who report that the only limitation to a successful outcome to what was on-line diagnosis work that they did free, because the hospital is interested in the question, they used the ADSL technology and that was the limitation. Yet I can see Manangatang probably not being on your program for upgrading to any digital sophisticated facility for a long time, if ever.

CHAIRMAN—You should ask if it is.

Mr FORREST—This is a question of access and justice really and this is a vital community interest question.

Mr Nash—It appears to me very much that there is, I suppose, a lack of focus to drive the commercial offerings that are required at those hospitals, very much along the lines that you are suggesting. We find one hospital is interested in a particular application, we will find that a central hospital in Sydney may be interested in moving out into the regional area. In an earlier part of my career I certainly was interested, with the New South Wales Health Department, in trying to focus much of that attention and it was very

pragmatic. It really was hard to actually get a focus on that. And I think the things that Judy is alluding to, those particular trials, are our way of trying to focus in on the health departments and their needs.

In a sense, you are looking at it from a point of view of if an infrastructure is there, what can we then use it for, whereas this way actually drives the infrastructure to be the right cost-effective infrastructure for the particular application.

Mr FORREST—It seems to me, though, that in all the evidence I read—and it is not just this committee—people talk about rural Australia, they talk about provincial Australia, they talk about cities, for instance, from Victoria's point of view Bendigo and Ballarat, but I am talking about isolated communities. That is really rural Australia. I notice that a lot of your trials have been conducted more with a provincial type focus. I would like to know what your plans are in a real rural situation. For example, take Manangatang: it is a town of about 300 people and an hour and a half's drive in any direction to see an alternative doctor.

Mr Nash—Could we get you a more detailed response perhaps on the remote areas and coverage of that so that you have some factual information regarding that roll-out?

CHAIRMAN—Could you provide that to the secretariat and it can then be passed on to the entire committee.

Mr Nash—Yes.

Mr FORREST—Following on from that, Mr Nash, I would like to compliment you on your involvement in the health sector, as highlighted in appendix 2. I think you are doing a fantastic job. How do you get involved in these pilots? What allocation of funds is there in Telstra's huge budget and how are they put up to you to choose from and how many miss out? Do you get thousands of applications? What is your selection process? As John said, suddenly Royal Darwin Hospital says, 'Look, we have got this wonderful project,' and the Telstra manager in the NT says, 'Give it a tick.' Has he got that flexibility? How does it all work?

Mr Nash—Judy, you might want to pick up on the HC in the industry side of it and how we work with those. I will just make a comment about our customers and how we work with those customers in moving these things through Telstra. Telstra is structured to have an account management group that looks after particular industry sectors. Behind each of those sectors is an account executive and his team as well as an industry marketer, so that the marketer supports the customer relationship at the front of house, if you like.

In those relationships we seek to understand what our customer's business is and in doing that we work quite closely, usually over many years, in understanding the needs of

particular hospitals and practitioners. It is usually out of those particular relationships that we find either a white knight in a particular hospital that might say, 'Well, here is something we think we could do and if we pilot it here we could roll that out nationally.' And so many of those pilots are driven by particular interest groups within a customer base. I think that is why you see the broad spread across Australia. It probably reflects the interest in particular hospitals.

Mrs Angeli—Basically my role is as an account executive looking after the federal government health perspective but there are quite a few other account executives looking after health from a state perspective. Then Lyn and her group down at Telstra Research Labs have been looking at the health market and the social side of that for quite a few years and have been involved in quite a few of the projects that are listed in appendix 2.

Mr QUICK—Okay. So what John was on about about the Manangatang Hospital, do you have everything from Sydney or Adelaide to Manangatang in your idea of focusing? I think that would be a wonderful example. If you work in one of these little country towns, it could replicated perhaps somewhere in Queensland or the Northern Territory or in some remote Aboriginal community and, rather than get the funding from various territorial groups, there could be an inter-agency approach with ATSIC or something to say, 'Look, we can do it here, we can do it there,' under Telstra's aegis.

Mrs Angeli—Our approach to that has been not that we are looking at an application for one hospital in one locale, but what we have seen that what might be happening for that particular pilot would be then generally available or applicable to other areas of the health area.

Ms Kennedy—Usually it comes back to our group at the labs to do what evaluation is done. If you have seen the appendix, that has been fairly consistent over a number of years. What we have been trying to get is a total picture of what is happening Australia wide: who needs what to do what, at what level do they really need technology? There is a lot of talk about the roll-out of this and the roll-out of that, but what we are trying to find out is exactly how much of this great bandwidth that Telstra is supposed to be rolling out all over the place is actually going to be used, for what purposes, and what benefit that will actually bring to Australians living wherever they live. So that has been what we have been trying to do as the AEs bring up these projects, 'Hey, this is on, this is on, can you do something?' And there are only six of us, we cannot do all that they bring to us, so we try and pick right across the spectrum. So for the company what we are trying to get is a clear idea of where patients and health sector people are trying to go, with what it means to them to be involved in all of this new technology.

Mr QUICK—Finally, Manangatang Hospital might not be aware that Telstra does these things—

Ms Kennedy—Quite likely.

Mr QUICK—You have got the big battle between you and the other guys. If some of these were filmed on prime time television, people would see you in an even more favourable light. What do you do to ensure that Manangatang or the health department in Victoria are aware that these opportunities are available to promote Telemedicine and Telehealth?

Mr Nash—The structure within our groups has a focus of the major health departments in each state, so that we bring together the things that we are doing in both the regional, remote and the metropolitan hospitals and will discuss in a bureaucratic sense, I suppose, with the governments how we can best enhance that. I suppose I have found personally that it is sometimes difficult in moving with the actual departments in the states to focus on a service deliverable as against the budgeted running costs of the hospital, which seems to be the main focus. So very much the practitioner is the person that can see the benefit, and I have found that it is usually the practitioner that takes on the role of leading us through the bureaucracy rather than the bureaucracy taking the role to implement the actual application. That is why I think they are sporadic and spread right across Australia.

CHAIRMAN—On page 2 of your submission, you indicate that you hold the view that substantial efficiencies in the way the health sector conducts its business would be achieved if that sector adopts improved information management practices through telecommunication technologies. Obviously Telstra would benefit from that. But, given the degree of ambivalence about the cost-effectiveness of using technology for health care delivery, which includes considerable initial outlays, such as becoming computer literate, and also continual update of technology, could you inform the committee if Telstra has done a cost-benefit analysis of this method of health care delivery?

Ms Kennedy—The answer to that is no. However, it is something we are trying to find out, what the shape of an answer might actually be. As other speakers have already said, the cost-benefit of Telemedicine is not a single thing, it is the cost-benefit of doing some things by this method, some things by another method. It is a whole bunch of things and it is a highly complex set of things, and they do interrelate at various points. So I would have to say that right now at this very moment back at the labs there are people actually working on what a business case to do this sort of thing in this environment would actually be like. We think we are now at a point where we have collected an enormous amount of information which would help inform decisions about what would be commercially viable things to try and put up with health practitioners across Australia.

CHAIRMAN—Reading the submissions that we have received as a committee indicates that people who are making those submissions do not even have a common definition of Telemedicine, Telehealth and telecare, and so it is almost as though everyone has invented a meaning for each of those words. It is a pity that we are not able to get some kind of commonly agreed definition for these terms.

Ms Kennedy—My definition of Telemedicine would be the most inclusive. Already we have Telemedicine and I have sat in when this has happened, when a GP has called in to a specialist in a major hospital—

CHAIRMAN—I have no argument with your definition; it is just a pity that everyone else does not agree with you.

Ms Kennedy—I think people do not understand how it is growing and where it is growing. They see telepsychiatry, they see teleradiology, they hear about health monitoring things. In fact, Telemedicine probably should be an umbrella term which includes everything from the telephone to diagnostic imagining at the highest levels. But I think eventually what we will have is streams within Telemedicine. That is how we see it happening, anyway.

Mr Nash—There is definitely no coordinated approach to this—

Ms Kennedy—It is all too new.

Mrs WEST—What is your future direction for Telemedicine? What are your plans, over five years, 10 years? Do you have a plan?

Ms Kennedy—It is probably commercially sensitive at this point.

Mr Nash—The general answer, though, for that is that, as we see more use of the Internet and we see more use of narrow band products in multimedia, it is a little like discovering a new planet: we are finding applications, we are finding better ways to do things. I think it is right that they are driven by the customer base and the need and the priority, rather than just talk about multimedia or broadband capacity. At the moment we are involved in particular activities in electronic commerce, for instance. How will that interact with the medical practitioner area with payments, et cetera? We may be able to incorporate some of those things into it rather than set a separate group aside to look at how the medical field uses electronic commerce. It could piggyback one on top of the other. That is why I think it is developing so quickly.

Mrs VALE—Could I ask if there is an overlap in the development of your services or your role in this kind of service with the previous witness, the Health Communication Network?

Mrs Angeli—The Health Communication Network is a separate organisation. In terms of overlap, they are one of my customers so I know them from that perspective. I would say that would be probably the extent of it.

CHAIRMAN—Telstra has compiled a detailed picture of the communications networks and information needs of consumers.

Have you finished?

Ms Kennedy—I was going to add that we have done evaluations for some of the HCN trials.

Mrs VALE—Thank you.

CHAIRMAN—I am sorry. I was not aware you had not finished. Telstra states it has compiled a detailed picture of the communication networks and the information needs of consumers in order to ascertain the types of networks and kinds of applications best suited to provide health care across Australia and the Asia-Pacific region generally. Could you elaborate on the findings of Telstra to discover networks and applications best suited to provide health care across Australia and into the Asia-Pacific region? Could you also explain to the committee if Australia has the capacity and expertise to compete in the international marketplace?

Ms Kennedy—The answer to the first part is probably that our understanding comes out of very close detailed work with the people who are doing things in the health sector. It is what we have learned from the sector itself by actually being there where they are.

Perhaps I should explain a little bit about how our group at the lab works. It is a fairly unusual bunch for Telstra. We are sociologists, anthropologists, psychologists and sociolinguists and not at all like the rest of the labs.

CHAIRMAN—This is research?

Ms Kennedy—Yes. When there is a project identified that we ought to understand, our usual process is to go out there and talk with the people and say, 'What are you trying to do? What is the business of what you are doing about?' We then track their information flows and all the social contextual stuff. If they are running a project of some kind we will evaluate it throughout. We will be there while they are setting it up, while they are doing it and when they are summing up. We will feed into how they do things. In that way we have collected a lot of what, we think, is pretty close to the ground information at all sorts of levels. The list of projects ranges from a national review of GPs and how they operate to the current Telemedicine trial which we are involved with in Brisbane. You will probably pick up the latest about that when you go to Brisbane.

We have also evaluated how regions work. In fact, the very first one we did was the ACT in 1988. It was all a bit soon then and it has since rolled out so we have looked again in western Sydney two years ago. Things have changed a lot in some ways but not much in a lot of other ways. We think we have a sort of longitudinal view on how things are happening. That is why I say there are things we are now looking at more commercially. Are there things we can do here? Are there services we can develop and are

there applications we can help people to develop? We are not in the business of applications development. That has to come from the people who have the interest. We will have partnerships with people like that into the future.

Mrs WEST—What do you see as the infrastructural needs of the telecommunications industry to cope with the change in progress towards a very high-tech telecommunications industry? Who do you see that we need to cater for these developments?

Ms Kennedy—If you are talking about infrastructure, probably not as much as we think.

Mrs WEST—Not as much?

Ms Kennedy—This is my personal opinion, at this stage. This is not Telstra's opinion, as I do not think we have formed an opinion as a company yet. Broadband will be used for a few things. Most things that health sector people need to do can probably be done using ISDN.

Mr Nash—I would agree. Given the narrow-band applications that we are seeing and the way the technology is developing we will have more reliance on that particular technology than, perhaps, the broadband. At the moment, the technology capacity is in front of our ability to organise and focus on the particular applications. There is no doubt about that.

Ms Kennedy—It is way ahead.

Mrs WEST—Do we have the staff to maintain and pursue this direction? Do we have the expertise in telecommunications?

Mr Nash—We believe that within Telstra we certainly have that. What we perceive is a lack of focus from practitioners—and from the health industry, in particular—in articulating or understanding their exact requirements. It is almost a case of process re-engineering many of the things you would do in hospitals and the ways you would operate between hospitals and remote locations. It is not a matter of fine-tuning what you have. You may have to change it completely. So it needs a strong management and practitioner focus from the health sector itself, and that is what we are seeing as missing at the moment.

Mrs WEST—Do Telstra have the expertise, in their work force, to maintain and sustain this technological wizardry?

Ms Kennedy—Yes; more so than the other staff.

Mr Nash—Yes. Again, the technology roll-out and the application sets are waiting. We are being held back, I guess, by the lack of focus.

Mrs WEST—Will you be a training provider for future generations, as well?

Mr Nash—I am not sure what you mean.

Mrs WEST—Will you be passing this information on?

Mr Nash—That is normally part of the way the organisation works, yes.

Dr NELSON—Could you elaborate, from the technical perspective, on what you see as the solutions to overcoming legal and privacy concerns? Is there any role at all, or necessity, for legislation?

Mrs Angeli—We have identified in our submission some of what we see as the legal concerns. As far as overcoming those is concerned, we do not really see that that is something that is in our area of expertise, although I think we have made some suggestions.

Ms Kennedy—Encryption is the answer.

Dr NELSON—Presumably, you are involved in the development of technology which would play a role in protecting this. One of the major barriers out there in the real world is the inherent suspicion that people have about all this. I have met one or two who are like that. So is Telstra working on, or does it foresee, technical solutions that might reassure some of those people?

Mr Nash—Are we talking about encryption?

Ms Kennedy—We are talking about encryption, are we not?

Dr NELSON—You tell us. That is one thing I have thought of, but there are other things.

Mr Nash—Well, on the encryption side, not only the medical fraternity but also the defence fraternity and others have high-level encryption requirements and security requirements. We have developed several products that meet their requirements and no doubt could be used in the medical area. We really have not applied those at this stage, mainly through a lack of focus in that particular area.

Ms Kennedy—There is a special group at the labs whose total job is looking at the security of the network and encryption techniques. They are as far ahead as anybody in the world. If we go ahead with developing some things in this area for the health

sector, I will be looking to those people to supply that expertise into this field.

CHAIRMAN—Ms Kennedy, I have listened with interest to your answers. I am very interested in the section of Telstra where you work. Can you just outline the sort of experience that you brought to that particular responsibility?

Ms Kennedy—It is quite new, we started in 1988. There were psychologists working at the labs. It was a very square, hard-edged, black box—this is my sociology background talking—sort of environment at the labs and what the psychologists who were there before I was there were involved in were human/computer interface problems and issues. When I came there was me and a guy who now works with the HCN, and then there were gradually six and now we have got two part-timers as well. So there is actually eight bodies in the labs, with the spectrum skills that I spoke of before.

We have been fired at all sorts of things besides health too, we have worked a lot in education. Of course, health and education cross over a lot, there is an enormous amount that goes back. We have worked on quality of service issues and we have looked at rural Australia. I have been out to Moree and the back of beyond, all over the place, looking at what rural people's needs really are. If we get the money to go and look at what the cotton farmers do, we will usually whip around the schools and the hospitals while we are there to find out what is going on there. Our projects tend to build on each other, they are not channelled down special things.

We feed this material that we gather back to other people who may be interested around the company, largely to the account executives who have responsibility for particular areas. That is how we work.

CHAIRMAN—Thank you very much.

Mr QUICK—We heard from the Department of Health and Family Services about states moving along independent paths. I think you mentioned on page 4 the number of Telemedicine trials. There is the TARDIS project in Queensland and the ACCI project in Victoria. I have asked a couple of people whether we were seeing a proliferation of rail gauges around Australia in this sort of area. Do you see yourselves as trialling all these projects in various areas and then perhaps coming up with something that can be a model for Australia? How do you link in with the Department of Health and Family Services and the Department of Communications and the Arts? Do you try to work out a model so that what Tasmania does with its health technology services has some relationship to what they are doing in the Northern Territory, Queensland and all the other places so that we do not end up with eight different systems?

Mr Nash—Much of the application work and the trials that are driven by individual needs will come back to a common technology platform. The rail gauge issue is almost taken care of by the issue of convergence of technologies moving into broadband. I

do not think we would see a proliferation of different networks on a technical level with different interface requirements, I do not think we would move down that path. The way we talk about standards and the applications is to then roll them back into each of the individual states and then offer then as a way forward. That is why they are classed as pilot. There is no coordinating body that would do that, it is very customer driven.

Mr QUICK—Should there be someone overseeing all this? The Queensland TARDIS project is funded through its health program somewhere, and knowing the way states operate in this part of the world, they are very territorial.

CHAIRMAN—Queensland operates very well at the moment!

Mr QUICK—For example, Tasmania has 470,000 people and rather than re-invent the wheel, do you see a role for yourself so that if the Tasmanian health department comes to you and says, 'We would like to do this project', do you say, 'Hey, someone else is doing it' and then you ring up your counterpart in the health ministry in Queensland and you can borrow—

Mr Nash—That is very much the networking that happens at the moment. If there was a coordinating group, I think it would be important that the coordinating group looked at the functional requirements of the users and coordinated those, not so much as the technology or the infrastructure.

Mr QUICK—And with some of the exciting things that you are doing in overseas countries, using some of the various state hospitals and their role in bilateral arrangements, can you explain a bit about that and how, hopefully, we can use some of that technology to benefit some of the rural areas that John Forrest was on about?

Ms Kennedy—This is not something we have actually done a lot of work on; it is something we stumble over all the time when we are in particular places. We find that certain specialists or groups of doctors and nurses have relationships with sister hospitals or places where they do educational work or special programs in other countries. In some of those countries, of course, Telstra is already helping to roll out networks. We would hope to get some convergence there, using the things that are developed here in those countries where the network would be appropriate and, through our knowledge of who is doing what, helping those people to actually get those things into the countries where they are working. There is no concerted plan; there is nothing really seriously happening at that level yet, but it is clearly a way to go.

Mrs WEST—How will open competition impact on your research and development of Information Technology in the future?

Mr Nash—The benefit of that competition is that it drives us to work with the practitioners and with the hospitals. How will this advance the coordination and the

activity in this field? It will strengthen it, because the competitors will be forced to work closely with the users, but it will mean that we will need to focus more on the investment we need to make in the network to have a far more tied down business case that drives out the infrastructure to support the requirements, rather than just an overriding statement that says we need broadband everywhere because we just might have something on it. It needs to be more cost-effectively focused.

Mrs WEST—Do you have a budget analysis of future needs in that area?

Mr Nash—Within Telstra, we map the different demands of the different sectors—health, education—back into the network planning. That is part of the network planning. So, yes, that does happen. The needs of all those customers, if you like, are reflected in the network that we roll out.

Mrs WEST—So have you got a long-term plan?

Mr Nash—Yes, we have.

CHAIRMAN—There being no further questions, I thank you very much for appearing before the committee today. I think you are going to provide some additional information to us. Could you do so through the secretary? It will be passed around to the various committee members. Thank you.

Luncheon adjournment

[1.33 p.m.]

BUERDLMAYER, Mr Gil, Manager, Electronic Commerce Strategy Team, Health Insurance Commission, PO Box 1001, Tuggeranong, Australian Capital Territory 2901

NEWTON, Dr Rick, Branch Manager, Professional Services, Health Insurance Commission, PO Box 1001, Tuggeranong, Australian Capital Territory 2901

NUM, Mr David, Branch Manager, Corporate Development and Statistics, PO Box 1001, Tuggeranong, Australian Capital Territory 2901

TREVETHAN, Mr Morris, Branch Manager, Pharmaceutical Program, Health Insurance Commission, PO Box 1001, Tuggeranong, Australian Capital Territory 2901

WOOD, Ms Jacquelyn Spencer, General Manager, Government Programs Division, Health Insurance Commission, 134 Reed Street, Tuggeranong, Australian Capital Territory 2900

CHAIRMAN—I now call witnesses from the Health Insurance Commission to be sworn in. Welcome. We have received your submission, and we have published it and circulated it to all of our members. Would you like to give us a brief opening statement of, say, up to five minutes highlighting some aspects of which you would like the committee to particularly take note.

Mr Num—I would like to be able to use the overhead, if that is convenient?

CHAIRMAN—There is no objection.

Overhead transparencies were then shown—

Mr Num—What we have tried to outline in our submission is a health care vision. It is a patient centred vision which moves us from the current fragmented delivery of health care today to a patient centred approach. That relies on the provision of timely information, and we think Telemedicine can do that. Through this, we believe we can improve health care outcomes and reduce outlays.

But we do believe that we need a national framework to make this occur. The sorts of things that we need in that framework are: a governance structure so that we avoid having different railway gauges; a management structure that promotes the on-time delivery of information; and a transport layer that gets the right information to the right people at the right time.

The sorts of benefits that we see out of this framework are that it adds value today

and it positions us for the future. What we want to do is be able to facilitate co-ordination now, without limiting any creative solutions. We would also like to see the facilitation of IT in general practice. We think it provides the basis for significant benefits savings, particularly through front-end risk assessment and one of the major causes of hospitalisations—drug interactions.

The HIC, we believe, is well placed to assist with the provision of this framework. We are actually delivering EDI services to the health community now. Some 26 per cent of Medicare information is now received electronically and almost 100 per cent of pharmaceutical benefits.

The HIC reaches most providers, and they have a need to talk to us because of billing and payments services that we provide. So we reach all of the general practice providers, we reach the pharmacists, and we reach many of the ancillary providers through our provision of services to the Department of Veterans' Affairs and through our Medibank Private operations. Currently, we not only receive information, we feed back information to providers.

As part of this national framework that we see, there is a need for a key partnership with the various key stakeholders. Our electronic commerce group have been working with those stakeholders to try and start the governance part of the framework and the messaging standards parts, so we can build on what we have and go forward. Our organisation is a practical organisation that is charged with administering the Medicare and pharmacy programs. What we are trying to do is provide practical solutions in an open and standards-based way that others can build on.

CHAIRMAN—There has been some confusion in the community over what the words 'Telemedicine', 'Telehealth', 'telecare' and no doubt a number of other 'tele' words mean. We have had representatives of bodies come before us today, all of whom have different definitions for those terms. It would seem to me that there is confusion in the community. Would the Health Insurance Commission be prepared to take a proactive role in getting some uniformity of definition because, if we do not know what we are talking about, it is very hard to attack the problem.

Mr Num—The way that we have used those terms is defined in a glossary at the end of our presentation to you.

CHAIRMAN—I am aware that you have got your definitions, but then so have the Department of Health and Family Services, the Department of Communications and the Arts, and other people. It seems that everyone you talk to has a different understanding of what these terms mean.

Mr Buerdlmayer—We agree that there are a diverse number of players in the industry with their own definitions and, as part of that national framework for the Australian health sector, vis-a-vis standards, Information Technology, and teleservices, we

see that the governance structure part of that framework would assist in bringing a national focus and national definition to terms such as teleservice, Telehealth and Telemedicine.

CHAIRMAN—It is obvious that someone has to grasp the nettle as far as the development of this technology is concerned. The Health Insurance Commission seems to have its act together fairly well. What role do you see the Health Insurance Commission playing in the expansion of Telemedicine? I notice in your submission that you constantly refer to the word 'stakeholders'. Could you clarify what you mean by the term 'stakeholders'?

Mr Num—First of all, I will deal with the first part of your question: the role that we see ourselves playing. We have a real need, for practical reasons, to connect electronically to providers because it is a cheaper way for us to do business. So we are certainly trying to advance that. We believe that it is necessary to show that there is gain sharing in that connection and that it provides value to both sides. I guess that is part of involving stakeholders, that is, the GP group.

There are a number of moves around the country from different divisions of general practice and from the guild, et cetera, that are interested in building on the framework that the commission has. So we are talking with those. We are also working with the private hospitals through a national consultative group to develop messaging standards. They have taken on board the software that we have developed for secure transmission of health data and are now using that for messaging not only to the commission but messaging between themselves as well.

CHAIRMAN—I notice in the initial presentation you said that some 26 per cent of Medicare claims are handled electronically and close to 100 per cent of pharmaceutical claims. When you refer to that 26 per cent of claims, would they be perhaps general practitioners who would be bulk-billing on an on-line basis? Does it mean that 26 per cent would be the percentage of claims that are actually bulk-billed—only 26 per cent, and 74 per cent aren't?

Mr Num—No.

CHAIRMAN—Are you saying that some bulk-billers do not actually communicate with you electronically?

Mr Num—The majority of people who communicate with us electronically for Medicare are pathologists. They have very large practices, and we have nearly 100 per cent of those communicating with us. There are not as many general practice people. While we have some 600 practices with over 3,000 providers connected to us, we are building on that at a rate of about 10 to 20 per week at this stage. The percentage is going up much more slowly because they are much smaller practices.

CHAIRMAN—Do you offer incentives for practitioners to link in? You cannot offer higher rebates, but perhaps you might offer quicker rebates.

Mr Num—We do offer some incentives. We offer a payment towards the cost of connection. We also offer incentives to the medical software providers who are providing the practice software, to assist them to connect the practices to us. We pay for all of the communications. We also offer payment by EFT. That speeds payment. Unfortunately, the minimum payment times that we are bound to constrain us in how fast we can pay. We are generally bound to a minimum payment time of 10 days.

CHAIRMAN—It seems to me that, if you could offer practitioners some positive incentive to link in, you would get a lot more to do this and there would be resulting efficiencies.

Mr Num—There are considerable practical problems in getting practitioners hooked in. Part of the problem has been the nature of the industry that is supporting them. There is a large number of small providers of software. The support has been uneven, to say the least. That has, in part, acted as a disincentive for providers to connect to us in some areas.

Mrs ELSON—I would like to ask a very general question about a very specific area of policy. It is to do with the privacy, ethical and legal areas of concern. We have heard today quite a lot of comment about the problems arising at both the consumer end and the medical part in the centre of the whole thing in relation to privacy and the ethical attachments to that. Could you discuss with the committee where you see those questions now laying and what sort of direction the HIC could offer, given your obvious expertise in this area to date?

Mr Num—Our communication mechanisms were developed in consultation with the Privacy Commission. We are using a public key encryption mechanism which has been approved for this type of purpose by the Defence Signals Directorate.

Our own internal databases are separated so that there is no link between the Medicare databases and the pharmacy information, but we have established protocols with the Privacy Commissioner that allow us to link that data in certain circumstances and to record that. We have worked along those routes over time so that we can practically manage in this environment and meet our community requirements.

I might hark back to that governance view which I had on one of the overhead transparencies. We think that is an important issue that has to be resolved in consultation with the community, with the Privacy Commissioner and with the other stakeholders. It is not only individuals' privacy we have got to be concerned about; it is also the privacy of the providers themselves, because they may be identified if we provide information. How do they want to be seen? We have got to be very conscious of that.

Mrs WEST—The electronic data interchange initiatives are obviously well established. You have got submission of data on diskette and dial-up connection and file transfer. You have got the use of dedicated data lines for information. I am telling you what you already know. With the links with ANZ Bank, Department of Veterans' Affairs, Department of Health and Family Services, you have gone ahead and done all this. You have already established this.

Mr Num—Yes.

Mrs WEST—Could you discuss the various projects you have and whether the projects are implemented within the framework of developing a holistic approach to information management?

Mr Num—We started at various stages. Certainly, the pharmacy diskette initiative was started early. We are having discussions with the guild at the moment as to whether we can bring that back into our MedClaims environment, which is using the encrypted software and the mailbox concept. Our aim is to advance using open standards so that we are getting messaging to support our operations. Then, in time, we will move that to real-time interactive, where it is necessary.

Mrs WEST—To what extent has there been satisfaction amongst the stakeholders with this approach to information management? Are they quite happy with it?

Ms Wood—The doctors who are linked to MedClaims, where the software support is very good, are very satisfied with this method of claiming, because it enhances accuracy. You eliminate immediately all the keying errors that happen in between. Even though the EFT deposit may not be made a great deal earlier than they would have received the cheque, they do get much earlier the information about what is going to be paid and about any errors, and that allows them to resolve those issues. So, in satisfaction terms, I would say the reaction is quite good.

Mrs WEST—Is that all the stakeholders involved in the process?

Ms Wood—Yes; that is the providers in the MedClaims. With the pharmacists with the diskette, the satisfaction rating in our client survey showed there has been satisfaction from the pharmacists in excess of 80 per cent. So it appears to us, from everything we look at, that the client base is satisfied with this move.

Mrs WEST—How broad is that? Is that a project?

Ms Wood—We do client satisfaction research every year, and it is very wide national research.

Mrs WEST—In all states?

Ms Wood—Yes. It is over our customer base and it is a public one. We do our providers: the doctors, the pharmacists and, more recently, the child-care population as well. The research for last year, 1995, was done by AGB McNair. We had about 93 per cent satisfaction from the public, 88 per cent from pharmacy and 74 per cent from doctors.

CHAIRMAN—Politicians would like those ratings!

Mrs WEST—Where do you go from here?

Ms Wood—We need to maintain it because, once we are delivering a level of service, that is then the expectation and, to maintain that level of satisfaction, we have to do a lot of work.

Mrs WEST—Was this a pilot, or was this your basic research?

Ms Wood—No; this has been going on for many years. We have been doing this research every year and, in fact, this year's research is just being concluded at the moment.

CHAIRMAN—I see that the Health Insurance Commission has estimated the cost of the health care system as being about 8.6 per cent of the gross domestic product. I worry about the affordability of that as far as the overall economy is concerned. Can you tell me how that percentage compares with the situation in other countries? Further, even with that level of spending on health, there are significant waiting lists in many areas and, clearly, cost effectiveness is very important. The area we are discussing does have the capacity to deliver, presumably, some savings. Has the Health Insurance Commission conducted any reviews to determine the cost effectiveness of telecommunications health care delivery? Could you also elaborate on how the Health Insurance Commission is able to make a major contribution to the affordability of providing telecommunications?

Mr Num—I understand that the cost to GDP in the US is about 12 per cent. Australia's is much lower than that.

CHAIRMAN—What about Canada and the UK?

Mr Num—I am not sure in those cases. I am informed that it is about six per cent. What were the other parts to your question?

CHAIRMAN—The health budget is consuming 8.6 per cent, on your estimations, of our gross domestic product and clearly cost-effectiveness is a consideration that the Health Insurance Commission and others must always take into account. I am just interested to know of any reviews that the Health Insurance Commission has undertaken to consider the cost-effectiveness of telecommunications health care delivery. Also, can you elaborate on how your commission is able to make a contribution to the affordability of

providing telecommunications?

Mr Num—We are a very efficient organisation in our own right. Medicare management overheads for our payments there, where we make some 190 million payments of $30 each per year, averaged about 3.3 per cent in the last year. Our electronic services through pharmaceutical benefits average around 1.8 per cent management overheads in paying out over $2 billion. So clearly where we are getting most of that data electronically that reduces the cost of providing those payment services.

CHAIRMAN—Thus your enthusiasm for having more people adopt that practice.

Mr Num—There is a clear adage in data processing terms that if you get data early and get it at source you get less errors and it is more accurate. There is less need to go back to the providers for correction and so there are benefits to both sides there. What we see we can bring is not only our efficiency in payments processing but, because of the need for people to connect to us, because we interact with most of the health environment, we can provide a purpose for connection, and that is for payment of billing. But, if we have built our framework with open standards and we have established those mail boxes using our purchasing leverage, which is considerable because we are a large agency and we have also got the Commonwealth there with us providing as an electronic framework, other messaging can take place on top of that at the marginal cost. The infrastructure is in place because people need to communicate to the Health Insurance Commission and that we see as a very real contribution, along with our contribution to getting things moving and providing the messaging standards and talking to the players and getting people on board and making things happen.

Ms Wood—In those costs that does not differentiate between the total cost of the health care budget, the 8.6 per cent, and administration from the program in the various countries. I have not seen any break-up but I would like to reinforce that the administration of the Medicare program and the pharmaceutical one is very low. The other advantage and what the HIC is able to do and has been doing is providing aggregated data and information on health trends et cetera, because we have such a large percentage of the medical data in Australia. This skill of ours was recognised when we were asked to do the immunisation register because we are a national organisation and we have the ability to take in information and provide management and statistical information out. So the immunisation register started in January and of course the data has not built up to a great degree at the moment, but in the longer term we will be able to give very useful health planning data out of that.

Mr Num—Certainly the billing connection allows us also to add the collection of other data very simply onto that mechanism and, because of our large processing capacity, we are able to turn that around and make it available to other people, so that is another area where there would be considerable value.

Mr QUICK—Along those lines, on the immunisation, you try and get statistical information as to the number of children that are immunised, for example in Tasmania, and you have got various different ways. The local council do it, GPs do it, and it is all a great big mish-mash. As a result of this new structure we can then say, 'X number of three-year-olds in Tasmania have been immunised.' We can have that information on which we can base strategies.

Ms Wood—Exactly. We take the data from, as you say, state governments, public health authorities and from individual doctors. They send us a notice that they have given a particular immunisation.

Mr QUICK—Who will, in turn, then be able to access that information? Will it just be people who provide medical services, or will geography departments at universities be able to say, 'The socioeconomic breakdown of that community is X and immunisation records are Y,' and those sorts of things?

Ms Wood—That is right, because it is de-identified data and aggregated data, and that provides the ability to make that sort of study.

Mr Num—Certainly we are looking at publishing that electronically so it is available, on a regular updated basis, to both government and researchers. But there is also access back to that data for the status of individuals—that is, do they need an immunisation?

Mr QUICK—Is the management and treatment of breast cancer regimes around Australia going to be put on? You say, for example, the cost is $45 for a mammogram, or whatever it might be. Will that sort of statistical information be able to be accessed as well?

Mr Num—Certainly; the Medicare databases and the pharmaceutical databases are recognised as very useful for epidemiology research and we actively try and encourage and support that use, working with the various epidemiological units around the country.

Mr QUICK—In the committee's last reincarnation, when we were doing the management and treatment of breast cancer, trying to get statistical information from state governments was virtually impossible. Some of it was in hospitals, some of it was in various health departments. And trying to get comparisons between states was hopeless; it was non-existent. I was interested to see your rail gauge idea, because we have been talking along those lines as well. So do you see yourself as the repository of all this information which can then be accessed from a whole series of sources?

Mr Num—We certainly could become an avenue for collecting that because most people have to connect to us to get paid at the moment. It just fits in naturally there; it is not a great deal of additional information, if you have got patient information coming

down the line now, to put a code on there.

Mr Trevethan—The committee might wish to know that in the Pharmaceutical Benefits Scheme, for instance, the data that is collected as part of the processing is handed on to the department. But in that program we moved very early to identify each prescription record with the Nordic code, which is the code being used by the European countries to compare like groups of drugs and their usage within countries. So we moved at quite an early stage to tag each record that we collected with that Nordic code so we could use the Australian data to compare to overseas countries and work out just how Australia stood in terms of its drug usage vis-a-vis other countries.

CHAIRMAN—How do we stand?

Mr Trevethan—That is the work that is done by the Drug Utilisation Subcommittee of the Pharmaceutical Benefits Advisory Committee under the aegis of the department. We picked up the data, processed it and handed the information on with the extra fields embedded in the data so that they can do that work.

Ms Wood—I just wish to add, with reference to your difficulty with the statistical information, that it is much easier to collect if it is tied in with the payment of a benefit. The two go together very well. If you have information to go to this area, and payment from that area, that makes it much more difficult to get the information.

Dr NELSON—I have a couple of questions I would like to ask. One is an extrapolation of what we were just discussing. On page 4 of your submission, you said:

> The Health Insurance Commission is now seeing an inevitable shift in its role from transaction processing to health information management. As a by-product of its role as the major health benefits payment agency, the Health Insurance Commission has created a national health database, the integrity and continuity of which is without peer anywhere in the world.

Apart from immunisation and information on pharmaceutical prescribing and trends, what other information are you collecting and on what diseases? And who can get access to it and under what conditions do they do that?

Mr Num—We collect information through the Medicare billing system and that database has been going since, I think, 1984. Not all of that is held in an identified form. Some is held by our agency and some by the Department of Health and Family Services. There is a protocol established for release of that information in an aggregated form so that it does not identify the patient and it does not identify the provider. The various research groups—universities and state health departments—can get access to that data.

Dr NELSON—I have just got a couple of other things. How long does it take from the time that an assignment form is claimed—from the time that a doctor makes a claim—to the time that the doctor receives a cheque from the commission? How long does

that take?

Mr Num—There is a minimum payment time. So, from the date of lodgment with us, it is 10 days until we make the payment.

Dr NELSON—So from the time you receive the claim to the time that the cheque is dispatched to the doctor, it is 10 days.

Mr Num—Yes. If it is an EFT payment, I think we make it on the ninth day and the money goes into the bank on the 10th day, otherwise the cheque is dispatched on the 10th day.

Dr NELSON—You obviously do not mind being quoted on that. The other point was, earlier this morning the Department of Health and Family Services in its submission told us that the issue of Medicare card numbers as unique identifiers has been referred to AHMAC but they were not able to tell us any more about it. Is the commission aware of this proposal and, if so, have you had a role in developing it?

Ms Wood—Yes, we are aware that the use of the Medicare number as a unique health identifier is on the agenda at AHMAC. It had been discussed by AHMAC, I think it was in 1993 or 1994. It was then put on hold and I believe that it was being brought up again. But the Health Insurance Commission has not had input into that because we are, as I said before, the administration arm. The Department of Health and Family Services is the policy department and it would deal with it.

We would obviously support the use of the Medicare number as a unique health identifier because the Medicare card has wide acceptance in the community, as I said before, with the satisfaction and the approval of Medicare as a program.

Mrs WEST—You used the term 'open standards' before. Can you define that for me, please?

Mr Buerdlmayer—There are two ways of considering that: one is de facto and one is de jure—that is, recognised international industry bodies or standards associations. We consider standards lying in both jurisdictions. So you have, say, the International Standards Organisation and its Australian arm, the Standards Association of Australia. So, for example, referring to MedClaims, that is an X-400—sorry about the technical jargon—it is an industry standard e-mail messaging system.

There was also discussion earlier today from the Department of Communications and the Arts about the Internet. The Internet's standards are part of another standards group, the Internet Engineering Task Force, which is a North American based organisation. I guess that, arguably, lies more under the industry de facto suite of standards, but it is basically international or national de facto or de jure standards.

Mrs WEST—If you are already collecting all this data, where is it? Is it only in metropolitan areas or—

Ms Wood—No, it is national.

Mrs WEST—Rural and remote areas?

Ms Wood—With the Health Insurance Commission, it does not matter where a provider is, we are able to connect with them and for the public in rural and remote areas we have always had our customer service centres, the branch offices. We have provided in the Northern Territory and in sections of Western Australia and Queensland a telephone claiming service that recognises that rural and remote problem. But Medicare is a national, universal program and so for the HIC it does not make any difference where our clients live, we find a way of providing them access at the cost of a local call or through mail or through an office. Our doctors are connected and we pay all the transmission costs so it does not matter where they are located.

Mr QUICK—Following on from Dr Nelson's question, I am amazed that the HIC is not included in the AHMAC policy discussions when you are such a repository of such information and knowledge. Is this another example of the Department of Health and Family Services being very territorial and excluding you? I am asking that most seriously.

Mr Trevethan—I would not read that into what has been said here. AHMAC works through quite a number of subcommittees and a strata of subcommittees. For instance, I was recently with the department discussing with the state counterparts the question of handling the information on narcotics drugs monitoring and the difficulty they have, which is resource intensive, of recording and getting back that prescription information and whether there are ways we could move the process forward.

It is at various levels that you get pulled into the discussions. Certainly there is the department's policy role and they come to us quite freely and frequently on operational policy. I believe the relationship works very well and soundly.

CHAIRMAN—Would you like to be included in those discussions?

Ms Wood—It is a moot point because I think one of the reasons for the success of the HIC is that it is concentrated, it is a practical organisation. With the formulation of policy there is a lot of work and time involved. That is the department's role. They certainly do consult with us and we provide a lot of information.

Mr QUICK—Significant benefit savings pop out of just about every second page in all the submissions. I am interested in your response to the Department of Human Services and Health and the IBM consulting group's suggestion on pages 5 and 6 where they are talking about a full implementation of medication management and electronic

prescribing in Australia. They suggest we could save $145 million per annum and over a 10-year period there would be a net cost saving to the government of $850 million for an outlay of just over $95 million. Are they believable figures or is that just fairytale stuff?

Ms Wood—I think they are believable. I do not have to hand the actual costings of the British Colombia thing but the Royal North Shore Hospital study on acute admissions of people aged over 65 found that 25 per cent of the acute admissions to hospital were preventable because they were due to inadvertent drug reactions and that if the patient had had that knowledge they would not have been in hospital. I would think that if that were just at one hospital and that was 25 per cent of acute admissions aged over 65, there are enormous health program outlay savings.

Mr QUICK—What do you see as the HIC's role in taking up the recommendations and working with the department on this as an implementation task? Almost $1 billion is going to achieve what Mr Slipper is on about with cutting down the percentage of the GDP.

Ms Wood—I see that we have the ability to facilitate this policy if this policy goes ahead and it is agreed. We would be the key cornerstone of the delivery of that policy.

Mr QUICK—Were you the initiators? I know you have the ability and all the technical wherewithal, but should we say to you guys, 'You go and do it', and then say to the Department of Health and Family Services, 'It is under way; we can show you the money in the bag'?

Mr Trevethan—The report that you have there was the IBM consultancy report which was taken up in terms of the PBS environment. I was involved in part of that. To some extent the process quickly showed the picture that we were dealing with in health was a much bigger one and, I would say, hence you are here in terms of Telemedicine. It became quite clear that the process was very big and complex.

In terms of pharmaceutical, we might look at the infrastructure that has been put forward in other countries and in other forms in other health care delivery systems. We have 40 years of history in a pharmaceutical benefit scheme, with negotiation up-front for drug prices somewhat the envy of many other countries. We have kept those prices low, and some of the other processes that are put in place that have a high communications infrastructure are seeking those dollars. The prime vendor systems are seeking those dollars.

The outcomes that we believe that we are flowing forward to are also better health outcomes using the same sort of networking. I believe that report probably now casts itself into the area of general practice and general medicine as well, and probably has had more work done to determine how we go forward and deliver what we require in the Australian health care system.

Mr QUICK—Some of those savings could be given to Mr Num to set up his new rail gauge and give us a better supply of health system.

Dr NELSON—The next group we are talking to is the Pharmacy Guild—and they've got an impressive new tie, by the way. The government has announced that pharmacies will be taking over the role of processing Medicare claims in certain areas. How is the commission going to technologically and administratively adjust to that, and how do you envisage decisions will be made as to which pharmacy in a particular country or regional town might be processing claims?

Ms Wood—The announcement was that there would be claiming facilities in pharmacies in rural and remote areas, essentially. That was the policy that was announced by the minister. We are looking at the moment at ways that this could be done, and we are discussing and working through a form of criteria for selection. We have already the isolated pharmacy allowance which is looking at rural—and it is already in place for pharmacies. I see that for rural and remote areas that that would play a part in the criteria for the selection of pharmacies. I think that the Health Insurance Commission needs to be well aware that we would not want to give one pharmacy commercial advantage over another in the same street or the same town. I think that is an issue that we have to deal with very carefully.

CHAIRMAN—Dr Nelson's question raises another question in my mind. Two of the nine Medicare offices in Queensland which apparently have been targeted for closure are in my own electorate. I understand that that list came from a leaked document, a draft working paper, from the Health Insurance Commission, and that no decisions have been made.

In an area where an office is to be closed, obviously that means a diminution of access to Medicare for people in that local area. You refer to the minister's comments that the Medicare agencies will indeed be placed in rural and remote areas. In urban areas where it is proposed to close Medicare offices, does that mean that those urban areas will lose their Medicare office and not even receive a Medicare pharmacy agency to compensate?

Ms Wood—No. The Health Insurance Commission has been running a network for a long period of time, since 1975 I think, but since Medicare in 1984 we have opened and closed several branches, although our total number of customer service centres has been surprisingly stable. Access to Medicare is absolutely critical. The factors that we look at for establishment of a customer service centre take into account the population who actually claim from that area. A lot of the time you will find that they live in one area but they actually claim elsewhere. We look at the level of direct billing and we look at the level of face-to-face.

There is no actual hit list of branches to be closed but the HIC constantly reviews

its network because the face-to-face trends change, and they will change quite significantly when the child-care cash rebate moves away at the beginning of 1998. Because we in Medicare are administering the taxpayers' dollar, we have a responsibility to ensure that we administer Medicare as cost effectively as possible.

CHAIRMAN—So what you are really saying is that an office could close in an urban area for the reasons you have outlined that you have closed offices in the past, and it might not even be replaced with a Medicare agency in a pharmacy?

Ms Wood—I suppose you could say that. I would not like to say that definitively. Yes, it is assessing. Telephone claiming is an area where we have managed to provide individual access instead of having a customer service centre in some areas as well.

CHAIRMAN—I understand Mr Quick has a question.

Mr QUICK—My question is that, about 10 years down the track, because we can do home banking on our computer now, will we be able to do Medicare claims and have money deducted and transferred across? Do you see, 10 years down the track, that that will be the case?

Mr Buerdlmayer—Yes, I believe that is quite possible, provided all the checks and balances are in place and provided that it has been undertaken in a consultative manner.

Mr QUICK—So Medicare offices, 20 years down the track, assuming that the technological leap forward progresses, will be able to do all those things. We will not only access Telemedicine and access our doctor but have benefit payments and the like?

Mr Buerdlmayer—Not the entire Australian population is comfortable with Information Technology so I think in all likelihood there will always be a place for some sort of face-to-face relationship between an organisation such as the Health Insurance Commission and its clients.

Mrs WEST—Could I ask who or what body do you see, or do you see one body overriding and controlling the gateway or the entire issue of information gathering and utilisation of this technology? Do you see any one body being in control?

Mr Num—What we would like to see is a governance framework set up where the key stakeholders—consumers, providers and government—all have a say. But we see this developing in a very patchwork way. There will be different initiatives at different stages and what we want to be able to do is to provide and help those initiatives go forward. So that if a local division of GPs decided that they want to have a particular public health initiative in association in their region and it is something that they want to support, then Medicare can support the collection of data, help that initiative get along and come back

to some value. As we pick these initiatives up around the country across our framework, because we have got reach there, then more and more things will kick off and there will be more and more value. But it certainly will not be a global thing right from day one. That is impossible.

CHAIRMAN—Thank you very much for appearing before the committee this afternoon. If there is any further information which you would like to pass on to the committee, please do so through the secretary.

[2.25 p.m.]

BANKS, Mr Si, President, New South Wales Branch and National Councillor, The Pharmacy Guild of Australia, 14 Thesiger Court, Deakin, Australian Capital Territory 2600

GREENWOOD, Mr Stephen, Executive Director, The Pharmacy Guild of Australia, 14 Thesiger Court, Deakin, Australian Capital Territory 2600

TATCHELL, Dr Michael, Director, Health Economics Division, The Pharmacy Guild of Australia, 14 Thesiger Court, Deakin, Australian Capital Territory 2600

CHAIRMAN—I now call on witnesses from the Pharmacy Guild of Australia to be sworn in. Yesterday we were privileged at another inquiry to have you three gentlemen before us representing The Pharmacy Guild. For the purposes of our inquiry today, we have to assume that the evidence you gave yesterday was in fact not given. It will have to be given again because this is entirely a separate inquiry, so I am told and this is the way the bureaucracy operates. I invite you to make a short opening statement in support of your submission.

Mr Greenwood—I will try not to make it too much deja vu. As stated in our submission, The Pharmacy Guild of Australia believes that there is great potential in community pharmacy for developments in Information Technology to be made. The particular one we focus on in the submission is paperless claiming. There is an undertaking to explore the introduction of paperless claiming in the 1995 agreement between the guild and the government. One model has already been tested in a trial in Victoria and a second possible model based on the PharmaNet system in British Columbia is described in the submission.

I would like to make it clear that the guild has an open mind on the Canadian PharmaNet system. We believe the present claiming arrangements are somewhat outdated and that more contemporary, user friendly and cost effective systems are available. Our aim is to find an alternative which is suitable for Australian conditions and which recognises the unique features of our own particular health system and Pharmaceutical Benefits Scheme.

As well, our aim is to find a system which benefits the major players in the process, that is pharmacists, government and consumers. This appears to be one of the attractions of the PharmaNet scheme, although it must be recognised that the system has not yet been fully evaluated and our understanding, however, is that the PharmaNet scheme offers substantial savings to government through reduced hospital admissions, better use of medicines and greater control of fraud and abuse of medications by consumers. We think it also offers benefits to pharmacists through quicker payment times, reduced paperwork and more powerful and sophisticated patient data quality. It also offers benefits to consumers from the improved pharmaceutical care and advice they would

receive from pharmacists.

One particular feature of the PharmaNet system which I would like to emphasise is the important role played by the profession in the successful running of the scheme. The College of Pharmacists of British Columbia acts as a gatekeeper for the system by controlling the medication information on PharmaNet. This is kept quite separate from the information required by the central government paying agency, PharmaCare, for claim payment purposes. The guild believes it would be essential for a similar gatekeeping role to be taken by pharmacy proprietors in Australia were a PharmaNet type system to be trialled here.

The committee's terms of reference request interested organisations to address ethical, privacy and legal issues which may arise with the wide application of Information Technology and the transfer of confidential patient information. Clearly the development of an alternative claiming system for pharmacy in Australia which may involve the linking of community pharmacies with a central government agency and the passage of large quantities of sensitive patient information, would give rise to significant privacy concerns for pharmacists, patients and the government.

British Columbia has found an interesting and innovative way to handle this sensitive issue. There is no doubt that the way in which privacy issues are dealt with in Australia will play a central part in shaping any new arrangement which may evolve. Once again, it is essential for all stakeholders to be involved in the process from day one. That is why we have proposed to the Minister for Health and Family Services, Dr Wooldridge, that a feasibility study of a PharmaNet type system should be undertaken. Such a study, if agreed to, should be jointly undertaken by the Health Insurance Commission and the Pharmacy Guild of Australia in consultation with other relevant organisations such as consumers and the medical profession. We would be happy to answer any questions that you may have for us.

CHAIRMAN—Personally, I was very impressed with the PharmaNet trial in British Columbia. I realise that there is a review about to arrive and this inquiry would appreciate a copy of that review. I am interested to see that you have written or contacted the Minister for Health and Family Services. I was wondering if you could tell us when you would expect to receive a positive response from the minister and when you believe that the obstacles currently preventing an immediate implementation of such a trial will be removed?

It seems to me that your profession has endorsed Telemedicine—used broadly—or technology in a way that other health care professionals have not yet done. In fact, this PharmaNet proposal has benefits for revenue, it has benefits for the patient, because the patients do not receive too much of the wrong medication, and presumably benefits for pharmacists in so far as there is an incentive there to make sure that you weed out prescriptions that ought not to be filled. So there appears to be no down side to it. I am

very keen to see it implemented here. You obviously are. You have been in touch with the minister. When would you have some information on just what is going to happen here as far as a trial is concerned?

Mr Greenwood—We have no reason not to believe that the minister will treat this seriously. I assume that he is seeking advice on the proposition that we have put to him, together with the information that we have provided, which is a full report which Dr Tatchell has prepared on his inquiries in British Columbia. We have already had some preliminary discussions with the Health Insurance Commission about the concept and indeed they have also sent people to British Columbia to examine the system.

We would see no impediment to discussions starting as soon as possible to see whether or not a feasibility trial could be undertaken, but that of course is a matter for the minister to decide. There would be funding implications related to that, but we think there are a lot of benefits that would accrue to the implementation of a feasibility study, not the least of which would be better patient data, better capacity for our members to manage patient data and, where necessary, refer people to medical practitioners, and to manage their cases in consultation with medical practitioners and other health professionals.

CHAIRMAN—Everyone one talks to has a different definition of 'Telemedicine', 'Telehealth' or 'telecare'. What definition does your guild place on 'Telemedicine'? It seems to me it would be very helpful if everyone could agree on just what it meant.

Mr Greenwood—We have not put a definition on it in those terms. Our submission relates to the way in which we think Information Technology can be better used for the benefit of consumers, the government and health providers. However, in regard to the way in which pharmacy looks at this issue, we really see it as being an opportunity for pharmacy to work with government to provide the infrastructure to provide better health information, better patient data and better management of patients' conditions in consultation with other health providers.

In the commitments that were given to us by the Prime Minister prior to the election, he made it quite clear that he wants to see the exploration of the concept of health shops—and we take that to mean the outworking of a means whereby governments at state and federal level will be able to use the infrastructure of the network of pharmacy to provide better information to consumers on the sorts of programs that government provide, details in respect of waiting lists, hospitals, details of the programs that are provided by community hospitals and other health professionals. We also see it as a means whereby we can provide health information to the public in conjunction with health promotion programs that are run at state and federal levels.

Mr QUICK—You talk in your submission of the guild/minister agreement running for a five-year period. I would be interested in the terms of that agreement and whether they allow some sort of renegotiation, some flexibility allowing for innovation in light of

the technological leaps that we are currently seeing taking place, and also allowing something like the PharmaNet to come up. Are the terms set in concrete or is there general flexibility if your association said,' What we negotiated in 1995 and what is going to happen in 1997 bears very little relationship to what we plan in 1998'? Can you renegotiate the terms or do you have to wait, like with the Commonwealth-state housing agreement, until the places fall apart and you have to wait until it comes up again in the year 2000?

Mr Greenwood—I understand. The terms of the agreement are not set in concrete but, in fact, as far as we are concerned and as far as we know the government is concerned, it is like a contractual arrangement that will flow for five years. We do not see the terms of that agreement changing dramatically. It has been supported by both political parties, both prior to the election and since the election. In those areas where difficulties do arise, there is the capacity for negotiations with the Commonwealth to take place to make amendments to the agreement, but as to the broad main principles, we see that as being a contractual arrangement that people can rely on in their business planning for the next five years.

Dr Tatchell—There is a clause in the agreement that relates specifically to administrative and clerical tasks that are required of pharmacists. There is an undertaking on both sides—the guild and the Commonwealth—to look at ways to reduce that administrative burden. One of the ways of doing that is through paperless claiming. So this whole exercise—there has been a trial in Victoria and now we are looking closely at the PharmaNet system—is well in line with the clauses of the agreement.

Mr QUICK—Following on from that, if there is a realisation, say midway through 1997, that PharmaNet is the way to go, are you going to be placed in a situation of saying, 'We cannot really put anything in place in the pharmacy in Dover in Tasmania because this does not run out until the year 2000'?

Mr Greenwood—No, I do not think that is the case. Perhaps Mr Banks might like to comment.

Mr Banks—I would think that there is a clear understanding on the part of the pharmacists that we want to be unburdened from some of the frustrating and confronting types of exercises we have to go through at present. Therefore, in a very selfish way, we would like to see some magnificent changes implemented that would free us from that role so that we could be back doing what we should be doing, and that is giving better advice and so forth.

Mrs WEST—Can I just have a point of clarification?

CHAIRMAN—Ms Ellis is first and then we have got Mrs West.

Ms ELLIS—Thanks, Mr Chairman. If I can get back to the PharmaNet thing again. We touched on this a little bit yesterday but I would like, in this inquiry, to come to it again but with a slightly different view.

I remember yesterday we talked about the ability of the client in a PharmaNet situation to put a request up that their information not be available—a code word or something. Could you please explain how that works? What does that mean? Does that mean that the benefits that would be available under PharmaNet, where medical information can in fact be to the benefit of the patient, is then not therefore available?

Dr Tatchell—Yes. I believe that that is the case. If the patient decides that they want their data protected and not made available to other pharmacies who might log into their computer and seek information on their medications, then the pin number that they receive on request would provide that protection.

Ms ELLIS—So a pharmacy shopper could in fact protect themselves from detection, in that sense? Please do not misunderstand me: I am not saying that we should not have a privacy allowance for clients, but it could work the other way as well, could it not?

Dr Tatchell—I had not thought of that, but that is something that we need to talk to the Canadians about.

Ms ELLIS—Could in fact the system be geared not so much to infringe upon that person's privacy as for the process to show up a misuse or abuse in another way or another consideration? If client A is pharmacy shopping and doctor shopping and, through PharmaNet, they can protect themselves by having a code word or a PIN exclusively to themselves, that is all very well from their privacy point of view, but the abuse question may continue with that sort of protection. My question is really this: if that is the case, without wishing to cross the line of their privacy right, is there another way that the process can show up such abuse for the appropriate follow-up action to be taken in a way to consider the health of that person?

Mr Greenwood—It is a bit of a double-edged sword, in any democracy. You do have privacy concerns and, as you quite rightly point out, there is also a major concern about fraudulent behaviour and doctor shopping and the like. There are probably ways to get around that, but that would need to be worked out as part of the feasibility trial. There would need to be discussions with consumer organisations as to ways around that particular difficulty without infringing people's personal rights.

Ms ELLIS—Certainly; but we should also bear in mind their health. We touched on this next matter very briefly yesterday. Given the arbitration through the PharmaNet process—the instant arbitration, for want of a better term, on the dispensing of a pharmaceutical item—on what basis is the decision through that instant network made that

that particular prescription is all right? Is it done on a diagnostic basis? Is it done on a repetitive use basis? In other words, when that goes through the network and we are given an instant okay to dispense, what considerations are given to that?

Dr Tatchell—They would be entirely based on professional and medical information, and this would be something that would be handled by the College of Pharmacists of British Columbia—in consultation, I would think, with the doctor groups—as to what are, for example, dangerous interactions that might occur if one drug is taken with another that might have been dispensed somewhere else. What the pharmacist gets, as I understand it, is a flag on the screen that says, 'If you dispense this particular product, it will interact with a product that was dispensed for this same patient within the last couple of weeks.'

Ms ELLIS—So it is primarily done for that reason and no other?

Dr Tatchell—That is right.

Ms ELLIS—A flag would not fly because a history of overuse of a particular pharmaceutical substance was involved? It relates purely to the conflict of pharmaceutical items?

Dr Tatchell—As I understand it, yes; but I was only there for two days!

Ms ELLIS—Again, it might be worth thinking about in terms of a trial. I am sure we all know cases where you can have an elderly person who has been on a particular drug for many years, who goes into hospital and the hospital administers it. In the meantime, the new fellow in charge of the ward says, 'I do not think you should take that anymore. You have been on it for 25 years, and you need this one.' There could be very good clinical reasons why things change and then revert to the old again. I am suggesting that there needs to be a variant of view as to how that arbitration of prescription is administered. I am not against it. I am say there could be varying degrees of reasons for things happening that are quite legitimate.

Mr Greenwood—We also think that there should be incorporated into the system an element of discretion, too, so that pharmacists can use their professional judgment as to whether they ought to dispense or not. As I said before, these things will have to be worked out in the composition of the feasibility study.

Mr Banks—I would just like to add that there is some flagging done in individual computer systems at the moment with relation to drug interactions and so forth, but that is only available if the person has been to that pharmacy previously. It would not be all that difficult to extend that and that would be the appropriate area, that the pharmacy organisations in consultation with the medical groups would be the obvious people to sort out those protocols.

Mrs VALE—Are you aware of how Canada dealt with the issues of privacy and ethics?

Dr Tatchell—Yes. To the extent that we have explained it in my report and also in the submission from the Guild, we are aware of how they handled it. What we do not know is just how successful it has been over the first 12 months of PharmaNet.

Mrs VALE—Do you see in Australia that we should introduce specific legislation to safeguard the interests and the rights of consumers.

Mr Greenwood—That is not really a matter for the Pharmacy Guild of Australia to decide, it is really a matter for the government to determine whether or not the rights of the citizens need to be protected by any amendment to legislation in that way. Certainly, the Guild and other health professional groups would have a view about any such proposal because they already have strong ethical codes of conduct and know how to operate in the best interests of consumers and patients, but as to whether or not there needs to be any legislative amendment, I do not think that would be a matter for the health organisations to determine.

Mrs VALE—What view do you have about information transfers and access to the Internet?

Mr Greenwood—It depends in what regard. Already the Guild has a web page and we source information about research and development matters via the Internet, but if you are referring to patient information then obviously we think that in that area there needs to be very strict safeguards and hence the interest in regard to the Medicare agencies proposal that any relationship with the Health Insurance Commission should be done via very secure lines. So when you are talking about the Internet we obviously, like most groups, believe in the exchange of information that is in the public domain but when it comes to protecting patient data then pharmacy has a record that is second to none and we would want to preserve that.

Mrs WEST—It is estimated that there are five million visits to pharmacies each week. Is that for made out scripts or—

Dr Tatchell—I think it goes beyond scripts. It is mainly for prescription purposes but it includes other visits as well such as for over-the-counter medications.

Mr Greenwood—That is data collected by our health economics division and we hae done that over many years.

CHAIRMAN—Would that include the purchase of gifts and novelty lines and all the other things that pharmacies now sell?

Mr Banks—I think it is an all up figure.

Mrs WEST—Concerning the trial in Victoria, the paperless claims trial that you did not find very successful in some way, shape or form, the pilot that you would like to implement, is it based entirely on the Canadian model? Is the one that you would like to trial yet again based on that model?

Dr Tatchell—We would take the Canadian model as the basis but then as we say in our submission we need to take into account the unique features of our own health system and of the Pharmaceutical Benefits Scheme. It could be that what is trialled would be a variance of the PharmaNet arrangement.

Mrs WEST—It would be a modification to suit our conditions. I do not suppose you have any idea yet of the way, shape or form or the length or breadth of the pilot, how big or wide ranging it would be?

Mr Greenwood—No, I do not think we do, but I do think that it would have to be conducted in probably one jurisdiction and with sufficient number of pharmacists to make it worthwhile. That in turn would be a matter for the government to consider in terms of the costs of the trial.

As to the paperless claims trial that you mentioned before, obviously we are still evaluating that. There were major problems with it. We would not want to see it repeated because it led to greater work for a number of our members than they had experienced prior to the trial taking place. The object of the provision in the guild and government agreement was to reduce the administrative workload, and the object that was announced by Mr Cross was to reduce paper load for small business by 50 per cent.

Mrs WEST—With every trial there is a certain amount of error. With any systematised program, what backup do you have in case there are errors and, 'Oops, we've made a mistake here'?

Mr Greenwood—Do you mean in the maintenance of patient data and so forth?

Mrs WEST—Yes, and computer wizardry.

Mr Greenwood—Mr Banks might talk about the methods we use to save data.

Mr Banks—I think we have identified some of the areas where that pilot was just not going to work. It probably needed better formulation in the first place and that is history. If the same were done again you might get a slightly different result. I think that, as I have heard other people here say today, the technology that we are looking at is moving so rapidly that we are keeping a very open mind on all of these systems and I hear that HIC is working on it.

We see a win-win situation with going down this electronic path, whichever form it takes. The key to this is that we see the confidentiality of the patient records, as previously stated, as being of major importance. From what I have heard today from the HIC, the information when it is released is released in aggregated form, which will not be much use to the people that would be likely to be snooping into an individual's data. Therefore we would move to keep foremost that particular aspect of the confidentiality that exists of the recognisable data. That is the form that most people see as being precious to them. It is the form that they do not want anyone else but their doctor and their pharmacist to see very often. It is the form that they particularly do not want to have going to their insurance company or people like that who may use it for other purposes. Therefore, that is very high on our list of priorities.

Mrs ELSON—The HIC outlined a number of independent standards and standards groups, each focussing on traditional segments of the health sector. Could the guild discuss the feasibility or desirability of the introduction of universal standards to meet the needs of each area within the health sector?

Mr Greenwood—You mean in relation to Information Technology?

Mrs ELSON—Yes, independent standards.

Mr Banks—Are we now talking in relation to the storage of data?

Mrs ELSON—That is right, yes.

Mr Banks—I think that, as I have just said, we would certainly be interested in that because we know specifically what we want in that area. HIC would no doubt know what they want. We may not be particularly interested in what that is or in what form that is kept. Obviously, if the data that they use is for the payment of the claim, that is okay by us. They do not, at this point in time, need to keep patient's identification in terms of names, address et cetera. We would agree with that. Probably it is time for consultation.

Mr Greenwood—We agree with the standards that they have in place, because that is a fundamental role of government and we are an integral part of the system as one of the health providers which is a party to the claims payment system. We do not necessarily see that the guild or other health organisations need to have an independent set of standards in that regard. What is more important is that the standards that are adopted are credible and do have some international credibility.

Mrs ELSON—If there is an abuse of the script, whose responsibility is it—is it for you to tell the customer or for you to report it? And who takes action? Do you continue to prescribe the medication they are seeking and then report it?

Mr Greenwood—Members can refuse to dispense, if that is what you are asking.

Perhaps Mr Banks could tell you of instances that have occurred where he has had to do that even in his own pharmacy.

Mr Banks—Yes, that does happen now. There is a system in place where the pharmacist will very often talk to the person and tell them that they are using too much. Very often, before they will dispense it, they will talk to the prescribing doctor, which is quite in order. Of course, the real problem is that you are not to know if they then walk off with that prescription and get it dispensed elsewhere where they are not known. That is a problem that maybe will be solved in the near future by some type of flagging.

But I think a lot of this is being taken care of now on a day-to-day basis. In fact, on the last day I worked, which was Sunday, I had exactly this sort of case. A person that I know overuses benzodiazepines was told by me that I was not going to supply that to him that day. And in that instance, because I knew him, I kept the prescription. I left a message that the doctor would be contacted later in the week, because very often the doctors are unaware that that person is doctor shopping.

Mrs ELSON—That is why I wondered whether it could be stopped there or whether you pass that script back and they go to the next chemist shop.

Mr Banks—That is right.

Dr NELSON—Michael, with the British Columbian PharmaNet study, I noticed that in the first three months 25,000 level 1 drug interactions were flagged. Is there any indication what proportion of those are interactions which would otherwise have been missed? In other words, how much more effective do you think that system would be in Australia than the present one we have, using professional expertise and the present computer system, in picking up interactions?

Dr Tatchell—I do not know the answer to that. But I would imagine that a high proportion of that 25,000 would not have been picked up because, as we have been saying, before 1 September last year when PharmaNet was introduced there was not a network of information which allowed pharmacists to see what had been dispensed in other pharmacies. And it is common for patients to move around to different pharmacies in the population.

Dr NELSON—I have two other things I wish to raise. Stephen, in terms of the health shop concept that the Prime Minister referred to in the letter—which I think I will have to discuss with him—could you elaborate on what you envisage the health shop to be and how the interactive PharmaNet system would play a role in developing that? I am just intrigued to know what you envisage.

Mr Greenwood—As you know, Dr Nelson, pharmacies are 99 per cent computerised already. That means that the infrastructure and the network exists to provide

a whole range of services to consumers that are not already supplied. It also means that we would be able to access information from state and federal health authorities with regard to health promotion materials, health information and the sorts of services that government offers to the public, whether through hospitals or other health outlets. We think there is a very great range of opportunities for a pharmacy to provide a better source of information to the public without any additional infrastructure being put in place by government.

We have not sat down with the department to work out how this might operate, in that sense, but that is what was behind the idea, which I think was originally proposed by Ron Phillips when he was health minister in New South Wales. It is very much along the lines of thinking that the network of pharmacies could be used as a better outlet for information for the public about health. We would see an interactive PharmaNet system, linked into state and federal health departments, as being integral to providing a better source of that information for the public than exists at the moment.

Dr NELSON—You heard the Health Insurance Commission's response to my question about pharmacies acting as Medicare processing agents. Could you give us your understanding of how this is likely to operate and what concerns, if any, you have about it?

Mr Greenwood—As we understand it, it was a commitment that was made in the Prime Minister's letter to all pharmacists prior to the election. We can provide the committee with a copy of that letter. In that letter, he said that an outlet for claims processing would be available in rural and outlying areas and in those areas where people were a long distance from their nearest Medicare office.

That commitment is what is being delivered on in the budget. As we understand it, it will apply to rural and outlying areas. In terms of the briefing that we have been provided by the department and the Health Insurance Commission, this claims processing facility will be available to all pharmacies in rural and outlying areas. We have not discussed with them whether there is any relationship to propositions about closing Medicare offices in outer suburban areas and whether or not the same sorts of facilities will be available to pharmacies in those localities. That is not part of the discussions at the moment. It has been quarantined, if you like, to rural and outlying areas, and will be offered initially to those of our members who receive the rural and isolated allowance.

That is all we know about it at the moment. We do not know whether the technology is being developed. The only other thing I can say is that we understand that there will be a charge to the pharmacist when this technology is introduced into the pharmacy and there will be an annual payment to the pharmacist for their maintaining the consumables that will be used in the system. As we understand it, it is a mechanism which patients will use, using secure lines to the HIC. So it is not, in that sense, a full agency where the pharmacist will be providing all the services that Medicare currently offers

through its customer service operations.

CHAIRMAN—I read, as I said earlier, about the PharmaNet trial. I also saw that you said there had been other trials, particularly in the USA and Canada. You have had your trial in Victoria which essentially appears to have been a failure. Are there other trials abroad which have been as successful as the PharmaNet trial, or would you consider that the PharmaNet trial results were so far ahead of other trials that have taken place overseas that you would want to consider only the PharmaNet trial as the basis for a possible trial in this country?

Mr Greenwood—I am not aware of others at the moment. It is the only major interactive trial of which I am aware, but Dr Tatchell might know.

Dr Tatchell—In fact, PharmaNet is not really a trial; it is in place for all pharmacies in British Columbia. I do not think they did a trial. They might have had a small pilot. Part of the initial teething problems with the system, as I understand it, were because they had not had an extensive trial, which is why we would like such a trial to be done here.

Mr QUICK—Later today we will have a submission about what is happening in the Australian Defence Force. Are you aware that they are in the process of developing a fully electronic health system which is both a medical and dental record system? This will be the largest general practice computerisation of health records in the Southern Hemisphere. Has your organisation been involved in that in any shape or form?

Mr Greenwood—We are broadly aware of it, but we have not been involved in those discussions in any way really.

Mr QUICK—ADF is covering all the states and people move from one area to another. One would have thought that there would have been some discussion between your group and what the Defence Force is planning to do because, as I say, it will be the largest computerisation of health records in the Southern Hemisphere.

Mr Greenwood—We have not really been involved in those discussions, Mr Quick, because most of our members are not involved in regard to the supply of pharmaceuticals to the Defence Force. We have been made aware of the fact that this work is being undertaken but we have not been involved or had discussions with them.

Mr QUICK—So if you set up this PharmaNet process and a member of the Defence Force's spouse comes along to the local pharmacy with a thing and she has her own identifier, her own little plastic card or whatever, how is that going to fit into your system? There should be some dialogue, surely.

Mr Banks—Stephen Greenwood said that we have not been directly involved with

them, but the frequency and the visits from Defence Force personnel and families are not a very high percentage. I happen to be in one area that used to be one of those locations. They have a different system for supply and claim.

Mr QUICK—Do they have their own pharmacies on the bases?

Mr Banks—Very often they do, yes.

Mr QUICK—But aren't your members involved?

Mr Banks—Our members are not usually involved. Very often they will have a pharmacist in the local area go and do a session in that particular hospital dispensary, and that is the extent of it.

Mr Greenwood—Those people would be serviced by military pharmacists in the main who would be members of the Pharmaceutical Society of Australia, which is the professional education body.

CHAIRMAN—Thank you very much, gentlemen, for appearing before the committee this afternoon.

[3.18 p.m.]

MADDEN, Dr Richard, Director, Australian Institute of Health and Welfare, and Member, National Health Information Management Group, 6A Traegar Court, Fernhill Park, Australian Capital Territory 2617

WHITE, Mr Peter, Head, Information Management and Business Services Division, Australian Institute of Health and Welfare, 6A Traegar Court, Fernhill Park, Bruce, Australian Capital Territory 2617

CHAIRMAN—I now call witnesses from the Australian Institute of Health and Welfare to be sworn in. Welcome. We have received your submission and we have all read it. We were wondering if you would like to enlighten us on some aspects of it prior to our asking you some questions.

Dr Madden—I was not going to say an awful lot about the submissions, Mr Chairman, other than to explain why I am here wearing two hats. Dr Filby, who is the chair of the National Health Information Management Group, is based in South Australia. I think the group thought it was sufficient if I, as de facto deputy chair of the National Health Information Management Group, responded to that submission to you, as well as to the institute's one.

We have in the institute's submission concentrated only on one aspect of the terms of reference. It is possible there are other issues you are interested in and we would be happy to respond to those, but we were not quite clear which emphases you would be giving in the inquiry. So we have been fairly limited.

I notice in the Department of Health and Family Services submission there is a very large section on confidentiality and privacy issues. We in the institute are very concerned about those and have specific provisions in our legislation. If there was interest in that subject, we would be happy to provide you with some views.

CHAIRMAN—We would like some more information on that because the issue of privacy has been one issue which has constantly been raised and there have been concerns raised by some witnesses that the privacy issues may well be inhibiting our adoption of Telemedicine to the extent that we should in fact do as a nation. So, if you have any input on the privacy aspects, I think the committee would very much appreciate receiving submissions.

Can you elaborate on the role of the institute and its connection with the National Health Information Management Group and its subordinate committee structure? I think for a lot of us it is a maze at this point in time.

Dr Madden—The Australian Institute of Health was established about 10 years ago as an information and research agency by the Commonwealth in health. Four years

ago its role was extended to include community services, so it became the Australian Institute of Health and Welfare. I think it was initially established, and has emerged as, very much the honest broker between the Commonwealth and the states. As there has been a lot of tied funding from the Commonwealth to the states and territories, there has not been an awful lot of trust, I suppose, in information sharing between the Commonwealth and the state agencies. We have emerged as the honest broker to hold that information and to put it into a usable form without biasing the processes one way or the other. So that is where the institute has come to.

In 1991 there was a recognition that this informal arrangement needed to be formalised and there was work done by all health agencies, Commonwealth, state and territory, the Bureau of Statistics and the Australian Institute of Health and Welfare to try and find a common agreement under which they could share and essentially get out of the mistrust arrangement and get into the trust arrangement. The National Health Information Agreement is the result of that. It is an agreement between agencies, not between ministers, and it reports to the Australian Health Ministers Advisory Council but is not actually part of that advisory council. It has turned out to be a very good model. I think statistics in Commonwealth-state relations is one of those things where harmony prevails. I think that is very unusual. But it does prevail and we have made a lot of progress, and it has been the foundation on which the sorts of developments we have outlined in the institute's submission have taken place.

The institute is the secretariat to the National Health Information Management Group, which is the managing group under that agreement. So that is why we are at the centre of it. It is only resourced through members' own efforts. There is no grand resourcing. AHMAC does provide a small amount of work to us to do, particular data information development work, but it is basically a partnership arrangement.

Mr QUICK—In what sort of format is the information? Is it on CD-ROM? Is it accessed through all those various departments' computers? Is it on-line? Is it on the Internet?

Dr Madden—Information is put together in different ways. This is a framework under which the parties can discuss that information.

Mr QUICK—Okay. In relation to immunisation, are you now going to be the sole resource centre for all the immunisation records in Australia provided by all those various departments you have listed on page 2? If so, who will be able to access those, and how will they be able to access them?

Dr Madden—It has not worked to that level in any general way. There have been agreements to produce data sets. Immunisation is not one of them, unfortunately. There is an immunisation register being established by the Commonwealth, working through the Heath Insurance Commission.

Mr QUICK—What information will be collected?

Dr Madden—On immunisation?

Mr QUICK—No; on anything.

Dr Madden—A good example is hospital in-patient records.

Mr QUICK—So this is basically health dominated? I should be more specific. Take as an example the management and treatment of breast cancer—the various techniques to deal with breast cancer and drug usage and the like, and what each state does. Are you going to be tying all this information together?

Dr Madden—Yes; in areas where that has been seen to be useful. In cancer, for instance, the states' cancer registries data is brought together in the institute, in a cancer clearing house arrangement. We would publish national cancer data, including data on breast cancer. There is not a specific collection on breast cancer, but it is part of that bigger arrangement.

Mr QUICK—You are publishing that?

Dr Madden—Yes; we are publishing that data.

Mr QUICK—In booklet format? Or is it on CD-ROM, or Internet? Where are you in the technological game?

Dr Madden—We are not very sophisticated.

Mr QUICK—Still in the Dark Ages.

Dr Madden—Most of it is on paper. In the institute, we are just about to establish our own home page on the Internet. We have not done that to date, and we will be putting our data increasingly on the Internet. I am not sure whether we are going to do it through CD-ROM.

Mr QUICK—Why are you doing it, when the HIC has got all that information, anyway?

Dr Madden—No; they do not have all that information anyway.

Mr QUICK—What information would they not have that you have got?

Dr Madden—On cancer, for instance, we are getting data from laboratories on cancers they have identified and, from hospitals, on patients they treat with cancer. Some

data on those people would get to the Health Insurance Commission, but not in any systematic way. For instance, with a public patient in a public hospital, the Health Insurance Commission would know little about what has happened to them. The cancer register gets very detailed data in each state on them.

Mr QUICK—If I were overseas and I saw that we had a National Health Information Management Group, I would assume that that management group had all the information. Will you have everything needed not only by you but by all the other various people who need to access this information?

Dr Madden—No. We are trying to get a set of arrangements under which consistent information will be gathered around the country and held by a responsible party. The institute will be that party, in many cases; but, in other cases, it could be the Australian Bureau of Statistics or someone else.

Mr QUICK—In your submission, do you list all the things that you are going to gather? I do not think you do.

Dr Madden—No. We can give you the information the institute has, if you are interested in that.

Mr QUICK—Yes.

Dr Madden—The information management arrangements are a framework for gathering information and making sure that data is consistent. The big problem in Australia is, if you have got eight health authorities in the states and territories, they can have data systems which are completely incompatible, so that you cannot compare things, benchmark or look at performance across the country.

Mr QUICK—So how are you planning to ensure that what they give you is what you need to have—a national idea of what is going on?

Dr Madden—That is really what we have set out in our submission. We have established an information model which sets essentially a framework within which data sets are defined. We have a National Health Data Dictionary, which is a standard set of definitions that we want everyone in the health industry to follow. With the parties to the agreement, the public sector, we can ensure that. Then we have a thesaurus of all the health collections in Australia. I brought a copy of that, actually, since you are talking about what is available. The publication that we have just put out, *National directory of data collections in health, welfare and housing*, is as close to an encyclopaedia of what is available in health and welfare as you can get. The data is not all held by us, but it shows where it is.

Mr QUICK—Is that also available on CD-ROM?

Dr Madden—That is not. That is in hard copy and on disk. The next edition will certainly be electronic.

Mr White—That is correct.

CHAIRMAN—Presumably, you are defining 'Telemedicine', 'Telehealth' and all of those things, in the dictionary? Everyone seems to have different definitions.

Dr Madden—That is a good question.

Mr White—No, we do not. The National Health Data Dictionary is at data element level, not in these major concepts.

Dr NELSON—Do you find it unusual that the Health Insurance Commission should see itself as a health data collection and storage agency? Do you feel it is appropriate?

Dr Madden—There has been talk in the COAG discussions about nationally consistent payments and data systems. I find that a bit difficult because payments and data may go happily together but they may not. The worry about using a payments agency as a data agency is that the payments agency will basically want data to justify its payments and satisfy all its legislative and audit requirements for payments. That may or may not include information related to the health status of the people involved.

There are some arrangements under COAG being chaired by Dr Filby, the chair of the National Health Information Management Group, to try to work through that concept. I hope what we will see is a nationally consistent information system accompanying the changes in administrative responsibilities between Commonwealth and the states so that we can keep national data on what is happening.

Mr QUICK—It is a pretty good incentive though if you are being paid to provide the information. You would agree that we have had health departments going along for many years collecting data and yet their data collection services are absolutely abysmal, and then sharing that data with other states is another problem. What incentive is there? Have you got a big stick to say to them—

Dr Madden—No.

Mr QUICK—So what guarantee is there, if you have not got a big stick, that they are going to do what you want them to do?

Dr Madden—You have touched on a key issue. Some data in Australia is obtained as administrative by-product data. The data on admissions to nursing homes and hostels, for instance, is obtained by the Commonwealth as administrative by-product data from

nursing homes and hostels. When you get into Commonwealth-state relations then big sticks do not work very well and they certainly do not work very well for obtaining information. The whole thrust of the National Health Information Agreement is to work through cooperation, for essentially all the parties to see the bigger picture of what is necessary, and that has achieved results. It is a very good model for how federal-state relations can work.

In statistics, this is the tradition. For statistics generally, the ABS has been the national statistical agency since the 1950s when the Commonwealth and the states combined all their statistical efforts. There are not a lot of similar examples of this and trust is an unusual element to see working, but it has worked. We have found a lot of common ground. The crucial things in that are that we have a good relationship with the administrators in AHMAC with the health information agreement, and the states and territories and the Commonwealth have sent along powerful people to the management group who can speak for and bind their departments.

Mr White—Our skills in underpinning that then go towards making it happen. Getting a group of learned people to agree to share data is difficult enough. Coping with the technicalities of merging that data is something again. I recall the federal department's contribution this morning on Internet when they spoke of the ability of systems to pass data around quite freely nowadays but they cautioned that the framework of meaning was not being passed. Our technical skills come in brokering that framework of meaning. The National Health Data Dictionary and the National Health Information Model are tools towards agreement on this framework of meaning.

It sounds in many ways very trivial but a fuzziness about meaning can take the very value away from a national data set. We have spent a lot of time and effort brokering consensus on data definitions. The tools we have developed for that national consensus are leading the industry in many ways but our fundamental role is to do with national health collections. We have not yet a charter that goes right out to the service delivery sector. I say not yet but perhaps it will be not ever, but the tools we work with at that brokered consensus level have application.

Dr NELSON—You mentioned earlier the role that the institute and the information management group has in Commonwealth-state relations and various functions that each level of government has. In the proposed transfer of aged care from the Commonwealth to the states, one of the fundamental things that is going to be important is uniform data collection and, obviously, uniform standards which relates to data collection. Who do you envisage is going to do that? Is it going to be the Institute of Health and Welfare and, if not, should it be? What kind of technological barriers do we have to it?

Dr Madden—My short answer is yes, yes, yes, to all those things. I would envisage that it would be and it certainly should be us. This is a classic example of

functions being dealt with by the states, for reasons I understand, but there being a need for a national view both of the overall demands in the country and of performance between the different jurisdictions where working to common definitions is essential.

Most of the data on aged care at the moment comes as by-product data from the Commonwealth's systems. If those go away we would certainly hope that they would be replaced by commonly agreed systems between the Commonwealth and the states. As I understand the COAG arrangements, it is the intention to have that sort of national accountability, and the agreement that would underpin that change in aged care arrangements will include nationally consistent information.

Dr NELSON—But has there been any decision, of which you are aware, as to who will be collecting and storing that data?

Dr Madden—No. There is an issues paper being developed by officials following the last Health and Community Services Ministers Conference which is going to go to ministers in October which will certainly raise the information issue. Coming out of that, I hope we will see some more clarity about it, but there is a lot of work to go. But the information issue has certainly been addressed and we have had a talk with the officials involved about the issues.

Mrs WEST—Could you detail the current process that the institute is doing in developing the uniform national data in Australia?

Dr Madden—In which field? Or in general?

Mrs WEST—It was in your standards subparagraph, on page 5. It says that it is the essential process in developing uniform national data in Australia.

Mr White—I will take that one on.

Dr Nelson—It is attractive language: 'broad consultation' and 'brokered consensus'. I have never written things like that.

CHAIRMAN—Do you have definitions for those words in your dictionary?

Mr White—Perhaps it is something that should start our dictionary! We are dealing in these areas with a number of levels of difference of opinion, whether it be state versus Commonwealth, state versus state, or the various sectors within health. Our intention in coming up with a National Health Data Dictionary and attacking the concept of consistent national data definitions is, as far as possible, to come up with a single definition that crosses all those sectors. That is a bold and ambitious undertaking.

The sector we operate within is characterised by jargon—perhaps jargon is a rude

word. Each profession has its own set of language for the things it does and the further down into detail you pursue information, the more that jargon tends to permeate the language that people use.

The products we have put together start with a National Health Information Model, which is a very high level framework for the organisation of information within the health industry. Beneath the model is then a framework of reference for the data that makes up the various components of the model. For instance, we have a large component of our model that addresses personal identification. As you move down through 'personal identification', the roles that various people play in the health sector, we gradually impart greater levels of meaning to the data.

At the stage we hit a data definition, we have in many cases come up with a basis for networking various players in the game. As I have said, that may be between the states or between the states and the Commonwealth or it may be multiple players within the health industry. If we can get people with common views in the room together and strip the jargon away from their interests, identifying standard data definitions becomes a much simpler process. It is identifying those people and putting them in the room together that is not a simple process.

The National Health Information Model, which was released in version 1 in November of last year, has captured quite a degree of imagination within Australia and in the international health community because it does provide that capacity to network people. How do we actually put that into practice? Looking at the health industry, there is certainly no shortage of opportunities to get involved. The institute is established to look at national health collections. Just addressing the difficulties in data definition for national collections is a huge issue for a small agency.

The priorities for national health collections are established within the national health information network program, a product of the National Health Information Management Group. The material that enabled them to allocate those priorities came from a national health information forum conducted in November 1993.

The problem for the institute is not a lack of willingness to get involved; it is not a lack of tools to broker consensus; it is not an inability to bridge the professional sectors; it is the fact that there is such a huge territory to start with. What we have tried to do is to bridge that with a set of tools that enables us to network people.

CHAIRMAN—Are there any further questions?

Mr QUICK—I am interested in the data collection. If, say, we have a doctor in Tasmania who is computer literate and the whole practice runs on the computer, are you going to send him an A4 piece of paper, a pro forma, to fill out about, say, the number of people who have glaucoma between the ages of 45 and 55? How is the system going to

work? Are you going to send out a census type of form to all GPs about particular age groups and particular illnesses? If you are not going to be doing that, will you have a computer link for those who have Internet access saying that you want them to download particular information after working hours? Are they going to have to press an additional button on their computer while they are actually doing it for their own service? How is it all going to work? It sounds very complicated.

Dr Madden—As I said before, we have different arrangements for different data systems. For hospital in-patient data, those systems work more or less the way you say. There is an administrative system within a hospital that picks up data on patients admitted and on what happens to them while they are there. That data is passed to the state governments who pass it to us.

Mr QUICK—But when we were doing management and treatment of breast cancer last year, we heard that when hospitals were looking at cutting the people they cut first are the people who collect the data and process it, so you are not getting adequate information for the hospitals to provide to you. That is fine with hospitals and nursing homes. But I am talking about the average GP in a little country town, say, in western Victoria. What benefit is all this creation of a new bureaucracy going to have for him and the patients he sees? For example, in the north-west coast of Tasmania we have a high incidence of high blood pressure and an abnormal heart attack regime. What is this wonderful new bureaucracy that has everybody involved going to do for health in the north-west coast of Tasmania and for the local GP? Will it do anything?

Dr Madden—There is no data collection on what GPs do, unfortunately. The only data collection is the Health Insurance Commission one which pays them. This is the classic example of what Dr Nelson said before about payments and data and whether they link together. The Health Insurance Commission does not collect data on what GPs do. It only collects information on how long they do it for, because that is how their fees are determined. So there is no collection on that. We have no plans, although we would like to have such information on some sort of sample basis—not a census. But there is not such a collection at the moment.

In hospitals there is—on deaths and births; there has been a system for a long time of registers of deaths and births. Essentially, there are hierarchies of systems. I suppose the most important events are the ones on which data has been collected first. And there isn't any great new bureaucracy going to do it. Resources to do this are extremely limited. There aren't any new resources floating around. All parties are trying to do it with the little they have got in a decreasing pool of funds.

Mr QUICK—Do you need the resources? Or is it just another nice little title—the National Health Information Management Group? Could we do it using some of the services that are currently there if we linked them all up with computer technology, as people are suggesting we can do quite easily? Privacy is the big concern.

Dr Madden—But you cannot do that unless you have common definitions. That is the crucial thing. You cannot link them together. That is what Peter was saying about the comment this morning about the Internet. There is no point putting systems together and bringing information together unless you have common definitions and common standards so that you can actually compare them—and get apples and apples comparisons. That is what the Health Information Management arrangements are about.

Mr QUICK—But surely colleagues dealing with heart conditions have common definitions. The heart doctor in Sydney talks to a specialist in China. Surely to God they are talking about the same thing about heart conditions.

Dr Madden—If they follow statistical classifications they hopefully are. The international classification of diseases exists to ensure that that happens. It is a very difficult exercise. And when you start to cross language barriers it gets very difficult to translate things.

Mr White—Could I make the point that the work the institute does is probably going to be of limited use to the practitioner you have identified in north-west Tasmania. But if you want to take the output of that GP's computer system and compare that with the output from a similar GP somewhere else in Australia, then you are likely—though not guaranteed—to run into problems of data definition. In fact, there may be differences in definition. One of the quandaries in the industry that we work within is that there is nothing easier than data definition. We can all sit down and define data. Defining good data is somewhat more difficult.

Defining nationally consistent data, with the capacity to share and compare data across an industry and across various sectors, is very difficult. It requires a level of agreement and commitment from diverse parties that we are not empowered to enforce. Indeed, if we could enforce them, I think we would probably generate a lot of opposition. But, if we can get people to work together, we can provide a capacity to share that data and to compare data with a common framework of meaning. That is our mandate: not to generate systems for general practitioners, but to provide the tools that people who are empowered to develop systems can use.

Mr QUICK—So we have eight health systems. How huge is the difference in categorisation of illnesses and treatments between those eight? Is it a huge difference? I find it difficult to believe that we have eight systems.

Dr Madden—There are common systems in place to ensure they do use the same data, between hospital systems, for in-patients. That is in place. For health care provided outside institutions that does not exist. People do not have a common system.

Mr QUICK—How huge is the difference between these outside systems between South Australia and Tasmania?

Dr Madden—Between a doctor here and a doctor in the next street the difference is dramatic. There are no common systems to do it. There are common systems to record deaths, births and hospital in-patient treatments, but non-institutional care is really not yet covered by proper definitions.

Mr QUICK—Can you give us an example of the differences?

Dr Madden—There is not a classification for what GPs do. There is not a standard set of definitions. Even if the GP is keeping a description of one to ten on the diagnoses he is making each day, there is not a common diagnosis designed for GPs to use.

Mr QUICK—Has the AMA not set something?

Dr Madden—No. There has been some work done by the Royal Australian College of General Practitioners. There have been some one-off surveys of GPs. There has been some work done on this. There has been some work done in other countries on it. But there is not a standard, accepted system.

Mr QUICK—So each specialist dealing in ophthalmology around Australia has their own little version of what they do. Is that right?

Dr Madden—No. Practitioners in the states would not be recording data on what they were doing if they were doing it in their rooms. Medicare collects data on the items they are charging. If the items are recording procedures, you have got a record of procedures they are doing. But if you have physician's consultations they are recorded by Medicare as consultations, and are recorded by the length of the consultation. There is not any diagnosis category collected.

Dr NELSON—Before I ask my question I will just advise Mr Quick. There have been a number of large morbidity surveys done in general practice. A very large one was published last year, I think, in the *Medical Journal of Australia*, as a supplement. So it is done but it is not done on a continuing or systematic basis, which is unfortunate. Then again, there are some medical practitioners and some patients who would not like to see it done.

The question I wanted to ask was whether you could elaborate on this comment, made on page six of the submission:

The RACGP and AMA are currently driving the GP data development outside the Agreement, although the process is funded in part by the Commonwealth Department of Health and Family Services.

Dr Madden—I cannot elaborate in great detail on that. It is not within the national Health Information Management arrangements. We can get you more information on what

is happening, but it is outside the work that we are doing.

Dr NELSON—Presumably, we will get that in the submissions from the RACGP and the AMA.

Dr Madden—I will certainly be happy to arrange for some information if you want that.

Dr NELSON—Yes. It would be nice to see exactly what is being done, from your perspective.

CHAIRMAN—I thank you for your appearance before our inquiry today.

[3.50 p.m.]

CHAPMAN, Mr James Lawrence, RMB 6, Read Road, Sutton, New South Wales 2620

CHAIRMAN—I now call Mr James Chapman to be sworn in. Commander, I understand that you appear before us in a private capacity.

Mr Chapman—I am currently the Director of Health Records and Information Systems in the Office of the Surgeon-General. I appear before the inquiry in a private capacity purely because we are a thinly resourced project and the time taken to achieve endorsement was not available to us as a formal ADF representative, so I have chosen to appear privately.

CHAIRMAN—Are you a medical practitioner?

Mr Chapman—No, I am a health administrator.

CHAIRMAN—Would you like to give us a brief outline of the submission, highlighting some points that you would particularly like to draw to our attention.

Mr Chapman—Certainly. The Department of Defence is currently trialling a health records system that—if the trial is successful—will be implemented across the Defence Force. It is primarily an outpatients system and it is designed to replace our current paper-based health records which are cumbersome, manpower intensive to maintain, and do not give us any management information at all. As a consequence, we are forced to rely on ad hoc studies in order to make rational health decisions. Some years ago the department decided to investigate the possibility of computerising and centralising our health records holdings and the project that I am heading up is the vehicle to achieve that. The project has now been going some six years and we achieved pilot software implementation in July this year. We have now been piloting for some six weeks and we hope to be able to report to the higher defence committees by the end of the year on the findings of that study.

CHAIRMAN—Given the fact that in your submission you use the expression 'Telemedicine', I think on page 5, when discussing project Pilgrim while others use expressions such as 'Telehealth'—for instance, that is the term used by the Department of Communications and the Arts—do you personally, or the ADF, have a view on a universal term to define the delivery of health care by using communication technology?

Mr Chapman—We have taken the view that health encompasses both medicine and dentistry and the trial to which I referred was the Telemedicine trial that did not involve any dental components at all. That trial involved teleconsultations, where a practitioner consulted a patient across the system. It involved telepathology, where the

images of blood films were transmitted across the system. It also encompassed teleradiography, where the results of X-rays were transmitted across the system for diagnosis by a practitioner within Australia, and also it transmitted ECGs for remote diagnostic use. That is Telemedicine, as we understand it.

CHAIRMAN—Can you discuss the implementation and status of the ADF's health systems redevelopment project and how the ADF believes the system will fundamentally affect the way that health practitioners manage their practice? Also, in answering that question, could you tell us what kind of technology was used in project HSRP and was the Internet considered as a means of facilitating access?

Mr Chapman—To take the last issue first: no, the Internet was not considered for this project primarily because of the long gestation period that such projects have within Defence. As I mentioned, the project had its genesis some five or six years ago and, at that point in time, the Internet was not being used to anything like the degree that it is now. Certainly, Defence is talking about Intranet facilities and we are listening carefully to what is going on in other areas to see whether health can piggyback on the developments that other areas are doing.

CHAIRMAN—Why is there a gestation period of five or six years within Defence for projects of this nature?

Mr Chapman—Any project that spans all three services is classified as a major project and, as a consequence, it attracts the full, rigorous review process that purchase of major equipment, such as destroyers, tanks and so forth, attracts. Therefore, it is a time consuming process.

CHAIRMAN—It sounds a bit like a bureaucratic jungle.

Mr Chapman—Your words, sir, not mine!

Ms ELLIS—Mr Chapman, in asking you this question, I am pleading ignorance. Is there any ability at the moment for a member within any part of the defence forces to choose to keep his or her medical records private? I notice in part of your submission you mentioned that—and this is a futuristic view you are putting—with adequate safeguards a member's health record would be available to any one of some 500 requesting health practitioners. In a futuristic, high-tech method, will a member be able to have the choice to limit access for any particular reason, and am I asking that foolishly? Can they already do that or can they not already do that?

Mr Chapman—No, the health record is an essential management tool for the defence forces so that we do not get the situation of having people deployed with hidden conditions that may put the rest of the team at risk. The health records are a very closely held document but they are available to the health practitioners who are expected to treat

and maintain the health of the people for whom they are raised.

Dr NELSON—You are anticipating by the year 2000 or thereabouts that all of the medical records for the Defence Force personnel will be held in electronic form?

Mr Chapman—Yes.

Dr NELSON—I presume this is why you are here. Do you feel this is something that could be applied to the broader community?

Mr Chapman—I feel that there are several lessons that we have learnt that may be of use to the broader community. Certainly, I understand that we have a much simpler row to hoe than the folks in the civilian infrastructure because we have only three services; we do not have seven states. So that, in itself, is an entirely different situation. But, nevertheless, it is fair to say that in the past the single services have been convinced of the rightness of a particular track that they are on, and so the issues are much the same as confront Australia and health as a whole because trying to get everybody to agree to go down one track is not an easy task.

CHAIRMAN—But, clearly, you do not have quite the same privacy considerations as would apply to the civilian infrastructure?

Mr Chapman—I do not see that that is true. The number of health practitioners with whom a patient comes into contact with may be larger but we have exactly the same privacy concerns to make sure that our patients' data is held closely and that they have confidence in the system, as does any practitioner anywhere in the country.

CHAIRMAN—I understand what you are saying, but my belief from what you said was that, because a health record is an essential management tool, that health record is basically in the system and could be accessed by any medical practitioner—

Mr Chapman—Any appropriately qualified medical practitioner.

CHAIRMAN—Within the system; whereas, in the civilian infrastructure, that would not usually be the case.

Mr Chapman—No; nevertheless, it is true that the practitioners themselves are very jealous of the way that information is released. It is fair to say that the ADF does not have problems with inappropriate release of information.

CHAIRMAN—Is it encrypted in any way?

Mr Chapman—Currently? No. Currently, it is plain text on a piece of paper. Once we computerise, we are putting in place a multilevel secure system. If the information

leaves Defence hands then, in our documentation at the moment, it certainly says that, and we intend that it will be encrypted for the time that it is out of Defence custody.

CHAIRMAN—But, from what you are telling us, once the system is fully in place, any one of the 400 medical practitioners you have within your services would be able, with a punch of a button, to access the medical records of any one of your service personnel.

Mr Chapman—No. The practitioners will be able to access the records of any one of the personnel for whom they are responsible.

Ms ELLIS—Do they have to be a patient?

Mr Chapman—Patients move between units and, when they arrive at the new unit, the health practitioner at that unit will be entitled to pull up their records.

CHAIRMAN—You say they are allowed to, but are you also saying that they would be unable to, if they did not have responsibility for that patient? Would there be something in the system that would stop improper access?

Mr Chapman—There will be safeguards in the system; there is no doubt about that.

Dr NELSON—Commander Chapman, I was rather intrigued by your introductory comments about the reason you have to appear as a private citizen. Can you elaborate on that? Secondly, would it be possible at some stage for us to receive a submission or something from the medical and dental practitioners who are currently involved in the project, so we can hear from them what their experiences have been in the collective sense, if they are able to do that? I notice that, for example, the medical practitioners have slowed down getting through the patients, which I presume is just an adjustment problem.

Mr Chapman—I believe so; yes. As far as other people providing information to the inquiry goes, I am not at liberty to commit other people that are outside my scope of influence. We have no medical practitioners within the project team itself. We do utilise extensively consultants from the College of General Practitioners; however, we are a small team. There are only four of us on the team.

Dr NELSON—I would be interested in hearing from at least a couple of the medical and dental practitioners involved in the project, if that were possible, just so that we could get a better feel for how they are experiencing this.

Mr Chapman—Would you be interested in hearing from the consultant that we have assigned to the project?

Dr NELSON—Sure. Yes.

Mr Chapman—It is Dr Michael Crampton, who is present in this chamber at the moment.

Mrs WEST—Could this information be translated to non-Defence systems? Is there a transference of information through technological wizardry or compatibility?

Mr Chapman—No. The system will not have that capability.

Mrs WEST—What happens when someone leaves the service? Does their service record lapse, and that is it?

Mr Chapman—No. We are currently intending to give them a copy of their health record on departure. I should explain that it is the responsibility of the member to provide all necessary information in order to make a compensation claim. Currently, this is a process which Defence does. We believe that if we were to provide the information directly to the member it would help them significantly in making compensation claims, should they decide to do so.

Mrs WEST—What type of technology was used in the project?

Mr Chapman—I am sorry, I am not quite clear about what you are asking.

Mrs WEST—Was the Internet considered as a means of facilitating access to information?

Mr Chapman—I thought I had answered that. We are certainly considering the Intranet, not the Internet. We are waiting to see what defence communications engineers come up with in that environment before we decide which way to go.

Dr NELSON—If I wanted to speak to one of the medical or dental practitioners actually seeing the patients who are defence personnel, dealing with the computer system in the project and the electronic storage of patient records, how can I go about it?

Mr Chapman—I can give you the names of the two commanding officers.

Dr NELSON—So we could write to them and ask if it was possible.

Mr Chapman—Sure.

Dr NELSON—It is just nice to talk to the person who is actually driving the bus in the end, if you know what I mean. What was the reason why we cannot officially be told about this?

Mr Chapman—It is not that you cannot officially be told about it. My problem was that I have to submit what I am going to say through the bureaucracy in order to be validated to do so. I did not have the time to be able to take that task on. It was as simple at that. There is nothing sinister.

Ms ELLIS—In relation to the safety and security of any electronic means that you use for the transfer of all of the medical data, I noticed earlier on today the HIC said that they have actually consulted with and used the DSD connection to get some expertise in how to do that. Have you used a similar protective measure in the processes you are using in the study?

Mr Chapman—We are planning on using corporate defence information backbones and they are DSD compliant to start with, so the answer is yes in a roundabout way.

Ms ELLIS—So in other words only the people who have formal access into the system can, at the appropriate time that a practitioner is dealing with a patient, come in—it is encrypted, is it? It is a method by which other users of the defence communications networks at whatever level cannot get into it?

Mr Chapman—Yes.

Mrs VALE—On page 4 of your submission, you mention the relationship with the law of evidence and the need to retain paper records even after they have been imaged. How have you dealt with that, or are you still in the process of dealing with it?

Mr Chapman—That is one of the singular problems that we have and, until such time as that issue is adequately addressed, we are stuck with a problem.

Mrs VALE—You are still storing it?

Mr Chapman—Certainly. I guess that was one of the things that I was hoping that this committee would be able to consider and perhaps recommend on.

CHAIRMAN—The particular legal requirement that we are referring to, is that an in-house ADF legal requirement or is it some other legal requirement?

Mr Chapman—The advice that I have is that it relates to the law of evidence in the states.

CHAIRMAN—So separately in each of the individual states.

Mr Chapman—Yes.

Mrs WEST—Was Project Pilgrim a unique experiment?

Mr Chapman—There have been two such trials. One was conducted in exercise Kangaroo 95 and the other one was Project Pilgrim. The K95 was not in any way related to health at all, it was purely command and control, as I understand it.

CHAIRMAN—Did you not have one real instance where someone needed assistance?

Mr Chapman—Yes, there was a real situation where a patient sustained a condition—that is probably the best way of putting it—to the eye and a consultation was arranged with an ophthalmologist in Balmoral Naval Hospital. As a result, the patient did not sail with the ship.

Mrs WEST—Have any other countries done anything like this?

Mr Chapman—Yes. The software that we are using was actually developed for the Singaporean armed forces and was implemented in that country's armed forces some 12 months ago.

CHAIRMAN—So the bugs were ironed out?

Mr Chapman—I would not say that.

CHAIRMAN—So you found a few more. Are there any further questions?

Dr NELSON—I would just like to say that it was terrific of you to come and do this. I admire you for doing it.

Mr Chapman—Thank you very much. May I please bring forward a couple of other small issues?

CHAIRMAN—Of course.

Mr Chapman—I might talk for a moment about prescriptions. You mentioned, when the pharmacy folks were here, that there was question as to whether they had heard about the ADF and what we were doing. There was a misapprehension there, and that was the fact that it was likely that ADF people would front up to the pharmacies with prescriptions to bill within the ADF. This is unlikely. We do not do dependent care in the Australian Defence Force. Therefore, any dependents that turn up will be doing so having been to private GPs, not Defence GPs.

The other issues that I think you touched on in your questions related to Australia's ability to become a centre of excellence, or assume a leadership role, here. To just look at

that for a moment, I did make the point in my paper that while working with JM11—which is the United Nations/EDIFACT working party—I was quite surprised by just how much leverage Australia had in the groups. I must confess, I went to that first meeting thinking that we were small players and that we were unlikely to be heard. The experience I came away with was that that was not the case at all. In fact, we in this country can provide a very powerful mediating influence between the Europeans on one side and the United States group on the other side. I think that has been underestimated to an extent.

The other thing is that Singapore has set itself the task of being a centre of electronic commerce by the year 2005. I believe that we still have the opportunity to assume quite a significant role in leadership, but I point out that Singapore has that project, which I am told is called the IT 2005 project. They are planning on having every household in the country on the Internet by 2005. They do have a number of proposals up at the moment whereby they are providing significant loans to IT companies to get into IT generally and into health.

I am told that there are a large number of these million dollar loans available. I do not know whether it is true, but I pass it to the committee for what it is worth, having been told in a business briefing that a company that we were dealing with was heading for at least two, and maybe three, of them. All I am saying is that we do have the potential, but if we do not look carefully to our laurels we have the potential to have that slip from our grasp in the near future.

CHAIRMAN—What would you have us do as a country?

Mr Chapman—As a country, certainly one of the things that we need to do is to develop a data model of what health is in this country. We do need some standards, I believe, so that developers can get out there and start making IT work for the country. Standardisation, thus far, has been a pretty under-resourced area. I know that it is very difficult, when you are trying to develop something to solve a particular problem, if you do not know what other people are going to be able to do in the same arena. That tends to fragment our resources and take a lot of our fledgling IT industry's time, while they are trying to second-guess the ways in which other people are going to try and do things. I believe that standards are pretty important in this area.

Mrs WEST—Do we need an Internet law?

Mr Chapman—That is one of the issues. I am not looking so much at the Internet because there is no way that Defence will be using it. We certainly are looking very carefully at having the internal version of the Internet, which is what I have termed the Intranet, and that has marked potential for us and, of course, we can share that with allies and so forth. I believe that is where Defence is likely to go but that is a personal view that may or may not be supported by the folks in the communications environment.

CHAIRMAN—In an article in the *Canberra Times* reporting this proposed inquiry dated 25 August 1996 there were a couple of paragraphs. I would like to quote it and I was wondering whether you would be able to enlighten us at all? It says:

During the exercise, and ophthalmology consultation was held between Success and HMAS Penguin via a video-conference link. Director-General of Army Health Brigadier Paul Buckley said the possible defence application of this technology was immense. "One of the things emphasised on remote deployments like the UN operation in Rwanda was this professional isolation," he said. "With Telemedicine, a patient can be consulted by some of the best experts in Australia's centres of excellence."

He also went on to say:

Australia would soon be on-line with the US to establish an Asia-Pacific database on disaster medicine and resources.

What role has Brigadier Buckley had in Project Pilgrim or the matters the subject of your report?

Mr Chapman—The Brigadier is the Director-General of operational health and he was the sponsor of the Project Pilgrim trial. He is also a member of the steering committee for the project that I am working on.

CHAIRMAN—Is he a medical practitioner?

Mr Chapman—Yes, he is.

Ms ELLIS—What are the total numbers in the defence forces that are going to be part of this communications link up with their medical records? How many people are we talking about?

Mr Chapman—Do you mean how many people we are talking about having on the system?

Ms ELLIS—Yes.

Mr Chapman—About 80,000.

Ms ELLIS—Thank you.

CHAIRMAN—There being no further questions, thank you very much for coming along, particularly given the constraints under which you appear.

Mr Chapman—Thank you very much.

Resolved (on motion by Mrs West, seconded by Mrs Vale):

That, pursuant to the power conferred by section 2(2) of the Parliamentary Papers Act 1908, this committee authorises publication of the evidence given before it at public hearing this day.

Committee adjourned at 4.17 p.m.