HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON FAMILY AND COMMUNITY AFFAIRS

Reference: Health information management and telemedicine

MELBOURNE

Wednesday, 16 April 1997

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 Elizabeth Grace	Mrs Vale
Mrs De-Anne Kelly	Mrs West

Matters referred for 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

MELBOURNE

Wednesday, 16 April 1997

Present

Mr Slipper (Chairman)

Ms Ellis	Mr Allan Morris
Mr Forrest	Mr Quick

The committee met at 8.59 a.m.

Mr Slipper took the chair.

CHAIRMAN—I am pleased to open this eighth day of public hearings in the inquiry of the committee into Health Information Management and Telemedicine, as referred to it by the Minister for Health and Family Services, Dr Michael Wooldridge, in June last 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.

The hearing program for Melbourne commenced yesterday and we had an inspection here the day before. The program continues today with an examination of witnesses representing the Victorian government and other locally based organisations. It is important to canvass the perspective of professionals working in the health information field around Australia in order to reach conclusions and recommendations which reflect the diversity of views held by practitioners and governments in the various states and territories.

The committee will take evidence today from several organisations representing the nursing profession and other industry based bodies, and pursue ideas and questions raised at hearings to date. In this way the final report of the committee will provide the most current national information available which will assist the Commonwealth government in formulating policy in this new area of technology.

CHAIRMAN—I ask the secretariat to invite the witnesses to swear an oath or make an affirmation.

GLEESON, Ms Marcia Ann, Research and Policy Officer, Australian Nursing Federation, 373 St Georges Road, North Fitzroy, Victoria 3068

THOM, Mr James Bryson, Member, Australian Nursing Federation, 373 St Georges Road, North Fitzroy, Victoria 3068

CHAIRMAN—Welcome. Thank you very much for appearing before the committee this morning. Do you have any comments to make on the capacity in which you appear?

Ms Gleeson—My work at the Australian Nursing Federation concerns nursing and professional matters, as opposed to industrial concerns.

CHAIRMAN—We very much appreciate the submission which has been received from the Australian Nursing Federation. It has been circulated to our members, we have digested it and found it very interesting.

Mr FORREST—Mr Chairman, could we have the submission corrected in relation to the composition of the committee? I have a rural constituency representing 26 per cent of Victoria and I found the first paragraph in the submission a bit offensive.

Ms Gleeson—I apologise.

CHAIRMAN—You have stolen my fire, Mr Forrest. I was going to invite the witness to make an opening statement first, then we can all express our view on that particular part of the submission. When I said we found the submission interesting I was referring to the bulk of it, not every paragraph of it.

Ms Gleeson—I have a statement which will take about seven minutes to read.

CHAIRMAN—That is too long. Could you give us something in about two minutes?

Ms Gleeson—Okay. I will just have to pick out bits from the statement. The Australian Nursing Federation recognises the enormous potential of Information Technology and its application to the health sector in improving health outcomes, work practices, efficiency, effectiveness, professional development, and recruitment and retention of health staff to remote communities. The benefits promise to be overwhelming. However, for every opportunity there is usually a threat. It is for that reason that the ANF pleads for caution and time so that standards of utilisation and evaluation may be developed.

Health professionals, policy makers and others must acknowledge that Information Technology is a tool which may facilitate accurate, relevant and timely interventions. It

cannot take their place. ANF maintains that the use of Information Technology must be client focused, with the stated outcome that its utilisation and its corresponding resource commitment will result in improved patient outcomes. ANF has identified three important issues and it respectfully urges the committee to consider them in the formation of policy. Those issues are: firstly, the place of the client—and ANF sees the client as both the individual and the community; secondly, the evaluation process; and, thirdly, the importance of standards.

In 1985, an assessment was made by the Commonwealth department of health on health care technology. Its conclusion stated that while advisory and policy making groups were active in state and Commonwealth health authorities, decisions had tended to be made in reaction to pressures from professional groups, the media and developments overseas, and sometimes in accordance with Parkinson's law. The ANF urges that we learn some lessons from that assessment of medical technology and apply those lessons in this case to implementation of health information systems. I am happy to end my opening remarks at that point.

CHAIRMAN—Thank you very much. Mr Thom, are you employed by the Nursing Federation?

Mr Thom—No, I am not.

CHAIRMAN—Just at the outset, what is your connection with the Queensland Nurses Union?

Ms Gleeson—The Queensland Nurses Union is one of our state branches. I am employed by the federal office of the Australian Nursing Federation, of which we have branches in every state.

CHAIRMAN—And are you a successor organisation to an organisation that used to be known as the Royal Australian Nursing Federation, or is it the same body with a new name?

Ms Gleeson—We now have no 'royal' at the beginning. We are the Australian Nursing Federation.

CHAIRMAN—But it is the same organisation?

Ms Gleeson—It is the same organisation.

CHAIRMAN—Thank you very much. Just picking up on the point that Mr Forrest made, he pointed out that he represents 26 per cent of Victoria, I think—and it is a rural electorate. Mr Quick, the Deputy Chairman, represents quite a lot of rural Tasmania. I represent a huge chunk of rural south-east Queensland. I am a Liberal member from

Queensland. Mrs Elson represents some rural parts of south-east Queensland. Mrs Elizabeth Grace, member for the inner Brisbane seat of Lilley, spent much of her working life in western Queensland. Mrs De-Anne Kelly represents the Mackay area, in North Queensland, and that is very much a rural electorate. So we do in fact cover both rural and urban areas.

I take the point that you made that Western Australia, South Australia and the Northern Territory are not represented. That is unfortunate but, with parliamentary committees, we invite people from right around the country to join. We hope that we get a geographic spread. We usually do, but you can rest assured that this committee is interested in not only urban issues but also rural issues.

Ms Gleeson—Thank you. Again I apologise, but I do think another point is that geographic remoteness is but one aspect of it. There are health problems that are particular to rural and remote communities in this country, and they primarily exist in the states that are not represented. I am referring to Aboriginal and Torres Strait Islander health which is partly a factor of its remoteness but is also a factor of lifestyle combined with remoteness, which I think is different, and, with respect, is different from the remote constituencies that you good people here represent.

Mr QUICK—I might also inform you that I am on the House committee for Aboriginal and Torres Strait Islander affairs. I am also on the Joint Native Title committee, and as a member of those two committees I see most of the remote areas of Australia. Some of the rest of us are also on committees dealing with Aboriginal affairs. We appreciate the points you make, and we are very well aware of the needs of rural and remote areas through some of the other committees that we attend.

CHAIRMAN—As to Aboriginal and Torres Strait Islanders, five of our 14 members are actually from Queensland, and Queensland members are very much aware of Aboriginal and Torres Strait Islander issues.

Ms Gleeson—Thank you for that.

Mr FORREST—The committee is collecting some really good evidence. In fact we are holding hearings in the Tanami Desert where the relationship is directed towards Aboriginal communities. So we would like you to have confidence that we have the interests of remote Australia at heart. The ingredients are very much the same. My electorate suffers similar issues; they are just of a different nature. I accept your point. The whole purpose of this inquiry—and this was one of the arguments that I particularly put forward when we were considering an inquiry—is to take advantage of the technology to service those areas. We are collecting evidence that demonstrates that.

Ms Gleeson—Thank you for that.

CHAIRMAN—Yesterday we heard from a witness who spoke about a pilot trial that he was hoping to set up. In fact he was from your electorate, Mr Forrest. His name is Dr Webb. He mentioned that he was looking at involving bush nurses in out-stations in examining patients and then relaying some data to him. How do you see nurses playing a role in telemedicine pilots and in telemedicine implementation in Australia in the future?

Ms Gleeson—I was actually here yesterday and heard what the doctor had to say. I cannot agree with him in total because I think that he has a very limited view.

CHAIRMAN—So where do you see it?

Ms Gleeson—I disagree when he said that nurses can be up-skilled to look in throats, for example; to take blood sugar levels; to do blood pressures. I do not think he was referring to up-skilling with the later point. Given that nursing is a professional body of knowledge, I do not think we would take very kindly to the suggestion that we would become the doctor's gofer, if you like, at the other end of the technology. Nurses are already, in remote communities, performing a lot of nursing work which includes, if you like, looking in throats and doing far more holistic assessment than the doctor suggested yesterday.

CHAIRMAN—I understood the doctor to be saying that in areas where there are not medical practitioners but where there are bush nurses doing a wonderful job, those bush nurses could often do a lot of the physical examinations of patients and then relay the information on. I do not think he meant to denigrate nurses.

Ms Gleeson—No, no. I suggest that what he was saying was great, but it is nothing new. Nurses are already doing that, and they are already relaying the information whether it is by letter or whether it is by telephone.

CHAIRMAN—What role do you see for nurses in telemedicine in the future?

Mr FORREST—Before you answer that, I am familiar with the pilots that Dr Webb conducted. He was looking, with a camera—and the nurse was assisting the camera—down the throat, and quite a number of other orifices that I will not mention. The nurse was doing that. He was actually looking at the picture. So she was not making any interpretation; she was assisting the patient.

Ms Gleeson—I understand. My point is that I do not think we need a lot of expensive technology. Nurses are already doing this sort of work. If there is an unlimited amount of resources, sure—get a camera, link them up—but nurses can adequately look down people's throats, do whole assessments and relay that information in one form or another. I suggest—

CHAIRMAN—You are not in favour of what the doctor was suggesting?

Ms Gleeson—I am, but I am also very aware of the scarcity of resources, and I would hate resources to be dedicated to high tech, highly expensive Information Technology until some sort of standardised evaluation criteria have been put in place and until pilot projects have been looked at and evaluated.

CHAIRMAN—I think what he was suggesting was low tech, low cost, relatively speaking. It is also of the view that we are piloted out. We have heard lots of evidence of really good projects around the country which seem to be happening on an ad hoc basis, but regrettably there is not a pooling of the information. Projects seem to work for a while, then they are closed down and evaluated, and we do not appear to be going anywhere except around and around in circles. But if we ought not to be doing funding of projects such as the doctor yesterday mentioned, how should we be approaching it? How should the scarce dollars be spent?

Ms Gleeson—I think that the scarce dollars need to be addressed at public health measures for a start. Many communities in remote areas in this country do not have basic hygiene and nutrition requirements. So if you are looking at a hierarchy of needs, I would take food, shelter and hygiene to be fairly baseline needs with Information Technology to be at the top of a pyramid. I personally believe that until public health measures can be addressed and health outcomes improved in this particular way, I cannot see how Information Technology is going to be of overall societal benefit.

CHAIRMAN—You are saying basically that we ought to just terminate all of our telemedicine pilots and projects at this stage and concentrate on health and hygiene?

Ms Gleeson—I would hate to be interpreted in such a black and white sort of way.

CHAIRMAN—That is what you said.

Ms Gleeson—I am saying that there is such a thing as priorities, and I—

CHAIRMAN—So what you are saying is health and hygiene have not achieved a certain standard, so you are saying we should put telemedicine on ice?

Ms Gleeson—I think maybe it would be a good time to go ahead and look at proper evaluation processes. You mentioned the plethora of pilot projects. Surely there must be some way of a central body making sense of those, of evaluating which ones worked, which ones may work, which ones are totally superfluous.

CHAIRMAN—I think there is some merit in a body to review everything on an overall basis, but where would you concentrate on improving health and hygiene? You are probably referring in particular to Aboriginal communities, are you, when you say that, or are you referring to the mainstream community as well?

Ms Gleeson—I think generally that is a factor of some of the Central Australian Aboriginal communities, simply because they are without adequate water supplies, so it makes basic health—

CHAIRMAN—I think the Minister for Defence offered to send in the army to give them basic water supplies, and ATSIC said, 'Oh, that's a white fellow's solution'. We are going to visit an Aboriginal community—I think it was mentioned before, the Tanami people—and we have actually seen a telemedicine project there that is really helping them. The images are beamed into Adelaide and they are receiving a medical service that was not otherwise available. I would think that certainly health and hygiene ought to be a priority, but telemedicine just cannot be ignored.

Ms Gleeson—And, similarly, ANF would never attempt to speak for Aboriginal communities; they speak for themselves. But we can perhaps represent the concerns of some of the nurses who work in those communities without doctors, without other professional support.

CHAIRMAN—Do you not think, though, that telemedicine could help those nurses receive professional support?

Ms Gleeson—Certainly it would help, and it will help with a whole lot of things. As I said in our original submission, it will help with recruitment and retention. That is an enormous problem. Nurses go to remote communities and, for a whole lot of reasons, stay for only a short time, and one of those reasons is professional isolation. Now tele-whatever will help overcome some of those problems of isolation but it will not solve them. Ask the nurses and they will say, 'Look it is terrific to have a personal computer to be linked into Internet, Intranet, whatever, to gain all sorts of access to sites on the web for professional reasons, but it is never going to take the place of face-to-face contact and some respite from that community'. So it is an aspect of recruitment and retention requirements of adequately trained staff to remote areas.

CHAIRMAN—Do you feel that maybe nurses have not been adequately involved in the pilots, so perhaps you feel a bit shut out from this technology?

Ms Gleeson—No, I would not suggest that. Nurses have actually been doing some pilots of their own in community settings. Nurses in hospitals—

CHAIRMAN—Tell us about them, please.

Ms Gleeson—There is a pilot project that was done in Adelaide involving Telstra and the Royal District Nursing Service in Adelaide where the nurses had pen computers—each nurse was issued with one of those—and that program was considered by their evaluation criteria to be a success in that it facilitated nursing care because nurses were able to plan adequately. By inputting information into the computer it meant that the client

was better off because that client was not asked 10 or 12 times for name, address and so on. Nurses were overwhelmingly in favour of that. James would probably know of some others in hospitals.

Mr Thom—I think there can be no argument that telemedicine has much to commend it, but there have been recent studies in the States where they have looked at over 500 of their rural telemedicine activities and there was found to be huge divergence in the way these things work. There are no standards on how to put these things together. There is no standard on how to assess whether or not it is being successful. Part of it is that we have proved that some of these technologies are useful. But, if I am a rural nurse out in the middle of nowhere, quite often now I don't even have a standard way of using a fax and a telephone knowing that someone is going to be picking up that information at the other end.

CHAIRMAN—There is a real a need for more coordination, there is no doubt about that.

Mr Thom—But it is more than more coordination. We as a nation have no standard way of addressing health information. We have no standard way of addressing security, addressing data sets, addressing how to build a computer room. We have no standard way on what sorts of telecommunications standards we are going to use in the first place. It is this business that you have very many practitioners who can see the possibilities of the technology out there trying to figure out how to use it, and we are reinventing the wheel again and again and again. We are simply wasting money at the moment.

Mr QUICK—Something like the Royal Flying Doctor Service, which covers huge areas of Australia, surely must have some telemedicine applications. They started off with the pedal radio, the two-way radio and then the party line, and they have their planes with sophisticated bits and pieces on board now, so surely they must have developed some sort of common standard throughout just about every state in Australia that they operate under.

Mr Thom—They have developed standards that they use. Different hospitals that are doing projects with different areas will develop standards that they use.

Mr QUICK—For example, take the Royal Flying Doctor Service. The nurse at, say, Marree or Oodnadatta calls them in, and they pick up a patient and take them down to the Royal Adelaide Hospital. There must be a standard format for transmission of information.

Mr Thom—No, there is not. There is a very basic standard of assessing someone's neurological status, which is called the Glasgow scale. Now that is almost accepted in every Australian health care institution and environment, but not all. This is really base level stuff. At the moment we don't even have a standard way—if you have got a patient who is sick and you have got a radio or telephone—of going through the things you need to go through. Do you use a systems oriented approach, do you use a problem oriented

approach to describe this problem to the person at the other end of that communication line? We don't have that standard in this nation.

CHAIRMAN—Who should set those standards?

Mr Thom—Obviously it needs to be done in association with the professional bodies but, at the end of the day, it is the health departments who are putting up the money, and they are the ones who are working with groups like Standards Australia who should be setting it. This red-covered document is from CEN, the European standards organisation. It discusses how to keep computer systems secure. They have other ones on data sets; they have many standards. We have no paid-for representation on this body. We have no paid-for representation on the Corbamed group in the United States, on the Health Level 7 group in the United States. These are standards we are trying to implement as a nation. We can't even afford to send people to the meetings.

Mr QUICK—I thought we had developed a national standard.

Mr Thom—We have developed a subset standard, a first pass at Health Level 7. I sat as part of those IT14 committees in Standards Australia. It is all being done on a shoestring. At the moment many of the state health departments have not yet fully agreed that they are going to comply with it. There is no timetable on compliance. There is no way of checking that a system will go in. If you go out and buy a piece of software now there is no Australian standard way of checking that that system truly is compliant.

CHAIRMAN—How do you suggest that we organise such an Australian standard?

Mr Thom—I think the first thing is to look very much at, say, the experience of some of the Canadian states—they are not called states—provinces, and things like that, where they have gone and built a health IT strategy. Victoria is trying to do that at the moment. New South Wales, after dreadful trauma, is in the process again. South Australia has done it. I think Queensland is in the process of revisiting its whole HIBCIS project.

The point is that at some time we have to start saying, 'Look, one little state of three million people is not big enough. We need to really start thinking about this at a national level.' We need to get rid of 'This is general practice Medicare and this is acute care.' It is a patient. That person is sick, they need our help. They need our help from the district nurse to the GP to the intensive care unit at the Royal Melbourne Hospital, and that medical record is just one great big, long medical record. How are we going to deal with that?

Information Technology can potentially save us hundreds of millions of dollars a year in our health IT budget, in our health budgets. But it can easily just be a cost of hundreds of millions of dollars a year and give us nothing back.

Mr FORREST—Are there any concerns about that with regard to South

Australia—whether or not it is another case of having different rail gauges? Is it consistent?

Mr Thom—Probably in the last 20 years, 70 per cent of IT investment in health has failed. System after system at major hospitals has not delivered what was promised of it. All the states are now finally moving to address this but they are moving in isolation.

Mr QUICK—How come Australia is supposedly at the forefront of exporting technology to Malaysia, for example? Are we selling them a pup?

Mr Thom—No, some of the systems we write are the best in the world—some of the things we do. We have spent an enormous amount of money in the last 20 years.

CHAIRMAN—What you are saying is that there has been a patchy result.

Mr Thom—With patchy results, but some of the results have been startlingly wonderful, which is why we have hope that if we could move forward, we could make a real impact in how we deliver health care.

Mr FORREST—What are some of the results that have been wonderful? Give us a few. What about the renal program that is operating out of South Australia?

Mr Thom—The Oacis project in South Australia is in its very early days. It is a bit early to predict. But certainly we can look at some of the things that have been done in New South Wales and at some of the things that have been done at the Flinders Medical Centre. Flinders Medical Centre 10 years ago was doing what most hospitals in Australia are struggling to do today. Definitely, if you want to see a site of excellence, go to Flinders. St Vincent's Private in Toowoomba is very aggressive; there is St Vincent's Private in Sydney.

There are some excellent hospitals which have done great things, but a whole heap of hospitals are struggling. There is a major hospital in this city, which tends to have a very large appeal on television, which lost millions of dollars on an IT deal that never worked; they were sold a lemon. There is another large hospital in this city that bought a huge multi-processor central computing system and a wonderful piece of software. The software vendor never told them it would only run on one processor, so three-quarters of the machine was wasted.

It is because there is very limited expertise. Health IT is incredibly specialised. We are not a big enough country and our hospitals are not big enough to be doing it on our own; they need help. So do our doctors, our rural communities, our ambulance services.

CHAIRMAN—What you would really want is a better level of cooperation on a national basis.

Mr Thom—And a strategy and standards.

CHAIRMAN—We have had other evidence suggesting there ought to be a much more organised approach, and I dare say that is one of the things the committee will look at when we contemplate the evidence we have received.

Mr QUICK—Yesterday or the day before we heard that we have a national transmission authority for television transmission around Australia, so should we have a national telemedicine authority which sets the standards, so that everybody understood, whether it was in Broome or Dover, Tasmania, that there was a national standard?

Mr Thom—The other thing that is very important not to forget with telemedicine is that telemedicine is only as good as the bricks in each place that are transmitting. So if at either end you have very poor information systems, it is almost impossible. You have to make this huge effort to generate the information to send over the telemedicine system, instead of it just being there.

CHAIRMAN—I want to come back to rural areas. You mention on page 1 of the submission that the federation believes the potential for telemedicine to improve health services in remote areas is vast. We have also been informed that the converse applies—the technology is only as good as the availability of doctors and specialists on the other end, and that high level telecommunications infrastructure is costly. Can you elaborate on how the care of patients in rural and remote areas of Australia could be improved by telemedicine if the availability of doctors and specialists at major teaching hospitals and in large provincial centres cannot always be guaranteed for consultations? In other words, how can you see that the quality of patient care could be improved by telemedicine in those circumstances?

Ms Gleeson—One of the ways that it can help to improve patient health outcomes is by skilling-up the staff and making for more attractive workplaces so that people don't feel that they are working in professional isolation.

The point that I alluded to before was that the idea that it would always be appropriate for someone in a remote community to be at one end and a specialist at the other may not be just a simple process. I think a whole lot of assessment and evaluation would go into that. It may well be better to evacuate the patient. Certainly, in times of trauma and injury, you would need to ask: is it specialist advice that we are looking for or is it specialist care and treatment, in which case an evacuation of the patient may well be more appropriate.

Often, it may well be that a doctor needs to get professional information about the person. The doctor or nurse may well act on behalf of that patient. To actually have the patient in front of a screen introduces a whole lot of different issues. The first one is that it may not always be entirely appropriate or necessary.

CHAIRMAN—It has been put to the committee that a major barrier preventing telemedicine from being fully implemented into the health system is the problem of who pays for the service. There is no Medicare or medical benefits item number at the moment. Do you have any views on how changes could be made to the Medicare schedule to include payment for telemedicine?

Ms Gleeson—No, I do not. I have read submissions and I have listened to what other people have said. I really do not have any views. It is far too complex. With regard to the state-Commonwealth tiers of health care funding, there is tension there. You will never overcome this issue of who pays for the doctors until you have got that sort of thing worked out.

CHAIRMAN—You are not going to get doctors using telemedicine regularly unless they are going to get paid for it. They are not going to use the technology unless they are paid for it.

Mr Thom—One of the options might be to have a centralised group of doctors in public hospitals whose role, as part of their general activities, is to provide a 24 hour telemedicine resource to remote communities. That might be partly teaching, it might be partly professional hand holding, it might be partly actual patient consultation. Is that the most appropriate way to do it? Is the most appropriate way to do it similar to the private referral system now, in which case you would need Medicare payments?

The point is that at the moment we have no way to clearly move forward. We do not have a clear strategy or statement about what we want to achieve with telemedicine. If someone came to the health community and said, 'We want you to achieve X with telemedicine, now tell us what you need to do it,' you would probably get a far more sensible answer from everybody. At the end of the day, in a way, you represent the consumers. In a way, you need to say what you want. Otherwise we will just come up with a thousand really good ways to spend your money, as professional groups.

Mr QUICK—With regard to the training of nurses, in particular, in this modern technology, how efficient is the training if, as you say, Mr Thom, there are 47 variations of bits and pieces? Are the nurses in New South Wales being trained specifically to deal with whatever is happening there while the nurses in Queensland are dealing with a totally different system and there is no national cohesion?

Ms Gleeson—Given that we heard yesterday that only between 10 and 15 per cent of doctors are computer literate, I would hazard a guess—

CHAIRMAN—Ten to 15 per cent used computers in their practices for clinical purposes. I do not think it was only 10 to 15 per cent who are computer literate.

Ms Gleeson—I do not know how many nurses use computers as part of their

clinical practice. Certainly, the education of nurses in areas such as Information Technology has to be improved. It is not yet considered to be core nursing business.

CHAIRMAN—Should it be included as a compulsory subject?

Mr Thom—Information Technology is merely another technology. To use a computer is a far simpler thing than using an intensive care monitor or a complex ventilator. Nurses easily pick up these skills. Nurses are very technically literate.

Mr QUICK—I hate to say this, but are they more aware than some of the doctors whom we have seen?

Mr Thom—Some groups of nurses—absolutely. But I think the nursing profession will attack the technology when the technology is in place and needs to be attacked. We have a horse and cart issue here. If we were going to teach all the nurses how to use computers, what are we going to teach them—how to use a word processor? Is that what they need to know? There is no clinical information system.

CHAIRMAN—There is a course at Monash, I think, called 'medical informatics'. There could be a variation of that course for nurses.

Mr Thom—There are nursing informatics courses already running but, at the moment, they are largely theoretical. There are no clinical information systems to teach on, certainly at an undergraduate level. Most of the courses, including the medical informatics ones, are largely postgraduate or optional units. Many nursing schools offer undergraduate optional units in IT.

CHAIRMAN—I think it is compulsory at Monash, but it is voluntary in other places.

Mr Thom—Yes. The problem at the moment is: what are we going to teach them? We can make them aware of computers—well and good—but, at the moment, there are no clinical information systems which would make up part of a telemedicine system to actually teach them on. We do not have a standard. What would you have us teach them until we know? If the Oacis system, the renal project in South Australia, comes to something, that might form the basis.

Mr FORREST—It has come to something; it is operating. As a committee, we have spoken to nurses at the remote end.

Mr Thom—What I am saying is that if the whole state says,'Yes, we're definitely going to do it,' which way do we go? At the moment there are 20 major clinical information systems on the market. They all work differently. They are just another technology. There is a system in the children's hospital in Toronto. It takes 15 minutes to

teach the nurses how to use it if they have never seen a computer before, and it does all the charting in paediatric intensive care. There are approaches to these things but, again, it has to be part of a strategy. There is no strategy.

CHAIRMAN—Mr Thom, in what area of nursing do you practise?

Mr Thom—My area of practice was largely intensive care and emergency nursing. I am now an employee of Hewlett-Packard, but I do not work in their medical division, I work in their general computing division. I am getting some extra skills.

Mr FORREST—I do not want to mishear what you are saying. I think what you are saying is worthwhile in terms of the need for a strategy. We have certainly detected that. But I do not want you to leave us with the impression that you are being a bit luddite about the whole thing.

I have four communities in my electorate where the primary health care is being provided only by nurses. There is one in Harrow, there is one in Murrayville, there is one in Patchewollock and there is one in Woomelang. Three of those are in the practice area where Dr Webb operates. In talking to the nurses there, they are enthusiastic about the benefits of using what Dr Webb was suggesting—very simple technology—to assist them in their task, because their primary objective is to deliver better health care to their patients. At the same time, I recognise that they need some up-skilling. But they have an enthusiastic view because, for them, it will deliver better care. They have to sit there and make a decision whether or not to refer a patient to Dr Webb—a trip of 1½ hours. If that technology is available for primary consultation, Dr Webb may well be able to suggest some treatment that does not require the patient to travel. That has to be a good thing. Can you give me a better view of how you see that situation for nurses?

Ms Gleeson—I would urge you to try and reconsider—nurses are not luddites. ANF is not an organisation which sees itself as a luddite, we are simply saying—

CHAIRMAN—I do not think he said that nurses were luddites. I am certain he did not.

Mr FORREST—No, I did not say that.

Ms Gleeson—There was reference to it, though, wasn't there? Our message is: please do not throw good money after bad, even if it is only $5,000—I think it may have been—that the doctor suggested yesterday. It is still a lot of money. Until proper evaluation processes are in place and until those nurses and the doctor can work out proper protocols for sending information down the line and until those nurses can be absolutely assured that they are not betraying their patients' confidentiality or that there are any privacy matters at stake, these are the sorts of things that we are urging that need to be considered. Information Technology is a wonderful thing but it cannot be seen in a

small picture sense. It has to be seen as part of our nation's health. I think that is why James's view that a strategy is needed is all important. It must fit in with everything else that is happening in health in this country today.

Mr QUICK—Concerning the nurses who are operating at Oodnadatta and Marree, what do you see that we need to recommend in order to make provision for health care for people in the Oodnadatta area, one of the remotest parts of Australia. Obviously we need to address adequate water supply and adequate sewerage?

Ms Gleeson—They are just examples of primary health needs.

Mr QUICK—Assuming we can address those which to me are quite simple—

Mr Thom—You are saying from an IT perspective?

Mr QUICK—Yes, from an IT perspective.

Mr Thom—I think there are a couple of things.

Mr QUICK—We had an instance of people being flown from King Island which is a remote part of Tasmania for a simple laceration. They spoke to the microsurgery people at St Vincent's and said, 'We think we had better fly this person over because we need your expertise'. If there had been an Information Technology link—a satellite or television transmission link—the hand could have been placed in front of the screen and it could have been said 'No, don't come'. But they flew them over there at great expense— thousands of dollars—put in three stitches and sent them home.

Ms Gleeson—I find that extraordinary.

Mr QUICK—It is true.

Ms Gleeson—I would not be questioning the place of Information Technology. I think that has more got to do with assessment and description skills. I would question the ability to ask the right questions. It is a communication thing. Technology may have saved them the journey but I think even a lay person could describe a wound.

Mr QUICK—I know but here we were with a qualified medical person being unable to describe a laceration. So what does the nurse at Oodnadatta need in the way of IT so that the service that she provides to her people, assuming all other things are equal, negates the isolation and she does not have to call the plane in at two o'clock in the morning because they can deal with it through some other form of modern technology?

Mr Thom—I think the first thing is that there be a resource at the other end of the communication link that is used to dealing with this problem and understands the situation

including the cultural aspects and whatever else in that Oodnadatta community. Then you need to look at what is an appropriate communication link. What sort of problems do we have? You would be surprised what can be achieved with a telephone and a fax particularly in areas like cardiology and things like that. Incredibly clever things can be done with telephones, faxes, modems and existing ECG machines. We do not need to go all the way to some huge jump.

Mr QUICK—No. What basic stuff do they need at Oodnadatta and Mornington Island which is another remote area that I know quite well? There should be similar 'bits and pieces' at both those places to deal with the same sort of medical circumstance.

Mr Thom—First of all I would say that the people who are working in all those places need to work as a team. They need to be trained as a team. They need to have standard protocols they work against. They need to have standard ways of discussing and dealing with these things on the phone and fax. Often it is enough to be able to send a still image so you can convey, 'This is what I am seeing,' and describe it carefully. What are you talking about there? You are talking about a very trivial low-end video capture capability in a PC but as well as that you need to be able to send all the other information about the patient: what their skin feels like and all that sort of thing that makes up the medical record. As soon as you say that you start saying, 'How are we going to do this securely? How are we going to do this properly?' The actual level of investment that you might need to put into that place in terms of IT is trivial but the level of investment you need to put into that place in terms of IT design and in staff training is substantial.

Mr QUICK—I raised the issue yesterday that all this security seems to me to be a real furphy because the stuff is being transferred to people now. Is it insecure now?

Mr Thom—Often, yes.

Mr QUICK—For whom?

Mr Thom—There are perfectly good standards in place and it is insecure for the patient. The point is that, at the moment, our health departments have not accepted any standards in these areas—such as the European standards and those sorts of things—even though there is an Australian standard.

Mr QUICK—How relevant are the European standards for people on Mornington Island?

Mr Thom—How relevant are the European standards for people in the back of beyond in Norway?

Mr QUICK—That is the question I am asking.

Mr Thom—They have similar problems.

Mr QUICK—We see this stupid thing from the EEC about what an English sausage is—all that sort of stuff. How relevant is that to Australia? We should develop our own standards that are relevant for the people at Oodnadatta, Mornington Island and King Island.

Mr Thom—Part of the brief is that we are part of a global community. Health technology, in particular, has a very global marketplace. If we want to export our technology and be able to use the best technology in the world, we need to assimilate other standards to what we want our standard to be. I am not saying that we have to be driven by other people's standards but we have to have local standards that are matched, that can at least lock in with other people's standards so that we can talk to their systems. Otherwise, we are going to be in the situation where we want to export telemedicine services to Singapore but we cannot talk to their systems.

Mr QUICK—How many major medical systems are we talking about?

Mr Thom—There are no telemedicine standards at the moment. There are at least 10 major different transmission systems that could be used. As I said, in America, there are 558 active rural telemedicine sites, many of which are working with completely different technologies. But there are standards emerging in health care.

Mr QUICK—We often hear the term 'best practice'. Can you say to us, 'Such and such a place has the ideal system. You ought to look at that and replicate that?' Or are we going to the situation of pilots taxiing backwards and forwards on the runway and we are just tossing money as they go past?

Mr Thom—There are some very good sites that could be recommended—for example, some of the work being done at Beth Israel, some of the work done at some of the UK sites and in Adelaide. The point is that there are several standards. We do not have to use the same standard as, say, the Europeans but we have to structure our standard in such a way that, if we want to converse with them, we can. The problem at the moment is that, if we have 30 different systems in Australia, they cannot even converse with each other, let alone with what is going on in Europe.

Mr QUICK—How many systems are operating in, say, Victoria?

Mr Thom—Who knows? A doctor could go to Intel tomorrow and buy a wee doover, his mate could buy another wee doover, they could link them up and they have telemedicine. If they phone each other, is that telemedicine? That is the problem: no-one knows. There is no standard. There is no body and nowhere to go for advice. There is no central clearing house and there is not even an Australian web page.

Mr FORREST—Could I suggest that Mr Thom be invited to make a written submission to the committee for further information. This is an additional ingredient that we were not aware of when we read the written submission, and it is interesting. Maybe you could make some worthwhile, practical suggestions.

Mr Thom—I would be happy to do that.

CHAIRMAN—If you could do that, and pass the information on to the secretary, we will receive it as evidence and we will certainly consider it in the report. You feel very strongly about it and I can see that you have thought this through very carefully.

Mr Thom—I am more than happy to do that and, if it is all right, I will nominate some other people you might want to hear from.

CHAIRMAN—Yes. I understand that there has been a good deal of work done in some other countries, particularly in Belgium and other European countries, by nurses in helping to develop telemedicine projects. What have nurses here done in developing telemedicine and health informatics? Have you been as involved as your colleagues in Europe have been?

Mr Thom—I am a member of a group called HISA, the Health Informatics Society of Australia. One of the first groups that it formed was a nursing informatics group, which is tied to ANF—thus my appearance. Nurses have been active in health informatics and telemedicine since such things existed. One of the groups that has been struggling very hard and very long with this problem is the Royal District Nursing Service here in Victoria. They have done excellent work for many years, trying to develop things.

We are improving communication with GPs in areas such as discharge planning, discharge clinics, pre-admission clinics and things like that. That is not really telemedicine but eventually we would like to put that information on the web for the doctor and at least we are communicating better with the doctor or the district nurses or whoever it is looking after the patient. Nurses have been instrumental in many of those projects. I think there is great good faith and great good intent amongst the nursing community. But there is concern that, now we know a lot of what we want to do and how to do it, we need to all get together and start working from the same deck of cards.

CHAIRMAN—We will value your further comments. Thank you for appearing before the committee this morning. We greatly appreciate it.

[10.06 a.m.]

CHAIRMAN—I ask the secretariat to invite the witnesses to swear an oath or make an affirmation.

KROUSKOS, Mr Demos, Chief Executive Officer, North Richmond Community Health Centre, 23 Lennox Street, Richmond, Victoria 3121

LIAW, Dr Siaw-Teng, Senior Lecturer, University of Melbourne, Department of Public Health and Community Medicine, 200 Berkerley Street, Carlton, Victoria 3053

PEARCE, Dr Christopher, Information Technology Representative, Victorian Rural Divisions Coordinating Unit, Essendon and District Memorial Hospital, Chester Street, Moonee Ponds, Victoria 3039

CHAIRMAN—Welcome. Do you have any comments to make on the capacity in which you appear?

Dr Pearce—I am a rural practitioner in Alexandra, which is 150 kilometres north-east of Melbourne.

CHAIRMAN—Is that in Mr Forrest's electorate?

Dr Pearce—No, I am afraid not!

CHAIRMAN—We have received your submission and circulated it. I now invite you to give us a brief opening statement summarising some aspects of your submission.

Dr Liaw—Firstly, thank you for the opportunity to give evidence to this committee. You would have seen the submission, and I would like to emphasise that it is the result of the years of experience of all of us in a big network of health care professionals. Our involvement in health informatics and the consultation process in the last couple of years in Victoria led us to put this submission proposing a division based framework for the development, implementation and evaluation of the use of computers in general practice. We quickly learned that, while having a focus on general practice, it has to involve the whole health care sector, either directly in terms of networking or indirectly in terms of the referral process.

We are trying to propose a division based framework and a coordinating centre where we can demonstrate and expose to health care professionals—I am focusing on general practice from now—state-of-the-art software, with the aim of increasing their knowledge, and their ability to evaluate the kinds of systems that are out there and available for them to use in their practice. We also want to encourage them to use computers in their clinical practice.

We have already taken some steps, with the help of the state government, towards that direction. In the last couple of years, we have submitted proposals, as outlined in our submission, to the Commonwealth government through the divisions and project grant program but, as at today, we have not heard anything about it.

The other thing I would like to emphasise is that, as a result of the consultation process in developing this proposal, we have already had a lot of interaction with the Victorian state government and we are currently involved in quite a few initiatives with the state government from the general practice perspective. However, we feel that our contribution would have been much greater had we been able to move fairly quickly on what we decided on in 1995, which was the basis for the submission that you have received on decision support in general practice.

CHAIRMAN—Could you give us a brief overview of the workshop conclusions on which you based the submission, and why you feel you have not been able to move forward as quickly as you would like.

Dr Liaw—At this workshop, as a result of preliminary work done, a diverse group of health care professionals and IT support professionals from both state and Commonwealth government examined the current status, the potential and the future of computer assistance and decision support in general practice.

As a result of this workshop, this diverse group of health care professionals came to an agreement on the definition of, and a need and potential for, computer assistance and decision support; a need for standardised health terminology; a need for standards and interoperability in software and hardware—which means that all the different applications that we use should be able to talk to one another, which I am sure is a point that has come up consistently in your inquiry; a need for interconnectivity, by which we are talking about the people connections in all sectors of health care; and a need for meaningful and rigorous evaluation of what we plan to introduce in terms of computer assistance. We proposed some examples in the submission.

There was also recognition that the underlying principles of computer assistance are applicable throughout the whole health care sector. So, while the focus of this submission was on general practice, the principles apply throughout the whole health care sector.

We recognised that there are a lot of barriers, including legislative barriers and policy barriers, to the increased use of IT in general practice. Some of the more generic barriers include a lack of standards, a lack of electronic data security and a lack of open standards, as well, which seems to be a contradiction in terms. You need data security but you also need openness so that we can actually share data. So there must be a fine and happy balance.

As a result of this we thought that the next step forward to take is to have a division based strategy—a division of general practice based strategy—where we have a central coordinating centre to test different aspects of computer assistance in general practice through the divisions. We could thus have a variety of projects, testing out and evaluating different modules of computer assistance, which may be prescribing, which may be recalls, which may be preventive health care, assisted by good computer decision support and so on, so that we do not have to reinvent the wheel. Each division or each area tests one module and then, at the end of the day, we put them altogether and people can start using them as an integrated package.

We propose that it might be a good idea to have a centre established in Victoria to start off with, as a pilot, that the rest of the states can model on and learn from our achievements and mistakes, if we do commit some, along the way. So that is the summary.

CHAIRMAN—Do you think the lack of a Medicare item number or numbers is inhibiting the growth of the use of telemedicine, on the basis that doctors are not prepared to make the investments or prepared to use telemedicine unless they are going to get paid for it?

Dr Pearce—I think that at this stage that is not such a big issue. I think that is more of an issue when the actual technology arrives that is applicable. At the moment there are very few useful applications of telemedicine.

CHAIRMAN—We have had a lot of evidence to the contrary, that a lot of people feel that we have had far too many pilots and that we should be starting now to concentrate on implementation of those pilots where they have been successful. Teleradiology seems to be considered to be quite a success, as do telepsychiatry and even tele-general practice in areas where, perhaps, there is no doctor but there may well be bush nurses. I think you might be a bit pessimistic. Other evidence has been that we are not really going to see any growth in the use of telemedicine until the government can come up with some appropriate level of remuneration for practitioners of it.

Dr Pearce—Probably I am fairly pessimistic in this area. My perspective from the rural divisions is that there is a lot of activity out there but none of it seems particularly coordinated and none of it has yet been shown to actually be effective, although there is a lot of activity in the area.

CHAIRMAN—I agree with the former statement but maybe not the latter.

Dr Liaw—The evidence of a lot of pilots of telemedicine projects in the United States—and I am sure the situation would be similar in Australia—about the usage at the maximum is that the most optimistic finding from evaluation of the projects was about 30 per cent utilisation. Is that cost-effective? The idea is sound, the implementation and how

it works is sound, but it is not being taken up, even within the pilot project.

CHAIRMAN—What do you see the role of government being—as bystander, participant, facilitator, coordinator or funder?

Dr Pearce—I think the role of government is that it has to decide on its priorities. Its priority I think should be to facilitate the process by encouraging the development of the appropriate projects. In the context of the submission we have made, what we are trying to look for is a coordinating area, a clearing house for the projects that are around, because a lot of the projects that are around are not really communicating with each other as to what is happening.

Mr QUICK—You spoke of a standardised health terminology. What was operating before we had computers? Did we not have a standardised health terminology? What has changed?

Dr Liaw—I guess the short answer is no.

Mr QUICK—We never had a standard health terminology?

Dr Liaw—No.

Mr QUICK—How did the doctor in Mildura, when he spoke to the specialist in Melbourne in the 1960s, before we had telemedicine, describe a potential angina attack? What has changed between 1960 and 1996, apart from perhaps more specific diagnosis and perhaps an awareness of some of the complexities? I am not a medical person, but I cannot believe that we did not have a standardised terminology before we had computers.

Dr Liaw—I guess the fact that computers are such hard taskmasters makes the need for a standardised terminology very, very explicit. There are basically three types of medical knowledge. One is propositional—blood pressure of, say, greater than 100 is high blood pressure. That is propositional; it is a stated fact. Another aspect of knowledge is practical knowledge—things that we do in practical skills, such as dexterity. The third component of knowledge is what we call familiarity skills—things that we discussed such as your remote GP talking to a specialist from Mildura. That all includes not just propositional knowledge; it is both interactive and familiar type knowledge. The computer cannot do that. What the specialist means by angina and what the GP means by angina may differ—the computer is quick to pick that up—but when we converse we are actually able to elaborate what we mean.

Mr QUICK—Assuming that both the specialist and the medical practitioner in Mildura were trained at the University of Melbourne medical college, would they both understood exactly the same? Are doctors trained at Monash trained any differently from those at the Melbourne university. Is it the same with Sydney? Is there a different training regime?

Dr Liaw—No.

Mr ALLAN MORRIS—Newcastle is different.

Dr Liaw—No. At that level it is very important that we agree on what we say, as in the definition of angina. Maybe that is a bad example, so let us say a heart attack. A heart attack may mean a different thing to you, the specialist who trained at a certain medical school, from what it means to someone else, a gastroenterologist or a general practitioner who trained at the same medical school. It just depends on the locality and the context that he talks about. Reading through some of the excerpts of the inquiry, most of them talk about the need for standardised technology. This is because we need to be able to compare apples with apples. A heart attack should mean the same thing to everyone. That is very important if we are going to talk about using computers to help us in our clinical decision making.

If this specialist develops a decision support system for the management of heart attacks, if his definition of heart attacks is slightly different from the definition of someone who uses his system, he will find it very hard to use.

Mr QUICK—Should we say to the various colleges, 'You guys are dealing with the speciality. You come up with an AN-DRG thing to say that number 27 in this means that'? That is faxed out to the medical practitioner in Mildura and then he can get on his computer and e-mail someone and say, 'I think I have got a case of 47.A3', and the doctor says, 'Tell me the symptoms. Give me the case history of the patient'. To me that should be pretty simple. It should not be a barrier. To my mind a barrier is something that is really difficult.

Concerning the next point, a perceived lack of electronic data security, why can't we go to the Department of Defence or to the Department of Foreign Affairs and Trade and say, 'Tell us your latest encryption', and then go to the medical people and say, 'The Foreign affairs people can zap information backwards and forwards, what is your hassle?' Banks are doing it daily right across the world. Money is being transferred. The system might not be foolproof.

To me as a layman, I think perceptions of data security are a bit of a furphy when it comes to health. People are really concerned about their health. Given the number of examples of people abusing the system compared to some of the paperwork hassles we have discovered, I think the problems can be addressed quickly and easily.

Dr Liaw—Technologically and technically it can be addressed very easily.

Mr QUICK—Why hasn't it happened?

Dr Liaw—It is the people factor.

Mr QUICK—Is it a state factor?

Mr Krouskos—We need to be mindful of our past experience in this area. The history of the Australia Card is a good example. In order to do some of the things that we are talking about, the issues are not technical. Technical issues have all been solved in other industries as you have pointed out.

When you embark on a process of implementing systems at this level that we are talking about, you do run across a number of political and policy issues. That is what we do not have in place. As I said, we should be mindful of what happened to the Australia Card issue. I thought that was a perfectly reasonable project to undertake and it would have solved a lot of problems. But, you can see what happened when people decided that there were some issues to do with privacy.

Mr QUICK—This industry spends $36 billion annually. If a company spent that and had to go through all the tom foolery that we are hearing about, people would be sacked left, right and centre.

Mr Krouskos—We couldn't agree more. We are on your side on that one.

Mr QUICK—New Zealand has got an identifier. Malaysia is saying that we are going to have a card that you can swipe through.

Mr Krouskos—We would support that.

Dr Liaw—We are talking about the same thing. I think we are starting to realise that it is not enough just to spend a billion dollars on the technology, we need to spend an equal amount on education and training.

Mr QUICK—We hear that Victoria has got wonderful things happening. We go to South Australia and they have got their own rail gauge. We go to Queensland and they have got their own rail gauge. I do not give a toss who has got the best system but let's get one national system so that irrespective of whether you are a Victorian, a South Australian or a Tasmanian, you have the same entitlement to adequate health care. If technology will improve that, let's give it a big tick.

Mr Krouskos—We have no problem with that. We endorse that. Can I just go back to the question that the Chairman asked regarding what should be the role of government. The role of the government is twofold. One is to show leadership in this area and the second one is to put the policy frame work into place that allows the technological roll-out to occur. We do not actually have that currently.

Mr QUICK—Do we do the Malaysian thing and say, 'In three months time this is what—

Mr Krouskos—I think the political structure and culture of Malaysia might be a bit different to Australia.

Mr QUICK—How much of that $36 billion do we waste?

Mr Krouskos—Do you want a personal opinion?

Mr ALLAN MORRIS—Can I, perhaps, bring it around somewhere else? If Harry just looks at the figures on prescription of drugs or various surgery, he will find the cost to the country. There are massive differences which are actually to do with cultures, and attitudes, and fads, and fashions in particular parts of the country. They really are quite disparate. If you look at prescription and surgery regimes—the number of hysterectomies, for example—in different parts of the country, you just find that we really do have a very diverse medical culture.

Your submission is more to do with information management and Information Technology, rather than telemedicine, as such. You seem to be saying that there needs to be an appropriate framework. I like your table at the end in terms of your desired computer assistance—table 3—and the actual prioritising of issues that need to be priorities. It could be misleading, though, in the sense that it implies that that would, in fact, lead to a more uniform system which it would not do. There needs to be a further step from the one that you have here which is to actually articulate, if you like, the interoperability. Within this framework, you could still have systems which would not be interfaceable necessarily.

Dr Pearce—Except that part of the process would be an encouragement to make these systems interoperable.

Mr ALLAN MORRIS—There would be encouragement, but not necessarily a requirement. I suppose that you understand the problems we have, as Harry has pointed out, with the different states, and you are aware of our political structure where the Commonwealth does not actually control health at all. It might fund most of it, but it does not control it.

Dr Pearce—Yes.

Mr ALLAN MORRIS—How would you see the setting up of some national oversighting or national coordination? I am just a bit concerned about how you translate that into the real world. That is a nice sort of objective to have, but do you go from that into a system which is seamless, if you like, across the states and across different fads, fashions and schools of medicine and the information tele concept.

Dr Pearce—In the original planning of that submission, there was certainly the

concept of a national focus, but we were aware of the fact that it was a state based process and, therefore, the proposition was for a state based centre.

Mr ALLAN MORRIS—So would you argue then that the state and Commonwealth ministers of health should have to agree on some precise set of protocols?

Dr Liaw—Yes. It has to be.

Mr ALLAN MORRIS—How would that fit then with the medical fraternity's historical battles and disputes? How do you reconcile the schisms within your own profession? Are you going to ask the ministers to override them, or how would you reconcile them?

Mr Krouskos—I think that we have missed an important element of the proposal. If this is going to be an industry driven thing, then there has to be broad agreement at the industry level that this is a good way to go.

Mr ALLAN MORRIS—Which industry?

Mr Krouskos—The health industry. One of the problems with a lot of IT systems is that we have been pretty good at developing management systems in health, financial management and other types of management systems, but we have not been very good at developing systems that assist in the actual health care episode, if you like. Decision support is one of those examples which does give practical support to a doctor or a health care professional in the actual transaction. Remember, 80 per cent of what occurs in that transaction is information exchange. It is a very information resource industry, the health industry. But we do not have many practical applications out there that we know are effective.

What we are trying to say is that in order for people to participate and to become more confident—and remember that it is an industry that is very conservative and to a large degree a bit resistant to technology—I know amongst my own staff—

Mr ALLAN MORRIS—More than a bit.

Mr Krouskos—Yes. That is because they do not see much benefit coming their way. They do not see why they should have a you-beaut PC on their desks if it is not actually going to assist them in their day-to-day work. It might do their accounts; it might send them out—they have got a billing system, or can link up with Medicare or the Health Insurance Commission—but when the patient walks in the door, what does it actually do?

That is the challenge of this centre. The challenge of this centre is provide practical assistance to health care professionals. We are starting with a GP because we have got a ready-made network out there. It should be applicable across the health care

sector, and it should actually provide practical assistance to health care professionals in 80 per cent of their work. That is what 80 per cent of their work is: the patient telling them information and the doctor telling them information back. The laying on of hands is a small part of the work. Information exchange is the major part of the work. So unless you have built up support on the ground for this sort of system, you are not going to get a change. A top-level change is not going to work.

Mr ALLAN MORRIS—That is the question. You are asking the politicians here to come in and lay a system that will solve that and I am saying we cannot. How do you reconcile the regional fads, fashions and attitudes and the differential between them with the state system and then the national system? How do you get from that GP through to a system of national standards? The politicians are not going to tell them what to do. You can forget that, because it will not work.

Mr Krouskos—We do not propose that. The words we used were 'facilitate the change process'. As I said, we do not believe a top-down approach is going to work. However, encouragement and support, setting of standards, the policy issues that need to be looked at, particularly through the health ministers council, and all of those sorts of processes are a good starting point. Coupled with this, it has to be a dual strategy. It has to be a strategy on the ground such as what we are proposing through support centres, and facilitated and coordinated at the top level as well. So you need to have both strategies in place.

Mr ALLAN MORRIS—Which comes first?

Mr Krouskos—It is chicken and egg. I think both have to be paralleled.

Dr Pearce—One of the problems in Information Technology is that if you think about it too long, what you are thinking about has moved by the time you have to make a decision. It is important to approach it from every angle you can at the opportunity that you have got. I believe that, despite the fact that the medical profession in a sense is fairly conservative, there is a lot of enthusiasm out there for the potential of computers. I certainly get a lot of people asking about computerising their practices and what they should and should not do. In fact, if there are some appropriate standards in place and we can improve the functionality of what we have got, there will be a fairly rapid take up of computerisation.

Mr QUICK—In Victoria?

Dr Pearce—Nationally. The proprietary Medical Director program has gone from 400 sites two years ago to something like 5,000 in the last two years.

CHAIRMAN—It has done very well.

Dr Pearce—That is a simple proprietary program. What we are trying to avoid is the set-up where there are 500 different proprietary set-ups—which there are probably are—all of whom cannot talk to each other and data is not useable by any third party.

Mr ALLAN MORRIS—But isn't it misleading? Is it not partly because you have pathology companies putting computers into doctors' surgeries?

Dr Pearce—I would not know about that. I have not had any pathology company ever offer me a computer in my surgery.

Mr QUICK—We have heard of quite a few coming along and saying, 'Here it is.'

Mr ALLAN MORRIS—It could be quite misleading in terms of having a computer. The only group that is worse than doctors in taking up technology is politicians. The number of politicians with a database on their constituency is probably less than the number of doctors who are using computers. Having a computer in the practice does not mean to say that it is actually being used for anything other than processing accounts.

Dr Pearce—I agree.

Ms ELLIS—We had the general practitioners say to us yesterday that part of the problem could be because we are not offering financial and tax incentives directly to GPs to modernise their office with technology. Do you have a view about that? In reality they were putting to us that the government should be offering direct financial and tax incentives to allow GPs to computerise.

CHAIRMAN—A special deal.

Dr Pearce—That is of course what the English approach did. That has to work on the theory that, if you put a box on everybody's desk, you have to expect that a percentage of them—and that could be 50 or 60 per cent—will not actually be used effectively, but it will raise the level of computer awareness in that group and will prove a base. That is in some ways a valid train of thought. The other approach, rather than put a box on the desk, is to make everything else about that process convenient and easy, such as medical claims access, faster payment for your Medicare cheques if it is electronic, good support issues and stuff like that.

Mr Krouskos—I cannot imagine, given the cost of computers these days, that it would be a major barrier.

Ms ELLIS—It was put to us that it is.

Mr Krouskos—We estimate that putting a box with all the software on it that you could possibly need—and certainly start-up software—it would cost around $3,500. If that

is a major barrier, fine. Maybe it should be addressed through the tax system. Personally, as a manager of a diverse health service, I do not believe that is a major barrier. If we can afford to fully computerise.

CHAIRMAN—Your evidence is very refreshing.

Mr Krouskos—We are a very poor community health service and we can afford to fully computerise our service. If doctors are saying that, fine. If they believe they need tax assistance to do that, I do not have any problem with it, but I would not have thought that the cost of hardware and software these days should act as an barrier. Maybe it was the case 10 years ago when you were talking about very expensive systems, but I do not believe that with computers now.

Dr Liaw—I guess it is also a conceptual question as well. I am getting feedback from the ongoing consultations that we have. We provide support for general practitioners and the view that is coming across is, 'Fine, I am happy to improve my information management. I am happy to use computers. Now, what am I going to use the information for? I need it to help improve my quality of care. That is good.' But the government has said in a sense that, if there is good quality information there, you will help with monitoring and get it all together. You can actually have good data on which to underpin your policies. The argument is that, if I am going to collect data for use by the government or by other agencies, I should not be the only one footing the cost.

Ms ELLIS—What about if there was, as has been suggested, a federal move to come up with some concept of an overlaying national program in terms of aims, objectives, outcomes and so on. We can then come up with a package that says, 'If we can take high tech as is being done into the health care area in a very proficient fashion, as a government and as a community we could get out of it A, B, C, D, E, F and so on.'

If that is then done the encouragement to the medical profession is that they then should be influenced to enter it, having been very clearly demonstrated the overall benefits to them in delivering health care; the benefits to government in collecting data; and the benefits to government, health care practitioners and the community generally by a move towards the use of such technology. The initiative is not to give computers out, but to set up a framework where it is almost inevitable that doctor A or B is missing out in amazing ways if they do not participate in that program. Is that a better way of seeing the picture?

Dr Pearce—That accounts for a number of things. It accounts for the fact that, if you put one million boxes on a million doctors' desks, they will be out of date within two years. The proposal you are setting up will not go out of date and it allows doctors to enter it at their level of expertise.

Ms ELLIS—And secondary to that, would it be sensible then to say—this is all very hypothetical but not unrealistic—that if that all then came into play and doctors were

invited and entered the process at their cost, would it then be a far better way of spending dollars to assist in the continual upgrading? Because the other question to this in my head—and you people and others are agreeing with me without saying so much—is that once this is all done, we are then going to have the dog chasing its tail in every sense with people attempting to keep up with new development, because everything we are seeing is today, not tomorrow. Would it be better to offer initiatives to allow people, practitioners and participants to upgrade? Would that be a better way of doing it?

Mr Krouskos—Yes, but there is another issue to deal with it. One is the hardware and software issue, but the other issue is the sustainability of the system and also the support and training side. Any desktop computer can do 90 per cent more than most people actually use it for. The capacity is enormous, but what we do not have is effective training and support programs or services out there. Unless you are prepared to fund that as well or think about how that might be funded, it is no good funding hardware and software developments.

Ms ELLIS—Can I just ask one final question and that is in relation to the project that you did here in 1995? To what degree have you been frustrated by the lack of speed or lack of initiative following the work two years ago?

Dr Liaw—It varies. To put it one word—very, very frustrated.

Ms ELLIS—Can you elaborate for us? To what degree do you believe that that work has been wasted? I do not mean it has been wasted in a silly sense. But, if we had to start again, how far back do we need to go to commence? I want to get this on the record, because I would hate to think that our committee's report faced a similar future. I am not suggesting it will, but I would like you to ensure that it does not.

Dr Liaw—That particular project was carried out with Commonwealth money.

Ms ELLIS—Exactly.

Dr Liaw—The aim behind it was to develop proposals to start this going. We met the aims. We put in two or three proposals. That was at the end of 1995. It has been through a whole series of approvals, vetting and feedback and the last I heard about it was at the beginning of 1996 when they said that it had been sitting on the ministerial delegate's desk waiting for approval. Since then we have had sporadic communication but really nothing is happening.

Ms ELLIS—At the Commonwealth level?

Dr Liaw—At the Commonwealth level.

CHAIRMAN—When did you last hear about it?

Dr Liaw—At the beginning of 1996.

CHAIRMAN—I think as a committee we could probably write to the minister to ask what is the current status. I suggest that we do that and we will let you know when we get a response.

Dr Liaw—One of the other reasons why we have not really pushed it that hard is because we diverted our energies into collaborating with the state government. That is why we have actually started to do some of the things that we have started to think about and put into for the Commonwealth to fund. But it really needs Commonwealth and state cooperation to make it work.

Ms ELLIS—The thing is that the participants in that program included officials from the Commonwealth and Victorian health departments. Is that not the case?

Dr Liaw—That is right.

Ms ELLIS—Are you able to say that in the end product of that project there was no dissent, no disagreement or no wall-building from those bureaucrats?

Dr Liaw—No.

Mr FORREST—I have a question about page two of your submission which describes the software available as 'sub-optimal'. If you are looking for utopia, you will never find it. Things evolve, especially in this whole issue of technology. What do you mean by 'sub-optimal'?

Dr Pearce—'Sub-optimal' is described in the later documents from the participants who were asked, 'What are the problems you perceive?' We are talking about two years ago now which is a very different stage to what exists currently. There was not a lot about. What there was was difficult to use. None of the systems at that stage virtually were Windows based systems, for instance. They were systems that could not talk to each other. They were systems from companies that were going broke, as these companies are wont to do, and people were being left with orphaned systems. There were a number of factors that were perceived as significant to the participants.

Mr FORREST—Has it improved in two years? I used to be in private practice as a consulting engineer. I needed to move into computers to make my practice more competitive and deliver. I needed a structural engineering program and I investigated and found one. It did not do what I wanted, so I talked with the developer and the industry. We needed to talk to the Standards Association. We eventually got a program that most consulting engineers now use as a universal program that is compatible and you can actually have computations checked.

I did not rush off to the Commonwealth and say, 'You have to do something about creating standards.' The profession made it happen. Why does that not happen here? You would say to the software provider, 'I am sorry your program is not up to scratch. I am going to take this one because it is.' Why does that not happen with health care?

Mr Krouskos—There are two reasons for it. It is because the Commonwealth really owns the health care industry, whichever way you look at it, and $37 billion of taxpayers' money is spent on the health care industry. The private part of their industry is not the major part of the industry and therefore its flexibility with capacity to act independently or even as a consortium or whatever is much constrained by lots of factors. I think we should face the reality that the public health care system is owned by the Commonwealth and state governments.

It is not like other industries in that way. There are very few other industries owned by the Commonwealth government. Most of them have been sold, but I think we should recognise the complexities involved here in developing standard systems across a very diverse and complex industry like the health care industry.

Mr FORREST—Yes, but as a GP we have discovered that very few GPs are even motivated to see the advantages of going into computers. They are private operators. They operate private practice. Why can they not see that there are advantages for them? That is where I am operating; not in the hospital system. We have seen some really good advances there, but we are talking about GPs themselves.

Dr Liaw—We are talking about incentives. 'Sub-optimal' is pretty well a motherhood term, but it was based on this group of GPs—and I guess you could call them enthusiasts—who use computer systems for clinical records. As you realise from the previous submissions, they are a rare breed. Only five or 10 per cent of GPs actually use it for record keeping. These are the people who agreed on a template to actually assess their own computer systems that they use based on technical benchmarks, how it helps them to function in general practice, how friendly the interface is, whether it does the things that they want it to do, including having the support and help to get the software altered to suit them or meet what they perceive as missing. The consensus was that all the software that was being used really did not meet all the needs. It was not something that would stop them from using it. They are enthusiasts; they wanted to improve the state of the art. It was set up in that sense and that was the basis for making that statement.

Mr FORREST—When I go to see my accountant who does my taxation now, he sends off my return electronically to the tax department. You could not find anything more sensitive, from a privacy point of view, than my financial information. Yet the industry made that happen and as a result we get a better return on our tax dollar.

Mr Krouskos—I think you are describing a level of coordination in the industry that is not quite there.

Mr FORREST—The issue of privacy in that situation has been dealt with easily.

Mr Krouskos—I do not think that is a barrier. What I am trying to say is that, with our own industry associations of various types at state and federal levels, if you look back over their newsletters or conferences—organisations such as the Australian Health Care Association and the Victorian Health Care Association—you will see how many conferences had IT as a theme or even as an issue.

If you are going to have developments of the type you are talking about, it has to be industry based and industry led. If we are not getting it at the highest level and people do not have a strong understanding of this, it is very difficult to get much change at the level of the general practice. That is another factor into this equation that we need to be mindful of. There is probably not a widespread understanding, even at the industry level or at the industry representative level. They are much more concerned with funding issues rather than IT issues.

Dr Pearce—There are a number of stakeholders in this process. I would hope that we tend to have a broader focus than just the GP sitting at his desk. In that sense I agree with. Now you can get a good prescribing program, sit it on your desk and it works very well. I do not actually have one. I do not think a prescribing program adds a great deal of efficiency to my practice, but to some people it does. You also have to look at the private general practitioner. He is not particularly concerned whether it is going to make his life a lot easier with Medicare, especially given the concept that Medicare seems to be a little bit unsure about whether it wants to do it or not in terms of encouragement.

In terms of the patient's actual perspective, the benefits perceived by the patient of computerisation may not be perceived by the general practitioner. He is not focused on that. He is just focused on whether or not that computer is going to make his life easy. I have no problems with the fact that computer prescribing is probably at a stage where it is doing that. You are not going to get the other deals, the other potential out of your Information Technology, unless you use other methods.

CHAIRMAN—Thank you very much gentlemen for appearing before the committee this morning. We will send you a transcript of your evidence for you to check and make sure it is okay. We appreciate your being here.

[10.47 a.m.]

CHAIRMAN—I ask the secretariat to invite the witnesses to swear an oath or make an affirmation.

EDGAR, Miss Lynette Jean, Administrative Officer, Victorian Nurse Executives Association Inc, Suite 10, 219 Balaclava Road, Caulfield, Victoria 3161

O'CONNOR, Miss Margaret, Honorary Treasurer, Victorian Nurse Executives Association Inc, Suite 10, 219 Balaclava Road, Caulfield, Victoria 3161

CHAIRMAN—Could you give us in a very brief outline or summary in a couple of minutes of some of the aspects of your submission?

Miss Edgar—We have concentrated on the future advantages of telemedicine and telecommunication technology in light of the changing face of the health care industry and a lot more movement out into community based types of services. From a nursing viewpoint, we would see that there is probably going to be a lot more practice within a sole practitioner role or as a nurse practitioner role and a lot of emphasis on collaborative practice across the professions. We see that computer technology, certainly in that aspect, particularly in the future but even at the present moment with the areas that nurses and health professions are practising in, should have huge benefits.

CHAIRMAN—At what level does a nurse become a nurse executive?

Miss O'Connor—Anyone, really, from about a unit manager, who is someone in charge of a unit, a ward.

CHAIRMAN—And your members are not members of the Australian Nursing Federation?

Miss O'Connor—You can be if you wish to be.

CHAIRMAN—But you are an industrial association?

Miss O'Connor—No, we are a professional organisation.

CHAIRMAN—And they are an industrial association?

Miss O'Connor—Yes.

CHAIRMAN—I was very interested to hear evidence of how nurses, in some cases in out-stations, would be able by using the technology to examine patients with a view to getting advice from a medical practitioner some distance away. How do you see liability issues arising? For instance, nurses clearly would be using their professional skill, but could not be expected to perhaps have the same level of skill as, say, a medical practitioner would. I was just wondering whether you would expect governments,

collectively, to put in place some appropriate sets of procedures to ensure that you were protected against unwarranted professional negligence claims.

Miss O'Connor—At the national health alliance conference in Perth in February, which I am sure you have heard others speak of, this was one of the issues discussed in relation to an advanced nurse, nurse practitioner, in terms of how they can function and function within the regulations and legislation. At this time people are practising, not within the confines of the legislation and regulation—there is no question about that. This is something coming from the national alliance that was going to be going to AHMAC, the Australian Health Medical Advisory Council, in terms of how it could be addressed.

There are around the country exemptions in relation to prescribing and medications for remote area nurses, but not across the board. It is not only remote area nurses. Even here you have nurses working in rural practice with a GP who might be 40 or 60 kilometres away, and he is really taking what the nurse is telling him over the phone. So it is a great issue if the nurse who does not have the skills and has not been educated in this way.

CHAIRMAN—Who is sued? Is the nurse sued or the doctor sued? If a mistake is made I suppose everyone is sued and—

Miss Edgar—That is so. Any professional is responsible for their own practice, and it is emphasised within the nursing profession that you practise within the levels of your competence. However, I think that—

CHAIRMAN—With new technology those levels of competence might have to be redefined in some cases.

Miss Edgar—Yes. With the New South Wales nurse practitioner project, certainly a lot of those issues are being looked at. On the issue of the sorts of education and training that nurses in nurse practitioner or advanced practitioner roles and even remote area nurses need, there is a move to look at how far perhaps prescribing privileges would go or referral privileges and things like that. So there would have to be certain confines on the scope of practice.

CHAIRMAN—Your submission is a breath of fresh air after the evidence we heard from the Australian Nursing Federation. The lady who appeared for them was rather pessimistic about the need to push ahead with telemedicine until remote area health and hygiene concerns had been addressed. I see that you observe that the development of high level communication linkages between health services providers will 'unquestionably' improve accessibility to quality care, particularly to communities and rural and remote areas. It is very good to see that you are saying that. How do you see the role of nurses in telemedicine in the future, and what role have you seen nurses take in telemedicine pilot projects to date?

Miss O'Connor—One of the projects in Victoria funded by the state government was one in the west Wimmera-Hindmarsh shires, in the local government areas. That was really in reference to the provision of HACC services and aged care, looking at the best way to combine the services and the best utilisation of the nurses. There are several of those bush nursing centres in those areas where there are single practitioners, and they were greatly involved in that project. Some of the outcomes have not really been defined as yet, but they really feel that the e-mail concept is a great help to them.

So that is progressing, and also we have had in psychiatry some issues that have worked fairly well. But the important thing is that the nurse has to be educated in her role. It is no use sending, say, someone like me out to Jeparit if I do not have a psychiatric trained background but I am part of a psychiatric telemedicine project. The person has to be educated in terms of what they do know and what they do not know. Some of the successes in relation to that, out at Broken Hill and Wilcannia, have worked extremely well, but you do have to have the person educated.

Mr QUICK—Assuming the Hindmarsh project is whiz-bang, everyone is happy and the service is absolutely great, what guarantee have we got that similar areas of need in Victoria, let alone the rest of Australia, are going to realise that the west Hindmarsh thing is whiz-bang—if they ever get to learn about it? Suppose the Victorian health department, in their wisdom, say, 'This is wonderful. This is the template for the rest of Victoria.' How do we ensure that that happens? To my mind, they all operate in isolation and then someone down in Gippsland says, 'Our needs are different from those of the people up in Jeparit, Rainbow, Woomelang and all that sort of thing. We'll do our own little submission.' So they go and do theirs, and the people up in Broken Hill do their own, and God knows how many others around Australia. Tasmania, where I come from, has different needs and isolation in comparison with what is happening in the Mallee. That is my big concern. We never see any evidence of any of these projects, when they are finished, being replicated in their own state let alone anywhere else in Australia. So how do we ensure that? You are representing the Victorian nurses federation.

Miss Edgar—It is the Victorian Nurses Executive Association that we represent. There is a big difference.

Mr QUICK—Okay. But if that works in the Mallee, are the nurses that you represent in the remote parts of Gippsland aware of what is happening over there? Do they say, 'Look, when is it coming to us?'

Miss O'Connor—There has certainly been publishing of this project. It was presented at the national alliance conference in Perth, in February. They have identified a number of issues that have to be further addressed and that has gone to government, in terms that they have mapped the service provision; they have identified gaps within it, the referral patterns, and how they can improve it. I would think that this will be replicated and put into use in some of those other areas.

You are quite right in saying that there are a number of projects and they have not been linked in. I think you will find that the number of different models of care that there have been around the whole of Australia are being evaluated at this time, in varying degrees of what was good and what was not good. Hopefully, the end result will be that they will pick up the best bits of all and then put them into use.

But you have only got to look at the success of the multipurpose centres in rural areas, right across the country. They are not all quite the same, but the principle has been replicated.

Mr QUICK—You can say that the relative cost is X, because at the moment we have got these pilots all over the place and they range from $20,000 to hundreds of thousands of dollars. Would you get to the stage of saying, 'The project in the Mallee is for a cost of X. We can replicate that in similar areas around Victoria,' and find that the health minister in his wisdom says, 'Politically that's great. For $25,000 this town can have it and that town can have it, or that region can have it'? Are we at that stage? That is what I would like to see. We have had the pilots. We have come down with the nuts and bolts, the actual money, and then we can say to the rural health people in southern Gippsland, eastern Gippsland, 'The Mallee have done it for this in a similar circumstance. We'll give you the same amount of money. Here's the model; you put it in place. I'm sure you need it.'

Miss Edgar—I think that is important. We have mentioned in the submission that it is important that projects be approved or financed or whatever on the basis that there is a proven benefit to communities and to more than just one community or one professional group. There is opportunity for benefits to all levels of the community and all levels of the professions.

In terms of awareness of what is happening, certainly within the nursing profession a lot of networking goes on. There has been publicity and submissions have been made, particularly in relation to the New South Wales nurse practitioner model. I believe there is a project operating at Mortlake, in the Western District, which has also received some publicity. I think the move away from the traditional style of providing health care basically behoves people to make inquiry into what models might fit their particular community needs or their particular health needs. I think that is probably a pressing incentive at the present moment.

Mr QUICK—How difficult is it to quantify this warm inner glow and wellbeing, knowing that the residents in the Mallee, one of which is my mother—

How do you get that sort of relationship explained to the health bureaucrats who are fixated with the bean counter mentality? Are they aware of it? Most of them are based in Melbourne and would never venture out in a million years to some of these rural and remote areas.

Miss Edgar—I would have no doubt that there is a great deal of lack of understanding or knowledge about what is still happening in the rural areas. We have a number of rural organisations—

Miss O'Connor—We have the coordinating unit for rural health education which was initially funded by both the state and federal government. That is a five-year project which is looking at how we can retain health professionals and how we can provide education within rural Victoria. The health department itself now has a committee of rural health professionals plus the bureaucrats. It has only recently been formed. We now have an assistant director of rural health which we did not have before in Victoria. There is a greater emphasis on what is available in the rural community and identifying the gaps. The people filling those positions in the department have very good rural health backgrounds.

Mr QUICK—We have adequate nurses in these rural and remote areas. What is your solution to the doctors' reluctance to get out to some of these rural and remote areas? What advice would you give us so that if we do X, Y and Z we would have enough doctors? Luckily my mother has a couple of wonderful ones in Nhill. In my area in Tasmania, in Dover, we cannot get them for love or money.

Miss O'Connor—I do not know whether there is such an excess of nurses in rural areas. We have difficulties in certain parts of Victoria recruiting them across the board. The doctors have a number of incentive schemes that are available at the time. We have had just recently the John Flynn scholarships and hopefully that will encourage people to work in remote and rural Australia. It is a very difficult question. It not only relates to the doctors themselves. I think it also relates to the family. Not every wife wishes to go out to Wilcannia or somewhere. That is the other issue. People now really do not have one career for life. You might have two or three working lives as such within your lifetime. It may be that you have to look at doctors who will spend five or six years somewhere and that is the maximum you are going to get unless it is someone that may well have come from Nhill and go back to Nhill.

CHAIRMAN—I think Mr Forrest has a question and then Ms Ellis.

Mr FORREST—Just wishing to redeem my record on *Hansard* about nurses; I have a lot of time for nurses—I am married to one—especially those who go out and practise in Patchewollock and Harrow—I am sure these are places you are familiar with—on their own and an hour and a half from a doctor. But I am a bit worried after hearing earlier evidence that there could be a perception that the computer is a great conspiracy to replace them. I certainly would not think that that is anywhere near it. A computer is just a box. It operates in a language that can only say yes and no electronically. It is just a tool. But do you think that is a serious problem in the nursing profession or do you think they are ready to embrace it as a tool to help them deliver a better care to the patients they are seeing out there?

Miss O'Connor—I would never have envisaged, and this is my own opinion, that a nurse would feel that they would be replaced by a computer. It is always that human touch in terms of the delivery of care and the contact with the client. I know of nurses that have used them in areas around the state who are very happy to have any availability. You are able in a smaller hospital to have a link with a base hospital in relation to a diagnosis of someone with a cardiac problem. The doctor will be able to ring back from the base hospital and say such and such and they will be able to treat the condition on the spot and stabilise the patient before they transfer. I would think that most nurses would see it as assistance to the delivery of care.

Mr FORREST—Do you think we need to do a bit of work on enhancing that to provide some professional development to particularly isolated rural nurses?

Miss O'Connor—Yes, I do.

Miss Edgar—Yes; particularly in isolated areas, because the nursing work force out there is primarily reliant upon people who are living in the area, and perhaps their homes and families are there. Similarly to the medical profession, it is still very difficult to attract specialist qualified nurses, particularly to rural and remote areas. If they had the support of some sort of telecommunications link-up that could provide them with expert advice, legal advice or whatever, that might overcome one of the problems in relation to professional isolation and the fears of litigation, malpractice suits or whatever. I would think that nurses contemplating working in such areas—or even in, as I say, sole-practitioner roles—would quite happily embrace the concept. But, certainly, there would need to be a degree of education in the use of it.

We were saying earlier that children are using computers in kindergartens now; and, certainly, from the nursing viewpoint, a lot of the courses do now have an emphasis on computer teaching, and many people are much more familiar with computers, if not fully computer literate. So, I do not think there would be a problem in terms of embracing the concept of using technology. Nurses are using it all the time, in terms of high technology in all the critical care units and within the normal ward situation now, so it is not quite as frightening a situation as it used to be.

Mr FORREST—Just on that matter, one of the outcomes of the Hindmarsh Shire project was exactly that: the participation by the profession simply in sending e-mail messages to one another is the first step in familiarisation. I was hoping that there would be plans that would extend that further up to the northern Mallee, particularly.

Miss O'Connor—I think you might find that is the case, but that is beyond my knowledge: it is just my feeling.

Ms ELLIS—The chair of the committee touched very briefly with you, Miss O'Connor, on the possible increased need for training of nurses in the future. We will be

visiting a medical undergraduate class in Sydney in the new few weeks, and that particular class is going to be one of the first to be coming through with IT training incorporated into their course. How important is it, and when should we start, from the medical usage point of view, to include Information Technology usage in the training of nurses?

Secondary to that, you mentioned earlier the uselessness of having someone like you who is not a trained psychiatric nurse going to participate in that sort of program somewhere. Given the multiskilling that is required for some nurses in remote areas, to what degree do you believe that they are equipped now to do that? To what degree do you believe that that multiskilling should be increased and enhanced, given that nurses are going to have much more opportunity to do more medical work, with the introduction of this sort of technology?

Miss O'Connor—It is really not medical work that they are doing; it is still nursing work that is complementing medicine. It is the same with any other health professional: we are all there to complement and provide what is best for the client. It is essential that Information Technology be there. It is within some nursing programs already, and I am sure that, as you are visiting a medical undergraduate school, you will take the opportunity to visit one of the nursing schools as well. The younger nurses are very familiar with the use of Information Technology. That is also one of the reasons it is sometimes difficult in rural areas: they have been used to it in the metropolitan areas but, when they go to the rural areas, it is not as easily accessible.

In terms of education, there is a range of competencies that are being developed in rural nursing practice, and people will have to meet and maintain those competencies in terms of practice. It is still in the developmental stage. It is being developed by the Council for Remote Area Nurses, the Australian Nursing Federation and the Royal College of Nursing Australia. So, there are attempts being made within the profession to devise a set of competencies for people to practice in those areas.

Mr QUICK—Nurses are obviously involved in primary health care and prevention. On the issue of immunisation, how can this technology solve something as simple as bringing the percentage of our children who are covered—some 53 per cent—up to that of some of the Third World countries, which are in the 90 per cent range? To me, that is something that we ought to be thinking about. We are thinking about all of these other great issues but 53 per cent of kids in Australia are not immunised. How can we use some of this whiz-bang technology in the collation of records? Is it the shire council or the GP or state government agencies that keep the records? Who knows? No-one knows what the actual figure is. How can we use this information? Nurses are at the forefront and, in lots of cases, administering the injections. How can we use this whiz-bang technology so that in, say, six months 95 per cent of our kids will be immunised?

Miss O'Connor—Here in Victoria every mother receives what we call the yellow book, which has the whole range of immunisation and milestones on a whole range of

issues. As that record is kept when anything is administered, you would think it would be quite easy to look at how that could be computerised and how there could be access to follow up. People sometimes forget that the little one's injections are due and, in the past, the child/maternal health nurse would come and knock on your door and say, 'You've forgotten to bring James to have his injection today.' We don't have that human touch because of rationalisation and re-looking at services but I am sure that there must be some way.

I think the immunisation rate has increased with the yellow book. Some local governments do not seem to take as great a responsibility as they used to and maybe that is because of the lessening role of the child/maternal health nurses. I am sure that if anyone could solve that problem it would make us look as good as those Third World countries.

Mr QUICK—What if we had a nationally identifiable card that the mother swiped when she came in. Susan's record would then be there in front of the doctor on the computer saying that she was last immunised on such and such a date and whether it is time for a booster. At the moment, we don't have that and yet we have the technology available.

Miss O'Connor—That could easily be done through the Medicare card really.

Mr QUICK—Should we move towards something like that?

Miss O'Connor—There are differing views on immunisation, as you are aware, but I think that—

Mr QUICK—There are about two per cent of people who have a justifiable excuse as to why not but the other 98 per cent really do not have an excuse.

Miss O'Connor—No, they don't, and they need to be reminded. That human touch that was there in the past is gone and maybe this is one way that it can be done. But then, of course, you have the people who shop around for their doctor. I guess if it was a universal system, you would still get it even if you went to doctor X.

Mr QUICK—You would swipe the card and up would come the record saying that the child needs a booster.

CHAIRMAN—Thank you for appearing before the committee today. A draft of your evidence will be sent to you for checking. Feel free to join us for the rest of the proceedings.

[11.12 a.m.]

CHAIRMAN—I ask the secretariat to invite the witness to swear an oath or make an affirmation.

O'BRIEN, Associate Professor Richard Michael, Victorian State Representative, Australasian Society of Clinical Immunology and Allergy, PO Box 204, Mont Albert, Victoria 3127

CHAIRMAN—Welcome. We have received your submission and we have digested it. I now invite you to highlight some aspects of it in a brief opening statement.

Prof. O'Brien—ASCIA is a professional association of medical specialists. The majority of members are physicians so they are trained in internal medicine and they have further specialised in the treatment of immunologic disorders. They fall into a number of categories such as allergic disease which includes such things as anaphylaxis to food or drugs, asthma, various skin rashes and immune deficiency type disorders which may be primary—as in an inherited immune deficiency—or secondary, such as in HIV infection. The third area which we are involved in is the treatment of auto-immune diseases. A lot of these diseases are quite uncommon and require quite detailed management.

Going back to the submission, the first part detailed the fact that we recently got a web site—a home page—on the Internet. It is listed under allergy and also under ASCIA. That can be accessed at four levels: by members of the public, the medical profession, members of ASCIA and council members of ASCIA. When the home page is open, there is an introduction from the president of our body and then there are some general details about what we do and who we treat. The section which the public has access to gives general information about patient support groups, various conditions, allergies, anaphylaxis, eczema and asthma and where they can go for further information.

Then there is the section for health professionals and members and there is a vetting done by Medeserve. That is a company that installs and sets up these Internet web sites. People who are allowed in can get further information about members and e-mail hotlinks to those members, pathology lab tests and, more specifically for members, there is information on training posts and bookmarks on interesting journals. Then there are council forums. It is hoped eventually that we will be able to have some aspects of our council—linking people from different states—put on the Internet and position statements could be worked up. So that was just the first aspect and then the first paragraph.

The second paragraph was about benefits to remote practitioners. That is an important issue because we are a relatively small group. There are only 140 clinical immunologists in Australia and most of us are located in major cities. So—

CHAIRMAN—How many are there in New Zealand?

Prof. O'Brien—There are about eight in New Zealand.

CHAIRMAN—Eight?

Prof. O'Brien—Yes.

CHAIRMAN—A hundred and forty here, plus eight.

Prof. O'Brien—Because of that there are not many of us located outside major centres. So I think that the concept of teleconferencing or video networking with patients being at a remote centre and us being able to give advice or assistance in diagnosis and management, would be a great efficiency.

CHAIRMAN—But you would need some encouragement through inclusion of some provisions in the medical benefits schedule, presumably?

Prof. O'Brien—That would be important. I guess it could be done through the public hospital system because some of us are full time employees, so that could be organised through either a university or a state public hospital. But certainly, some form of assistance to set up a pilot project would be greatly beneficial.

CHAIRMAN—How do you see liability questions affecting the use by your members of telemedicine?

Prof. O'Brien—It is obviously going to be a problem. I do not think that people can be totally indemnified against it. I would think that there would be a lesser responsibility because the doctor is not actually examining the patient and—

CHAIRMAN—You might presume that but then, presumably, that is not the law at the moment. So, if a patient goes to an outstation, is inspected by, say, a general practitioner, or the specialist using video equipment, no matter how good the video equipment is, it cannot be quite as good as being one foot away from the patient. I suppose a question that the courts would ultimately have to decide is: is the same standard of diagnosis required of you at a remote location as would be required of you if you were seeing a patient in your rooms?

Prof. O'Brien—I guess that in the courts you would have to show that you were acting at a level of competence which would be expected of someone in that specialty and with that training. It would have to be taken into consideration that this is not a traditional consultation. I am sure that that would have to be considered because the more subtle nuances of history taking and examination would not be possible.

CHAIRMAN—Have the medical insurers, or the medical defence organisation expressed any view to your knowledge?

Prof. O'Brien—Not as far as I know. If one were to do it, one would have to

speak to one of the two big insurers and make sure that it was prepared to—

CHAIRMAN—Who are they?

Prof. O'Brien—The Medical Defence Association and Medical Indemnity Protection Society. One of them, MIPS, the Medical Indemnity Protection Society, is affiliated with the Australian Medical Association, but MDA is an English company.

CHAIRMAN—It has been put to the committee that a national strategic approach is necessary if this country is to develop capabilities in health telecommunications technology. Would you like to comment on that? What views do you have on multi-state accreditation of health care professionals?

Prof. O'Brien—I am not quite sure I understood the question. I think it would be a matter of getting pilot projects going and looking at diagnosis and management of patients who are in remote or rural areas, with maybe just one centre in each of the major cities where specialists could go and be consulted and, I presume, be involved in the reviewing of patients. Apparently the costs for setting up teleconferencing are not substantial now. I have been quoted $40,000 or $50,000 for—

CHAIRMAN—Or less in some cases. We had it quoted to us on Monday that it was about $20,000 for a reasonably high quality event and the cost seems to fall all the time, happily.

Prof. O'Brien—Obviously the medical practitioners involved would all have to keep records and I think it would all have to be documented. The patient would have to be aware that this was not a one-on-one consultation in the normal sense. There would be questions, I guess, of privacy and of the patient being aware of that, and multiple levels of records. Hopefully, it would be reasonably secure and no-one else not involved would have access to them. Then you have mentioned the question of legal liability and, as you say, that would still exist and the insurers would need to be spoken to.

CHAIRMAN—And then there is the other aspect, too. You mentioned the role of public hospitals, and clearly it is possible, as is happening currently, that images could be transferred across state or national boundaries. I was wondering what your view would be on cost recovery, given the fact that you have got cross-border consultations and transactions.

Prof. O'Brien—The way health expenditure is funded in Australia is complex and maybe this a good example of where federal funding should be sought. The state hospital budgets are very tightly allocated and I would doubt that—

CHAIRMAN—So is the federal budget.

Prof. O'Brien—I would doubt that many of the hospitals or networks would easily see funding being set aside for that. So I think it would have to come as some form of—

Mr FORREST—In regard to the question was privacy, I was interested that your submission talked about this. It indicates that this is another constraint and that it is a complex issue. I do not know, I just think it is being overstated that this is such an impediment. My accountant now sends my financials through the electronics down to the tax office and I get my return sometimes within a couple of days. And that is extremely private information.

Prof. O'Brien—Yes.

Mr FORREST—And yet that industry or profession was able to get together with the instrumentalities involved and come up with an encrypted system that protects the privacy provision. And yet it is not happening in your area. I am confused by that. Why does it not happen? If the advantages are as strong as you say in your submission, why does it not just happen because the technology is there?

Prof. O'Brien—I think that the submission may have been worded in very cautious terms. I guess that when patients go into a public hospital, they are aware that their records are going to be available virtually to any other doctor there because patients often go into different sections of the hospitals or come under the care of different units and sub-specialities. Their medical records which contains all their details are on view to many people in the hospital.

And we often send information to other hospitals. A doctor will say, 'You have seen this patient. Could I have a summary of what has happened?' So information is currently being sent around. And patients tacitly, or sometimes directly, give consent for that, but often it is just assumed that patients come into a hospital seeking medical attention and assume that their information will be passed from one doctor to another.

Mr FORREST—I can give you an example. Mr Quick's mother lives in Nhill. I know that Dr Anderson who is her doctor there regularly sends her to Ballarat for treatment and he sends her medical information through the mail.

Prof. O'Brien—Yes.

Mr FORREST—That has to be a lot more risky than a properly encrypted electronic piece of data. I just think that the whole thing is a little bit overstated and that it acts as an impediment to some progress on this. You obviously want to see progress.

Prof. O'Brien—Yes. I agree with you on that. I think that in the majority of cases people have got nothing to hide. They obviously do not want the man in the street knowing what is wrong with them, but it is not as though it is a national security issue.

Mr FORREST—Yes. Have you have any suggestions on how we can do something about the public perception on some of these things?

Prof. O'Brien—I do not know if the public perceive it as a problem. I think that it is more the medical profession and allied professions that see it as a problem. I think the public realise that when they go into a public hospital, their details are going to be entered into a record which will be available to most practitioners in the hospital. In public, people complain of many things, but no-one has ever complained to me that he or she is worried about too many people knowing what his or her health problem is.

Ms ELLIS—I agree completely with you. It is not exactly national security, but there are some fairly sensitive areas of health where people need to be protected. But I also agree very strongly with the earlier comments by Mr Forrest and Mr Quick that it is not insurmountable. If the security of the nation can be handled by Defence and Foreign Affairs, then I am absolutely certain that the security of individuals' health records can be handled accordingly.

In terms of your area of speciality—immunology—what is the waiting time at the moment for people to see a specialist immunologist? We have 140 of them in the country. What would be the average time we would be looking at if I, or someone's child, needed to see an immunologist?

Prof. O'Brien—Unless you can make a case that it is some sort of an emergency problem, it would normally be between two and three months.

Ms ELLIS—With 140 specialists, a lot of people are remote, even if the specialist is at the other end of the Melbourne urban area. Can you see that the use of Telemedicine, of teleconferencing, would allow an increase in the number of people seen? Would there be an advantage from that point of view, or would that be negligible? Would the time taken to see someone in that fashion be the same as seeing them in the room?

Prof. O'Brien—It would probably be the same. A lot of patients do come from the country, and it would certainly increase convenience and save on a lot of travelling. Maybe systems could be set up where doctors in the country who had an interest in particular specialities would present the patients. There would be ways of facilitating that.

Ms ELLIS—So the major gains would be from the patient end, rather than from the specialist end?

Prof. O'Brien—Yes, that is how I would see it.

Ms ELLIS—Would that create any problems for us in encouraging the specialist end to participate in this sort of technology?

Prof. O'Brien—I do not think so, because we are all basically there to treat patients.

Ms ELLIS—Sure.

Prof. O'Brien—We would be keen to be involved in something which we would see as being a great help to patients.

Ms ELLIS—The reason I am asking that is not so much as a critical critique of specialists, but because we are being told constantly that part of the problem in succeeding in implementing this sort of technology is to work out who benefits and how we then equip ourselves to furnish it and push it further. Obviously, if there is a direct financial or other benefit to the practitioner, no matter who they are, it may be a lot easier than if it is a bit more esoteric. That is really why I am asking that question, because that is where government may come in by being influenced to spend more money to try and make patient care better from the patient's point of view.

Prof. O'Brien—There would be a lot of specialists who would be interested in being involved in being at a sort of telecommunications centre, based probably in a public hospital, and interacting with GPs or generalists in remote areas.

Mr QUICK—One of our last inquiries, into the management and treatment of breast cancer, recommended having multidisciplinary teams, with doctors in remote areas getting together with a group of specialists, rather than sending the person thousands of kilometres to other areas. Are you involved in any multidisciplinary teams using telecommunications?

Prof. O'Brien—No; we have not set that up as yet. It is something we are interested in. There are so few clinical immunologists and allergists that we are really only in the major cities and patients travel from all over the state. That is not so far in Victoria, but in Queensland or Western Australia that can be a very great distance. I would certainly support it.

Mr ALLAN MORRIS—It would seem logical that at some point in the future, whether it be in your speciality or others, we will have diagnosticians or specialists who will do a large part of their work without actually seeing a person. In other words, a GP will have equipment that will transmit a sample test. They may well pick up blood tests from a pathology or X-rays from somewhere else and the patient will sit with the GP—who eventually is the primary care manager anyhow—and consult with the physician or the specialist. That is a fairly logical long-term outcome.

What I am disturbed about is the absolute failure of the profession, at virtually any level, to make any planning as to how that might happen. We are now being asked simply to change the Medicare schedules so that you get the same Medicare schedule for a

physician whether you see them face-to-face for a consultation or via a video screen. That really is not the answer at all. It is a bit like cataract surgery: the technology changes and what used to take six hours now takes one hour, but the price stays the same.

There really needs to be a thinking from scratch as to how various segments of the medical profession absorb technology and how they adapt to it. We are getting two levels on that. We are getting the very simplistic notion that just changing the rule about face-to-face will fix it—which it will not. It may create a massive problem and the government may resist it very strongly because that use of physicians may go up exponentially; it may just take a five-minute chat with a specialist once every three or four weeks, rather than half-hour sessions, so it may change enormously the amount of time that they spend.

The second question we are getting is about the mechanics of it. I am not seeing anywhere any sign that medical and health professionals are actually trying to accommodate the shift that would be needed. If we recommended tomorrow to remove the face-to-face requirement, I would expect that the HIC would probably oppose that, on the grounds of possible misuse and possible escalation of Medicare costs.

Prof. O'Brien—It would be difficult to do it through Medicare. I accept that. The option would be to have someone as a salaried employee or maybe just for half a day or one day a week, like specialists are in hospitals who are full-time employees, or in universities. The person would be paid a set amount of money for working and it would not be a fee-for-service type of set-up, as it is at the moment. You have mentioned the cataract operation. It is very difficult because consultations take varying lengths of time and there are varying complexities, but most of them are remunerated in a way that was set up a long time ago.

Mr ALLAN MORRIS—From your point of view, with immunology and allergy treatment, what you would probably want is for various tests to be conducted—blood tests, tests for particular things. It may only require five minutes with a person one day, but the next time it might be half an hour. If you are doing that remotely, you may do two-thirds of the consultations remotely. Yet if you are being paid as if they are all in your rooms, all at the standard price, you would probably have a problem in terms of HIC saying that that is a misuse of service, that it is an overservicing question. But a five-minute discussion with a GP and the patient, after particular tests had been done to test a particular allergen or something similar, would be all that would be needed.

Prof. O'Brien—If it was to be done and covered by the HIC, there would certainly need to be changes in the way it is funded. They would have to accept non face-to-face consultations. I would see it more in interacting with the local practitioner or the GP and having the patient there so that the specialist could ask questions. It is hard to see how that could easily function in the way the HIC is currently structured. That is why I would lean towards having people paid to do a session or maybe even to be involved full-time in Telemedicine.

CHAIRMAN—Thank you very much, Professor, for appearing before the committee this morning.

[11.35 a.m.]

CHAIRMAN—I ask the secretariat to invite the witnesses to swear an oath or make an affirmation.

BUXTON, Mr Kenneth John, Director, Australian Computing and Communications Institute Ltd (ACCI), Telemedical Networks and Systems, 723 Swanston Street, Carlton, Victoria 3053

YAU, Ms Su Peng, Adviser, Malaysia Project, Multimedia Victoria, Department of State Development, Level 10, 55 Collins Street, Melbourne, Victoria 3000

CHAIRMAN—Welcome. On behalf of the committee I would like to place on the record our thanks for the courtesy you extended to us on Monday. I think all committee members were most impressed with what we saw and what you have achieved, including the contacts you have with Shepparton, but also the export drive into Malaysia. You gave us some positive insights into some of the very beneficial uses for telemedicine.

We had someone else before us from the government of Victoria who seemed to dispute the figure of $20,000 to add on another hospital to the network that you now have. I have asked that witness to come back to us with further information. When we were talking on Monday, members of the committee were wondering why more hospitals have not been joined, given the relatively low cost. I am wondering if you have had any opportunity to reflect on that or perhaps to give us some indication when we will see a multiplicity of hospitals added to your very efficient system?

Mr Buxton—Before I answer that can I take the opportunity this morning to apologise for Dr Mark Cook. I am almost embarrassed to say this but in travelling to a distant spot earlier this week to deliver service to patients, he contracted gastroenteritis. This is a particular problem in Victoria at the moment as you are aware, and he is unable to leave his bed.

As for your question, I can answer it very briefly and I can reassure you quite definitely. Whoever the other witness was would be talking about the current technology which is corporate video conferencing, which is an extremely expensive piece of technology. We have spent a deal of time trying to source a cheaper form of video conferencing which can be used on a much lower band width and is available on a PC. We have succeeded in doing that and we have been working now for a few months with a company here in Melbourne. I find it very sad to have to report to you that that company has now been taken over by a Malaysian organisation because they were unable to find anybody who was prepared to put some money into their operations here.

CHAIRMAN—Was that in the last two days?

Mr Buxton—It happened last week. I think this is—

CHAIRMAN—Is that the company which was represented there on Monday?

Mr Buxton—Yes, indeed. Your other witness would not be aware that this technology can be installed at something like a third, or even less, of the cost of what it costs currently to be installed. Moore's Law, which I am sure you are aware of, which says that the power of computing doubles every year and the price halves, is at work in this. When we are looking at the technology involved in telemedicine and when we are looking at the cost of communications, we should always be aware of that because what appears to be not either affordable or possible today is probably likely to be by the time we have our plans in place and we start installing it.

CHAIRMAN—The takeover of that company by the Malaysian interests, how will that affect the working relationship you currently have with that company?

Mr Buxton—I was perhaps lucky enough or maybe showed enough foresight to have actually signed with the original company a marketing agreement to give us the rights to market this in the health industry for Australia, New Zealand and the whole of Asia Pacific. I have been to Malaysia since and met with the company concerned and they are not only willing but actually anxious to continue that relationship. So it won't affect what we are doing here. In fact, it will be an advantage because it gives me confidence as that organisation will be supporting its own product and developing it further in the marketplace.

CHAIRMAN—We seem to have an enormous trade deficit in Information Technology. Why is that?

Mr ALLAN MORRIS—And growing.

CHAIRMAN—And growing, as Mr Morris reminds me. Given the quality of the product that you are producing and with which you are involved, it just seems very sad that we are not pushing ahead in other areas.

Mr Buxton—There is a difficulty with venture capital in this country, as you are well aware of. There are a number of people who are trying to address that, and the government is trying to address it with its new program.

CHAIRMAN—Indeed.

Mr Buxton—Probably one of the difficulties that we face is that most of the large organisations which might be willing to take up and run with this sort of technology are foreign owned. As we all know, whatever lip service might be paid, most of the decisions of those organisations are taken offshore, not here. If I can just make the point again, you would recall, Mr Chairman, that you saw our technology in respect of image archiving and retrieval, which is—

CHAIRMAN—Truly impressive.

Mr Buxton—It is most impressive. I am happy to say that we had a visit from a vice-president of IBM, in the US, and IBM are now signing an agreement with us to distribute this product worldwide. You would recall also, Mr Chairman, that we discussed the matter of security, confidentiality and privacy. I heard the previous speaker acknowledging, in response to Mr Morris's statements, the fact that this was not so great a problem. Last week, in Sydney, a subsidiary company of ACCI called Australian Business Access launched a product called Securicommerce, which we are building into our health program and which will ensure that there is end-to-end defence strength security available, downloadable from any PC. It will remove any uncertainty in the minds of anybody about the confidentiality, security or privacy of any information passing on the Internet.

CHAIRMAN—Your submission was done a number of months ago—last year, in fact. I think in that submission you mentioned that you were looking at joining one additional metropolitan hospital to the system. Has that happened yet?

Mr Buxton—We are just about to join the Alfred Hospital to our network. This will happen in the next couple of weeks.

CHAIRMAN—You said that there was also possibly a remote prison site. Why would you want to link a remote prison site to the system when you could possibly link a hospital at Mildura?

Mr Buxton—I am sure you have had lots of evidence about the difficulty with telemedicine, in that it is not a Medicare item and people do not get paid for what they do. Our strategy has been to identify areas where there is a need and where there is a demonstrable bottom line benefit in using telemedicine for the delivery of services. It is, I think, a generally known fact that 70 per cent of the evacuations from prisons to public hospitals are unnecessary and could be avoided by the use of some simple form of telemedicine. Those 70 per cent that are evacuated provide, I think, about 60 per cent of the prison escapes. So it is very easy to justify this in terms of looking not at who is going to reimburse but whether there is an economic benefit for the client in doing it.

The same applies to remote mining sites. Every major mining company in Australia is faced with the difficulty of providing health care of the quality to which its employees have become used. That is so in remote sites not only in Australia but now in an ever-widening world market. Our mining companies are now exploring and building in South America and Africa where there are no health services at all.

CHAIRMAN—Ms Yau, on Monday you gave us an outline of some of your activities with Malaysia. For the record could you just tell the committee what is happening there and give us an update, please?

Ms Yau—The Malaysia project, which is run out of Multimedia Victoria within the Department of State Development, is essentially a business development exercise to

facilitate access to commercial opportunities brought about by the establishment of the multimedia supercorridor in Malaysia. The multimedia supercorridor, which is the responsibility of the Multimedia Development Corporation, has decided that there will be five areas of applications of multimedia technology for implementation. They include electronic government, health, education, research and development centres, and smart card technology. These are areas in which the Victorian government, at least within Multimedia, feel there are considerable opportunities for Victorian firms which are currently providing either products or services to the government.

Essentially, the Malaysia project of Multimedia Victoria is an attempt by government to create linkages with the Malaysian government, to open up doors for Victorian firms to participate in Malaysia. Essentially, it is an exercise whereby we identify and create strategic linkages between the Victorian and Malaysian private sectors, to deliver products and services into Malaysia. We hope also that this exercise will encourage Malaysian investment, in due course, in the Victorian multimedia industry. There is a recognition by Malaysian firms and the Malaysian government that countries such as Australia have a lot of potential to contribute in ideas and concepts in the area of multimedia technology. Countries like Malaysia are working off a very young base when it comes to R&D development in multimedia, and they too see some benefit in creating strategic linkages with our firms and our public sector to grow their own R&D base.

Mr FORREST—I was not able to attend the inspection the other day, so this question I ask may have been covered there. Has the development of the software and the drivers behind your program been paid for by the Victorian government? I am interested in your comment about your being able to sell it overseas and receive benefit. How does that all work, and who owns the rights to what you are developing?

Mr Buxton—ACCI owns the intellectual property, and to this point we have not been forced to actually divest ourselves of any of it. As to the origins of ACCI, it was set up and funded by the previous Victorian government. We have not received any government funding for the last four years. Some of the very successful technology in image archiving was developed out of an R&D syndicate and is now, as I said, at an advanced stage of commercialisation.

Could I perhaps, Mr Chairman, divert a little and explain what our strategy with this is? Su Peng has spoken about the state government's objectives as far as the multimedia, the corridor and the Malaysians are concerned. As an organisation we see that the great thing that we have to offer in Australia is not the technology. The last thing that I would want to do, despite the fact that we have two pieces of leading edge technology, is to get caught up in a knock 'em down and drag 'em out fight with international competitors.

What we do have in Australia that we are doing absolutely nothing with is this vast reservoir of skills in clinical and surgical skills and also in research in medicine.

Particularly—if I may be allowed to be parochial for a second—Melbourne is an unparalleled centre in medical research. We have any number of leading, world-class research institutes here. This gives us an enormous opportunity to put together a program for marketing our medical skills. But, as I think most state governments of Australia would acknowledge, that is not the sort of thing that a state government or a public hospital system can do. There is a risk factor, and obviously no government can enter into a commercial operation where there is a risk factor. What is needed is a commercial platform which sits between all these skills and that market—that undeniable market—that is out there.

I would remind you that people laughed when people were talking about the market for export education. I had lunch with Mal Logan yesterday and I was discussing this with him. I reminded him of that point and I said to him that I believed that the health market actually exceeded the potential of the education market.

CHAIRMAN—Did he agree?

Mr Buxton—He agrees wholeheartedly. He said that it did so by a factor of five or six at least. That is coming from somebody who has spent the last four or five years around Asia selling education, and is probably the greatest exporter of education in Australia. We have—

CHAIRMAN—We should get him to sell health now!

Mr Buxton—I have asked him to do just that for us, yes, and he has shown a very great interest in joining and seeing what we are trying to do. But what we need to do is to put together a viable commercial platform that will not only give confidence to the physicians and clinicians behind us that their interests are being looked after, but will enable us to offer the technologies to get the services up and, at the same time, to manage the awful administrative job that is involved in rostering specialists and looking after the ethical and legal aspects. This is a major task. To my knowledge nobody has done it in the world, with the exception perhaps of World Care in the United States, who are doing it at very high cost into Saudi Arabia, Lebanon and Jordan.

CHAIRMAN—You have problems with liability as well.

Mr Buxton—Indeed.

CHAIRMAN—For instance, if you were having images beamed from, say, Kuala Lumpur, and a wrong diagnosis was given, what court would be the court where the person would sue? What level of damages? Of course, if you were doing something into the United States, that would be a real nightmare. I imagine the medical defence organisations would be rather interested in being involved at the ground floor, perhaps before this technology is used as widely as we would all like to see it used. Do you have

any comment?

Mr Buxton—That is exactly the commercial risk and the commercial cost of the professional liability insurance that would be involved in running such a service. We are aware of it, but I do not consider it to be a barrier to cause us to walk away from what is a huge potential market.

Mr FORREST—Just going back to my original question—perhaps Ms Yau could answer this one—is the Victorian government happy with the arrangements that the commercial property rights are retained by private enterprise and that they are allowed to use, I suppose, the project initiated by the government as a development step? Obviously, it has to be funded to create a few carrots to make it happen in the first place. I am being realistic about all of this, but I need to be comfortable that the taxpayers' money that has been put into that fits with the rights of the owner of the intellectual property rights to pursue a commercial interest with it beyond that. What is the attitude of the Victorian government in respect of that situation?

Ms Yau—The outcome of a commercial agreement between two private parties is entirely up to the parties. What we see on this project as being the Victorian government's role is facilitating the access. How the parties structure their rights and responsibilities within that new relationship that has been created overseas or here is entirely up to them. Unless the intellectual property rights you are referring to belong or are owned by government, then that will be treated on a case by case basis between all the parties. It is an issue that is not simple but we are aware of it and we are very careful about it. This project has not got to the stage where the parties are ready to discuss these particular aspects.

Mr FORREST—Is there a model in which it might be suggested the Commonwealth has to play a role in getting up the encryption process, standardising it or something, to get private enterprise on with the job or do we leave that to the states and end up with different rail gauges or something?

Ms Yau—So far as protection of intellectual property rights are concerned, where they relate to products and services delivered by government, there is a role for government to play. Whether it is the state or federal government, I suppose—just thinking off the top of my head—depends on whether the knowledge is owned by the Commonwealth health system or the state-based health system. It would be almost impossible to make a blanket judgment at this stage on which tier of government should look after it, but I would say it really has to depend in each case on who actually owns the IP right.

CHAIRMAN—Mr Buxton, you mentioned that you have a program that solves electronic data security. I am interested because earlier today we heard from representatives from the University of Melbourne, the Victorian Rural Divisions

Coordinating Unit and from the North Richmond Community Health Centre. They state on page 2 of their submission that a diverse group of health care professionals, IT support professionals in Victoria and Commonwealth health administrators got together and had a workshop. The perceived barriers to using IT in general practice include lack of electronic data security, and a lack of acceptable and standardised terminology. You are doing whiz-bang things, how do people get to know what is happening? Whose role is it to say, 'This problem of electronic data security is solved. The package is there, it is available for X number of dollars. Why aren't you using it?' As well as that, has this 'acceptable and standardised terminology' been sold?

Mr Buxton—I am not quite sure what they mean by that.

Mr QUICK—We had a discussion about the meaning of angina and how we define some of these medical terms but that seems to me to be another one of these red herrings that ought to be solved by someone saying, 'Let's define it and set a computer code and 27.002 is a certain condition.' In that way, everyone understands what you are talking about.

Mr Buxton—I consider that beyond my purview and obviously I would not be thinking about that, except that we are working with the Western Australian government to adapt our technology into this area. The significance there is that the Director of Telehealth in Western Australia is a lady called Dr Jann Marshall. She also heads the standards committee of AHMAC, the health ministers council of Australia. We are working very closely with her to identify the problems in those areas and to try to resolve them. From a technology point of view, it is a trivial task. We believe that we will have our product adapted and ready for offer to anybody in the health industry in a very short period of time.

I cannot comment on the other problem. I would not have thought it was a major problem. How do they currently use it? The fact that they are sending this information by a different means, seems to me to be creating a problem. Where does the problem get created, I suppose is what I am asking?

Mr QUICK—The problem still is that all of these good things are happening, there is best practice all over the place, but people keep reinventing the wheels and pilots keep going up and down runways.

Mr Buxton—Yes. On the subject of pilots, I am sure it has come to the committee's attention during its deliberations that, even though there are that many pilot programs going around the world, very few of them ever convert into anything. Once the funding runs out, the pilot stops. We have tried desperately to avoid that. We have been helped dramatically by the setting up of this network by the Victorian government. We are at the stage of starting to negotiate with the hospitals to put together a commercial program of selling services out of those hospitals.

We have three specialist hospitals and one teaching hospital within the metropolitan area that are linked together, and I think you would appreciate that it is possible for a remote site to pick up all of those specialities with one call. At the moment, there are links into any number of hospitals. This in itself will bring problems because of existing cultures of people and the history of being associated with different hospitals.

In the areas that we have been talking about—prisons, remote areas, remote mining sites and overseas government areas—it is already proving itself. I spoke to Mal Logan yesterday about the difficulty of students coming to Australia and every one of them has to have a medical examination, a medical report. It is a very expensive and lengthy process, which could be very simply handled under a telemedicine program.

A point that I made earlier, which I think is germane to everything that we are doing or attempting to do in our organisation, is that of the terms used. It is something that is in your documentation as a number of questions have been asked at different times as to whether it is Telemedicine or Telehealth. I noticed the other day that the Californian program is called the Telehealth/Telemedicine program.

The point I make is that the terms are largely irrelevant and ultimately they will disappear. Both words are nothing but a synonym for the intelligent and effective use of Information Technology and telecommunications to deliver health care. Health care will run right through the whole continuum, in the first instance, for public health and preventative medicine—preventing people getting into the system. If they have to go into the system and then they get out of the system, then the same technologies can look after rehabilitation, palliative care and in between times in the hospital system itself, both in diagnosis and treatment, whatever it be. Another point that is worth making is that, on a large hospital campus, remote might mean from one side of the hospital to the other.

One interesting exercise that I do not think anybody has ever done is how much time, or what percentage of a clinician's time, is spent is actually delivering care, and how much is spent travelling from one side of a hospital to the other side of a hospital—and Mark Cook, our practising neurologist, travelling all over Victoria, travels for eight hours to see four patients—and how much is also spent in rummaging around looking for films and patient information at a hospital.

CHAIRMAN—Mr Buxton, just returning to our discussion on Monday, I am quite keen to see other country hospitals, including those in the Mallee, linked into the system that you have got there. You told us on Monday that this could be done as a result of the expenditure of some $20,000 for each additional linkage. Do you see this as happening in the short term? If this were to happen to another four or five hospitals in Victoria, you could truly say that your project was no longer a pilot and that it had been properly implemented.

Mr Buxton—That is our objective. I am inhibited at the moment. It seems

ungenerous of me to say the lack of funding, because the Victorian government has been extremely good in this, but I am inhibited because, in order to do that, I need to take on additional resources. It takes a while to set these things up. We have learned an enormous amount over the last 18 months, not the least of these being the importance of the environment in which telemedicine is conducted in the hospitals at both ends.

CHAIRMAN—But, while you are inhibited, do you see it as being something that will happen in six months, 12 months, two years, five years, or do you just see this project that you are involved in at the moment shrivelling like other pilot projects?

Mr Buxton—No. We have a wholly owned subsidiary called TENTAS, which is my commercial platform. I am actively seeking investment in that body, and I am more than slightly hopeful of having that within the next month. It is my intention, and it is an intention which is being quite clearly flagged to the potential investors involved, that what we need to do is to prove our technology at home. There is no point in going overseas to sell the service if you cannot prove that you can do it here.

CHAIRMAN—Yesterday we had here the Medical Director of the Warburton Hospital, a private hospital some 75 kilometres from Melbourne. Now would it be possible for Warburton Hospital or some other private hospital to link into what you have done to date, provided some appropriate level of remuneration could be arrived at?

Mr Buxton—Let me answer that by giving you another example of another private hospital, the Knox Private Hospital. I am currently having discussions with Health Corporation of Australia, which is a public listed company and owns about 39 hospitals.

CHAIRMAN—An American company. They are an American company, are they not?

Mr Buxton—No, Health Corp.

CHAIRMAN—The Health Corporation of Australia is an American owned company, I think.

Mr Buxton—I thought there was some Malaysian money in it, but I thought it was otherwise. AHC—I am sorry; my apologies. They own the Knox Private Hospital here. I have had one visit, and they are sending a group of people down in the next 10 days to talk to us. And the reason that they are doing it is that we have discovered you must always identify a need—not just simply join and say, 'Let us go and find something to do with it'. The need is, in fact, our neurology program, where they have seen—and I think we were able to demonstrate it to you and your committee, Mr Chairman—some of the real bottom line benefits in that neurology or epilepsy program.

CHAIRMAN—It was very impressive.

Mr Buxton—They have also seen that, and they are going to put in an MRI and they want to be linked so that the work that we showed you we can do for them over the same link.

CHAIRMAN—If you could involve some of the private hospitals in the country, that might cut through some of the government red tape.

Mr Buxton—That in fact becomes what I have said to you before, the identification of people that will pay because they see a bottom line benefit, rather than the ability to claim a rebate.

CHAIRMAN—There is one last question from me. I am really impressed with what you are doing, and I think the committee is. You have highlighted some of the problems we have nationally with respect to telemedicine. If I said, Mr Buxton, 'I am going to appoint you to be the Australian director of telemedicine nationally', what advice would you give the government?

Mr Buxton—That is an interesting one.

Mr FORREST—He does not have the authority yet.

Mr Buxton—My advice would be very simple. I would say that the first thing that is needed is a very clear acknowledgment by the government of the fact that we are moving rapidly, in an uncontrolled way, into an area where the way in which health care is delivered will be entirely different. Therefore, I believe that any government must spell out a very clear vision of how it sees health care being delivered. It should then ensure that it engages everybody in the process of translating that vision into a reality.

As I said before, it cannot be done unless you include the whole continuum of care, right through from public health and preventative medicine to palliative care. At the same time, I think the driver for all this ought to be a market—which Professor Jay Sanders, who is reputed to be the world's leading expert in telemedicine, described to us at a day-long seminar last year—on our doorstep of $US6 billion a year. I do not know how accurate he is but if we could only grasp the enormity of that, and the ability of hospitals to take part in it, much of the angst which exists in the hospital system at the moment would not disappear but people would have a purpose for progressing down the path of using technology.

The other advice I would give is: do not try to force technology. Identify needs and identify areas, carefully, where some very speedy benefits can be shown for the patient, the commission and the taxpayer. Move cautiously, but take those areas where you can show the best advantage. We have a canon we work by that anything that we do has to show an improvement in the quality of the health care, has to show an improvement in the equity of access to people to that health care and it has to show a bottom line benefit.

There are different emphases in different states so it would be wrong for a federal government to impose a total vision on everybody. In Western Australia, by the very nature of the geography of the place, equity of access is in fact the driving and motivating factor there. In Victoria this is not the case because we do not consider we have any remote areas. You know that is not right but we do consider that we do not have a remote problem.

CHAIRMAN—What advice would you give if, as a country, we wanted to reverse our trade deficit in Information Technology?

Mr ALLAN MORRIS—Keep the computer bounty.

Mr Buxton—I cannot agree with that on the grounds that three years ago I said to my board of directors, 'It's time for us to put away our begging bowls and get out the information memorandum.' I believe that the government has made a good start in respect of its venture capital and there are one or two groups now starting to put themselves in place to do something about this. What we need is a few successes in taking the technologies that we develop here to market. I do not think throwing money at it is going to do it but we need some sort of encouragement. I believe that, in TENTAS, we have potentially the most exciting business which has a huge potential to earn large sums of money. I am finding it extremely difficult to interest anybody in Australia—

Mr ALLAN MORRIS—Explain, then, why AMP would sell CSA. You are talking gobbledegook. You just told us about the Malayans buying the company that could actually make the technology and of your regret about the lack of investment. Yesterday, we had CSC making a submission about what they are doing—that is the old CSA, which was owned by AMP but it has since sold it. Why would they have sold it, if things are so good? It is a disaster. In the last five years we have gone backwards; in the last two years we have gone backwards even faster.

Mr Buxton—I do not think that is inconsistent with what I am saying. I think that most of the work that we are looking for will come out of small companies.

Mr ALLAN MORRIS—Sorry. Only if there is access to capital: who provides the capital? Companies such as AMP. When AMP sells the biggest company in Australian computers, CSA, then the message to all small companies is that they will not get capital. So who do they get it from? They get it from the Malayans.

Mr Buxton—I am not arguing with you, I agree. I think you are absolutely right. We are experiencing the same difficulties.

Mr ALLAN MORRIS—How do you turn that around?

Mr Buxton—There is no quick and easy answer for that but I certainly do not think government bounties or government handouts are going to be the answer.

Mr ALLAN MORRIS—Do you know what the bounty is?

Mr Buxton—No, I am not aware.

Mr ALLAN MORRIS—No, exactly, and I suggest you do not make comments about things you don't know about.

Mr Buxton—My apologies, but I was not talking about computer bounties, I was talking about handouts. The question I was asked, Mr Morris, was what would I think would help us to offset this deficit.

Mr ALLAN MORRIS—How do you find ways to compete against Malaysia, for example?

Mr Buxton—In Malaysia?

Mr ALLAN MORRIS—No, against Malaysia, for example, or against America?

Mr Buxton—The point I said to you before was that we should try to use the technology to enhance the other skills that we have.

Mr ALLAN MORRIS—The point you made at the very start was about access to investment capital. You made that point. How do we compete in that context?

Mr Buxton—In accessing capital?

Mr ALLAN MORRIS—If you do not access capital—

Mr Buxton—Sorry, I am asking you to explain your question a little bit more. You are asking how do we compete—

Mr ALLAN MORRIS—You identified that as being the major problem at the very start of your address.

Mr Buxton—Yes, indeed.

Mr ALLAN MORRIS—That is the major problem, so how do you change that?

Mr Buxton—The government has made one very useful first step in the new scheme that they are proposing to bring in where they will offer on a two to one basis for venture capital companies that are willing to start up and put money in high tech business.

I know two organisations that are responding to that by putting funds in place at the moment.

CHAIRMAN—I think we had probably better wind up the session.

Mr ALLAN MORRIS—I have another question, Mr Chairman. Who owns ACCI?

Mr Buxton—ACCI is a not-for-profit organisation which does not have any shareholders or owners.

Mr ALLAN MORRIS—And who is the residual trustee?

Mr Buxton—It is a not-for-profit organisation limited by guarantee. It has a number of members.

Mr ALLAN MORRIS—But its residual ownership is who?

Mr Buxton—In the event of the wind up of ACCI, all its assets go to an institute of like objectives, which is the phrase that is used, so that the members and the directors will then have to identify somebody if we had to wind up—

Mr ALLAN MORRIS—Who appoints the directors?

Mr Buxton—The directors were originally appointed by the members and then the board has the right to appoint its own directors.

Mr ALLAN MORRIS—Who are the members?

Mr Buxton—The members are IBM, Computer Power, Monash University, the Mental Health Research Institute of Victoria, and the Strategic Industry Research Foundation, which was the original Victorian government organisation that set it up. I think you know the board of directors.

Mr ALLAN MORRIS—And its capital base?

Mr Buxton—It has not got a capital base, and this is the problem we have in these—

Mr ALLAN MORRIS—But it was given funding initially?

Mr Buxton—It was given funding initially, yes, but as I said to you, we have had no funding other than some syndicate funding for the last four years.

Mr ALLAN MORRIS—Asset ownership.

Mr Buxton—The assets are owned by ACCI.

Mr ALLAN MORRIS—What is its asset value?

Mr Buxton—I am in the process of getting a valuation on our telemedicine program, but it is probably of the order of $7 million or $8 million. I am trying to be conservative in that, I am not putting any outrageous price on it.

Mr ALLAN MORRIS—Thank you.

CHAIRMAN—Thank you very much, Mr Buxton and Ms Yau. We will adjourn the inquiry.

Luncheon adjournment

[1.19 p.m.]

CHAIRMAN—I ask the secretariat to invite the witnesses to swear an oath or make an affirmation.

AINGE, Dr John, Member, Medical Software Industry Association, c/- CPR Software, PO Box 6006, Phillip, Australian Capital Territory 2606

DAVEY, Mr Ross Valentine, President, Medical Software Industry Association, 4 Connell Street, Hawthorn, Victoria 3122

ZAHRA-NEWMAN, Dr Tony, Member, Medical Software Industry Association, c/- JAM Software, 3-5 Foster Street, Leichhardt, New South Wales 2040

CHAIRMAN—Welcome. Do you have any comments to make on the capacity in which you give us the pleasure of your company this afternoon?

Mr Davey—I am an independent medical computer consultant working with the Whitehorse Strategic Group. I am appearing here in my capacity as the President of the Medical Software Industry Association.

Dr Ainge—I am a GP in Canberra, in the suburb of Gowrie. I am also part owner and director of a software company developing software for GPs. I am appearing here as part of the MSIA group.

Dr Zahra-Newman—I have been a GP in Leichhardt for 21 years. I am also part owner and director of JAM Software, a medical software company. I am appearing on behalf of MSIA.

CHAIRMAN—We have looked at the submission you have submitted and thank you very much for that. Would one of you like to deliver a brief opening statement to draw together the threads of your argument?

Mr Davey—I should say that the Medical Software Industry Association presents at this inquiry with a touch of scepticism, largely born out of many of us investing some 20-odd years in attempting to bring about real change and advancement in the general approach to the adoption of information management, especially by policy makers, most of the time with disappointing results. However, we see that this inquiry is the first really serious sign of will by policy makers to address the issues, and as such we come with a plea for action.

Action is necessary not only for the viability of the Australian health software industry but also for the future viability of delivery of health to the Australian public. It has been recognised overseas for some time that efficient and pervasive utilisation of Information Technology for Health Information Management is vital for the future

efficient delivery of health care to the standard expected by the public. Why has this recognition come so late in Australia? Why is it that both Britain and New Zealand, to name a few, are advancing far more rapidly and effectively in the delivery of information management to the health sector than Australia?

Some people suggest that Britain's experience is not necessarily applicable to Australia, because they operate an environment of large population, more total money to invest in the area and a proximity to the large resources of Europe. On the other hand, others suggest that New Zealand is not an appropriate model because it has the advantage of being so small and hence the problems are handleable. Is there some contradiction in these responses?

We would suggest that the significant advancement in these countries is not for the above reasons but is due to the fact that, firstly, both countries have policy makers that have a relatively cohesive vision of what is needed; secondly, they have included all relevant stakeholders in the advancement of that vision; thirdly, they have included the medical software industry as major participants in formulation that vision; and, fourthly, they are serious about a partnership culture.

If you asked the MSIA what is the one single change that we would wish to come out of this inquiry process, it would be a change in culture of the Department of Health and Family Services and other policy makers, such that, firstly, information management is recognised as important to the future of health care in Australia and this becomes a conviction, not just words; and, secondly, the Australian industry is involved as major players in the development of the vision, the implementation of the plans and the development of the strategies. At this stage in Australia this is definitely not the case.

A classic example of that is the involvement of the Medical Software Industry Association in the general practice branch's information strategy group or information management steering group. Back in 1994 we were invited to participate in the strategies for development of information management in general practice. This was a group which was set up by the general practice branch. It had the involvement of the AMA and the RACGP divisions of general practice, and it was generally recognised by the medical participants that the medical software industry had a significant role to play in the development of strategy. I think it was in 1995, with the breakdown of negotiations between the general practice and the government, that that particular committee was disbanded. The industry was left off the newly constituted committee.

CHAIRMAN—Why?

Mr Davey—We asked the question why. It was basically because there was a negotiation between the government and the representatives of the medical profession that all committees representing general practice should have a certain constituted make-up, and that did not include industry. They stuck doggedly to that position despite the protestations of the medical profession, who said that the contribution of industry is significant and we contain and hold the major part of experience in this area.

CHAIRMAN—What is that committee doing just at the moment? Would you refresh my knowledge.

Mr Davey—It is formulating policy for strategies. It is now considered to be an advisory group to advise the general practice branch on strategies. There is not too much outcome from that committee that one can see on the ground, but in terms of infrastructure they did produce a purple paper which probably was submitted to the inquiry at some stage. It is a blueprint for their further activities, entitled *Improving information management in general practice*, which was published by the GP branch.

CHAIRMAN—So the composition of that committee has not changed?

Mr Davey—It has not.

CHAIRMAN—Have you been in touch with the new minister to express an interest in being involved?

Mr Davey—No, we have not approached the minister himself. We have continued to approach the general practice branch and they say the position is non-negotiable.

CHAIRMAN—We might, as a committee, inquire of the general practice branch to find out why this has happened and whether it is going to continue in the future.

Dr Ainge—We would appreciate that.

CHAIRMAN—Back to you.

Mr Davey—That concludes my introductory remarks. As to our main concern, as far as the industry is concerned we are willing and very enthusiastic to cooperate with all stakeholders. The industry works very well together on major strategic issues but the absence of any clear vision and clear direction leaves a great void in which we find it very difficult to operate.

CHAIRMAN—Would you not say that the average general practice in Australia wanting to computerise would be absolutely confused by the large number of competing software providers out there? Would it not be that people, when faced with a confusing situation, tend to think about it, look at what is available but not be able to make their mind up and so do nothing? I do not know what the solution is, because we live in a free enterprise society and we are all about competition, but I know what it was like when I was a legal practitioner. People would come to me with all these packages and are never quite certain. Everyone had the best package, everything had the thing that was going to make me earn more money, but they could not all be right. Ultimately one has to grasp the nettle, but there is a slowness in taking up an opportunity to computerise because one is determined not to make the wrong decision. The result of not wanting to make the

wrong decision quite often is that no decision is made at all.

Dr Ainge—I would have to agree with that and I think other members of our group would too. One of the major issues is education. The majority of GPs out there have no real idea of how a computer will fit into their practice. They have not even used one.

CHAIRMAN—That is not entirely true, is it, because most practices use computers for medical administration.

Dr Ainge—It is not the doctor that is using the computer in that instance; it is the receptionist.

CHAIRMAN—You are probably right. That will ultimately, in a generational sense, be addressed, won't it, as courses like the medical informatics course at Monash become compulsory in other institutions. But I suppose what you are really saying is that as a country we cannot afford to wait—

Dr Ainge—Ten years.

CHAIRMAN—Until all the computer illiterate people have died or retired.

Mr Davey—We recognise this issue of benchmarking and there are quite a number of issues that come around that. The association itself initiated a joint project funded between the RACGP and the MSIA to establish a scoping project and determine where areas need to be defined in standards and accreditation of general practice systems, because it was our opinion that it is necessary for something to be documented, which doctors can read, and determine which systems are good and which systems are bad.

CHAIRMAN—But they will get a large number of submissions from a large number of providers. All systems are no doubt good in some particular aspects and are better than their competitors in some aspects, whereas everyone is looking for the best system with respect to every aspect and that is not possible.

Mr Davey—Correct.
Mr QUICK—You state on page 10 that that scoping project has been in the GP branch of the Department of Health and Family Services since April last year.

Mr Davey—Correct.

Mr QUICK—And that it has not been disseminated to all the stakeholders. Is that the normal time?

Mr Davey—From what we understand it is not uncommon for things to disappear

and not see the light of day after a period of time. It is an unreasonable length of time. We have expressed our disappointment about it. That scoping project gave some clear indications of where work needs to be done immediately in IT infrastructure issues—that is, technical infrastructure issues.

CHAIRMAN—That probably happened shortly after the change of government.

Mr Davey—It did.

CHAIRMAN—But, admittedly, it is now more than 12 months since the government changed. Perhaps we should inquire about that as well.

Mr QUICK—Yes, but it is a departmental report. Sir Humphrey says the departments keep going on.

Ms ELLIS—They might have filed it, in Sir Humphrey fashion.

Mr QUICK—Do you have a copy of that report?

Mr Davey—Yes. One initiative that they did follow on with was on recommendation 4 on general practice systems functionality and evaluation. We recommended that a set of functionality guidelines be developed which would be a basis for guidance to the industry on what was demanded by general practice in terms of functionality, but would also be input as a benchmark such that an evaluation process could take place. To the credit of the General Practice Branch they put out a tender, which IBM Consulting won, to develop that. That project is currently under way.

Mr QUICK—As a pilot?

Mr Davey—It is a full consulting project to consult all stakeholders, in particular, broad based general practice, about what is needed in a general practice information system.

CHAIRMAN—But this other report is still lost in the labyrinth of the Department of Health and Family Services.

Mr Davey—Yes.

CHAIRMAN—The committee will write to that branch to get an update and we will let you know what we discover, if anything.

Mr Davey—Excellent.

Mr QUICK—On page 11 of your submission you bring up something that is dear

to our hearts, about having a variety of coding systems—ICPC, ICPC+, ICD10, and so on. You state:

There are several candidate systems which are currently useable in clinical practice. It is time to bite the bullet and choose one of the better systems, even if arbitrarily.

Does the department say, 'We go to VHS and everybody has to follow,' and then give the imprimatur to the Health Insurance Commission and say, 'Unless they use this coding system we are not going to pay moneys out in the way of benefits'? Who makes the decision that it is ICPC, or whatever?

Dr Ainge—It is slightly more complex than just choosing a system. What needs to happen is that a coding system is chosen and then it will need to be supported in some way.

Mr QUICK—What do you mean by supported?

Dr Ainge—For instance, if we look at hospital situations, hospitals use the international classification of diseases, ICD, currently version 9 and soon to become version 10. That coding system is supported by the National Coding Centre at Sydney University with federal funds. As a software developer I can get a copy of ICD9 for $250 and I can distribute that data to any number of users of my system that I want to. ICD9 is not appropriate for general practice use.

My preferred coding system for general practice use would be ICPC with the 'plus' extensions as developed by the Family Medicine and Research Unit at Sydney University. For me to provide that to my users I have to pay an initial one-up fee of $150 to WONCA, which is the world equivalent of the College of GPs, and a $150 a year fee to the Family Medicine and Research Unit for every single user of the system. So it is $300 per doctor in the first year and then $150 per doctor thereafter, whereas if I am developing something for a hospital system, I pay $250 once. That is because the National Coding Centre has federal funding for ICD9 support, but there is no federal funding for the coding system that the majority of us would like to see get up in general practice.

Mr Davey—On the question of who needs to make the decision it would appear that the federal department of health is the appropriate organisation to make the decision on the recommended coding system. Of course, they have to have the infrastructure to maintain that coding system, because no particular terminology system or coding system is perfect and they are always being upgraded. Take the UK example of the Read coding system where they are investing a considerable amount of money in maintaining that and keeping it up to date.

There needs to be a clear direction from the federal department. Once that is done, all manufacturers will follow suit. They will know what to concentrate on and what to put

their efforts into to actually make it work well within their software. We believe there should be the freedom to move outside that, but you would do it with the difficulties that are then imposed—extra costs, non-maintainability, and so forth.

Mr QUICK—So what have New Zealand done?

Mr Davey—They have dictated that Read should be the system to be used within New Zealand.

Mr QUICK—In the UK?

Mr Davey—It is Read.

Mr QUICK—USA—a dog's breakfast?

Mr Davey—Yes.

Dr Zahra-Newman—They favour ICD9 and 10 in the US.

Mr QUICK—Canada?

Dr Ainge—Canada are working with ICPC. Bob Bernstein and his group are working with ICPC, but I do not think there has been a national decision on it.

Mr QUICK—With our Asian neighbours, where we are being encouraged to export all our technology to, are we going to have the situation that, unless someone makes a decision, Victoria will say, 'We will deal with Malaysia, and it is ICPC,' and South Australia will say, 'We will deal with someone else—Singapore—and we will sell something else'?

Mr Davey—I know that the question of the implications of using different systems was brought up in earlier discussions. I think Dr Ainge would like to address the implications of what a coding system does, why have a coding system in general practice computer systems and why you did not need it before in manual systems.

Dr Ainge—Mr Quick, you raised the issue several times this morning of doctors being able to talk via the telephone and communicate via letter before computers, so why do we suddenly need a coding system? The important fact is that computers deal in data whereas human beings deal with language. You can take a word out of context and it can mean all sorts of things, but within the context of a conversation or a letter usually human beings can interpret that communication, whereas a computer does not have that ability.

I will give you a clinical example of what the coding system enables us to do. We can talk about diabetes in any number of ways. We might have mature onset type 2,

juvenile onset, insulin dependent et cetera, but they are all different forms of diabetes. If I enter into my computer system that patient X has juvenile onset diabetes and I later want to find all patients with type 1 diabetes, if I do not have a coding system connecting all the different terms related to diabetes that are type 1, I am going to miss out on that juvenile diabetic. That is because computers deal in data and are unable to actually interpret that data intelligently the way we interpret a language.

Mr QUICK—So are all the Victorian doctors talking in the same language?

Dr Ainge—They are talking in the same language, but the data needs to have a structure forced upon it to enable us to manipulate the data in the background and do clever things for the doctor. For instance, if a patient is a diabetic, you go and look in his pathology record, see if he has had a blood test in the last 12 months and, if he has not, prompt the doctor that this should be done, because it should be done every 12 months.

Mr QUICK—So, for the doctors who are going through medical schools in Victoria, are Monash and Melbourne medical schools coding that disease you just mentioned in the same way?

Dr Ainge—The doctors have the same understanding of the terms because they work with the language. What we need to be able to do is have a coding system running in the background—invisible to the doctor; the doctor is not even aware that it is there. The coding system is what enables us to empower the crude computer that just understands data, so that the computer can understand what the doctor means when he types something in.

Mr QUICK—Okay. In my electorate I have a list of things—for example, if someone has a Veterans' Affairs hassle, I will put on my database 'DVA—might be 16', so I can link up all the 16s and know the basic thing there.

Dr Ainge—Exactly. That is a coding system.

Mr QUICK—I cannot understand why you have not got one.

Dr Ainge—There are numerous competing coding systems. For instance, if I have a patient in my practice whose record is on my computer system that I have developed, and I want to send him to Leichhardt and send his computerised record with him, and he is going to see Tony with Tony's system, unless the both systems can interpret the data the same way, then the results, once that record is loaded into Tony's system will be erroneous. It is the coding system that enables us to do that, and all systems need to have the same coding system.

Dr Zahra-Newman—I can add to that. Many of the coding systems that are out there have had very expensive moneys put into developing them, for example, ICD9 or

ICD10, ICPC, and so on. You cannot use them all and, as manufacturers, it is prohibitive to use them all in the same program. They cannot be mapped. In America, a huge universal medical language study has gone on trying to map one to the other, so that if you use a code in one, you know what it means in all the other one.

Mr QUICK—But surely you could write a program—say, it might be under Medical Director—and code in your specific thing. The computer would be programmed to say that if that disease comes up, say, as ICPC number 27.3, it is read 16.8, and it is ICDC10 17.3. Surely you could program the computer so that if you sent it to Leichhardt and the other guy has got a different thing, he says, 'It is ICD10 27.3', and problem solved.

Dr Ainge—That is possible, but that means that every computer system has to have those three, plus any other coding systems that you can think up built into them, and for each coding system, there is a cost. Read is enormously expensive; ICPC is relatively expensive; ICD9, because it is supported by the federal government for hospitals, is effectively free.

Ms ELLIS—When you say Read is enormously expensive, what do you mean? What is the figure?

Dr Ainge—Ross can, probably—

Mr Davey—They charged New Zealand, I think, $1 million for a two-year or three-year usage of it.

Ms ELLIS—For a which?

Mr Davey—Two-year or three-year usage of it. So they are talking in millions of dollars to charge the federal government to actually implement it. There has been discussion about other formula but, basically, it is expensive to maintain.

Mr QUICK—So if we said to a computer company in Australia that we want an Australian specific ICPCAUS, how much is it going to cost? We would create x number of jobs and all medical practitioners in Australia are going to use it. If not, they do not get their HIC accreditation. How much would it cost to implement something like that if we told one of the program companies to go and do it?

Dr Ainge—I think that the process is already underway in that the Family Medicine Research Unit have done that work. They have taken ICPC, which is a coding system promoted by the World College of General Practitioners, and extended and modified it to suit the Australian environment. And the charges that they are wanting to levy are the ones that I explained to you earlier. But they have, I understand, put in a tender. I am not sure at what level, whether it is federal or state, but there is a move for

the majority of states to use ICPC at the community health level. The Sydney University group were asked to put in a tender for supplying and maintaining that data for the community health services within each state.

Mr QUICK—Are these issues ever discussed? Do they ever tackle them?

Mr Davey—Not to our knowledge. But that is our point here. Our point is that people have only to make the decision. It is a fairly simple decision. They have to make the decision to support it, that is, provide it with ongoing funding to maintain it. The Family Medicine Research Unit has not got the funds to continue maintaining it. They need that, but it is a fairly easy decision, and all we are asking is: make the decision.

Mr QUICK—Mr Forrest continually refers to the taxation system. If we had the same thing operating in our tax system with half-a-dozen different ways of filling your tax form out—

Mr Davey—Correct.

Mr FORREST—It is a bit like buying a used car. You have got all these options available to you. Even the process of buying the hardware—eight megabytes of RAM, 16, what size CD-ROM—but you make your decision and after a while, someone gets a market share, and that becomes the norm. That is what has happened with Windows 95 as an operating menu. Take word processing: you could have so many different programs. There was Word and Word Perfect, then somebody developed an interface program where you could convert text from one to the other. But the government did not say, 'You use that.' The users drove it, so that by the users participating in the market that interface program became the industry norm.

Gates tried to compete with Internet. He tried for a while and he basically gave up. Now Windows 95 goes through the Internet. He has modified his Windows 95 menu to what could incorporate all that. So why does that not happen? It is very difficult for a government to sit back and decide, when these programs are developed by private industry, to pick the winner. The user has to say, 'This is the one I want' by using it. Why does that not operate here?

Dr Zahra-Newman—It is not so much a matter of picking a winner as a standard by which we all play. That has been done with the DRGs so that you have got the AN-DRGs—Australian National Diagnostic Related Groups—as a standard used for Australia. In pathology, Standards Australia recommended HL7 as the messaging system. Now everybody is conforming to that messaging system rather than the European system because a decision was made. It is better in some ways and not in others. It is not a winner. That is the one we all agreed to use so we can talk to one another. It is not which software is the winner. It is by which standards we will all communicate with one another, so doctors can choose systems and not feel lost out or trapped or isolated or have orphan

systems.

Mr FORREST—Will the users not define that by using one more than they use the other?

Mr Davey—Not necessarily. It depends on the market. The perception of the general public is that just the standard of Windows 95 happened, or that the IBM PC just dominated the market and happened. But leading up to that was a great amount of turmoil. It was like the house of Babel. There were a lot of competing standards, and a lot of investment was invested before the market actually worked out which one it preferred. A lot of other people lost, and lost a lot of money. If we are prepared to wait that long for the standards to work themselves out in the health system, we are going to spend mega bucks, a lot of money.

The other problem is that there is not the dominant marketplace or the dominant players in the health market as is in such a domestic area as word processing where a lot of users will use it and it will work itself out. In the health market it is pretty fragmented. It is not a big market, and so no one company is taking dominance to be actually in the position to take leadership.

CHAIRMAN—So what market share would the market leaders have?

Mr Davey—The most commonly-used practice management system would be a product called Rx which has probably round about an eighth of the market in terms of practice management systems, but they have not got the lion's share of the clinical record market. In prescribing systems—and this is one area where we would like to question some figures that have been talked about in terms of prescribing systems—it is commonly said that one particular company has 6,000 installed sites. That is blatantly not the case. Certainly, they have sent out 6,000 copies to people to test out, but that does not necessarily mean that they are using them on their medical desks.

CHAIRMAN—Is that company a member of your association?

Mr Davey—It is, yes. The risk in stating figures like that is that it might mislead people into thinking that the impetus has already started and that there is no need to carry on.

CHAIRMAN—Get with the strength.

Mr Davey—Yes. That is right.

Dr Ainge—What are the HIC numbers that you were about to mention?

Mr Davey—The HIC numbers suggest that there is a total number of 1,500 plus

practices that are using systems for prescribing.

CHAIRMAN—That is 25 per cent of the figure that is talked about?

Mr Davey—Correct.

Dr Zahra-Newman—That is because that is the actual number of formatted prescription forms that have been sent out to doctors and which they must use. If you do not have them, you cannot use the system.

CHAIRMAN—The typical price of the products you offer?

Dr Ainge—I think that there are very definitely two different groups in the software market. There are the solution provider groups which tend to come in and check out the desk space, count the power points and provide a full hardware/software training package, and that can run into many thousands of dollars. At the other end of the spectrum you have got programs like my own and Medical Director which fit into what we call 'the shrink wrapped market' where the doctor buys them and takes them and installs them himself. They are responsible then for buying their own hardware and setting the system up.

CHAIRMAN—What sort of figure would someone pay for your system?

Dr Ainge—Ours is currently $136 a year for a practice, not for a doctor. That is subsidised by pharmaceutical money, as is Medical Director.

CHAIRMAN—But still it should be an incentive to have people acquire it.

Dr Ainge—Yes. I think it demonstrates that price is not the only thing that is keeping doctors out of computing.

CHAIRMAN—How many practices would you have with your system?

Dr Ainge—As of February we had 700 practices that were paying to use our software. We have thousands of demo versions out there. We printed 6,000 CDs to go out for sale and for demonstration and we had to print another thousand because we ran out six weeks later. We know that we have 700 that are actually paying us and of those 1,500 that are getting paper from the department, we figure that we have got close to 40 per cent of them.

Mr QUICK—When doctors are involved in bulk billing and sending their things to the Health Insurance Commission does someone in the Health Insurance Commission have to go along and look up—you know, some doctors are using ICPC and someone is using ICDC 10—I mean, how does the system work?

Dr Ainge—The Health Insurance Commission runs on a Medicare schedule for rebates, which is their coding system for their fee-for-service billing.

CHAIRMAN—If you do not use their coding system you do not get paid. It is quite a simple arrangement really, is it not?

Mr Davey—It is not related to diagnosis—it is related to their own classification of the type of service that is provided. In the case of general practice it is just a type A consult or a short consult or something, so it is not a medical definition.

CHAIRMAN—One thing that has concerned me for a long time is the trade deficit in Information Technology in the medical area. What solutions do you have for us?

Dr Ainge—Do you mean the trade deficit in terms of money going overseas to buy technology or intellectual property disappearing overseas?

CHAIRMAN—I understand that we basically import a lot of the technology that we use and that we import rather than export—well, we obviously do some export too—but in effect we have a deficit over what we get in from what we pay out.

Mr Davey—Perhaps I can address some of that and Tony has some comments because his company exports software. There are two issues about export. One is that in our particular market—and we said this in our submission—the companies are finding it extremely difficult to survive in their own market. The margins are very low, the costs high in terms of support and so forth and in terms of the geographic locations. The expectations of the market are very high and therefore the companies find it quite difficult to maintain their software, keep it current and provide all the services that are necessary. Hence, any initiative to export is an extra burden on those companies. They are only small businesses and it is extremely difficult to gather the resources to undertake some sort of export exercise. Therefore, we do need assistance, and all our approaches in recent times to DIST have found that it is extremely difficult to get appropriate assistance—and Tony can talk a little bit about appropriate assistance.

On the other hand, we have imports. There is an enormous culture within the health professions and the decision makers of going with overseas product because there is this concept that overseas is better than local. There is a concept that the big companies are safer and therefore they should go with those rather than the smaller companies. That is a culture which has been around for quite some time and it is extremely hard to compete against. Only recently for instance I was involved in advising the Victorian government on a project after they had made the decision. They chose for a telemedicine project out in Ballarat a company that basically had an overseas product when, at the same time, there was an exercise of ACCIs only a couple of towns away which had been successful in the very same area. Why have they done that? A large part of the reason was that the decision makers perceived that the overseas product was a safer bet.

CHAIRMAN—Is it a safer bet?

Mr Davey—No.

Dr Zahra-Newman—It is a self fulfilling prophesy that it is a safer bet because if you back overseas companies and not your local companies, they go down. Can I give you two examples of my own company? One concerns the United States. We have gone there twice; we are about to go back a third time next year. We have a medical records package and we have a recall system which we spun off—my wife is a marketer—as a reminder system called Smart Alarms. We went to America and marketed there. We have sold 50,000 of these across the world, most of them in the USA. There are about 2,500 in Australia.

CHAIRMAN—You have sold 50,000 throughout the world and only 2,500 in Australia?

Dr Zahra-Newman—Of those, yes. We were helped by Austrade in that they reimbursed a lot of our marketing efforts for the first three years. It was a proportional, decreasing thing. We then were involved with NIAS, the New South Wales Industry Assistance Service. Ostensibly, they were to help us to write business plans. The trouble is, although they were very keen and willing, the people we were recommended to did not understand the IT industry. By the time the plans were made, which took a lot of input and money from us, the industry had moved on. It moves too fast. By the time the plan was finished, we had moved on.

That nearly broke us. We had to then withdraw from the United States, come back to Australia and regroup here. We really have not had much funding since then. We have been totally self-funded. We are growing in Australia, we are consolidating ourselves here, before we venture back to the US.

CHAIRMAN—What has happened to all the software you have sold in the States? Are you continuing to support it?

Dr Zahra-Newman—Yes, that is still supported. We were on Apple Macintosh before and we are now going Windows as well. We have just released Smart Alarms for Windows, and that is selling. Many of the people are going now to Windows and we are getting a lot of new sales as well. That is this year. We are moving our medical package to Windows as well, and that is when we will venture back into the US market. But we cannot look forward now to the sort of financial support, or backing, or encouragement, that we had with Austrade in the past, that's gone.

Another example is that we were one of the tenders in the Australian Defence Force tenders with CSC or CSA, depending on which phase you have. We fulfilled more than 95 per cent of the criteria and most of the doctors on the project seemed to be in

favour of it. The Australian Submarine Corporation was pushing for us in that they use Smart Alarms in their systems.

We handled the medical side. We handled about 65 to 70 per cent of the dental side. We would have to have significant modification to handle that side of it. A company called K9, which had a very good package, handled that side of it. We run Apple Macintosh and UNIX and we are able to run on those two platforms. K9 went bankrupt at one stage. That hurt us and because we were Australian by association, we defaulted. An American company initially was in the running and then a Singapore company got the tender and the rest is history. I am having problems with this. We had a greater than 95 per cent fit. We were being conservative because we were advised to be conservative. Perhaps we shouldn't have been. Our experience is that we do not believe in our own. We will not back our own and it is a self-fulfilling prophecy.

CHAIRMAN—It is very sad.

Mr Davey—The defence force project is one of the most disappointing exercises that could happen in Australia in the health IT industry. If there is one sector of government that should be supporting Australian industry for all sorts of defence reasons, it is defence. It also re-emphasises the culture that happens within government, amongst other people who purchase, and that is that they go through an exercise of defining what is needed. Then they go through an exercise of mapping the companies against those definitions to see who has the best fit, and then they take the highest fit. Of course, the circumstances are that Australian companies are fairly seriously disadvantaged a lot of the time because of that.

On top of that, the system integrators who actually supply the systems to the defence forces are all large companies such as BHP IT, CSC and Ferntree, and they have a large system, overseas culture and mentality anyway. All those factors go against the Australian companies actually getting a go. Hence, they expect a major fit into the definition and there is no culture for actually developing in partnership with Australian industry and developing something that is suitable for Australia.

Dr Zahra-Newman—It hurts us more than just at home, because at that time we were having negotiations with the US Department of Defence. We flew to Hawaii twice. They were looking at our system, but when we did not get the Australian Department of Defence work then naturally—

CHAIRMAN—If we won't buy your product, why should they?

Dr Zahra-Newman—That's right. That hurt us doubly. It was the final blow that made us contract from the US.

Mr Davey—One shining light just at the moment is the attitude of the Queensland

government. They have set up an information industry's board and a subset of that is the health information industry development initiative which has as its primary objective to nurture Australian industry in the health IT area. I am flying there tomorrow to participate in a workshop that they are having. Their whole attitude is that they have discovered that a process of defining the system and then requiring people to get a maximum fit and, if nobody gets that maximum fit, they are out of the running, is impractical. That has been tried time and time again in hospital system situations.

They have come to the conclusion that the better way is to work in partnership with Australian industry: they need to work out the people they are comfortable working with and then, over a period of time, develop those things that do not fit, so that they have an industry that is viable, close by and understanding of their environment. They are starting to do that. Over the past 12 months, $100,000 from Queensland Health and $100,000 from the Department of Small Business was invested in them. They are now going on to the next phase of looking at export potential.

Mr QUICK—We do not have the procedure coding system sorted out. In your submission, you state that we still do not have a standard, endorsed coding system for pharmaceuticals available in Australia—

Mr Davey—That is correct.

Mr QUICK—and that we still do not have a nationally endorsed and accepted coding system for pathology tests.

Mr Davey—Correct.

Dr Zahra-Newman—Recently, it has become HL7. It is part of the messaging system.

Mr Davey—No; we are talking about pathology terminology; that is, the definition of what a full blood count is. There is none. The coding system for pharmaceuticals is an international coding system called the ATC. But it does not go down to the element of packet size and formulation and hence our computer systems cannot use it very well. If it does not differentiate between a tablet and a syrup, it is of no use to our computer systems.

Mr QUICK—As I said this morning, despite having an industry expenditure in excess of $35 billion, we still do not have three systems, which is the basis for running the system effectively.

Mr Davey—Correct, and the issue is not difficult.

Dr Zahra-Newman—The scoping project was meant to bring attention to this and

offer a solution.

Mr QUICK—It has been sitting there for a year.

Mr Davey—That is correct. All it needed was somebody with the will—and the money, of course—to actually put some people on a project to do some of these jobs. They are not big jobs; some of these things could have been done in six months.

Dr Ainge—Again, the family medicine research unit at Sydney University has developed extension codes to the ATC codes, which will cover forms, pack sizes and whether it is a syrup or a tablet. That would be ideal. But someone needs to anoint it so that everyone can start using it, because there is a big investment associated with using it.

Mr QUICK—Yes. I cannot believe that.

CHAIRMAN—Thank you very much, gentlemen, for appearing before us this afternoon. We found it very interesting. We will certainly make those inquiries—as we said we would—to find out those facts, and we will let you know when we receive a response. A draft of your evidence will be sent to you for checking. If you could return it to us in due course, we would appreciate it.

[2.03 p.m.]

CHAIRMAN—I ask the secretariat to invite the witness to swear an oath or make an affirmation.

O'BRIEN, Mr Keith George, Fellow, Royal College of Nursing Australia, 1 Napier Close, Deakin, Australian Capital Territory 2600

CHAIRMAN—Welcome, Mr O'Brien. Could you outline some elements of your report in a brief summary for us?

Mr O'Brien—The Royal College of Nursing Australia, which for convenience I will shorten to 'the college', certainly has an interest in Health Information and Telemedicine. It has a belief that, more appropriately, we are talking about a concept called Telehealth. The college has looked at a number of situations where we are moving with the changes in health information technology. Nurses, being one of the major contributors to the health care system, need to be actively involved at the cutting edge and at the work face wherever Information Technology and particular things such as Telehealth or telemedicine are being utilised.

We have limited our submission to a number of the points. Regarding point two of your terms of reference, we have a strong belief that all health care providers need to have access to Information Technology. Particularly in the rural and remote areas of Australia where in many cases the primary health care provider is a nurse, there is a major need for nurses to be involved in the process.

The nursing discipline or the nursing profession have been involved in a number of what can best be described as pilot projects of different types of use of modern Information Technology exchange from teleconferencing to use of the Internet, et cetera, and are involved in a number of projects—in many cases working as part of a health care team. There is clearly the potential as well for nurses to be involved in independent practice-type situations. An example would be a remote area nurse requiring a consult with a diabetic educator, which in most cases is a nurse if they are dealing with a diabetic patient, or for advice on wound care management from another nurse—not just referring patients to medical practitioners for information as such. We are arguing that they should also have access to the same sorts of technology that the terms of reference seem to indicate would be made available to medical practitioners.

We do not have any particular answers, but we continue to share concerns about the security of information using Information Technology. We would be very interested in being involved in working parties and developments to look at solutions to that because, as one of the major users of patient information and confidential information, we are concerned about its security, the maintenance of confidentiality and concerns regarding the lack of security in some cases with the use of electrical transmissions.

Once again, as to coding and standards, one of the areas that nursing has been

concerned with is the implementation of systems such as case mix funding. A lot of the coding has been based on medical diagnoses. Nursing, whilst working as part of the medical and health system, also has particular problems it deals with which do not always fit directly under a medical classification. Therefore, nursing—and I would imagine other health professionals—would be very interested in being involved in any working parties or committees that were looking at those sorts of coding concerns.

CHAIRMAN—Could you tell us the connection between the Royal College of Nursing Australia and the Australian Nursing Federation and the role really played by the college?

Mr O'Brien—The Royal College of Nursing Australia is a national professional body of nurses. Its membership is open to all nurses in Australia. The difference, if I can best describe it, between the Australian Nursing Federation and the royal college is that the royal college is a professional college. The Australian Nursing Federation is both a trade union and an organisation that espouses a professional organisation as well, whereas the college is clearly looking at professional issues, not trade union-type issues.

CHAIRMAN—Ms Gleeson who represented the federation this morning seemed to have a bit of a chip on her shoulder. She felt that maybe telemedicine should take a back seat while we concentrate on improving health and hygiene in rural areas, but I see that you are much more enthusiastic about telemedicine. I see also that the other representatives of the nursing profession we had here this morning were also enthusiastic about it. Do you think that nurses have been adequately involved in pilot projects? I am told that in places like Belgium and other parts of Europe nurses have played a key role. Do you feel nurses may feel a little shut out of what has happened up until now?

Mr O'Brien—I think, depending on the various projects, there are nurses such as myself, who obviously have an interest in the technology and the approaches, that have made themselves available to various pilot projects, and we have conducted some at my place of employment as well. The vast majority of nurses, though, particularly in some of the rural areas and in a lot of the health care organisations, would have had limited access or opportunity to be involved but when presented with the potential often become very enthusiastic.

I have been teaching nurses about the use of Information Technology for at least a decade. I have been running a small unit of introducing them to the potential of information exchange utilising the Internet which includes them accessing information from colleagues internationally on the best way to solve both professional and clinical problems. All of the students involved in that become extremely enthusiastic.

CHAIRMAN—How do nurses benefit from access to this kind of technology?

Mr O'Brien—From a professional base, it allows them accurate exchange of professional information with colleagues, both nationally and internationally. It provides

access to experts for immediate confirmation of whether they are right or wrong and need correction. For example, a student posted to a mailing list a question concerning a research method, being concerned about how it should be implemented. The author of one of the key textbooks in the area was able to answer within 24 hours and give the approach they should take.

CHAIRMAN—The bush nurses we have in rural Victoria, basically, are employees of the state health department or regional health authorities.

Mr O'Brien—Or of bush hospitals which are private, from my understanding, as well.

CHAIRMAN—Are there very many independently employed nurses in the community operating in rural areas?

Mr O'Brien—There are a number of independent nurse practitioners and there is a separate group that could probably give you a better indication of their numbers than I could. There are certainly nurses working independently in midwifery practice; there are nurses working independently in wound care management; and there are nurses working independently as diabetic educators. They are probably the three areas I am most familiar with. I am sure there are others.

There are a lot of sole practitioners, though, who are employed by organisations. The closest one to my location in Bendigo would be at a place called Dookie, which is about an hour or so north of Bendigo. That is a very remote placement in that that person is by themselves. It is a minimum of 50 minutes or an hour from any sort of help in the form of an ambulance or assistance. Those sorts of nurses would greatly benefit from increased access to telemedicine. At the moment their access is to what I would call the most basic of telemedicine, and what we have had for many decades, and that is on the end of a telephone.

CHAIRMAN—Have you looked at the liability question? If, for instance, you have a nurse examining a patient and seeking some information either from the Internet or somewhere else, how is her liability situation affected, one way or the other, by dealing with this technology as opposed to the way nurses have traditionally operated?

Mr O'Brien—I think we share the concern of just about everyone moving into the telemedicine area about, for instance, crossing state boundaries and whether you are able to practise across the Murray and all of those concerns. I do not know the answers. We do have standards of practice. As part of our standards of practice, nurses are expected to be able to perform comprehensive health assessments. They certainly are not trained to make medical diagnoses, but they are trained and therefore expected to be able to do an assessment that would identify a deviation from the norm. If they were to then seek professional advice from an accredited source on how to further manage that patient, I

would believe that it would come under their normal professional indemnity cover.

The concern I have with things like accessing information over the Internet is the validity of the information at the other end. If you have a structured system where people are able to consult a known reputable source, and there is some verification of that, the likelihood of litigation is greatly reduced.

CHAIRMAN—Your submission states that legislation should be reviewed in order for nurse practitioners to be reimbursed when providing clinical services. Would you like to elaborate on that statement?

Mr O'Brien—One of the things that limits the ability of nurses to practise independently, as opposed to being employees of health services, is that the current health care system limits their clients' ability to get reimbursement for some of the expenses. Unlike medical practitioners, if a nurse in an independent practice were charging for a consultation, there would be no rebate from Medicare, in most cases.

CHAIRMAN—Are you suggesting that there should be an item number for nurse practitioners? What are you suggesting the government should do?

Mr O'Brien—In the areas we have identified where nurse practitioners are providing an appropriate health care service—and particularly in rural and remote areas, where they are in many cases the primary health care provider—there should be an opportunity for them to be able to practise independently and for their clients to receive a reasonable recompense.

CHAIRMAN—I wonder what the medical profession would say about that.

Mr O'Brien—I have not heard from them but I am not sure they wouldn't—

CHAIRMAN—I suspect they are listening to you.

Mr O'Brien—There are examples. I do not know the details of the final discussion, but the committee might be interested in looking at the nurse practitioner pilot project that was held in New South Wales with the cooperation of the AMA.

CHAIRMAN—Could you tell us a little more about it?

Mr O'Brien—I am not an expert on it but, basically, it was supported by the New South Wales government. There were a number of locations where nurses were involved as nurse practitioners. In some cases, they were sole practitioners, as in places like Cobar, where their contact was electronically with medical practitioners or according to protocols. In other cases, they were working in medical practices and in some areas of midwifery, et cetera. One of the recommendations of the committee report obviously included looking at

the ability to reimburse for charges of independent nurse practitioners. In all of those studies, though, they were employees of either the health department or a private medical practice.

Mr QUICK—After reading your submission and listening to you say the nurses are accessing the Internet and the World Wide Web and electronic mail and all the whizz-bangery—

Mr O'Brien—In limited numbers, I might add. I don't think it is the majority.

Mr QUICK—After listening to the last witnesses say that we are still arguing over the procedural coding systems and that we do not have a standard indoor system for pharmaceuticals nor an acceptable and nationally endorsed coding system for pathology tests, I see it as like having a brand new house with a tiled roof but no guttering and no floor, yet still being at the stage of arguing about the type and siting of the plumbing and the number of rooms we should have in the house. We have got the wonderful roof, but inside it is a mess. Okay: the nurse in Bendigo can access the Internet and talk to some professor who has just written some diatribe about haemophilia or whatever, but the medical system within Victoria cannot even get a coding system. If she is going to talk to the nurse in Wangaratta, the doctor is probably using ICPC and someone else's doctor is using ICD10. How stupid is the system!

You are at the forefront, representing the key stakeholders. Okay: there is the hierarchical thing of nurses and doctors and colleges and so on, but aren't they sick and tired of all this slap-dashery and saying, 'Why can't we have one system?' Let the nurses do it. Doctors cannot: they are busy fighting and mucking around; and the programmers cannot decide on who is going to get the share of the market. What if all the nurses at the Royal College of Nursing said, 'We are going to train all our nurses in ICPC and, if you don't like it, stiff'?

Mr O'Brien—I do not believe the college is saying that or attempting to say that. We recognise that a lot of the things that have happened in the Telemedicine field have been in the form of a project here and a project there. What we are saying, quite clearly, is that we need to work together as a group. That means doctors, nurses and medical records administrators, or whatever the case may be.

Mr QUICK—But we heard the last group saying, 'We all worked together and put up a report and nothing has happened for a year.' If it were industry, they would say that they wanted a reaction within three months. That is a realistic time frame. All the experts have got together, and we have put a report out which recommends X, Y and Z. We did it with the national AIDS strategy: everybody moved mountains to come up with a national strategy for the money required for television programs and ways to alert the whole nation, and the incidence has gone down to zero. How were we to solve something like the eradication of smallpox, when we had to deal with so many other countries? But it

was done. Yet we are still pussyfooting around and do not have any of these coding systems. I am serious about this. We have a $36 billion dollar industry; we have got a wonderful house, but no effective interior.

Mr O'Brien—I am not an expert on the types of coding systems that the previous witnesses were talking about. When we are talking about basic communications between the various health professionals, though, we do have a common language. When we are talking via videoconference or the Internet, we are able to talk to each other. The sort of coding that you are talking about is—

Mr QUICK—Yes; but this is actually saying that, after you have spoken to the specialist in Melbourne, you should get to the file and write down 'ICPC' or whatever it might be.

Mr O'Brien—My understanding of those coding problems is that they are more to do with the administration, bureaucracy, and coding in relation to financial reimbursement rather than with the clinical practice.

Mr QUICK—But we are wasting money there and we do not have enough nurses on the ground. For example, Mr Forrest could have another 20 nurses: if we ask for that, they are going to say, 'Where are you going to find the money from?' But if we could say that, of that $36 billion, $10 billion is being wasted because we do not have an effective strategy in place, since all the reports are gathering dust, John could have his nurses.

Mr FORREST—Half-a-dozen would do, linked up in a professional development sense to some support from your La Trobe University program at Bendigo. I have seen some evidence of that. I do not need 20, but half-a-dozen linked to that kind of resource would be good.

Mr O'Brien—It is probably the college's view that we have a lot of nurses providing very good quality care, but they do not always have the resources that would enhance that care, particularly in rural and remote areas of Australia where nurses are often working under incredibly difficult conditions. They have to make a lot of judgments—in some cases, when they are new to the job and are nowhere near qualified to make them—but they do so in the best interests of their client. It would be good if they had ready access to better quality information and clinical support—and Telemedicine is one of the ways that that could happen—and if they were trained in the most appropriate uses of it, so that they could differentiate between a problem which only needs them to get a very quick answer by telephone and a problem which involves a consultation where they might need to set up a video camera and an electronic stethoscope so that the doctor at the other end can both see and hear. Teaching them those skills and providing them with those resources are the sorts of things that are going to improve the quality of health care, particularly for people outside the metropolitan areas.

Mr ALLAN MORRIS—Who is liable in the case of a misdiagnosis?

Mr O'Brien—If you are talking about the nurse assisting the medical practitioner with the assessment and the information, that is something nurses have been doing a for a very long time. The ultimate diagnosis, if it is made and then transmitted back with instructions, is the doctor's. But you are talking about a collaborative arrangement, and there may need to be—and I am not an expert in law—other mechanisms put in place about how those things happen. If the nurse has provided inappropriate or incorrect information, I would see the nurse as being liable. But, if the nurse has facilitated a remote examination and the doctor—or, for that matter, a diabetic nurse educator or whoever else—is making that diagnosis and advising in the treatment remotely, or if it is the case of handing the client over, it is the same as any other consultation process.

Mr ALLAN MORRIS—At the moment, the nurse has very limited scope in medical terms. He or she cannot be paid for it, because they are not recognised as medical practitioners. Your profession is arguing for greater scope for their professionalism. Telemedicine offers a way to actually do that, and that idea has been put forward in some submissions. What you do not appear to have done is to negotiate appropriate protocols between yourselves and the next layers—and not only GPs: it may well be specialists or hospitals as the subsequent layers—to define responsibility and accountability.

Mr O'Brien—The scope of the nurse's practice depends very much on where they are practising. A nurse practising in a remote area would carry out many more procedures which might be labelled 'medical' than would, for instance, a nurse working in the Austin Hospital in Melbourne.

Mr ALLAN MORRIS—Yes; but unofficially.

Mr O'Brien—Many of those things have been covered by procedures and protocols for a long time, and therefore at administrative levels in things like health care organisations or departments of health, without necessarily a full recognition of the nature of that nurse's role.

Mr ALLAN MORRIS—Yes, but to take it a step further, which people are asking for, I am surprised that there has been so little collaboration to date in your profession—in effect, between your college, as trainers, as I would imagine was the case, and the other professionals—regarding using better technology for interfacing so that the bush nurse visiting a person's house in a very remote area is consulting with either a GP or with a specialist, or with both. There seem to be no protocols even thought about being developed as to how to define and delineate accountability and responsibility. I see no signs of any negotiations to date between the professions as to how you would do that. What we are being asked to do is to approve the technology and deduction, and to approve, if you like, the payment of additional funds from the health system to pay for those things, but without a framework of legal protocols that would actually say who

eventually is responsible.

Mr O'Brien—I would agree that there are no protocols, certainly none that I am aware of at the moment, but I would imagine that as part of that overall process there would be the need for collaborative groups of all involved—doctors, nurses, other health professionals—to work out all of those protocols. In many cases, the technology is ahead of the average person's practice. People can see the potential of it, but until we explore that potential we may not be aware of all the practical issues that need to be covered.

Mr ALLAN MORRIS—You had better tell Mr Forrest, because he is going to find that his pet scheme is stopped for a couple of years while you guys sort out the protocols.

CHAIRMAN—One last question, Mr Forrest.

Mr FORREST—I am desperate to keep the wheels rolling. The mood of our committee oscillates according to the last set of evidence we collect, in terms of our frustration and lack of progress.

Mr O'Brien—I will ask to come first next time!

Mr FORREST—I wonder if you could tell us a little bit more about the project that La Trobe University had out of Bendigo. It is very positive. It is described as a pilot, but I think it is misnamed. I think that that has got—

Mr O'Brien—It is now a very established part of our curriculum, whereby we introduce all the registered nurses who are upgrading their qualifications to a degree to this subject.

Mr FORREST—It is being used for professional development reaching right out to the north-west of Victoria.

Mr O'Brien—Yes. They are given two options in their course. One is to utilise the Internet for accessing and finding information they might not otherwise have. That has been very useful for them in accessing, for instance, the United States clinical guidelines and things like that, which are not readily available to nurses in Australia other than by the Internet.

The option is that they are encouraged to join professional e-mail lists, as opposed to the very loud-noise, interference news groups, which are of interest to them—such as a midwives group or a nurse educators group or a nurse researchers group—and generate a professional discussion or seek professional advice from the other nurses on that net. That includes people from the United Kingdom, the Scandinavian countries, the United States, most of the advanced countries, with good Information Technology. But occasionally from

some of the developing countries as well we have had input.

The students have a professional discussion. They generate a discussion item, they take part in that discussion with their colleagues and then they have to summarise the results of that at the end. Both of those two expose them to that sort of—

Mr FORREST—Can they do that from Patchewollock? They do not have to travel to Bendigo?

Mr O'Brien—The majority of students utilise the university's facilities, but increasingly large numbers of these registered nurses are purchasing computers at home and accessing via their most local Internet provider.

Mr FORREST—Good. That is positive, see?

Mr ALLAN MORRIS—I am not sure Mr Forrest understands what I was saying to Mr O'Brien. Mr O'Brien had just confirmed that if Dr Webb's project were to be funded tomorrow it could not go ahead because there are no protocols that would allow for the delineation of responsibility between the GP and the nurse as to who is liable if there is a misdiagnosis. Whilst the technology, technically, is available, the profession has not developed the software, if you like—the actual interprofessional relationships that are required—to allow the outsourcing of a medical responsibility where the front end is actually a nurse taking symptoms and relaying them back to a doctor. That has not been done, as far as I can find.

Mr O'Brien—When it is put in that light my understanding of common law, in particular in relation to negligence and the like—I am not a legal expert—is that there is a wealth of rulings in common law cases where nurses have obtained information and passed it on, and doctors have acted on it, et cetera, that would give a very clear basis for the way those things would happen. The difference would be using electronic technology rather than face-to-face interchange.

Mr ALLAN MORRIS—What we are being asked to do is change the Medicare provider system to remove the face-to-face requirement and, secondly, to change schedules to incorporate a communication cost. I am saying that neither of those could be done unless the HIC was persuaded that the legal framework or responsibility for diagnosis was clear and prescribed. That requires the professions, if you like, to develop that process. I do not think that has been done yet.

CHAIRMAN—To be honest, anyone can sue anyone in the courts. I suspect that, if I were a lawyer receiving instructions from someone who had suffered because of bad treatment, I would sue personally the doctor and the nurse.

Mr ALLAN MORRIS—You are missing the point. The point is that to allow the Medicare provider number provision to be changed to replace a face-to-face visit by an

electronic visit with a nurse assisting—

CHAIRMAN—Not to replace it, but just to allow that to happen.

Mr ALLAN MORRIS—It is, or it is to allow it to be paid for. That is a substantial change to the whole Medicare system. HIC, or the government, let me tell you, is not going to do that unless it is absolutely confident that it will not be caught up in a legal wrangle over the first case of misdiagnosis and whether the HIC is then liable because it has actually paid the person as part of that misdiagnosis. It is quite a serious matter of demarcation of professional responsibility. I am just suggesting to Mr Forrest that we were advised by Dr Webb yesterday afternoon that these things are being done, the tests are being done, the pilots are being done and technically it can all work, but it seems to me that it is actually missing the point there: the protocols, professionally, that would protect the HIC from being a participant and would allow the HIC to modify its payment schedules to allow that to happen so that in fact the GP is extended out to the nurse, which is what you would need to do.

Mr O'Brien—On my understanding, though, if we put the technology aside, there is certainly an issue about whether, if you have got someone in one location and someone in another location, you pay both a reimbursement. However, in the situation where nurses are working, for instance, in general practice, in many cases they are already gathering a considerable amount of information for that doctor. They will to the urinalysis, they will do an ECG, they will do the blood pressure, take the temperature, whatever, and they will provide that information to the doctor—which is part of the information he may or may not use to make his diagnosis.

Mr ALLAN MORRIS—That is right, but the Medicare payment does not incorporate that. It simply pays a doctor whatever he has to pay—

Mr O'Brien—No, and the doctor pays the nurse out of his income.

Mr ALLAN MORRIS—That is right. But that requires a face-to-face consultation. If you are going to change the face-to-face consultation payment and at the same time add some extra payments because of remoteness or for other reasons that would encompass the additional costs that may be incorporated, you are making a substantial change to the underpinning of the Medicare system. HIC will not do that unless it is confident that that it is not going to create a legal quagmire, as it possibly could.

CHAIRMAN—What we can do is to write to the Health Insurance Commission and just see whether they have any legal advice on that.

Mr ALLAN MORRIS—Otherwise you will find that the minister for health eventually just knocks your proposal on the head.

CHAIRMAN—We will certainly inquire into that. Thank you very much, Mr O'Brien, for appearing before the committee this afternoon. We greatly appreciate it. A draft of your evidence will be sent to you for checking. If you could get it back to us as quickly as possible we would appreciate that.

[2.34 p.m.]

CHAIRMAN—I ask the secretariat to invite the witness to swear an oath or make an affirmation.

GOSS, Dr Peter William, Member, Working Party, Regional Paediatricians Group, c/- PO Box 524, Albury, New South Wales 2640

CHAIRMAN—Welcome. Do you have any comments to make on the capacity in which you appear?

Dr Goss—I am a fellow of the Royal Australian College of Physicians. I am a paediatrician living in Sale, in Victoria. I am appearing on behalf of the Regional Paediatricians Group, which is a group of paediatricians throughout regional Australia, comprising approximately 100, who are affiliated with the Australian College of Paediatrics.

CHAIRMAN—Thank you for your additional submission which we will have to incorporate at the end of today's proceedings. You seem a little more pessimistic about telemedicine than some others.

Dr Goss—My response would be that I am not necessarily pessimistic. I think that telemedicine has got huge potential, but I am significantly concerned about the way that it is being driven at the moment, which seems to be technology driven, rather than end user driven. Part of the reason that I have come here today is because being a regional specialist and having a lot to with relatively remote medicine, I wanted to put something to the committee on behalf of regional specialists, particularly regional paediatricians.

I have been vocal on behalf of regional and rural people regarding their access to health care, particularly over the last few years. I see it as much more important that people in country areas continue to be serviced, rather than money spent on some things that may be in the end a waste at the expense of their services in rural Victoria.

CHAIRMAN—I certainly would agree that it is important to keep as many rural and regional specialists in place as possible but, at the present time, much of Australia is not serviced by even rural and regional specialists. I think the idea of telemedicine was to bring specialists' advice to general practitioners and nurses operating at the coalface in the more remote parts of the country. I am wondering whether there is any inconsistency.

Dr Goss—There are going to be inconsistencies, depending on the region of Australia that you are talking about. My practice in regional Victoria has some remote areas but it is going to be different from Mount Isa, for example, or outback Northern Territory. It is certainly going to be different from perhaps the greater Ballarat area. But as a cross-section, there are some principles that are somewhat the same.

You are presuming that telemedicine is going to increase the access to specialist

services. There are some that believe that incorporating telemedicine into some areas of rural Australia may, in fact, lessen the availability of local specialists. If those specialists are bypassed, it may be that the attraction of that particular area for specialists to come to that area may be less.

CHAIRMAN—We had a rural specialist from Port Lincoln appear before us and he supported the principle of telemedicine on the basis that general practitioners in remote areas could use the technology to call in to him.

Dr Goss—I am saying that telemedicine may be a useful thing in some areas, but I feel that it is being driven, particularly in this state, far too quickly by technology rather than needs. I agree with you there because you have got an end user, the specialist in that particular area, who is saying that this may be useful in his area.

I look at my area as far as some uses and there may be some uses, but I do not see that the way that telemedicine is going at the moment, being driven by large centres—

Mr FORREST—Where are you from, exactly?

Dr Goss—Sale.

Mr FORREST—Sale. Sorry, I missed that.

CHAIRMAN—Where is Sale? How far is it from Melbourne?

Dr Goss—Sale is 200 kilometres from here.

CHAIRMAN—Somewhere in Gippsland, isn't it? My geography is not entirely hopeless.

Dr Goss—That is correct. In fact you would probably find there is a map on the front of the extra submission.

Mr QUICK—Should we take a regional approach? For Gippsland, should the colleges or some sort of working party get together and say, 'ABS say we have X number of children. How many paediatricians do we need to access or GP specialists to access those young people? We have X number of people aged 65 plus. What sort of aged care do we need?' Should we do it that way and then ask what links need to be put in place to ensure that people have access to adequate health services within Gippsland. This could include accessing the specialist services here in Melbourne if the specialists in that area cannot provide the service. Is that a simplistic view?

Dr Goss—In many areas, when specialists go there they create their own network within that area. I think that what you are alluding to is a two-tier network, one within the region. For example, I would get a number of calls each day from GPs around the expanse

of Gippsland to comment on various matters. I am in agreement with that. There has got to be a local network and then that network should serve off a central hub.

Paediatrics is relatively simple because there are only one or two central hubs in Victoria. There is the Royal Children's Hospital and Monash. It is much more complicated for adult physicians. It maybe that paediatrics is a model that could be worth going with if a particular model is constructed. It would have to be two-tier system. I think that it would be a waste of resources, for example, to have a GP in Bairnsdale consulting with a general paediatrician in Melbourne when they should be consulting with us. There are a number of advantages of being a regional specialist in terms of knowing the experience of the GP that is calling us, and knowing the geography and the road conditions and whatever services are available to actually make a successful intervention.

For example, if somebody in Orbost—and this has happened—rings me up and a lady is in labour at 28 weeks, 12 weeks early, there has got to be a decision of what is going to happen to that person. If they ring Melbourne, they will say, 'That is very easy, you can come down here.' And they are correct. It may be that I go and meet them in an ambulance somewhere to actually look after that baby if it is born, or we may go to Bairnsdale and meet halfway. There is a lot of this local stuff that needs to be done that they would not know anything about in the city.

CHAIRMAN—I do not think you are saying that we have got to go slow on telemedicine because it is going to bring increased competition for rural specialists.

Dr Goss—I have got enough to do without worrying about competition. I would welcome more people coming and joining me.

CHAIRMAN—I did not say that you were saying that. I said that I hoped you were not.

Dr Goss—For the rural community you may not attract a specialist—say, an ear, nose and throat specialist—into areas where a telemedicine situation has already been set up. If you set it up, are you ever going to get one down there? This is an argument that has been put.

CHAIRMAN—I think that telemedicine has been driven partly by a realisation that we are never going to get specialists into a lot of Australia.

Dr Goss—Sure. Again, I will say that I am not anti-telemedicine. I think that it has got some very exciting and very positive things to come out of it. I am saying that we should look at hard data on what actually works and what is cost-effective before machines and technology are set up all over the place, as seems to be happening at the moment.

There simply is not data that supports a lot of these things. I got frustrated when I read last week about a video conference between St Vincent's and the Royal Children's Hospital about a child with ingestion of rat poison. You can say that that was a very effective use because it was reported in the paper as life saving for that child—that, perhaps, is stretching the point a little bit. A 40 cent phone call to the poisons information if they really did not know what to do with that child, would have been just as effective, or they could have rung me up. Whether they needed to have that couple of thousand dollars worth of machinery there for that is quite debatable. The outcome would have been just the same.

The trouble with that, also, is that it is very seductive for politicians to have good news. There is not a lot of good news in the health system these days. Perhaps, it is good publicity. I am saying, rather, let us have the services for the people. If things can be set up and—I do not mind competition in any shape or form, in specialists or anything else— if the country people can get access to those services, they should have them. But these services should not be at the expense of other things that might have been set up in that area.

CHAIRMAN—You say in your recommendations that adequate funds and resources should be ensured to attract and retain specialist services in rural areas prior to committing health dollars to unproven and possibly wasteful technology. Is that unproven and possibly wasteful technology telemedicine?

Dr Goss—Yes.We are using a very broad definition there. That is what I am alluding to.

CHAIRMAN—I guessed you were. It is not directly on the subject, but I was just wondering if you could tell us what the government should do to provide adequate funds and resources to attract and retain specialist services in rural areas? What kind of initiative would you like to see there?

Dr Goss—There has been a problem in my area of Gippsland with obstetrics. We have got one full time specialist for that entire area, for roughly 80,000 people, which creates its own problems. Obstetricians have indicated that they may go to that particular area with relocation expenses paid, and things like. There has never been shown to be any creativity in actually putting those things forward and, therefore, the area suffers. Why not be creative and get the service there?

Mr QUICK—You stated in your submission that $100 million has been spent in the last four years in telemedicine. With some of that money, perhaps, you could set up these various hubs, as were saying, within regions in Victoria to more adequately address some of the problems rather than put them into technology.

Mr FORREST—Firstly, you need to test the veracity of that. Can you substantiate

that?

Dr Goss—That figure comes from the Liberal Party policy documents.

CHAIRMAN—It would have to be accurate, in that case.

Mr FORREST—Speaking about hard data then, that is a questionable one. You had better look at budget outcomes.

Mr QUICK—You are saying that we spent $100 million over four years. If you could have some financial incentives to have paediatricians and obstetricians and a few of the other specialist regimes within the Gippsland area, then a lot of the problems which are currently trying to be addressed by setting up telecommunication links and, in the last resort, actually flying people in or out, could be solved.

Dr Goss—Flying people in created its own problems, as in the case of obstetric care services. Some of these people need immediate treatment. You are probably not going to deliver a baby by telemedicine. To pull out a difficult breach, or turn a baby with forceps, is a technical skill. If it is not done properly, the baby dies or is damaged, at a great cost to the community.

I think that the funding could be better off put to practical services, but I would not knock telemedicine on the head. I think that it has got its possibilities. I think that each individual area should be looking at what is possible. This is why one of my recommendations is that the colleges look to individuals within their colleges to actually update themselves on what the possibilities of telemedicine are. My college is doing that. I am going to the world telemedicine conference at the end of May next year for exactly that reason: to see what is possible and what they are doing around the world and to come back and say, 'This may not be relevant for Gippsland but it maybe relevant for you in Mt Isa if you have never heard of it. This is what they are happening to be doing elsewhere.'

Mr QUICK—How many health regions do you have in Gippsland?

Dr Goss—Health regions?

Mr QUICK—In some states they divide the state up into specific health regions.

Dr Goss—I work at a base hospital in Sale. I visit Bairnsdale twice a week and I visit Mallacoota—

Mr QUICK—Does the Victoria Health Department have health regions?

Dr Goss—Yes. My area is about half the Victorian government region.

Mr QUICK—Do they have working groups where key stakeholders get together and say what they need for a particular region?

Dr Goss—If they do, they have not involved the doctors there. I would also argue that the CEOs of the hospital are not the people that would be able to give the best information of what is actually happening in specialist services—paediatrics services, for example. They may know what is happening in that particular hospital session, but they do not know what is happening out in the wider community.

One of my recommendations in this is to form a working group with various players in it, particularly the end users such as rural and remote GPs and regional specialists. I did not actually put them in, but I would certainly include nurses as well. One of the things that we do when we set up, for example, a sick babies' nursery in Sale is to skill up the nurses. It is very difficult for them to take time off from their families in Sale to go and do a six- or 12-month course in Melbourne. But I have had some discussions with people at the Royal Children's Hospital to do things like virtual ward rounds or virtual conferences, going around the different infants at the Royal Children's Hospital, for example, or following up the infant that was born with an abnormality that has since transferred down to Melbourne. They are very good learning experiences. There are ways of doing it. There is some exciting stuff that is possible, but it does need to have people involved in those working groups that are the end users.

Mr QUICK—When you use teleconferencing with your 120-odd colleagues around Australia, do they make you aware of this happening anywhere in Australia?

Dr Goss—No, not that I know of. We have teleconferencing on postgraduate education. There was one around Australia yesterday morning on telephone. The question is whether we need vision there. Do we? I do not think so. That would be nice, but I think we will probably continue on with telephone.

Ms ELLIS—Dr Goss, you made reference before to your fears—I guess the word would be—of telemedicine eroding in some way the provision of specialist services or the potential for those services in rural areas. Long before telemedicine there has always been, and I believe still is, difficulty in getting specialties—in fact, in some cases, GPs, let alone specialties, but let us talk about specialties—into those areas anyway. I notice in the paper you have given us today chapter 4.2.1 about problems of attracting and retaining specialists in rural areas. Are you giving us those comments in relation to telemedicine or just generally?

Dr Goss—No, they are general comments on why it is difficult to get specialists into rural areas.

Ms ELLIS—Can you, for the sake of Hansard, elaborate a little bit for me on your views about that, given that you have made the comments that you already have in

relation to telemedicine and the relationship between it and specialty?

Dr Goss—I do not want to have telemedicine seen as totally negative for attracting specialists because there are some reasons why specialists do not go into rural areas. One of them is the isolation, particularly professional isolation, that teleconferencing, in particular, would be very useful for. We have never had any sniff of funding from anybody to take us along that road, but we would set it up ourselves and it would be very useful. There is a significant thirst by regional paediatricians for more education and more information, as evidenced yesterday morning on our teleconference and as evidenced by a Prince of Wales Hospital meeting last week where there were over 100 people.

There are buckets of information for the GPs. For example, there are satellite networks now. The satellite network that is run in Sale has the average audience of one GP. I am sure, if you asked them a few years ago if it was a good idea, they would have all said yes. But you can only saturate so much. There is a number of postgraduate education things for them and they attend selectively. There is not for regional specialists. This could be a very good thing for regional specialists to get out there, to have close links.

I am on the phone almost every day perhaps to a subspecialist at the Royal Children's Hospital in Melbourne. There is that link there already. Is telemedicine or vision going to help? It may help in some areas, but we have to sort it out. There are logistical problems of getting a patient with a limp or a movement disorder in front of a TV camera and having the neurologist at the Royal Children's Hospital available to do it. A baby gets delivered somewhere and I have to go to it; there are problems there, but it might be possible. Those things need to be thought through. I would not see it all as negative for specialists in country areas. There are a lot of good things that could come.

Ms ELLIS—I said during one of our earlier discussions that maybe 'government'—in inverted commas because that is a big body—should spend a bit more of its time in working out now, because it has not already, what we really desire as outcomes and what we really desire as measuring instruments in the implementation of telemedicine generally. In other words, if government is going to be a major player, as it inevitably will be, should we not first of all have an overlay of what our expectations, outputs, outcomes and beneficiaries are. Who are they? Where are they? What is the cost-effective—

Dr Goss—I could not agree more.

Ms ELLIS—In all of that, could there also be a role to develop the ups and the downs of regional specialists? In other words, whilst I do not for one moment disagree with your earlier comments, couldn't there also be something more positive? We do not know. Could it in fact be easier for specialties to go to rural areas, if they have that technology available and therefore they are not so isolated?

Dr Goss—There definitely could be. As I said before, a view is held on the negative side. I am putting to you the view; I am not actually espousing all that, because I do not know.

Ms ELLIS—I understand.

Dr Goss—The whole basis of my presentation is a great big 'I don't know' because we have not got the data. I have learnt through science. My background is trying to pick out what is actually better than doing nothing and this is something which does not have a lot of science to it. It is people's opinions here, there and everywhere.

Even doing a thorough needs assessment as recommended in that section of the submission 'Lessons already learned' by the joint working group to the US Congress is not all that easy. We have asked our regional paediatrician group, 'Do you think this would be useful?' and they say, 'Oh yes, it would be.' 'What about this?' 'Yes, that would be useful, too.' When it comes down to whether they would use it, is a different thing.

We set up a home page on the Internet recently. We took it off last week because there were only a couple of us accessing it. There was nothing going on. We had thought it was a good idea. We set it up and it was not a good idea. We may revisit that. I am sure we will in a few years time when the other regional paediatricians are more computer literate or accessing the Internet et cetera. But we thought it was a good idea. We did not follow our own recommendation. We did not do a thorough needs assessment. We did a needs assessment, but not a thorough one.

CHAIRMAN—I see though what you are suggesting is an overall coordinating body in telemedicine for certain reasons. That suggestion has been brought forward by others, not necessarily for the same reasons you have. It seems to us that we have got all these pilots and all these projects out there. There is not a lot that is coordinated at the moment. A pilot exists for the period of its life and then it dies and is not replaced by something else. It does seem as though there is a decided lack of vision and direction.

Dr Goss—I agree.

CHAIRMAN—Let us see if we can give it some vision and direction.

Dr Goss—Can I give you some? I am not sure that city people understand what happens in the country. I really do not think they know what I am doing out there, or my obstetrician colleague or my physician colleagues. There has to be a needs assessment done and people will only be able to give positive information if they know what is available. I really think there is a significant obligation on the colleges here to have a statement put forward on their behalf. Once you have your needs assessment and you have talked to your end users, then you might be able to get a coordinating body that says,

'Look, let's do this for the people and for the services out there, rather than set up something at hospital X.' Ring up and say, 'I've got it all set up. What can you put on it?' or let us send a survey around the major hospital and say, 'We've just set this up. Can your department add anything to it?' The end user is not necessarily going to turn up in front of that television set at 4 o'clock on a Wednesday afternoon and do it.

Mr FORREST—Some of my concern with your submission has been answered in response to the question from Annette Ellis. I do not know the situation in East Gippsland all that well, but I think Sale has got a very strong population centre. You have got Lakes Entrance and Bairnsdale and Traralgon, but I want you to think about the fact that you have got a drive between Bendigo up the Coulter Highway to Mildura. It is four hours. There is no paediatrician, there is no obstetrician. As a matter of fact, we are having great difficulty attracting specialists like that even to Mildura and Horsham. As you have said, and I have just read it in your submission, there are the issues of professional development and the sense of isolation that they might feel. If we had this kind of technology, where they could double-check, send an image to a colleague, get a back up to their diagnosis, it might overcome one of the constraints that they feel they have. They do not want to go out there because they feel they will be vulnerable. I am not trying to judge the situation at Sale but the whole north-west of Victoria is suffering very badly because this technology is not available to overcome one of the deficiencies in attracting specialists and even GPs.

Dr Goss—You are right but the problem then becomes your imaging. You don't have a radiologist there to do your imaging, the radiologist is in Melbourne. When something that only a radiologist does happens to occur in Mildura, whether it be a CT scan or an injection of something into a kidney or something like that, you haven't got the person there. That is a worry.

There are other concerns that people in pilot studies in the US have raised about that. It may be that the benefits outweigh the disadvantages in that particular area, which is good, but the process needs to be thought through. They need to say, 'This is being done there, there and there, it seems to work so let's go for it in Mildura.' But it will not be in Sale. In Bairnsdale, further up the track, they are already sending some imaging down to Melbourne. It will be interesting to see how it goes.

Mr FORREST—My point is that, if this kind of interface was operating, the specialist would be there. They would be in Swan Hill, Mildura and Horsham, the strong regional provincial centres out there. Before long, if we let it deteriorate any longer, you are right, they will not be there.

Dr Goss—You mean there physically?

Mr FORREST—In fact the ones that are there are very often non-Australian doctors, actually. That is how serious it has become.

Dr Goss—Yes, I know. I am not convinced that they are going to be there physically, simply for the reason of telemedicine—not by any stretch of the imagination.

Mr FORREST—It is another string in a bow of—

Dr Goss—I would put burnout as number one. I don't think anyone is going to go to an isolated area and be on call 24 hours a day, seven days a week. I did that for three years or so, it takes a fair bit out of you. I think there are some good things with this and they are cropping up around the world. I do not see that we have to be the world leader. I think we should support what is out there and, if there are needs coming up in particular areas, they should be supported. But I am not sure that simply dotting TVs and videoconferencing around the place is the answer. I think it needs to be coordinated and thought through very carefully.

Mr FORREST—Would you accept that it is one string in a whole armament of tools to address a very crucial problem.

Dr Goss—Yes.

CHAIRMAN—You tell us that telemedicine is not needed at Sale, at least in paediatrics, because you are there, and maybe not in obstetrics. But surely even Sale would be short of some specialities where telemedicine would be advantageous to that area?

Dr Goss—I don't think I said that telemedicine is not needed in Sale. I think there are some uses that can be made of telemedicine in all regional areas, some different than others but I think it needs to be done with a coordinated approach. We need to have some hard data available showing that it is going to be more cost effective. You are right that there are some areas in Sale that may benefit from telemedicine but 'may' is the word not 'it will.' I am not sure that the money should be spent until we are a little more certain that it might.

Mr ALLAN MORRIS—Let us assume, as you suggested, that we do hub it to regional centres, that that is the appropriate way. I think your concern is that it may well become a more centralist system and that that would remove the expertise on the ground at the middle level in the regional centres. Let us put that aside for the moment. The model has been put to us by some people of a nurse visiting a patient or getting a call from a person and going out with technology which allows a video image and a voice to be transferred to you. There is then the question about jurisdiction or responsibility. I raised that with Mr O'Brien earlier.

It has been put to us that we should recommend to the parliament that there be a change to the Medicare schedule so that you could be paid for the consultation without being face to face. It has also been put to us that we should recommend that there be extra

payments made for communication—that is, for the phone call for a quarter of an hour or whatever it might be from 150 kilometres away. The front end of that would be a nurse with a video camera, or some such technology, advising and then a diagnosis by the doctor. There is then the issue of ethics and liability, whose patient the person is. Given the fact that you would get paid for it and the nurse may get paid for it; how could you work out the protocols or the professional responsibilities between them?

Dr Goss—Yes, that is difficult. As I understand it, if I give phone information to a colleague who rings me up from another area or in the same town, I have medico legal responsibility for what I say to them, which puts me in a fairly difficult position.

CHAIRMAN—But you do not receive a fee.

Dr Goss—I do not receive a fee for that. As far as the relative value schedules of all of these things, I think there are swings and roundabouts. I am probably one of the few but I have not got my hand out for something.

Mr ALLAN MORRIS—That is okay. I am asking your professional advice on that person being a nurse and not a GP.

Dr Goss—If you start charging for teleconferences, or if there is a fee for teleconferences, there would have to be a fee for telephone consultations. If there was a fee for telephone consultations, I suspect that the whole Medicare schedule would have to be re-jigged so that it would fit in the overall budget.

Mr ALLAN MORRIS—That is the first problem. The second problem is how would you would feel, as a specialist, taking your front end information from a nurse rather than from a GP?

Dr Goss—Again, we are assuming that all nurses and all GPs have got the same—

Mr ALLAN MORRIS—I am not assuming anything, I am just asking you.

Dr Goss—That question may imply that they are all of the same technical expertise, and they are not. There are some nurses who contact me from the children's ward, for example, and I would place much more value on their assessment of the child's condition than I would on some of that from my medical colleagues. There is a difference between GPs too. If someone phoned me from a certain town, I might suggest a certain course of action, because they were the people looking after the child but, with others, I may suggest another course of action. I have been bitten before with that. I have been told that a baby was shut down, which means that their blood pressure was probably not good and there was a good reason for it. He meant to say something different and the baby died because of what his clinical assessment was. So there are horses for courses—some are terrific and some are not quite so terrific. Would I take it from the nurse? It depends who

the nurse was. It depends on what I thought of their level of expertise.

Mr ALLAN MORRIS—Yes. I suppose I am asking how hard it would be for the professions to establish, if you like, protocols that would enable that to become a normal part of the medical servicing in remote and outlying areas. I think that is what was being put to us.

Dr Goss—I think that would be difficult. I think it would be difficult to create a protocol. I think there would be a lot of resistance to it.

CHAIRMAN—Thank you for appearing before us this afternoon, we greatly appreciate it. We will look carefully at what you have said and no doubt we will consider it when we come to do our report.

Resolved (on motion by Ms Ellis, seconded by Mr Quick):

That the committee receive into evidence the submission from Dr Goss.

Resolved (on motion by Ms Ellis, seconded by Mr Quick):

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 3.09 p.m.