PLENARY 7
TUESDAY 4 MARCH 2003
11.20 AM – 12.20 PM

Vivan Schenker, Conference Chair

... Whatever session you picked this morning. It’s good to have you back though. I have just been asked to make a quick announcement for you about men’s health, which there hasn’t been a huge amount of discussion on so far in the Conference. Bernard Denner from the Centre for the Advancement of Men’s Health at the Mallee Track Community Health Service at Ouyen, I believe is the way it is pronounced—I have finally discovered how you actually pronounce it—wants me to tell you that people who interested in discussing men’s health and engaging men should meet (maybe I should go—I could use a few lessons in engaging men) if you can meet Bernard at the top of the stairs after lunch for a chat about men’s health, those people will be there waiting to speak to you.

Well it is particularly pleasant now to be handing the microphone over to someone I know to be both knowledgeable and interesting and as we all know those two things don’t always go together. They do however combine perfectly in the form of Norman Swan, the ABC’s very own expert on matters medical. His dulcet Scottish accent has been regularly heard on both ABC radio and television. Think the Health Report on Radio National and Health Dimensions on ABC TV to name just two of his regular gigs. He is here today to talk about “The media as an agent of change”. Please make him welcome – Norman Swan.
KEYNOTE 14—MEDIA KNOW-HOW
The media as a change agent

Norman Swan, Medical Communications and Health Broadcaster

Thanks Vivian. Well the media as a change agent. That is my brief for today—your media know-how session. So what I am going to do is talk about whether or not media is a change agent and then perhaps give you a little bit of know-how of knowing quite a few of you in the audience I suspect have got more know-how than I have in terms of how actually to get things in the media. And it is pretty impressive what some of you actually have managed to achieve with very few resources, so congratulations on that.

So, one thing I am often asked is “Do the media have an agenda themselves or are they the pawns of advocates of big business and so on?” and the answer is of course “Both are true to some extent and at various times” The reality of course—when you are just journeymen and women like Vivian and I - is that you are just trying to get on with it; do your job regardless of whether you are working for Channel 9 or the ABC. And the job that most journalists sort of carry in the back of their head - until they cross to the dark side—that is work for the public relations industry—the kind of thing that you keep in the back of your head is Don Chipp’s phrase “keeping the bastards honest” And of course this is the notion of the fourth estate, that nineteenth century notion, which is that a healthy, active, independent media—that sector is critical to a democracy; it is the fourth pillar of a democracy, and without it you don’t have a vibrant democracy. So essentially the democratic room is not complete without it. And regardless of which part of the industry that owns you that’s what most journalists tend to have in their head. And if you go on the general principle of that great quality improvement guru, Edward Demming, you assume that everybody in an organisation wants to do the best possible job and that is true of journalists too - just like in the health care system; when things fall down its usually the system that needs to be blamed rather than individuals. But that is not a cop out as you will hear more of what I am about to say.

There is no doubt that the media have got enormous power and influence and with the concentrated ownership of media in Australia it does put power, enormous power, in the hands of a very small number of individuals. And that is probably why even when you ask Australians who don’t watch the ABC, or listen to it, or don’t watch SBS or listen to it, that they would fight to the death for those two broadcast services because they see them, particularly the ABC, as being core to retaining that independence which Australians do cherish so much—and Americans when they see what we’ve got, envy so much. And of course nowhere is that more important than where the media can be so restricted as in rural, remote and regional Australia. So the independent media become critical, as do the media in general as to sources of information.

But while there is enormous power and enormous influence in the media there is enormous money in the media industry, there is actually a lot around it as well. There is a whole infrastructure around the media. There are public relations companies—
many of whom are multi-national; there are lobbyists—lobbying companies; there are industry groups, non-government organisations; there are advertisers, there is a whole sporting industry and then there are sectors like health, rural and so on. And I have to say that if you actually—whilst over a beer during a Conference like this there are lots of things to moan about—rural issues have been front of house for the last few years, and while things are still not great they are a hell of a lot better than they were at least—and I get involved in rural things quite a lot and they have improved. I think a lot of that has been the effective use of the media and the effective transmission of rural issues.

So with this infrastructure around the media—some people say “Well is it legitimate to try and influence the media?” and the answer is “Yes”. There might not be an absolute ethic involved here but it is certainly relatively so. Everybody else is doing it; you have got to do it too, and it is one of the things you have to do, especially in the rural sector. The question is how do you exert that influence? How do you get your space in the media? How do you work with the media? Can you possibly have partnerships with the media?

So let me just give you a little run through what I think is a checklist of things that you need to know and I apologise in advance if you already know them.

It’s the concept of the target audience, which is the first thing I usually talk about. And most people react to me saying that by saying “What does this idiot think—am I an idiot here, that I don’t understand target audiences, that the audience for the Daily Telegraph or the Herald Sun is different from The Age or the Sydney Morning Herald or that people who watch A Current Affair are different from the seven thirty report?” Of course those target audiences are different but that is not what I am talking about with a target audience. Because almost everywhere in the media—and actually Radio National is one of the few outlets where this is a bit different—the end users are not the target audience of the journalist, or indeed of you as the people wanting to influence or get into media. Because nothing gets into the paper; nothing gets on the wireless; nothing gets on the television set unless it has got through the gatekeeper. The gate keeper is the target audience, and yes the gate keeper will want to know whether you have thought about the end user but the reality is that you have got to appeal to the gate keeper, and let me tell you there are some pretty narrow minds out there who are working as gate keepers in the Australian media. And that is the person the journalist has got to convince. So you have got a really good story; you have managed to convince a journalist that it’s a really good story; the journalist’s task is to convince the gatekeeper.

A lot of things that go wrong in this whole communication process often occur in that process of having to convince the gatekeeper. I will give you an example. If I want to—I will often run a story (well not recently but) run a media story or a health report on AM that morning—and the reason I do it is to get to a broader audience and meeting more people who will turn on to the health report and so on. Now if I go to the Executive Producer of AM - and they usually choose the best people around to do those current affairs programs in ABC Current Affairs—even there as an experienced Broadcaster I go in and I say to the Executive Producer “You won’t believe the story that’s in the new Journal of Medicine this week; this is the most fantastic bla, bla, bla” and I go really over the top and he says “Oh when can I get it, when can I get it?” and of course when I deliver it he doesn’t have a hype, but in fact I will go very close to the
edge in terms of what you are able to say because what you have got to be able to do is first attract the gatekeeper and then attract the audience - and I will come back to that in a moment.

Inexperienced journalists know that they have got to go through the hype but they don’t know how to write on the safe side of the hype and sometimes they go overboard and that’s where errors are made. And if you understand the needs of the gatekeeper, which by proxy are the needs of the journalist, you actually have more success in getting your stories placed, because in fact in almost every outlet they will want, if they can get it, an emotional component and I am going to return to this theme of emotion in the media in a minute. So they want a human-interest story to illustrate the point even if it is just one family in Dubbo or Mount Isa—they will want to have a human-interest aspect. So if you are selling the story and there are human examples you have got to think, “Well, who can I actually nominate to deliver to that media outlet as an interviewee?” and think about it beforehand rather than afterwards. Because the reality is—and some research has been done on this—that journalists tend to use as experts and sources people they know; people they feel comfortable about; people who understand their needs and their deadlines and people who are media savvy. And they tend often not to judge them on the quality of their expertise, which is why you often will see a story in the media and you will wonder “Why did they interview that person when there are world experts around the corner?” or “This person I know is so much better”. It is because they don’t know. And it’s also because this person is probably more media savvy and more in tune with their needs, and they might have phoned that other person up six months ago and they promised to get back to them in an hour and they still haven’t got back to them.

So, these are the sorts of issues. So, understanding the target audience - namely the gatekeeper, the needs of the gatekeeper and along with that the needs of the actual end users of the story. And I am not so sure that there is so much difference between a commercial audience. So this becomes to television and ABC television audiences. I actually think the media underestimates the Australian audience and I have had this tussle on television myself where there is sense that “The Health…Program is on at six thirty; it’s competing with A Current Affair; you have got to have the same kind of quality of information on A Current Affair, which means not very much information and that is the way you will rate”. Well, in fact I have resisted that and I have put on quite heavy content. Tonight I have got a program about psychosis, a heavy program, and what happens with Health Dimensions that goes on for three weeks and then the ratings go up when there is content on and then go down again? So the reality is that people will tune in for content—that’s not because I am doing it; it is simply because there is a bit of content there and people can chew on it. And I think there is a general underestimation but it is how you deliver it—is the different thing, and I think that is where often people who are trying to communicate via the media to understand is that there are different ways of doing that. And on television, television stories are by and large driven by personal stories. It is very hard to get abstract content. It is not bad to have abstract concepts but you have got to do it via people and people’s stories and then you have got to reverse into the intellectual stuff later on.

So what gets a journalist interested? Well, it is no longer I think the free drink or the free lunch and I still get people inviting me to lunch thinking that is what I want but I am just like you, I don’t have time for lunch - if I want to know what the story is you will just give it to me straight between the eyes. What gets me interested and other
journalists is—you have got to tell me that—people have believed this for so long and they have been wrong—we love exploding myths—great stuff. We like to think the information is new or you have at least repackaged it in a new way. We like to think that it has got wide impact, that it’s not just for two people throughout Australia and that it has got application to daily life. If you can kind of tailor stories in those ways it seems to work.

I have explained how journalists tend to decide on spokespeople and I encourage you all who are interested in making use of the media to have personal relationships with members of the media—in a two-way relationship where they can come to you for your expertise and you will always be available to them and you will always get back to them the next phone call you make, in return for which you have access to them: a two-way relationship.

There is a risk in being involved with the media because mistakes will be made; people will get things wrong. Don’t get involved with the media if you aren’t prepared for that to happen. Don’t go out on a limb in your organisation and push for media coverage unless your organisation as a whole has accepted the fact that by going into the media you will make mistakes and the media will make mistakes. The thing is you will remember the mistakes much longer than anybody else will. What people will remember is that you were there. So it is much better being there than not being there. And there are ways of trying to minimise that; minimise the chances of error - be absolutely clear of what you want to say! Somebody phones you up for an interview; you are not ready so you will phone them straight back, and you will phone them straight back, write down the three things you want to say and that is what you say. And, so you are crystal clear. If it is television how long do you think the average television grab is in the news? Most people say fifteen seconds, twenty seconds—it is six seconds! So what happens if you are garrulous and give them a long grab? The Editor just looks for the most convenient six seconds. If you give them six to ten seconds—that is what they will use and they will thank you for it. And so in finding the right six seconds they can make a mistake. So if you practice how to deliver a story you don’t need media training for this; you just need to think of this.

You need to think about colourful imagery to illustrate your point. And I just want to finish (how much time have I got? Five (minutes)? I just want to finish probably on what I think is the most important issue of all when dealing with the media, when you are in the media and when you are a consumer of the media. And it is the rule of emotion. Now we are all intelligent people—we all read a lot. We all think that we are rational. We live in a rational world and we behave rationally. Bullshit! I don’t care how many degrees you have got—we all respond to the world emotionally. We respond to what we read and hear and see emotionally. And emotion is the first thing that we react with and the intellect comes in later. We can rationalise; some of us are worse or better in that than others, but it is emotion. And let me tell you—you know in the old days when ... of doing your Media Watch and you sort of sneer at the literals of your Channel Nine Journalist and how this wasn’t and A Current Affair wasn’t journalism and so on and so forth—and we would all chuckle; we were all ABC viewers and we were thinking “Terrible Channel Nine” – it is amazing by the way whenever I am on say Channel Nine or Channel Seven how many people see you on it that you think are just ABC viewers. Anyway, what we haven’t got wrong is what the commercials do. And yes they do do some journalism and it is not... than not doing it, but what they do much better than we do in the ABC is manipulate emotion. They are
fantastic at it. And it almost doesn’t matter in which direction—happy to sad; sad to happy; placid to angry—you know they are very, very good at it—they are highly skilled and they can do it in a four minute segment. They can play with you like a violin. So they are very, very good at that and that can mobilise opinion, and public opinion and the politicians—because they watch it too and they get the reaction in as well.

So what is it that works that creates a change in our emotions? There is a large psychological literature on this. I recommend a writer called Paul Slovic who is in Oregon; the late Amos Twersky and this year’s Nobel Laureate in Economics, Daniel Kahneman who I think is now in Princeton, who was at UC Berkeley. They have all written widely on perception of risk and emotion. There is one rule and if you forget anything else from today’s talk; one rule—we perceive loss more emotionally than gain. And the technical jargon is “dread and outrage”. And you can try it out on yourself. You are walking down the street towards Salamanca Place and you see $100 on the street and you pick it up and you think, “Oh that’s good”; and put it in your pocket. You are walking down to Salamanca Place and you have got $100 in your personal wallet to pay for your meal and you open your wallet and it’s not there. Which gives you the greater emotional change - finding the $100 or losing it? It’s losing it.

People go into the supermarket and you show them cans of pesticide and on the can of pesticide it says, “one in one hundred thousand uses is associated with a mildly toxic reaction.” It costs $10.95—this is a Canadian study if I remember rightly. And they show them two other cans of pesticide, one says “one in two hundred thousand uses” — half the risk; a tiny risk but half the risk—associated with a mildly toxic reaction; and the other one is “one in fifty thousand” — double the risk. So the question was, “How much more would you pay for the can for half the risk and how much of a discount would you accept for double the risk, given that the risk is infinitesimally small? What would you say? Well, what the participants said was “You couldn’t give me the can with double the risk. I don’t want it, and I am not going to pay anything extra for reduced risk unless you show me a can with zero risk”. Because the problem is that if you actually present people with the idea of risk, risk confronts you, you become emotionally alert and you don’t want anymore risk and in fact you want that risk eliminated. Completely irrational! But we all largely behave that way. So if risks are constantly put in our face: pesticides cause cancer, mobile phones cause brain cancer… you see those all the time, you miss the fact that smoking causes nineteen thousand premature deaths a year in Australia. We are not very good at very big numbers and we are not very good at very small numbers. And so on top of this fact that we perceive loss more emotionally than gain, if that loss is kept on confronting us we think that loss is more common than it actually is.

So if I was to ask you, I was just going to finish, if I was to ask you “Which is more common in New York—suicide or homicide?” and I asked you to give me the answer very quickly, most people would say homicide, but suicide is far greater. If I were to say to you “How many people suffering a negligent act in the United States actually go to court and sue?”, most of you would say “Sixty per cent, seventy per cent, eighty per cent”; it is like fifteen per cent. We just think it is more because we see it more. So you have got to watch that emotion and you have got to play with this emotion. Now this is a very difficult notion for Indigenous Community because there is so much loss and the media tends to focus on it because that is what gets emotional change. And the
sense of positive gain doesn’t give you as much of an emotional charge. And that is in the psychological literature. So the challenge is how you pitch positive stories about Aboriginal and Torres Strait Islander communities, for example it is a real challenge—which I think some communities are actually meeting and doing well—and it is partly by partnerships and relationships with the media, and that I think is the way through. Thank you very much.

Vivian Schenker, Conference Chair

I think we need a second session on how to actually do it, now that we know that we have got to manipulate emotions. I think we need more than twenty minutes more with Norman to teach us exactly how to manipulate emotion. Although if ever you needed proof of what he was saying, think back to this morning’s session and that very powerful talk by John McGrath. That was the one that hit you wasn’t it? That was the emotional impact. You don’t need much more illustration than that.

Well as much as we have all enjoyed listening to the various Speakers both at Plenary Sessions and at your Concurrent Sessions, what we want to see is something concrete emerge from this Conference. Now you have been making recommendations, I know, and talking about what you would like to see implemented as policy, so here to take you through some of those recommendations are Nigel Stewart and Lesley Fitzpatrick.
PLENARY SESSION
Preliminary presentation of Conference Recommendations and Communique

Facilitated by Nigel Stewart and Lesley Fitzpatrick

Vivian Schenker, Conference Chair

Thanks Lesley. Obviously people have been working extraordinarily hard at these and there will be another time set aside this afternoon - I think there is double time this afternoon, forty minutes, set aside in the afternoon session to really give all of us a bit more of a chance to make some comments and some suggestions for those. Because it is really important that everybody goes away feeling that they own those recommendations, that they are from everybody, so hopefully we will have time to do that in full this afternoon.

Well we start getting a bit technical again at this point in the proceedings. We have heard a fascinating mixture so far haven’t we of people involved with the identification and delivery of health services and those who are dedicated to developing better and more effective means of doing so. Dr Mohan Krishnamoorthy is definitely in that latter group - I guess you could call him a “boffin”. He is an industry manager at CSIRO and he is concerned with research strategy, setting research in business directions and goals as well as engaging with industry. He is about to engage with us. Please make him welcome—Dr Mohan Krishnamoorthy.
KEYNOTE 15—SCIENTIFIC KNOW-HOW
Patient-centric health care delivery

Mohan Krishnamoorthy, CSIRO Mathematical and Information Sciences

...It is nice to have, in talking to such an audience, a doctor but I can assure you that I am only a “pretend doctor”. As Vivian said I am a Science and Industry Manager at CSIRO Mathematical and Information Sciences and just over the last two or three years or so (or more) I have had a significant health focus in the research that I have carried out into Mathematical and Statistical and Information Technology research. And I believe that ICT—that is an acronym that I will be using quite frequently throughout this talk, Information Communications Technology, and I believe that ICT can play a significant role in health care delivery—it already is but it can play an even more significant role in the future.

Well, there are a few objectives to my talk today. The first is re-information, if you guys need any, that health service delivery in the rural sector is extremely stretched at the moment and Information and Communications Technology as well as the advanced mathematical and statistical research that underpins ICT can help in many ways. We at CSIRO have a three to five year research program in this area, and in this talk I would like to give you a bit of flavour of the sorts of things we are looking into. I will try and not get too technical in this talk but try and present some scenarios, which illustrate the sorts of things we are trying to do. So I have pitched this talk at a slightly less technical level and more at a scenario level but if I do overstep the mark I apologise in advance.

A lot of material for this talk apart from my research documents are visions and are scenarios and so on. A lot of the material for this talk has come from a variety of sources and I acknowledge the Alliance, the AIHW, Rural Health Network and various other bodies such as that right at the onset. So what is CSIRO doing in this area a lot of you might ask. We are about sheep and wool and forest products and so on. So what are we doing in health and information technology and health care delivery? Well the Division I work with carries out research into a variety of fields in what we call the research economy. This research is essentially into information technology as well as into mathematical and statistical research that underpins the information support and the decision support that we receive in all walks of life. Information technology has made the information source, the information delivery and the information use completely ubiquitous. And this happens in all walks of life be it professional, recreational or, in this case, health care delivery.

So we at CSIRO Math and Information Sciences have been carrying out research into ICT Enabled Health Care Delivery for the future. So what are the challenging problems that motivate our research? What are the challenging research questions? What is the cutting edge research? And how do we deliver these research prototype demonstrations? And part of that, is as a result of flagship research activity in CSIRO, which is basically a team approach to tackling Australia’s major opportunities, challenges and so on. Now this covers a breadth of fields and health care is definitely one of them—the others being energy, environment, communications and so on. So
the goal of the Flagship Program is I guess—strong sustained economic growth, new industries, competitive enterprises and quality jobs for Australians. And a healthy and more productive life for Australians is definitely on the agenda. This is a goal-driven approach rather than “Hey, this is a nice piece of research which I would like to do and I might get some outputs that might be useful in three years time” whereas now what we are doing is actually looking at the goal and trying to formulate a research program that addresses the goal. I guess the sort of motivation that we derive for this Flagship Program is a goal that can be simply and easily stated. “Put a man on the moon” was a goal that existed in the 60s; it drove the research Program - “Put a man on the moon”.

So that is the sort of thing that we are looking at in our Flagship research, and this basically is research that is brought about by the goals and dreams that we have today and in this talk I am going to focus on the ICT and the e-health research issues that CSIRO is going to focus on for the next three to four years.

So what is CSIRO going to work on for the next few years that will relate to everyone as a health consumer particularly in the rural health field? Because the goal here and the dream here is “How can we assist in bringing city-quality health care delivery and services in to rural areas? How can we improve the equity of access for health and well-being everywhere and how can we conquer the tyranny of distance to ensure that health care everywhere is a heartbeat away?” That is the sort of thing that we are talking about. Because people living in rural and remote areas have lower access to health care compared to those living in metropolitan areas and we know it. Access difficulties are due to difficulties in distance, time, cost, transport options and so on and that is bad enough. However the issues are complicated even further by acute shortages and uneven distribution of health facilities and health professionals. And we looked at some of the factors that related to some of those issues. Hospital facilities are also less accessible in rural areas and most people living in rural and remote areas travel much larger distances to their nearest hospitals. And specialised treatment is only available in larger towns and cities.

In some sense you know all this so I am preaching to the converted. I am preaching to the people who are agonising over some of these issues. But the issue still remains. How do we address this imbalance? As I said, we have done some work in information communications technologies around what we call non-clinical health decision support. And the focus on the work that we have been carrying on until now is mainly around operational issues that relate to allocation of beds to medical programs, scheduling or operation theatres, demand forecasting, capacity of organisation and so on. That gives us a little bit of an insight to what the issues are. It also tells us that information communications technologies are more than bandwidth; it’s more than pipes; more than connecting things to other things. What do you do with the pipes once they are there? How is ICT fundamentally transforming the way we do what we do? And that is important.

So in the past while we have done some work in planning, let’s say in demand forecasting and resource allocation decisions, in simulation for patient movement and simulation modelling for resource utilisation. We have done some work in key performance indicators and utilisation measures, in operations efficiency and in general strategy using data appropriately to make decisions. The research still is about how we tackle the key issues of rural health - which is about service co-ordination and
structure, particularly as it relates to health and very particularly as it relates to rural and remote areas. That is a matter of interest to rural health sectors, which has extreme importance to us because we are motivated by our key dream, our key goal, which is about reducing the tyranny of distance and ensuring that health care everywhere is a heartbeat away.

So we need to understand how the delivery of services that is enabled by ICT is just not equal to a brilliant telehealth care strategy. How do we move away from that to ensure that services are relevant to the structure that is necessary so that we are able to overcome the issues that are acute - resource strategies, overworked and tired professionals, inequitable access to good quality health care, low morale and stretched health professionals who have been just too busy for too long. And the issues get even worse when you compare relative to metro health areas. “Twenty-four-seven” access to health care services, relatively short waiting times for GP services, high levels of doctor supply and increasing sub-specialisation of medical and primary care and moreover people in metro areas may be more aware of preventative health campaigns and attend GPs for regular health care check ups and so on. Clearly there is a disparity here but it is part of that overall picture of lack of services and lack of facilities.

But there is a structural disparity and there is something acutely wrong with the way we structure and fund health services particularly in rural areas. And the question is—again we come back to that—how can we ensure that city-quality health delivery and services in rural areas, equity of access, conquering the tyranny of distance so that health care is a heartbeat away?

Now I am going to present some interesting data, which I think is interesting and you will be seeing some of these data—it is publicly available; it is on the web and so on. But I want to just highlight a few issues. So, large rural areas have more public hospital beds per 100,000 people—you have seen this data; it is available on the web. But the issue here is that the number of hospital beds just provides an indicator of the capacity of the region and the ability to supply acute care services, but we need to take into account cash-strapped areas and the types of specialist services that are provided. So the assumption here is that people travel a heck of a lot to get to where they want to, so that they get the care that they want to.

So how do we shift the cost burden of acute care and how do we address two issues that leap up from this argument? Equity of access is lopsided and acute care, especially in rural areas, handle and cater to an unmanageable variety of specialist services. So that is one thing that leaps up. Then we look at numbers of consultations and it is pretty clear that there are many more consultations in capital cities than in rural areas, and that has to do, again with the variety of services that are available and the distances that people travel in order to get to where they want to get to. It gets even worse when we look at GP consultations—there is almost double the number of practitioners providing services in capital cities per head of population when compared to remote areas. Again, this is old data but things really haven’t changed when you look at current data that is available. But this is published data so I prefer to use these data than other speculative ones.

If you look at expenditure per bed, it is higher in capital cities, but expenditure per person is higher in rural areas. This then indicates that the more expensive higher specialisation care is provided in larger cities, thereby indicating lower, poorer access in rural areas. And also it indicates that economies of scale are hard to achieve in rural
areas so there is something structurally wrong about the way we provide these services. So innovations are necessary.

Telehealth in Australia has been practised in a variety of ways for more than one hundred years and, in fact, the telegraph was the first technology to be used to deliver health services to remote areas. It provided links where the telephone was just not available. And the Royal Flying Doctor Service was established ages ago, 1929 I believe. And so innovations have been happening—some splendid innovations have been happening—but more innovations are necessary; continuous innovations are necessary. Telehealth is expensive; therefore not entirely feasible today. Providing more resources may not be the right answer. What sorts of resources? What services? What specialisations need to be carried out? Where and why? How do we increase accessibility?

So modern ICT, Information and Communications Technology, has a big role to bridge the access gap. Telehealth can provide diagnosis and treatment in some health services without the need for patients to travel for that treatment. But the costs are high and the infrastructure is difficult to establish—the infrastructure cost is substantial for rural and remote populations. And the level of health in rural zones does not rely solely on the supply of medical practitioners. In fact some areas already have an apparent oversupply.

So how do we structure health service delivery so as to improve equity and access and what are the resulting information and education needs? So, rural health and ICT now have access to broadband communication services to significantly influence health services. ICT has the potential to improve health care by a variety of means - rethinking and transforming the pattern and manner of delivery of health services; allowing and facilitating better access to health information and data; increasing and enhancing access to health services and education services; and delivering and increasing the amount, type and speed of information that is being delivered.

So I am going to skip the next three transparencies so you can blink for a minute because I want to get to one of the scenarios that we are working on—and I will talk to these scenarios rather than those actual dot points there.

So, a farmer is driving a tractor when he feels nauseous, starts vomiting and develops a rapid heartbeat. He/she rings the health system using a mobile phone, or if they are wearing an implanted device it contacts the system directly, which then directs the call to a local community health care provider. They provide consent to the provision of information such as their location, their medical records and so on. Using advanced decision support tools the Community Nurse determines that there is likely to be the onset of a serious condition, normally treatable only in a major city hospital. However, the community facility is tele-connected to a large network and the Nurse provides some very targeted advice to the farmer until help arrives. A local ambulance is dispatched automatically and the monitoring of vital signs continues until the transfer, permitting expert advice to be conveyed to the paramedics and the ambulance—continually. When the farmer arrives at the Community Health Centre a Surgeon is waiting in front of the virtual surgery room; virtual surgeon assisting, and Nurses are prepared to operate as directed. The operation is successful and the patient is quickly released to home care without the unnecessary trauma, the cost and the time of transportation to the city.
The operation involved a new technique but it had been well rehearsed by the Surgeon and Nurses as remote training in the period before the operation in new procedures is a regular part of the skills maintenance of the Health Network. The details of the operation, but not the patient, are quickly absorbed into the health data network enabling the close monitoring of evidence for the new technique. At home the farmer is supplied with a PC or any other device that is connected to the vital signs detection equipment that he or she wears during the convalescence, which feeds information regarding the recovery to the Community Health Centre. The PC also delivers targeted information to the farmer, enabling appropriate feedback on progress towards recovery as well as suggesting recovery programs.

So this is one of many scenarios that are possible, and the interesting thing is that a lot of that is possible today. We are not living in “Cloud Cuckoo Land” as some scientists tend to live in. Some of that is available today. Some of that is actually a question of systems integration, of available technologies and obviously some of them need to be significantly improved upon. And that is the sort of system that we are thinking about which basically has an information services grid that supports the supply, the use and the continuous updating of that information along with the co-ordination layer. I am not going to go into the details of this scenario from the point of view of technology.

So there are systemic issues, which are around what we call a virtual health care system. The health service providers form a virtual organisation; service providers use best practice guidelines; patients are completely at the centre in terms of receiving rapid responsive treatment; relevant training is always available and resource use is optimised in this virtual network.

I have another scenario, which I would like to talk to before we wind up. This is a three-minute scenario. So again, pardon me as I skip some of these nice looking slides to this scenario which talk to the technology issue. So we have talked about the virtual network; we have talked about the patient through that scenario and—let’s just look at some of the possible technology issues.

So it has been a quiet day at Bundamba Base Hospital and Dr Calighary, Registrar in the Accident and Emergency Department, is starting to look anxiously at the weather outside as the gathering storm could make for a hazardous trip back to his home, just outside the town. As the rain begins to fall an ambulance brings in an accident victim, John Silver, from the nearby highway. Mr Silver has suffered a serious leg fracture. This is a difficult fracture, which will require immediate action. Unfortunately the nearest specialist centre is several hundred kilometres away and the fury of the storm will make air ambulance evacuation almost impossible. He clicks the Expert Assistance icon on the screen and the software performs an immediate analysis of the x-ray pointing out several features of this fracture that will make treatment even more hazardous than he had originally imagined.

Clicking on Similar, a number of case histories of similar fractures are summarised for the doctor. The Nurse hands Mr Silver’s Medicare Card and Dr Calighary swipes it and is extremely relieved to see that the patient has consented to his full electronic patient record made available via Health Connect. The system throws up any information available for the patient and it is immediately noted that the patient has Penicillin allergy and is on medication for blood pressure as well. An earlier fracture to the same leg in a skiing accident is also brought to attention. Clicking on decision support advises that on the basis of Mr Silver’s condition, his previous history and
current guidelines based on evidence-based medicine, immediate manipulation of the injury will prevent further complications—in fact it is necessary, including possible infection, even given Calighary’s relative lack of experience.

A number of Sydney-based specialists are listed on the screen for contact and consultation and Dr Calighary clicks on the icon of Dr Jacob who taught him basic orthopaedics in his intern years. Fortunately Dr Jacob is available and soon appears on the screen. Together they consider the option of using x-ray as a sketchpad. Finally Dr Calighary decides to reduce the fracture tele-mentored by Dr Jacob from his sitting room overlooking Sydney Harbour. Dr Jacob occasionally nudges Dr Calighary’s hand using an interactive tactile system when Dr Calighary is not sure how to apply the appropriate pressure.

The procedure is a success but the patient’s condition deteriorates during the night. The Base Hospital has no Intensive Care Unit but it has some equipment, so the patient is admitted virtually to the RPA Virtual Intensive Care Unit, where his vital signs appear alongside those of patients physically at the RPA. With careful manipulation of medication the patient is feeling better by morning, attached to his family by videoconference and can recuperate at the Base Hospital and is soon on the road to recovery.

Some of the above - it seems so far fetched - but some of this is possible today. Although high-speed broadband, video conferencing and targeted clinical support is available in the research rooms it is not available commercially. But some of this is available today but there is a heck of a lot more to do and that is what we are planning to do. Thank you so much.

**Vivian Schenker, Conference Chair**

Amazing isn’t it. Talk about a brave new world. Well, it has been a busy morning hasn’t it? I guess you are all in desperate need of some sustenance before you take on ...