

**The Winston Churchill Memorial Trust of
Australia**

Report By –

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1995 Churchill Fellow**

The Sir William Kilpatrick Churchill Fellowship
to study the provision of health services
to rural communities –
USA, Canada, Norway, Sweden, Finland

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Introduction

In mid 1994 I commenced collecting documentation on overseas health services and systems that would benefit rural communities in Australia. This material assisted me in making a submission for a Churchill Fellowship in February 1995. I was encouraged and guided by Mr. Hal Fry (*1983 Fellow*), of Stawell, who I am indebted to for introducing me to, and the benefits of a Churchill Fellowship. I wish to acknowledge my referees, Mr. Graeme Bennett, Mr. Allan Hughes, and Professor Roger Strasser, who readily accepted their role when I submitted my application.

I wish to acknowledge a member of a special organisation I visited and that was Michael Falck, Vice President : Inter Mountain Health Care Group, and his wife Gayle. They were very friendly and generous hosts during the time I spent at “Intermountain Health Care” (*IHC*), Salt Lake City, Utah. IHC proved to be an excellent health care group to visit and many of the benefits I brought back from the study tour were observed at IHC.

In Finland, I spent time at Kajaani, which is eight (8) hours by train north of Helsinki. The hospital manager, Mr. Hannu Leskinen, assisted me to appreciate how health services are provided in a country with a significantly different culture and language to Australia. One of my most endearing memories is that of Mr. Leskinen’s family and my family enjoying an evening meal in his home with communication assisted by regular reference to the English-Finnish dictionary.

I wish also to thank the Board of Management of the Stawell District Hospital for allowing me the time to be absent from my Chief Executive’s duties to undertake my study tour. To my personal secretary, Mrs. Lynette Healy, I extend my grateful thanks for the moral and word processing support she has given me from the initial application to the publication of this report.

To the Trustees of the Churchill Trust, Dr. David Burke, and in particular, the sponsors of the Sir William Kilpatrick Churchill Fellowship, I express my sincere appreciation for their support to undertake my study tour.

In conclusion, I wish to express my love and appreciation to my wife Jackie and two daughters, Ebonie and Caitlin, who encouraged me to pursue my dream, and for being with me for the majority of my study tour in mid 1996.

Executive Summary

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Project Description

The Sir William Kilpatrick Churchill Fellowship to study the provision of Health Services to rural communities – USA, Canada, Norway, Sweden, Finland. Study tour undertaken from March to June 1996.

Summary

In presenting this summary of my study tour, there are four main themes that I want to emphasise as a result of my study tour.

1. That the design, delivery and prioritisation of a community's health service is best done by each respective local community.
2. That the recruitment and retention of health professionals to rural communities is something that rural communities can play a significant role in.
3. That there is new, interesting, and effective ways to provide health information to consumers, and
4. That it is absolutely essential that health agencies aim to spend at least the benchmark rate of 3% gross revenue per year on information technology.

In mid March 1996, I arrived in Seattle, on the west coast of America, and met with two key people of the Ethix Northwest Organisation, the Chief Executive, Mr. David Ford, and Operational Manager, Ms. Kaaren Johnson. The purpose of my time with that organisation was to view the managed care services and community health plans they provide.

The Ethix Northwest Organisation provides managed care services to 160,000 people and has developed community health plans for rural communities. In meeting with David Ford, I was first introduced to a theme that was going to be consistent no matter what country I was in. That theme being that the best organisation to bring increased value to the health care sector, is the locally designed and controlled network of care between providers and consumers. That is, the local community designs and prioritises the most appropriate health care system that meets its community needs.

Certainly one of the highlights during my time in Seattle, was the visit to the Madigan Military Hospital, which is two hours outside Seattle. This 400 bed hospital was built in 1992 at a cost of US\$295m, and provides health services to the American Defence Personnel. This hospital is one of the few hospitals that I am aware of that has a largely paperless medical record system. The only medical records they need to have on paper is the consent of the patient and the Doctors drug orders.

Whilst I was also in Seattle I met with Dr. Gary Stimack from Kodak Radiology, who introduced me to the expanding world of telemedicine services and in particular, his teleradiology services to a community in Alaska. I spent approximately two weeks at the Inter Mountain Health Care Group based at Salt Lake City, Utah. The Chief Executive of this organisation is Mr. Scott Parker, who at the time, was also President of the International Hospital Federation. It was at the Inter Mountain Health Care Group that I observed the service called "Ring a Nurse" which interested me greatly, and I believe it has the potential to be applied in Australia. This twenty-four hour, seven day a week service, allows people from the community to ring a toll free number to receive advice about any of their health concerns or symptoms.

In America the Federal Government provides a financial incentive, which from all reports is effective, to encourage Medical Graduates to work in Rural areas.

On graduation most medical students graduate with a \$US120,000 debt, which if they agree to practice in identified rural areas will be paid off at the rate of \$US40,000 per year by the Federal Government.

I next visited two provinces on the eastern coast of Canada, namely – the Province of New Brunswick, where the provincial government in March 1992, with no forewarning to the healthcare system, announced the sacking of fifty-four hospital and health centre Boards and the creation of eight new regional Hospital Boards. I then compared this to an arrangement near Ottawa in the Province of Ontario, where four hospitals ranging in size from twenty-six beds up to two hundred beds, formed an alliance retaining their respective Boards of Management. These hospitals have directed their energy into identifying ways into which costs can be reduced through their joint purchasing programme or providing services collectively, with very positive and enduring benefits.

The President and Chief Executive Officer, Mr. Robert Devitt, of the Queensway Carleton Hospital, the largest hospital in the alliance was a most dynamic and positive individual who assisted me greatly during my time in the area.

I spent two days at Austin, Texas, and met with very interesting people at the University of Texas Health Service Centre at San Antonio, namely – Dr. Helen Cronenberger at the University of Texas Health Science Centre, and Dr. Douglas Dobbs, Director of Asia Pacific Region for the Vtel Corporation. They demonstrated to me their telemedicine programme provided to the southern rural communities of Texas with the most common use of telemedicine to the rural communities being in the area of Echocardiographs, Obstetrics/Gynaecology, Radiology, Pathology, Dermatology, and Distance Education.

In Philadelphia I spent some time at the Pennsylvania Hospital which has a Level I Trauma Centre which treats 1,600 patients per year. This trauma unit has a full time contracted helicopter service that delivers 900 patients per year to the hospital which approximates to be three cases per day.

I then visited the Memorial University of Newfoundland, Canada, where Dr. A.M. House, Director of the Faculty of Medicine, and Chair of their Telemedicine Service, introduced me to their many and varied telemedicine services to remote areas of Canada.

I then travelled to the Scandinavian cities of Oslo, Stockholm, and Helsinki, and spent a significant amount of time at a place called Kajaani, which is eight hours by train north of Helsinki. It was here, that I viewed the practical benefits of a telemedicine system provided by a specialist in obstetrics. The obstetrician would undertake ultrasounds on expectant mothers being managed by General Practitioners at least 100 kilometres from the major centre.

Major lessons learned on the Study tour included:

1. That there is alternative governance structures, as identified in Canada that assist health agencies to work closer together, without threatening each agencies autonomy.
2. That there is aspects of the American Managed Care health systems by which they provide medical information to consumers that would be of benefit in rural areas of Australia. In this context I am particularly referring to “telephone triage” services for primary medical care.
3. That every effort should be made to provide telehealth services to rural communities.
and
4. That health agencies should make every effort to assist rural industries in their communities by providing an Industrial Screening Service.

A large number of the lessons learnt on my study tour have been implemented to my local district since the study tour in 1996. In addition, I have accepted speaking engagements to promote the benefits of my trip, and indeed, the objects of the Winston Churchill Memorial Trust. Included in those speaking engagements were invitations to the 1996 Victorian Health Care Association Annual Conference and numerous Service Clubs in the community of Stawell and surrounding area.

Project Description

In this summary of the study tour, I will highlight some of the more interesting concepts that I was introduced to which has relevance for the way we provide rural health services in Australia.

I will describe a number of interesting observations that I made on my trip, however there are four main themes that I want to emphasise as a result of my study tour:-

1. That the design, delivery and prioritisation of a community's health service is best done by each respective local community.
2. That the recruitment and retention of health professionals to rural communities is something that rural communities can play a significant role in.
3. That there is new, interesting and effective ways to provide health information to consumers, and
4. That it is absolutely essential that health agencies aim to spend at least the benchmark rate of 3% gross revenue per year on information technology.

In Seattle, I spent time with the Ethix Northwest Organisation who provide managed care services to 160,000 people and has developed community health plans for rural committees. It was the Chief Executive of this organisation, Mr. David Ford, who first introduced me to a theme that was going to be consistent, no matter what country I was in. That is, that the best organisation to bring increased value, efficiency and relevance to the health care sector is the locally built and controlled network of care and relationships between providers and consumers. That is, the local community's design's and prioritise the most appropriate health system that meets that particular community's needs.

The next group I met with in Seattle were people from the University of Washington whose department is called the Community Health Service Development Programme which works to help rural communities strengthen the quality of health care provided to their local population through a community based planning process.

To date they have successfully undertaken planning processes in sixty separate rural communities and always they only enter a community at the invitation of that community and the cost is subsidised from various sources, but the community must pay approximately \$US15,000 to ensure they have some ownership for the process. The total cost of each programme is approximately \$US60,000.

The six main sections of this community planning process are:

1. Community wide goal setting meeting, which is open to the public.
2. A needs assessment or service planning review where members of the team interview 25 to 30 key players in the community and 6 to 10 focus groups about their assessment of health and welfare services currently provided or not provided.
3. The third aspect is a community survey sent out to at least 1,000 individuals in each community and they hope, or they insist, that at least 400 responses are received to make it a valid questionnaire. The responses to these questionnaires are then benchmarked with other similar communities.
4. A financial review in laymen's terms of the organisation is undertaken, to indicate whether the community health centre or hospital is viable and makes recommendations on the financial position of the organisation.
5. An organisation review which looks at team work among key groups such as Board Members, Medical Staff and Administration, is undertaken and also conducts employee meetings and surveys.
6. An analysis is undertaken in the scope of medical services provided and this is undertaken by a medical professional and covers recruitment and retention issues.

The final report is then presented to the planning committee and the community at a public meeting.

Whilst in Seattle I was given my first demonstration of teleradiology at the Kodak facility. This facility services Soldatna in Alaska, just south of Anchorage. The township of Soldatna is a community of approximately 30,000 people, 1,500 miles north of Seattle. A sole radiologist in Seattle, Dr. Gary Stimack provides a 24 hour, 7 day a week teleradiology service to this community, and all the pictures processed are cat scans. The digital pictures are sent by satellite and the system works extremely well.

I attended the Ninth Annual North West Region Rural Health Conference at Spokane, which is five hours inland of Seattle.

Sessions I attended included physician responses to managed care organisations, recruiting and retaining medical staff in rural areas, telemedicine models that work, loan repayments as a recruiting tool for both medical and nursing staff and growing your own health professionals.

Most of the sessions I attended at this conference were stimulating and interesting and helped me appreciate that rural health services in America have the same problems we have, in that they are trying to do more with less in a system that is largely funded on a per capita basis.

This conference attended by approximately 300 people, demonstrated to me the significant effort the American rural communities put towards attracting health professionals to rural remote areas. In particular, rural health services have developed a programme called 'Grow Your Own Health Professionals' by being health ambassador sites to train students during their secondary years to prepare for health professional careers.

This is particularly beneficial in the area of medical staff where they have resolved that the best way of attracting doctors to rural areas is to get as many rural students as possible into medical school. Currently in America eight per cent of the applications to medical school are from rural areas where twenty-five per cent of the population live. When they do graduate from medical school most students graduate with a \$US120,000 debt which, if they agree to practice in identified rural remote areas, will be paid off at the rate of \$US40,000 (approx) per year by the federal government.

In addition, the rural communities where these doctors work, ensure that at least two other senior medical practitioners are available to work with that new graduate to provide them with professional support, and in addition those rural communities do not require the doctor to buy into the practice or fund the cost of information and billing systems, as this is all provided for the doctor including a base salary amount.

One of the highlights during my time in Seattle was the visit to the Madigan Military Hospital which is two hours outside Seattle. This 400 bed hospital was built in 1992 at a cost of \$US295m and provides health services to the American defence personnel. It is a massive complex and as an example they have a 1 acre floor for radiology services. This hospital is one of the few hospitals that I am aware of, that has a largely paperless medical record system. The only medical record they need to have on paper is the consent of the patient and the doctors drug orders. All the radiology, laboratory, doctors and nurses medical notes and images are entered into a computer next to the patients bed.

All the vital signs of the patient can be automatically monitored and entered into the data base of the particular patient, including the weight of the patient which is monitored directly from a device in the bed so that the patient can be weighed in bed rather than having to step out of the bed and onto scales. All this information can be monitored and collated and trends can be graphed by the pressing of a button.

It was at this hospital that I observed a hospital robot which collected rubbish and linen from all areas of the hospital and delivered that material to the basement of the hospital.

I next spent ten days with the Intermountain Healthcare Group based at Salt Lake City, Utah. The Chief Executive of this organisation is Mr. Scott Parker who is President of the International Hospital Federation.

This group manages twenty-four hospitals, fourteen of which are rural hospitals, and it was interesting to note that in 1989 the ten smallest of those fourteen hospitals were projected to lose a total of \$4.5m per year. However that has all been reversed due to careful strategic planning, recruitment of appropriate professional staff, particularly medical staff, and now only one of the smallest hospitals is with a minor deficit.

The largest metropolitan hospital is a 520 bed licensed hospital currently using 390 of those beds in Salt Lake City, with the 14 rural hospitals bed numbers ranging from 7 beds up to 114 beds. Total acute admissions to their hospitals is 100,000 with 25% of those admissions being in rural communities.

The American health care system is based very much on competition for price of health insurance and access to health care. With the Inter Mountain Healthcare Insurance Scheme as with most of the insurance schemes available now, it is a capitated scheme, that is, the insurance company has set a limit of the amount of funds that are available for their enrolled members in paying for their health care. As would be expected the insurance companies work very hard to minimise the amount they have to pay out for health care because the smaller the outgoings, the greater is their profits from health insurance.

The Inter Mountain Healthcare Group have set up different levels of accessing health care services all at different levels of payment required by the patient.

- ring a nurse at zero cost
- instant care facility at \$10 per attendance
- emergency room at \$50 per attendance where it can be expected that a doctor would be present
- and if a person has to be admitted to hospital the individual would be required to contribute 20% of the total cost of that hospital admission

The 'ring a nurse' or 'ask a nurse' programme provided by the Inter Mountain Healthcare Group interested me greatly and I believe has potential for it to be applied in our country. This 24 hour per day, seven day a week service allows people from the community to ring a toll free number to receive advice about any of their health concerns or symptoms. When the call is received by the centre, the nurse, through a step by step algorithms process determines the seriousness, with the result that either the caller is advised to seek attention of a doctor immediately or to seek service of a doctor some time later, or to monitor the situation closely by staying at home.

The number of calls received at this centre each day in Salt Lake City is up to 1,500 calls with individual registered nurses in an 8 hour shift handling between 45 and 50 calls. This is an excellent computer system operated only by registered nurses. An incredible amount of powerful data is able to be collected from each call and stored in a data base.

One of the checks and quality controls the organisation does is on its outcomes recommended to callers. Because it has the name of the caller it is able to check with their doctor to see if that person subsequently had a diagnosis done on the particular problem and a cross check is done on the accuracy of the phone interpretation – that checking indicates that recommendations given are 93% accurate.

Of the 20,100 calls received in March 1996 at this facility, 107 or less than 1% of the calls, an ambulance was required and 46% or 9,140 calls had self managed symptoms.

Approximately 260 doctors are currently on salary with the organisation and that number continues to increase.

One of the problems the organisation had with putting doctors on contracts was to maintain productivity with the result that 40% of the doctors salary is fixed with 60% dependent on throughput with an additional 10% bonus being available to each doctor, depending on subjective assessment of their performance, including patient feedback.

The Board of Management appears to be very large by our standards, with the Board numbers comprising approximately 30 individuals. However the Board meets only six times per year for approximately two to three hours on each occasion, and in addition, they meet for strategic workshop weekends twice per year.

Board Members are invited onto the Board for their special skills or influence, and some travel large distances to be part of the Board, including one gentleman who is from Washington DC and has an insight into the political thinking of the government of the day.

In addition the Board has been increased in numbers over the last couple of years, because as the organisation put more doctors on to salary, they had to be given a voice on the Board of Management, with the result that of the 30 members, 10 are physicians and of those 10, 5 are appointed and 5 are elected. Depending on the individual contribution to Board meetings, and the value they bring to Board deliberations, they can be re-appointed after every two years.

So the point to highlight here, is that Board Members are invited onto the Board, no matter where they may live, and the Board is purely there to set policy and direction and the Board Members are retained for their strategic business and special skills and as an example, they approve usually the annual budget for the total organisation within fifteen minutes consideration. This organisation introduced me to the notion of volume adjusted budgets. These budgets reflect what are fixed costs in the organisation and what are variable costs, so that all budget figures for each line item are automatically adjusted, depending on throughput for each section of the hospital.

An area that did surprise me whilst I was with the Inter Mountain Healthcare Group was that the organisation determines and predicts its cash flow requirements thirty years in advance. These projections are based on the organisation's cash reserves, the anticipated inflation rate and built in to these projections is an allowance that each building of the organisation will have a major upgrade every fifteen years and some buildings are identified to be replaced every 45 years. As a result of this analysis the organisation was able to determine that it must make 2% on gross revenue to fund future capital requirements of the organisation, including building and equipment purchases.

Following my time in Salt Lake City, I travelled to Texas where I studied telemedicine systems which is the use of an interactive video system linking one site to another. The most common use of telemedicine in rural communities is teleradiology, obstetrics, pathology and dermatology and distant education programmes.

The development of telemedicine systems is somewhat relatively slow for a number of reasons including the capital cost of the equipment which is of the order of \$300,000, the issue of reimbursement for consulting services provided by the medical staff when they are not in the actual presence of the patient, and medico-legal issues that are as yet unresolved.

In Philadelphia I spent some time at the Pennsylvania Hospital which has a Level I trauma centre which treats 1,600 patients per year. Of these 1,600 patients, 1,200 are admitted to the hospital's intensive care unit and surgery facility. The trauma unit has a full time contracted helicopter service that delivers 900 patients per year to the hospital which approximates 3 cases per day. If the patient has the ability to pay, the cost of his episode of care in the trauma unit is in the vicinity of \$US7,200. The helicopter lands on its roof where it is permanently parked.

On the east coast of Canada I visited two provinces. One being the Province of New Brunswick where in March 1992, with no forewarning, to the health care system the provincial government announced the sacking of 54 hospital and health centre boards and the creation of 8 new regional hospital boards in their place.

On visiting this area four years after the forced amalgamation had occurred, I noted fourteen health services, including five major hospitals were amalgamated under one central body and the Board of Management appointed largely by government. In this province, it was evident that a large number of the health services were not happy with the forced amalgamation, indeed they were angry and all their energies were directed at dismantling and fighting the larger centre of Fredericton, which was the dominant 400 bed hospital in the organisation.

One of the smaller hospitals at Bath has lit a crucifix on its grounds overlooking the hospital. The community, who are paying for the lighting cost, erected the crucifix with the view that whilst the light shines on the crucifix, they will continue to maintain a hospital in their town with acute beds.

[Sadly, on my return to Australia, I learnt this hospital in Bath had been subsequently closed.]

This arrangement contrasted with the very positive and co-operative arrangements that hospitals had arrived at near Ottawa in forming an alliance which retained their respective Board's of Management.

In this province of Ontario, four hospitals, namely – Arnprior and District Memorial Hospital (54 beds: \$9.5m budget), Carleton Place and District Memorial Hospital (26 beds: \$5.7m budget), Kemptonville District Hospital (52 beds: \$6.2m budget), and Queensway-Carleton Hospital (201 beds: \$47.5m budget), comprised this Alliance.

All their energy was directed into identifying ways in which cost could be reduced through their joint purchasing programme or providing services collectively. There was a very positive feeling amongst all four hospitals towards the Alliance, as distinct from the forced merger which I had visited in New Brunswick.

I then travelled to Norway, Sweden, and Finland. In Finland I visited Kajaani which is eight hours by train, north of Helsinki and I observed the Finnish health system in a number of centres.

In Finland municipalities have by law, the main responsibility for arranging basic services, like schooling, and health services to their communities.

Presently there are 455 municipalities ranging in populations of 1,000 up to 500,000 with the average being about 11,000 inhabitants. Municipalities have the right to levy taxes. They also receive a subsidy from the federal government to enable them to arrange the services they are obliged to provide. In addition to the federal subsidy for health care, municipalities receive subsidies for social services and schooling.

The country is divided into 21 health districts and each district is responsible for providing hospital services and co-ordinating the public hospital care within its area.

In the area I was visiting, 100,000 people were serviced under an Area Health Board arrangement in an area of 24,000 square kilometres with 12% of that area permanently under water or ice. The health service contracts with the municipal Board for an agreed range of health services and the municipality then determines its tax levy, usually around 20% with the federal government taxes being 30%.

With the Chief Executive and the Medical Director of the health district, I visited a number of health centres including one that was only 30 kilometres from the Russian border and it is very obvious that the Finnish people are very concerned about their security given the massive number of poverty stricken people in Russia.

I was able to observe that the Finnish health system is very well structured, well planned and well controlled, where again the local community through their municipal local government, determine their level of tax they wish to levy to provide an agreed range of health services to their constituents.

In a town of 12,000 people I visited, there was eight doctors resident in the community. They do not deliver any babies because the state since 1973, have required the expectant mothers from that community to travel the 110 kilometres to Kajaani to deliver their babies.

However, the community is well served by a number of the doctors capable of undertaking obstetric ultrasounds where through the teleradiology system they are able to obtain online advice from a obstetrician from a larger centre for cases that appear to have complications or extenuating circumstances.

Capital planning for each hospital in the district is well organised with three year capital budgets being agreed to with each municipality and the federal government, with the result that in the hospital district I visited they were just installing a new MRI, that they knew they would receive three years previous.

As an aside, an interesting aspect of the Finnish lifestyle is that the amount of fine levied for exceeding the speed limit is determined by your annual salary.

Conclusion

After comparing the rural health services in a number of developed countries, I am of the view that the quality of health services is largely determined by the community itself which places a significant responsibility on health service providers to ensure they keep their communities informed of health service funding issues.

In summary, I believe that the Australian Health Care System is the fairest and best of all the systems I observed, but the challenge I face along with my fellow colleagues who administer the health system, is to recognise that it is at its best in terms of resourcing levels at this point in time and the challenge for us is to ensure we constantly review how we deliver health care to ensure the right services are accessible to the people who need them.

Recommendations

In my role as Chief Executive of Stawell District Hospital, Council member of the Victorian Healthcare Association Division 3 Council and Director of the Rural Workforce Agency of Victoria I will continue to initiate and support identified improvements in rural health services. In particular the Federal Government is actively encouraging suggestions on how health services in rural areas may be improved and I will seek to pursue this opportunity as best I can.

There are two areas in particular that I think changes should be immediately made to the Australian Health Care System:-

1. That medical practitioners, telehealth consultations, be a reimburseable service under the Medicare Benefits Schedule. (Currently a medical practitioners consultation fee can only be claimed from Medicare if the Doctor could touch the patient during the consultation.)
2. That the continued development of existing infrastructure to provide telephone triage services to rural and remote communities is essential and is to be encouraged to allow those communities access to health information and advice.