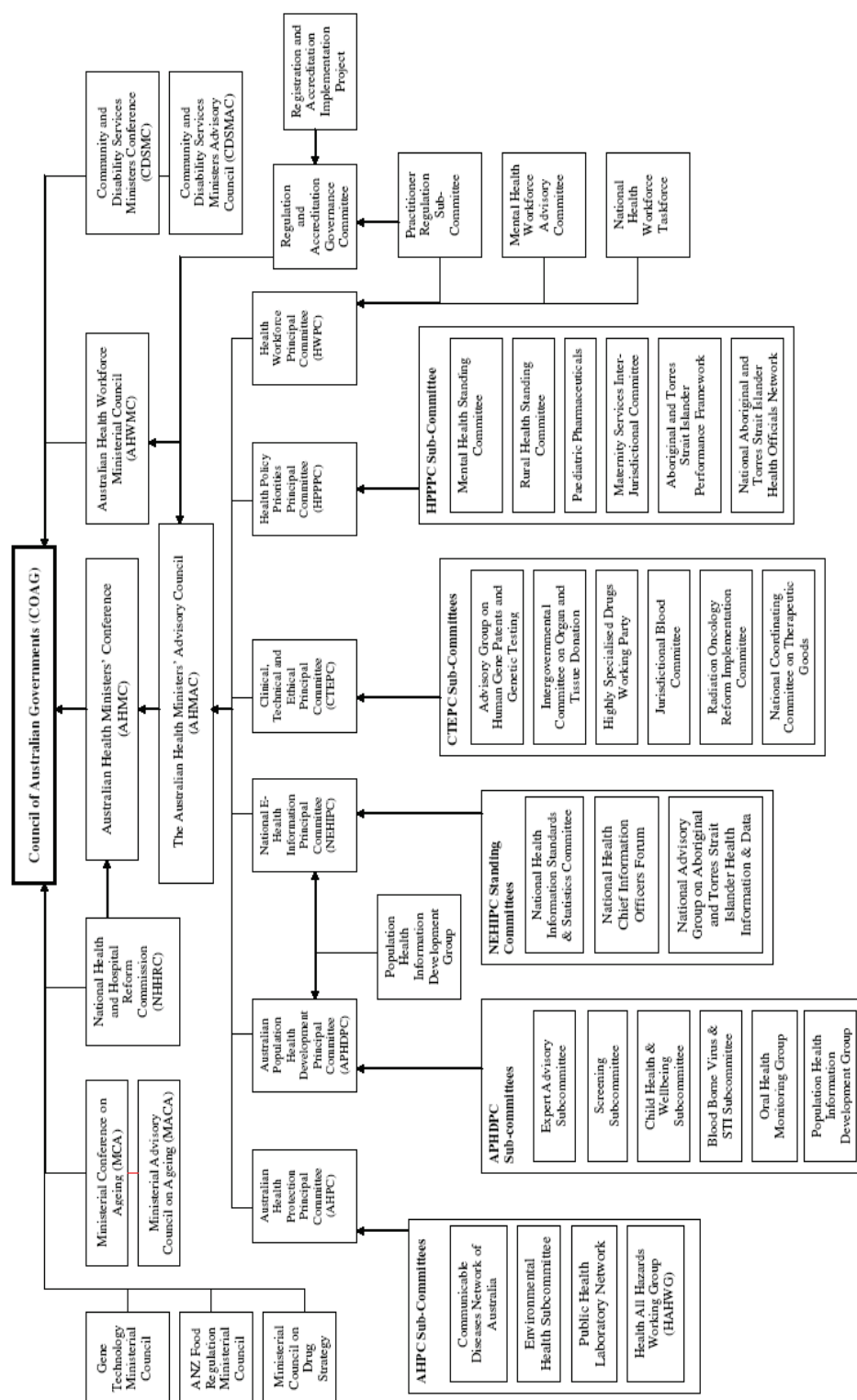


10.0 APPENDIXES

- Appendix A Advisory groups to AHMAC, AHMC, and COAG
- Appendix B Informed-consent form for participants
- Appendix C Information sheet for participants
- Appendix D Questionnaire for participants
- Appendix E Location of the first community-controlled Aboriginal Medical Service in Australia
- Appendix F Professor Archie Cochrane and the NTEHP
- Appendix G Medical Specialist Service Delivery to Rural and Remote Australian Communities: A Demonstration Project (Brian 1997)
- Appendix H Recommendations of the Eye Health in Aboriginal and Torres Strait Islander Communities Report (Taylor 1997, pp. 1-9)
- Appendix I The Regional Model of Public-Private Eye Service Delivery (Brian 1998, pp. 7-12)
- Appendix J Recommendations of the Review of the Implementation of the National Aboriginal and Torres Strait Islander Eye Health Program Report (Taylor et al 2004, pp. xviii-xxvii)
- Appendix K The Visiting Optometrists Scheme (VOS)
- Appendix L The Medical Specialist Outreach Assistance Program (MSOAP)
- Appendix M Bibliography of Indigenous Eye Health

10.01 Appendix A Advisory groups to AHMAC, AHMC and COAG *



* Diagram provided by OATSIH, May 2010.

Informed- consent form from participants

CONFIDENTIAL

The University of Melbourne
Melbourne School of Population Health
Indigenous Eye Health Unit

Research Project Title: A Critical History of Indigenous Eye Health Policy:
Towards Effective System Reform

Research Team: Professor Ian Anderson, Professor Hugh Taylor, Jilpia
Nappaljari Jones and Graham Henderson

INFORMED-CONSENT FORM FOR PARTICIPANTS

I understand that this project is for research purposes only YES (please circle)

I understand that my involvement in the project is voluntary,
that I am free to withdraw at any time, and that I am free to
withdraw any unprocessed identifiable information previously
supplied YES (please circle)

I understand that I will be interviewed for this project, that the
interview may take up to one hour to complete, and that the
interview will not be audio or video-taped YES (please circle)

I understand that unless I give written approval to the contrary,
my privacy and confidentiality will be maintained, and that my
identity will only appear on this consent form which will
be held in a secure place at the University of Melbourne
accessible only by the Principal Researchers until destroyed
5 years after completion of the research project YES (please circle)

I understand that my completed interview questionnaire document
will only have a Research Participant Number on it and not my name,
that it will be retained by the Research Team and stored in a secure
place separate from my signed informed-consent form at the University
of Melbourne accessible only by the Research Team until destroyed 5
years after completion of the research project YES (please circle)

I understand that there are legal limitations to data confidentiality,
for example, the data may be subject to subpoena or freedom of
information request YES (please circle)

I understand that the sample size of participants in this project is
small which may have implications for protecting your identity YES (please circle)

Having read and understood the above points, I hereby agree to participate in this research project.

Name of participant: (Please print clearly)

Signature of participant:

Date:

Research Participant Number		
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Information sheet for participants



THE UNIVERSITY OF
MELBOURNE

THE UNIVERSITY OF
MELBOURNE

THE UNIVERSITY OF MELBOURNE
HUMAN RESEARCH ETHICS COMMITTEE

APPLICATION FOR APPROVAL OF A PROJECT INVOLVING
HUMAN PARTICIPANTS

Registration No. (office use only)

FORM 1

This application form is to be used by researchers seeking human ethics approval for individual projects and studies. **The original and 14 copies of your completed application should be submitted to Human Research Ethics, Melbourne Research Office, Level 5, 161 Barry St Carlton by the due date.** Please respond to all sections as applicable and provide attachments where indicated.

RESEARCH MUST NOT COMMENCE UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE ETHICS COMMITTEE.

MODULE 1 – CORE MODULE (must be completed for all projects)

0.1 PROJECT TITLE: **Critical History of Indigenous Eye Health Policy: Towards Effective System Reform**

0.2 THIS PROJECT IS:
(tick as many as apply)

☒ Staff Research Project

☐ Student Research Project (tick the relevant course type)

☐ PhD

☐ Other Doctorate

☐ Masters by Research

☐ Masters by Coursework

☐ Honours

☐ Postgraduate Diploma

☐ AMS Student Project

☐ Clinical Trial ☐ CTN ☐ CTX ☐ Other

☐ Project Involving Patients

☐ Practical Class

☐ Funded Consultancy

☐ Other - Please Describe:

0.3 PRINCIPAL RESEARCHER(S): [This includes supervisors and co-supervisors of student projects. PhD and Doctoral students can be listed as Principal Researchers along with their supervisors. The first listed Principal Researcher takes overall responsibility for this research project and is the contact point regarding this application]

TITLE	SURNAME	FIRST NAME	PHONE	EMAIL
Professor	Anderson	Ian	0407227825	I.Anderson@unimelb.edu.au
Professor	Taylor	Hugh	0383449320	h.taylor@unimelb.edu.au

0.4 OTHER RESEARCHERS

TITLE	SURNAME	FIRST NAME	PHONE	EMAIL
Ms	Nappaljari Jones	Jilpia	02 62498446	jilpia@notomys.com
Mr	Henderson	Graham	02 62496629	graham@notomys.com

0.5 FACULTY/DEPARTMENT/SCHOOL/CENTRE [The Unit which takes overall responsibility for this research project]

Faculty of Medicine, Dentistry and Health Science/Melbourne School of Population Health/Indigenous Eye Health Unit

1. PROJECT DETAILS

1.1	PROPOSED DURATION OF THE WHOLE RESEARCH PROJECT	From:	July 1 2009	To:	December 31 2009
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1.2	PROPOSED DURATION FOR THE DATA COLLECTION PHASE OF THE RESEARCH PROJECT	From:	October 1 2009	To:	November 30 2009
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- 1.3 **EXECUTIVE SUMMARY IN PLAIN ENGLISH:** *Provide a brief summary of the project outlining the broad aims, background, key questions, research design/approach, the participants in the study and what they will be asked to do, and the importance or relevance of the project. [This description must be in everyday language, free from jargon, technical terms or discipline-specific phrases. (No more than 300 words).]*

Broad Aim: To document a critical history of Indigenous eye health policymaking in Australia from the *National Trachoma and Eye Health Program* (NTEHP) in the late 1970s to the present time to assist effective system reform in Indigenous eye health in the context of the Close the Gap policy environment of the Commonwealth Government and the Council of Australian Governments (COAG).

Background: The NTEHP was instrumental in jolting an apathetic Australian population and their politicians towards putting poor Indigenous health at the forefront of health policymaking by Australian governments. Much progress has been made since that time. However many Indigenous Australians still suffer unacceptable and inequitable health outcomes compared to other Australians. Much past policymaking and implementation by Australian governments appears to have been ad hoc, under-funded, often compartmentalised, uncoordinated, and not based on clear evidence. This research will extract critical elements of past policymaking in eye health and provide recommendations towards effective system reform.

Key Questions:

1. What are the key Indigenous eye health reports and policies and their timelines from the NTEHP to the current time?
2. What was the wider context of health in Australia during this period?
3. Who were the key decision makers and organisations influencing Indigenous eye health policies and programs during this period?
4. What factors and circumstances influenced the actions of these key decision makers?
5. How can an understanding of questions 1-4 inform recommendations for effective system reform.

Research Design: A qualitative study based on a search of the literature and face-to-face interviews with a purposive sample of people involved in Indigenous health policymaking since the NTEHP.

Participants in the Study: Ten people identified as key decision makers in the Indigenous eye health policymaking process since the NTEHP.

What the participants will be asked to do: To participate in a face-to-face interview questionnaire.

Importance/Relevance of the Project: This project, together with the other projects in the Indigenous Eye Health Unit Research Program of the University of Melbourne, will contribute towards effective system reform of Indigenous eye health in Australia.

- 1.4 **AIMS OF AND JUSTIFICATION FOR THE RESEARCH:** *State the aims and significance of the project. Where relevant, state the specific hypothesis to be tested. Also provide a brief description of current research/literature review, a justification as to why this research should proceed and an explanation of any expected benefits to the community. [No more than 500 words]*

Appendix C (continued)

Aims of project:

To:

1. Describe the development of Indigenous eye programs and policy from the NTEHP forward;
2. Identify the key barriers and facilitators to effective policy and program development; and
3. Identify strategies for future systems reform in this field.

Significance of project:

The NTEHP, a vertical (condition focussed) program, was instrumental in raising broad public and political awareness of the poor health and living conditions of Indigenous Australians in the 1970s, and in particular, their poor eye health¹. Various key reports, programs and policies on eye health followed on from the NTEHP^{2,3}. New systems of Indigenous health care delivery developed, such as Community Controlled Aboriginal Health Services⁴. The Fred Hollows Foundation was established⁵. The National Strategic Framework for Aboriginal and Torres Strait Islander Health was developed⁶. However, trachoma remains endemic in many Indigenous communities in Australia⁷. This project will explore the policy environment during this period of change, and help pull together lessons learned for implementation of effective system reform.

Specific hypothesis tested: Not applicable

Description of current research/literature review:

Indigenous eye health policy provides a critical insight more broadly into some of the key policy debates in Indigenous health policy, including vertical (condition focussed) program development compared with other models of primary health care development, community control in Aboriginal health, health care financing and systems development. Many of the key players in the 30 year history of eye health programs development in Indigenous health are still alive and could participate in this study which will use a mix of oral history and archival research methods. There is very little published literature about the historical development of Indigenous eye health policy from the time of the NTEHP to the present time.

Justification for the project to proceed:

Indigenous eye health, as for overall Indigenous health, requires concerted action by policymakers and program implementation players to achieve sustainable improvements to 'Close The Gap' by system reform where required. This project can contribute significantly to this reform, especially before the key players to be interviewed leave the scene, and should therefore be allowed to proceed.

Explanation of expected benefits to the community:

The expected short to medium benefits may include improved eye health programs at the community level, and in the medium to longer term improved eye health outcomes, including the eradication of trachoma in Indigenous communities where it exists today.

References:

1. RACO (Royal Australian College of Ophthalmologists) 1980, *The National Trachoma and Eye Health Program of the Royal Australian College of Ophthalmologists*, RACO, Sydney.
2. NAIHO (National Aboriginal and Islander Health Organisation) 1985, *Trachoma and Eye Health Report*, Australian Government Publishing Service, Canberra.
3. Taylor, H. 1997, *Eye Health in Aboriginal and Torres Strait Islander Communities*, Commonwealth Department of Health and Family Services, Canberra.
4. NACCHO (National Aboriginal Community Controlled Health Organisation). Available at < <http://www.naccho.org.au/>> Accessed 17 August 2009.
5. The Fred Hollows Foundation. Available at <<http://www.hollows.org.au/>> Accessed 17 August 2009.

6. National Aboriginal and Torres Strait Islander Health Council (NATSIHC) 2004, *National Strategic Framework for Aboriginal and Torres Strait Islander Health*, NATSIHC, Canberra. Available at: <http://www.health.gov.au/internet/main/publishing.nsf/Content/health-oatsih-imp2> Accessed 17 August 2009.

7. Taylor, H. 2008, *Trachoma: A blinding scourge from the bronze age to the twenty-first century*, Centre for Eye Research Australia, East Melbourne.

1.5 METHOD

Provide an outline of the proposed method, including details of the recruitment strategy and data collection techniques, the tasks participants will be asked to do, the estimated time commitment involved, and how data will be analysed.

[No more than 500 words]

Outline of methods:

These include a search and critical reading of key policy-related documents, face-to-face interviews with key informants, analysis of the findings of these two complementary research approaches, and incorporation of the findings into a final report with recommendations for effective system reform.

Recruitment strategy:

The informants for the face-to-face interviews will be selected specifically (purposive sampling)¹ by the Principal Researchers based on their many years of direct experience and knowledge of Indigenous eye health and the policymaking process in Indigenous health.

Data collection techniques:

The search and critical reading of key policy-related documents will follow standard methods². The face-to-face interviews with key informants will follow best practice^{3,4}. A specific questionnaire has been designed by the Research Team to elicit useful first-hand information from the interviewees considered important for this project. A copy of the project questionnaire is attached.

Tasks participants will be asked to do:

The only task the participants will be required to do is participate in the face-to-face interview.

Estimated time commitment involved:

We expect the interviews to take a maximum of 60 minutes to complete. The participants will sign an informed consent form before their interview. The confidentiality and privacy of the interviewees will be protected by the Research Team, although some or all participants (all senior and highly experienced professionals) may wish to be identified.

Data analysis:

The interview data will be analysed by grouping the findings into common themes (e.g. roles in policy development, policy processes, evidence and resources, implementation) and developing a critique from these themes and the findings of the literature review towards the aims of this project.

References:

1. Schofield, M. and Jamieson, M. 1999, 'Sampling in quantitative research', Chapter 8 pp.158-159, *In Handbook for research methods in health sciences*, Edited by Minichiello, V., Sullivan, G., Greenwood, K. and Axford, R., Addison Wesley, Sydney.
2. Kumar, R. 2005, *Research Methodology: A step-by-step guide for beginners*, 2nd Edition, p. 29, Pearson Education Australia, Sydney.
3. Armstrong, B., White, E. and Saracci, R. 1992, 'The personal interview', Chapter 7 pp. 171-196, *In Principles of Exposure Measurement in Epidemiology*, Oxford University Press, Oxford.
4. Minichiello, V., Madison, J., Hays, T., Courtney, M. and St John, W. 1999, 'Qualitative interviews', Chapter 18 pp. 396-418, *In Handbook for research methods in health sciences*, Edited by Minichiello, V., Sullivan, G., Greenwood, K. and Axford, R., Addison Wesley, Sydney.

Appendix D

Questionnaire for participants

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The UoM Indigenous Eye Health Policy History Project

Research Interview Questionnaire

Research Participant Number		
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Part A (General questions)

- 1. Sex: Age: (years)
- 2. What was your role/position during your period of involvement in Indigenous (eye) health?:
- 3. What organisation did you work for during this period?:
- 4. What length of time were you in this role?:
- 5. Were you involved at the Federal or State/Territory level?:

Part B (Specific questions)

Your Role in Policy Development

- 6. What was your involvement in the development of Indigenous Health Policies, and in particular eye health policies, during your involvement with Indigenous Health?
- 7. What were the specific policies?
- 8. How important was Indigenous eye health to you at the time?
- 9. What shaped your thinking about the relative priority of Indigenous eye health?
- 10. Did your thinking differ from that of other key stakeholders?

Policy Processes in Indigenous Eye Health

- 11. Tell us about the general health policies operating at your time that guided or drove the formation of Indigenous eye health policies?

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12. Where did the policies 'come from' and who drove the policy making process?
13. Were Indigenous people involved (through consultation, discussion, negotiation) in the development of the policies you were involved with? How and what way?
14. Did you respond to feedback from Indigenous communities about their concerns/views with any eye health policies that you were involved with?
15. What was the relationship between Federal, State, and Territory Indigenous policy makers during your involvement?
16. Were there any other factors which shaped the priority attached to Indigenous eye health within the policy process? What were the barriers and enablers, including to development and implementation of the policies?

Evidence and Resources

17. What was the role of evidence in the policy making process in relation to eye health? Can you give any examples?
18. What resources did you have available for your work?
19. Were resources an issue that impacted on the policy development process?

Implementation Issues

20. Were the policies you were involved with implemented? Can you tell us a bit about this?
21. Were the policies successfully implemented? How do you know this? Was there an evaluation?
22. When did the eye health policies you were involved with finish/change and why?

Other Possible Issues

23. What was the role played by Community Controlled Health Services in the development and implementation of Indigenous eye health policies? Do you believe they were effective and why?
24. Do you have any other comments you would like to make?

Appendix E

Location of the first community controlled Aboriginal Medical Service in Australia



© Jilpia Nappaljari Jones

This photograph was taken in September 2004 and shows the location at 147 Regent Street Redfern where the first community controlled Aboriginal Medical Service in Australia was opened in June 1971 in Sydney, and operated as a two-room shopfront medical clinic until 1977 when the service moved to the nearby location of the current Aboriginal Medical Service at 36 Turner Street Redfern, viewed 2 July 2010, <http://redfernoralhistory.org/Organisations/AboriginalMedicalService/tabid/208/Default.aspx> , http://www.dictionaryofsydney.org/entry/aboriginal_medical_service#page=1&ref=notes .

Foley (1982 p. 14) wrote:

In 1970 in Sydney, the largest single Aboriginal community in Australia, an Aboriginal person who found that they needed medical treatment had two basic options. These were:

1. to visit a local general practitioner, or
2. visit the outpatients department of a public hospital.

The first was almost an absolute impossibility because most GP's in Sydney insisted on cash before they would treat Aboriginal patients. At the time 98% of all Aborigines in Australia lived well below the official poverty line. The second was almost as traumatic and degrading, because the overtly racist treatment of Aborigines in all the local hospitals absolutely discouraged Aborigines from attending in all but the most serious or emergency situations.

With the assistance of Hollows and a few other non racist white doctors, the Aboriginal community of Sydney was soon (1971) able to open the doors of the first community controlled Aboriginal Medical Service (AMS) in Australia. Initially, the Service operated as a shopfront Medical Centre using volunteer doctors on a roster basis, but within 12 months the patient demand far exceeded the ability to cope, and the Federal Government was forced to realise that a need existed and thus Government funding became available.

Ms Naomi Mayers was appointed coordinator of the Service in 1972 (Foley 1991, p. 5), and remains CEO of Redfern Aboriginal Medical Service to this day, a magnificent achievement of service.

Professor Archie Cochrane and the NTEHP



© Reginald Murray

The picture shows Mr Colin Pound and Professor Archibald Cochrane standing in Zone 1 Red Centre¹⁵² west of Uluru in central Australia in mid 1976 during the early stages of the NTEHP. The picture was kindly provided by Mr Reginald Murray who was an important member of the NTEHP team.

Professor Cochrane was the David Davies Professor of Tuberculosis and Chest Diseases in the Welsh National School of Medicine, and Director of the Medical Research Council Epidemiology Research Unit in Cardiff when he first met (*circa* 1963) Dr Fred Hollows who was then a senior registrar at the Cardiff Royal Infirmary (Cochrane & Blythe 1989, pp. 197-202; Hollows & Corris 1997 pp. 71-81; TCC 2010). Hollows and colleagues in the summer of 1963 conducted a study of the prevalence of raised intra-ocular pressures in 4,231 persons aged 40-75 years living in 3 mining villages of Rhondda Fach¹⁵³ in South Wales. A number of papers on detecting glaucoma, sources of variation in tonometry and the prevalence of glaucoma resulted from this work (Graham & Hollows 1964; Graham & Hollows 1966; Hollows & Graham 1966a,b), and Hollows used the experience from this epidemiological work in Wales under the guidance of Professor Cochrane to great effect in the NTEHP he lead some years later in Australia (RACO 1980).

Both Cochrane and Hollows later completed their autobiographies (with assistance from colleagues), and reflected on their experiences of this period in their professional lives (Cochrane & Blythe 1989, pp. 197-202; Hollows & Corris 1997, pp. 71-81). Two quotations from these memoirs provide a 'flavour' of their reminiscences:

Whatever the outcome of the glaucoma survey I came out of it bitten with the idea of ophthalmological epidemiology. The methods of ophthalmologists seemed so beautifully quantitative, and there seemed so much that might be gained by the study of the aetiology and possible prevention of cataract and glaucoma. (On one occasion I pointed out, rather cynically, that the reason why so little work had been done on the prevention of these two diseases was the fact that they were both to some extent treatable, as well as being responsible for a high proportion of ophthalmological incomes.) (Cochrane & Blythe 1989, p. 201).

¹⁵² See RACO (1980, pp. 5, 16) for maps of the location and movement of NTEHP field teams.

¹⁵³ Thomas (1999) provides a short summary of important medical research in the areas of lung disease, hypertension, anaemia, glaucoma and screening conducted in the Rhondda valleys of South Wales over a period 60 years.

Appendix F (continued)

The work gave me an academic reputation. That's one thing. More importantly, maybe, it confirmed me in some attitudes I already held. If I'd been in Boston in the 1770s and the cry 'No taxation without representation' had gone up, I'd have been at the fucking barricades. The credo of this survey was 'No survey without service' – same sort of thing. Careful recording of results, humane and considerate treatment of the people, and action on the problems disclosed. Without my exposure to that approach in Wales, the trachoma project wouldn't have achieved what it did.

(Hollows & Corris 1997, p. 78).

Some years after Hollows returned to Australia, Cochrane wrote an influential book entitled 'Effectiveness and Efficiency: Random reflections on health services' during a Rock Carling Fellowship in 1971 that was published by The Nuffield Provincial Hospitals Trust (Cochrane 1972). This book was dedicated to four individuals and the population of the Rhondda Fach, and in the context of discussing clinical and epidemiological interpretations of distributions of quantitative biological characteristics, he referred to an alternative approach to 'normal limits' where the object should be to establish the point or points on the distribution at which therapy begins to do more good than harm (Cochrane 1972, pp. 41-43), and included as one example of several¹⁵⁴, the work by Graham on intra-ocular pressure (Graham 1968). Cochrane discussed the 'care' and 'cure' sectors, 'inflation' in the 'cure' sector at that time, and rehabilitation of the 'care' services through a marked increase in knowledge through applied medical research, particularly using the technique of Randomised Controlled Trials (RCT) (Cochrane 1972, pp. 78-85). Cochrane's work led later to a world-wide focus on evidence-based medicine, and the establishment of The Cochrane Collaboration in his honour (TCC 2010).

The lessons from Wales can be clearly seen in the methodology chapter in the NTEHP report (RACO 1980, pp. 9-23). For example, the program's 9 screening principles:

1. The teams should be able to provide a range of ophthalmic diagnostic and therapeutic services to everyone, and these should be of the highest standard.
2. Services should be given immediately in order to minimise drop-out from medical care and surveillance, to encourage the use of future services, and to show that specialist care need not be complicated.
3. The services should be available and accessible to all.
4. The teams and their equipment should be mobile in order to provide the services in locations convenient to the target populations.
5. The teams should at all times work closely with the Aboriginal communities through liaison officers engaged from the communities for this purpose, to ensure that the service is suitable to the needs of the community, that the community is willing to use the service, and to advise teams on how to give the best possible service.
6. The team should use Aboriginal staff to the fullest: employing them in preference to similarly qualified Europeans; consolidating existing skills; helping them acquire new ones; lessening cultural barriers between teams and clients.
7. The teams should at all times encourage, inform, support and work with any person, group or agency as a move toward mobilising the community's interest in its own health.
8. The first contact with the communities should be the first step in establishing on-going eye care.

¹⁵⁴ These were haemoglobin levels, blood sugar levels, and arterial blood pressure (Cochrane 1972, pp. 41-43).

9. The team should note any factors within the community's environment which could be deleterious to the health of its members, and should advise the appropriate authorities, in consultation with the communities, on how to rectify them.

Screening principle 5 is clearly evident in the NTEHP Liaison Report by Mr Trevor Buzzacott (RACO 1980, pp. 10-13), another important member of the NTEHP team. A copy of his report is shown below.

Liaison Report by Trevor Buzzacott (RACO 1980, pp. 10-13):

Australian aboriginal society has a structure – one with which most Australians are not familiar and will not become familiar in their lifetimes. The lack of familiarity with Aboriginal society, its history and its culture, has made it difficult for non-aboriginal Australians to identify and help deal with the problems faced by Aboriginal communities.

The National Trachoma and Eye Health Program provided a successful service to rural and country-urban areas of Australia where the greatest proportion of Aborigines live. It identified areas of high trachoma prevalence, and high prevalences of other diseases; provided spectacles, treatment and surgery programs; and, in different locations, assisted local health agents to handle their communities' own health problems within their communities' structures. The program worked in a critical area where change had to occur.

The program's success in meeting its aims and objectives as due to a number of reasons, among which were:

1. The program's teams sought to identify and deal with the problems being faced by communities in the areas where the problems were: in hot, dusty climates with poor living conditions, often geographically remote and with irregular, if any, professional eye-care services being available.
2. The examinations were simple and easily understood by the communities, and involved participation by all field staff and the Aboriginal people.
3. There was considerable participation by Aboriginal people as liaison officers and field workers in all communities.
4. Consultations with communities, local people and different organisations were done by Aboriginal staff.
5. The program's advance fieldwork ensured that all Aboriginal communities were informed of the teams' visits well in advance, knew of the teams' aims and objectives, and ensured that informed permission was obtained from the community before the program began providing services.
6. The field teams identified with, and became very much part of, the communities they visited even when there were only short stays. Because of the program's independence for camping and cooking facilities, visits did not provide a burden on local facilities; a clinic was provided when one was not available; staff were prepared to work endlessly in providing a service to the people. Field team members also made a point of learning basic phrases in the local Aboriginal language such as 'hello', 'good morning', 'come closer', 'turn your head', 'look up', and so on, many of which were essential in providing a complete eye examination.

All these factors helped break down communication barriers, and enabled the program to examine person who were relaxed, with only a few fears. Because of past experiences with medical services, including eye examinations, treatment and surgery, many Aboriginal people were afraid of being examined. In many cases they did not have the information from which they could decide about issues such as eye surgery, or treatment for follicular trachoma in children.

Consultation and communication was the most important factor in the program's success in reaching into Aboriginal communities. Through its liaison and consultation efforts, the program sought to involve people from the communities in its decision-making, and to show them its willingness to participate in movements for improved health, and its commitment to the communities among whom it was working. Unless the community was aware of, and approved of what the program was doing, co-operation was not total, the best results would not be obtained, and the screening program would be regarded as merely another useless survey. The program thought it common courtesy to inform people of its aims and objectives: these concerned old people, children, their parents, their homes, their lands and their lives.

Appendix F (continued)

Each community the program visited had to be treated individually. Different groups spoke different languages; housing and lifestyle were frequently radically different; many communities were physically isolated from other centres. Within the communities there would be different authority structures, and differing input and control from outside agencies, including the Department of Aboriginal Affairs, other government departments, local non-Aboriginal resource personnel, and various religious institutions. All these factors had a strong bearing on how contact was made with each community. In some cases the hostility of some outside agencies meant that special efforts had to be made to reach the Aboriginal community itself.

On other occasions, the teams' movements were influenced by factors such as Aboriginal ceremonies, deaths within the community, link-ups with other surveys, and the movements of populations according to a number of factors. These have to be taken into account in planning screening or follow-up visits.

Usually, initial contact would be made with communities a month or more before the arrival of field teams. This contact would be made by correspondence, inclosing information about the program and its objectives. An Aboriginal liaison officer would visit soon afterwards.

This first contact attempted to properly inform the local population of the aims and activities of the program. This included talking to senior persons in the authority structures of the communities, and such other people as community advisers, health and teaching staff and interested people working in the community.

Discussion and consultation was time-consuming. In most cases, Aboriginal people wanted to discuss issues among themselves and then return with answers and questions. It was necessary to clarify exactly what the eye-care service entailed, with a complete explanation of all aspects of the examination, and the likely follow up with surgery and treatment if this was necessary.

Through such discussion and consultation, the program sought to involve the people from the communities, and to make them committed to its success. This ranged from obtaining the help of local people in the conduct of the screenings, the use of local interpreters and translators, and obtaining as wide a coverage of the community as possible. To achieve the latter, program teams were prepared to make camp visits and conduct clinics in different places. The nature of follow-up, including providing spectacles and making arrangements for surgery and treatment programs, would be explained where necessary so that the communities would know what to expect and would be able to have an input into continuing programs for eye health care in the communities.

After the initial contacts were made, information would be relayed to the field co-ordinator about the size and nature of the community, appropriate persons with whom to deal, the names of persons who would assist the field teams, the location of clinics and other facilities, and the community's wishes about the way in which the program should operate.

An itinerary would then be drawn up. The program, being independent for facilities and carrying all the equipment for complete ophthalmological examinations, was flexible and operated according to often quickly changing conditions. This was in spite of enormous difficulties of time, distance, poor communications, and a lack of well-formed roads, with some communities being accessible only by air or sea. Despite these difficulties, with luggage and cargo kept to a minimum, and long and exhausting hours for field team members, the program kept to its schedules without reducing its service.

Once field teams were placed in Aboriginal communities, the same process of communication and consultation was necessary, using the contact and information obtained in earlier liaison work. Local people worked with field team members in achieving the program's objectives. The program's findings and their implications for the community would be discussed with the community; the program always left a complete

set of its findings, and an interim report summarising the picture in the whole community. Health workers and other interested people were instructed in the recognition and treatment of trachoma and other eye conditions.

Once a screening team had left an area, it was essential to maintain links with the community to ensure the necessary follow-up was achieved, and to assist the community in dealing with the problems seen by the program.

The success of the program's activities in one community would considerably assist in working with other communities in the same area: Aboriginal contacts were the key links in securing this.

The network of the Aboriginal people was the best avenue for liaison and communication. Aboriginal elders, wati ngunkaris (Aboriginal doctors), aboriginal health workers, and Aborigines working with different agencies or departments within the community, were highly respected people and were able to secure the involvement and co-operation of people within the community.

It was within this network that the National Trachoma and Eye Health Program worked and this was appreciated and understood by the communities. The program's continued contact and empathy with this network enabled it to be made aware of changes which had taken place, which meant that adjustments to schedules or ways of operating could take place without causing great difficulties. The 'grapevine' communication was able to get information very rapidly even to the most remote areas.

Working within this network meant that the program was able to leave some aspects of necessary follow-up with local or regional Aboriginal organisations, and to give these organisations support and assistance in meeting their own aims and objectives, almost invariably inherent in the program's own.

The empathy and support the program obtained from Aboriginal communities throughout Australia was not given without a price. It was secured on a clear understanding that the organisers of the program were genuine, and that the program's activities provided a starting point for improved health services in the future.

There is still an enormous need to consolidate the gains made by the program – and in dealing with trachoma and other eye diseases, in providing specialised eye health-care services to the largely neglected areas of rural Australia, and in outlining some of the changes necessary if Aboriginal health is to improve.

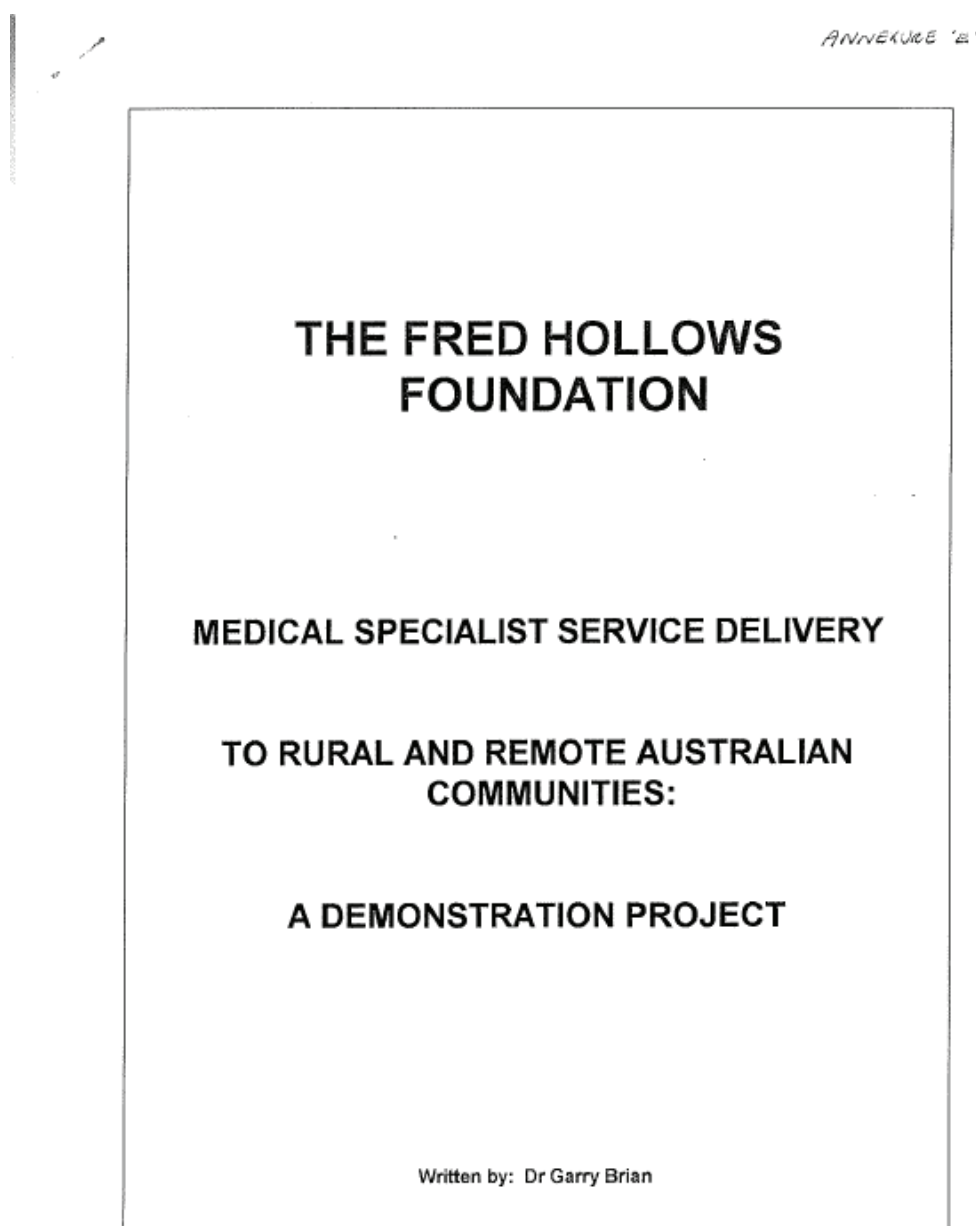
Aboriginal people who co-operated with, and supported the activities of the program, did so on the basis that this consolidation and follow-up would take place. If it does not the gains made by the program will prove short-term, and the empathy and support of Aboriginal communities will be lost.

More than 500 local liaison staff and more than 200 Aboriginal health workers were employed during the course of the NTEHP screening and treatment programs, and up to 50 other people were employed concurrently at various stages in the NTEHP, including Aboriginal liaison officers, ophthalmologists, orthoptists, optical dispensers, microbiologists, nurses, and clerical staff (RACO 1980, p. 8).

Appendix G

Medical Specialist Service Delivery to Rural and Remote Australian Communities: A Demonstration Project (Brian 1997)*

* A scanned copy of this report was provided to the authors by The Fred Hollows Foundation in June 2010.



CONTENTS

1	Summary	Page 1
2	Introduction	Page 2
3	The Fred Hollows Foundation	Page 3
4	The Fred Hollows Foundation Queensland Project: Origins	Page 3
5	The Fred Hollows Foundation Queensland Project: Evolution	Page 4
6	The Fred Hollows Foundation Specialist Eye Service in Far North Queensland: Introduction	Page 5
7	Far North Queensland: Target Population	Page 6
8	Far North Queensland: Prior Eye Services	Page 7
9	The Fred Hollows Foundation Specialist Eye Service in Far North Queensland: Implementation	Page 9
10	The Fred Hollows Foundation Specialist Eye Service in Far North Queensland: Service Provision	Page 11
11	Specialist Service Delivery: A Philosophy and Model	Page 14
12	The Fred Hollows Foundation Specialist Eye Service in Far North Queensland: Aspects of Applying the Model	Page 17
13	The Fred Hollows Foundation Specialist Eye Service in Far North Queensland: What Now and Beyond?	Page 21
14	Bibliography	Page 23

1. SUMMARY

The Fred Hollows Foundation began work in Far North Queensland, Cape York and the Torres Straits in 1994. Dr Garry Brian an Ophthalmologist was employed by the program from 1995 to beginning of 1997 and over that period has seen 2,500 patients. Dr Brian first worked in the Torres Straits in 1987 and after ending his employment by the Foundation in February 1997 he will continue to provide a service in Far North Queensland and the Torres Strait as a private ophthalmologist who is associated with the Foundation.

This report presents the background, development, and execution of the two year Australian project in indigenous health by The Fred Hollows Foundation. A model of specialist eye service delivery in rural and remote communities is reported.

Historically, Far North Queensland eye services have been rudimentary, fragmented and with the exception of urban private ophthalmic practice in Cairns, generally lacking depth for indigenous populations in this area. Subsequently much of the population has been without fair access to specialist ophthalmic care. In rural and remote specialist medical service delivery in Australia, the difficulty has been the bringing of patients, service providers, and resources together.

In 1994, The Fred Hollows Foundation was invited to a meeting of Cape York community representatives at Pajinka. The local people identified health priorities, established the Apunipima Cape York Health Council and invited The Fred Hollows Foundation to be involved in several Cape York health projects.

The Foundation also negotiated arrangements for the Torres Straits separately from the Apunipima Cape York health Council.

The Foundation was invited to secure funds for the Cape York project, help establish the credibility of the health council, help in the design and implementation of an eye service and empower Indigenous Health Workers to take control of the delivery of services at a community level. Employment, training, and staff deployment was addressed. This eye program would be used as a model. Subsequently, the original proposal was heavily modified.

After lengthy negotiations the priorities became the best use of available resources, eye service delivery with a view to eradicating any backlog, and then establishing a continuing service. Over the period of two years approximately 2,500 patients were seen by the Foundation's ophthalmologist, Dr Garry Brian consequently clearing the backlog that had existed for many years.

The costs in delivering the service outlined in the attached document are substantial but compared to the extensive transfer of patients from remote communities to mainstream health services, this modelled service is very cost effective. But charity is not a viable way to delivery a permanent health service.

Although The Fred Hollows Foundation's hands-on involvement in Far North Queensland ceases in January 1997 the eye service initiated will continue. It will be funded through Medicare and by using existing public health facilities and funds. It is timely also that the Federal Government is about to launch a review into eye health in indigenous communities.

2. INTRODUCTION

In rural and remote specialist medical service delivery in Australia, the difficulty is in bringing patients, service providers, and resources together.

For reasons of insufficient workload, lack of professional contact and support, lack of ancillary support, and family and social considerations, the provision of specialist services in small rural and remote communities by resident specialists is unlikely to occur in any sustained widespread manner.

No other section of the Australian community is recipient of continuing volunteer health care with its connotations of being for crisis intervention, probably not top quality, and lacking long term commitment. Nor should rural and remote Australians, indigenous or otherwise.

Good quality health professionals should be enticed to provide a regular ongoing in-community service in a context not to their financial and professional detriment. As part of the professional commitment which is then established, they should be available for telephone advice to other health professionals committed to the locality, and accept referral to their practices of patients with urgent needs between visits. This is about encouraging medical specialists interested in rural service to incorporate a community, group of communities, or region into their urban-based medical practice.

For there to be interest, commitment, and quality, there is no place for coercion or conscription. This is all the more so since such service involves the difficulties of travel, spending time away from home and practice, and dealing with the sometimes inhospitable conditions of remote Australia and its communities.

Professional development and support, and innovative funding arrangements need to be organised to promote this approach to rural and remote service delivery. The latter may involve meeting the transport, accommodation, facility, equipment, and ancillary staff costs of the service, covering the costs of the specialist's metropolitan base practice, or entering an arrangement whereby this work attracts a Medicare fee-for-service at some multiple of the rate for a comparable service performed on an urban based patient.

With this in mind, this document presents the background, development, and execution of a two year Australian project in indigenous health by The Fred Hollows Foundation.

A model of specialist eye service delivery in rural and remote communities is reported. The Fred Hollows Foundation believes this model gives life to the State Health Ministers' Forum assertion:

"A key principle for the Australian health care system is access to appropriate services regardless of financial status. Improving access to health services is an important strategy in reducing health inequalities.

"Particular attention has to be paid to improving the health of Aboriginal and Torres Strait Islander people. Health services need to be delivered flexibly, especially for remote communities..... All levels of Government have to work together and be prepared to adopt pragmatic and effective approaches to assist in improving the health of Aboriginal and Torres Strait Islander people. In particular there needs to be partnerships between Governments, Aboriginal and Torres Strait Islander Commission, Aboriginal controlled health organisations and local communities."¹

3. THE FRED HOLLOWS FOUNDATION

The Fred Hollows Foundation:

- is a non-government organisation.
- is a non-profit, registered charity.
- is committed to provide those identified in need with funding, expertise, and ongoing enterprises that will assist them in developing and ultimately achieving health standards that urban white Australians take for granted.
- focuses on limited achievable goals that promote equity between individuals and nations.
- works at empowering people to provide for themselves.

Despite only being officially launched in September, 1992, The Fred Hollows Foundation has already:

- raised considerable funds for projects.
- built intraocular lens factories in Eritrea and Nepal, with a third planned for Vietnam.
- developed eye surgery procedures for these countries.
- trained cataract surgeons in these countries.
- built and equipped a school of eye surgery in Nepal.
- accessed cheap reliable eye surgery equipment for use in these countries.
- entered into contracts to design and produce eye surgery equipment (for example: microscopes, lasers), where no suitable equipment presently exists.

In addition to The Fred Hollows Foundation's work overseas, it has been committed to finding and fulfilling a role for itself in Australian indigenous health.

4. THE FRED HOLLOWS FOUNDATION QUEENSLAND PROJECT: ORIGINS

A field team visited The Torres Strait during the National Eye Health and Trachoma Program (1976-1979). In 1986, the Thursday Island Hospital Medical Superintendent, Peter Holt, asked Fred Hollows to visit again. As a result, an ophthalmic examination and treatment program has evolved in the region, largely due to the continuing efforts of Garry Brian since 1987.

In 1994, The Fred Hollows Foundation was invited to a meeting of Cape York community representatives at Pajinka. The local people identified health priorities, established the Apunipima Cape York Health Council, and invited The Fred Hollows Foundation to be involved in several Cape health projects.

Prior to 1994, The Fred Hollows Foundation had evaluated several possible projects concerned with Australian indigenous health. The Foundation was interested in the ascendancy of the "lifestyle diseases", and particularly the apparent emerging disaster of diabetes mellitus. Therefore, given the history of eye services in the Torres Strait, the invitation from the immediately adjacent Cape York, and the understanding that the crisis that is indigenous ill-health is nowhere more evident than in Far North Queensland, it was decided the region presented an appropriate opportunity and challenge for The Foundation.

Following the Pajinka meeting and another gathering at Napranum, The Fred Hollows Foundation was invited by the Apunipima Cape York Health Council to:

- help secure the immediate future of the health council as it fought to establish itself and credentials. (Initially, The Foundation made funds available for the health council to employ a staff member (community liaison) for one year, loaned a portable computer for clerical work, and secured some funds which were to be used for any projects The Foundation and health council set up.)
- act as an advocate for the health council, in circumstances the council and Foundation agreed upon.

- help establish the credibility of the health council, by looking to early delivery of cataract surgery services to patients on waiting lists in Cape communities.
- help in the design and implementation of an eye service. The details of this would be the end result of negotiation. However, it was envisaged such a service would be run by Indigenous Health Workers, and provide a regular, good quality service in the communities.
- empower Indigenous Health Workers to take control of the delivery of services at a community level. The eye programme would be used as a model. Employment, training, deployment, etcetera would need to be addressed.
- work with the health council and The National Centre for Epidemiology and Population Health (NCEPH) to do a population and health infrastructure audit on the Cape. This information would allow enrolment of Cape people in Medicare and the electoral role, and provide solid information on which the health council could apply for funding, plan health services, and assess how well its interventions were succeeding. Also, the opportunity would be used to train several Cape people in data collection and data management skills. At the end of the project, those trained would continue to run this as a unit within the council.
- work with the health council and NCEPH to identify novel and sustainable mechanisms of funding for the council. For example, in the regional eye program, specific health workers may be trained in the testing and dispensing of spectacles. The council may then be able to make these itself, or contract out the production, and supply them considerably cheaper than presently available, but still giving an income to the council.

At this time, The Fred Hollows Foundation was also approached by Wuchopperen Medical Service. This Cairns community controlled Aboriginal health organisation of twenty years service, invited The Foundation to look at setting up a specialist eye service for its patients. Given the geographic and population continuity with the Cape, The Foundation agreed to this.

It was also decided to consolidate the existing eye service in the Torres Strait. This was not negotiated directly with the Torres Strait Health Council, but with its medical adviser, Peter Holt. Concurrent negotiations also resulted in The Fred Hollows Foundation's involvement in an information technology/data management project which aimed to improve identification and management of health problems in the region.

Thus, by the end of 1994, The Fred Hollows Foundation had committed itself to an indigenous health project which it characterised as a lifestyle diseases program centred on ophthalmic service provision.

5. THE FRED HOLLOWES FOUNDATION QUEENSLAND PROJECT: EVOLUTION

In conjunction with the Apunipima Cape York Health Council, a Cairns office was established and a project manager was employed (February, 1995). There followed a period of intensive planning and grant application writing, culminating in a detailed project plan, "Eye Care and Health Needs Assessment Program". This was produced in May, 1995, based on a consultative process involving the health council and Cape representatives. It organised the implementation of a modified health project involving:

- community awareness and participation.
- an eye service.
- a health needs assessment.
- training of local people during the implementation of the above.

The health council appointed a local person as a Trainee Project Coordinator, with The Foundation's Project Manager having responsibility for overseeing his tuition. A start was made on purchasing ophthalmic equipment. Len Smith, of NCEPH, invested much time on the groundwork for the health needs assessment project component.

At this time, the health council consolidated its position. There was considerable upheaval within the council, and in its relationship with The Foundation. As the council matured, it elected to exercise its right to change direction and priorities. Negotiation of a memorandum of understanding, covering the "Eye Care and Health Needs Assessment Program", was put aside, and the project was dismembered. While acknowledging The Foundation's assistance, without which the health council would have dissipated early on, the invitation for The Fred Hollows Foundation involvement in various project components was withdrawn, in preference to inviting other players. The Foundation was relieved of any input concerning:

- health needs assessment
- a health database
- supervision of the Trainee Project Coordinator
- training of other local people in eye health
- community awareness and participation

The health council expressed satisfaction with the rudimentary eye services just started by The Foundation on the Cape, and asked that these continue and be developed.

In the Torres Strait, the priority given to the information technology project has varied with time. The Fred Hollows Foundation has followed the lead of The Torres Strait Health Council, which, in this matter, has mostly been vague or apparently usurped by other stake holders. Any worthwhile outcome is yet to result. However, the eye service component of the project has continued.

While many of the Wuchopperen Medical Service patients are not resident in rural or remote communities, in many respects they are no less alienated from mainstream health services. Therefore, The Fred Hollows Foundation's rural and remote eye service delivery project comfortably includes these patients. This eye service for the Cairns and environs constituents of the Wuchopperen Medical Service has remained the sole collaboration of The Foundation with that organisation.

The Fred Hollows Foundation's Queensland initiative evolved considerably over 1995. Many of the reasons for this are documented elsewhere in this report. Naturally, The Foundation is disappointed that many worthwhile aspects of the original project have necessarily been abandoned. However, the conversion of the project from the wider concern for lifestyle diseases, to the narrower problem of specialist eye service delivery to rural and remote communities, was readily accepted by The Foundation because it still met the organisation's objectives.

6. THE FRED HOLLOWES FOUNDATION SPECIALIST EYE SERVICE IN FAR NORTH QUEENSLAND: INTRODUCTION

As The Fred Hollows Foundation's intended focus on lifestyle diseases in Cape York and Torres Strait indigenous communities faded with negotiation and circumstance, the difficulties associated with specialist service delivery were thrown into clearer relief.

In the context of Australian indigenous ill-health, The Fred Hollows Foundation is not a funding body. Nor does it accept responsibility for health service provision when those whose role this is fail to meet their commitments. However, The Foundation undertook to intervene in the problem of specialist eye service delivery to rural and remote communities of Far North Queensland because attempting to establish such a service would provide lessons in the delivery of surgical and medical specialties, both in this region, and elsewhere in Australia. The time and location were ripe for this initiative because:

- on the Cape and around Cairns, there was widespread dissatisfaction with the Regional Health Authority and the Queensland Trachoma and Eye Health Program (QTEHP).
- the people of the region were without access to a regular comprehensive eye service of high standard.
- the people of the region had identified this service as a priority, amongst many.

- the service would have tangible short and long term benefits for patients.
- the service would act as a useful entry point for patients into health services which may produce less evident benefits for the individual (for example: diabetes management).
- there was an ophthalmologist with local experience, who had given up urban private practice to make himself available to establish this service.

Accordingly, The Fred Hollows Foundation adopted a two year (1995-6) project which set out to:

1. Establish a regional eye health service for the residents of the Torres Strait and Cape York, and for the Cairns and environs patients of Wuchopperen Medical Service:
 - make this as comprehensive as possible.
 - integrate this with existing primary health care services.
 - provide, where medically appropriate, ophthalmic services in the recipients' communities.
 - act as a conduit into available tertiary ophthalmic care as required.
 - identify and deal with the backlog of diagnostic and therapeutic ophthalmology and optometry in the region.
2. Model a specialist medical service for rural and remote communities, which would incorporate resources from mainstream stake holders in an innovative manner:
 - establish a service which, on The Fred Hollows Foundation's withdrawal, would continue, supported by mainstream funding.
 - make medical service providers aware of the model.

Although aiming to establish an eye service of uniform, uncompromised medical integrity, particular strategies (for example: local personnel training, raising a database) for the implementation of this, were to be negotiated at a local level. This would be against a backdrop of subregion cultural, organisational, and eye service history differences in the Straits, on the Cape, and associated with Wuchopperen.

7. FAR NORTH QUEENSLAND: TARGET POPULATION

Although The Fred Hollows Foundation's initiative is primarily aimed at the indigenous residents of Far North Queensland, the eye service undertook to examine and treat all patients presenting.

Torres Strait

The 8230 people in the Torres Shire are predominantly Torres Strait Islanders:

- 2660 on Thursday Island (this includes a large non indigenous white population).
- 800 on the 6 other inhabited inner islands close to Thursday Island.
- 3020 on the 14 remote outer islands
- the North Peninsula Area (NPA) of Cape York, included in the health service unit centred at Thursday Island, has two Islander and three Aboriginal communities. The total population is about 1750.

Age and Sex Distribution of The Torres Strait and Cape York North Peninsula Area Population²

Age (years)	Female	Male	Total
Under 5	523	542	1,065
5 - 9	503	587	1,090
10 - 14	451	459	910
15 - 19	322	357	679
(45% age 0-19 years)			

Appendix G (continued)

Age (years)	Female	Male	Total
20 - 24	330	376	706
25 - 29	328	346	674
	(62% age 0-29 years)		
30 - 34	283	310	593
35 - 39	265	275	540
	(76% age 0-39 years)		
40 - 44	201	237	438
45 - 49	149	185	334
50 - 54	152	137	289
55 - 59	113	128	241
60 - 64	135	119	254
	(5% age 65 years or over)		
65 - 69	92	88	180
70 - 74	60	69	129
75 - 79	35	42	77
80 - 84	9	11	20
Over 85	4	6	10
Total	3,960 (48.2%)	4,270 (51.8%)	8,230(100%)

Cape York

Accurate characterisation of the Cape York population is unavailable. The population seems to have been significantly under counted in the 1991 ABS Census, but there have been several more recent attempts to better quantify it. The Cape York Peninsula Land Use Strategy (1994) suggests a population of about 11400 people for the Cape from Kowanyama/north of Mossman in the south, up to, but not including, the North Peninsula Area communities. With the exception of the predominantly non indigenous populations at Weipa (2400) and Cooktown (1500), most are Aborigines.

Wuchopperen

The indigenous communities served by Wuchopperen Medical Service include those in Cairns, Mareeba, and Kuranda. In early 1995, Wuchopperen's patient record base was estimated to be approximately 20,000 people. However, many of those treated in Cairns are from the Cape and Stralits.

The target population for this initiative is scattered over an area in excess of the size of the state of Victoria.

8. FAR NORTH QUEENSLAND: PRIOR EYE SERVICES

Historically, Far North Queensland eye services have been rudimentary, fragmented, and, with the exception of urban private ophthalmic practice in Cairns, generally lacking depth. Much of the population has been without fair access to specialist ophthalmic care. This has been particularly so for those residing in rural and remote indigenous communities on Cape York, but also for those uninsured and from lower socioeconomic groups, indigenous and otherwise, in urban settings.

Torres Strait

Before 1986, ophthalmic care involved transfer of patients south, usually to Townsville. Patients with cataract, for example, often required a pre operation trip to confirm the diagnosis and add their names to the waiting list, a further journey for surgery, and then subsequent visits for post operation follow up.

This arrangement acted as a significant impediment to those seeking treatment, and involved considerable government expense for air travel for the patient and accompanying person.

Since 1986, there had been an ophthalmic service based at Thursday Island, intermittently incorporating outer island and North Peninsula Area communities. Three weeks service per year (for a population of approximately 10,000) was the baseline. However, this had been exceeded in most years, and in 1994 was ten weeks.

Initially, the service was run from Prince of Wales Hospital, Sydney. Unknown to that hospital, it paid the salaries of staff (consultant and registrar) as they worked in the Torres Strait. Later, the medical staff were required to take leave-without-pay from Sydney during the Queensland visits. They worked in the Straits in an honorary capacity. Subsequently, an attempt was made to pay them as employees of Queensland Health during these visits. By 1990, after consultation with Medicare, rebate only fee-for-service had been introduced to pay the medical staff for outpatient work. Later, again with Medicare consultation, this was extended to payment for surgery. During 1991, Garry Brian left The Prince of Wales Hospital, and moved to private practice in Adelaide. He continued to visit the Torres Strait under these arrangements.

Prior to 1986, there had been an intermittent private optometric service to Thursday Island (not the outer islands) run by an optometry chain. This service dispensed only privately purchased spectacles, and continues to do so today very infrequently.

Until 1993, the visiting ophthalmologist refracted patients as required. Various methods of spectacle dispensing and reordering were tried. In 1987 an optical dispenser with the Queensland Trachoma and Eye Health Program (QTEHP) accompanied the ophthalmologist. Then a local medical officer assumed responsibility for this, but had to abandon the practice because of the pressure of his medical workload. Subsequently, a local Indigenous Health Worker was trained, and accompanied the ophthalmologist, but lack of application resulted in patient dissatisfaction and administrative disaster. Dispensed spectacles were paid for by the hospital, although in 1987 and 1989 some funding was also provided by the QTEHP.

In 1993, an optometrist in private practice (Townsville) began to visit Thursday Island only. This occurred in conjunction with the ophthalmologist's visits there. The optometrist did all the refracting (Medicare) and dispensing (private and state government spectacle scheme).

Initially, all surgical and outpatient equipment was transported from Sydney to Thursday Island at the time of each visit. Thursday Island later acquired a microscope, some surgical instruments, and outpatient equipment.

There were several attempts at outreach service provision to outer island communities, most notably in 1991 and 1994. During 1994, there was an effort made to integrate in-community eye examinations and treatment with an annual diabetic review involving a primary care physician and diabetes educator.

The costs of this service (surgical consumables, transport, etcetera) were met from within the Thursday Island Hospital's operating budget, since the Regional Health Authority did not make funds available specifically for them.

Thus, there was provision of outpatient care (particularly: spectacle dispensing; monitoring and laser treatment of diabetic retinopathy), and ophthalmic surgery (cataract extraction with intraocular lens implantation, etcetera). Even with this level of service few patients required transfer south for treatment. This represented a considerable saving in transport costs, with less patient trauma. Escalating demand, as local people became familiar with the service, confirmed the appropriateness of this in-community service.

While many aspects of the Torres Strait service were unsatisfactory, it was a valuable testing ground. The experience garnered has been used in the design of the project now presented.

Cape York

The Queensland Trachoma and Eye Health Program (QTEHP) provided the bulk of the ophthalmic service to the Cape. Generally, this involved a community visit every second year, although some communities were reportedly seen less frequently. Typically, visits consisted of ocular examination and refraction for spectacles. The latter formed the bulk of their work.

Patients requiring cataract surgery and ocular laser for diabetes complications were added to southern, usually Townsville, public waiting lists. As for the Torres Strait prior to 1986, this was an extremely unsatisfactory arrangement. Most of these patients required at least three trips south: one for investigation and addition to the surgical waiting list, one for surgery, and another for post operation follow up. Travel required patient escorts. This approach was not meeting the caseload: it was not uncommon for the QTEHP ophthalmologist to examine Cape patients who had been added to a southern waiting list at a previous QTEHP visit.

A private optometrist irregularly visited Cooktown, servicing a predominantly non indigenous paying patron. Weipa also had an occasional visit from a private optometrist, and Comalco employees were well served by a private optometric firm contracted to the mining company.

Wuchopperen Patients in Cairns and Environs

A private ophthalmologist made some time available in his Cairns rooms to see some of Wuchopperen's referred patients (less than fourteen per month) on a fee-for-service basis (usually Medicare).

There was effectively no public hospital outpatient ophthalmology. The Cairns Base Hospital had minimal ophthalmic equipment, and no commitment to provide a service. A senior medical administrator admitted, "the best ophthalmic service is one where they get on a plane and go south."

Those patients needing surgery were added to the Cairns Base Hospital waiting list. The waiting time was reportedly in excess of three years.

Towns such as Innisfail, Cairns, Mareeba, and Mossman had optometric practices with access to the state government spectacle scheme, and were prepared to bulk bill Medicare for examinations.

QTEHP visited Mareeba, Mossman, and Yarrabah on a second yearly rotation.

9. THE FRED HOLLOWES FOUNDATION SPECIALIST EYE SERVICE IN FAR NORTH QUEENSLAND: IMPLEMENTATION

The aim of securing equity of access to specialist eye services, without duplication of resources, involves the utilisation of equipment, facilities, and manpower of several disparate organisations active in Far North Queensland, and having access to their cost centres and recurrent funding capabilities. This necessitated considerable negotiation, not all of which produced the desired outcomes, by The Fred Hollows Foundation with the likes of:

- The Torres Strait Health Council.
- Apunipima Cape York Health Council.
- Wuchopperen Medical Service.
- Indigenous Health Workers.
- community members.
- the Executive and other officers of the Peninsula and Torres Strait Regional Health Authority.
- the Medical Superintendents of Thursday Island, Weipa, Cooktown, Cairns, and Mareeba hospitals.
- The Royal Flying Doctor Service, Cairns.

- The Queensland Branch of The Royal Australian College of Ophthalmologists.
- The Censor-in-Chief of The Royal Australian College of Ophthalmologists.
- The Far North Queensland Division of General Practice.
- The Queensland Trachoma and Eye Health Program.
- private optometrists.
- private ophthalmologists.
- Medicare.

Documentation, as available individual clinical records, and for epidemiology and service planning purposes, has been, and continues to be, a problem in the Torres Strait. However, there is a diabetic register of approximately 1000 people. In view of this, and from previous work, the perceived major eye problems in the Torres Strait and North Peninsula Area were diabetic retinopathy, cataract, and refraction with dispensing of spectacles.

On the Cape, despite claiming data collection as part of their mandate over the previous decade, QTEHP was unable to offer firm information about the prevalence of ocular conditions, or the clinical load these produce. However, ophthalmologists occasionally travelling with QTEHP in the area felt the problems were the same as further north, despite the different ethnic origin of the patient base.

In as much as they existed, most of the referrals from Wuchopperen for eye services were for diabetes and cataract.

Therefore, the requirements of good quality clinical practice in monitoring and treating cataract and diabetic eye disease, and dispensing spectacles, were to dictate the frequency and components of the service. However, provision needed to be made to deal with all optometric and ophthalmic problems, either at presentation or by referral.

Given the intra regional variation of eye service histories and situations, the Torres Strait, Cape York, and Wuchopperen components of the project were approached as separate entities.

Torres Strait

Diabetics are encouraged to have an annual systemic review; to assess such things as renal function, blood pressure, and health of their feet. Although, on clinical grounds, not every diabetic requires this frequency of ocular examination, yearly eye review is also promoted. In doing so:

• the need for annual systemic assessment is reinforced.

• all patients are told the same thing, and the yearly review has entered the collective community knowledge of diabetic management.

• this frequency means that an annual eye review missed will probably be remedied at the subsequent review, whereas, a missed standard second yearly assessment may result in four years between examinations.

Previously, community remoteness mitigated against service presentation, access, and uptake, and involved substantial expense in patient transport. Accordingly, the aim is to provide as much of the eye service in each island community, or as close as possible, on Thursday Island. Therefore, and in keeping with the need for annual diabetic review, the eye team visits each community once per year.

In each community, patients are examined, and spectacles organised. Those with diabetic retinopathy needing treatment are lasered as required. Diabetics requiring no treatment are invited to return for review the following year. Patients with any ocular condition necessitating earlier or more frequent assessment, including those with significant diabetic retinopathy and those lasered, have further appointments made for subsequent ophthalmic visits to Thursday Island.

Each ophthalmic visit to the Torres Strait involves time passing through outer islands, offering the annual service. Also, time is spent on Thursday Island, reviewing Thursday Islanders, and those patients from outer islands identified as needing more intense supervision. Thus, there is provision to review any patient as frequently as every two months.

All surgery is performed on Thursday Island. This is almost exclusively cataract surgery, but a few pterygia are excised, and a very occasional squint or lid procedure is done. Patients travel in from their community, stay with relatives or in a hostel, have their surgery as a day case, and return home after a couple of days.

With the exception of the few patients requiring more sophisticated investigation (for example: CT scan) and treatment (for example: vitreoretinal surgery), and of emergencies occurring when the ophthalmologist is not in the Straits, and which can not be handled by telephone consultation, there is no need to transfer patients south.

Cape York

The priorities were to negotiate the use of available resources, deliver services with a view to eradicating any backlog, and then establish a continuing service. Given the impression of ocular morbidity and case load similar to the Torres Strait, the Cape was divided into two service units, and services organised as done in the Straits.

There was to be annual in-community service in Kowanyama, Pormpuraaw, Aurukun, Coen, and Lockhart. Napranum/Weipa was to be the service hub for this unit, with surgery and review of patients requiring more frequent assessment or treatment occurring at Weipa.

With surgery and an outpatient base at Cooktown, the adjacent communities of Laura, Wujal Wujal, and Hopevale would receive annual visits.

Wuchopperen

Wuchopperen sends patients requiring optometric services to a local optometrist's rooms. For ophthalmic assessment and treatment, a regular clinic is held in Wuchopperen's Cairns rooms. The only treatment required at this clinic has been laser for diabetic retinopathy.

In 1995, Wuchopperen operated a satellite service at Mareeba. This has since separated as the autonomous Mulungu Medical Service. While attempts were made to extend the Wuchopperen clinic to Mulungu, this has given way to a regular clinic at Mareeba Hospital.

At Wuchopperen's request, the clinic service was extended to Mamu Medical Service in Innisfail, and to the Mossman Hospital.

All cataract patients identified at these clinics are transported to Mareeba for day case surgery.

10. THE FRED HOLLOWS FOUNDATION SPECIALIST EYE SERVICE IN FAR NORTH QUEENSLAND: SERVICE PROVISION

The delivery of eye services began in February, 1995. This was against a setting (documented elsewhere) of organisational and political distractions, and the ongoing difficulties of dealing with some stake holders exerting control over some of the resources integral to the project (for example: operating theatre access).

The Fred Hollows Foundation was keen to raise an eye health database associated with this service. The intention was to use this in the evaluation of service performance measures, and in setting the priorities of an ongoing needs-based eye service. Unfortunately, for reasons different in each area (documented elsewhere), this was not to be the case.

However, the following is the information available to The Foundation, and gives some indication of the extent of service during this demonstration project:

Ophthalmic

February-November, 1995:

- 1059 patient examinations.
- 91 eyes were lasered for diabetic retinopathy.
- 18 eyes with post-surgical capsular opacity were YAG lasered (this was the first time this laser type had been available, and the cases were predominantly from surgery previously performed in the Torres Strait).
- 65 cataracts were extracted (47 on Thursday Island and 18 Weipa; most underwent a phaco emulsification, one piece PMMA intraocular lens insertion, self-seal suture less technique).

January-December, 1996:

Ophthalmic consultation (patient not seen by this ophthalmologist during the twelve months prior to this examination):

	Torres Strait ³	Cape York	Wuchopperen ⁴	Total
Jan-June	321	361	191	873
July-Dec	242	187	175	604
Total	563	548	366	1477

Ophthalmic consultation (patient seen by this ophthalmologist during the twelve months prior to this examination):⁵

	Torres Strait	Cape York	Wuchopperen	Total
Jan-June	163	49	22	234
July-Dec	82	107	89	278
Total	245	156	111	512

Age/sex distribution of consulting patients:

Age (years) ⁶	Patients (%)	Males (%)
0 - 14	7	45
15 - 29	8	32
30 - 49	34	41
50 - 64	30	40
65 - 74	15	47
75+	6	51

Laser treatment sessions for retinal disease:⁷

	Torres Strait	Cape York	Wuchopperen	Total
Jan-June	35	12	10	57
July-Dec	26	4	3	33
Total	61	16	13	90

Appendix G (continued)

Cataract surgery:⁸

	Torres Strait ⁹	Cape York ¹⁰	Wuchopperen ¹¹	Total
Jan-June	17	29	29	75
July-Dec	20	31	26	77
Total	37	60	55	152

YAG laser capsulotomy:

	Torres Strait	Cape York	Wuchopperen	Total
Jan-June	13 ¹²	0	0	13
July-Dec	1	4	4	9
Total	14	4	4	22

¶ Pterygium excision with conjunctival autograft:

	Torres Strait	Cape York	Wuchopperen	Total
Jan-June	1	1	1	3
July-Dec	0	0	1	1
Total	1	1	2	4

¶ Minor procedures:¹³

	Torres Strait	Cape York	Wuchopperen	Total
Jan-June	2	2	1	5
July-Dec	0	1	3	4
Total	2	3	4	9

Optometric

Torres Strait (September, 1995-November, 1996¹⁴):

Age/sex distribution of consulting patients:

Age (years) ¹⁵	Patients (number)	Males (%)
0 - 9	30	45
10 - 19	46	37
20 - 29	60	32
30 - 39	99	32
40 - 49	137	40
50 - 59	126	37
60 - 69	110	40
70+	88	50
Total all ages	696	39

Patients for whom spectacles dispensed at any consultation:¹⁶

<u>Spectacle Finance</u>	<u>Patients (number)</u>
State welfare spectacle scheme	275
Private spectacle purchase ¹⁷	287
State welfare/private purchase ¹⁸	17
Total	559

Lens types dispensed:

<u>Type</u>	<u>Number of spectacles</u>
Single vision lens ¹⁹	405
Bifocal lens	144
Progressive lens	57
Total	606

a. Cape York (February, 1996-November, 1996):

- 386 optometric consultations (patient not seen by this optometrist during the twelve months prior to this examination).
- 8 subsequent optometric consultations (patient seen by this optometrist during the twelve months prior to this examination).
- 192 State welfare spectacles dispensed.
- 45 private purchase spectacles dispensed.

b. Wuchopperen:

Optometric examination and dispensing occurs at private optometric practices in Mossman, Cairns, Mareeba, and Innisfail. Consequently, no data is available.

11. SPECIALIST SERVICE DELIVERY: A PHILOSOPHY AND MODEL

All Australians deserve equity of access to, and opportunity for utilisation of, health services. These are rights of citizenship. This is no less so for rural and remote community residents, indigenous or otherwise.

However, the reality is that the crisis of indigenous ill health arises from, inter alia, lack of such equity of access and opportunity. This is exemplified in the populations of Far North Queensland, and crystallised in the previous delivery of eye services to the region.

There is no place for charity in the long term provision of health service to these people. This is true for The Fred Hollows Foundation, as for any other charity. However, The Fred Hollows Foundation eye service initiative in Far North Queensland, while providing service which would otherwise be unavailable, is not primarily about the delivery of services to specific individuals.

Instead, the essence of The Foundation's project is the modelling of rural and remote specialist service delivery. The innovation is not in the medical treatments or their application to specific individuals of Far North Queensland, but in the organising and financing of the service. A successful model offers the opportunity for legitimate service providers to then engage in long term service provision to Australians presently disadvantaged by lack of access or opportunity.

With this in mind, The Fred Hollows Foundation believes that the elements of successful rural and remote service delivery are that:

- the quality of service should be no less than that expected by urban Australians.
- the service should be as comprehensive as medically appropriate and possible. However, it may, of necessity, be limited, but should deal well with the more prevalent problems occurring in the target population.
- the service should be delivered in or near to communities, improving patient access and increasing uptake.
- the service should integrate with existing primary health care services where possible.
- the service should act as a conduit into available tertiary medical care as required.
- there ought to be training and use of local people as service managers where possible.
- a health database ought to be established and used in the evaluation of service performance measures, and in setting the priorities of an ongoing needs-based health service.
- the service should avoid duplication of already successful service provision.
- there should be coordination of all resources controlled by disparate authorities and organisations, so that the service may be sustained by mainstream funding in the long term.
- the service should be able to identify and handle the backlog of diagnostic and therapeutic intervention required, before settling to a sustainable level of activity.
- the service should be ongoing, either intermittently or continuously, as determined by population need and resource availability.

Unfortunately, not all of these aspects have been successfully incorporated into The Foundation's Far North Queensland project. However, the eye service established does model an innovative approach with potential for widespread application. Indeed, the importance of the model is as much because of the services success, as the lessons learnt in abandoning some of these elements.

In Far North Queensland, optometrists in private practice have been engaged to incorporate parts of the region into their practices. At the initiation of the project, there was no interest shown in this by any Cairns optometrist approached, because of the difficulty in leaving solo retail outlets. However, a Rockhampton optometrist from a group practice undertook to visit the Torres Strait, and one from Brisbane, without rooms, but frequently working as *alocum tenens*, took responsibility for Cape York.

A single optometrist repeatedly providing a service in a community means the onus is on him to ensure quality workmanship; appropriate refraction, good manufacturing, prompt delivery, and well fitting spectacles. This is what he does in urban practice. Failure to do so will mean poor patronage in future, urban or remote. If there are problems, or replacement spectacles are required, patients have a single contact address or telephone number with which to get satisfaction. If this does not occur, the patient has the option of personal contact on a subsequent community visit.

The presence of an optometrist, handling all aspects of refraction and spectacle dispensing, frees the ophthalmologist for the work he is more appropriately trained to deal with.

The ophthalmologist involved must be prepared and able to provide good quality medical intervention in often difficult circumstances. This may preclude the recent graduate. Through repeated visits, prompt surgical intervention, and good surgical outcomes, community trust and willingness to access the service are established. With this build up of practice, the continued participation of the ophthalmologist is encouraged.

The costs in delivering the service outlined previously are substantial. However, compared to the extensive transfer of patients from remote communities to mainstream health services, this modelled service is very cost effective. A detailed comparison is beyond the scope of this document, but is confirmed by the Medical Superintendent of Thursday Island Hospital. In fact, such a comparison is without basis in reality, since mainstream services in Cairns are unable to accommodate these people. Further, these services are generally unwilling and unwelcoming.

The costs are such that a practitioner attempting to incorporate regular comprehensive rural and remote service into his practice would find them prohibitive. It is far more financially rewarding, and considerably less risky, to concentrate on urban service. This is quite apart for the ease of metropolitan practise, compared to the alternative with its difficulties of travel, time away from home and practice, and the sometimes inhospitable conditions of remote Australia and its communities. Little wonder the status quo.

Therefore, innovative funding arrangements need to be organised to promote rural and remote service delivery. This may involve meeting the transport, accommodation, facility, equipment, and ancillary staff costs of the service, covering the costs of the specialist's metropolitan base practice, or entering an arrangement whereby this work attracts a Medicare fee-for-service at some multiple of the rate for a comparable service performed on an urban based patient.

Given the constraints enshrined in legislation, precedent, and practice, The Fred Hollows Foundation model overcomes the problem of the costs impediment by wedding public and private resources.

The private component comprises the practitioner's time and skill (both during visits and for telephone advice between), with some practice management (including liaison, generating and maintaining waiting lists, coordinating spectacle ordering and delivery to patients, etcetera).

In providing this service, the practitioner derives an income on a fee-for-service basis. Given the disadvantage of the patients accessing this service, the Medicare rebate alone is accepted. And further, because of the difficulty for these people in dealing with the Medicare bureaucracy, the service is bulkbilled. Unfortunately, this creates work and risk of non payment for the practitioner. The use of Medicare is dealt with elsewhere in this document.

The public component is provided by the State through local, usually hospital, health budgets. This includes travel of the practitioners to the region and between communities, accommodation, clerical assistance in communities, use of nursing and ancillary staff, and the use of facilities and equipment.

For the purposes of establishing this model, The Fred Hollows Foundation supplied some ophthalmic equipment (for example: operating microscopes at Mareeba and Cooktown, surgical instruments, portable phacoemulsification machine, portable diode and YAG lasers, portable A scan and keratometer). This represents considerable expense. For extension of the service model, these costs, and those of maintaining the equipment, ought to be borne by State or Federal Government. The equipment would then be available for movement across many communities and use by several practitioners, increasing the cost effectiveness of the investment. Federal Government funding presently wasted on state trachoma programs may be better used in setting up such a network of equipment.

The public health system has failed rural and remote inhabitants in the delivery of specialist medical services. There is no place for charity based services in meeting needs which ought to be satisfied as a right of Australian citizenship. Nor is there place for one-off medical specialist and hospital extravaganzas such as recent army supplied ophthalmic surgery in tents pitched in the grounds of a Northern Territory public hospital. This merely acts to relieve responsibility to provide year round service. And, while it was a project for its time, this is not the time for a repeat of the 1976-1979 Royal Australian College of Ophthalmologists' National Trachoma and Eye Health Program.

Instead, The Fred Hollows Foundation believes its demonstration project of an eye service using public and private resources has application beyond both Far North Queensland and this medical specialty.

12. THE FRED HOLLOWES FOUNDATION'S SPECIALIST EYE SERVICE IN FAR NORTH QUEENSLAND: ASPECTS OF APPLYING THE MODEL

As explained elsewhere, from the time of the initial invitation to work in Queensland, The Fred Hollowes Foundation's project underwent considerable metamorphosis. Extensive negotiation with stake holders and would-be gatekeepers, and changing circumstance, resulted in project alterations and omissions which The Foundation reservedly accepted. Even so, The Foundation believes the project and the execution of the final medical specialist service delivery model are weaker for this.

Presented here, without pretence of being comprehensive, and in no particular order, are a few aspects, positive and otherwise, which have shaped the outcome of The Foundation's involvement in Far North Queensland:

- The Fred Hollowes Foundation was anxious that the use of Medicare for services provided in State owned and run health facilities, including community clinics and hospitals, did not constitute 'cost shifting'. This was particularly so for payment for surgical services on patients admitted, generally as day cases, to public hospitals at Thursday Island, Weipa, Cooktown, and Mareeba. After discussion with Medicare officers in Canberra and Brisbane, it was agreed that the use of Medicare in this manner was legitimate, given the rural and remote circumstances of the services, and the lack of any reasonable public or private service alternative.
- Wuchopperen patients are usually already enrolled in Medicare. Although many do not carry their cards, obtaining numbers and new cards from Medicare is relatively easy.

On the Cape and in the Torres Strait, there are continuing problems with enrolment, the use of cards, unknown numbers, card expiry, and variations in patient data, particularly name and date of birth.

In the Torres Strait, a local indigenous hospital clerical worker accompanies the clinic team. Where there is doubt about previous enrolment or card expiry, which, particularly on outer islands, often can not be confirmed by telephone with Medicare, the patient has appropriate paperwork completed. The use of different names (notably with "island adoption", apparent whim, and remarriage), and dates of birth, considerably complicates the issue of new cards and numbers. The same applies on the Cape, where a clerical worker or nurse at each community clinic completes the paperwork.

Despite the submission of enrolment documentation, Medicare claims for service may be returned unpaid because of "no record of enrolment" or "service preceding enrolment". Community clerical errors also account for a good percentage of rejections.

It is the practitioner who suffers the associated loss, so there is little incentive for clerical staff (who are paid regardless) or patients (who are examined and treated regardless) to direct attention to the Medicare problems. However, with continued use, there is beginning an appreciation of Medicare card operation. Rejection rates have improved substantially. Also, in some communities, inhabitants are attending during eye team visits, not to be examined, but only to have Medicare enrolment sorted out in case they travel to visit family in Cairns or Townsville.

- Medicare has agreed that in these rural and remote communities, appearance of a patient's name on a clinic list to see the ophthalmologist constitutes a referral from the local medical officer. This is even if the appointment has been made by a nurse or clerical worker at a hospital, or a nurse or health worker resident in a community. In reality, patient management is shared more intimately by medical and nursing staff in these communities, so that such a referral is from the management team, including the doctor, rather than an individual. This arrangement maximises the use of scarce local medical manpower time, and is in keeping with the greater autonomy afforded nurses and ancillary staff in these communities.

The optometrist travelling with the ophthalmologist may also refer a patient seen on the day.

The ophthalmologist and optometrist write in the local clinic notes, so the reason for a referral to the ophthalmologist is readily available. Medicare therefore accepts that a separate written referral note may not be in existence.

- During the start-up phase, the optometrist and local health service in the Torres Strait negotiated a salary supplement for the optometrist. While The Foundation is not privy to this arrangement, it is understood it was designed to cover the time lost in travel, the continuing expenses of the urban practice, etcetera. With the use of Medicare payments sorted out, the long term application of this supplement is unknown.

No such arrangement was organised on the Cape.

The ability to offer flexible arrangements at a local level may mean the difference between obtaining service, and not.

- Similarly, the use of existing funding in a more flexible manner may secure service and cost savings. For example, the Isolated Patient Transfer Assistance Scheme (IPTAS) spends huge amounts of money transferring rural and remote patients to urban medical services. Yet, local health services do not seem able to access this funding to pay for the cheaper alternative of transferring medical services to rural and remote patients.
- The Fred Hollows Foundation believes that the delivery of health services ought to be associated with the raising of a health database. Only then can there be evaluation of service performance measures, setting of priorities for an ongoing needs-based health service, and equitable distribution of resources.

Initially, The Apunipima Cape York Health Council invited The Foundation, in conjunction with The National Centre for Epidemiology and Population Health (NCEPH), to devise and implement a health database on the Cape. This project included the training of several indigenous residents in the practicalities of data collection, management, and reporting. These workers were to be used in the evaluation of the eye service pilot.

In the early phase of the eye service project, NCEPH was to ensure that the project design incorporated the accumulation of data which would allow a comprehensive evaluation of process, impact, and outcome of the pilot, and form the basis of a needs analysis for implementation of the ongoing service. During the project, NCEPH was to be responsible for supervision of data collection, and analysis.

For many in indigenous Australia, such data collection is "research". The history of research is seen as that of exploitation. This extremely important element of The Foundation's commitment to the Cape fell foul to scaremongering, ideology, and politics. The invitation to organise data collection and management was rescinded. The Apunipima Cape York Health Council determined to control and arrange these itself. Unfortunately, nothing has come of this undertaking. The eye specialist service delivery model is weakened by this.

The Torres Strait Health Council has instigated its own information technology/data management project. The Foundation has been supportive of this, but the initiative appears to have stagnated. Again, the eye service is the poorer for it.

Health councils seem comfortable with the accumulation of service data as part of medical practise and audit, but nothing more. Interestingly, patients are not always as tolerant. For example, in the expectation of improving documentation and management of diabetic retinopathy, Indigenous Health Workers in the Torres Strait let it be known that in the near future retinal photography would be trialed. Some of the information was lost in the transfer, and there started a wave of unease because of the incipient face photography to be associated with service delivery. The use of retinal photography has been abandoned for the present.

However, the problem of lacking a community mandate to collect community health data should not apply to The Queensland Trachoma and Eye Health Program (QTEHP), which claims community control. Yet, QTEHP, despite years of community visits, with sufficient funding and manpower, was unable to admit to The Foundation that any meaningful information concerning ocular morbidity had been collected.

- Empowerment of local inhabitants through the transfer of skills is a tenet of The Fred Hollows Foundation's work overseas. Therefore, The Foundation was keen to incorporate a training component into the Far North Queensland project.

At the Apunipima Cape York Health Council's invitation, it was envisaged that there be training of:

- * a Trainee Project Coordinator, employed by Apunipima.
- * several indigenous residents in the practicalities of data collection, management, and reporting, as part of establishing a Cape health database.
- * local people as specialist eye health workers and/or health service managers for the eye service.

However, as a result of individual and organisational politics, The Foundation was relieved of any input concerning skill transfer for these people. Sadly, Apunipima was unable to organise a replacement for The Foundation's contribution.

- The Foundation also hoped the project would provide the opportunity to establish an ophthalmology training position, in association with The Royal Australian College of Ophthalmologists. This would expose senior registrars to rural and indigenous eye health. The Foundation lobbied the Queensland Government for funding for such a registrar training position. As a result, during the Queensland state election in July, 1995, the government promised \$300,000 over three years for an outreach eye service to be run in conjunction with The Foundation. However, The Foundation did not get access to this money, nor any control over it. The apparent recipient, Cairns Base Hospital, was disinclined to pursue the employment of a registrar, or, it seems, an equitable public ophthalmology service. Accordingly, no registrar training resulted.
- However, there has been some in-service training in rural/indigenous eye health for rural general practice trainees at Thursday Island Hospital. Nurses and Indigenous Health Workers have also been given occasional tutorials (in contrast to those provided by QTEHP, which apparently refused entry to nurses when giving a tutorial to Indigenous Health Workers in Kowanyama).
- Also, a theatre nurse from Thursday Island was seconded to Cooktown and Mareeba when surgery was being established at these hospitals. As a result of his diligence, there are now protocols at both locations (covering inventory, supply ordering, outpatient management, pre-operative preparation, theatre, etcetera), and local staff familiar with these and eye surgery.
- Following discussions with community and Apunipima Cape York Health Council representatives, The Foundation readied itself to participate in increasing community health awareness and participation. It was envisaged that the eye service would act as a hook upon which patient education material would be developed. This would concern lifestyle diseases, particularly those which impinge on eye health, such as diabetes. However, Apunipima decided on a change of direction, and this collaboration did not eventuate.

- In view of the move away from integrated skill transfer and community education components, the eye service delivery model adopted more of a medical interventionist outlook. As a result, Apunipima's place in this project became more peripheral, and ideological rather than practical. This highlights the difficulty of working through a community controlled organisation such as Apunipima, which lacks control over resources relevant to a project (for example: operating theatres, nursing staff), but which claims to embody community empowerment.
- Another consequence of moving to a medical interventionist model has been the forsaking of the original intention to hand over a functioning eye service, free of the burden of case load backlog, and reliant only on mainstream funding, to local community controlled organisations at the end of the project. Instead, the organisational base has become the urban private practice of participating medical specialists.

It is important that these medical professionals not view this undertaking as charity work, but that the rural or remote service unit is a constituent of their regular practice. The same standards and commitment would be expected as for other parts of their practice.

Several private ophthalmologists and optometrists around Australia have indicated interest in participating in a long term service arrangement as modelled by The Foundation. This being the case, and if the application of the model were expedited by government intervention, The Fred Hollows Foundation would be prepared to consider brokering private ophthalmologists and optometrists to take responsibility for the eye health of each service unit established (a community or group of communities). Alternatively, The Royal Australian College of Ophthalmologists maybe approached to fulfil this role.

- Early in 1995, QTEHP agreed to the Apunipima Cape York Health Council's wish that The Fred Hollows Foundation organise and provide eye services on the Cape. QTEHP was to withdraw its services, in as much as they existed, and use their resources to provide a better service in north west Queensland. This arrangement would avoid duplication of service provision. Unfortunately, QTEHP then made several visits on the Cape, even as late as 1996. Several communities received QTEHP visits within months of the last Foundation eye team visit, and within weeks of the next scheduled service. Not only did this waste resources, but undermined the establishment of all The Foundation's model represents.

In 1996, QTEHP took a Sydney ophthalmologist to Mareeba to hold a clinic. This is a rural town in which there are two optometric practices, and The Foundation ophthalmologist visits monthly. Apparently, of the patients examined by QTEHP, only one had not seen an optometrist in the previous year, and all but one of the diabetics had been recently examined by The Foundation's ophthalmologist. Finite resources need better management than this.

QTEHP produces and retains its own notes. Sometimes a copy finds its way into a patient's community clinical file. This makes integration of the eye service with existing primary and local medical officer care difficult. The Foundation model uses community notes exclusively, which are then retained in the community for use by other health service providers.

QTEHP has difficulty securing services for its patients. It is telling that QTEHP now finds use of The Foundation's service, particularly for surgery, more expedient than its traditional system of adding patients to southern waiting lists (for example: patients from Croydon, which is not in the area serviced by The Foundation's model, have been referred for, and promptly had, surgery at Mareeba).

QTEHP offers free spectacles. Indeed, the distribution of these seems to be the program's *raison d'être*. It is not an unusual occurrence to have patients requesting replacement spectacles for pairs dispensed and lost in the last couple of months. The state welfare spectacle scheme limits the frequency of free spectacle uptake. When this is explained to patients, there seems to be a much greater retention rate for the spectacles issued.

In order to satisfy the need to generate suitable attendance statistics, it is not unknown, when adult attendance is down, for QTEHP to visit a community school and flip eye lids as a screen for trachoma. This practice is at odds with a commitment to good quality comprehensive service.

- Much of the last two years have been spent negotiating and renegotiating with gatekeepers, often self appointed, and stake holders. For example:
 - ¶ despite local support, it took sixteen months to negotiate access to operating theatres at Mareeba and Cooktown.
 - ¶ Yarrabah, with a population of 2000, has three independent health delivery providers (community council, hospital, and community health). Agreement on delivery of eye services to the community could not be reached with these, and so was abandoned.
 - ¶ the Queensland Regional Health system was disbanded in late 1995, after time had been spent negotiating with its office holders, who subsequently had altered responsibilities.
 - ¶ aware of The Foundation's plans, in early 1995, the Regional Health Authority developed its own plan for rural and remote eye service delivery. This was despite lacking the manpower, resources, and inclination to implement it.
 - ¶ while there is often a clear early grasp of the benefits of innovation in service delivery at a local level, this is frequently thwarted centrally. This appears especially true of Queensland Health.
- Service delivery needs to be responsive to patient, clinical, and administrative demands, along with resource limitation. For example:
 - ¶ Wuchopperen patients previously had to visit the health service, then Cairns Base Hospital to collect state welfare spectacle scheme paperwork, and then finally see an optometrist. Recently, the hospital has agreed to allow the middle step to be organised at Wuchopperen, with the medical service being responsible for submitting the appropriate paperwork to the hospital.
 - ¶ with a shortage of hospital beds, day case cataract surgery is encouraged. Patients from adjacent communities are put up by family or at a hostel, and their movements are coordinated by an indigenous liaison officer.
 - ¶ community visits on or immediately following pension day are likely to result in poor attendance, or a large number of intoxicated patients. Visits are generally best conducted early in the week.
- The use of Indigenous Health Workers (IHW) as the linchpin of community service delivery has been disappointing. For example, on at least two occasions, IHWs forgot to arrange community clinics, so that the ophthalmologist turned up to find no patients booked in for examination. A discussion of the problems of the IHW program are beyond the scope of this document. However, with few exceptions, their work in relation to the eye project has been carried out by nursing staff.

13. THE FRED HOLLOWES FOUNDATION SPECIALIST EYE SERVICE IN FAR NORTH QUEENSLAND: WHAT NOW AND BEYOND?

In reviewing The Fred Hollowes Foundation's involvement in Far North Queensland, it is evident that this project has suffered many of the impediments which conspire to pervert improvements in indigenous health generally: changing political alliances and priorities; personal ambition, duplicity, and conflict; broken institutional promises; conflicting layers of bureaucracy; institutional and bureaucratic inertia; fragmented funding..... Although these obstructions are not comprehensively presented in this document, it will be apparent that they do not relate to the medical aspects, but rather the management and financing of the project.

That this initiative has accomplished any medical intervention for specific Far North Queensland patients, and modelled such service, is a testament to the stewardship of Foundation employees.

However, such dedicated application will not be available to those wishing to extend the service beyond the region modelled. Instead, the impetus must come from above in government and the health bureaucracy; as policy statement, perhaps legislation, and certainly example.

Although The Fred Hollows Foundation's hands-on involvement in Far North Queensland ceases in January, 1997, the eye service initiated will continue. It will be provided by a Cairns based ophthalmologist and optometrist, and optometrists from Brisbane and Rockhampton. The Foundation will continue to make available the equipment it has previously purchased.

The ophthalmologist, in association with a local optometrist and the Mount Isa Hospital, is working to set up a regular service to Mount Isa. Once this hub is functioning, a visiting service, involving the ophthalmologist and a Brisbane optometrist, is envisaged for communities as far north as Mornington Island, and south to Boulia or Bedourie. Some of The Foundation's equipment will also be used in this region.

As the Far North Queensland project concludes, it is timely that the Federal Government, through The Office for Aboriginal and Torres Strait Islander Health Services of The Department of Health and Family Services, should launch a review into eye health. The Fred Hollows Foundation is pleased to make its experience available to those conducting this.

Also, The Health Insurance Commission is to conduct a research project into such issues as the enrolment of indigenous peoples in Medicare, and their access to the pharmaceutical benefits scheme. Again, The Foundation is keen to share information arising from its service initiative.

Thus, The Foundation takes some satisfaction in the outcomes of its Far North Queensland project.

With this success behind it, The Fred Hollows Foundation looks forward to making additional contributions which will assist indigenous Australians to achieve the health standards their urban white counterparts take for granted.

Endnotes

- ¹ Page 13, "The National Health Policy"; Health Ministers' Forum, 30 September, 1994.
- ² Australian Bureau of Statistics, 1991.
- ³ Includes patients seen in the Torres Strait and North Peninsula Area. Does not include Papua New Guinea nationals examined and treated.
- ⁴ Includes patients seen in Cairns, Innisfail, Mareeba, and Mossman.
- ⁵ This group includes pre- and post-operative cataract patients, diabetics requiring treatment or follow up at less than one year interval, etcetera.
- ⁶ Ages are as reported by patients, and are, therefore, approximate.
- ⁷ Each treatment session involves laser to one eye on one day; some eyes require several treatments over time. Treatment is almost exclusively for diabetic retinopathy.
- ⁸ Most underwent a phacoemulsification, one piece PMMA intraocular lens insertion, self-seal sutures technique. However, several extracapsular and intracapsular cataract extractions, all with intraocular lens implantation, are included. So also are an occasional intraocular lens implantation without concurrent cataract extraction.
- ⁹ Surgery on Thursday Island.
- ¹⁰ Surgery at Weipa (started in 1995) and Cooktown (started May, 1996).
- ¹¹ Surgery at Mareeba (started May, 1996).
- ¹² Predominantly arising from surgery performed in the Torres Strait prior to 1995.
- ¹³ Entropion repair, conjunctival cyst excision, entropion repair (not trachoma related).
- ¹⁴ The current optometrist began in September, 1995. Data is unavailable from the optometrist visiting prior to this.
- ¹⁵ Ages are as reported by patients, and are, therefore, approximate.
- ¹⁶ Any patient may have spectacles dispensed on more than one occasion.
- ¹⁷ More than one set of spectacles may have been purchased by a single individual at a single consultation.
- ¹⁸ Patient eligible for, and getting, welfare spectacles, but privately purchasing additional spectacles also.
- ¹⁹ Predominantly reading spectacles.

Recommendations of the *Eye Health in Aboriginal and Torres Strait Islander Communities Report* (Taylor 1997, pp. 1-9)

Recommendation 1

The Commonwealth Government should commission an appropriate group to develop evidence-based, clinical practice guidelines for primary eye care for Aboriginal and Torres Strait Islander peoples. These guidelines should be developed in consultation with the relevant health professions especially those working in Aboriginal Medical Services. Appropriate in-service training modules should be developed around these guidelines for all those working in the primary health care setting. These should be provided to the National Information Network for wide distribution.

Recommendation 2

The Commonwealth and State and Territory Governments should provide financial incentives for health services to purchase and use computer-based, patient management and recall systems. Training must be provided to these organisations to assist in integrating these systems into work of the service. The Commonwealth and State/Territory Governments should develop performance information and minimum data reporting requirements for eye health that can then be generated by the patient management and recall systems.

Recommendation 3

3a. Eye services should be delivered through a regional public-private model. The provision of these services is the joint responsibility of the Commonwealth and State and Territory Governments. Where possible outpatient services should be delivered through Aboriginal Medical Services.

3b. The proposed funding method for the regional model is for the Commonwealth Government to:

- * continue to allow Medicare bulkbilling for specialist eye services; and
- * make available Commonwealth funding, through Medicare or another mechanism to cover the surgeon's involvement in cataract and other eye surgery performed in public facilities in remote regions.

State and Territory Governments are to provide funds for the overhead-free environment required for the provision of the above services. This would include, among other things, equipment, infrastructure, travel and support.

3c. Regional and local health care services must identify a person, preferably an Aboriginal person, to be responsible for the administration and community liaison for the specialist eye services. Hospitals should be resourced to provide Aboriginal Health Workers with liaison responsibilities to assist Aboriginal patients undergoing surgery.

3d. Links should be established between primary health care services in urban areas and optometrists, ophthalmologists and hospitals that provide eye services so that primary health care services can readily refer their patients for appropriate eye care.

3e. The Commonwealth and State and Territory Governments must ensure that cross-border funding issues are addressed at a local level so that the quality of care is not jeopardised for patients who may be referred from centres in other States.

Recommendation 4

Evidence-based, clinical practice guidelines for the provision of specialist eye care to Aboriginal and Torres Strait Islander patients should be developed in consultation with the Royal Australian College of Ophthalmologists and other relevant bodies. The guidelines should include cataract surgery, trachoma and diabetic retinopathy. These should be provided to the National Information Network for wide distribution.

Appendix H (continued)

Recommendation 5

State and Territory Governments and the Royal Australian College of Ophthalmologists should develop registrar training positions with appropriate supervision in rural and remote areas. The Royal Australian College of Ophthalmologists should encourage registrars to accompany ophthalmologists during visits to rural and remote regions and facilitate this.

Recommendation 6

Health services should ensure the availability of ready-made reading glasses through local outlets or through the health service.

Recommendation 7

The Commonwealth Government should review the effectiveness of the visiting optometrist scheme in meeting the needs of Aboriginal and Torres Strait Islander communities particularly in remote areas.

Recommendation 8

State and Territory Governments should review their low-cost spectacle schemes to improve their accessibility and utilisation by eligible Aboriginal and Torres Strait Islander peoples.

Recommendation 9

Cataract surgery should be routinely provided at a regional level and requires appropriate facilities and equipment.

Recommendation 10

The State and Territory Governments should provide regionally-based equipment such as non-mydriatic fundus cameras and portable laser equipment necessary for the management of diabetic retinopathy. Appropriate training should be made available to primary health care workers who will use the photographic equipment.

Recommendation 11

Clinical practice guidelines for diabetic retinopathy should include at a minimum, the use of patient management and recall software, the importance of annual eye examinations and advice on the use of laser treatment in Aboriginal and Torres Strait Islander communities.

Recommendation 12

12a. A Medicare item number should be provided for annual retinal photographic screening for retinopathy in people with diabetes by practitioners other than ophthalmologists and optometrists.

12b. Aboriginal Health Workers or nurses should be able to provide annual retinal photographic screening for retinopathy in people with diabetes under the supervision of a medical practitioner, in keeping with the 'On behalf' provisions, and thereby attract a Medicare rebate under the supervising medical practitioner's name.

Recommendation 13

Clinical practice guidelines for trachoma should be developed for Aboriginal and Torres Strait Islander peoples based on the WHO guidelines and in consultation with the relevant health professionals including those working in Aboriginal Medical Services. They should include at a minimum, the screening for trachoma, the WHO simplified grading, the surgical treatment of trichiasis, the family-based treatment with azithromycin, the promotion of facial cleanliness and environmental improvement.

Recommendation 14

12a. As a matter of urgency, the Therapeutic Goods Administration should put to the Pharmaceutical Benefits Advisory Committee the issue of scheduling azithromycin under the Pharmaceutical Benefits Scheme for the treatment of trachoma, including the use of a paediatric suspension for infants.

12b. The Commonwealth Minister for Health and Family Services should authorise funding under Section 100 of the National Health Act or through some other mechanism, the distribution of azithromycin through alternative arrangements that substitute for doctors and community pharmacists.

Recommendation 15

The three tiers of government must make concerted and sustained improvements in housing, water supply, waste disposal and other important aspects of the environment in Aboriginal and Torres Strait Islander communities that ensure the provision of functional health hardware. Resources should also be allocated and provide for planned maintenance. Attention must focus on the regional delivery of housing and the responsibility of local government to provide infrastructure.

Recommendation 16

The Commonwealth Government should fund the establishment of a National Information Network to undertake the tasks that have been identified in this report. The Network would be a low-cost, small-scale organisation, possibly with a secretariat working on contract.

Recommendation 17

The National Information Network should report on a regular basis to Health Ministers on the performance of health providers of eye health care. This report should be based on information gathered by the Network and include, at a minimum, the following performance indicators:

- * the number of pairs of glasses provided;
- * the number of cataract operations performed;
- * the number of people on the waiting list for cataract surgery, and the time that they have been on the waiting list;
- * the percentage of people with diabetes who have an annual eye examination;
- * the number of people with diabetes for whom treatment was recommended and the number who were actually treated;
- * the status of trachoma on a community basis including the prevalence of trachoma in children aged five to nine years;
- * the number of people treated for trachoma with azithromycin; and
- * the prevalence of trichiasis in women over 40 years.

These performance indicators should be built into the framework of performance indicators being developed through Australian Health Ministers' Advisory Committee to report on Australia's national jurisdictional performance in Aboriginal health.

Appendix I

The Regional Model of Public-Private Eye Service Delivery (Brian 1998c, pp. 7-12)

All Australians deserve equity of access to, and opportunity for utilisation of, health services. This is no less so for rural and remote community residents, indigenous or otherwise.

For rural and remote medical specialist service delivery, the innovation is not in the medical treatments, but in the organising and financing of the service. Successful service delivery must offer the opportunity for legitimate service providers to engage in long term service provision to Australians presently disadvantaged by lack of access or opportunity.

With this in mind, the elements of successful rural and remote service delivery must be that:

- The quality of service should be no less than that expected by urban Australians.
- The service should be as comprehensive as medically appropriate and possible. However, it may, of necessity, be limited, but should deal well with the more prevalent problems occurring in the target population.
- The service should be delivered in or near to communities, improving patient access and increasing uptake.
- The service should integrate with existing primary health care services where possible.
- The service should act as a conduit into available tertiary medical care as required.
- There ought to be training and use of local people as service managers where possible.
- A health database ought to be established and used in the evaluation of service performance and medical intervention outcome measures, and in setting the priorities of an ongoing needs-based health service.
- There should be coordination of all resources controlled by disparate authorities and organisations, so that the service may be sustained by mainstream funding in the long term.
- The service should be able to identify and handle the backlog of diagnostic and therapeutic intervention required, before settling to a sustainable level of activity.
- The service should be ongoing, either intermittently or continuously, as determined by population need and resource availability.

In eye health, the specialist service providers are the optometrist and ophthalmologist. Each must be prepared to provide a regular ongoing in-community service in a context not to their financial and professional detriment. It is important that these medical professionals not view this undertaking as charity work, but that the rural or remote service unit is a constituent of their regular practice. The same standards and commitment would be expected as for other parts of their practice. As part of the professional commitment which is then established, they should be available for telephone advice to other health professionals committed to the locality, and facilitate referral of patients with urgent needs between visits. This is about encouraging specialist service providers interested in rural service to incorporate a community, group of communities, or region into their urban-based medical practice.

From the Far North Queensland experience, a single optometrist repeatedly providing a service in a community means the onus is on him to ensure quality workmanship; appropriate refraction, good manufacturing, prompt delivery, and well fitting spectacles. This is what he does in urban practice. Failure to do so will mean poor patronage in future, urban or remote. If there are problems, or replacement spectacles are required, patients have a single contact address or telephone number with which to get satisfaction. If this does not occur, the patient has the option of personal contact on a subsequent community visit.

The presence of an optometrist, handling all aspects of refraction and spectacle dispensing, frees the ophthalmologist for the work he is more appropriately trained to deal with.

The ophthalmologist involved must be prepared and able to provide good quality medical intervention in often difficult circumstances. Through repeated visits, prompt surgical intervention, and good surgical outcomes, community trust and willingness to access the service are established. With this build up of practice, the continued participation of the ophthalmologist is encouraged.

The costs in delivering this service may be substantial. However, again from the Far North Queensland experience, compared to the extensive transfer of patients from remote communities to mainstream urban health services, this mode of service delivery is very cost effective.

The costs are such that a practitioner attempting to incorporate regular comprehensive rural and remote service into his practice would find them prohibitive. This is particularly so, since the specialist practitioner already has the often considerable costs of his metropolitan base practice to meet. It is far more financially rewarding, and considerably less risky, to concentrate on urban service. This is quite apart for the ease of metropolitan practise, compared to the alternative with its difficulties of travel, time away from home and practice, and the sometimes inhospitable conditions of remote Australia and its communities.

Therefore, innovative funding arrangements need to be organised to promote rural and remote service delivery. This involves meeting the transport, accommodation, facility, equipment, organisational, and ancillary staff costs of the service. Also, the workload must be such that fee-for-service arrangements produce a sustaining income for the practitioner. Where, because of time spent in travel or paucity of patient load, this does not occur, then supplemental income arrangements need to be negotiated.

The model overcomes the problem of the costs impediment by wedding public and private resources.

The private component comprises the practitioner's time and skill (both during visits and for telephone advice between), with some practice management (including liaison, supervising waiting lists, coordinating spectacle ordering and delivery to patients, etcetera).

In providing this service, the practitioner derives an income on a fee-for-service basis. In many communities, given the disadvantage of the patients accessing this service, the Medicare rebate alone is accepted. And further, because of the difficulty for these people in dealing with the Medicare bureaucracy, the service is bulkbilled. Elsewhere, there may be an affluent community stratum accessing the service and a different arrangement may be used. Thus, every patient, for every intervention, including surgery, is treated as a private patient of the practitioner.

The public component is provided by the Commonwealth-State axis through local, usually medical service or hospital, health budgets. This includes travel of the practitioners to the region and between communities, accommodation, clerical assistance in communities, use of nursing and ancillary staff, and the use and maintenance of facilities and equipment. There will be local variation on how this is arranged. For example, where frequency of practitioner visits and population size and composition do not warrant installing equipment in a community or facility, it would instead be available for movement across several communities and for use by several practitioners. This would increase the cost effectiveness of the equipment investment.

Appendix I (continued)

In essence; in return for the practitioner adopting a rural/remote service unit¹⁵⁵ into his private practice, government provides a overhead-free work place, with the possibility of supplemental income if required by local circumstance.

In practical terms, regional public-private eye service delivery must primarily meet the requirements of good quality clinical practise in dispensing spectacles, and in monitoring and treating cataract, diabetic eye disease, and trachoma where it is problematic. However, provision needs to be made to deal with all optometric and ophthalmic problems, either at presentation or by referral.

The aim is to provide as much of the eye service in each community, or as close as possible, at the service unit's hub community.

There may be considerable variation in how this is implemented. Variations will be determined by such factors as practitioner availability, type of health facilities in existence, community size, composition, and location.

So, in some circumstances, in keeping with the need for annual diabetic review, the eye team visits each community at least once per year. In each community, patients are examined and spectacles organised. Those with diabetic retinopathy needing treatment are lasered as required. Diabetics requiring no treatment are invited to return for review the following year. Patients with any ocular condition necessitating earlier or more frequent assessment, including those with significant diabetic retinopathy and those lasered, have further appointments made for subsequent ophthalmic visits to the service unit's hub. Each visit to the service unit involves time passing through peripheral communities, offering the annual service. Also, time may be spent at the hub, reviewing local community members, and those patients from peripheral communities identified as needing more intense supervision. Thus, there is provision to review any patient as frequently as the service unit hub visits allow.

Elsewhere, a non-mydratic fundus camera may be used to screen for diabetic retinopathy. This may be done in any of several ways. One is to have a camera resident in every Indigenous Health Service. It could then be used opportunistically to screen any patient who presents at any time for any condition. This would involve a large capital outlay and the training of many users. Another is to have a single trained Aboriginal/Islander Health Worker, equipped with a camera, travel independently to communities and screen for diabetic eye disease. This has the disadvantage of being disease specific, ignoring the optometric and other ophthalmic needs of those screened.

Some believe that use of a fundus camera only has application where an eye team does not visit. Others see an advantage in using it where there is a concentration of diabetics. Its use would save the ophthalmologist from examining a large number of normal diabetic eyes, and allow him to concentrate on treating just those identified by photography as requiring laser.

For those service regions wishing to try using a fundus camera, there are cost and staff implications. From the Victorian experience, fundal photography costs four dollars per patient. This annual cost will need to be met either through Medicare or by some other mechanism. The training of local staff in use of the camera needs to be organised and take into account recurrent staff turnover.

¹⁵⁵ A geographic region may be designated as a Regional Service Area. A Regional Service Area may have one or more Service Units. A Service Unit comprises one or more smaller, less resourced, peripheral communities with a larger, better resourced, hub community, in close proximity, which anchors the service. The hub community may act as such for several Service Units.

Surgery, using regional anaesthesia, should be performed at the hub community's hospital. This will primarily be cataract surgery, but other procedures such as pterygium excision, squint correction, or lid surgery may be done. Patients travel in from their community, stay with relatives, in a hostel, or in a step-down-centre, have their surgery as a day case, and return home after a couple of days.

With the exception of the few patients requiring more sophisticated investigation (for example: CT scan) and treatment (for example: vitreoretinal surgery), and of emergencies occurring when the ophthalmologist is not in the service unit, and which can not be handled by telephone consultation, there is no need to transfer patients to large metropolitan centres.

Where possible, ophthalmic and optometrical services ought to be provided by practitioners as part of an eye team. The other two members being an administrator/coordinator and a local health worker (Aboriginal/Islander Health Worker or Indigenous Medical Service nurse). There will be local differences in the team membership and size. Also, there may be variation as to where these latter two workers are drawn from (hub, periphery, or elsewhere), depending, inter alia, on the size and community composition of the service unit, its relationship with other units, the ease of transporting the team and its equipment, and the availability of suitable community members interested in undertaking these roles. However, the preference ought to be to conduct the eye service from Indigenous Medical Service facilities, using Indigenous Medical Service staff.

The administrator/coordinator's responsibilities may include:

- organisation of team visits to communities;
 - liaison with community health services: prepublicity, generating clinic lists, organising work space, ensuring no clashes with other specialist visits or community events, etcetera.
 - organisation of team travel and accommodation.
 - ensuring the (pre-)arrival of necessary equipment in working order.
- running the specialist clinic;
 - doing or supervising: Medicare enrolments, checking Medicare numbers and expiry dates, and completing Medicare vouchers.
 - doing or supervising the pulling and use of the host Indigenous Medical Service's medical notes.
 - collecting service performance and medical outcome data.
- post-visit organisation;
 - liaison with hub hospital concerning generating surgical waiting and theatre lists.
 - liaison with hub community Indigenous Medical Service concerning any follow-up appointments to be made for peripheral community members.
 - overseeing arrangements to transport and accommodate patients requiring hub clinic appointments or surgery.
 - organisation of movement of equipment to the next location at which it will be required.
 - organisation of equipment maintenance.
 - collation of data and submission to the National Information Network.
 - organisation of distribution of spectacles resulting from the visit

Appendix I (continued)

- overseeing the use of a fundus camera;
 - organising the transfer of a fundus camera between communities.
 - training/supervision of those using the camera in communities.
 - organising the retrieval of photographs and their examination by an ophthalmologist.
 - organising appointments for those requiring review or laser treatment.
- addressing miscellaneous issues such as;
 - ensuring equity of access for all patients.
 - acting as a conduit for complaints/compliments from patients, communities, health workers, and practitioners.

Some of these responsibilities will be executed personally by the administrator/coordinator. Others, at a community level, will be performed by a local Indigenous Medical Service staff member (administrator or Aboriginal/Islander Health Worker) under the administrator/coordinator's direction.

The team's health worker's responsibilities may include:

- during community clinic visits;
 - measuring visual acuities.
 - dilating patients' pupils.

Spending time in the waiting room, talking to patients (reassuring about clinic procedures; discussing diabetes and diabetic eye disease; discussing trachoma and other eye diseases; reassuring about surgery and describing how it is delivered in that service unit; describing the mechanism of dispensing spectacles and their procurement free through a spectacle scheme or for payment; etcetera)

- acting as a liaison person at the time of surgery (this worker will already know or have met the patient at the clinic, may accompany or meet the patient at the hub hospital, be present during surgery if required, and oversee the immediate and perhaps home community postoperative care).

In some service units, the optometrical need may require more frequent community visits than the ophthalmic component of the service. If this is the case, the optometrist will require the same support as the full team. These visits will allow the optometrist to identify patients who will require referral for ophthalmic review on a subsequent occasion. The team will need to be aware that this practise may prove counterproductive if patients, having received spectacles on the first visit, failure to return for subsequent review, and perhaps treatment.

Where an eye team visits an Aboriginal or Islander community, they do so at the invitation of the community and the Indigenous Medical Service. It is important, therefore, that the professional notes generated remain in the community, although a practitioner may choose to take a copy (for example, when a patient will be seen at the hub for surgery or review). This allows continuity of care should the eye practitioner change, Indigenous Medical Service staff access to information about their patients and the investigations and treatments required (without the need for the eye practitioner to write a letter), and easy communication with other visiting specialists (for example, endocrinologist).

For the purpose of Medicare payment, the optometrist may accept patients referred from any source (nurse, Aboriginal/Islander Health Worker, medical practitioner, or patient self-referral). However, the specialist ophthalmologist requires a written dated referral from a medical practitioner or optometrist to meet Medicare payment for service requirements. It is important that this not be an impediment to patient access or ophthalmologist payment.

In many circumstances, the appearance of a patient's name on a clinic list to see the ophthalmologist is all that constitutes a referral. The appointment may have been made by a nurse or clerical worker at a hospital, or a nurse or health worker resident in a community. In reality, patient management is shared more intimately by medical, nursing and other ancillary staff in these communities, so that such a referral is from the management team, including the doctor, rather than an individual. This arrangement maximises the use of scarce local medical manpower time, and is in keeping with the greater autonomy afforded nurses and ancillary staff in these communities. There will be variation between eye teams on how the strict Medicare requirement for a written dated referral from an appropriate practitioner will be overcome. Whichever is chosen, the use of local notes will facilitate the referral process, and reduce the paperwork. For example, a small standard inked stamp may be added to the notes and signed each year by the local medical officer, or the optometrist may sign a similar standard stamp inserted in the medical notes by the administrator on the day of consultation. As an alternative, negotiation with Medicare may result in the acceptance that, in these circumstances, a separate written referral note may not be in existence.

Where there is no Indigenous Medical Service, or its facilities are too cramped, it may be necessary for the eye team to conduct outpatient clinic services at a local public hospital. To avoid contravening Medicare agreements concerning the bulkbilling of patients in a public facility, there needs to be an arrangement between the service providers and the hospital. The hospital must be prepared to rent its facilities (space and staff) to the service providers, so they may be used as private rooms. The service providers can then use these rooms to conduct their private practice, bulkbill their patients, and meet Medicare requirements. In keeping with the aim of encouraging rural/remote service delivery by providing an overhead free environment for the practitioner to work, the hospital should then agree, as part of its contribution to the service, to waive the rental costs.

Where there is provision for non-Medicare fee-for-service surgery in rural and remote hospitals, as in South Australia, this scheme can be used by the ophthalmologist. In some places, improved service delivery will produce an increased demand for surgery and place a burden on the fee-for-service funds available to that hospital. Should this arise, Commonwealth/State negotiation and extra funding will need to be found so this does not jeopardise an improving and expanding service.

Elsewhere, as in Queensland, there may be no provision for non-Medicare fee-for-service surgery in rural and remote hospitals. Medicare funded surgery on public patients in public hospitals in this situation would contravene Medicare agreements. In this situation, ophthalmic patients need to be admitted to the hospital as private patients of the ophthalmologist, who is then permitted to charge those patients a fee for the surgery. Given the financial circumstances of these patients, the ophthalmologist will accept the Medicare rebate alone, bulkbilling for the surgery. Since these patients are admitted as private patients of the ophthalmologist, the hospital is permitted to levy an admission charge, covering operating theatre and ward use, and recoup the cost of the intraocular lens inserted during cataract surgery. However, again, given the circumstances of these patients, the hospital will choose to waive these charges, instead meeting them itself as it would had these patients been admitted as public patients to that facility. Commonwealth/State

Appendix I (continued)

negotiation will need to address any hospital budget implications of this arrangement, and ensure no funding impediment limits surgical numbers.

The initiatives outlined above are primarily aimed at indigenous Australians. However, where established, such service delivery must be made available to the wider community. Also, it will be evident that this approach has application to other medical specialties.

This document concentrates on the optometric and ophthalmic components of the regional model of public-private service delivery. However, of equal importance at the time of service, is the collection of service related data. Only then can there be evaluation of service performance and medical intervention measures, setting of priorities for an ongoing needs-based health service, and equitable distribution of resources.

Recommendations of the Review of the Implementation of the National Aboriginal and Torres Strait Islander Eye Health Program Report (Taylor et al 2004, pp. xviii-xxvii)

Major eye conditions and the literature

Recommendation 1

- OATSIH assist Regional Eye Health Coordinators (REHCs) and the primary health care services they work with to become familiar with evidence-based eye health care, with particular emphasis on the evidence base for any screening undertaken.
- The available clinical guidelines for trachoma, diabetic retinopathy and cataract inform primary health care and specialist ophthalmic practice because they represent the best evidence available for the major eye conditions affecting Indigenous communities. This includes one or two yearly screening for diabetic retinopathy that is acceptable for those with nil or early retinopathy.
- The visual acuity screening for school-aged children in place through International Centre for Eyecare Education (ICEE) be evaluated and no further school screening should be implemented until the results of this evaluation are available.

Recommendation 2

Trachoma control should be the responsibility of government-run and regional public health units and be organised on a regional basis where population mobility is high. Primary health care services should be involved in the detection and treatment of trachoma under the coordination of public health units.

The eye program and the primary health care sector

Recommendation 3

That standard duty statements be developed for REHCs (based on Attachment 10), with the remuneration they receive being dependent on their skills and experience but also recognising the substantial skills and experience this position requires. The duty statements provided represent two options: a health worker who provides high-level negotiation and support to the clinics in the region; or a health worker who provides a component of the eye service such as camera operation as part of a coordinated diabetes or chronic disease strategy.

Recommendation 4

That the focus of the NATSIEHP change from one of mostly facilitating ophthalmology and optometry clinics that run parallel with the primary health care service, to one that focuses on building the capacity of the primary health care services to optimally integrate with the specialist services required to manage chronic diseases such as (but not confined to) diabetes. This will involve a productive overlap between the NATSIEHP and other developments in Indigenous primary health care. During the transition period, focus should be retained on eye conditions and be accompanied by: in-service training for primary health care staff so that they are better able to detect and manage eye conditions in their community; training for REHCs so that they are better able to support clinics to provide this management; the utilisation (or where necessary the establishment) of regional representative bodies to provide program advice, set priorities and monitor program implementation; and the incorporation of primary health care principles into regional and state eye plans so that the primacy for managing the eye care needs lies with the primary health care services.

Appendix J (continued)

Specialist services

Recommendation 5

That the Optometrists Association Australia and the three schools of optometry oversee the recruitment and monitoring of optometrists working in the NATSIEHP.

Recommendation 6

That OATSIH and RANZCO:

- Undertake a recurrent organised program to introduce and update ophthalmologists (and registrars) on the philosophy, practicalities and outcomes of the NATSIEHP. This should include a facility that allows for the recruitment of ophthalmologists, and a forum for the resolution of service delivery problems.
- With other appropriate agencies of state and Commonwealth governments:
 - Examine and resolve the issue of fair remuneration for ophthalmologists who provide “free-to-patient” visiting services in Aboriginal Medical Services and rural/remote locations.
 - Act to change the remuneration for ophthalmologists who chose to relocate to rural and remote region to ensure that the ratio of ophthalmologist to population approaches the ratios available in large metropolitan centres.
 - Investigate the remuneration of ophthalmologists who read fundus photographs and refer where necessary. This remuneration could be in the form of a Medicare item number or a flat fee paid through the NATSIEHP.

Recommendation 7

That accredited ophthalmology training be refocused so that a proportion of places be made available in accredited ophthalmic training for individuals contracted to provide Indigenous and/or regional/ remote ophthalmic practice for a specified period after training has been completed. The contracted practitioner should either reside and work in a provincial centre, or be metropolitan-based and provide locum cover to regional ophthalmologists/optometrists, or supply visiting services to rural/ remote communities.

Recommendation 8

That well-resourced, supervised and supported Indigenous ophthalmic practice be a compulsory attachment of at least several months duration for all senior registrars (post Part Two examination). This would require, for example, the establishment of four positions to accommodate approximately 20 registrars per year, each for two months. These may involve the coordinated attachment of registrars to a succession of ophthalmologists travelling to rural/remote communities, attachment to a provincial Aboriginal Medical Service, or similar.

Equipment

Recommendation 9

That OATSIH only funds equipment that is used by and based in primary health care services and that the provision of this equipment be linked to the presence of trained primary health care staff or primary care programs. OATSIH should advocate for other specialized equipment that is only used by optometrists and ophthalmologists to be funded through mainstream programs.

Recommendation 10

The equipment purchased (under any funding scheme) should complement rather than duplicate that which is available in the region. This is particularly relevant in urban areas where there are existing specialist eye health services.

Recommendation 11

Current specialist equipment should be audited to ensure that arrangements are in place to cover the maintenance, insurance, storage and replacement of such equipment.

Recommendation 12

That OATSIH engage and fund NACCHO to examine the distribution and utilisation of specialist equipment, to examine the impact its use has upon the provision of services and upon outcomes, and, where appropriate, to investigate its redeployment.

Recommendation 13

That OATSIH support, as part of a comprehensive screening program for diabetes complications, the use of retinal cameras by trained health workers in remote locations not visited by optometrists or ophthalmologists.

Using mainstream programs

Recommendation 14

The Visiting Optometrists Scheme (VOS):

- Be administratively streamlined so that it is based on the needs of the community (rather than the desire of the practitioner).
- Reimburse practitioners for travel time and cost, independently of the number of patients seen. This should be a fair financial incentive (including recognition of travel time and variable attendance by patients at clinic) for practitioners to provide outreach services to rural and remote Australia. (This should be made administratively simple, e.g. a declaration by an REHC, rural nurse or AMS that the specialist visit did occur rather than receipts having to be submitted each time).
- Be adequately publicised among the relevant practitioners and that it clearly cover all required forms of transport for remote community work.

Recommendation 15

That all practitioners using Aboriginal Medical Services as their practice location, be required to bulk bill for professional services and that the NATSIEHP provide a negotiated national guaranteed minimum daily remuneration (taking into account travel time, etc) by providing a sessional top-up payment if Medicare receipts fall below that level.

Recommendation 16

That NATSIEHP funds not be spent on spectacles but that each state/territory review its subsidised spectacle scheme so that applying for subsidised spectacles is simplified and eligibility criteria subsidies are more uniform across the jurisdictions.

Recommendation 17

That the Aboriginal health planning forums take up the issue of Aboriginal patients access to mainstream services both state and Commonwealth, including hospital services for eye procedures.

Recommendation 18

That MSOAP be directed to prioritise a) funding ophthalmology travel; and b) specialist coordination to ensure the optimum use of specialist services.

Appendix J (continued)

Program monitoring

Recommendation 19

That OATSIH develop a minimum dataset for eye health based on Table 1 in Chapter 8 and, where possible, this data should be incorporated into Service Activity Reporting (SAR).

Recommendation 20

That OATSIH arrange substantial support for primary health care services to implement their Patient Information Recall System (PIRS) so that there is:

- Ongoing training to improve staff familiarity with computer systems in general, and to address staff turnover.
- Backup systems and strategies for times when there is hardware or software failure.
- Funding for dedicated data entry positions in many clinics.
- Support and training for database managers and report collators.
- Ongoing quality assurance and improvement systems.

Recommendation 21

That, where possible, and when communities support this, wide-area networks be developed between health services in the same and adjacent communities as a strategy for dealing with mobile populations and health service overlap.

Models of service delivery

Recommendation 22

Program sustainability is a key objective of the eye program and this may mean a reduction in the direct support that eye coordinators provide to eye clinics. This should only occur after first gaining the support of the primary health care services and assisting them to take on those responsibilities. It is recommended that regions that have well-established eye services, review their implementation plans to include strategies for integration, sustainability and the equitable access of clients to relevant mainstream services. This may mean coordinating strategies such as training, resources and program review in order to build the capacity of the primary health care service to integrate eye health into their work.

Future direction

Recommendation 23

That the coordination of NATSIEHP be integrated into a broader coordination role in the region, with an aim of improving the capacity of primary health care services to manage chronic disease. This coordination role would include:

- Assisting clinics to develop their capacity to manage chronic diseases, including planned care, and associated systems that efficiently link specialist services to primary health care services.
- Negotiating with states/territories and with the specialist colleges such as RANZCO to improve the delivery of specialist services in the region.
- Providing training and support to primary health care services so that they effectively support specialist clinics. This may mean that for some regions additional staff are required.

Recommendation 24

Implementation plans addressing the aims and objectives contained in Chapter 10 should be developed by regional planning forums and monitored by those forums, which would then report to the state-based Aboriginal health forums. The timing for these plans will depend on the capacity of primary health care services to take on additional responsibilities and on training being provided to current REHCs to assist them to adopt their altered roles. Regular national networking meetings of coordinators should be part of the support provided to them.

Appendix K

The Visiting Optometrists Scheme (VOS)

The Whitlam Labor Government held a joint sitting of both Houses of the Commonwealth Parliament in August 1974 and passed legislation that established the Health Insurance Commission (HIC) under its own Act of Parliament (AGAGD 2010). Medibank, a universal health insurance scheme, started operating under the HIC on 1 July 1975. The Visiting Optometrists Scheme (VOS) was introduced in 1975 to support optometric outreach services to isolated communities which would not otherwise have ready access to primary eye care.

The VOS operates under the *Health Insurance Act 1973* (AGAGD 2010a). The Table of Provisions Part VII Miscellaneous of the *Health Insurance Act 1973 – Section 129A, Special arrangements for optometrical services* states:

The Minister may on behalf of the Commonwealth make such special arrangements with participating optometrists as he or she thinks fit for the purpose of ensuring that an adequate optometrical service will be available to persons living in isolated areas.

The Act defines 'participating optometrists', 'service' and 'persons', but does not specifically identify Indigenous people (AGAGD 2010a).

VOS has survived as an eye health policy instrument to the current time despite many changes of government and health policies in Canberra since 1975, including the abolition of Medibank (Standard) by the Liberal/National Coalition Government in 1978, and the introduction of Medicare on 1 February 1984 by the Labor Government (CDHA 2009b; MP 2010). The Minister for Health and Ageing on 22 October 2007 used his powers under *Section 131* of the *Health Insurance Act 1973* to delegate his powers under *Section 129A* of the Act to the Assistant Secretary, Rural Health Services and Policy Branch, Primary and Ambulatory Care Division, CDHA. This delegation was also granted to the position of Principal Adviser, Office of Rural Health (ORH) when it was established on 1 July 2008 (CDHA 2009a, p. 6).

The current objectives of the VOS are to:

- Improve the eye health of Australians living and working in remote and very remote areas, and rural communities with an identified need for optometric services;
- Increase visiting optometrist services in areas of identified need;
- Support optometrists to provide outreach services; and
- Encourage and facilitate integration and communication between visiting optometrists, local health providers and other visiting health professionals about ongoing patient care.

(CDHA 2007b, p.3; CDHA 2009b; CDHA 2009c, p. 2; CDHA 2009d, p. 3).

The fourth National Member Forum of Vision 2020 Australia was held in Alice Springs on 27 July 2007 with a focus on Indigenous eye health and vision care (V2020A 2007). The Assistant Secretary of the Rural Health Branch of the CDHA¹⁵⁶ outlined recent changes to VOS at this Forum (V2020A 2007, p. 4). These changes resulted from the 2005-06 review of VOS in response to stakeholder concerns that it was outdated, under-utilised, administratively complex, and had a relatively low level of participation by optometrists (CDHA 2007b, p. 3). The Commonwealth budget in 2007-08 provided \$11.9 million (GST exclusive) total funding for VOS over four years (CDHA 2009c, p. 4). The revised VOS in 2007 used the Accessibility/Remoteness Index of Australia (ARIA)¹⁵⁷ to define isolation and remoteness, with exceptions for special circumstances, new guidelines for optometrists, and a communication and marketing strategy to increase awareness among optometrists and Indigenous communities (V2020A 2007, p. 4; CDHA 2007b, p. 5).

¹⁵⁶ Ms Sharon Appleyard at that time.

¹⁵⁷ Refer to the Accessibility/Remoteness Index of Australia (ARIA): Search Facility, viewed July 24 2010, <<http://www9.health.gov.au/aria/ariaiapt.cfm>>.

The ORH in the CDHA released a *Policy Framework* document for VOS in October 2009 that had a strengthened focus on Indigenous people than earlier VOS policy documents (CDHA 2009c). The Commonwealth budget in 2009-10 provided \$6.5 million over four years under the 'Improving Eye and Ear Health Services for Indigenous Australians for Better Education and Employment Outcomes' initiative to expand VOS to better target primary eye care to Indigenous people living in remote and very remote communities with an identified need for VOS services (CDHA 2009c, p. 4)¹⁵⁸. Indigenous communities classified as ASGC-RA¹⁵⁹ 4-5 (remote and very remote) were the primary focus of the expanded VOS (CDHA 2009c, p. 2). The Policy Framework noted however, that Indigenous communities defined as ASGC-RA 2 (inner regional) and not normally eligible for funding under the expansion of the VOS, may be considered where such communities have an identified need for optometric services supported by a letter from a local ACCHS or a local health professional (CDHA 2009c, p. 7).

The CDHA released new *VOS Guidelines for Participating Optometrists* in October 2009 (CDHA 2009d). The costs to optometrists covered by the VOS are:

- Travel;
- Accommodation;
- Meals and incidental expenses;
- Lease of equipment and its transport to outreach locations;
- Facility fees;
- Absence from Practice Allowance;
- Administrative support;
- External locum support;
- Accompanying health professionals; and
- Cultural training and familiarisation

The CDHA also released *National Priority Locations* in October 2009 (CDHA 2009d, pp. 6-9).

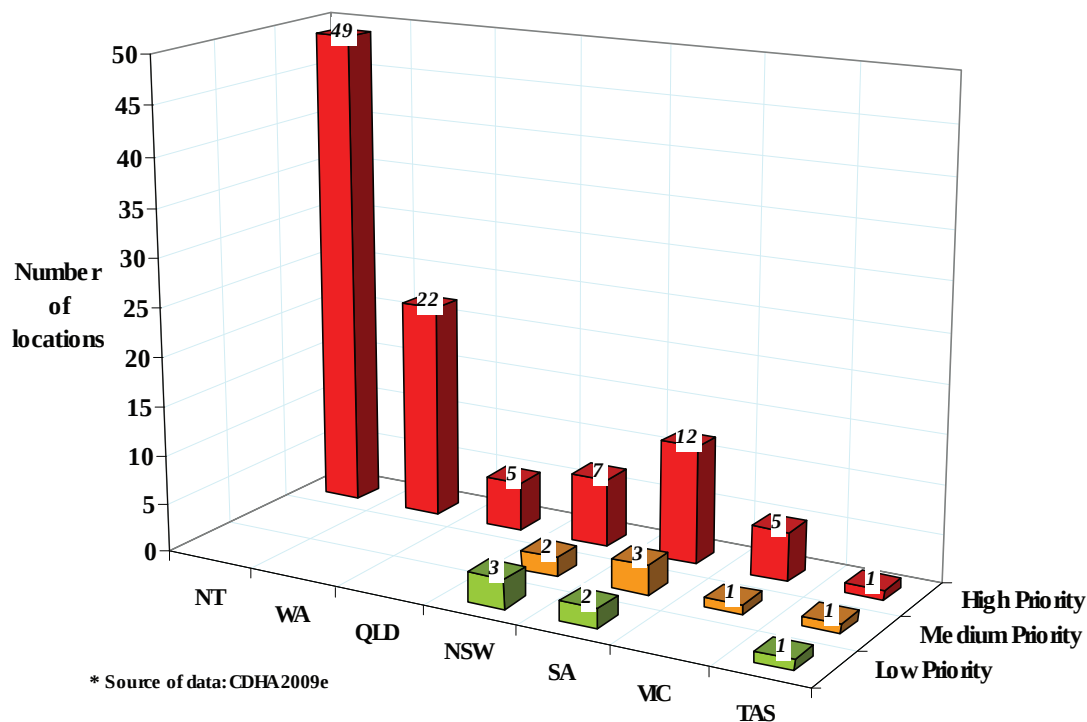
¹⁵⁸ The Minister for Indigenous Health, Rural and Regional Health and Regional Services Delivery announced this boost to VOS in a media release entitled 'Eye care boost for 106 remote Indigenous communities' on 17 May 2010 (Snowdon 2010a).

¹⁵⁹ The eligibility criterion for new services under VOS as of 1 July 2009 was the Australian Bureau of Statistics (ABS) Australian Standard Geographical Classification – Remoteness Areas (ASGC-RA) (CDHA 2009c, p. 2). Details of the ASGC-RA are at ABS (2010), viewed 24 July 2010, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/ViewContent?readform&view=DirClassManualsbyTopic&Action=Expand&Num=6.1.1>>.

Appendix K (continued)

(CDHA 2009d, pp. 14-17; CDHA 2009e). One hundred and fourteen (114) national priority locations were identified: 101 were considered high priority (88.6%); 7 medium priority (6.1%); and 6 low priority (5.3%). The 114 locations were mainly Indigenous communities. Figure 1 shows the distribution of these national priority locations by jurisdiction. Expressions of interest were only considered for the delivery of outreach optometric services to these identified national priority locations (CDHA 2009e, p. 1).

Figure 1 VOS - National Priority Locations - October 2009



Participating optometrists can provide a range of services to all Australians under Medicare (CDHA 2010b). Sixty-seven optometrists were ‘grandfathered’ into these new arrangements from January 2008 to June 2010 (CDHA 2008b, pp. 26-27).

The Medical Specialist Outreach Assistance Program (MSOAP) was introduced in the 2000-01 Commonwealth Budget as part of a package of measures under the ‘Regional Health Strategy: More Doctors Better Services’ initiative¹⁶⁰, to improve access of rural and remote communities to medical specialist outreach services by complementing outreach specialist services provided by State and Northern Territory governments (CDHA 2007c; CDHA 2010, p. 3). The program is funded by the CDHA through the Office of Rural Health, and is administered by Fund holders in each State and the Northern Territory who are in turn advised by Advisory Forums each comprised of a broad range of stakeholders with relevant knowledge and expertise about existing health delivery arrangements in rural and remote Australia (CDHA 2010). The Royal Australian and New Zealand College of Ophthalmologists (RANZCO) is a recognised Specialist College under MSOAP, and Ophthalmology General, Ophthalmology-Retinal Surgery, Ophthalmology-Surgery, and Paediatrics-Ophthalmology are listed as specialists supported under MSOAP (CDHA 2010, pp. 17-18).

¹⁶⁰ This initiative was worth more than \$550 million over four years (CDHAC 2001, p. 135). There were delays in rolling out MSOAP with ongoing negotiations with a range of stakeholders including State/Territory governments, specialist colleges, consumer groups, and rural communities (CDHAC 2001, p.134).

The Medical Specialist Outreach Assistance Program (MSOAP)

Gruen et al (2003) concluded from a Cochrane Review of randomised trials, controlled before and after studies, and interrupted time series analyses of visiting specialist outreach clinics in primary care or rural hospital settings covering many specialties, countries and settings, that specialist outreach can improve access, outcomes and service use – especially when delivered as part of a multifaceted intervention (Gruen et al 2003, p. 2). Gruen et al (2006) later found from a population based observational study of regular surgical, ophthalmological, gynaecological, and ear, nose, and throat outreach visits, compared with hospital clinics alone, on access, referral practices, and outcomes for the populations of three remote Indigenous communities in the NT over eleven years, that specialist outreach visits improved access to specialist consultations and procedures without increasing elective referrals or demands for hospital inpatient services¹⁶¹. No such study has been made on the impact of MSOAP.

MSOAP has not been able to satisfy specialist need in many rural and remote Indigenous communities since its establishment, and has had difficulties¹⁶².

Consequently, the Commonwealth expanded MSOAP, starting in 2009-10, with funding of \$54.7 million over four years to introduce multidisciplinary teams, comprising specialists, general practitioners and allied health professionals, to better manage complex and chronic health conditions in rural and remote communities (CDHA 2009f; CDHA 2010a). The CDHA prepared a Policy Framework for the expanded MSOAP – called MSOAP-Indigenous Chronic Disease (MSOAP-ICD) – in September 2009 (CDHA 2009f), and released Guidelines for MSOAP-ICD 2009-2013 in February 2010 (CDHA 2010a).

MSOAP-ICD is part of the Commonwealth Government Indigenous Chronic Disease Package of \$805.5 million over four years resulting from the 29 November 2008 Council of Australian Governments (COAG) \$1.6 billion *National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes* (CDHA 2010a, pp. 3-4). The participants in the MSOAP-ICD are: the CDHA central and state/territory offices; the Fundholders; the MSOAP Advisory Forums; the health professionals delivering the services; and the host locations for outreach service provision (CDHA 2010a, p. 8). The MSOAP-ICD measure will cover the following costs: remuneration for MSOAP-ICD team members; Registrars and students; Workforce support; Administrative support for MSOAP-ICD team members; Travel costs; Accommodation costs; Meal and incidental costs; Equipment lease and transport; Outreach service host location; Absence from Practice Allowance; Backfilling; Upskilling; Professional support; Telemedicine; and Case Conferencing (CDHA 2010a, pp. 11-16). Indigenous communities located in Australian Standard Geographical Classification (ASGC) – Remoteness Areas (RA) 2 (Inner Regional) to RA 5 (Very Remote) are eligible to be supported under MSOAP-ICD (CDHA 2010a, p. 5). According to the CDHA (2009, p. 126), MSOAP supported 1430 services in 2008-09, 1842 services in 2007-08, and 1455 services in 2006-07; however the nature and location of these services was not revealed.

¹⁶¹ The authors were examining the impact of a Commonwealth funded multidisciplinary Specialist Outreach Service (SOS) to remote Indigenous communities in the NT that commenced in 1997, predating the MSOAP initiative (Gruen & Bailie 2000; Gruen et al 2001; Gruen et al 2002).

¹⁶² The 2006 report 'Integrated Regional Eye Service in Central Australia: Feasibility Assessment Report' noted that there was a perception amongst Eye Health Services in Central Australia that MSOAP 'does its own thing' (BHC 2006, p. 42). Moreover, Turner et al (2009, p. 42) noted in their report 'Outreach eye services in Australia' that MSOAP was not as comprehensive or transparent as VOS for base practice or travel time expenses, and that there are regional idiosyncrasies due to outsourced administration.

Appendix L (continued)

Eye health services are not specifically referred to in the MSOAP-ICD Guidelines and Policy Framework documents, but improved access to quality eye health services for Indigenous people is clearly essential to help 'Close the Gap' for vision (Taylor & Stanford 2010, pp. 4-5).

The 2010-11 Commonwealth Government Budget allocated \$5.0 million over four years from 2010-11 to 2013-14 to increase the number of ophthalmology outreach services provided through MSOAP. Delivery of new or expanded ophthalmology services will start from 1 January 2011. People aged over 55 years and living in ASGC RA 2 (Inner Regional) to RA 5 (Very Remote) will be targeted under this program (AG 2010).

Additional Bibliography of Indigenous Eye Health

Access Economics 2005, *Investing in sight: strategic interventions to prevent vision loss in Australia*, Eye Research Australia, Melbourne, viewed 6 July 2010, <<http://www.cera.org.au/publications/reports-monographs>

Allam, B. 1993, 'From Health Worker to Health Worker across Australia eye care education. The eye care education program', *Aboriginal and Islander Health Worker Journal*, vol. 17, no. 4, pp. 5-6.

Amos, B., Bailes, B., Baxter, S., Burgoyne, T., Giaretto, A., Graham, A., Johnson, G., King, M., Pollard, M. & Stewart, M. 2002, 'Report: An Eye Health Program for Aboriginal Health Workers in South Australia', *Aboriginal and Islander Health Worker Journal*, vol. 26, no. 5, pp. 22-4.

Anonymous 1982, 'Trachoma control', *The Lancet*, vol. 319, no. 8270, pp. 489-90.

Asche, V. & Hutton, S. 1990, 'Serovars of Chlamydia trachomatis in Northern Australia' Annual Report: Menzies School of Health Research 1989-90, pp. 91-92.

Australia and New Zealand Horizon Scanning Network 2004, *Horizon scanning report: the detection of diabetic retinopathy utilising retinal photography in rural and remote areas in Australia*, National Horizon Scanning Unit, Adelaide Health Technology Assessment, Adelaide, viewed 1 June 2010, <<http://www.horizonscanning.gov.au/internet/horizon/publishing.nsf/Content/horizon-scanning-reports-2>

Australian Indigenous HealthInfoNet 2004, *Review of eye health of Indigenous peoples*, viewed 10 July 2010, <<http://www.healthinfonet.ecu.edu.au/other-health-conditions/eye/reviews/our-review>

Australian Institute of Health and Welfare 2005, *Vision problems among older Australians*, AIHW, Canberra, viewed 10 July 2010, <<http://www.aihw.gov.au/publications/index.cfm/title/10141>

Australian Institute of Health and Welfare 2007, *A guide to Australian eye health data*, AIHW, Canberra, viewed 10 July 2010, <<http://www.aihw.gov.au/publications/index.cfm/title/10448>

Australian Institute of Health and Welfare 2008, *Eye health in Australia: a hospital perspective*, AIHW, Canberra, viewed 10 July 2010, <<http://www.aihw.gov.au/publications/index.cfm/title/10638>

Australian Institute of Health and Welfare 2008, *Eye health among Australian children*, AIHW, Canberra, viewed 10 July 2010, <<http://www.aihw.gov.au/publications/index.cfm/title/10660>

Australian Institute of Health and Welfare 2009, *A guide to Australian eye health data*, 2nd ed., AIHW, Canberra, viewed 10 July 2010, <<http://www.aihw.gov.au/publications/index.cfm/title/10786>

Bailie, R., Si, D., Dowden, M., O'Donoghue, L., Connors, C., Robinson, G., Cunningham, J. & Weeramanthri, T. 2007, 'Improving organisational systems for diabetes care in Australian Indigenous communities', *BMC Health Services Research*, vol. 7, no. 67, viewed 13 July 2010, <<http://www.biomedcentral.com/1472-6963/7/67>

Ball, P. 2008, 'The power of foresight', *The Australian Journal of Pharmacy*, vol. 89, no. 1063, p. 38.

Banks, J. & Braun, P. 1985, 'Trachoma treatment in Aborigines' [letter] *Medical Journal of Australia*, vol. 142, no. 10, p. 576.

Barnett, L. 1979, *Blind and visually handicapped Aboriginals: a report on the project conducted by the Australian National Council of and for the Blind and the Central Australian Aboriginal Congress examining the appropriateness of specialist rehabilitation services*, The Australian National Council of and for the Blind and the Central Australian Aboriginal Congress.

Barry, C. J., Constable, I. J., McAllister, I. L. & Kanagasingam, Y. 2006, 'Diabetic screening in Western Australia: A photographer's perspective', *Journal of Visual Communication in Medicine*, vol. 29, no. 2, pp. 66-75.

Basedow, H. 1932, 'Diseases of the Australian Aborigines', *Journal of Tropical Medicine and Hygiene*, vol. 35, no. 12-13.

Beattie, A. 1986, *The problems of Aboriginal patients at Kalano health Service, Katherine Northern Territory 1982-4*, Master of Medicine thesis, University of Sydney.

Blackwell, N. A., Kelly, G. J. & Lenton, L. M. 1997, 'Telemedicine ophthalmology consultation in remote Queensland', *Medical Journal of Australia*, vol. 167, no. 11/12, pp. 583-6.

Bowden, F. J. & Fethers, K. 2008, "'Let's not talk about sex": reconsidering the public health approach to sexually transmissible infections in remote Indigenous populations in Australia', *Medical Journal of Australia*, vol. 188, no. 3, pp. 182-4.

Brian, G., Dalzell, J., Nangala, S. & Hollows, F. 1990, 'Basic ophthalmic assessment and care workshops for rural health workers', *Australian & New Zealand Journal of Ophthalmology*, vol. 18, no. 1, pp. 99-102.

Brian, G. 1998, *The Regional Model of Public-Private Eye Service Delivery*, in possession of the author, Brisbane.

Briggs, L. & Peters, J. 2000, *Victorian Koori eye health project*, presentation at 12th National Health Promotion Conference: Inequalities in Health - reflecting back, stepping forward, 29th Oct - 1st Nov, Melbourne, Australia. Abstract available at http://archive.healthinfolnet.ecu.edu.au/html/html_bulletin/bull_9/bulletin_conference1.htm 30 May 2010

Briscoe, G. 1984, 'History of eye program', *Department of Aboriginal Affairs Newsletter*, vol. 5, no. 3, p. 11.

Briscoe, G. 1991, 'Aboriginal health and political economy in Australia', in *The Health of Aboriginal Australia*, eds J. Reid & P Trompf, Harcourt Brace, Sydney, p. 393.

Brown, G. 1994, 'When Island eyes aren't smiling', *Communicable Diseases Intelligence*, vol. 18, no. 12, p. 286.

Burnett, A. & Holden, B. 2009, *Vision-related quality of life tool in Indigenous communities*, International Centre for Eye care Education, viewed 10 July 2010, <http://www.icee.org/publications/research/eyecare_models.asp

Burnett, A. & Holden, B. 2009, *Rapid assessment of blindness and vision impairment in indigenous communities*, International Centre for Eye care Education, viewed 10 July 2010, <http://www.icee.org/publications/research/eyecare_models.asp

Burns, J., Thomson, N. 2004, 'Summary of Indigenous Health: Eye Health', *Aboriginal and Islander Health Worker Journal*, vol. 28 no. 5, pp. 32-4.

Boyd T.F. (1989) 'Trachoma in the Northern Territory, 1946 – 1986' [letter] *Medical Journal of Australia*, vol. 151, pp. 727.

Campbell, J. 2007, *Invisible Invaders: Smallpox and other Diseases in Aboriginal Australia, 1780-1880*, Melbourne University Press, South Melbourne.

Cameron, S. 1994, 'Surgery under the big top', *Hospital and Healthcare*, vol. 25, no. 9, p. 24.

- Capon, A. 1989, 'Development of a strategy for elimination of Chlamydia in Aboriginal communities', *Annual Report: Menzies School of Health Research 1989-90*, pp. 97-8.
- Capon, A., Foreman, A., Powers, J., Douglas, F., Bastian, I. & Mathews, J. 1990, 'Antibiotic usage, chlamydia trachomatis and trachoma' *Annual Report: Menzies School of Health Research 1989-90*, pp. 93-4.
- Chang, J. H., Raju, R., Henderson, T. R. & McCluskey, P. J. 2010, 'Incidence and pattern of acute anterior uveitis in Central Australia', *British Journal of Ophthalmology*, vol. 94, no. 2, pp. 154-6.
- Clark, A., Morgan, W. H., Kain, S., Farah, H., Armstrong, K., Preen, D., Semmens, J. B. & Yu, D. 2010, 'Diabetic retinopathy and the major causes of vision loss in Aboriginals from remote Western Australia', *Clinical & Experimental Ophthalmology*, vol. 38, no. 5, pp. 475-82.
- Collinson, H., Mein, J. & Coleman, K. 2006, 'Trachoma control program 2005', *Kimberley Public Health Unit Bulletin*, vol. 44, pp. 8-9.
- Commonwealth Department of Health and Ageing 2004, *Australian Government Response to the Review of the Implementation of the National Aboriginal and Torres Strait Islander Eye Health Program*, ADHA, Canberra, viewed 26 May 2010,
<[http://www.health.gov.au/internet/main/Publishing.nsf/Content/6C38615AB2B9116DCA25722B00834282/\\$File/govmay04.pdf](http://www.health.gov.au/internet/main/Publishing.nsf/Content/6C38615AB2B9116DCA25722B00834282/$File/govmay04.pdf)
- Cooper, R., Coid, D. & Constable, I. 1986, 'Trachoma: 1985 update in Western Australia', *Australian and New Zealand Journal of Ophthalmology*, vol. 14, no. 4, pp. 319-23.
- Cordell, D. 1991, *Regional trachoma screening programme - 1990/91*, Health Department of Western Australia, Perth.
- Crowe, C. 1995, 'Aboriginal health: common illnesses' *Australian Family Physician*, vol. 24, no. 8, pp. 1469-73.
- Cumpston, J. H. L. 1989, *Health and disease in Australia – a history*. Introduced and edited by M. J. Lewis. AGPS, Canberra.
- Currie, B. 1995, 'Use of azithromycin in the Northern Territory', *Northern Territory Communicable Diseases Bulletin*, vol. 2, pp. 4-5.
- Currie, B. 1996, 'The rationale for restricting azithromycin use in the Northern Territory', *Northern Territory Communicable Diseases Bulletin*, vol. 3, no. 4, pp. 16-7.
- da Cruz, L., Dadour, I. R., McAllister, I. L., Jackson, A., Isaacs, T. 2002, 'Seasonal variation in trachoma and bush flies in north-western Australian Aboriginal communities', *Clinical and Experimental Ophthalmology*, vol. 30, no. 2, pp. 80-3.
- Dawson, V., Coelen, R., Murphy, S., Graham, D., Dyer, H. & Sunderman, J. 1985, 'Microbiology of chronic otitis media with effusion among Australian Aboriginal children: role of Chlamydia trachomatis', *Australian Journal of Experimental Biology and Medical Science*, vol. 63, no. 1, pp. 99-107.
- Denner, G. A. 1983, Endemic trachoma - epidemiology and chemotherapy in three Western Australian communities. Master of Public Health thesis, University of Sydney.

Diamond, J. P., McKinnon, M., Barry, C., Geary, D., McAllister, I. L., House, P. & Constable, I. J. 1998, 'Non-mydratic fundus photography: a viable alternative to fundoscopy for identification of diabetic retinopathy in an Aboriginal population in rural Western Australia?', *Australian and New Zealand Journal of Ophthalmology*, vol. 26, no. 2, pp. 109-15.

Dimond, F. 2000, 'Aboriginal and Torres Strait Islander Eye Care', *Aboriginal and Islander Health Worker Journal*, vol. 24, no. 4, pp. 27-8.

Dirani, M., McAuley, A. K., Maple-Brown, L., Kawasaki R., McIntosh, R. L., Harper, C. A., Lamoureux, E. I., Tatipata, S., Dunbar, T., O'Dea, K. & Cunningham, J. 2010, 'Association of retinal vessel calibre with diabetic retinopathy in an urban Australian Indigenous population', *Clinical and Experimental Ophthalmology*, Accepted Article DOI: 10.1111/j.1442-9071.2010.02322.x

Douglas, F. 1987, 'The Chlamydia Germ and Sicknesses', *Aboriginal and Islander Health Worker Journal*, vol. 11, no. 2, pp. 22-8.

Durkin, S. R., Casson, R. J., Selva, D. & Newland, H. S. 2006, 'Prevalence of trachoma among a group of Aboriginal school children in remote South Australia' [letter], *Clinical and Experimental Ophthalmology*, vol. 34, no. 6, pp. 628-9.

Durkin, S. R., Tan, E. H., Casson, R. J., Selva, D. & Newland, H. S. 2007, 'Distance refractive error among Aboriginal people attending eye clinics in remote South Australia' *Clinical and Experimental Ophthalmology*, vol. 35, no. 7, pp. 621-6.

Durkin, S. R., Tan, E. H., Casson, R. J., Selva, D. & Newland, H. S. 2007, 'Central corneal thickness among Aboriginal people attending eye clinics in remote South Australia', *Clinical and Experimental Ophthalmology*, vol. 35, no. 8, pp. 728-32.

Durkin, S. 2008, 'Eye health programs within remote Aboriginal communities in Australia: a review of the literature', *Australian Health Review*, vol. 32, no. 4, pp. 664-76.

Edwards, F. M., Wise, P. H., Craig, R. J., Thomas, D. W. & Murchland, J. B. 1976, 'Visual acuity and retinal changes in South Australian Aborigines', *Australian and New Zealand Journal of Medicine*, vol. 6, no. 3, pp. 205-9.

Ellis, R. 2000, 'Vision 2020: The Right to Sight – Australia', *Aboriginal and Islander Health Worker Journal*, vol. 24, no. 6, p. 23. Evans, K. & Ambler, S. 2000, *Our health, our future, our responsibility*. Paper presented at the 12th National Health Promotion Conference, 29 Oct – 1 Nov, Melbourne, viewed 10 June 2010, <http://archive.healthinfonet.ecu.edu.au/html/html_bulletin/bull_9/conference/evans.htm

Evans, K. 2001, *Our health, our future, our responsibility*. Paper presented at the 6th National Rural Health Conference, Canberra 4 – 7 March, viewed 10 June 2010, <<http://pandora.nla.gov.au/pan/10767/20020417-0000/www.ruralhealth.org.au/sixthconf/program.htm>

Ewald, D. 1999, *Literature review of trachoma control options for Central Australia*, unpublished thesis report for Master of Applied Epidemiology Program, Australian National University, Canberra.

Ewald, D. P., Hall, G. V. & Franks, C. C. 2003, 'An evaluation of a SAFE-style trachoma control program in Central Australia' [letter in reply], *Medical Journal of Australia*, vol. 179, no. 2, pp. 117-8.

Eye care resources. Developed for the Indigenous Australian community', May 2007, Queensland University of Technology, School of Optometry, viewed 22 July 2010,
<http://www.hlth.qut.edu.au/opt/research/Eye_Care_Resources_May2007.pdf

Figueira, E. 2006, *Trachoma: an evidence-based global and Australian perspective*, The Fred Hollows Foundation, Burwood, NSW.

Flynn, F. 1957, 'Trachoma among natives of the Northern Territory of Australia', *Medical Journal of Australia*, vol. 11, pp. 269-277.

Francis, I. C., Flynn, F. & Hollows, F. 1981, 'Deep Corneal Leukoma adherens in an Aboriginal population', *Australian Journal of Ophthalmology*, vol. 9, pp. 303-9.

Fred Hollows Foundation 2007, 'Fight against cataract stepped up in Central Australia', *Aboriginal and Islander Health Worker Journal*, vol. 31, no. 6, p. 11.

Fred Hollows Foundation 2007, 'Drop-in doctors will fail without support from existing services', *Aboriginal and Islander Health Worker Journal*, vol. 31, no. 6, p. 34.

Gay, J. E. 1984, 'Australian Aboriginal health and change', *The Journal of the Royal Society for the Promotion of Health*, vol. 104, pp. 188 – 92.

Gerry, P. & Johnson, K. 2006, 'Cup-to-disc ratios of Aboriginal and non-Aboriginal youths', *Clinical and Experimental Optometry* vol. 89, no. 5, pp. 306-9.

Goujon, N., Brown C. M., Xie, J., Arnold, A., Dunn, R. A., Keeffe, J. E., Taylor, H. R. 2010, 'Self-reported vision and health of Indigenous Australians', *Clinical and Experimental Ophthalmology*, DOI: 10.1111/j.1442-9071.2010.02306.x

Gracey, M. & Forbes, D. 1996, 'Treating common medical problems in Aboriginal children', *Current Therapeutics*, vol. 37, no. 6, pp. 37-45.

Graham, D. & Nichols, R. 1973, 'Studies on the epidemiology, microbiology and immunology of trachoma among children at three centres in Western Australia', *Medical Journal of Australia*, vol. 2, no. 8, pp. 353-60.

Graham, D. M. 1975, 'Trachoma' *University of Melbourne Gazette*, vol. 35, pp. 4-6.

Graham, P. 1982, 'An operation for entropion and trichiasis: a composite of methods for lid margin rotation', *Australian Journal of Ophthalmology*, vol. 10, no. 4, pp. 267-270.

Graham, P. 1994, 'The epidemiology of blindness and trachoma in the Anangu Pitjantjatjara of South Australia' [letter], *Medical Journal of Australia*, vol. 161, p. 456.

Graham, P. 1995, 'Blindness and trachoma in South Australia' [letter], *Australian and New Zealand Journal of Ophthalmology*, vol. 23, no. 1, pp. 78-9.

Graham, P. 1996, 'Blindness and trachoma in South Australia' [letter], *Australian and New Zealand Journal of Ophthalmology*, vol. 24, no. 2, p. 161.

Hall, G., Ewald, D., Franks, C., Conlon, N. & Porigneaux, P. 2000, National Aboriginal Health Strategy Environmental Health Program: Evaluation of health outcomes in a Central Australian Community, baseline Report. Unpublished report for Territory health Services and Yuendumu Community.

Hardy, D. & Moore, B. W. 1971, *Trachoma in Aboriginal school children at Yalata, South Australia, 1965-71*, The Australian Aboriginal Child : report of the first Australian Ross Conference 3rd December 1971, Ross Laboratories, Sydney pp. 41-44

Hardy, D., Surman, P. G. & Howarth, W. H. 1967, 'The cytology of conjunctival smears from Aboriginal schoolchildren at Yalata, South Australia, after improved hygienic conditions and treatment with oxytetracycline and systematic sulphormetoxine', *American Journal of Ophthalmology*, vol. 63, pp. 1538-1540.

Health Protection Group 2006, *Stop trachoma*, poster, Western Australian Department of Health. Available at <http://www.public.health.wa.gov.au/2/606/2/trachoma.pm> on 12 July 2010.

Hertzberg, R. 1980, 'Trachoma', *Medical Journal of Australia*, vol. 2, no. 2, p. 62.

Hewitt, A. 2000, *Outcomes of cataract surgery and major lower limb amputation surgery in people from remote communities in the Top End of the Northern Territory*, Bachelor of Medical Science thesis, University of Tasmania, Hobart, Tasmania.

Hewitt, A., Verma, N. & Gruen, R. 2001, 'Visual outcomes for remote Australian Aboriginal people after cataract surgery', *Clinical and Experimental Ophthalmology*, vol. 29, no. 2, pp. 68-74.

Hewitt, A. & Verma, N. 2002, 'Posterior capsule opacification after cataract surgery in remote Australian Aboriginal patients', *Clinical and Experimental Ophthalmology*, vol. 30, no. 4, pp. 248-51.

Holden, B. 2000, 'The right to sight', *Clinical and Experimental Optometry*, vol. 83, no. 3, pp. 113-5.

Hollows, F. 1973, 'Some aspects of Australian Aboriginal eye disease', *Transactions of the Ophthalmological Society of New Zealand*, vol. 25, pp. 148-150.

Hollows, F. 1977, 'The National Trachoma and Eye Health Program', *Australian Journal of Ophthalmology*, vol. 5, pp. 151-154.

Hollows, F. 1985, 'Community-based action for the control of trachoma', *Reviews of Infectious Diseases*, vol. 7, pp. 777-782.

Hollows, F. C. 1986, 'Some aspects of Aboriginal health', *Australian Family Physician* vol. 159, no. 7, pp. 884-7.

Hollows, F. 1978, 'The ocular status of old Aborigines' *Hansard* : 3612-3619

Hollows, F. 1978, 'Australian Aboriginal eye health: and what must be done' *Hansard* : 3602-3611.

Hollows, F. 1989, 'Trachoma 'down the track'', *Medical Journal of Australia*, vol. 151, no. 4, pp. 182 – 183.

Hollows, F. & Moran, D. 1981, 'Cataract: the ultraviolet risk factor', *The Lancet* vol. 318, no. 8258, pp. 1249-50.

House, P. H. 1986, 'Ocular leprosy – a case-report and discussion of the pathology', *Australian and New Zealand Journal of Ophthalmology*, vol. 14, no. 1, pp. 59-63.

Hunt, R. 1977, 'The national trachoma and eye health program', *Australian Journal of Ophthalmology*, vol. 15, pp. 149-150.

International Centre for Eye care Education (ICEE) 2004, 'Aboriginal eyecare success', *Aboriginal and Islander Health Worker Journal*, vol. 28, no. 2, p. 25.

International Centre for Eye care Education (ICEE) 2009, *I See for Culture Resource Kit*, includes information booklet, flip charts and posters, viewed 12 July 2010,
<http://www.icee.org/resources/i_see_for_culture/index.asp

Ismail, S. 2010, 'Six Months with ICEE NSW Aboriginal Eye Care Programme', *Aboriginal and Islander Health Worker Journal*, vol. 34, no. 1, pp. 4-6.

Jaross, N. 2003, *Diabetic retinopathy in the Katherine region of the Northern Territory* Doctor of Philosophy thesis, University of Adelaide, South Australia.

Johnson, G. H. & Mak, D. B. 2003, 'An evaluation of a SAFE-style trachoma control program in Central Australia' [letter], *Medical Journal of Australia*, vol. 179, no. 2, pp. 116-7.

Jones, H. 1989, 'Some bush medicines from Yikaniwuy', *Aboriginal Health Worker*, vol. 13, no. 2, pp. 25-26.

Jones, J. N., Smith, L. & Briscoe, G. 2005, 'The National Trachoma and Eye Health Program History Project: an Aboriginal perspective', *Aboriginal and Islander Health Worker Journal*, vol. 29, no. 6, pp. 11-2.

Jones, J. N., Smith, L. & Briscoe, G. 2006, 'They Used to Call It Sandy Blight: Aboriginal Health and Censorship in Australia', *Australian Aboriginal Studies*, vol. 2, pp. 62-7.

Kain, S., Morgan, W., Riley, D., Dorizzi, K., Hogarth, G. & Yu, D. 2007, 'Prevalence of trachoma in school children of remote Western Australian communities between 1992 and 2003', *Clinical and Experimental Ophthalmology*, vol. 35, no. 2, pp. 119-23.

Kalokerinos, A. 1977, *Cataracts* Aboriginal Medical Service Information Service, Redfern, Sydney.

Kalokerinos, A. 1977, *Ascorbic acid, the eye, diabetes and herpes* Aboriginal Medical Service Information Service, Redfern, Sydney.

Karagiannis, A., & Newland, H. 1996, 'Mobile retinal photography: a means of screening for diabetic retinopathy in Aboriginal communities', *Australian and New Zealand Journal of Ophthalmology*, vol. 24, no. 4, pp. 333-7.

Keefe, J. E., McCarty, C., Doyle, M., Harper, C. & Taylor, H. 1997 'Screening for diabetic retinopathy by Indigenous health workers', *Investigative Ophthalmology and Visual Science*, vol. 38, no. 4, S236.

Keys, T. & O'Hara, M. 2009, *Providing eye care to remote Indigenous communities in the Northern Territory: a case study examining success factors and challenges from a collaborative approach between a NGO and AMS*, The 10th National Rural Health Conference Cairns, Qld, 17-20 May 2009, viewed 24 May 2010,
<<http://10thnrhc.ruralhealth.org.au/program/?IntCatId=4>

Keys, T., De Souza, N., Cronjé, S., Morse, A., Tahhan, N., Schlenther, G. & Stern, J. 2009, *A training program for aboriginal eye health workers in the Northern Territory of Australia*, International Centre for Eye care Education, viewed 11 July 2010, <<http://www.icee.org/publications/research/hr.asp>

Kimberley Public Health Unit & Turvey, R. 1995, *Trachoma flip chart, Iris and Lens*, reproduced by Health Protection Group, Dept. Health, Gov. of Western Australia, viewed 7 July 2010, <<http://www.public.health.wa.gov.au/3/489/3/trachoma.pm>

Kimberley public Health Unit 1996, *Trachoma control program report Kimberley 1996*, Kimberley Public Health Unit, Derby.

Kimberley public Health Unit 1996, *Guidelines for the control of ocular trachoma*, Kimberley Public Health Unit, Derby.

King, M. & Baxter, S. 2003, 'Co-operative inquiry: the development of a visual impairment prevention program initiative for two Aboriginal communities in South Australia', *Contemporary Nurse*, vol. 15, no. 3, pp. 241-8.

Krause, V. 1998, 'An outbreak of non-sexually transmitted gonococcal conjunctivitis in Central Australia and the Kimberley region' – editorial comment, *Communicable Diseases Intelligence*, vol. 22, no. 4, pp. 57-58.

Laforest, C., Durkin, S., Selva, D., Casson, R. & Newland, H. 2006, 'Aboriginal versus non-Aboriginal ophthalmic disease: admission characteristics at the Royal Adelaide Hospital', *Clinical and Experimental Ophthalmology*, vol. 34, no. 4, pp. 324-8.

Laming, A., Difrancesco, M., Dixon, B., Halkett, M., Kruger, G., Bonson, A., Bell, A., Crilly, C., Currie, B. & Mathews, J. 1995, 'Trachoma six months after the first azithromycin program in Australia', *Northern Territory Communicable Diseases Bulletin*, vol. 2, no. 7, pp. 1-3.

Laming, A., Difrancesco, M., Dixon, B., Halkett, M., Kruger, G., Bonson, A., Bell, A., Crilly, C., Currie, B. & Mathews, J. 1995, 'Trachoma six months after the first azithromycin program in Australia', *Northern Territory Communicable Diseases Bulletin*, vol. 2, no. 7, pp. 1-3.

Laming, A. C. & Currie, B. J. 2003, 'An evaluation of a SAFE-style trachoma control program in Central Australia' [letter], *Medical Journal of Australia*, vol. 179, no. 2, p. 117.

Landers, J., Kleinschmidt, A., Wu, J., Burt, B., Ewald, D. & Henderson, T. 2005, 'Prevalence of cicatricial trachoma in an Indigenous population of Central Australia: the Central Australian Trachomatous Trichiasis Study (CATTS)', *Clinical and Experimental Ophthalmology*, vol. 33, no. 2, pp. 142-6.

Landers, J., Henderson, T. & Craig, J. 2006, 'Optic nerve head parameters of an Indigenous population living within Central Australia', *Clinical and Experimental Ophthalmology*, vol. 34, no. 9, pp. 852-6.

Landers, J., Billing, K., Mills, R., Henderson, T., Craig, J. 2007, 'Central corneal thickness of Indigenous Australians within Central Australia', *American Journal of Ophthalmology*, vol. 143, no. 2, pp. 360-2.

Landers, J., Henderson, T. & Craig, J. 2010, 'Central Australian Ocular Health Study: design and baseline description of participants', *Clinical and Experimental Ophthalmology*, vol. 38, no. 4, pp. 375-80.

Landers, J., Henderson, T. & Craig, J. 2010, 'Prevalence and associations of refractive error in indigenous Australians within central Australia: the Central Australian Ocular Health Study', *Clinical and Experimental Ophthalmology*, vol. 38, no. 4, pp. 381-6.

Landers, J., Henderson, T. & Craig, J. 2010, 'Prevalence and associations of cataract in indigenous Australians within central Australia: the Central Australian Ocular Health Study', *Clinical and Experimental Ophthalmology*, vol. 38, no. 4, pp. 387-92.

Landers, J., Henderson, T., Abhary, S. & Craig, J. 2010, 'Prevalence and associations of diabetic retinopathy in indigenous Australians within central Australia: the Central Australian Ocular Health Study', *Clinical and Experimental Ophthalmology*, vol. 38, no. 4, pp. 393-7.

Landers, J., Henderson, T. & Craig, J. 2010, 'Prevalence and associations of blinding trachoma in Indigenous Australians within central Australia: the Central Australian Ocular Health Study', *Clinical and Experimental Ophthalmology*, vol. 38, no. 4: pp. 398-404.

Landers, J., Henderson, T. & Craig, J. 2010, 'The prevalence and causes of visual impairment in indigenous Australians within central Australia: the Central Australian Ocular Health Study', *British Journal of Ophthalmology*, Published Online First: 7 June 2010

Lansingh, V. C. 2005, *Primary health care approach to trachoma control in Aboriginal communities in Central Australia*, PhD thesis, Centre for Eye Research Australia, University of Melbourne, viewed 12 July 2010, <<http://repository.unimelb.edu.au/10187/984>

Layland, B., Holden, B., Evans, K., Bailey, S. 2004, 'ICEE/AHMRC NSW Aboriginal Eye and Vision care Program, Australia' *Rural and Remote Health* vol. 4 on-line, no. 247, viewed 6 June 2010, <<http://www.rrh.org.au/articles/showarticlenew.asp?ArticleID=247>

Layland, B., Ismail, S., Waddell, C., Louwdyk, E. & Holden, B. n.d., *NSW Aboriginal eye care programme*, International Centre for Eye care Education, viewed 10 July 2010, <http://www.icee.org/publications/research/eyecare_models.asp

Layland, B., Burnett, A., Schlenther, G., Ismail, S., Waddell, C., Louwdyk, E. & Holden, B. n.d. *Aboriginal Health College*, International Centre for Eye care Education, viewed 10 July 2010, <<http://www.icee.org/publications/research/advocacy.asp>

Leach, A. J., Shelby-James, T.M., Mayo, M., Gratten, M., Laming, A. C., Currie, B. J. & Mathews, J. D. 1997, 'A prospective study of the impact of community-based azithromycin treatment of trachoma on carriage and resistance of streptococcus pneumoniae', *Clinical Infectious Diseases*, vol. 24, no. 3, pp. 356-62.

Leach, A. J., Currie, B. J. & Mathews, J. D. 1998, 'Impact of community-based azithromycin treatment of trachoma on carriage and resistance of Streptococcus pneumoniae' [letter], *Clinical Infectious Diseases*, vol. 26, no. 1, pp. 248 - 9.

Longmore, B. 2006, 'Eye clearing sneezeweeds', *Australian Pharmacist*, vol. 25, no. 10, pp. 806-7.

Mabey, D., Fraser-Hurt, N. & Powell, C. 2005, 'Antibiotics for trachoma', *Cochrane Database of Systematic Reviews*, Issue 2. Art. No.: CD001860. DOI: 10.1002/14651858.CD001860.pub2., viewed 29 July 2010, <http://mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD001860/pdf_fs.html

Mackey, D. A. 2007, 'Central corneal thickness and glaucoma in the Australian Aboriginal population', *Clinical and Experimental Ophthalmology*, vol. 35, no. 8, pp. 691-2.

Mackinolty, C. 2005, 'Getting in the swim from the desert to the sea. Ian Thorpe Champions Pools Program', *Aboriginal and Islander Health Worker Journal*, vol. 29, no. 2, pp. 16-7.

MacNamara, B. 2001, 'Don't Lose Sight of Your Vision', *Aboriginal and Islander Health Worker Journal*, vol. 25, no. 6, pp. 12-3.

MacNamara, B. 2005, 'Vision care NSW - spectacle program', *Aboriginal and Islander Health Worker Journal*, vol. 29, no. 6, p. 28.

Main, R. 2009, *Rural optometry in Australia*, 10th National Rural Health Conference Cairns, Qld, 17-20 May 2009, viewed 10 July 2010, <<http://10thnrhc.ruralhealth.org.au/program/?IntCatId=4>

Mak, D. 2006, 'Better late than never: a national approach to trachoma control', *Medical Journal of Australia*, vol. 184, no. 10, pp. 487-8.

Mak, D. B. & Plant, A. J. 2001, 'Trichiasis in Aboriginal people of the Kimberley region of Western Australia', *Clinical and Experimental Ophthalmology*, vol. 29, no. 1, pp. 7-11.

Mak, D. B., Smith, D. W., Harnett, G. B. & Plant, A. J. 2001, 'A large outbreak of conjunctivitis caused by a single genotype of neisseria gonorrhoeae distinct from those causing genital tract infections', *Epidemiology and Infection*, vol. 126, no. 3, pp. 373-8.

Mak, D., Plant, A. & McAllister, I. 2003, 'Screening for diabetic retinopathy in remote Australia: a program description and evaluation of a devolved model', *Australian Journal of Rural Health*, vol. 11, no. 5, pp. 224-30.

Mak, D., O'Neill, L., Herceg, A. & McFarlane, H. 2006, 'Prevalence and control of trachoma in Australia, 1997-2004', *Communicable Diseases Intelligence Quarterly Report*, vol. 30, no. 2. pp. 236-47.

Mann, I. 1954, *Ophthalmic Survey of the Kimberley Division of Western Australia*, Department of Public Health, Western Australia.

Mann, I. 1954, *Ophthalmic Survey of the Eastern Goldfields Area of Western Australia* Department of Public Health, Western Australia.

Mann, I. 1954, *Ophthalmic Survey of the South-West Portion of Western Australia* Department of Public Health, Western Australia.

Mann, I. 1957, 'Probable origins of trachoma in Australasia', *Bulletin of the World Health Organization*, vol.16, no. 6, pp. 1165-87.

Mann, I. 1957, 'Report of ophthalmic findings in Warburton Range natives of Central Australia', *Medical Journal of Australia*, vol. 2, pp. 610-2.

Mann, I. & Rountree, P. 1968, 'Geographic ophthalmology – a report on a recent survey of Australian Aborigines', *American Journal of Ophthalmology*, vol. 66, no. 6, pp. 1020

Mann, I. 1972, 'Eye disease in the Eskimo and in the Australian Aboriginal: a brief comparison', *Acta Ophthalmologica*, vol. 50, no. 4, pp. 543-8.

Mann, I. 1972, 'Public health ophthalmology within the nations. Australia.' *Israel Journal of Medical Sciences*, vol. 8, no. 8, pp. 1060-3.

Maple-Brown. L. J., Brimblecombe, J., Chisholm, D. & O'Dea, K. 2004, 'Diabetes care and complications in a remote primary health care setting', *Diabetes Research and Clinical Practice*, vol. 64, no. 2, pp. 77-83.

Maple-Brown, L., Cunningham, J., Dunne, K., Whitbread, C., Howard, D., Weeramanthri, T, Tatipata, S., Dunbar, T., Harper, C. A., Taylor, H. R., Zimmet, P., O'Dea, K, & Shaw, J. E. 2008, 'Complications of diabetes in urban Indigenous Australians: The DRUID study', *Diabetes Research and Clinical Practice*, vol. 80, no. 3, pp. 455-62.

Matters, R., Wong, I. & Mak, D. 1997, 'An outbreak of non-sexually transmitted gonococcal conjunctivitis in Central Australia and the Kimberley region, 13 February to 27 June 1997', *The Northern Territory Communicable Diseases Bulletin*, vol. 4, no. 3, pp. 1-7.

Matters, R., Wong, I. & Mak, D. 1998, 'An outbreak of non-sexually transmitted gonococcal conjunctivitis in Central Australia and the Kimberley region', *Communicable Diseases Intelligence*, vol. 22, no. 4, pp. 52-6.

Mayers, N. 1982, *Report to the Royal Australian College of Ophthalmologists*, Royal Australian College of Ophthalmologists, Sydney.

McAllister, I. L. 2007, 'Screening for diabetic retinopathy in rural and remote areas of Australia', *Australian and New Zealand Journal of Ophthalmology*, vol. 26, no.2, pp. 105-6.

McCarty, C. A. 2003, 'Diabetic retinopathy: yet another reason for a comprehensive eye- care programme for Australian Aborigines and Torres Strait Islanders', *Clinical and Experimental Ophthalmology*, vol. 31, no. 1, pp. 6-7.

McConnell, E., Newland, H., Manning, J. & Paech, M. 1993, Technology assessment applied: a comparison of ophthalmic diagnostic techniques to detect diabetic retinopathy among Aboriginal people in central Australia', *Contemporary Nurse*, vol. 2, no. 1, pp. 23-8.

McDermott, R., Tulip, F. & Schmidt, B. 2004, 'Diabetes care in remote northern Australian Indigenous communities', *Medical Journal of Australia*, vol. 180, 10, pp. 512-6.

McGuinness, R., Hollows, F. C., Tibbs, J. & Campbell, D. 1972, 'Labrador keratopathy in Australia', *Medical Journal of Australia*, vol 2: 1248-1250

McKenzie, K. 1995, *Visual impairment in a rural New South Wales community: an analysis of Bourke District Hospital outpatient eye clinic data 1985-1995*, Master of Public Health thesis, University of New South Wales, Sydney.

McKinnon M. J. 1997, *Comparison of non-mydriatic camera system and fundoscopy by ophthalmologist for diabetic retinopathy screening in Aboriginal communities in the Pilbara*, Thesis, Curtin University of Technology.

Meredith, S. J., Peach, H. G. & Devanesen, D. 1989, 'Trachoma in the Northern Territory of Australia, 1940 – 1986', *Medical Journal of Australia*, vol. 151, no. 4, pp. 190–6.

Merianos, A., Mulvaney, G. & Jayathissa, S. 1991, 'Outbreak of non-sexually transmitted gonococcal conjunctivitis in Central Australia, 31 January to 6 June 1991', *Communicable Diseases Intelligence*, vol. 15, no. 16, pp. 264-266.

Moore, M.C., Howarth, W.H., Wilson, K.J., Derrington, A.W. & Surman, P.G. 1965, 'Clinical and laboratory assessments of trachoma in South Australia', *Medical Journal of Australia*, vol. 2, p. 441

Moore, S. 2002, 'Kimberley WA project: servicing blind and vision impaired people in a remote area', *Aboriginal and Islander Health Worker Journal*, vol. 26, no. 3, pp. 10-11.

Moran, D. J. & Hollows, F. C. 1984, 'Pterygium and ultraviolet radiation: a positive correlation', *British Journal of Ophthalmology*, vol. 68, no. 5, pp. 343-6.

Murchland, J. B. & Edwards, F. M 1975, 'Anterior chamber depth of eyes of full blood Aborigines at a reserve in South Australia', *Australian Journal of Ophthalmology*, vol. 3, no. 1, pp. 56-58.

National Aboriginal Health Strategy Working Party 1989, *A National Aboriginal Health Strategy: Report of the National Aboriginal Health Strategy Working Party*, Australian Government Publishing Service, Canberra, viewed 22 May 2010,
<<http://www.health.gov.au/internet/main/publishing.nsf/Content/health-oatsih-pubs-NAHS1998>

National Aboriginal Community Controlled Health Organisation & Couzos, S. & Taylor, H. 2005, 'Eye health', in *Evidence base to a preventive health assessment in Aboriginal and Torres Strait Islander peoples*, Royal Australian College of General Practitioners, South Melbourne, pp. 66 – 77.

National Aboriginal Community Controlled Health Organisation 2005, 'Eye health', in *National guide to a preventive health assessment in Aboriginal and Torres Strait Islander peoples*, Royal Australian College of General Practitioners, South Melbourne, pp. 18 – 9.

National Health and Medical Research Council 2008, *Risk factors for eye disease and injury. Literature review*, prepared for the NHMRC by Biotext Pty Ltd, NHMRC, Canberra, viewed 10 August 2010,
<<http://www.quitnow.info.au/internet/main/publishing.nsf/Content/ageing-eyehealth-risk-factors.htm>

National Indigenous Eye Health Survey 2009, *Minum Barreng (Tracking Eyes)*, Centre for Eye Research Australia, Melbourne, viewed 6 July 2010,
<http://www.iehu.unimelb.edu.au/the_national_indigenous_eye_health_survey

National Trachoma and Eye Health Program 1982, 'Current Topics: The National Trachoma and Eye Health Program', *Aboriginal Health Project information bulletin*, no. 1, p. 4.

Newlands H (1993) 'Trachoma: control or eradication in central Australia' *Central Australian Rural Practitioners Association Newsletter*, vol. 7, p. 22.

Nganampa Health Council & Christian Blind Mission International 2006, *Environmental health landscaping and trachoma prevention*, presented at the Vision 2020Australia Member Forum, July 2006, Adelaide, viewed 7 June 2010, <<http://www.vision2020australia.org.au/resources.cfm?&page=2>

Northern Territory Trachoma Control and Eye Health Committee Inc. 1985, *Annual Report*, NTTCEHC, Darwin.

Northern Territory Trachoma Control and Eye Health Committee Inc. 1990, *Biennial Report July 1988-June 1990*, NTTCEHC, Darwin.

Northern Territory Trachoma Control and Eye Health Committee Inc. 1992, *Biennial Report July 1990-June 1992*, NTTCEHC, Darwin.

Northern Territory Aboriginal Eye Health Committee Inc. 1996, *Tri annual report July 1992 - June 1995*, NTAEHC, Darwin.

Office for Aboriginal and Torres Strait Islander Health 2001, *Specialist eye health guidelines for use in Aboriginal and Torres Strait Islander populations*, Department of Health and Aged Care, Commonwealth of Australia, viewed 8 June 2010,
<<http://www.health.gov.au/internet/main/publishing.nsf/Content/health-oatsih-pubs-sehg.htm>

Oxenford, A. 2000, *Visual profile of Aboriginal and Torres Strait Islander school children in urban Queensland and their associated vision and reading problems*, Master of Applied Science (Research), Queensland University of Technology, Brisbane.

Parish, D. 1999, *'The eye mob comin': eye health services to Aboriginal people in the Northern Territory 1982-1998*, Northern Territory Aboriginal Eye Health Committee, Darwin.

Paterson, B. 1992, 'An outbreak of *Haemophilus influenzae* conjunctivitis: Katherine Region, Northern Territory', *Communicable Diseases Intelligence*, vol. 16, no. 9, pp. 183-6.

Paterson, B. 2002, 'Trachoma: new problem or old dilemma?', *Northern Territory Disease Control Bulletin*, vol. 9, no. 2, pp. 1-5.

Paterson, B., Ruben, A. & Nossar, V. 1998, 'School screening in remote Aboriginal communities - results of an evaluation', *Australian and New Zealand Journal of Public Health*, vol. 22, no. 6, pp. 685-9.

Peach H., Piper S., Devanesen D., Dixon B., Jefferies C., Braun P., Nelson D., Kruger G. & Boulden H. 1987, 'Trial of antibiotic eye drops for the prevention of trachoma in school-age Aboriginal children' *Annual Report: Menzies School of Health Research 1986-87*: 74-76

Peterson, J. & Treadway, G. 1998, 'Impact of community-based azithromycin treatment of trachoma on carriage and resistance of *Streptococcus pneumoniae*' [letter], *Clinical Infectious Diseases*, vol. 26, no. 1, p. 248.

Piper, S., Peach, H. & Devanesen, D. 1986, *Trachoma in the Northern Territory of Australia 1940-1986* Menzies School of Health Research and Northern Territory Trachoma Control and Eye Health Committee Inc, Darwin.

Platt, E. 1999, 'Trachoma control program', *Kimberley Public Health Bulletin*, vol. 18, pp. 10-11.

Porter, M., Mak, D., Chidlow, G., Harnett, G. B. & Smith, D. W. 2008, 'The molecular epidemiology of ocular *Chlamydia trachomatis* infections in Western Australia: implications for trachoma control', *The American Journal of Tropical Medicine and Hygiene*, vol. 78, no. 3, pp. 514-7.

Prost, A. & Negrel, A. D. 1989, 'Water, trachoma and conjunctivitis', *Bulletin of the World Health Organization*, vol. 67, no. 1, pp. 9-18.

Reddy, V. 2005, *Epidemiology and Treatment of Eye Disease ~ The Cape York Regional Eye Health Programme (1999-2004)*, Master of Public Health thesis, University of Queensland.

Roberts, D., Gracey, M. & Spargo, R. 1988, 'Growth and morbidity in children in a remote Aboriginal community in north-west Australia', *Medical Journal of Australia*, vol. 148 pp. 68-71.

Roper, K. 2007, 'Trachoma: new advances in treatment', *The Northern Territory Disease Control Bulletin*, vol. 14, no. 4, p. 24.

Roper, K., Michel, C. C., Kelly, P. M., Taylor, H. R. 2008, 'Prevalence of trachoma in Aboriginal communities in the Katherine Region of the Northern Territory in 2007' [letter], *Medical Journal of Australia*, vol. 189, no. 7, p. 409.

Roper, K. G. & Taylor, H. R. 2009, 'Comparison of clinical and photographic assessment of trachoma', *British Journal of Ophthalmology*, vol. 93, no. 6, pp. 811-4.

Rubin, T., Franklin, R., Scarr, J. & Peden, A. 2008, *Facilities, Programs and Services for the Water Safety of Aboriginal and Torres Strait Islanders in Rural and Remote Australia*, Issues paper, Australian Water Safety Council, Sydney, viewed 7 July 2010 <<http://www.watersafety.com.au/AWSCReports/tabid/58/Default.aspx>

Schlenther, G., Tahhan, N., Stretton, S. & Layland, B. 2006, 'Aboriginal Eye care: A Review of Services in NSW', *Aboriginal and Islander Health Worker Journal*, vol. 30, no. 3, pp. 7-8.

Schultz, R., Coffey, C., Krause, V., Taylor, H. & Currie, B. 2007, 'Treatment of trachoma in small babies', *The Northern Territory Disease Control Bulletin*, vol. 14, no. 4, pp. 22-3.

Slade, J. H. 1976, 'Aboriginal eye health', *Australasian Nurses Journal*, vol. 4, no. 1. p.10.

Smith, A. R., O'Hagan, S. B., Gole, G. A. 2006, 'Epidemiology of open - and closed - globe trauma presenting to Cairns Base Hospital, Queensland', *Clinical and Experimental Ophthalmology*, vol. 34, no. 3, pp. 252-9.

Stevens, M. P., Tabrizi, S. N., Muller, R., Krause, V., & Garland, S. M. 2004, 'Characterization of *Chlamydia trachomatis* omp1 genotypes detected in eye swab samples from remote Australian communities', *Journal of Clinical Microbiology*, vol. 42, no. 6, pp. 2501-7.

Stocks, N. 1992, *Trachoma and visual impairment in the Anangu Pitjantjatjara of South Australia*, Doctor of Medicine thesis, University of Adelaide, South Australia.

Stocks, N., Newland, H. & Hiller, J. 1994, 'The epidemiology of blindness and trachoma in the Anangu Pitjantjatjara of South Australia', *Medical Journal of Australia*, vol. 160, no. 12, pp. 751-6.

Stocks, N., Hiller, J. E., Newland, H. & McGilchrist, C. A. 1996, 'Trends in the prevalence of trachoma, South Australia, 1976 to 1990', *Australian and New Zealand Journal of Public Health*, vol. 20 no. 4, p. 375-81.

Stocks, N., Hiller, J. E. & Newland, H. 1997, 'Visual acuity in an Australian Aboriginal population', *Australian and New Zealand Journal of Ophthalmology*, vol. 25, no. 2, pp. 125-31.

Street, J. M., Braunack-Mayer, A. J., Facey, K., Ashcroft, R. E. & Hiller J. E. 2008, 'Virtual community consultation? Using the literature and weblogs to link community perspectives and health technology assessment', *Health Expectations*, vol. 11, no. 2, pp. 189-200.

Tamblyn, D. 1984, 'Aboriginal eye problems', *Australian Family Physician*, vol. 13, no. 2, pp. 112-3.

Taylor, H. 1977, 'Blindness in Australian Aborigines', *Australian Journal of Ophthalmology*, vol. 5, no. 3, pp. 155-7.

Taylor, H. 1997, *Eye Health in Aboriginal and Torres Strait Islander Communities*, OATSIHS, Canberra.

Taylor, H. 1980, 'Studies on the tear film in climatic droplet keratopathy and pterygium', *Archives of Ophthalmology*, vol. 98, no. 1, pp. 86-8.

Taylor, H. 1980, 'Prevalence and causes of blindness in Australian Aborigines', *Medical Journal of Australia*, vol. 1, no. 2, pp. 71-6.

- Taylor, H. 1980, 'The prevalence of corneal disease and cataracts in Australian Aborigines in north-western Australia', *Australian Journal of Ophthalmology*, vol. 8, no. 4, pp. 289-301.
- Taylor, H. 1980, 'Aetiology of climatic droplet keratopathy and pterygium', *British Journal of Ophthalmology*, vol. 64, no. 3, pp. 154-63.
- Taylor, H. 1980, 'The environment and the lens', *British Journal of Ophthalmology*, vol. 64, no. 5, pp. 303-10.
- Taylor, H. 1981, 'Racial variations in vision', *American Journal of Epidemiology*, vol. 113, no. 1, pp. 62-80.
- Taylor, H. 1981, 'Climatic droplet keratopathy and pterygium', *Australian Journal of Ophthalmology*, vol. 9, no. 3, pp. 199-206.
- Taylor, H. R. 1987, 'Strategies for the control of trachoma', *Australian and New Zealand Journal of Ophthalmology*, vol. 15, no. 2, pp. 139-43.
- Taylor, H. 1995, 'Blindness and trachoma in South Australia' [letter], *Australian and New Zealand Journal of Ophthalmology*, vol. 23, no. 3, p. 251.
- Taylor, H. 1996, 'Reply' [letter] *Australian and New Zealand Journal of Ophthalmology*, vol. 24, no. 2, p. 162.
- Taylor, H. 1998, 'Trachoma-Its Relevance in Central Australia Today', *CARPA Newsletter*, issue 28, Alice Springs.
- Taylor, H. & Lansingh, V. 1999, 'Azithromycin: a new era for trachoma elimination?' *Tracking Trachoma*, WHO Geneva, vol. 2, issue 2, pp. 1-2, viewed 15 August 2010
<<https://apps.who.int/pbd/trachoma/Newsletter/Issue2/E/index.html>
- Taylor, H. 2001, 'Trachoma in Australia', *Medical Journal of Australia*, vol. 175, no. 7, pp. 371-2.
- Taylor, H. 2001, 'A trachoma perspective', *Ophthalmic Epidemiology*, vol. 8, no. 2-3, pp. 69-72.
- Taylor, H. 2002, 'Flies and trachoma', *Clinical and Experimental Ophthalmology*, vol. 30, no. 2, p. 65.
- Taylor, H. 2005, 'Diabetic retinopathy', *Clinical and Experimental Ophthalmology*, vol. 33, no. 1, pp. 3-4.
- Taylor, H. 2008, *Trachoma : a blinding scourge from the Bronze Age to the twenty- first century*, Centre for Eye Research Australia, Melbourne.
- Taylor, H. 2009, 'Trichiasis: out of mind, out of sight' [letter], *Australian Journal of Rural Health*, vol. 17, no. 3, p. 171.
- Taylor, H. 2010, 'Surveys and service: what is going on in the Centre?', *Clinical and Experimental Ophthalmology*, vol. 38, no. 4, pp. 331-2.
- Taylor, H., Hollows, F. C. & Moran, D. 1977, 'Pseudoexfoliation of the lens in Australian Aborigines', *British Journal of Ophthalmology*, vol. 61, no. 7, pp. 473-5.
- Taylor, H., Robin, T. A., Lansingh, V. C., Weih, L. M. & Keeffe, J. E. 2003, 'A myopic shift in Australian Aborigines: 1977-2000', *Transactions of the American Ophthalmological Society*, vol. 101, pp. 107-10, viewed 7 June 2010 <<http://www.aosonline.org/xactions/03-taos-pt.html>

Taylor, H. R. & Wright, H. R. 2006, 'Dip-stick test for trachoma control programmes', *The Lancet*, vol. 367, no. 9522, pp. 1553-4.

Taylor, H. & Gruen, R. 2009, *Diabetic retinopathy: accuracy of screening methods for diabetic retinopathy: a systematic review*, Indigenous Eye Health Unit, Melbourne School of Population Health, viewed 25 May 2010, <<http://www.iehu.unimelb.edu.au/media/launch>

Taylor, H., Fox, S. S., Xie, J., Dunn, R. A., Arnold, A. L. & Keeffe, J. E. 2010, 'The prevalence of trachoma in Australia: the National Indigenous Eye Health Survey', *Medical Journal of Australia*, vol. 192, no. 5, pp. 248-53.

Taylor, H., Xie, J., Arnold, A.-L., Goujon, N., Dunn, R. A., Fox, S. & Keeffe, J. 2010, 'Cataract in indigenous Australians: the National Indigenous Eye Health Survey', *Clinical & Experimental Ophthalmology*, no. doi: 10.1111/j.1442-9071.2010.02337.x

Taylor, K. I. & Taylor, H. 1999, 'Distribution of azithromycin for the treatment of trachoma', *British Journal of Ophthalmology*, vol. 83, no. 2, pp. 134-5.

Tebbutt, C. 2005, 'One millionth order authorised through the NSW government's free spectacles program', *Aboriginal and Islander Health Worker Journal*, vol. 29, no. 2, p. 4.

Tedesco, L. R. 1980, 'Trachoma and environment in the Northern Territory of Australia', *Social Science and Medicine*, vol. 14D, pp. 111-7.

Tellis, B., Dunn, R., Keeffe, J. & Taylor, H. 2007, *Trachoma surveillance report 2006*, National Trachoma Surveillance and Reporting Unit, Centre for Eye Research Australia, viewed 26 May 2010, <<http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-trachoma-annlrpt.htm>

Tellis, B., Dunn R., Keeffe, J. & Taylor, H. 2008, *Trachoma surveillance report 2007*, National Trachoma Surveillance and Reporting Unit, Centre for Eye Research Australia, viewed 26 May 2010, <<http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-trachoma-annlrpt.htm>

Tellis, B., Fotis, K., Dunn, R., Keeffe, J. & Taylor, H. 2009, *Trachoma Surveillance report 2008*, National Trachoma Surveillance and Reporting Unit, Centre for Eye Research Australia, viewed 3 Nov 2009, <<http://www.health.gov.au/internet/main/publishing.nsf/Content/health-oatsih-pubs-trachreport>

Thew, M. R. & Todd, B. 2008, 'Fungal keratitis in far north Queensland, Australia', *Clinical and Experimental Ophthalmology*, vol. 36, no. 8, pp. 721-4.

Tilmouth, T. & Briscoe, J. 1984, 'Trachoma and oily tetracycline eye drops' [letter], *Medical Journal of Australia*, vol. 1, p. 119.

Tourky, A. A. 1998, *Vision screening of Aboriginal and Torres Strait Islander children in Far North Queensland*, Doctor of Philosophy thesis, University of Queensland, Brisbane, Queensland.

Turner, B. 1989, 'Trachoma in the Northern Territory, 1946-1986', *Medical Journal of Australia*, vol. 151, p. 727.

Turner, J. & Avery, E. 2006, 'Diabetes health in East Arnhem Land - from the feet up', *Aboriginal and Islander Health Worker Journal*, vol. 30, no. 1, pp. 21-3.

- Van Buynder, P., Talbot, J. & Graham, P. 1992, 'Trachoma in Australian Aboriginals in the Pilbara' [letter], *Medical Journal of Australia*, vol. 156, p. 811.
- Van Buynder, P., Bailey, S. & Adams, J. 1992, 'A cluster of non-sexually transmitted gonococcal conjunctivitis in the Pilbara, Western Australia', *Communicable Diseases Intelligence*, vol. 16, pp. 534-6.
- Van Minnen, K., Spilsbury, K., Ng, J., Morlet, N., Xia, J. & Semmens, J. 2009, 'Changing patterns of access to cataract surgery: A population study spanning 22 years', *Health & Place*, vol. 15, no. 1, pp. 394-8.
- Veale, B. 2002, 'The eyes have it!', *Australian Family Physician*, vol. 31, no. 3, p. 215. Vision 2020 Australia n.d., *World Sight Day Information Sheet*, viewed 7 June 2010, <http://www.vision2020australia.org.au/assets/content/1308/WSD-Fact-Sheet-Aust-ATSI.pdf>
- Vision 2020 Australia 2007, *Aboriginal and Torres Strait Islander Eye Care Information Sheet*, viewed 7 June 2010, <http://www.vision2020australia.org.au/assets/content/1284/ATSI_fact_sheet_28Aug07.pdf
- Vision 2020 Australia 2007, *Trachoma Information Sheet*, viewed 7 June 2010, <<http://www.vision2020australia.org.au/assets/content/1296/Fact-Sheet-Trachoma.pdf>
- Wallace, T. 1996, *Evaluation of a trachoma treatment program in the Katherine Region of the Northern Territory*, Master of Public Health thesis, University of Western Australia, Perth, Western Australia.
- Wallace, T. 1996, 'Trachoma treatment program in the Katherine region' *Northern Territory Communicable Diseases Bulletin*, vol. 3, no. 4, pp. 13-15.
- Wallace, T. 1997, 'Control and treatment of active trachoma in the Northern Territory' *Northern Territory Communicable Diseases Bulletin*, vol. 4, no. 1, pp. 16-17.
- Wang, J. 2002, 'Closing the gaps between urban and rural eye health and eye care services', *Clinical and Experimental Ophthalmology*, vol. 30, no. 5, pp. 313-4.
- Waterford, J. 2008, 'Boots on the ground cannot replace faces in a community', *Eureka Street*, vol. 18, no. 1, pp. 4-7.
- Wearne, S. M. 2007, 'Remote Indigenous Australians with cataracts: they are blind and still can't see', *Medical Journal of Australia*, vol. 187, no. 6, pp. 353-6.
- Webb, S. 1990, 'Prehistoric eye disease [trachoma?] in Australian Aborigines', *American Journal of Physical Anthropology*, vol. 81, pp. 91-100.
- Weinstein, P. 1991, 'The Australian bushfly [*Musca vetustissima* Walker] as a vector of *Neisseria gonorrhoeae* conjunctivitis' [letter], *Medical Journal of Australia*, vol. 155, p. 717.
- Wildsoet, C. F. & Wood, J. M. 1996, 'Primary eye care needs and services to Aboriginal and Torres Strait Islander populations across Queensland: a 'users' perspective', *Clinical & Experimental Optometry*, vol. 79, no. 5, p. 188-201.
- Wildsoet, C. F. & Wood, J. M. 1996, 'Primary eye care needs and services to Aboriginal and Torres Strait Islander populations across Queensland: a 'users' perspective', *Clinical & Experimental Optometry*, vol. 79, no. 5, p. 188-201.

Wildsoet, C. F., Wood, J. M. & Hassan. S. 1998, 'Development and validation of a visual acuity chart for Australian Aborigines and Torres Strait Islanders', *Optometry and Vision Science*, vol. 75, no. 11, pp. 806-12.

Winch, J. 1993, 'Trachoma: Environmental Health and Prevention Issues', *Aboriginal and Islander Health Worker Journal*, vol. 17, no. 2, pp. 5-7.

Wood, J. & Wildsoet, C. F. 1996, 'Optometric services to Aboriginal and Torres Strait Islander communities throughout Queensland', *Clinical and Experimental Ophthalmology*, vol. 79, no. 6, pp. 215-26.

Wood, J. M. & Patterson, C. M. 1999, 'Diabetes and diabetic retinopathy in Indigenous Australians', *Clinical and Experimental Optometry* vol. 82, no. 2-3, pp. 80-83.

Wright, H. R. & Taylor, H. R. 2005, 'Clinical examination and laboratory tests for estimation of trachoma prevalence in a remote setting: what are they really telling us?' *The Lancet Infectious Diseases*, vol. 5, no. 5, pp. 313-20.

Wright, H. R., Keeffe, J. E. & Taylor, H. R. 2006, 'Trachoma and the need for a coordinated community-wide response: a case-based study', *PLoS Medicine*, vol. 3, no. 2, e41, viewed 7 July 2010, <<http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.0030041>

Wright, H. R., Keeffe, J. E. & Taylor, H. R. 2009, 'Trachoma, cataracts and uncorrected refractive error are still important contributors to visual morbidity in two remote indigenous communities of the Northern Territory, Australia', *Clinical & Experimental Ophthalmology*, vol. 37, no. 6, pp. 550-7.

Yohendran, J. & Yohendran, K. 2004, 'Review of Australian indigenous eye health research published in the last decade', *Clinical and Experimental Ophthalmology*, vol. 32, no. 4, pp. 450-1.

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