# Chapter 1

# THE SURVEY – OBJECTIVES, DESIGN AND PROCESS





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***The Western Australian Aboriginal Child Health Survey was undertaken between 2000 and 2002 by the Telethon Institute for Child Health Research. The survey provides an epidemiological knowledge-base of the health, wellbeing and schooling of Western Australian Aboriginal and Torres Strait Islander children. In addition, survey data was linked to administrative health and school performance records. From this knowledge-base, strategies can be developed to promote and maintain healthy development of Aboriginal children and young people.***

***This volume is the third in a series. The two previous publications*** **— Volume One: The health of Aboriginal Children and Young People** ***and*** **Volume Two: The social and emotional wellbeing of Aboriginal Children and Young People** ***have described both physical health and social and emotional wellbeing outcomes. Volume Three reports on the educational outcomes of Aboriginal children and young people, particularly protective and risk factors that shape their academic performance at school.***

***This chapter provides an overview of how the survey has been conducted and how information regarding the educational outcomes of Aboriginal children and young people was collected from school teachers and principals.***

## SUMMARY


- The primary objective of the Western Australian Aboriginal Child Health Survey (WAACHS) is to identify the developmental and environmental factors that enable competency and resiliency in Aboriginal children and young people aged 0–17 years.
- The survey describes the population of families with Aboriginal children under the age of 18 years. Data were collected for 5,289 eligible children living in 1,999 households. Data on academic performance were collected for 2,379 of these children who were attending school at the time of the survey.
- An Aboriginal Steering Committee has directed the planning, implementation and reporting of the survey. The survey content and processes were developed in consultation with Aboriginal leaders, key Aboriginal bodies, and through extensive consultations with Aboriginal community councils, parents, young people and key service providers throughout the state.
- The Telethon Institute for Child Health Research (ICHR) is home to the Kulunga Research Network — a collaborative maternal and child health research, information and training network. The Kulunga Research Network is an advocate for Aboriginal children and families in Western Australia and is developing additional materials from the survey for Aboriginal communities.


**SUMMARY** *(continued)*

- An Education Reference Group, comprising key stakeholders from State and Commonwealth government agencies, the Catholic Education Office of Western Australia and the Association of Independent Schools of Western Australia guided the development of the schools questionnaires.
- An index of Level of Relative Isolation (LORI) has been specifically developed for use in this survey. LORI allows greater discrimination of the circumstances of Aboriginal people with respect to their geographic isolation from population centres of various sizes and helps to better differentiate between families living in communities that are extremely isolated from Perth and regional centres.

## THE TELETHON INSTITUTE FOR CHILD HEALTH RESEARCH

The Telethon Institute for Child Health Research (ICHR) is a centre of excellence for the conduct of research into child health. Founded in 1987, the Institute's research programmes include the study of asthma and allergic diseases, birth defects, child and adolescent social and emotional wellbeing, childhood death and disability, leukaemia and other cancers, as well as Aboriginal health and infectious disease.

The Institute's mission is to improve the health of children through the development and application of research into:

- causes of ill health
- the maintenance of good health
- prevention of ill health
- the treatment of conditions affecting children.

The Institute is home to the Kulunga Research Network — a collaborative maternal and child health research, information and training network, involving ICHR and member services of the Western Australian Aboriginal Community Controlled Health sector. The Kulunga Research Network is an advocate for Aboriginal children and families in Western Australia. The Network seeks to ensure that community-based and culturally relevant research benefits Aboriginal people by influencing the policy and planning of government and other key agencies, and by involving Aboriginal people in all areas of research and implementation of outcomes. The Western Australian Aboriginal Child Health Survey (WAACHS) was a project of the Network.

## SURVEY OBJECTIVES

The survey's primary objective was to identify developmental and environmental factors that enable competency and resiliency in Aboriginal children and young people. There was emphasis on defining priority targets for existing and future health, education and social services. Building an epidemiological knowledge-base from which preventive strategies can be developed to facilitate the social, emotional, academic and vocational competency of young people was a notable feature of this survey.

The specific aims of the survey were to:

- describe and define the health and wellbeing of Western Australian Aboriginal and Torres Strait Islander children and young people aged 0–17 years
- estimate the prevalence and distribution of commonly occurring chronic medical conditions and disabilities (e.g. asthma, visual and hearing impairments, intellectual disability) and describe how they may affect a child's wellbeing and functioning
- estimate the prevalence, distribution and functional impact of common physical health, social and emotional problems in Aboriginal children and young people aged 0–17 years and their families
- estimate the prevalence and distribution of adverse health behaviours (e.g. smoking, alcohol, drug and volatile substance misuse)

- estimate the prevalence and distribution of other psychosocial problems, such as early school leaving, conduct problems, and juvenile offending
- describe Aboriginal and Torres Strait Islander children, young people and their families' access to, effective use of, and satisfaction with health care, education, juvenile justice, housing and social services
- identify factors resulting in protection from poor health and social and emotional wellbeing, adverse health behaviours and other psychosocial problems
- develop estimates of risk and markers identifying Aboriginal and Torres Strait Islander children and young people at increased risk for various health, educational and vocational outcomes.

## SURVEY CONCEPT AND DEVELOPMENT

The concept of gathering child health and wellbeing information from families with Aboriginal and Torres Strait Islander children was first proposed in 1991 during the development of the Western Australian Child Health Survey. However, for reasons owing to scale, cost and expertise, families with Aboriginal children were excluded from this earlier survey. The Telethon Institute for Child Health Research undertook to reassess the feasibility of conducting an Aboriginal child health survey following the conclusion of the original Western Australian Child Health Survey. The assessment of the feasibility, design and scope of the WAACHS was subsequently undertaken between 1996 and 1999.

Survey methodology and instrumentation were developed in consultation with Aboriginal leaders, key Aboriginal bodies (the Aboriginal and Torres Strait Islander Commission (ATSIC) Regional Councils, the Aboriginal Council of Elders, the Aboriginal Justice Council, and the Western Australian Aboriginal Community Controlled Health Sector), and through extensive community consultations throughout the state. A survey project team, reporting to an Aboriginal Steering Committee, had basic carriage of securing funding, developing the survey instruments, and implementing the fieldwork.

The Australian Bureau of Statistics (ABS) was a principal provider of consultancy services, expertise and support through all phases of survey development, implementation and analyses. Efforts were made to ensure that the data collected were both scientifically relevant and pertinent to current government information needs and policy initiatives. To do this, reference groups were convened during 1997–1998 with representation from the various government departments and community organisations that had an interest in the outcome of the survey findings. This process involved senior policy input from: the Western Australian Government Departments of Health, Education and Training, Community Development and Police; the Alcohol and Drug Authority; the Disability Services Commission; the State Housing Commission; the Catholic Education Office of Western Australia; and the Association of Independent Schools of Western Australia. Australian Government departments were also consulted about policy needs and to comment on the content and design of the survey.

## ABORIGINAL DIRECTION

All phases of the survey and its development, design, and implementation were under the direction of the Western Australian Aboriginal Child Health Survey Steering Committee. Established in 1997, the Aboriginal Steering Committee has the responsibility to control and maintain:

- cultural integrity of survey methods and processes
- employment opportunities for Aboriginal people
- data access issues and communication of the findings to the Aboriginal, and general, community
- appropriate and respectful relations within the study team, with participants and communities, with stakeholders and funding agencies and with governments of the day.

## COMMUNITY CONSULTATION AND APPROVAL

The survey was a large undertaking and involved extensive household sampling and voluntary participation in the survey by many Aboriginal and Torres Strait Islander people across Western Australia. Seeking support and approval for the survey required an extensive and ongoing consultation process. Consultations were undertaken during 1998 and 1999 with visits to Aboriginal communities in Albany, Bunbury, Broome, Carnarvon, Collie, Derby, Esperance, Fitzroy Crossing, Geraldton, Halls Creek, Kalgoorlie, Karratha, Katanning, Kwinana, Kununurra, Narrogin, Perth, Pinjarra, Port Hedland, and Roebourne. Every attempt was made to engage community leaders, community councils, administrative staff, service providers, and local residents to obtain their views about the requirements for the survey, and to secure their participation in the implementation of the survey. People were asked about survey methods and processes, their requirements with respect to specific survey content, their expectations about the use of the survey data, and intended outcomes.

The initial community consultations for the survey established that most participating carers and young people expressed a preference for the survey to be written and administered in plain English. The survey materials were assessed in the pilot test and dress rehearsal and found to yield reliable and valid information for all but the most isolated communities where there was a high level of traditional language use. In these communities, the majority of families chose to be interviewed with the assistance of an Aboriginal language translator employed through the local community council or Aboriginal Medical Service.

Approval for the survey was also obtained from the Western Australian Aboriginal Community Controlled Health Sector, the Western Australian Council of Elders, the Aboriginal Justice Advisory Committee and the Aboriginal and Torres Strait Islander Commission (ATSIC) State Council.

## ETHICAL APPROVAL FOR THE SURVEY

The project met the requirements of, and was approved by, the Western Australian Department of Health's Aboriginal Health Information and Ethics Committee as well as the Ethics Committee of King Edward Memorial and Princess Margaret Hospitals. These clearances ensured that the survey process and procedures conformed with requirements and protocols for health research with Aboriginal people and adhered to National Health and Medical Research Council (NHMRC) ethical standards and guidelines for research with human subjects.

## ABORIGINAL IDENTIFICATION AND THE SCOPE OF THE SURVEY

The survey was based on an area sample of dwellings (see *Glossary*). Families in selected dwellings who reported that there were 'Aboriginal or Torres Strait Islander children or teenagers living at this address who are aged between 0 and 18 years' were eligible to be in the survey (see *Aboriginal status* in *Glossary*).

Children living within group homes, institutions and non-private dwellings were not in the scope of the survey. However, where a selected household had a child temporarily living away from home (e.g. in a boarding school or hostel), these children were included in the scope of the survey.

Once the authority for the survey and the nature of the survey was explained to a responsible adult (usually the carer(s) or head of the household), and consent to participate was obtained, Aboriginal status was determined for each person who was reported to usually live in the dwelling. This was done by asking 'Does (the person) consider him/herself to be of Aboriginal or Torres Strait Islander origin?' Data were collected on all Aboriginal and Torres Strait Islander children under the age of 18 years in each of the participating households.

### TERMINOLOGY

Throughout this publication the term 'Aboriginal and Torres Strait Islander peoples' has been used as the most precise and inclusive reference for Aboriginal Australians. This was the form recommended by ATSIC for use in official documents. Where other group terms such as 'Aboriginal people' have been used, it should be noted that this is intended to refer to Aboriginal and Torres Strait Islander peoples.

## SURVEY OUTPUTS AND COMMUNITY FEEDBACK

This is the third volume of results from the WAACHS. *Volume One — The Health of Aboriginal Children and Young People* was published in June 2004, and *Volume Two — The Social and Emotional Wellbeing of Aboriginal Children and Young People* was published in April 2005. These publications are available from the ICHR web site: www.ichr.uwa.edu.au. After this volume, two further volumes of results are planned, which will focus on family and community, and justice issues. A summary booklet for each volume will be produced. Summary booklets for the first two volumes are already available. As well, there are plans to write a number of research papers and professional journal articles based on the findings of the survey.

A communication and dissemination strategy has been designed to maximise knowledge and awareness of the findings to both the Aboriginal and wider communities. The strategy, driven by the Kulunga Research Network, aims to engage Aboriginal communities in committed action using the data as a catalyst for political and community action and social change.

The WAACHS communication and dissemination strategy is also complemented by work undertaken by the State and Australian governments and the WAACHS team to develop a translation to policy strategy. This work is being led by the Government of Western Australia through the Human Services Senior Officers Group – Research and Evaluation. This strategy seeks to link the findings of each volume into government policy and planning.

For Volumes One and Two, ATSIC regional profiles have been produced for each ATSIC region in Western Australia. These have been disseminated throughout the State during consultation and feedback visits that have been conducted in every region. This process will continue with each subsequent volume. For Volume Three, regional profiles will be produced based on Indigenous Coordination Centre (ICC) regions. The results published in each main volume will guide the production of community information resources which will be followed by meetings, workshops and seminars in each region to inform and educate survey participants and Aboriginal communities in general about the survey findings.

### ICC REGIONS

With the abolition of ATSIC Regional Councils and the establishment by the Office of Indigenous Policy Coordination (OIPC) of regional Indigenous Coordination Centres (ICCs), changes may be made to the geographic regions used for producing statistics in relation to Aboriginal peoples. In Western Australia, seven ICCs have been established. The boundaries of the regions served by these ICCs are similar to those of the nine ATSIC regions in Western Australia, with the Perth Noongar and Noongar Country (Narrogin) ATSIC regions combined into the Perth ICC region, and the Western Desert (Warburton) and Mulga Mallee (Kalgoorlie) ATSIC regions combined into the Kalgoorlie ICC region.

At this stage it is assumed that the boundaries of the nine former ATSIC regions will remain unchanged, and for the purposes of this publication, these regions are now referred to as ICC regions.

## LEVEL OF RELATIVE ISOLATION

### MEASURING ACCESS TO SERVICES

A new classification of remoteness and isolation – the Level of Relative Isolation (LORI) – has been used in the WAACHS. The LORI is based on a product from the National Key Centre for Social Application of Geographic Information Systems (GISCA) at Adelaide University, called ARIA++. The ARIA++ is an extension of ARIA (the Accessibility/Remoteness Index of Australia), which has been widely adopted as the standard classification of remoteness in Australia. Because ARIA is based on describing the entire population of Australia, it has not been specifically designed to describe the circumstances of Aboriginal people living in remote areas. The ARIA++ gives a more detailed description of the most remote areas of Australia by including more service centres, of smaller sizes, in calculating the remoteness scores.

Under the original ARIA, over two-thirds of the land mass of Western Australia, and over one quarter of Aboriginal people in Western Australia live in areas classified as 'very remote'. However, WAACHS data have revealed that, within this group, there were marked differences in access to basic services, cultures, lifestyles and health outcomes. The greater detail of ARIA++ enables these differences to be more adequately described in the Aboriginal population.

The Australian Bureau of Statistics has incorporated a measure of remoteness into the Australian Standard Geographic Classification (ASGC). The five 'Remoteness Areas' are based on ARIA+ and differ slightly from the original ARIA categories. However the Remoteness Areas have been defined to describe the total population of Australia, and the 'very remote' remoteness area is quite similar to the area defined as 'very remote' in the original ARIA.

### ILLUSTRATING THE DIFFERENCE BETWEEN ARIA AND ARIA++

As an example of the difference between ARIA and ARIA++, the town of Halls Creek in the East Kimberley – population about 1,300 people – is classified as 'very remote' under ARIA. However, it has a 4-bed hospital facility which provides health services to the town and communities throughout the surrounding region. One of those communities, Yiyili, about 120 kilometres east of Halls Creek, has a population of around 250 people. The Halls Creek Health Service provides a weekly community nursing clinic in the Yiyili community. Under ARIA's 12 point remoteness scale, both Halls Creek and Yiyili receive the maximum score of 12 ('very remote').

Under ARIA++, which has an extended 18 point remoteness scale, Halls Creek receives a score of 12 and Yiyili receives a score of 18. Compared with major capital cities, both Halls Creek and Yiyili would be regarded as small places with limited access to services. However, analysis of WAACHS data has shown that the difference in isolation between Halls Creek and Yiyili is reflected not only in different access to basic services, but also in a different level of adherence to traditional cultures and languages, and different health outcomes.

## LORI CATEGORIES

Based on the ARIA++ scores, five categories of isolation have been defined to more appropriately reflect differences in cultures, access to services and health outcomes for Aboriginal children. To avoid confusion with the original ARIA, the five categories are referred to as Levels of Relative Isolation (LORI) and range from None (the Perth Metropolitan Area) to Low (e.g. Albany), Moderate (e.g. Broome), High (e.g. Kalumburu) and Extreme (e.g. Yiyili).

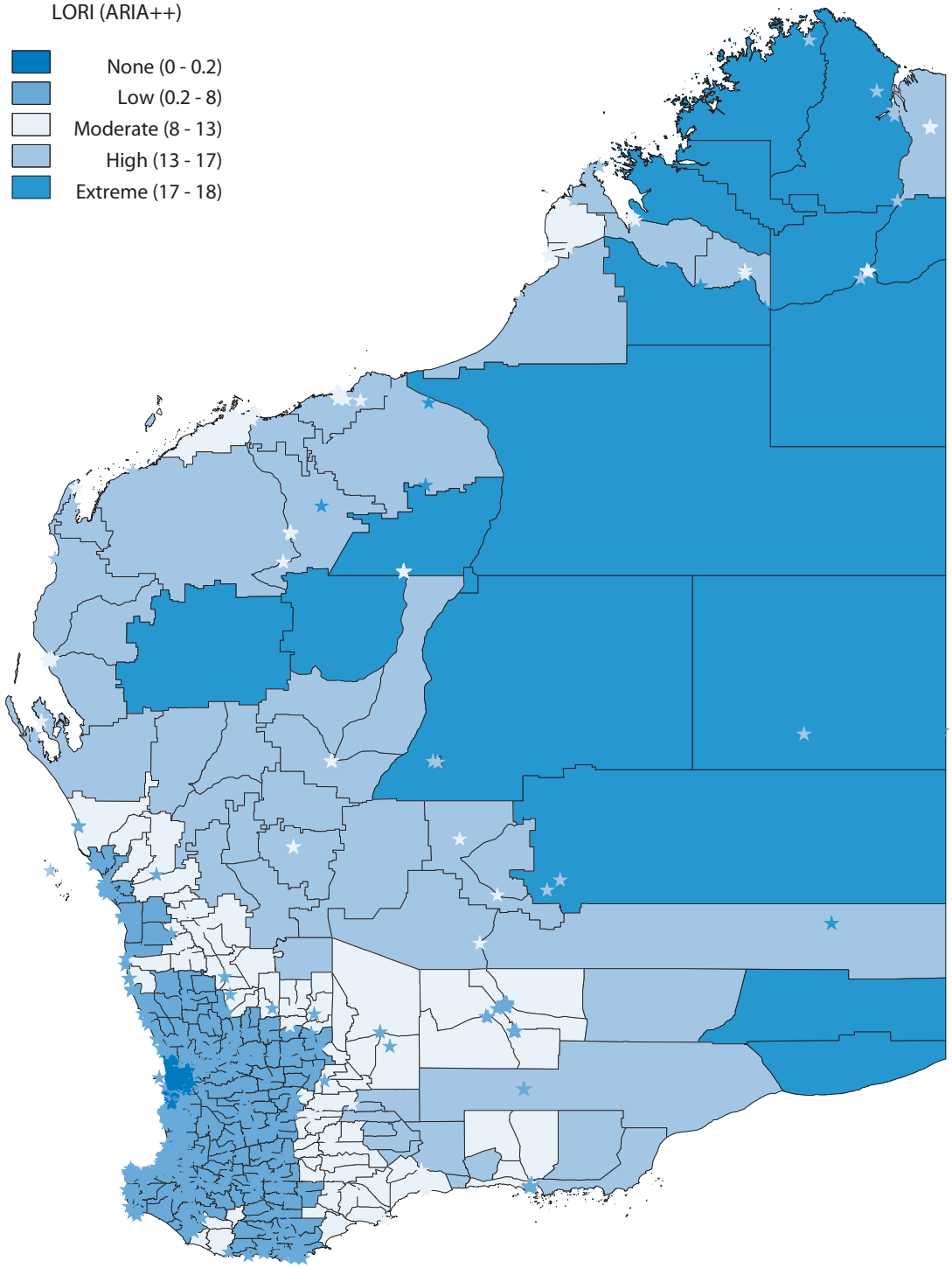
Figure 1.1 shows the proportion of Aboriginal children under 18 years in each LORI category. While one quarter of Aboriginal children in Western Australia live in areas classified as 'very remote' in the original ARIA, only 9.5 per cent (CI: 6.8%–12.7%) of children live in areas of extreme relative isolation.

Figure 1.2 illustrates the five LORI categories for Western Australia. This map is based on 1996 Census Collection districts, which were used as the sampling frame for the WAACHS. An important feature of the LORI categories is that, except for LORI None which is virtually identical with the Remoteness Area 'Capital City Australia' from the original ARIA, each area is more remote than the equivalent point on the ARIA scale. Areas classified as 'very remote' under the original ARIA can be classified as Moderate, High or Extreme on the LORI scale.

**FIGURE 1.1:** ABORIGINAL CHILDREN AGED 0–17 YEARS, BY LEVEL OF RELATIVE ISOLATION (LORI)

| *LORI* | *Number* | *95% CI* | *%* | *95% CI* |
|---|---|---|---|---|
| None | 10 200 | (10 000 - 10 400) | 34.1 | (31.5 - 36.8) |
| Low | 7 270 | (6 640 - 7 930) | 24.4 | (21.8 - 27.0) |
| Moderate | 6 390 | (5 400 - 7 420) | 21.4 | (18.1 - 25.1) |
| High | 3 170 | (2 360 - 4 160) | 10.6 | (7.9 - 14.0) |
| Extreme | 2 830 | (2 040 - 3 800) | 9.5 | (6.8 - 12.7) |
| **Total** | **29 800** | **(29 800 - 29 800)** | **100.0** | |

**FIGURE 1.2:** WESTERN AUSTRALIA — LEVEL OF RELATIVE ISOLATION (LORI) CATEGORIES BASED ON ARIA++ VALUES



## THE SCHOOL SURVEY

Information about children in the WAACHS was collected from three sources: carers, young people themselves, and classroom teachers of those children attending school. By collecting information from different sources in different settings, it is possible to determine the influence of various settings — the family, the community, peer groups and schools — on the development and wellbeing of children.

### DESIGN HISTORY

The fieldwork for the household survey was intensive and occurred over a period of 15 months, while the schools survey ran over a 23 month period. The school component of the survey was, in effect, a 'survey within a survey' and posed its own unique challenges. To ensure that the content of the schools survey was relevant to the needs of policy and planning, the survey team convened planning meetings with representatives from the education sector during 2000.

In February 2000 an initial strategic meeting was held with senior executive officers from the Government, Independent and Catholic school systems to discuss the method for conducting the school survey and to seek support from the Chief Executive Officers of each of the three school systems. This meeting appointed a Working Party to oversee the development of the school survey questionnaires. It had members with executive, administrative and teaching experience and particular knowledge and expertise in Aboriginal education.

The terms of reference provided the working party with responsibility for:

- developing the survey questionnaires for the schools component of the survey
- developing the process by which these questionnaires were used by the Western Australian education sector
- communicating the survey's objectives and processes within the education sector.

#### Consultation processes

Extensive consultations with carers of Aboriginal children during 1998 and 1999 included assessing the willingness of carers to provide consent for the survey team to gather information on their children from schools. In addition, the consultations sought carers' views about survey content relevant to education and schooling. Carers were asked about the role of education in their own lives and the lives of their children, whether there were particular issues or needs for information from the education sector, and about the role of school in family life. Separate consultations were held with young people aged 12–17 years. Common themes emerging from these consultations included:

- Doing well at school was important and desirable
- Carers of Aboriginal children had the same ambitions for their children as carers of non-Aboriginal children
- Educational opportunities for Aboriginal children were seen to be restricted — in the range of services, the range of curricula, and in the general educational expectations held by teachers and educational authorities

- School-related experiences of carers were important in shaping their attitudes and expectations about the education of their children
- Not all carers felt confident about approaching schools for help or assistance in regard to a child's needs or performance
- Exposure to racism and bullying was a point of concern
- Home environments were important in both preparation for getting to school and in being able to create conducive environments for homework
- While it was often claimed that Aboriginal children were 'not ready for school', many carers felt that 'schools were not ready for Aboriginal children'
- Aboriginal culture was not given any or enough attention, and cultural awareness was lacking
- Poor physical health and mental health detracted from children doing well.

In designing the survey questionnaires, these areas were given particular attention to ensure relevant coverage in the content.

The Working Party also provided extensive input into the design and content of the survey questionnaires. Many of the same issues raised in the consultations with families and communities were also raised by the education sector. Several other content areas were also highlighted as being desirable inclusions:

- School attendance and patterns of explained and unexplained absences
- The importance of nutrition and sleeping patterns on academic performance
- Community violence and its impact on school culture and performance
- The proportion of school staff who are Aboriginal
- Access to culturally relevant professional development for the school community.

The Working Party met intensively between March and early June 2000 to design the school survey questionnaires and specify the field methods for gathering the data. Item content was selected to maximise comparability with the previous Western Australian Child Health Survey[1] and to cover specific areas of interest identified in the consultation process. Some of the education-based content was placed in questionnaires for face-to-face interviews with carers while other content was placed in the school questionnaires. Small scale 'skirmishes' and pilot testing were undertaken to test the feasibility of both the questionnaire content and the process.

## Stakeholder input

A communications strategy was devised which aimed to develop a high degree of awareness of the survey within the education sector, and a high level of participation by schools. Throughout the development period, and under the guidance of the Working Party, briefings were held with key stakeholders. These included a full briefing of the State School Teachers' Union of Western Australia to discuss the survey, its implications and its impact on participating schools and teachers, as well as to gain support for the survey. Briefings about the survey were also held with the Aboriginal Education and Training Council and the Council of Early Childhood Education. These briefings provided an opportunity to solicit information to guide the development of the survey and increase the likelihood of policy relevance.

In May 2000 the final draft of the school questionnaires and the process for the school survey was presented to the WAACHS Aboriginal Steering Committee for review and approval. In June 2000, authorisation for the school survey was given at a full meeting of the Education Reference Group. At this meeting the content of the questionnaires and the process for gathering the information was presented. By August 2000 a joint letter was signed from the Chief Executive Officers of the Western Australian Department of Education, the Association of Independent Schools of Western Australia, and the Catholic Education Commission of Western Australia, authorising the survey and encouraging school principals to participate in the survey.

## CONTENT OF THE SCHOOL SURVEY

The content of the survey questionnaires for primary schools and high schools was identical. However, there were variations in the forms for each of these settings to allow for differences in access to the students and in recognition of the larger numbers of teachers that typically have access to students enrolled in Year 8 and above. There were three separate questionnaires used in the schools survey — one at the school level, and two student-level questionnaires. These are described below.

### Principal's Questionnaire – School Details

The principal was asked to fill out a questionnaire about the school. Only one of these questionnaires was required for each participating school. This questionnaire gathered demographic information about the school, composition of student enrolment, composition of teaching and support staff, and asked specific questions about professional development and curriculum activities targeting Aboriginal students. The final portion of this questionnaire asked the principal to rate the school on a range of school, social, and community factors that can impact on the school's ability to fulfil its educational purpose.

### Principal's Questionnaire – Student details

For each student in the survey, the principal was asked for information about the survey child. Instructions allowed the principal ample scope for determining the staff member best positioned to supply this information. The student details included: main language spoken, ratings of overall academic performance and ratings of performance in literacy and numeracy relative to all students of the same age, the length of enrolment and school attendance, whether they had repeated a grade, use of boarding facilities, classroom removal for behaviour problems, out of school suspension and school exclusion, and use of school support services for children with special needs.

### Classroom Teacher's Questionnaire

For survey children in primary school, information was provided by the classroom teacher. For survey children in high school the teacher of English Language or English Literature was asked to complete this questionnaire. The information gathered included the Teacher version of the Strengths and Difficulties Questionnaire — a measure of risk of clinically significant emotional or behavioural difficulties.[2,3]

For survey children in primary school, their classroom teacher was also asked to administer two brief tests for determining oral English vocabulary proficiency and non-verbal visuo-spatial reasoning. These assessments used the Word Definitions and Matrices scales of the British Abilities Scale[4,5] and were identical to the measures used in the 1993 *Western Australian Child Health Survey*.[1] For children in high school, a school counsellor, psychologist or year coordinator, or year head/form teacher or tutor conducted these tests.

## CONDUCTING THE SCHOOL SURVEY

During the household interview, carers of children attending school were asked for their consent for the survey team to approach the child's school and request information about the child's school performance, services used and attendance. Once signed consent was obtained, this was returned to the survey office for preparation of the school workloads.

### Maximising return rates

The fieldwork for the household survey was staged to occur in discrete regions. This allowed the survey office staff to monitor the completion of the field work and estimate when most returns from an area would have been received. It also allowed them to time the preparation of the school workloads to avoid, as best as possible, multiple postings to the same school. Many children within an area, particularly in rural and remote regions, attended the same school. Thus, workloads for an individual school could vary from a minimum of one child to, in some cases, over 45 children. Higher workloads posed particular problems for some schools and, as a result, several steps were taken to maximise returns:

- Schools were offered funding for teacher relief (i.e. payment for relief teachers in order for the classroom teachers to have time to be able to complete the survey questionnaires). While this was always offered to schools, only a relatively small proportion of schools took advantage of the offer and many schools chose to complete survey materials and post them to the survey centre without the use of paid relief arrangements. Nonetheless, the offer of teacher relief or payment for teacher time was important to maximising the return rates.
- Schools with high survey workloads — typically more than five children — were personally contacted to discuss customised arrangements for receipt and return of the survey questionnaires.
- In some instances, household interviewers visited schools to administer survey questionnaires to staff and students. This was an essential strategy in the rural and remote areas of Western Australia.
- Special arrangements were made for the Western Desert (Warburton) ATSIC region. Four members of the survey team travelled through the Western Desert (Warburton) ATSIC region to collect the school information on children in this very remote region. Because the majority of the students in these schools are Aboriginal, these schools sustained exceptionally high survey workloads. In most of these settings, teacher relief was not a feasible strategy to enable a school to participate in survey work. The most practical way to obtain participation from these schools was to send a team specifically to gather the information.

## Problems with undercount

As the household survey progressed, it became apparent that the specified sample frame was producing an undercount — that is, fewer than expected eligible households were identified. This occurred despite low proportions of non-contact with enumerated dwellings in selected census districts. Once the fieldwork had reached the half-way stage, it was possible to estimate the extent of the undercount and determine the level of supplementary sampling that would be required to achieve the target sample. It became apparent that further household sampling would be required and that this supplementary sampling would need to take account of Christmas, school holidays and the summer wet weather pattern in the north of the State. As a result, the household survey was extended well into 2001.

As a consequence of this supplementary sampling, the school survey took almost two calendar years to complete, spanning three academic years: 2000, 2001 and 2002. Due to turnaround times between household survey materials arriving at the data processing centre, and school survey questionnaires being despatched, as well as previously mentioned issues such as school workload burden, high child mobility between schools, change of academic year and school holidays, many children were unable to have their school survey questionnaires completed in the academic year that coincided with their household survey information. For the analyses reported in this volume, the age of the child and their year in school were based on the date on which the school survey data was collected rather than the date of collection of the household survey data.

In more isolated areas, Aboriginal students often outnumber non-Aboriginal students. In some of these areas the proportion of the student population participating in the survey was high. As teaching and administration staff are usually few in most small remote schools, this represented a substantial workload for the school. As a result, survey staff travelled to many of these schools to assist school staff in completing the survey questionnaires. Without this initiative, the response rate would have been considerably lower.

## Schools survey issues

The school survey was a highly complex undertaking seeking information on a small population of students. There are several features of the school survey for the WAACHS that distinguish it from the original Western Australian Child Health Survey:

- Aboriginal students are more frequently absent from school than are non-Aboriginal students. This prevented the administration of the tests to some students and jeopardised the return of the remaining information on the student.
- Aboriginal students appeared to be more mobile, and to move between schools more than other students. These students needed to be identified, their current school enrolment determined and contact made with their school. There were many instances of the survey office needing to trace students across more than two schools, spanning large distances. This could take several weeks. Because of this mobility, it was often first necessary to determine which school was in the best position to supply the information on the survey child.

- The identification of the survey as a survey of Aboriginal children often resulted in the survey materials being handed down the line to Aboriginal and Islander Education Officers and/or to infrastructures within the school that were less able to manage the task demands, or, were overburdened with existing demands. This prevented the timely return of materials and necessitated the development of strategies to support these schools in completing and returning the materials.
- A higher proportion of schools refused to participate in the survey process. Despite encouragement from the Chief Executive Officers of each school system, some principals did not want a survey that sought information on Aboriginal students. Despite offers of teacher relief and provision of field staff within schools, some principals were reluctant to participate and refused.

In the 1993 *Western Australian Child Health Survey*, 87 per cent of the survey materials on those children who were attending school were returned to the survey centre.[1] This compares with 67 per cent of returned school questionnaires on the WAACHS children. Non-response in the schools component of the survey is discussed further in *Appendix D — Levels of school and student participation*. Similar procedures and questionnaires were used in both surveys and the WAACHS enhanced these through the use of field staff who visited many schools to provide assistance. While there were acknowledged difficulties in response rates attributable to the school attendance characteristics of the survey children, the relative shortfall in participation between these two surveys also reflects system attitudes, barriers and processes that prevented achieving higher response rates for Aboriginal children.

Overall the school survey represented a sizeable undertaking in the scope of a household survey that itself was a considerable and unique task.

## CONSULTATION DURING ANALYSIS AND PUBLICATION PRODUCTION

An Education Reference Group was convened to oversee and advise on the analysis and writing of this volume. Membership of this group included representation from the Western Australian Department of Education and Training, the Association of Independent Schools of Western Australia, the Catholic Education Commission of Western Australia, the Australian Government Department of Education, Science and Training as well as representatives from the Western Australian Departments of Premier and Cabinet, Community Development, and Indigenous Affairs, and the Australian Government Department of Health and Ageing.

The reference group met regularly to review findings from the survey, and offer feedback and guidance on the direction of the analysis. The reference group also advised on the communication of results with key stakeholders and helped facilitate a process of translation of findings into positive impacts on policy and practice.

## ENDNOTES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