

# KIMBERLEY ABORIGINAL HEALTH PLANNING FORUM (KAHPF)

## KIMBERLEY ORAL HEALTH TECHNICAL PAPER 2016

Approved by KAHPF on 24<sup>th</sup> August, 2016

### INTRODUCTION

Since the late 1970s the dental caries rate of the overall Australian population has declined considerably (AIHW 2015). This has been attributed to several factors including water fluoridation, fluoride in toothpaste and increased availability of dental services. However, indigenous children in WA continue to have a greater number of filled, decayed or missing teeth than non-indigenous children, particularly in the 5-10 aged group (AIHW 2015). As researchers note:

*“Prior to the 1980s, Indigenous children in Australia were recognised as having better oral health than non-Indigenous children. More recently however, reports suggest that dental decay in Indigenous children is rising and decay in deciduous teeth has been estimated to be twice as high as for non-Indigenous children” (da Silva et al 2015).*

The Kimberley Aboriginal Health Planning Forum (KAHPF) has recognised this trend towards poor oral health for many years. The Kimberley Aboriginal Primary Health Plan 2012-15 (KAHPF 2012 p49) noted that, in general, the condition of most Kimberley Aboriginal people’s teeth and gums was “appalling” and identified that the need to address the overwhelming burden of dental disease among Aboriginal people living in the Kimberley was “urgent and continuing” (KAHPF 2012, p46). In early 2015 the KAHPF reviewed progress against its plan. With respect to oral health, the conclusion was drawn that not enough had changed.

This Technical paper aims to summarise the reasons for this continuing gap in Aboriginal children’s health. It provides a situational analysis of the current preventive and clinical dental treatment services in the Kimberley and puts forward meaningful, evidence-based strategies to close the gap revealed. It has been written to support a series of recommendations made by the Kimberley Aboriginal Health Planning Forum (KAHPF) which identify how oral health in the Kimberley can be improved.

The paper examines three aspects of oral health:

1. What needs to be in place to ensure good oral health?
2. What is known about service provision in the Kimberley?
3. What needs to be done next to change oral health services and improve outcomes for Aboriginal people (especially children)?

In June 2015 the *Report On The Patient Assisted Travel Scheme In WA* (WA Government) was published. Finding 13 stated “that there is a lack of provision of dental services and oral medicine specialists throughout rural and remote Western Australia”. The findings of this paper support that conclusion.

## THE IMPORTANCE OF GOOD ORAL HEALTH

According to AIHW (2015) the two most frequently occurring oral diseases are tooth decay and periodontal disease.

If not treated in a timely manner these can cause discomfort and tooth loss, in turn affecting a person's ability to eat, speak or socialise without active distress, discomfort or embarrassment. Extractions for end-stage dental disease can lead to permanent speech impediments and compromise the ability to communicate or work effectively, thereby impacting on personal well-being.

Additionally, poor oral health can exacerbate other chronic diseases and has been associated with cardiovascular disease, diabetes, stroke and, for pregnant mothers with their own dental disease, pre-term low birthweight. For example, the increased risk of bacteraemia in an individual with periodontal disease or with inflamed gingivae which bleed easily can result in bacterial endocarditis in those predisposed, such people with Rheumatic Heart Disease (RHD).

### Who needs good oral health?

The size of the target Aboriginal population in the Kimberley is substantial. In 2011 the ABS Census reported an Aboriginal population in the region of 17,022, 46% of the region's population (KDC 2014). According to Kimberley Population Health Unit (KPHU) data there are at least 1600 Aboriginal children aged 0 – 4 years old in the region and, every year, at least another 300 Aboriginal babies are born. There are also nearly 1,700 Aboriginal children aged 5-9 years. In total, therefore nearly 5,000 Aboriginal children aged up to 15 years across the Kimberley require oral health checks and treatment.

Rates of chronic disease are high in the Kimberley which means a large number of adults also need special dental review. For example, at least 420 people live with RHD in the Kimberley (WA Dept. of Health 2014). The Kimberley treatment protocol for RHD requires people with a diagnosed chronic disease to have an annual dental review (KAHPF 2013). Other Kimberley protocols, for example renal disease or diabetes, refer to the need for good oral health and the importance of annual scale and clean treatment via the Healthy Living protocol. As there are at least 2,000 people diagnosed as having type 1 or type 2 diabetes in the Kimberley, with this figure projected to rise to over 2,300 by 2022 (WACHS 2014), the need for the services to provide treatment is high.

## WHAT NEEDS TO BE IN PLACE TO ENSURE GOOD ORAL HEALTH – HOW DOES THE KIMBERLEY RATE?

The most effective methods of improving oral health are acknowledged to be:

1. Fluoridation of community water supplies
2. Regular access to dental care for assessment and intervention including the removal of plaque
3. Regular and ongoing oral health education
4. Regular tooth-brushing with toothpaste that contains fluoride (Couzos and Murray 2003).

This paper examines the extent to which each of these methods have been implemented in the Kimberley.

## **1. FLUORIDATION OF COMMUNITY WATER SUPPLIES.**

There is a body of evidence indicating that adding fluoride to water enhances oral health (for example, Slade et al 2013). In 2013 the National Health and Medical Research Council (NHMRC 2007) reaffirmed its position that:

“Fluoridation of drinking water remains the most effective and socially equitable means of achieving community-wide exposure to the caries prevention effects of fluoride. It is recommended that water be fluoridated in the **target range of 0.6 to 1.1 mg/L**, depending on climate, to balance reduction of dental caries and occurrence of dental fluorosis”.

The Australian Dental Association (2013) recommends fluoridisation of water in all Aboriginal communities with a population greater than 500.

Currently, only Broome and Derby town water schemes have fluoride added and monitored as part of the Fluoridation of Public Water Supplies Act 1966 (Water Corporation 2014). Broome averages 0.7mg/L and Derby 0.6mg/L. Provision of fluoride in the Kununurra water supply is being planned.

Fluoride occurs naturally in some water. Average fluoride concentrations occurring naturally are: Halls Creek 0.5 mg/L, Kununurra 0.43mg/L, Fitzroy Crossing 0.25mg/L, Wyndham <0.1 mg/L.

### **Key findings:**

- Only two Kimberley towns currently have fluoridated water supplies which meet the NHMRC recommendation necessary for effective prevention of dental disease and are comparable to metropolitan standards.
- No Kimberley communities have a fluoridated water supply. Only 3 of the 18 (9%) of communities large enough to warrant health clinics have naturally occurring fluoride levels which exceed the NHMRC recommendation (Water Corporation 2015).

## **2. ACCESS TO DENTAL CARE FOR ASSESSMENT AND INTERVENTION**

NB. Details regarding the scope of practice for dental practitioners can be found at Appendix 1.

### **2.1 SERVICE DELIVERY TO ADULTS BY DENTAL HEALTH SERVICES**

The WA Government Dental Health Services (DHS) provides 5.0 FTE dental officer (dentist) positions in the Kimberley – 2.0 FTE in Broome, 1.0 FTE in Derby, 1.0 FTE for the Fitzroy Valley, and 1.0 FTE in Kununurra. Each dental clinic is also staffed by at least one dental clinic assistant.

As at November 2015 all positions are filled with the exception of Kununurra where the service was provided by locums.

In Broome and Kununurra where private dentists are available to provide services, DHS dental officers only provide dental examinations and treatment to people who have a pensioner

concession or health care card and children needing dental surgery. In towns without a dental officer, service is provided to any adult needing dental care.

The Broome Clinic is open from 8:00am - 12:00pm and 12:30pm-4:00pm Monday –Friday, the first two hours of each day being open clinics where appointments are not required. The second Broome-based dental officer spends 20 weeks of the year providing outreach services to remote communities in the Broome Shire, and the remainder of the year working out of Broome Aboriginal Medical Service (BRAMS) three days per week and in the Broome DHS clinic for the remaining two. In the past two years since the arrangement to provide services from BRAMS began, 1,225 occasions of service have been provided to adults (KAMS 2015).

The Kununurra dentist provides services in Kununurra and undertakes outreach visits. In 2015 services were provided in Halls Creek for eight weeks, for two weeks in Balgo and Kalumburu, and for 11 days in Warmun.

Many of the larger remote Aboriginal communities in the Kimberley have dental infrastructure located in a room in the local clinic (Kimberley Aboriginal Health Plan Appendix 4, pg. 88), and receive an outreach service from DHS. However, the frequency is highly variable. For example, Bidyadanga receives a 10-day visit four times a year and communities on the Dampier Peninsula each receive a five-day outreach visit by a Dental Officer four times a year. By contrast, service provision in the East Kimberley communities is considerably less. For example in 2015 Balgo received two weeks of service, whilst Ringers Soak and Yiyili received no service. In a recent KPHU customer satisfaction survey (WACHS 2015) several respondents from communities such as Kalumburu and Looma stated they thought the dentist should visit more frequently.

Anecdotal evidence from the Kimberley supports data from other remote areas that attendance at dental clinics is generally problem-based and often results in tooth loss rather than oral health maintenance (ADA 2013). Given the poor state of oral health and the demand for emergency dental care in the region, DHS staff providing outreach services have limited capacity to provide proactive preventative care such as scaling and cleaning, oral health promotion and community engagement. However, data also suggests that visits to some remote communities may be under-utilised. For example in the past two years, despite visiting Bidyadanga for 40 days a year, the dental officer has only provided 72 occasions of service to adults (KAMS 2015)

### **Key findings:**

- DHS is grossly under resourced for the geographical area they are expected to service. The inequity in access to treatment services requires addressing so that all remote communities have access to a dental officer who can offer all adults with a diagnosed chronic disease a scale and clean at least once per year.
- In some locations remote clinics are not using the services of visiting Dental Officers to full effect. Investigation into the barriers to accessing visiting dental services is required.

## **2.2 ACCESS TO DENTAL CARE FOR SCHOOL CHILDREN**

According to the DHS website “All school children are eligible for the School Dental Service from the year they turn five until the end of Year 11 or the attainment of 17 years of age, whichever comes first”.

There are an estimated 3,400 Aboriginal children of school attendance age in the Kimberley at 42 schools (Dept. Education 2015, WA Catholic Ed Office 2012).

To access the School Dental Service (SDS) children have to be enrolled. In its 2013-14 Annual Report, Dental Health Services reported that 79% of eligible children were enrolled in SDS in WA. Unfortunately, Kimberley-specific data are not published. However, as an indication of systemic issues with the enrolment process, in late 2015 one third of the children in Kindergarten in Fitzroy Crossing still had not returned their DHS enrolment forms.

To become enrolled in SDS a child's parents must complete and return an enrolment form, which includes a section on a child's medical history. Each year all children new to a school are given an enrolment form to take home. If this is not returned, a 2<sup>nd</sup> form is sent to the school. If this is not returned a 3<sup>rd</sup> copy of the form is mailed (if an address is known).

Enrolment does not necessarily equate to receiving treatment. Once enrolled DHS mails an appointment date for the first service, followed by a phone call the day before the appointment. A parent has to accompany their child at least on the first occasion of service and complete further consent forms. Perhaps not surprisingly, in the Kimberley, the result is a high, but not publicly available, rate of 'did not attend'. Anecdotal evidence from SDS staff suggests contact with SDS mainly occurs when a child is in pain and that many children do not re-attend for any additional preventive treatment required even if a booking is made for the following day. Of greater concern is the local SDS perception that it is children most at risk and in need of treatment who are not enrolled. They also suggest that enrolment rates are higher where Aboriginal Education Assistants follow up children who have not returned their enrolment forms.

DHS provides two public SDSs in the region each staffed by a dental therapist and a dental clinic assistant. Dental therapists can do check-ups, simple fillings, fissure sealing and extraction of baby teeth. Children requiring extraction of permanent teeth, root canal treatment or braces are referred to the Dental Officer or Orthodontist.

The SDSs provide free dental care to 16 schools in the region plus home schooled students and the Kimberley School of the Air:

- The east-Kimberley SDS is based at Kununurra Hospital but travels a vast distance servicing 10 schools from a mobile clinic over a 400 km geographical area with a two-year rotation to each community school and a seven week visit in Wyndham each year.
- The west-Kimberley SDS provides a service solely for Broome from a clinic in Broome North which is open from 7.30am-3.30pm Monday to Friday. There has been no increase in the Broome SDS FTE since 1980 when there were only 600 school children to treat. There are now over 2,000 students enrolled in the service. To cope with the increased workload, each 12-18 months the dental officer and dental therapist visit each Broome school to screen newly enrolled children and enrolled children in Years 3, 6 and 10. Children who require treatment are then sent an appointment.

Where there is no SDS the dental officers from the town-based DHS dental clinics are expected to provide a school service to towns and communities in addition to their work with adults. However, it is rarely possible for the dental officer to provide screening and treatment to both school children and adults with high dental care needs, let alone provide any preventative health services. In Fitzroy Crossing for example, while services are provided for three days per month at Fitzroy District High School, only three out of eight schools in the Fitzroy Valley were visited in 2015.

### Key findings:

- School-aged children should receive an annual preventive dental check-up (and any necessary treatment). In the Kimberley, this requirement, which is an essential component of lifelong dental health, is not being achieved. Essentially, a large portion of school children in the Kimberley are not receiving regular, timely screening, treatment and care.
- The enrolment process is a constraint on access to service.
- Obtaining consent via the enrolment process is a serious barrier to meeting the 12-monthly best-practice standard for screening of high-risk school students.

### 2.3 DENTAL CHECKS FOR CHILDREN AGED 0-4

Oral checks are part of every scheduled child health check /EACHS checks that should be provided to all children aged 0-4 by a qualified child health nurse. The initial checks on babies prior to them having teeth are mouth and palate checks at birth, 10 days, six to eight-weeks and four months. The eight month check includes an activity called “lift the lip”. This is where nurses are required to lift the child’s lip to examine the teeth for decay. Further checks occur at 18 months and three years, or if the child is on the EACHS schedule, at 12 months then every six months until age five. All “lift the lip” checks include referral and education. Details are recorded on Communicare or MMEX. School nurses should also notice teeth decay and make a referral when they do the school entry health assessment in kindy or pre-primary.

### Key findings:

- All child health checks include education about healthy teeth and the importance of teeth brushing and provide the opportunity to refer children who need to see a dentist. Whether or not a dentist is available and how soon varies across the region.
- The children most at risk of poor oral health are likely to be those who do not receive regular child health checks and whose parents/carers do not have the capacity to follow up a dental referral.

A study by Marino et al (2014) reviewing the use of fluoride varnish found in the 13 trials that looked at children and adolescents with permanent teeth, that young people treated with fluoride varnish experienced on average a 43% reduction in decayed, missing and filled tooth surfaces. In the 10 trials looking at the effect of fluoride varnish on first or baby teeth the evidence suggested a 37% reduction in decayed, missing and filled tooth surfaces.

A WA Government Election Commitment provides funding to increase the use of fluoride varnish (FV) in WA via the EEO programme. As determined by the WA Chief Pharmacist under his Exemption to the Poisons Act, training is available to all AHWs who hold cert III and above, enrolled nurses, registered nurses, remote area nurses and community health nurses (school and child health) in WACHS, KAMS and any other organisations who provide healthcare to children aged 0-5 yrs. Fluoride Varnish training is conducted over 3 days. The first two days cover oral health with the third being FV application.

At the time of writing this technique is only just beginning to be used by Kimberley health services. For example:

- A KAMS pilot project has commenced in the communities of Bidyadanga, Halls Creek (Ringers Soak, Redhill) and the Kutjungka for screening, referral, community education and applying fluoride varnish to children under the age of 5 years. A part time project officer has been appointed.

- Fluoride varnish training has been delivered in Balgo and Broome.

However, a number of challenges remain which have impeded the implementation of the initiative. These include the transport, storage and handling of the fluoride varnish, the requirement for a dentist to provide the training, and the availability of and release of AHW staff to attend training.

#### **2.4 THE DIFFERENCE THAT PROVISION OF SERVICES CAN MAKE TO REMOTE COMMUNITIES – THE KDT EXAMPLE**

The Kimberley Dental Team (KDT) Inc. was established in 2009 by John and Jan Owen. KDT is a non-government organisation relying on dental and allied health specialists who volunteer for one to two weeks at a time to deliver oral health services, including screening, treatment and education in locations where services are most lacking.

When KDT service delivery to remote sites in the East Kimberley began, high levels of oral disease were observed. As an example, a KDT report to a WA politician made in 2012 stated:

- Of the 223 children screened in remote desert communities in May 2011 by the Kimberley Dental Team (KDT) more than half (120 children - 54%) required urgent dental care, 89 (40%) were caries free and 14 (6%) required moderate care ideally within six months. KDT had 57 children from the Kutjungka region on their general anaesthetic waiting list, an overwhelming number for a voluntary organisation to treat.
- At Halls Creek District High School 207 children (aged 5-13) were screened in May 2011. 62 (30%) required urgent care.

By 2013, after annual visits to the same communities for three years, the situation had improved and less children required urgent care. This enabled a broader range of service to be provided to community residents. During the four-week May 2013 visit which involved 25 volunteers, community visits included Balgo and Billiluna in week two, Mulan, Ringer Soak, Balgo and Yiyili in week three and Frog Hollow and Warmun in week four. In addition to providing oral health education and check-ups for 493 children, 512 general dental appointments were undertaken, providing 408 examinations, 228 extractions, 255 restorations, 61 scale and cleans, 55 radiographs, 30 fluoride treatments and 392 fissure seals. In total this represented approximately \$110,000 worth of free dental care, assistance and advice and the equivalent of 37 weeks of care. By June 2014 since inception KDT had provided \$1 million worth of dental care to the Kimberley.

While the activities of KDT and other visiting providers, for example the Kimberley Tooth Mob or the Australian Airforce are praiseworthy, their future contribution should not and cannot be relied on as an alternative to funded government service provision, particularly in the absence of formal memoranda of understanding between voluntary organisations and other service providers including DHS. Current voluntary service models raise unanswered questions about sustainability, quality control, exchange of patient data and treatment based on comprehensive care plans.

#### **Key finding:**

**The visits of voluntary service providers mask the extent of the real need in the region without necessarily providing the continuing care that many patients require.**



## **CONSTRAINTS ON ACCESS TO DENTAL SERVICES**

### **ACCESS TO SUBSIDISED TRAVEL TO RECEIVE DENTAL TREATMENT**

When an individual requires complex dental interventions such as treatment requiring a general anaesthetic, this cannot be done in a community or small hospital setting. People have to travel to a major hospital to obtain the service they require. Similarly, patients from remote communities who require treatment that is beyond the capacity of the visiting service to provide have to travel to a town dental clinic.

Most dental services are not covered under the Patient Assisted Travel Scheme (PATS). Support is only provided for serious oral and maxillofacial conditions. PATS generally does not cover extraction of third molars (wisdom teeth), orthodontic treatment (such as braces), crown or bridge treatment, root canal therapy, gum surgery or treatment of patients who need urgent treatment under general anaesthetic. While some of this work can be done in Broome, wait lists are expanding so patients may have to go to Perth. In total, in the 2015-2016 financial year, the PATS scheme funded 133 occasions of service for oral and maxillofacial treatment at a total cost of \$106,209.11. These figures include 37 occasions of service funded under the exceptional ruling, for dental treatment only from the Kimberley region to Perth, at a cost of \$16,070.

The situation may warrant more detailed cost-benefit analysis to establish if better outcomes can be achieved by recruiting a Dental Specialist to be based in Broome. In the Northern Territory where similar issues occur, the situation has been addressed by hiring an Oral Surgeon on short term contracts.

#### **Key finding:**

Amendment of the PATS scheme to expand the scope of dental services eligible for funding in line with recommendation 10 of the PATS review (WA Government 2015) would remove this constraint on access to services.

In the medium term, detailed cost benefit analysis of alternate service delivery models may be useful.

### **COST AS A CONSTRAINT TO SERVICE ACCESS**

Treatment by the School Dental Service (SDS) is free of charge. By contrast, DHS requires dental officers to charge a small fee for treatment of adult patients. Per the DHS website, treatment obtained at a public dental clinic is subsidised by the WA Government up to a maximum of 75% of the cost of the treatment. The actual level of dental subsidy that a person is entitled to receive is based upon the eligibility of the person, and is assessed at the dental clinic. While DHS staff have the right to waive or subsidise fees, for some people concern over the potential requirement to pay may act as a constraint on their attendance.

When a person's other illnesses and conditions requires mandatory dental preventive health care such as a person with RHD, this additional cost at point-of-service may become prohibitive and discourage attendance. This simply raises their risk of future major complications and disease deterioration which the government will end up paying for anyway.



### **Key finding:**

The recommendation in the 2015 review of PATS (WA Government) that a cost should not be charged for patients with chronic conditions and complex care needs where the dental condition is exacerbating the patient's chronic and complex medical condition would address this constraint. However, it is acknowledged that administering this provision would require better data sharing arrangements than are currently in place.

### **3. REGULAR AND ONGOING ORAL HEALTH EDUCATION and 4. REGULAR TOOTH-BRUSHING WITH TOOTHPASTE THAT CONTAINS FLUORIDE**

The British Dental Association recommends brushing your teeth last thing at night and at least one other time during the day, with a fluoride toothpaste. Due to the high levels of gum disease in the Kimberley, Dental Health Services recommends brushing twice a day for two to three minutes.

Tooth brushing and good dental care may not yet be priorities for all families. The Broome SDS Dental Therapist who has been employed in the role for the last 19 years reports she is now seeing a second generation of children with bad teeth. There is a generally-held view among dental and health staff that the over-consumption of sugar-laden drinks is a significant risk factor (ADA WA 2015).

The voluntary NGO KDT, sources and supplies toothpaste and brushes to children from Kindy to Year 3 in all Kimberley schools so that children are enabled to brush their teeth on arrival at school in the morning. Four brushes per year are provided, together with a bag to keep brush and paste in, so that children can take their brush home at the end of each term. KDT provide 0.2 FTE funding and a vehicle to the former KPHU Healthy Schools Officer (programme now defunct) to liaise with schools and make deliveries. This person reports that uptake is dependent on teacher interest, which she attempts to stimulate at in-services and new teacher orientations.

Apart from this initiative which is entirely dependent on the good will of a voluntary organisation, current delivery of oral health education for children and adults in the Kimberley is ad hoc and unevaluated. As oral matters are considered the realm of DHS, there is no specific provision for oral health education in the (KPHU) Population Health Strategic Plan although a number of sugar-related initiatives do occur. SDS Dental Therapists can provide talks on request, but have no regular presence in schools and do not cover most of the region. It is premature to conclude the extent of oral health education provided through the EEO scheme.

Motivated teachers can access oral health resources via the internet.

- KDT's website allows access to their booklet "Strong teeth, strong body, strong mind" (By 2015 KDT had also printed and distributed 40,000 copies of the booklet in the region) and a range of other resources.
- DHS also has developed education resources for teachers and parents (see <http://www.dental.wa.gov.au/education/teachers/index.php>). It is not known how teachers use them or whether they are culturally/literacy-skills appropriate.

Evidence (Watt et al 2015, pg. 17) emphasises the high priority of targeting intervention on the early years in order to prevent the onset of disease and establish good oral health practices from the start. This requires partnerships across dental health, child and antenatal health disciplines, health promotion officers, schools and childcares which are not currently evident.

### Key finding:

- Currently there is no plan for Oral Health Education in the Kimberley – no mechanism for ensuring the best use of resources currently available, identifying additional resources needed, and facilitating the development and use of consistent messaging across the health sector. In many locations no formal partnership is in place between schools and health clinics, or between MCH and Dental Health staff.
- It is premature to conclude the extent of the oral health education initiatives delivered through the EEO scheme.

## FACTORS WHICH FURTHER CONSTRAIN IMPROVED ORAL HEALTH CARE

### A. THE LACK OF PLANNING

At the time of writing there is no oral health plan for WA, although it is understood that a state oral health plan is being developed. Other states in Australia have developed strategic frameworks or plans to improve the provision of services in their state. For example the NSW Strategic Framework Oral Health 2020 sets the platform for oral health action in NSW into the next decade (see [http://www.health.nsw.gov.au/oralhealth/Pages/oral\\_health\\_2020.aspx](http://www.health.nsw.gov.au/oralhealth/Pages/oral_health_2020.aspx)).

Their plan has 3 goals:

- Improve access to oral health services in NSW.
- Reduce disparities in the oral health status of people in NSW.
- Improve the oral health of the NSW population through primary prevention.

Although the WA Primary Health Care Strategy (Dept. of Health 2011) identifies oral health as a priority area for WA, there is limited evidence that oral health advocates within DHS or elsewhere are demanding an oral health component in specific WA health policies. For example the WA Framework for Action on Diabetes and Diabetes Service Standards 2014 (Dept. of Health pg. 18) makes only passing reference to the need to identify and address dental complications.

The lack of a strategic approach to future planning, budgeting and service expansion is a significant constraint on service expansion.

### B. INFORMATION EXCHANGE AND REFERRALS

Although DHS now have a computerised records management system, no arrangements are in place to exchange electronic information with other providers. Therefore, unless a written referral is received, a DHS provider has no knowledge of the medical history of the patient they are treating, apart from information the patient provides. Similarly, a staff member in a PHC setting seeing the patient later has no idea what dental treatment has been performed or access to an electronic record for any previous dental consultation or treatment. In a region where HIV rates are increasing and BBV levels already high, this is a totally unsatisfactory situation.

Similarly, there are no arrangements in place for visiting NGO dental service providers (eg KDT) to plan service delivery or share patient information with DHS. SDS staff cite examples where parents have been left unaware that their child needs more treatment when a visiting service departs.

Referral arrangements could also be improved, particularly to ensure that:

- When a DHS dentist provides a service from an ACCHO clinic, that the ACCHO provides support to ensure patients attend the consultation.
- ACCHO and Community Health clinics refer all their clients with diagnosed chronic diseases to the DHS dentist for annual review.

### **C. THE NEED FOR IMPROVED PATIENT-CENTRED CARE**

Better service efficiency and clinical outcomes for patients would be achieved if services shared resources and coordinate cared. For example:

- There is currently no arrangement in place in hospitals across the region for dental clients to be supported by ALOs or to be picked up for appointments by hospital transport.
- The use of ACCHO drivers to pick up dental patients when the dentist is working at the ACCHO or to transport children with DHS appointments varies across the region.
- The new Broome school dental service delivery point for all school children in Broome is at the far side of Broome North. No public transport is available. Agreements with services that provide transport need to be made to enable parents without access to transport to get their children to appointments.
- DHS needs to seek advice from local ACCHOs regarding ways to ensure DHS staff provide consistent, culturally safe dental services which are acceptable to Kimberley Aboriginal people and eventually minimise “DNAs”. For example, it should be mandatory to for every DHS staff member to undertake locally provided Aboriginal cultural awareness and safety training to support the online orientation that they are required to do.

### **D. EQUIPMENT FOR REMOTE SERVICE DELIVERY**

Most of the larger remote communities have dental chairs and equipment in their clinics (Kimberley Aboriginal Primary Health Plan 2012-15 Appendix 4 p88). Nonetheless, dental officers still have to load considerable amounts of equipment e.g. X ray machines, autoclaves and stock such as distilled water into vehicles for outreach visits, adding to the challenge of providing regular outreach services.

Maintaining infection control in these situations can also be a challenge. Over time these challenges impact on the retention of staff who may leave because of concerns for their professional risk and reputations.

In April 2012 KAMSC acquired a Mobile Dental Clinic to provide outreach dental care for Aboriginal people in the Kimberley region. The Mobile Clinic is an Isuzu FRR dual cab truck (seats up to seven people) features a modern, state of the art dental clinic and a small accommodation area, toilet, shower and basin. Funding was received from the Commonwealth to procure this vehicle. No funding was made available then or subsequently to provide for maintenance, repairs or service delivery from the truck. Given the harsh conditions of the Kimberley including the corrugated unsealed roads, without adequate funding for such items and services, it has not been possible to utilise the truck to its full capacity.

It is recommended that, in future, new DHS equipment needs to be trialled and tested on off-road conditions before purchases are made. DHS should also investigate the practicalities of storing more equipment at outreach sites.

## **E. RETENTION ISSUES FOR DHS STAFF**

DHS has encountered challenges in ensuring that appropriately skilled staff are recruited and retained in Kimberley positions. The Fitzroy positions were vacant for many years (although are now filled); the Kununurra Dental Officer position has not been filled by a permanent employee since 2013. A local Aboriginal Dental Clinical Assistant recently left as she could not afford to live in Broome on the wage being paid.

A number of issues impact on the recruitment and retention of DHS staff:

- The low wage paid to Dental Officers compared to the earnings of private dentists.
- The low wage and lack of paid holidays for School Dental Therapists
- The low wage and lack of access to GROH housing or rental subsidy for Dental Clinic Assistants making it extremely hard for them to retain employment, particularly in Broome, due to cost of living pressures.
- The challenge of maintaining professional standards in the outreach environment.

## **F. INCREASING WAITING LISTS FOR TREATMENTS REQUIRING GENERAL ANAESTHESIA (GA)**

In December 2015 the waiting list for treatment under general anaesthetic comprised:

- 15 people, mostly children, identified and referred by Kimberley Dental Team
- 10 people on the Broome Hospital waiting list.
- 25 people, mostly children, from the Fitzroy area
- 10 people from the Halls Creek area.

According to the Broome DHS dentist, this list is rising and will continue to rise as outreach visits increase. Addressing the list is constrained by DHS access to theatre time and other demands on the Broome dentists e.g. provision of primary care.

## WHAT NEEDS TO BE DONE NEXT TO CHANGE ORAL HEALTH SERVICES AND IMPROVE OUTCOMES FOR ABORIGINAL PEOPLE (ESPECIALLY CHILDREN)

There is no reason why an Aboriginal child in the Kimberley should not grow up with the same oral health status as any child growing up in Perth. Dental surgery for incurable dental disease should be a last resort for any child. This means:

- The appropriate environmental factors such as fluoridated water or adequate support for a substitute must be in place to ensure children's teeth develop with the right minerals and vitamins.
- Aboriginal children must have their teeth screened by qualified people in the same timeframes as those that occur in other parts of WA and in accordance with standards specified in preventive dentistry.
- Aboriginal children should have access to appropriate individualised treatments including fluoride varnishing, fissure sealing, consistent encouragement for teeth-cleaning and support for their families regarding a healthy diet. Wherever possible/legal this should be provided by an appropriately trained Aboriginal health worker in their community.
- If ever an Aboriginal child has tooth decay or infection of the gums, correct treatment and follow-up must be offered by an appropriately qualified practitioner. If this practitioner only visits irregularly to a community, then systems to ensure these children do not miss out are required.

### 1. PLANNING

A population-based oral health plan for WA should be developed through the State Planning Forum and WACHS/DHS. The Plan should be detailed enough to convince government of the need to increase resources for provision of oral health services to rural and remote WA.

Consideration should also be given to the development of a Kimberley regional oral health plan which builds on the findings of this Technical paper. The plan must contain standards for oral health and dental services which KAHPF can use to monitor and evaluate the adequacy of outcomes and services in the Kimberley. Standards could be developed in conjunction with willing academics and experts. The Kimberley Plan should also support an annual dental workforce census that includes FIFO services, so that KAHPF can be accurately informed of capacity in the Kimberley.

In addition, the Kimberley plan should be accompanied by development of a specific Oral Health Promotion and Prevention Plan for the region. Development of this plan should bring together all current and possible future service providers, including Maternal and Child Health providers, to map out key messages and agree on how to provide regular equitable health promotion activities and support across the region both to children and their families.

### 2. IMPROVEMENTS IN PREVENTION MEASURES

- i. **The possibility of fluoridation of the water supply** of the remaining towns and large communities in the Kimberley region should be explored with the appropriate authorities and an annual status report produced through KAHPF.

ii. **Establishment of Kimberley KPIs for Dental Health Services which are reported to KAHPF on an annual basis.**

Suggested KPIs are:

- Number of Kimberley children enrolled in school who receive a dental examination at least once every 12 months (Target 100%)
- The number of Kimberley children who require fissure sealing that receive it. (Target 100%)
- Number of people with a diagnosed chronic disease where their care plan recommends an annual dental review who receive an annual review. (Target 100%)
- Number of adults and children on the waitlist for treatment under general anaesthetic (Target = reduction)
- Waiting time for general dental services (Target = eventual reduction)

iii. **Greater collaborative emphasis across the region on good oral hygiene and early intervention in children in schools and with preschool children via:**

A. Development of an inter-agency, KAHPF-endorsed oral health promotion plan which ensures amongst other things that:

- All new mothers receive ongoing advice about ways to keep their children's teeth healthy
- Healthy teeth activities are included in all Kindy classes in the region.
- DHS sources funding to ensure the continuation of the toothpaste/toothbrush distribution currently resourced by KDT.
- DHS, KDT and other relevant health promotion resources are reviewed for Kimberley relevance. Appropriate resources are actively promoted to teachers on an ongoing basis.
- Funding is sourced to develop and deliver relevant oral health messages on community radio, TV and via other social media outlets.

B. Employment of, at minimum, 3 additional School Dental Therapists:

- 1.0 FTE to support delivery to Broome schools
- 1.0 FTE based in Derby or Fitzroy Crossing servicing the Derby and Fitzroy Valley areas
- 1.0 FTE based in Kununurra who would provide additional services to the East Kimberley.

Additional FTE requirements will be examined in producing the Plan.

iv. **Development of a Kimberley Oral Health protocol**

- v. **Roll out of fluoride varnish use across the Kimberley** – if the EEO initiative suggests it is an effective means of reducing dental caries in children aged 0-5.

3. **MEASURES WHICH ENHANCE CLINICAL OUTCOMES USING EXISTING RESOURCES**

i. **Improvement in Information exchange**

Primary health care staff need to know what a dental team has done when they visit a community. Complications from a tooth extraction or prescription of an antibiotic may be needed. Therefore, relevant clinical information such as a dental consultation summary should be transferred electronically to the respective PHC service after ANY dental service is provided by DHS or a visiting provider.

To achieve this in the current IT environment, DHS need to be included in the My Health Record work underway with NeHTA.

**ii. Improved patient-centred care**

Better service efficiency and clinical outcomes for patients would be achieved if services shared resources and coordinate cared via:

- Improved mechanisms to refer patients to Dental Officers providing outreach services and provide support/encouragement for patients to attend their appointments.
- Improved referral processes with accountability in primary health care which ensure that dental officers see, as a priority, patients where poor oral health can exacerbate their chronic disease.
- Discussion/development of protocols re the use of health service patient transport and/or Aboriginal Liaison staff to ensure dental patients attend their appointments.
- Local ACCHOS working with DHS to review the cultural safety and cultural appropriateness of its service arrangements and, where necessary, providing cultural orientation to new DHS staff

**iii. Outreach service provision**

To ease the burden of loading and unloading the equipment required to provide safe outreach services, exploration of the potential use of compact, portable mobile dental equipment for outreach visits is required.

**4. ADVOCACY BY KAHPF**

KAHPF will advocate for:

- a. Adoption of the recommendations regarding dental services in the PATS review.
- b. Development of dental and oral health standards for population-based monitoring.
- c. Additional resources to be assigned to DHS:
  - To employ an additional Dental Officer to service Halls Creek, surrounding communities and the Kutjungkja region.
  - To enable the provision of equitable dental services for children and adults across the Kimberley which are not reliant on voluntary services and/or ad hoc visits of military personnel
  - To address matters relating to remuneration which impact on staff recruitment and retention issues
- d. The formation of a partnership with an academic dental research partner to map future requirements and consider future workforce needs.



## REFERENCES

Australian Dental Association (ADA) (2013) Delivery of Oral Health Care: Special Groups: Aboriginal and Torres Strait Islander Australians. Policy number 2.3.5. Available from [http://www.ada.org.au/app\\_cmslib/media/lib/1401/m730740\\_v1\\_policy%20statement%202.3.5%20aboriginal%20and%20torres%20strait%20islander%20australians.pdf](http://www.ada.org.au/app_cmslib/media/lib/1401/m730740_v1_policy%20statement%202.3.5%20aboriginal%20and%20torres%20strait%20islander%20australians.pdf)

Australian Dental Association WA (2015) *Teeth. Look after them and keep smiling*. Advertising supplement published in the West Australian on Feb 4 2015. Available from <http://info.thewest.com.au/westadvertising/feature/20150204a/index.html>

Australian Institute of Health and Welfare (2015) *Aboriginal and Torres Strait Island Health Performance Framework 2014*. Western Australian. Australian Government.

Couzos, S. and Murray, R. (2003) *Aboriginal Primary Health Care. An evidence-based approach*. Oxford University Press. 2<sup>nd</sup> Edition.

De Silva A, Martin-Kerry A, Cole D. Flying blind: trying to find solutions to Indigenous oral health. *Australian Health Review* 2015; on line December

Dental Health Services (2014) *Dental Health Services Annual Report 2013/2014*. Available from <http://www.dental.wa.gov.au/about/DHS%20Annual%20Report%20June%202014.pdf>

Dept. of Education (2015) Dept. of Education website. Kimberley education region. Available from <http://www.det.wa.edu.au/regions/kimberley/detcms/portal/>

Dept. of Health (2011) WA Primary Health Care Strategy. Available from [http://www.healthnetworks.health.wa.gov.au/docs/1112\\_WAPrimaryHealthCareStrategy.pdf](http://www.healthnetworks.health.wa.gov.au/docs/1112_WAPrimaryHealthCareStrategy.pdf)

Kimberley Aboriginal Health Planning Forum (2012) *Kimberley Aboriginal Primary Health Plan 2012-15*. Available from <http://resources.kamsc.org.au/krahp.html>

KAMS (2015) Kimberley Oral Health Services in Remote Aboriginal Communities. Briefing provided to Premier Barnett in September 2015

Kimberley Dental Team (2012) "State of dental health in school children in the East Kimberley of Western Australia". Report to Liz Constable.

Kimberley Development Commission (2014) *Kimberley: A region in profile 2014*. Available from [http://kdc.wa.gov.au/wp-content/uploads/2014/11/A\\_region\\_in\\_profile\\_2014\\_Kimberley.pdf](http://kdc.wa.gov.au/wp-content/uploads/2014/11/A_region_in_profile_2014_Kimberley.pdf)

KAHPF (2013) Kimberley Treatment Protocol: Rheumatic Heart Disease. Available from [http://resources.kamsc.org.au/downloads/cd\\_rhd.pdf](http://resources.kamsc.org.au/downloads/cd_rhd.pdf)

Marinho, V.C.C., Worthington, H.V., Walsh, T & Clarkson, J.E. (2013) Fluoride varnishes for preventing dental caries in children and adolescents. *The Cochrane Library*, Issue 7 available from [http://www.cochrane.org/CD002279/ORAL\\_fluoride-varnishes-for-preventing-dental-caries-in-children-and-adolescents](http://www.cochrane.org/CD002279/ORAL_fluoride-varnishes-for-preventing-dental-caries-in-children-and-adolescents)

NHMRC (2007) NHMRC Public Statement: The Efficacy and Safety of Fluoridation 2007 Available from <http://www.nhmrc.gov.au/guidelines-publications/eh41>

NSW Government (2013) *Oral Health 2020: A Strategic Framework for Dental Health in NSW*. Available from [http://www.health.nsw.gov.au/oralhealth/Pages/oral\\_health\\_2020.aspx](http://www.health.nsw.gov.au/oralhealth/Pages/oral_health_2020.aspx)

Slade G.D., Sanders A.E., Do L. et al (2013) Effects of fluoridated drinking water on dental caries in Australian Adults. *Journal of Dental Research*. Published online on 1/3/2013. Available from <http://jdr.sagepub.com/content/early/2013/03/01/0022034513481190>

WA Catholic Education Office (2012) Kimberley Calling. Teaching in Catholic Education Schools in the Kimberley. Available from <http://www.ceo.wa.edu.au/Employment/Documents/072012%20Kimberley%20Calling%20Brochure.pdf>

WACHS (2014) WACHS Regional Diabetes Operational Planning. Presentation to the KAHPF on 23/10/14

WACHS (2015) KPHU Customer Satisfaction Survey Report. WA Country Health Services. Kimberley conducted in March 2015.

Water Corporation (2014). Available from <http://www.watercorporation.com.au/-/media/files/about-us/our-performance/drinking-water-quality/annual-report-2014.pdf>

Water Corporation (2015). Available from <http://www.watercorporation.com.au/-/media/files/about-us/our-performance/drinking-water-quality/dwg-annual-report-north-west-health-tables.pdf?la=en>

WA Dept. of Health (2014) WA Rheumatic Heart Disease Programme. Kimberley Regional Report.

WA Dept. of Health (2014) WA Framework for Action on Diabetes and Diabetes Service Standards 2014. Diabetes and Endocrine Health Network.

WA Dept. of Health (2015) Media Statement 17 December 2015. Regional towns to benefit from fluoridated drinking water.

WA Government (2015) *Report 25. Report On The Patient Assisted Travel Scheme In Western Australia*. Legislative Council Standing Committee on Public Administration.

Watt, Richard E. et al (2015) *Social Inequalities in Oral Health: from evidence to action*. International Centre for Oral Health Inequalities Research & Policy. UCL.

## APPENDIX 1: SCOPE OF PRACTICE FOR DENTAL PRACTITIONERS

For more information see <http://www.dentalboard.gov.au/Registration-Standards/Scope-of-practice-registration-standard.aspx> Following is a summary.

The divisions are:

- dentists
- dental hygienists
- dental prosthetists
- dental therapists, and
- oral health therapists.

All dental practitioners are members of the dental team who exercise autonomous decision-making within their particular areas of education, training and competence, to provide the best possible care for their patients. The registration standard does not allow dental hygienists, dental therapists and oral health therapists to practise as independent practitioners.

Dental assistants and dental technicians are non-registered members of the dental team who support dental practitioners in the delivery of dental services.

**DENTISTS** work as independent practitioners and for the purpose of registration may practise all parts of dentistry within their competency and training. They provide assessment, diagnosis, treatment, management and preventive services to patients of all ages.

**DENTAL SPECIALISTS** are dentists who have undertaken additional specialised training and education and are required to have completed a minimum of two years' general dental practice to be eligible for registration as a dental specialist. The 13 dental specialist types are:

dento-maxillofacial radiology	paediatric dentistry
endodontics	periodontics
oral and maxillofacial surgery	prosthodontics
oral medicine	public health dentistry (community dentistry)
oral pathology	special needs dentistry, and
oral surgery	forensic odontology.
orthodontics	

**DENTAL THERAPISTS** provide oral health assessment, diagnosis, treatment, management and preventive services for children, adolescents and young adults and, if educated and trained in a program of study approved by the National Board, for adults of all ages. Their scope may include restorative/fillings treatment, tooth removal, additional oral care and oral health promotion. Dental therapists may only work within a structured professional relationship with a dentist.

**DENTAL HYGIENISTS** provide oral health assessment, diagnosis, treatment, management, and education for the prevention of oral disease to promote healthy oral behaviours to patients of all ages. Their scope may include periodontal/gum treatment, preventive services and other oral care. Dental hygienists may only work within a structured professional relationship with a dentist.

**ORAL HEALTH THERAPISTS** are dual qualified<sup>3</sup> as a dental therapist and dental hygienist. They provide oral health assessment, diagnosis, treatment, management and preventive services for children and adolescents and, if educated and trained in a program of study approved by the National Board, for adults of all ages. Their scope may include restorative/fillings treatment, tooth removal, oral health promotion, periodontal/gum treatment, and other oral care to promote healthy oral behaviours.

**DENTAL PROSTHETISTS** work as independent practitioners in the assessment, treatment, management and provision of removable dentures; and flexible, removable mouthguards used for sporting activities.