

**South Western Sydney
Area Health Service**

**Oral Health Services
Strategic Plan
2001-2004**

FOREWORD

Improving oral health care is one of the recognised health priority strategies for South Western Sydney Area Health Service (SWSAHS).

In April 2000 the Hon Craig Knowles, Minister for Health, announced a significant increase in the amount of Oral Health Services funding for SWSAHS over the next three years. There are a number of key performance indicators to be achieved conditional upon the additional funding. These are commitment to and achievement of the Oral Health Structure where all financial benefits are to be retained and reinvested in Oral Health, commitment to and introduction of the Oral Health IT system and providing required Key Performance Indicators and related reports for growth and current core funding.

It is the vision of SWSAHS to provide a focussed approach to improving the oral health outcomes in dental health care to the people of South Western Sydney (SWS). These outcomes include increased awareness of oral health promotion, preventative oral health care regimes, and a reduction in the incidence of preventable oral disease.

This Oral Health Strategic Plan 2001-2004 aims to achieve the purpose of NSW Health and SWSAHS of *Better Oral Health, Good Oral Health Care*.

It is important that the dental services developed over this period meet the health needs of the diverse communities of SWS. Community consultation is emphasised, especially in the planning and development of local dental health services and facilities.

The increase in funding will provide expanded services and the strategies outlined in the plan have been developed to reflect the needs of the local population and the priorities of the Area Health Service. The strategies will be used as the basis for oral health service delivery and the development of Sector Business Plans.

It is intended that this plan is a responsive and flexible document. Wide consultation was used to develop the plan and comments received have been incorporated.

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GLOSSARY OF TERMS

Caries

Tooth decay

Conservative Dental Treatment

Treatment of dental decay using restorative materials

Crown and Bridge

Fixed dental appliances

Dental Assessment

Examination of the mouth

Domiciliary Services

Dental care provided in patient's home

Fee for Service

Payment of fees for public dental services carried out by private service providers such as, dentists, prosthetists and dental laboratories

Health Promotion

Concerned with helping individuals and communities to improve or maintain health

Implants

Fixed dental appliances

Endodontics

Concerned with the diagnosis and treatment of infections, and disease of the dental pulp (nerve) and periapical tissues (abscesses).

Oral & Maxillo-facial Services

Concerned with the diagnosis and surgical management of injuries and diseases of the teeth and supporting tissues.

Oral Disease

Diseases of teeth and surrounding structures in the mouth

Oral Health

Pertaining to the teeth and supporting tissues.

Orthodontics

Concerned with the diagnosis and treatment of malocclusion (problem bite), and supervision of the correct development of the teeth and supporting structures, such as through the wearing of orthodontic appliances, braces etc.

Preventative Dental Treatment

Pro-active treatment of dental decay and gum disease

Prosthetic Dentistry

Concerned with restoring the functional occlusion (bite) and cosmetic appearance of the dentition (teeth), by replacing missing teeth with prosthesis

Trauma

Injury

Triage

Protocol to understand and prioritise treatment options for eligible patients.

ABBREVIATIONS

ATSI

Aboriginal and Torres Strait Islander

CBU

Cancelled by Us

CPITN

Community Periodontal Index of Treatment Needs

DMFT

Decayed, Missing or Filled teeth

FTA

Failed to attend

IT

Information Technology

NESB

Non English Speaking Background

PDS

Pensioner Denture Scheme

RCT

Root Canal Therapy

SOKS

Save Our Kids Smiles

SWS

South Western Sydney

SWSAHS

South Western Sydney Area Health Service

UTA

Unable to attend

OHP

Oral Health Promotion

EXECUTIVE SUMMARY

Oral disease is responsible for a significant burden on the Australian community and is often the cause of eating and speaking difficulties, as well as pain and discomfort. Research has shown that most dental caries can be prevented. Fluoride products and an increased awareness in the community of the importance of oral hygiene can contribute significantly to a reduction in oral disease.

Evidence shows that people from disadvantaged backgrounds are found to be more likely to have poor oral health. Oral health is generally poorer in South Western Sydney (SWS) when compared to the rest of NSW. Access to public and private dental health facilities in SWS is low and SWS has a higher than state average caries experience, particularly among children of Vietnamese and Arabic origin.

Eligibility for public dental care is the number of people aged 0-17 years and the number of persons covered by Health Care Cards (HCC), Pensioner Concession Cards (PCC) and Commonwealth Seniors Health Cards (CSHS). The total eligible South Western Sydney population for public oral health care is 21.6% of the estimated 1998 resident population. The distribution of eligibility across SWS differs from Sector to Sector. Those Sectors with a high child and a high NESB population also have a high demand for public dental health services.

In April 2000 a major dental health reform package was announced which is designed to double the number of people treated in NSW public dental services within three years. An additional \$33 million will be spent by the NSW government on public dental health services. This increase to funding will be allocated on a Resource Distribution Formula (RDF) basis to bring fairness to funding and provide a fair share of dental health dollars to previously under-funded Area Health Services. A significant proportion of this increased funding will be allocated to SWS, a widely recognised area of high oral health need.

The reform package includes a reorganisation of oral health services and reduces from 17 to 6 the number of administrative bodies. A new Information System for Oral Health, ISOH, will be implemented from January 2001 that will provide a proper booking system for patients and will prioritise appointments based on criteria according to their clinical needs. Conditional upon the boost to funding is the achievement of a number of Key Performance Indicators. Also for the first time under expended, oral health budget is to be retained and reinvested in oral health.

At the same time the NSW Oral Health Branch has completed a review of the children's program, Save Our Kids Smiles (SOKS). The review's aims were to evaluate the implementation and effectiveness of the SOKS Program against its original objectives of the identification and treatment of children with dental caries and to increase the number of children with no experience of oral disease. When available, the findings of this review will be implemented in all Area Health Services as a matter of priority. There will also be a SOKS module added to ISOH to provide a comprehensive integrated oral health data collection system across NSW.

This plan, *SWSAHS Oral Health Services Strategic Plan 2001-2004*, aims to outline the main issues to be considered for the planning of Public Oral Health Services in SWSAHS.

The strategies that have been identified are largely dependent on the ability of the Area Health Service to recruit the significant number of Oral Health staff required to manage the increase in the number of residents accessing SWS public oral health services that parallels the increase in funding. It has been identified that a number of strategies will need to be developed to attract and maintain a suitably highly qualified workforce. This is a major challenge facing SWSAHS Oral Health Services over the next 12 months.

INTRODUCTION

In 1992 the **National Health Strategy**¹ identified the presence of inequalities in oral health and access to dental services as a major public health issue. People from disadvantaged backgrounds were found to be significantly more likely to have poor oral health than the general population. In recognition of this, improving public oral health care to the eligible population is one of the recognised health priority strategies for SWSAHS.

The Australian Health Ministers' Advisory Council (AHMAC) recently commissioned two national oral health reports. The **National Planning for Oral Health** report will present a paper identifying the burden trends and distribution of oral health problems, and the clinical approaches required to dealing with them. The outcome of this paper will be to propose future actions to address the key conclusions for the national oral health agenda. The second report, **A National Dental Finance Options Paper**, will determine the scope of oral health financial issues for the delivery of oral health in health promotion, research, work force access and data collection.

The cessation of the Commonwealth Dental Health Program in January 1997 resulted in severe funding restrictions for public oral health in NSW. This has seen a rise in waiting times and the number of people seeking care escalating. The impact of this has been to place additional stress on other oral health programs, such as the provision of child services. Therefore, **Strategic Directions for Oral Health 2001-2004**² is designed to enable the NSW Oral Health Branch to effect a public oral health policy to address the critical public health issues confronting oral health.

The recent announcement by the Minister for Health to introduce a dental health reform package will see a funding increase of \$33 million over the next three years. **Organisation Reforms in Oral Health**³ across NSW will see a reduction in the number of administrative units for oral health from 17 individual Area Health Services to 6 Oral Health Networks, along with the statewide introduction of an Integrated System of Oral Health (ISOH) by January 2001.

The implementation of these reforms will provide SWSAHS with a vehicle in which to develop further the Dental Care Delivery Model proposed in The **Area Dental Services Business Plan – 1997/98**⁴. With the increase in dental funding for SWSAHS of 75.5% over the next three years, the opportunity is there to develop strategies to identify and address the key issues currently impacting on public dental health.

The South Western Sydney Area Health Service (SWSAHS) *Oral Health Strategic Plan* provides a clear direction for the provision of oral health services. The Plan aims to meet the needs of the South West Sydney (SWS) population for the next 3 years (2000 – 2003), and which is consistent with achieving the State and Area Health Service purpose of **Better Oral Health, Good Oral Health Care**.

The aims of SWSAHS are

- **Healthier People**
- **Fairer Access**
- **Quality Health Care**
- **Better Value**

The objectives of SWSAHS are

1. **Equity**
2. **Efficiency**
3. **Effectiveness**
4. **Acceptability**

The following objectives have been added to those above to ensure service provision meets patient and staff safety needs, as well as providing for the needs of community by ensuring their involvement in service planning and development.

5. **Safety, and**
6. **Community Participation**

The Plan's major objective is to address planning for the organisation and delivery of oral health services for the eligible population, and in particular identified target groups. This aims to provide a strategic service plan that is comprehensive and based on the best available evidence.

NSW Health has promoted a population health approach to the planning and delivery of health care to achieve a balance in services from health prevention and promotion through acute care to rehabilitation. The aim is to meet the needs of the individual while achieving overall health improvement.

Oral disease can have a significant impact on the function of the population such as difficulties with eating and speaking, pain and discomfort and economic effects stemming from lost productivity. A significant proportion of the Australian community is denied access to oral health care due to financial, geographical and service availability barriers.

Consistent with the *Report of the NSW Health Council 2000*⁵ planning for oral health services in South Western Sydney Area Health Service will consider formal networks or partnerships with other Health Services as a means of providing required services eg Corrections Health, Tharawal Aboriginal Health Services, Refugee Health Services.

ELIGIBILITY FOR ORAL HEALTH SERVICES

In this state there are two major client groups who are eligible for public oral health care

- Children aged 0-17 years
- All persons who are normally resident in New South Wales and hold one of the Centrelink concessions cards listed below
 - Health Care Cards
 - Pensioner Concession Cards
 - Commonwealth Seniors Health Cards
- All dependants listed on Health Care Cards and Pensioner Concession Cards are also eligible
- Holders of the State Seniors Card are **not** eligible unless they also hold one of the other concession cards listed above

Oral health of children is most commonly assessed by their dental caries (decay) experience. The score for decayed, missing or filled teeth (DMFT) is the sum of the number of teeth affected by decay. Children in South Western Sydney (SWS) have a slightly higher decay rate (1.1) compared to the state average (1.0)⁶ and some Sectors have poorer oral health than others.

A number of factors in the last 20 years have led to dramatic improvements in the oral health of Australian children including water fluoridation, the effects of fluoride toothpaste and the availability of dental services.

There are also a number of groups in the community who have high oral health care needs. These include young people (15-24 years), those of NESB and ATSI origin, and refugees.

The total eligible South Western Sydney population for public oral health care is the number of persons aged 0-17 years plus the number of persons covered by Health Care Cards (HCC), Pensioner Concession Cards (PCC) and Commonwealth Seniors Health Cards (CSHC).

Table 1 shows that 21.6% of the estimated resident population of South Western Sydney in 1998 were eligible for public dental care.

Table 1 – Eligible SWS Population for Public Oral Health Care

Age Group	No of HCCs	No of PCCs	No of C'wealth Seniors Health Cards	Estimated Resident Population 1998
0-14	21	0	0	181143
15-64	67217	49685	410	506429
65+	437	44090	2168	70344
Total	67675	93775	2578	757916

Source: Centrelink March 1999

The ISOH program determines access to adult dental services. The ISOH criteria have 7 levels of priority codes from emergency (code 1 - trauma), medical condition requiring immediate attention (code 2), acute and not so acute pain (code 3a and 3b) through to general request for care (code 6), and code 7 – not ready for care.

The criteria assume the person seeking treatment is known via other agencies, viz Centrelink. The criteria overlooks those who are in need of treatment but cannot meet eligibility criteria such as the homeless, humanitarian migrants, and those in the community living with a mental illness who are not known to the 'system'.

Table 2 shows the number of eligible adults and children in each Sector in 1998 and the distribution of eligibility across SWS. As can be seen Fairfield and Macarthur (combined LGAs of Camden, Campbelltown and Wollondilly) Sectors have the greatest number of eligible population. This table shows the demand for public oral health care in SWS.

Table 2 – Eligible SWS Population by Sector

LGA	Eligible Adults		Eligible Children		Cumulative
	Total Cards	% Distri.	0-14yrs	% Distri.	% Distri.
Bankstown	40252	22%	34750	19%	21%
Liverpool	35896	20%	32574	18%	19%
Fairfield	53937	29%	44108	24%	27%
Macarthur	44212	24%	59964	33%	29%
Wingecarribee	<u>9568</u>	<u>5%</u>	<u>9163</u>	<u>5%</u>	5%
Total	183865	100%	180559	100%	100%

Source: Centrelink March 1999

While children aged 0-17 years are eligible for public dental care through the Save Our Kids Smile (SOKS) program, assessments for treatment are only undertaken for children in kindergarten and years 2, 4, 6 and 8. This can mean that children beyond year 8 do not receive public dental care unless they are the dependents of an eligible cardholder, or they meet the ISOH criteria for prioritising patients.

However all children between the ages 0-17 years are eligible to access public dental care for emergency conditions. These emergency conditions are defined as trauma, uncontrolled haemorrhage of dental origin or systemic infection and/or oro-facial swelling of dental origin. Relief of pain (eg toothache) in the normal course of events is not considered an emergency.

The eligibility criteria for public dental care for children could require refinement, as eligibility is dependent on assessment through SOKS, or being the dependent of an eligible cardholder.

DENTAL FUNDING

The *National Health Strategy* in 1992 proposed the establishment of a dental program that would improve access to basic dental care for low-income people. The Commonwealth Dental Health Program commenced in 1994 but was then abolished in 1997. Public dental services now receive their funding through the NSW Health Department, Oral Health Branch.

In April 2000 the Hon Mr Craig Knowles, Minister for Health, announced significant growth funding enhancements to the oral health budget for NSW. Under these enhancements SWSAHS will receive over the next 3 years funding that will increase the current budget allocation by more than 75%.

For the first time funding will be allocated to Area Health Service on a Resource Distribution Formula (RDF) basis to bring fairness to funding across the state. The funding enhancements come with conditions to achieve significant oral health reforms. These are

- Commitment to and the full achievement of an Oral Health Network (OHN) structure.
- Commitment to and the introduction of the Oral Health IT system
- The provision of required Key Performance Indicators and related reports for growth and current core funds as specified by the Chief Health Officer.

These conditions include the ability to retain all financial benefits to be reinvested in the provision of oral health services throughout the Area. This reinvestment of funds will be undertaken in consultation with the Director of the Southern Oral Health Network (DSOHN) in order to increase service provision to the local population. In the past the inability to recruit qualified staff has often meant clinics have been temporarily closed and employee related dental budgets not fully expended. Now growth funding must be reinvested to ensure continuity of service provision, for example in fee for service from private dental providers.

Further developments in funding Oral Health Services over the next few years may include the development of an output funding model to establish a pricing and funding formula. The introduction of ISOH will assist this process by providing the relevant data to develop an accurate costing model.

Geography and Demographic Profile

GEOGRAPHY

SWSAHS provides oral health services to people living in the seven local government areas of Bankstown, Liverpool, Fairfield, Campbelltown, Camden, Wollondilly and Wingecarribee. Combined they make up a geographical area of approximately 6237 square kilometres with a total population of 769,243⁷.

Suburban populations vary considerably ranging from the densely populated residential areas of Fairfield and Liverpool to the more rural townships of Wingecarribee and Wollondilly.

POPULATION

1996 ABS census data⁸ shows that the intercensal population growth in SWS (8.4%) was higher than that for the whole of NSW (5.4%), particularly in Camden and Liverpool. Based on population numbers this makes SWSAHS the second largest health area in NSW. Population projections indicate that by 2006 it will be the biggest health area in NSW (population based) with 840,680 people growing to 879,170 people by 2011. Currently 28.5% of the population are from NESB (compared to 15.7% in NSW) and 1.2% are Aboriginal or Torres Strait Islander people.

The population projections for South Western Sydney indicate a growth of 25% between 1996 and 2016. As well as overall population growth, the proportion of elderly people in SWSAHS is projected to increase from 9.1% to 12.6% of the total population. This is significant as growth among the elderly is a key driver of hospital and health service activity and will impact the number of people eligible for public dental care.

The growth in the number of people from culturally and linguistically diverse backgrounds indicates that SWS is an increasingly multicultural region. This diversity can be a strength, as many NESB communities report a better overall health status than Australian born populations.

However, it is important that attention is paid to the specific health issues unique to population sub-groups. For example, SWS has a significant number of residents who are refugees or have experienced trauma, torture or associated negative life experiences. It is known that people who have experienced these situations can have significant mental and physical health problems⁹ and poor oral health often due to lack of access to dental services.

PROJECTED POPULATION GROWTH

Table 3 Population projections by Sector (total population)

Sector	1998 ERP	2006	2011	2016
Bankstown	167,839	169,400	169,490	169,490
Fairfield	190,929	193,680	193,460	192,600
Liverpool	137,066	176,600	197,710	217,110
Macarthur	222,745	255,930	270,580	284,600
Wingecarribee	39,346	45,070	47,930	512,40
Total SWS	757,916	840,680	879,170	915,040

Source: Department of Health Population Projections for NSW Area Health Services March 2000

(See Appendix II for more detailed population projection details by 5 year age groups.)

SOCIOECONOMIC FACTORS

The demographic characteristics of SWS taken from the 1996 Census indicate the residents have more social disadvantage than other areas in NSW:

- Young population (24.5% aged less than 15 years compared with 21.4% for Sydney);
- Aboriginal or Torres Strait Islander descent (1.2% compared with 0.57% for the rest of Sydney). SWSAHS also has 25% of Sydney's Aboriginal population;
- 34.4% of the SWS population was overseas-born compared to 23% for the rest of NSW, with even higher rates in Fairfield (53.5%), Liverpool (35.1%) and Bankstown (33.2%) LGAs;
- 28.5% of the SWSAHS population is from a non English speaking background compared to 15.7% for NSW. 36.5% of the population speak a language other than English at home compared to 18.1% for the rest of NSW);
- Unemployment (10.8% for SWSAHS compared with 8.8% for NSW);
- In relation to levels of education attained only 0.7% of the SWSAHS population had higher degree qualifications compared to 1.6% for NSW. 5.4% had post graduate diploma or bachelor degree qualifications compared to 9.3% in NSW;
- The SWSAHS population has a higher proportion of persons with incomes less than \$31,200 (18.4% for SWSAHS compared to 16.9% for NSW) and a lower proportion of persons with incomes above \$52,000 (2.6% for SWSAHS compared to 3.9% for NSW);
- Large population living in public housing with 10.1% for the SWSAHS population compared with 5.7% for NSW);
- 14% of households in SWS were sole parent households, 2% higher than NSW.
- 3.1% of the population received a disability support pension, 1.0% receive a carer's pension and 5.1% of the population are considered the Home and Community Care (HACC) target population.
- 21.6% of the population hold a Health Care Card, Pensioner Concession Card or a Commonwealth Seniors Health Card.

Source: Health in South Western Sydney Epidemiological Profile 2000

Policy and Strategic Direction

The direction for oral health services in SWSAHS is guided by National, State and local documents, along with the major reforms for NSW Oral Health services to be implemented over the next three years.

In 1992 the **National Health Strategy** proposed a dental program be established to improve access to basic dental care for low-income people. In 1994 the Commonwealth Dental Health Program (CDHP) was introduced resulting in improving public perception of Government Dental Clinics, their expectations about the service provided and their awareness about their own dental health and issues such as access and equity.

The abolition of the CDHP in January 1997 resulted in severe funding restrictions with the negative impact of waiting periods for general treatment increasing substantially and some of the adult dental clinics in SWSAHS performing crisis care only.

The significant gaps between community expectations about the need for and role of public oral health care and current departmental priority points to the need for a review of oral health care policy. The **Strategic Directions for Oral Health 2001-2004** is addressing this by specifically aiming to:

- Integrate oral health policy into mainstream policy development and health planning
- Develop policies which are responsive to community needs and outcome focused
- Improve equity in and access to quality oral health care
- Foster an evidence based approach to policy making and benchmarking of standards
- Introduce a mechanism to monitor and evaluate the effects of oral health policy and the delivery of oral health services, together with appropriate performance indicators
- Improve organisational efficiencies in oral health

In April 2000 the NSW Minister for Health announced a major public dental health reform package designed to double the number of people treated within three years. The \$33 million funding increase statewide comprises \$4 million in 2000/01, \$9 million in 2001/02 and \$20 million in 2002/03. Along with the new funding the Minister also announced a total re-organisation of public dental care services in NSW to put a far greater emphasis on care for those most in need.

SWSAHS currently receives \$5 million per annum in Oral Health funding allocations. SWSAHS Oral Health Service will be the largest beneficiary of the growth funding. The additional allocation to SWSAHS will be an \$908,000 in 2000/01, an \$2,063,000 in 2001/02 and thereafter \$3,457,000 per annum, totalling \$8.45 million recurrent funding per annum.

As a consequence of these reforms, **Organisational Reforms in Oral Health** in NSW will include a reduction in the number of administrative units for oral health from 17 individual Area Health Services to 6 Oral Health Networks. South Western Sydney Area Health Service will amalgamate with Southern and Greater Murray Area Health Services to become Southern Oral Health Network.

The Director of the Southern Oral Health Network has been appointed and the Oral Health Management Committee, consisting of the CEOs and representatives from each of the three Area Health Services has been established. The terms of reference of this committee are to

- To promote the overall goals of the oral health reform process
- To develop more effective partnerships
- To provide policy advice to the Oral health Strategic Policy Group
- To facilitate opportunities to support improved data collection for monitoring, evaluating and reporting purposes
- To develop common clinical guidelines, benchmarks and policies and procedures

Another major strategy is the development and implementation of a Statewide integrated IM&T system, Information System Oral Health (ISOH), to facilitate a Priority Oral Health Program along with improved networking; reduced administration tasking; the collection, monitoring and evaluation of data collections and provide Benchmark Statewide performance standards.

SWSAHS has played a major role in these reforms by taking on the role as the Administration Body for the Local IT Initiatives (LITI) Consortium, which administers the ISOH program in NSW. The Consortium represents the 17 Area Health Services, Corrections Health and the Oral Health Branch of the Department of Health.

The NSW public dental health reforms provide an opportunity to further develop the Dental Care Delivery Model recommended in the ***Area Dental Service Business Plan 1997/98***, by significantly improving equity of access, the health status and the quality of services to the eligible population of SWSAHS.

Service Need

Measuring Oral Health Status in a Population

Basic oral health surveys provide a sound basis for estimation of the present status and future needs for oral health care of a population. These surveys produce reliable baseline data for development of national or regional oral health programs and for planning for appropriate numbers and types of personnel for oral care.¹⁰

The World Health Organisation (WHO) Scientific Group proposed a new epidemiological methodology for measurement of periodontal status and estimation of treatment needs in 1977. As a result of this and following some modification the originally proposed method, the Community Periodontal Index of Treatment Needs (CPITN), was defined and adopted by WHO as the standard for collecting data on periodontal treatment needs of populations and for the planning and monitoring of oral health services.

There are particular considerations about the epidemiology of the two major oral diseases of dental caries and periodontal diseases. These are

- The diseases are strongly age related
- A relatively high percentage of the population is affected
- One of the diseases, dental caries, is irreversible and thus information on current status provides data on the amount of disease present, as well as previous disease experience
- There is a clear pattern of increase in disease severity with an increase in prevalence
- These common oral diseases exist in all populations, varying only in intensity and prevalence
- There is extensive documentation on variation of profiles of dental caries for population groups with different socioeconomic levels and environmental conditions
- Many observations are made in standard measurements for each subject i.e. for each tooth in caries, and for the six sextants of the mouth in the assessment of periodontal disease.

The special factors associated with oral diseases and the gains made in oral epidemiology over the last 20 years has enabled a practical and economic survey sampling methodology, called 'pathfinder', to be defined and employed. The basic survey methodology chooses sampling sites that will provide results for population groups where different disease rates are likely. These population subgroups are the age groups of 12, 15, 35-44 and 65-74.

Factors Influencing Oral Health

Data on the dental health of Australian school children from 1977 to 1993 were reported in 'Australia's Health 1996'. This report showed there was a substantial reduction in the average level of dental decay over this period, as defined by the number of decayed, missing and filled teeth in the permanent dentition (DMFT) index.¹¹ A target DMFT score set by the Health for All Committee (Health Targets and Implementation Committee 1998) was 1.0 and by the end of 1995 the DMFT score for 12 year old children was just above

this, at 1.01. This represents a great improvement from the observed 1977 average DMFT score of 4.79.

The NSW Health Report of the Chief Health Officer, 2000 showed that in 1997 and 1998 67% of NSW kindergarten children had not experienced tooth decay and had on average no decayed, missing or filled teeth. In the same years, 64% of NSW children in year 6 had not experienced tooth decay. Year 6 children also had on average one decayed, missing or filled tooth.¹²

In SWSAHS school children clinically assessed by the SOKS program in 1996/97 showed that overall, a greater proportion of NESB children, compared to NSW, required urgent treatment, had active decay and experienced caries. A greater proportion of Vietnamese speaking children needed urgent treatment, and Vietnamese and Arabic speaking children had higher prevalence of active decay and caries experience.¹³

SOKS data as at the end of the 1999/2000 period showed there were significant numbers of children assessed as Code 2 (routine care) in all Sectors. Bankstown and Fairfield were the only Sectors with a Code 1 (urgent care) assessment waiting list, with 817 and 906 children respectively waiting three months for care.

The improvements observed in children are an obvious starting point for future improvements in adult oral health. The improvements in oral health among adults will lag behind in time, awaiting cohorts of children to reach their adult years. However, there are indications that the gains may not be as substantial as those achieved among children.

The number of missing teeth in adults has declined during the 1973 to 1995-96 period from 8.3 to 3.6. An explanation for this decrease is the altered management of caries by individuals and the dental profession. In 1979 nearly one quarter of Australian adults were without any natural teeth, but in 1996 this is true of only a minority of adults. This is particularly relevant among middle aged and older adults.

Adults who were dentate (have one or more natural teeth) may have enjoyed better oral health in the past, but many more less advantaged adults are now retaining their natural teeth, albeit with widespread past disease experience and extensive accumulated damage to their retained dentition. The increased retention of diseased and treated teeth among the increasing number of middle-aged and older age groups in the community will need new strategies to ensure adequate provision of dental services to these adults if oral health is to be maintained (NHMRC 1994).

EQUITY & ACCESS

There is evidence from around the world to indicate that individuals from disadvantaged backgrounds are more likely to have no natural teeth (edentulism).¹⁴ The 1987-88 National Oral Health Survey confirmed this trend using two indices of socio-economic status. The first was the level of economic resources and the second an index based on education and occupation.

The level of edentulism was very low among persons under 35 years, as were socio-economic differences small. In the 35-64 age group the differences were marked with the lower socio-economic group showing about twice the prevalence of edentulism compared with the upper group.¹⁵

Those without any of their natural teeth are recognised as having decreased ability to chew and more frequently report other problems that interfere with social functioning. The problems that affect social interaction include negative feelings about appearance, avoidance of some foods and pain and suffering. Edentulism is largely a problem of older persons that reflects both the accumulation of disease with time and past treatment philosophies in which extraction was more common. Edentulism is also more common in older persons with lower incomes.

For those over 45 years there is large variation by household income. Those aged 45-64 with less than \$12,000 per annum income were nearly 4 times more likely to be edentulous than those in the highest income group. The difference is more marked between the highest and lowest income group for those aged over 65 years.¹⁶

Those who hold health cards and are eligible for public dental care are amongst the poorest in the community. The differences between card holders and non card holders are large with card holders in the age group 55-64 nearly 2.5 times more likely to be edentulous. Those aged 65 and over who are card holders are almost twice as likely to be edentulous than non card holders.

USE OF DENTAL SERVICES

In examining access to oral health services the use of these services is a measure of realised access. The time since last visit of less than 12 months is commonly used to reflect use of dental service for comparative purposes. Only dentate persons are used in this analysis of access.

The Australian Institute of Health and Welfare Dental Statistics and Research Unit undertook a random national telephone survey in early 1996 of 8292 persons aged 5 years and over as a part of the then Commonwealth Dental Health Program. The purpose of the survey was to collect information on oral health and dental care within the Australian population.

The survey found that there had been an increase in the per capita use of dental services by all ages since the late 1970s, and that this use of services tends to increase with age. Children and adolescents were more likely than adults to have recently consulted a dental professional; young adults the least likely. In the 5-11 year age group, 58.6% attended a school dental service; 39% of adolescents (12-17) attended public service; and for the rest of the adult age groups (18-75+) around 9 in 10 visited a private dental practice.

An important aspect of access is the reason for the visit. A visit for a routine check up is more likely to facilitate preventive care and timely intervention. Amongst young adults who sought care, by far the majority of non card holders and half the card holders, sought care because they wanted a check up. In all other adult age groups, that is those over 25 years, the majority did not visit for a check up, but rather sought care because of a problem. In all the age groups, except 45-64 years, card holders were much less likely to visit for a check up than non card holders.

Satisfaction with health care often reflects the extent to which the care given answers the consumers needs, meets their expectations and provides an acceptable standard of service. The survey was again confined to those who had experienced dental care within

the previous 12 months. Generally high levels of satisfaction were recorded, but there were significant differences within some groups. Card holders reported less satisfaction than non card holders, those who spoke a language other than English at home were less satisfied than English speakers and young adults were less satisfied than older persons.

Waiting time is also used as a measure of access to timely dental care. Those who sought care in the private sector, whether card holders or not, were much more likely to have waiting times of less than 3 months, whereas card holders seeking care in the public sector experienced much longer waiting times with over 20% waiting longer than 12 months. Following the cessation of the Commonwealth Program waiting lists have ballooned so that in most of Australia waiting times can be as long as 2 years or more.

RESULTS OF NSW HEALTH SURVEY

The 1998 NSW Health Survey South Western Sydney population sample showed that 61.8% of the eligible population for public dental services had visited a dental practitioner within the last 2 years.

51.5% of the sampled eligible population reported the reason for visiting their dental practitioner was a routine check up, 22% tooth extraction, 35% for fillings, 14% dentures, and 39% for a clean and scale. Of those who did not visit their dental practitioner recently the most common reasons expressed were fear, insufficient time and waiting times.

Of the eligible population sampled nearly 36% reported speaking a language other than English at home. This section of the SWS population were more likely to have some natural teeth missing, have seen a private dental practitioner within the past 12 months for a routine checkup, less likely to have had a clean and scale, or to have dentures.

WATER FLUORIDATION

'The Effectiveness of Water Fluoridation'¹⁷ Working Group concluded that fluoridation of water has conferred a substantial protective effect against dental caries, the effect of which is strongest in childhood. The Working Group also concluded that the most effective and socially equitable means of achieving community-wide exposure to caries prevention is through the fluoridation of drinking water in reticulated water systems.

Capital cities in Australia began to fluoridate their water supplies in 1964 and water fluoridation became the most prominent public dental health policy for Australia. Six capital cities' water supplies became fluoridated between 1964 and 1971, except Melbourne, 1977, and Brisbane whose water supply is still unfluoridated.

All areas of SWS on reticulated water have their water supplies fluoridated. There are two mainly rural areas within SWS, Wollondilly and Wingecarribee Shires, with a significant proportion of their population not connected to reticulated water. The main water supply for these residents is rainwater collected in tanks therefore their water supply is unfluoridated.

School age children from the rural areas would most likely have access to fluoridated water at school. Rural areas would have access to other fluoride products such as toothpaste, drops or tablets, and topically applied fluoride by their dentist.

Inquiries to water suppliers and local Shire Councils reveal no fluoride water additives are supplied to residents of rural areas without access to fluoridated water. It is therefore relevant and appropriate to promote the use of fluoride products by targeting rural communities to increase their awareness. There are a number of means by which this can be achieved, eg Health Promoting Schools program, local pharmacies, GPs.

ORAL HEALTH PROMOTION (OHP)

Dental disease can be caused by a lot of different things and so the risk of dental decay varies according to age, diet and lifestyle. An approach to dental care developed by dentists, dental therapists and dental hygienists, and recommended by the National Health and Medical Research Council is Minimal Intervention Dentistry that aims to help people keep their teeth for life.

Minimal intervention dentistry works by providing information to the community and individuals about the mouth and teeth and how to care for them properly. It also promotes the development of a preventive program for an individual's teeth and helps the person understand and follow it, as well as minimising the need for drilling and filling teeth through the use of preventive treatments at home and at the time of dental visits.

Widely published international research has shown that most dental caries can be prevented. Due to the advent of fluoride products and a better awareness in the community of the importance of diet and oral hygiene there has been a lessening of tooth decay in the population. These changes combined with developments in dentistry have led to dental practitioners emphasising preventive dental care that is directed towards the prevention of dental decay.

In Minimal intervention dentistry individuals have a different preventive program and often a different check-up period. People with a high risk of dental diseases will have to be seen more frequently to monitor decay. People with a lesser risk will have a less frequent check-up period.

The promotion of good oral health is not only an issue for service provision, but also links to the prevention of disease and health promotion in general. The 1995 Australian *National Health Survey* found that oral disease was the sixth most frequent illness condition,¹⁸ with more than one million people visiting a dentist in the two weeks prior to the survey. In 1998 the Australian Institute of Health and Welfare reported a cost-of-illness analysis for dental services in 1993-94 of almost \$1.8 billion, or six per cent of the total health budget.¹⁹

SWS ORAL HEALTH PROMOTION APPROACH

In SWS oral health prevention and promotion has been approached by two means. One approach was the clinician talking to individuals about how to care for teeth at home, how to clean teeth and gums and advice on the intake of sugary foods and drinks.

The second approach was provided through the Save Our Kids Smiles (SOKS) program to schools by Dental Therapists at the time when assessments take place or at other pre-arranged times.

In the past oral health services have been largely separate from other health services. Oral health issues have not always been considered when services planning is undertaken

but issues of oral health are pertinent to many services, for example aboriginal health, mental health, cancer and refugee health.

Where mechanisms have been established in SWSAHS to meet the needs of identified target groups it is important that oral health is represented in planning and involved in implementation. An integrated approach where oral health services are a part of a broader health promotion program will also ensure the effective use of resources. For example the Macarthur Sector has established a planning group for local Oral Health Services where the Director of Population Health is the Sector representative. A strategy has been identified to establish similar planning groups in the other Sectors with the Directors of Community Health or Medical Services being the Sector representative.

SWSAHS has established inter-agency partnerships in the Health Promoting Schools Program and Families First. In some Sectors Oral Health Services are represented on the local Health Promoting Schools (HPS) committee. Where there are HPS committees it is important that oral health is represented to ensure that oral health issues are addressed. A strategy could be to provide training on issues specific to oral health so that these are an integral part of any health promotion program in schools.

This planning process has identified GPs and Pharmacists as potential partners for promoting oral health. A study in the UK has indicated that three quarters of pharmacists who responded to a questionnaire indicated they were asked for advice on dental topics more than once a week.²⁰

The Oral Health Branch of NSW Health is developing a NSW Health Oral Health Research Framework and an Oral Health Promotion Strategy for health promotion projects. This will provide a valuable framework from which SWSAHS will be able to adopt and implement strategies and projects targeted to the local population.

Key Issues for South West Sydney

SOCIAL DETERMINANTS

It can be seen from the information presented that South West Sydney has many of the social determinants (such as cultural and economic factors) within its population which impact oral health status. With the projected increase in the population the number of residents eligible for public dental care will also increase. This will be particularly significant for the aged, lower socioeconomic and migrant or refugee segments of the population.

TARGET GROUPS

There are particular subgroups of the population where developing partnerships with mainstream service providers to improve and maintain oral health need to be developed and, where they already exist, strengthened. These include those who are NESB, ATSI, homeless, HIV/AIDS, refugees, those with a mental illness and those in correctional institutions.

RESIDENTS NEEDING TO TRAVEL OUTSIDE THE AREA FOR SERVICES

As there are no available theatre sessions for public dental officers in SWS, many residents currently travel to Westmead for extractions for children under general anaesthetic. SWS children account for 40% of total referrals (90% of which result in extractions under general anaesthetic) to the Westmead Centre for Oral Health Paediatric Dentistry Unit. There is a long waiting period prior to treatment.

A strategy that would reduce the need for SWS children to travel outside the area for treatment is to make theatre time available to dental officers within the Area Health Service at local public hospitals. This would need to be developed at a Sector level in collaboration with relevant Oral Health staff. This strategy would reduce the number of children needing to travel to Westmead for extractions under general anaesthetic, therefore allowing faster access to paediatric specialist services.

INFORMATION SYSTEMS

It was recognised that the previous oral health information system (MCLIN), could not provide reliable data on dental clinic utilisation, waiting lists or which population groups are using services. SOKS data is more reliable and provides useful information on the 5-14 year age group.

The state-wide implementation of the oral health information system by January 2001 will greatly improve the type of information that can be analysed about the local population and service utilisation.

ISOH will provide a fairer and more efficient way of delivering oral health care to eligible patients in NSW. There are currently no standardised criteria for prioritising eligible persons for oral health care. ISOH introduces a statewide uniform system of prioritising access to oral health care.

Those currently on waiting lists for oral health care will not lose their place on this new system, as they will be treated with priority. ISOH is designed in such a way that all people will be assessed and treated according to their priority.

RECRUITMENT ISSUES

Workforce recruitment difficulties can prove problematic for service delivery in SWSAHS. Oral health services in SWSAHS have experienced recruitment difficulties in all Sectors. This is likely to continue given the shortage of appropriately qualified and experienced dental health staff across NSW.

There is always competition for staff between Area Health Services and it is particularly difficult to recruit for the more remote areas, such as Wingecarribee. Therefore a number of recruitment and retention strategies will be required to attract and retain appropriately qualified staff which may have associated cost implications.

SAFETY & SECURITY ISSUES

The area dental services have seen a significant increase in the verbal and physical abuse by clients since the cessation of the Commonwealth Dental Health Program (CDHP) in 1997. Although the distribution and level of abuse varies from Sector to Sector all dental clinics have been affected.

Patients who were seeking treatment for the Relief of Pain (ROP) were required to ring the clinic at a designated time for an appointment. The number of patients requiring ROP is high in SWS and some clients had difficulty in securing an appointment often resulting in aggravation.

The Area Health Service recognised the need for increased security and as a result staff were given training on communication skills, aggression management along with access to counselling. Security glass barriers were also erected in most of the dental clinics as a security measure, and duress alarms installed in some clinics. Most abusive incidences occur, however, over the telephone. Reception staff mostly deal with these abusive calls.

It is believed that education on how to access services appropriately, along with the Priority Access Program (PAP), a module of ISOH, will improve equity, and ensure access is based on priority oral health needs. The introduction of this system at the Westmead Dental clinical school has seen a significant reduction in the number of abusive patients.

SERVICE PLANNING CONTEXT

Oral Health Facilities

ORGANISATION OF SWSAHS PUBLIC ORAL HEALTH SERVICES

There are eight (8) adult and thirteen (11) child dental clinics across South West Sydney. SWSAHS employs over 70 dental professionals including therapists, assistants, technicians and dentists.

Table 4 shows the number of staff employed in each Sector and the 1999/2000 budget for SWSAHS Oral Health Services.

Table 4 – Oral Health Services Workforce & 1999/2000 Budget

Sector	Dental Officer	Dental Ther.	Dental Ass.	Other Support	Adult Chairs	Child Chairs	Budget \$
Bankstown	4	2.08	6.9	1	5	4	910,598
Fairfield	4	3.6	7.4	1	6	5	1,011,247
Liverpool	3.5	3.2	6.9	1	3	4	882,473
Macarthur	8	6	17		9	5	1,435,958
W'carribee	2	1	3.06		2	1	406,148
VMOs							14,900
Area Services							346,428
TOTAL	21.5	15.88	41.26	3	25	19	5,007,752

SWSAHS currently receives \$5 million per annum in Oral Health funding allocations. SWSAHS Oral Health Services will be the largest beneficiary of the growth funding. The additional allocation to SWSAHS will be an \$908,000 in 2000/01, an \$2,063,000 in 2001/02 and thereafter \$3,457,000 per annum, totalling \$8.45 million recurrent funding per annum.

The Dental Health Service is divided into the Area Service and five (5) sectors providing public oral health care. These are:

➤ Area Services:

The role of this unit is primarily one of administration managed by the Area Director of Dental Services. The Area Director of Dental Services is ultimately responsible clinically for all staff within South Western Sydney Dental Service. The Area Director of Dental Services (ADDS) has recently been appointed as the Director of the Southern Oral Health Network (DSOHN).

There is one Community/Senior Dental Officer at each of the five sectors whose responsibility is for the clinical supervision of all dental staff in their sector. There are five Senior Dental Therapists with administrative responsibility for the child dental clinics.

➤ Wingecarribee Sector:

Wingecarribee Community Dental Clinic

➤ Macarthur Sector:

Wollondilly Community Dental Clinic
Narellan Community Dental Clinic
Campbelltown Dental Clinic
Rosemeadow Community Dental Clinic
Ingleburn Child Dental Van

➤ Liverpool Sector:

Liverpool Hospital Dental Clinic
Hoxton Park Child Dental Clinic
Cartwright Child Dental Clinic

➤ Fairfield Sector:

Fairfield Hospital Dental Clinic
Fairfield Child Dental Clinic

➤ Bankstown Sector:

Yagoona Dental Clinic
Bankstown North Child Dental Clinic
Chester Hill Child Dental Clinic

OTHER ORAL HEALTH SERVICES IN SWS

Aboriginal Torres Strait Islander

The Tharawal dental service is situated in Campbelltown and is available to all people of an ATSI background in SWS. There is one Dental Officer and one Dental Assistant. The current waiting list for general treatment is around six months. The service is funded through the Commonwealth.

A partnership agreement exists between SWSAHS and Tharawal with the partnership committee meeting monthly. However Campbelltown Community Health Centre Dental Clinic provides backup services to the eligible population when the dental service at Tharawal is unavailable.

Corrections Health

Reiby Juvenile Justice Centre is located in Airs, a suburb of the Campbelltown LGA. SWSAHS has been providing dental services to the inmates since 1986, firstly with the allocation of a Dental Officer and more recently a Senior Dental Therapist. The age of the inmates range from 11 to 18 years with the average age around 15. Approximately 90% of the inmates are ATSI. Most of the inmates are from poor socio-economic backgrounds.

The service is currently under the management of the Juvenile Justice Department but will be transferred to Corrections Health Service on 1 November 2000. Negotiations between Corrections Health Service and the Area Health Service are taking place to continue their involvement.

Adolescent and Homeless Youth

Adolescent and homeless youth are referred to public dental clinics through youth services in SWS, such as Traxside and Burnside. Both are in the Campbelltown area. However, many youth workers are unaware of the oral dental services available to this group. Strategies need to be developed to increase the oral health awareness of this target group.

Refugees

A proposal for funding to provide a Refugee Oral Health Program in South Western Sydney has been submitted to the Area Health Service. South West Sydney receives the greatest proportion of humanitarian entrants in the state (40%) who have pronounced socio economic and health disadvantages.

The proposal is to provide a designated dental team to focus on the assessment and treatment of patients of refugee background living in SWS.

During Operation Safe Haven SWSAHS Oral Health Services provided emergency and relief of pain services to displaced Kosavars and East Timorese in collaboration with Westmead Centre for Oral Health and the United Dental Hospital.

Private Providers

Private Dental Practitioners and Dental Prosthetists work in collaboration with public dental clinics through a fee-for-service scheme to provide denture services for eligible public dental patients in SWS.

During the CDHP private practitioners were also utilised for emergency and general dental treatment under the fee for service program. Negotiations are underway between the Oral Health Branch of the Department of Health and the Australian Dental Association to reintroduce a similar scheme from growth funding.

Private Dental Practitioners also utilise public hospital theatre facilities for extractions under general anaesthetic for which they pay a fee.

WESTMEAD CENTRE FOR ORAL HEALTH

A collaboration exists between the Westmead Centre for Oral Health and SWSAHS Oral Health Services. It is recognised that SWS is an area of high need and Westmead Centre for Oral Health provides the capacity for SWSAHS to refer patients with acute needs for pain relief, denture and specialist services when needed.

The Westmead Centre for Oral Health also provided significant assistance in the provision of care and in providing volunteers during Operation Safe Haven, which was hosted by SWSAHS.

UNITED DENTAL HOSPITAL

The United Dental Hospital has in the past supported SWSAHS Oral Health Services in the provision of a range of acute services to patients from Sectors affected by staff shortages or clinic closures. The United Dental Hospital also assisted in providing volunteers during Operation Safe Haven.

Referrals for specialist services to Westmead Centre for Oral Health and to United Dental Hospital are subject to the specific referral guidelines developed by these two centres.

Oral Health Programs in SWS

DENTURE SERVICES INCLUDING THE PENSIONER DENTURE SCHEME

Denture services in SWSAHS are provided through fee-for-service arrangements under the Pensioner Denture Scheme and through in-house denture services using contracted private dental laboratories.

Residential eligibility is dependent on the address of the patient who must reside within the Health Service to which application is made. Such persons must be residents of New South Wales.

Persons making applications under the Pensioner Denture Scheme must hold a Pensioner Concession Card, Health Care Card, or, be a dependant of a holder, at the time of application for denture services. Holders of the Commonwealth Seniors Health Card are also eligible.

Persons making applications under the Pensioner Denture Scheme must have been in receipt of a Health Card for a minimum period of twelve months before any treatment is commenced. This does not preclude addition to the waiting list before this twelve-month period.

Denture services in SWSAHS are currently under review.

GENERAL DENTAL SERVICES

Currently a broad range of general dental services are provided in-house to the eligible adult population. These include emergency treatments, relief of pain, conservative dentistry, minor oral surgery and preventive dentistry. Residential eligibility is dependent on the address of the patient who must reside within the Area Health Service in which the general dental service is sought. Such persons must be residents of New South Wales. Currently these services are provided in-house. However the Department of Health in consultation with the Australian Dental Association is developing a fee for service scheme.

SAVE OUR KIDS SMILES PROGRAM (SOKS)

The Save Our Kids Smiles (SOKS) Program was introduced state wide in 1996. Since this time all schools within SWSAHS have been offered dental assessments for children in grades K, 2,4,6 and 8, except special schools who are assessed by staff from the Westmead Centre for Oral Health.

Pre-school children are not included in the SOKS Program, however pre-schoolers may be treated at the clinic for emergency care. Childcare centres and mothers attending

antenatal classes are key groups for health promotion and education of oral health. With current staffing levels it is not possible to reach this audience.

The SOKS program is considered positive in that it targets 'at risk' children and prioritises those children requiring care. Additionally, the program targets children who may otherwise not receive any form of general dental care. (See Appendix III for SOKS program utilisation.)

All sectors participated in Oral Health Promotion during the first year but due to staffing shortages this has meant the following changes:

- Fairfield - kits are dropped off to schools to allow teaching staff to conduct Oral Health Promotion. Some Oral Health Promotion is given to ante-natal classes.
- Bowral – conducts SOKS Oral Health Promotion
- Macarthur – focuses their Oral Health Promotion on high risk schools only
- Bankstown – are not able to do face to face Oral Health Promotion due to staffing shortages
Packages for Kinder and year 2 are dropped off to schools for teaching staff to conduct Oral Health Promotion
- Liverpool - are not able to do face to face Oral Health Promotion due to staffing shortages

Where Sectors are not offering face to face Oral Health Promotion due to staffing shortages some services are provided to schools deemed to urgently require it ie schools with a very high DMFT rate.

Challenges associated with the SOKS program include, OH&S issues, ie. the need to transport heavy equipment, eyestrain due to level of lighting, increase in risk of sharps injuries, along with staff shortages, inadequate funding, lack of resources and to a lesser degree, training.

NSW Health has recently completed a review of the SOKS program. The review aimed to evaluate the implementation and effectiveness of the SOKS Program against its original objectives. The objectives were the identification and treatment of children with dental caries, particularly in permanent teeth and to increase the number of children with no experience of oral disease.

The review also aimed to evaluate the implementation and effectiveness of the SOKS Program in NSW from 1996-99 within the three component parts of the program which were

- Oral health education and promotion
- Oral health risk assessment
- Prioritised clinical care

On the basis of the review findings it has been identified that the program should continue and the modifications to the program implemented by January 2001. Interim findings of the report are the majority of NSW children have no dental caries experience, with the burden of disease falling on the most disadvantaged sectors of the community. Other likely findings are that oral health education in schools is not very effective in changing

behaviour but can be effective in increasing knowledge in the short term. Also the report is likely to find that large numbers of children are attending public oral health clinics for emergency care.

Recommendations likely to arise from the review will mean recognition by SWSAHS of the need to continue the SOKS program, but with modifications. There is the need for a statewide policy on oral health promotion focussing on all children (0-17 years) with attention to assessment and clinical care.

In SWS the needs of Aboriginal children should not be overlooked and collaborative efforts with Aboriginal Medical Services and other agencies should be pursued.

As the SOKS data shows, there are particular Sectors in SWS where children are at high risk of oral disease, and where targeted activities will need to take place. A more robust data collection that assesses risk, rather than documents caries experience, would greatly benefit these children.

SWSAHS Oral Health Services has adopted a health outcomes approach. Optimising the oral health outcomes of children is a key aim and strategies need to be adopted to achieve this, for example using a managed care approach.

Support Services

SWSAHS INTERPRETER SERVICES

Similar to most services in SWSAHS Oral Health Services are frequent users of the SWSAHS Interpreter Services. Prior to the cessation of the Commonwealth Dental Health Program some funding was allocated from the oral health budget to the SWSAHS Interpreter Service for the use of their services. This funding allocation ceased when the Commonwealth funding was withdrawn.

The following occasions of service for Interpreter Services were recorded from 1996/97 to 1999/2000.

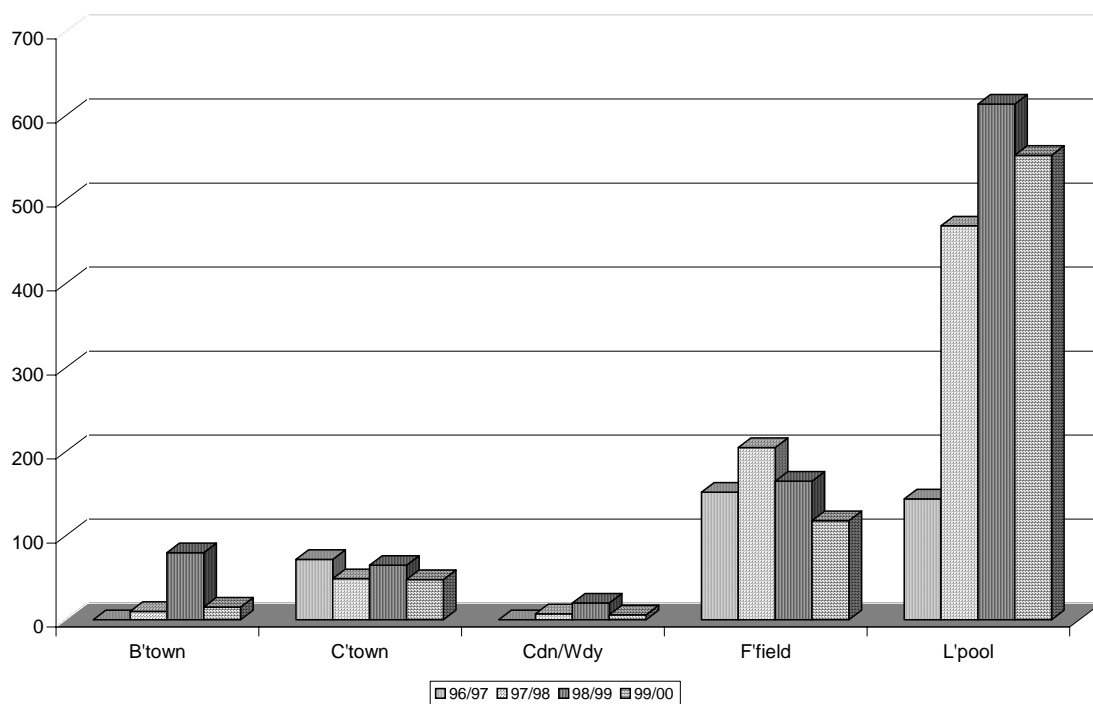
1996/97	1997/98	1998/99	1999/2000
779	409	1018	789

The sharp fall in 1997/98 could be attributed to the cessation of the CDHP and the subsequent reduction in oral health services. The sharp increase in 1998/99 could be attributed to the oral health services provided to Operation Safe Haven to the displaced persons temporarily living in SWS.

The large number of refugees relocating to the SWS area will increasingly require the use of interpreter services when attending dental clinics, or as inpatients. The recent implementation of the NSW Health Department Policy on consent has led to an increased demand for interpreters in all languages.

The number of refugees living in SWS and who speak minority languages is increasing, for example people from Somalia, Albania, Sudan and Ethiopia. Interpreter services for these minority languages need to be purchased from other government or private agencies. The cost for these services is in the vicinity of \$110-\$140 per hour, plus travelling time.

Figure 2 – Utilisation of Interpreter Services by Sector



While in most Sectors oral health services are provided out of Community Health Centres, Liverpool and Fairfield clinics operate within the hospitals.

Strategies need to be developed by Sectors in consultation with the Area Interpreter Service to improve access for NESB residents to public dental services and the utilisation of these services.

Sector Services

Liverpool

This Sector has 3 dental clinics, one clinic at Liverpool Hospital (3 surgeries) and two dental clinics at Hoxton Park Community Health Centre (1 surgery) and Cartwright Public School (3 surgeries).

- 3 additional adult dental surgeries will be required to provide for the projected Liverpool population. To fully utilise these surgeries additional 3.5 Dental Officers and 4 Dental Assistants will be required.
- 1 specialist Dental Officer and 1.0 FTE supporting Dental Assistant is required to provide assessment and treatment of patients undergoing radiotherapy at Liverpool Hospital. This Dental Officer would also provide services to patients referred from the Brain Injury Unit, Mental Health, Coronary Care Unit and other general hospital wards.
- The provision of a car exclusively for use in child dental service provision is a priority due to the rotation of staff and the remote site of Cartwright dental clinic and the provision of SOKS assessments.
- To utilise all 3 existing dental chairs at the Liverpool Clinic 1 FTE Dental Officer is needed who could be shared on a .5 FTE at Cartwright. .5 FTE at the Liverpool clinic to provide clinical care when the Community Dental Officer is attending to administrative duties. Additional .5 FTE Dental Assistant to assist and provide support to the Administrative Officer is also needed.
- To provide properly staffed dental teams the dental services at Hoxton Park and Cartwright require an additional 2.8 Dental therapists and 5.6 Dental Assistants
- The Cartwright Dental Clinic is now 30 years old. Maintenance problems exist and the cramped conditions undermine the performance of infection control and the treatment of patients. There is a need for a new clinic site for this child dental service. The suggested option is to construct a Polyclinic for the additional 3.5 FTE Dental Officers. (See first point.)
- A Paediatric Dental Registrar is required to supervise treatment of children who require GA or sedation.

Priorities for Liverpool:

1. Enhancement for additional staff both in the adult and child dental services and requisite goods and services
2. Development of specialist dental services
3. A car for the child service to rotate staff and for SOKS assessments
4. A new building for adult and child dental services that meets today's standards (polyclinic style)

- Surgical Registrar to assist with the provision of dental treatment for eligible patients requiring GA or sedation. Improved access to or employment of an Endodontist, Periodontist and Prosthodontist Specialist Services.
- Provision for improving and increasing appropriate delivery of oral health promotion to high risk groups is needed.

Fairfield:

This Sector has two dental clinics (11 surgeries) in the grounds of Fairfield Hospital. There are many gaps in the service that make the delivery of comprehensive dental treatment to the eligible population inadequate.

- The current staffing levels are not sufficient to provide comprehensive dental treatment to the eligible population. 3 additional Dental Officers, 3.8 Dental therapists and 8.4 Dental Assistants are needed to maximise service delivery
- Service delivery could be improved by introducing staggered working hours and / or permanent part time positions
- A visiting oral surgeon provides GA treatment once a fortnight to eligible patients for the extraction of wisdom teeth, along with multiple and difficult extractions. However, this is not scheduled on a regular basis due to the lack of theatre time and his availability.
- Only 5 of the 8 available chairs are being utilised due to inadequate staffing levels.
- 4 of the operating chairs are very old and in need of replacement
- The gaps recognised within the child population are -
 1. The provision of dental treatment to preschool children
 2. The provision of public dental care to children from age 14 to 18 (if they do not have a health care card or are a beneficiary of one)
 3. Dental health education for children 0-18 years, as well as to Mothers' groups, homeless youth and non-English speaking communities.
- There is inadequate funding for the provision of dentures

Priorities for Fairfield:

1. Additional staff to provide adequate services and additional goods and services
2. Providing more comprehensive dental treatment to the eligible population
3. Providing more oral health promotion to high risk groups
4. Refurbishment of 4 current dental chairs plus 2 additional chairs required
5. Introduction of staggered working hours and/or permanent part time staff

WINGECARRIBEE

This Sector has one dental clinic, Wingecarribee Community Dental Clinic, which is a three chair clinic providing both adult and child dental services. A major gap in the service is the difficulty in attracting a Grade 4 Dental Officer to manage the dental team.

- Incentives need to be investigated to assist with the recruitment of the Grade 4 Dental Officer position.
- The lack of opportunity to provide preventative/conservative dental treatment, especially to high-risk groups such as diabetics and residents of licensed boarding houses, has been identified by the community as an issue. Allocation of dental funding is required to enable clinic staff to target high risk groups.
- There are limited opportunities to address oral health promotion in the broad sense due to inadequate training of staff and lack of integration with other services.

Priorities for Wingecarribee:

1. **Recruitment of the Gr 4 dental officer position**
2. **Target and provide dental treatment to high risk groups**
3. **Integration with other services to provide oral health promotion**

MACARTHUR

This Sector has 5 dental clinics making it the largest sector for dental services in SWSAHS.

- **Campbelltown** Community Health Centre dental poly clinic has 5 dental surgeries. 1 additional Dental Officer and 2 dental assistants will be required to provide optimal staffing levels.
- **Rosemeadow** Community Health Centre dental poly clinic has 3 surgeries. 1.5 additional Dental Assistants are needed.
- The opportunity for trained dental officers to provide Nitrous Oxide/oxygen Relative Analgesia (RA) treatment for patients is available. There are 2 mobile machines available but not fully utilised due to staff shortages.
- **Narellan** Community Health Centre dental poly clinic has 3 surgeries. Present staffing levels are adequate.
- **Wollondilly** Community Health Centre dental poly clinic has 3 surgeries. 1 additional Dental Officer and 2 dental assistants are required. Recruiting and retaining staff in the past has proved difficult due to the distant location.

These 4 Dental Clinics provide general dental services to eligible adult and child clients, including relief of pain and denture services

- **Ingleburn** Dental Clinic is an on-site van and has 2 chairs, only 1 of which is operational. It is proposed to relocate this clinic to Ingleburn Community

Priorities for Macarthur:

1. **Relocate the Ingleburn service to Ingleburn Health Centre**
2. **Increase the current staff profile of 31 FTE to an optimal 41.50 FTE with requisite funding for goods and services**

Health Centre and make it a 2 chair poly clinic.

- 1 additional Dental Officer and 2 additional Dental Assistants to provide general dental services under the SOKS program, plus a relief of pain service are required when this Clinic is relocated.

Bankstown:

This Sector has one dental clinic at Yagoona (5 surgeries) and one dental clinic at Bankstown North Primary School (4 surgeries)

- To enable the Bankstown clinic to be fully operational and to provide SOKS assessments, additional staffing levels of 1.4 Dental Therapists, 3 Dental Assistants are required.
- The Yagoona clinic requires additional 1.8 Dental Officer and 1.4 Dental Assistants. Some modification to the clinic will be necessary to make it 'user friendly' and meet current standards
- Two of the dental chairs and x-ray units at Bankstown are over 20 years old, do not meet infection control standards and will therefore require upgrading
- The 4 dental operator chairs at Bankstown also require upgrading

Priorities for Bankstown:

1. *Additional staff and requisite goods and services funding*
2. *Increased dental treatment to the eligible population*
3. *Upgrading 2 dental chairs and 2 x-ray units at Bankstown*
4. *Modify design of surgery at Yagoona*
5. *Provision of oral health promotion to high risk populatoin*

SUMMARY OF KEY STRATEGIES

Appendix I provides information on the detailed strategies and indicators that will need to be addressed in the next 3 years. Indicators and strategies do not necessarily have a one to one relationship as some indicators will cover more than one strategy. While many strategies are applicable to all services within SWSAHS, many will be implemented to specifically address individual Sector requirements and will be reflected in each Sector's business plan.

A strategy of this plan is to collaboratively develop criteria on which to base distribution of the resources to be received over the next 3 years equitably to Sectors.

It is also intended that the Director of Southern Oral Health Network work with General Managers to ensure Sector planning reflects the strategies outlined in this plan. Processes will need to be developed by the end of 2000/2001 to ensure achievement of all the plan's strategies within its 2001-2004 timeframe.

The following are the key priority strategies for implementation in the July 2000 to June 2001 timeframe.

Strategy Detail	Resources Required
• Implementation of Information System For Oral Health (ISOH)	\$120,000
• Properly resourced Sector dental teams	growth funding
• Properly resourced Sector dental services (See resources required table next page)	growth funding
• Implement recommendations of SOKS program review	Within existing resources
• Targeted education programs to key community groups	Within existing resources
• Establish formal links with key stakeholders and agencies	Within existing resources
• Implement policy and procedures changes arising from the Oral Health Reform process	Within existing resources plus growth funding
• Improve communication links between Sector oral health services	Within existing resources

TABLE OF RESOURCES REQUIRED

SECTOR	CLINIC/ SERVICE	STAFF	PHYSICAL RESOURCES
Bankstown	Bankstown	1.4 Dental Therapist 3 Dental Assistant	2 chairs 2 x-ray units 4 dental operator chairs
	Yagoona	1.8 Dental Officer 1.4 Dental Assistant	Modification to clinic
Fairfield	Fairfield	3 Dental Officers 3.8 Dental Therapist 8.4 Dental Assistant	6 chairs
Liverpool	New Clinic/ Expansion	3.5 Dental Officers 4 Dental Assistants	3 surgeries
	SOKS		1 car
	Liverpool	1.5 Dental Officer 1 Dental Assistant 1 Paediatric Dental Registrar 1 Surgical Registrar	
	Cartwright & Hoxton Park	.5 Dental Officer 2.8 Dental Therapist 6.1 Dental Assistant	
Macarthur	Campbelltown	1 Dental Officer 2 Dental Assistants	
	Rosemeadow	1.5 Dental Assistant	
	Narellan	None	
	Wollondilly	1 Dental Officer 2 Dental Assistants	
	Ingleburn	1 Dental Officer 2 Dental Assistants	Relocation 1 chair
Wingecarribee	Bowral CHC	1 Dental Officer	

KEY TO RESPONSIBILITIES

AHPS Coord	-	Sector Health Promotion Coordinator
CEO	-	Chief Executive Officer
DCH	-	Director Community Health
Dir HP	-	Director, Health Promotion
Dir ISD	-	Director, Information Service Department
DO	-	Dental Officer
DSOHN	-	Director Southern Oral Health Network
GM	-	General Manager
SDM	-	Sector Dental Manager

Appendix I - Detailed Strategies

GOAL 1 – HEALTHIER PEOPLE			
OBJECTIVES			
1. Oral health status is monitored and origins of oral disease are identified			
Strategy	Performance Indicator	Responsibility	
		Primary	Second
i. Implement the Information System for Oral Health (ISOH) locally ii. Identify the oral health needs of the local population and risks to health to inform priority setting iii. Participate in the further development and maintenance of ISOH through membership on the Consortium Steering Committee	<ul style="list-style-type: none"> ▪ ISOH implemented in all clinics ▪ Report and review of oral health statistics for SWS population ▪ SWSAHS represented on Consortium Steering Committee 	DSOHN/Dir ISD DSOHN DSOHN	GMs/SDMs DOs
2. Healthy physical and social environments are promoted encompassing prevention and early intervention			
i. Promote oral health within the public and private health systems and within the community ii. Establish formal links with key stakeholders and agencies to build capacity in oral health promotion iii. Promote the use of fluoride products (eg water, toothpaste, tablets, drops) as an effective oral health measure iv. Adopt a health outcomes focus for oral health in SWS v. Develop and/or implement targeted programs for key at risk groups vi. Develop and/or implement appropriate health promotion programs	<ul style="list-style-type: none"> ▪ Representation on Area and Sector Health Promoting School Committee ▪ Actively working with stakeholders and agencies to promote oral health viz GPs, pharmacists, Council, ante-natal classes, Families First ▪ Participate in the development of health outcomes benchmarks and targets at state level • Adopt and implement training programs as developed by NSW Oral Health Branch in partnership with relevant stakeholders 	GMs /Dir HP/AHPS Coord	

3. Health of groups with poor oral health status has improved			
i. Improve links with key stakeholders and other agencies for key target groups	<ul style="list-style-type: none"> ▪ Strategies to improve links with key stakeholders have been developed 	GMs/SDMs	
ii. Adopt indicators to measure improved oral health status for key target groups	<ul style="list-style-type: none"> ▪ Measures have been adopted 	GMs	
4. Waiting times for oral health services are managed effectively			
i. Implement the Priority Oral Health Program module of ISOH	<ul style="list-style-type: none"> ▪ ISOH module implemented 	DSOHN	
ii. Implement best practice benchmarks for service delivery	<ul style="list-style-type: none"> ▪ Benchmarks implemented 	DSOHN	

3. Continuity and coordination of care have been improved			
i. Ensure effective communication links exist between all oral health service providers	<ul style="list-style-type: none"> ▪ Regular inter-Sector meetings ▪ Information available for consumers on how to lodge a complaint 	DSOHN GMs	SDMs
ii. Provide an effective complaints and resolution mechanism	<ul style="list-style-type: none"> ▪ Adopt and implement SWSAHS complaints policy ▪ Information available to consumers on how to access and the role of public dental health services 	DSOHN DSOHN	SDMs SDMs
iii. Develop a denture services policy and procedure manual	<ul style="list-style-type: none"> ▪ Denture services policies developed 	DSOHN	SDMs

GOAL 4 – BETTER VALUE

OBJECTIVES

1. Resources to deliver health care are used optimally

Strategy	Performance Indicator	Responsibility	
		Primary	Second
i. Ensure resources are equitably distributed according to agreed criterion to achieve best oral health outcomes ii. Review Oral Health physical resources iii. Ensure Oral Health physical resources are well maintained and reflect needs	<ul style="list-style-type: none"> ▪ Agreed criteria are developed and adopted ▪ Physical resources are regularly reviewed ▪ A physical resources maintenance program is developed and actioned 	DSOHN SDMs DSOHN	 SDMs
2. Services are efficient			
i. Ensure oral health services are evidence based and meet SWS community needs ii. Develop mechanisms to further facilitate inter-Sector collaboration iii. Develop links with Oral Health Networks to build capacity	<ul style="list-style-type: none"> ▪ Planning and decision making reflects oral health service best practice 	DSOHN	

Appendix II - Projected Population

Table 5 - SWS Population Projections 2001-2016

2001	0-4	5-17	0-17	18-64	65+	Total
Bankstown	11565	30137	41702	100303	23508	165512
Fairfield	14242	38523	52765	122747	18047	193559
Liverpool	13624	29513	43138	93867	11019	148024
Camden	4203	8949	13152	27135	3380	43667
Campbelltown	12813	34758	47571	94888	9067	151525
Wollondilly	2811	8300	11111	23468	2978	37557
Wingecarribee	2847	8659	11506	24344	6442	42292
Total	62105	158840	220945	486751	74441	782137
2006	0-4	5-17	0-17	18-64	65+	Total
Bankstown	11390	31106	42496	103394	23510	169400
Fairfield	13400	36314	49714	123646	20320	193680
Liverpool	15420	34998	50418	113002	13180	176600
Camden	5150	12054	17204	36966	4030	58200
Campbelltown	12580	31822	44402	101048	11390	156840
Wollondilly	2890	8192	11082	26228	3580	40890
Wingecarribee	2720	8304	11024	26426	7620	45070
Total	63550	162790	226340	530710	83630	840680
2011	0-4	5-17	0-17	18-64	65+	Total
Bankstown	10870	30528	41398	104672	23420	169490
Fairfield	12800	34720	47520	123280	22660	193460
Liverpool	15860	39288	55148	127452	15110	197710
Camden	5560	13988	19548	43562	4930	68040
Campbelltown	11740	29838	41578	102172	14670	158420
Wollondilly	3040	8042	11082	28438	4600	44120
Wingecarribee	2820	8072	10892	28088	8950	47930
Total	62690	164476	227166	557664	94340	879170
2016	0-4	5-17	0-17	18-64	65+	Total
Bankstown	10450	29310	39760	104900	24830	169490
Fairfield	12310	32992	45302	120448	26850	192600
Liverpool	16150	41976	58126	140024	18960	217110
Camden	5930	15386	21316	49534	6640	77490
Campbelltown	11510	28184	39694	99086	20750	159530
Wollondilly	3200	8166	11366	29774	6440	47580
Wingecarribee	3000	8110	11110	29000	11130	51240
Total	62550	164124	226674	572766	115600	915040

Source: Department of Health Population Projections for NSW Area Health Services March 2000

Appendix III – Oral Health Steering Committee Membership

Dr Sameer Bhole	-	SWSAHS Dental Services
Ms Merran Lethbridge	-	Area Division of Planning (Facilitator)
Ms Rosemary Howat	-	SWSAHS Dental Services (Executive Assistant)
Dr Daya Amarasekara	-	Bankstown Dental Service (resigned)
Dr Teresa Anderson	-	Community & Allied Health Liverpool
Ms Nel Buttenshaw	-	SWSAHS Operations Unit
Dr Bronwyn Geekie	-	Liverpool Dental Service
Ms Cathy Gillan	-	SWSAHS Health Promotion
Ms Marian Ison	-	Community & Allied Health Wingecarribee
Dr Thuy Le	-	Fairfield Dental Service (resigned)
Dr Tom Mackay	-	Macarthur Dental Service
Ms Vivienne Magro	-	Fairfield Dental Service
Dr Alan Patterson	-	Oral Health Branch NSW Health
Ms Bernadette Plusch	-	Bankstown Dental Service
Mr Mark Thornell	-	SWSAHS Population Health
Ms Vicki Weston	-	SWSAHS Operations Unit (resigned)
Mr Lou Zadro	-	SWSAHS Dental Services

Terms Of Reference

1. To identify and prioritise the needs of the communities within South Western Sydney
2. To describe the range of services provided by SWSAHS across the continuum of care, addressing the prevention and promotion of oral disease, and the treatment and ongoing care of people who have oral disease
3. To consider the priorities and strategies in the NSW Health Department document “Oral Health Strategic Plan” and
 - 3.1 Identify and prioritise those strategies that are appropriate to the needs of the South Western Sydney communities
 - 3.2 Identify strategies that can be implemented within existing resources
 - 3.3 Identify strategies which require additional resources
4. Produce an implementation plan
5. To document the above in a plan to improve oral health outcomes

REFERENCES

National Health and Medical Research Council (NHMRC), pamphlet *Keeping Your Teeth for Life*

NHMRC, *Dental Facilities in Hospitals and Health Centres*

NSW Health, *1998 NSW Health Survey*

NHMRC, *The Effectiveness of Water Fluoridation*

BIBLIOGRAPHY

1. National Oral Health Strategy, Background Paper No 9, May 1992
2. Strategic Directions for Oral Health 2001-2004
3. Organisation Reforms in Oral Health
4. Area Dental Services Business Plan – 1997/98
5. NSW Health Council (2000) *Report of the NSW Health Council – A Better Health System for NSW*, NSW Government
6. *The Health of the People of New South Wales*, Report of the Chief Health Officer, 2000, NSW Health

7. Australian Bureau of Statistics (1999) Estimated Residential Population
8. Mohsin and Bauman (1998) *Population Structure in South Western Sydney Area Health Service*, Epidemiology Bulletin Vol 8, No 2, South Western Sydney Area Health Service
9. South Western Sydney Area Health Service (1998) *Strategic Directions Statement and Implementation Plan 1998-2003*, South Western Sydney Area Health Service
10. Oral Health Surveys, Basic Methods, World Health Organisation, 1987
11. Australian Institute of Health and Welfare, Australia's Health, 1998
12. Report of the Chief Health Officer, 2000, op. cit.
13. *Health in South Western Sydney An Epidemiological Profile, December 1999*, Epidemiology – A Unit of the Division of Population Health, SWSAHS
14. National Health Survey, Improving Dental Health in Australia, May 1992
15. *ibid.*
16. *ibid.*
17. The Effectiveness of Water Fluoridation
18. Australian Bureau of Statistics 1995, *National Health Survey*
19. Mathers C, Pen MR, Cater C, Stevenson C *Health system costs of diseases and injury in Australia 1993-94*, Health and Welfare Expenditure Services No 2, Canberra: Australian Institute of Health and Welfare, 1998
20. IG Chestnutt, MM Taylor and EJM Mallinson, *The Provision of Dental and Oral Health Advice by Community Pharmacists*, 1998