

# 1 Introduction

## 1.1 Background

The reduction in funding for adult public dental services as a result of the cessation of the Commonwealth Dental Health Program (CDHP) in 1997 has led to a substantial fall in the capacity of public dental services to provide dental care for eligible persons.

Public dental services are experiencing strong demand for 'emergency' care and eligible persons seeking 'general' care are placed on waiting lists for care which have a waiting period of up to 4 years.

At present there are no tested criteria by which:

- the reasonableness of the presentation for emergency dental care can be checked; or
- the relative need or priority of eligible persons on the waiting list for general dental care can be assessed.

The New South Wales Oral Health Branch and the South Australian Dental Service sought the development and testing of protocols that might be used by non-dental staff in determining the relative need of eligible persons presenting for either emergency or general dental care.

The conceptual framework for this project starts with a definition of health as 'an individual's subjective experience of his/her functional, social and psychological well-being' (Locker 1997). There has been increasing interest in the development of psychosocial measures of oral health and oral quality of life. A number of measures have been developed but these have not frequently been related to normative measures of oral health.

The Relative Needs Index (RNI) Study applied indicators of patient-perceived treatment needs (i.e. symptom-based measures of disease and social and psychological consequences of oral diseases and disorders) and compared them to clinical judgment of urgency of care in an endeavor to develop a foundation for an alternative strategy of client prioritisation.

Prioritisation of patients in a more timely and equitable manner was hypothesised to facilitate better access to adult dental care in South Australia (SA) and New South Wales (NSW). The RNI study attempted to determine the relative need of patients attending for emergency and general dental care by assessing both patient perceived need and a clinical determination of need stratified into a hierarchy of urgency of care.

## 1.2 Purpose

Due to the increasing demands placed on public dental services, the primary objectives of the RNI study were to develop and test criteria for the provision of emergency and general dental care within the public dental system.

The specific aims were to develop and test:

- the usefulness of a series of criteria for eligibility for emergency dental care; and
- a subjective index of relative dental need for general dental care within public-funded dental programs.

The study was a prospective study examining associations between subjective indicators and clinical judgment of urgency.

## 1.3 Methodology

### Sample selection

A random sample of eligible adults presenting to public dental clinics in NSW and SA for emergency and general dental care was used. Participants were informed of the study at the time they contacted the clinic for dental care. The criteria used to select emergency and general dental care patients for the study are shown in Table 1.

**Table 1: Sample selection**

Selection criteria	Emergency sample	General sample
Aged 18 years or more	✓	✓
Dentate with 6 or more teeth	✓	✓
Holder of a current government concession card	✓	✓
New to waiting list	–	✓
Have not visited a dentist (private or public) for routine dental care in the last 12 months <sup>(a)</sup>	–	✓

(a) Patients who received emergency dental care in the last 12 months were included provided they were not already on the waiting list for routine dental care.

Emergency care patients were asked to participate prior to their attendance at the clinic. General dental care patients were asked to participate at the time that they were placed on the waiting list. A benefit of participating for general dental care patients was a shorter waiting time, e.g. 1 month. In each instance verbal consent to participate in the study was initially obtained. Written consent was sought when the patient attended the clinic for their appointment.

Participants completed a structured interview on subjective indicators and were then tracked through examination, diagnosis and treatment planning, and the provision of treatment within public dental clinics in NSW and SA. The positive consent form signed by participants gave authorisation to the researchers to access the data captured as part of their clinical care and link it to the information collected from the structured interview. Associations between self-reported indicators and oral health status, normative needs and clinical judgment of risk could therefore be assessed.

## Sample sizes

The sample sizes required from selected public dental clinics across SA and NSW for both the emergency and general samples are shown in Table 2.

**Table 2: Sample size required from selected dental clinics in SA and NSW**

Sample	State	Public dental clinic	N	
Emergency	SA	Adelaide Dental Hospital – GDU	125	
		Lyell McEwin	125	
		Noarlunga	125	
		Port Adelaide	125	
			<b>SA emergency sample total</b>	<b>500</b>
	NSW	United Dental Hospital	80	
		Western Sydney Area Health Service – Mt Druitt	70	
		Illawarra Area Health Service – Bulli	70	
		South Western Sydney Area Health Service – Narellan	50	
		Mid North Coast Area Health Service – Coffs Harbour	150	
			<b>NSW Emergency sample total</b>	<b>420</b>
	General	SA	East Marden	80
			Gawler	60
			Gilles Plains	130
Kadina			30	
Parks			90	
Somerton Park			100	
Victor Harbour			60	
			<b>SA general sample total</b>	<b>550</b>
NSW		United Dental Hospital	120	
		Western Sydney Area Health Service – Mt Druitt	70	
		Illawarra Area Health Service – Bulli	70	
		South Western Sydney Area Health Service – Narellan	90	
			<b>NSW general sample total</b>	<b>350</b>

## Data collection

Participants were informed of the study at the time they contacted the clinic for either emergency or general dental care.

Emergency care patients were asked to participate prior to their attendance at the clinic. General dental care patients were asked to participate at the time that they were placed on the waiting list. A benefit of participating for general dental care patients was shorter waiting time, e.g. 1 month. In each instance verbal consent to participate in the study was initially obtained when the patient telephoned the clinic to make an appointment. Written consent was sought when the patient attended the clinic for their appointment.

A questionnaire containing subjective oral health status indicators was administered to consenting patients by non-dentist clinic staff. Following the questionnaire, the patient underwent an oral health assessment performed by one of the clinic dentists. Information relating to the patient's oral health status was recorded in order to obtain epidemiological data for the study. The assessing dentist also completed a proposed treatment plan for the patient. A second dentist then provided the patient with appropriate treatment (treatment needs were assessed independently of the assessing dentist) and assessed the patient's risk of future disease. The treatment provided and the future oral risk status of the patient were recorded. In addition, each dentist was asked to judge and record the urgency of the patient's oral health needs.

The positive consent form signed by participants gave authorisation to the researchers to access the data captured as part of their clinical care and link it to the information collected from the structured interview. Associations between self-reported indicators and oral health status, normative needs and clinical judgment of risk and urgency of care could therefore be assessed.

## Data items

1. The information collected from the administered questionnaire related to:
  - sociodemographic characteristics  
e.g. patient's sex, age, country of birth, indigenous status, language mainly spoken at home, ethnicity, level of education, concession card status
  - subjective oral health indicators  
e.g. oral and facial pain symptoms, social and psychological impact of oral disorders
  - dental visiting factors  
e.g. usual reason for visiting the dentist, time since last visit, site of last visit, frequency of visiting the dentist
2. Information collected at the oral health assessment related to:
  - oral health status  
e.g. teeth present, coronal and root caries experience, periodontal disease status, the presence and condition of prostheses, oral mucosal conditions
  - diagnoses and proposed treatment needs including urgency
  - clinical judgments on the risk of further oral disease
3. Information collected at the treatment phase related to:
  - treatment and service provided
  - urgency of care
  - clinical judgment on the oral health outcome at the completion of a course of care in terms of the risk of further oral disease, likelihood of compliance with preventive advice, and expectations for future maintenance course of care.