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Dental service patterns by patient and visit characteristics



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This report provides information on the use of dental services by adults in Australia from the National Survey of Adult Oral Health, 2004–06. Data are presented on the percentage of persons receiving x-rays, scale and clean services, fillings, crown/bridge, gum treatment, extractions and denture services by the patient characteristics of age, sex and income, and by the reason and site of their last dental visit.

Summary

- Service patterns varied by sex; a higher percentage of females reported receiving scale and clean services, while a higher percentage of males reported receiving extractions.
- In age-related differences, a higher percentage of younger persons reported receiving x-rays, while a higher percentage of older persons reported receiving scale and clean services, fillings, crown/bridge, gum treatment, extractions and denture services.
- Income was related to service patterns, with gradients by income observed for scale and clean services. A higher percentage of persons in high income groups reported receiving these services, while lower percentages of persons in high income groups reported receiving extractions and dentures.
- A higher percentage of persons who last made a dental visit for a problem reported receiving x-rays, fillings, crown/bridge, gum treatment, extractions and dentures, while a lower percentage of these persons reported receiving scale and clean services.
- A higher percentage of persons who last made a public dental visit reported receiving x-rays, fillings, extractions and dentures, while a lower percentage of these persons reported receiving scale and clean and crown/bridge services.

Data collection

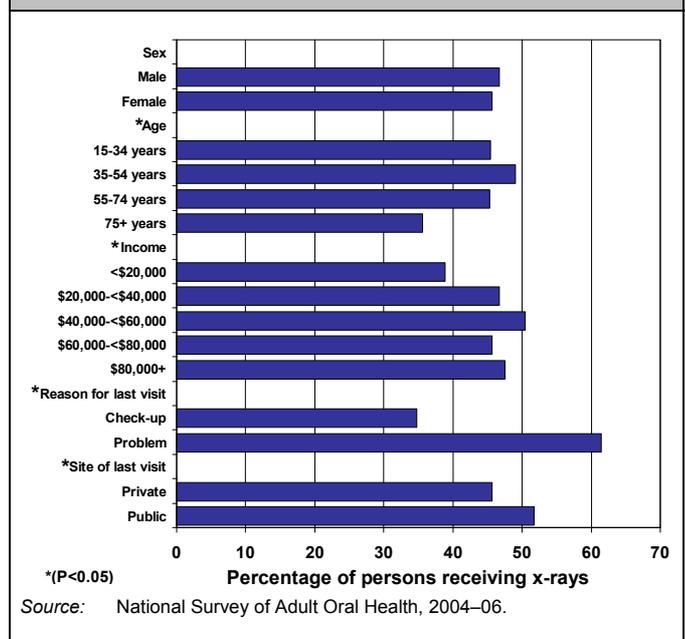
Findings presented in this publication are based on data collected on a random sample of persons in Australia in 2004–06. See the back of the report for details on methods and response.

Findings on self-reported dental treatment received are presented on dentate (i.e. having some natural teeth) adults aged 15 years or more who had made a dental visit within the last year.

Diagnostic services

Dental radiographs are used as a diagnostic tool to detect the presence and level of severity of oral diseases such as caries (dental decay). The percentage of persons receiving x-rays in the last year is presented in Figure 1.

Figure 1: Percentage of persons receiving x-rays



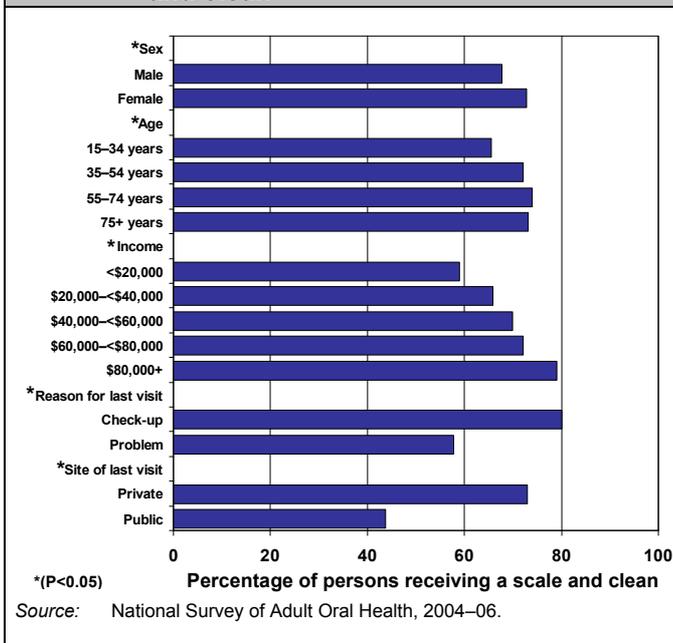
A lower percentage of persons reported receiving x-rays among older compared to younger age groups, those in low income compared to higher income groups, those who last had a check-up

rather than a problem-oriented visit, and those who last made a dental visit to a private rather than a public dental clinic.

Preventive services

Scale and clean services are provided to remove calculus and plaque from the teeth. A higher percentage of persons reported receiving scale and clean services among females compared to males, persons older than 15-34 years, those in higher income groups, persons who last made a dental visit for a check-up and persons who last visited a private rather than a public clinic (Figure 2).

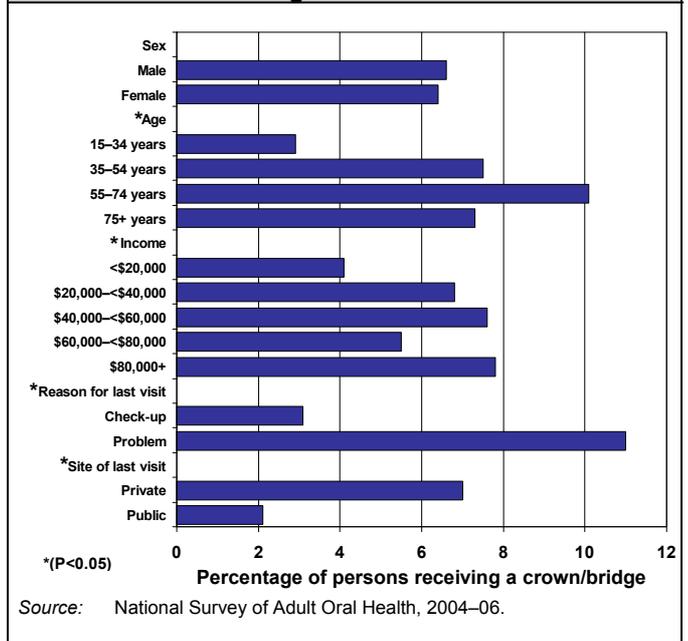
Figure 2: Percentage of persons receiving a scale and clean



Crown/bridge services

Crown and bridge services are provided to replace tooth crowns or teeth that have been lost for reasons such as dental decay and cuspal fractures. A higher percentage of persons reported receiving crown/bridge services in older rather than younger age groups, in higher compared to lower income groups, among persons who last made a problem-oriented visit compared to those who visited for a check-up and among persons who last visited a private clinic rather than a public dental clinic (Figure 3).

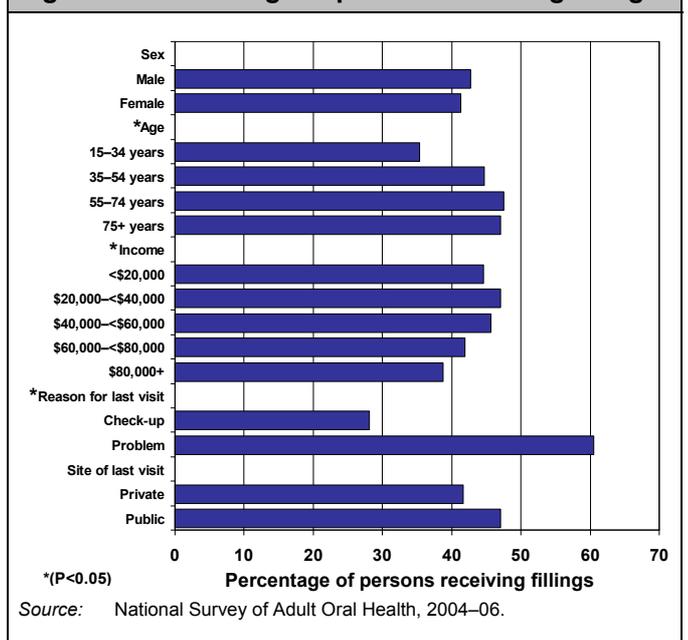
Figure 3: Percentage of persons receiving a crown/bridge



Restorative services

Fillings are primarily provided to restore teeth that have been damaged for reasons such as dental decay. A higher percentage of persons reported receiving fillings among those older than 15-34 years, persons in lower income groups and those who last made a dental visit for a problem (Figure 4).

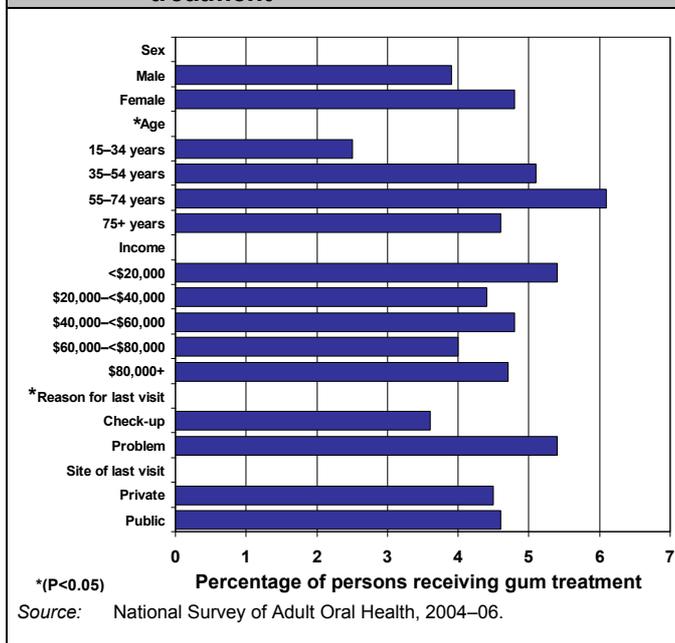
Figure 4: Percentage of persons receiving fillings



Gum treatment

Periodontal or gum treatment is provided to treat problems associated with the gums such as gingivitis. Gum treatment was associated with age, with the lowest percentage of persons who reported receiving gum treatment in the youngest age group (Figure 5). Provision of gum treatment also varied by reason for last dental visit, with a higher percentage of persons who last made a problem-oriented visit reporting having received gum treatment compared to those who last made a visit for a check-up.

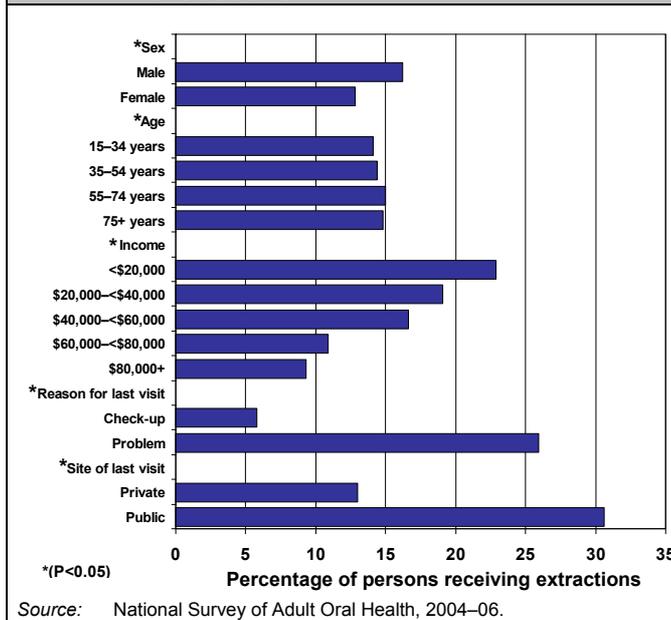
Figure 5: Percentage of persons receiving gum treatment



Extraction services

Tooth extraction services are provided to remove teeth which have been damaged due to dental decay or pulpal infection or have become impacted, and for orthodontic treatment. A higher percentage of persons reported receiving extractions among males compared to females, older compared to younger age groups, those in lower income groups, persons who last visited for a dental problem and persons who attended a public rather than a private dental clinic (Figure 6).

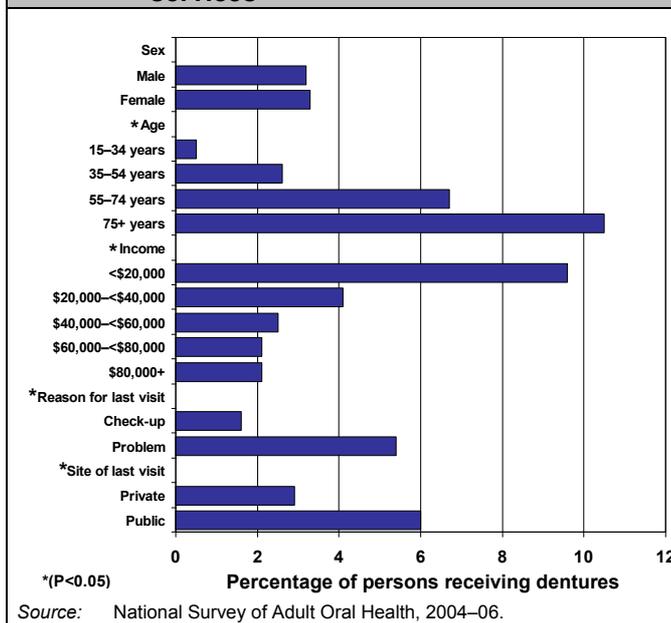
Figure 6: Percentage of persons receiving extractions



Denture services

Denture services are provided to replace teeth with either full or partial dentures. Denture service provision was associated with age, with a higher percentage of persons receiving dentures among older compared to younger age groups (Figure 7). A higher percentage of persons reported receiving dentures among those in lower income groups compared to persons in higher income groups, those who last made a problem-oriented dental visit compared to a check-up, and those persons who visited a public clinic rather than a private clinic.

Figure 7: Percentage of persons receiving denture services



Discussion

Age and sex differences were observed in patterns of dental treatment. In general, females received a more favourable treatment pattern, oriented to more preventive services and less extraction. Age-related treatment patterns reflect the cumulative effect of oral disease over the life course, as well as cohort effects.

Many services showed associations with income, with socioeconomic gradients evident for provision of preventive services and extractions. Lower income was associated with less emphasis on prevention and higher levels of tooth loss.

Reason for last dental visit was associated with all treatments, with problem-oriented visiting positively associated with diagnostic, restorative, crown/bridge, gum treatment, extraction and denture services, but negatively associated with prevention. The visit characteristic of site of last visit showed that patients attending for public dental care exhibited positive associations with diagnostic, extraction and denture services and negative associations with preventive and crown/bridge services.

Data collection methods and response

The 2004–06 National Survey of Adult Oral Health (NSAOH) involved a three-stage, stratified clustered sampling design to select a sample of Australians aged 15+ years from households with listed telephone numbers in an electronic white pages database. Each sampled household was approached to participate in a computer-assisted telephone interview (CATI), followed by an oral epidemiological examination and a mailed questionnaire.

In the CATI respondents supplied information on variables such as self-reported health status, use of dental services, demographics and socioeconomic status. In this report the percentage of persons who reported receiving dental services in the categories of fillings, extractions, scale and clean, x-rays, crown/bridge, dentures and gum treatment within the last year comprised the dependent variables. The explanatory variables consisted of site of last visit, sex, reason for last visit, income and age. At the examination, clinical oral status was collected from dentate people by dentists trained in standard survey procedures, but these

data were not used in this analysis. Further information, such as psychosocial variables, also not used in this analysis, was collected later through a mailed questionnaire.

A total of n=14,123 adults responded to the CATI (a 49% response rate) and n=5,505 respondents were examined (44% of interviewed people who were invited to the examination).

Data were weighted by state/territory, metropolitan/non-metropolitan location, age and sex. To account for design effects associated with the complex sample design, data were analysed using survey procedures that adjusted for strata and primary sampling units.

References

Slade GD, Spencer AJ & Roberts-Thomson KF 2007. Australia's dental generations. The National Survey of Adult Oral Health 2004–06. Canberra: Australian Institute of Health and Welfare.

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Further information can be obtained from David Brennan by email <david.brennan@adelaide.edu.au>, or phone (08) 8303 4046.

The AIHW Dental Statistics and Research Unit (DSRU) is a collaborating unit of the Australian Institute of Health and Welfare established in 1988 at The University of Adelaide, located in the Australian Research Centre for Population Oral Health (ARCPOH), School of Dentistry, The University of Adelaide. DSRU aims to improve the oral health of Australians through the collection, analysis and reporting of information on oral health and access to dental care, the practice of dentistry and the dental labour force in Australia.

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AIHW Dental Statistics and
Research Unit
ARCPOH, School of Dentistry
The University of Adelaide
SOUTH AUSTRALIA 5005

Email: arcpoh@adelaide.edu.au
Phone: 61 8/(08) 8303 4051
Fax: 61 8/(08) 8303 4858

www.arcpoh.adelaide.edu.au