

DENTAL STATISTICS AND RESEARCH SERIES

Number 38

Projected demand and supply for dental visits in Australia: analysis of the impact of changes in key inputs

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2008

Australian Institute of Health and Welfare

Canberra

Cat. no. DEN 171

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This is a publication in the Australian Institute of Health and Welfare's dental statistics and research series. A complete list of the Institute's publications is available from the Institute's website <<http://www.aihw.gov.au>>.

The Australian Institute of Health and Welfare's Dental Statistics and Research Unit is located within the Australian Research Centre for Population Oral Health at The University of Adelaide. A complete list of the Centre's publications, including the Population oral health series and other related publications is available from ARCPOH, School of Dentistry, The University of Adelaide, South Australia 5005, or via the ARCPOH website <<http://www.arcpoh.adelaide.edu.au>>

ISSN 1321-0254

ISBN 978 1 74024 769 6

Suggested citation

Teusner DN, Chrisopoulos S & Spencer AJ 2008. Projected demand and supply for dental visits in Australia: analysis of the impact of changes in key inputs. Dental statistics and research series no.38. Cat. no. DEN 171. Canberra: AIHW.

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Published by the Australian Institute of Health and Welfare

Printed by Union Offset Printers

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Abbreviations

ABS	Australian Bureau of Statistics
ADC	Australian Dental Council
AIHW	Australian Institute of Health and Welfare
ARCPOH	Australian Research Centre for Population Oral Health
ASGC	Australian Standard Geographical Classification
BDS	Bachelor of Dental Surgery
BOH	Bachelor of Oral Health
DEST	Department of Education Science and Training
DIMA	Department of Immigration and Multicultural Affairs
DIMIA	Department of Immigration and Multicultural and Indigenous Affairs
DSRU	Dental Statistics and Research Unit
ERP	estimated resident population
LSDPA	Longitudinal Survey of Dentists' Practice Activity
NACHO	National Advisory Committee on Oral Health
NDTIS	National Dental Telephone Interview Surveys
NOHSA	National Oral Health Survey of Australia
PCD	per capita demand
RTP	return to practice

Place abbreviations

ACT	Australian Capital Territory
Aust	Australia
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
SA	South Australia
Tas	Tasmania
Vic	Victoria
WA	Western Australia

Symbols

n.a.	not available
..	not applicable
%	percentage
—	zero or rounded to zero

Acknowledgments

This report has been prepared by the AIHW Dental Statistics and Research Unit (DSRU). Data cited in this publication were sourced from ARCPOH, AIHW DSRU; the ABS; dental registers; and Brennan & Spencer, unpublished data.

External validity of estimates used in projection models were provided by the Council of Heads and Deans of Dental Schools (CHADDS), the Australian Dental Council (ADC) and Kyla MacDonald, The Dental Hygienists' Association of Australia (DHAAQ).

The writers also wish to acknowledge Knute Carter for his substantial contribution to the development of the original demand models employed in this publication and Anne Ellershaw for providing statistical analysis of the National Dental Telephone Interview (NDTIS) data.

Editorial team

Several people have contributed to the editing of this publication. The AIHW publishing unit, Dr David Brennan, Alison McLean and Lorna Lucas of ARCPOH and proofreader Jo Mason have worked to improve the consistency, layout and readability of the text.

Summary

In the early part of the current decade an emerging shortage of dental practitioners was widely recognised by the dental profession and key stakeholders. At this time, the Australian Research Centre for Population Oral Health (ARCPOH) published several reports projecting and examining supply and demand of dental visits in Australia. Since the publication of those projections in 2003, many factors influencing the supply and demand of dental visits in Australia have changed.

Revised baseline projections from the year 2003 are presented. These projections were based on the known circumstances at the time of report writing and hence the revised supply projection does not include new regional dental schools announced at the end of 2007. The sensitivity of these baseline projections are assessed by examining the impact of changes in key inputs or assumptions. The alternative scenarios examined broadly relate to dental labour force policy directions and thereby provide an analysis of their potential impact.

Revised supply projections

- The number of dentists is projected to increase by 33%, from 10,104 dentists in 2005 to 13,465 dentists in 2020.
- Numbers of dental prosthetists and dental therapists are projected to decline slightly by 2020, while numbers of hygienists are projected to increase by 138% of a low base number.
- The total aggregate supply of dental visits is projected to increase by 17% from 28.9 million visits in 2005 to 33.7 million visits in 2020.

Revised demand projections

- Under the 'no PCD growth' projection, demand for dental visits is projected to increase from 28.2 million visits in 2005 to 33.6 million visits in 2020 (an increase of 19%). Under the 'half PCD growth' and 'continued PCD growth' projections, demand in 2020 is projected to be 38.8 and 44.0 million visits respectively.

Supply projections: changes in key inputs

- Supply projections were most sensitive to differing productivity (visits supplied per year) assumptions and changes in levels of dentist recruitment from Australian universities or through migration. They were less sensitive to changes in attrition rates and increases in allied dental recruitment levels.

Demand projections: changes in key inputs

- Demand projections were very sensitive to differing assumptions of future per capita demand (PCD) growth. Conservative and potentially likely increases in percentage accessing care in a 12-month period resulted in substantial increases in projected demand. Demand projections were not very sensitive to changes in insurance coverage or changes in patterns of access by regional dwellers.

Conclusion

Of the various scenarios examined, it was contended that the 'most likely' supply scenario was that of 140 additional dentist graduates (from 2013 onwards). This scenario projected that supply in 2020 would be approximately 36.0 million visits. The most likely demand projection was argued to be that of half growth in PCD, which projected that demand would be 38.8 million visits by 2020. These 'most likely' supply and demand projections result in an estimated supply shortfall of 2.8 million dental visits. This equates to an undersupply of 1,000 to 1,100 dental practitioners (on the basis of current productivity levels).