

Links between deprivation and oral health

Socioeconomic disadvantage and oral-health-related hospital admissions: a 10-year analysis
BDJ Open 2016; 16004 <http://dx.doi.org/10.1038/bdjopen.2016.4>

Unacceptable inequalities in children's oral health are in the spotlight of late and rightly so considering the rising levels of child hospital admissions for severe tooth decay. But what are the effects of socioeconomic disadvantages on oral health in adults? Are the inequalities carried from childhood into adulthood for those from more deprived areas? And if so is

this a pattern we also see outside the UK?

Estie Kruger and Marc Tennant have studied a large population in Australia to determine the relationship between socioeconomic disadvantage and trends in adults being hospitalised for oral-health-related conditions. The team, based at The University of Western Australia, looked at the population over a ten-year

period using data covering both private and public hospitals. They found higher rates of hospitalisation for those from the most disadvantaged groups compared to the others and also determined that this trend did not change over the 10-year period of the study. The authors also investigated links to insurance status, costs and length of stay in hospital, and the specific conditions patients were admitted for. The youngest and poorest were 2.6 times more likely to be admitted for 'dental caries' and over five times more likely to be admitted for 'pulp and periapical conditions' than the youngest least disadvantaged. Of course, these two are likely to be related as pulp conditions could result from infections in the tooth most often caused by untreated dental caries.

These results, reported in *BDJ Open*, provide the evidence that the most disadvantaged are suffering from a significant impact of inequality on their oral health. In light of this, the authors point out that public policy, which continues to focus on encouraging individuals to change behaviour, should take into account that those from deprived groups have restricted choices and this should 'no longer be ignored' in attempts to reduce inequalities.

By Ruth Doherty



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Author Q&A

with Estie Kruger
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What drove you to research this topic?

Admission rates to hospitals are useful in demonstrating the differences in health status or access to health services based on different populations. One aspect that needed closer investigation was the relationship between hospitalisation for oral conditions and socio-economic status. The social gradient in health means that health inequities affect all, and the poorest of the poor have the worst health. Barriers to

better public oral health outcomes for socially disadvantaged Australians include service rationing of oral healthcare, and marginalisation of oral health in policy and funding, with dental services one of the least subsidised areas of health. According to the social gradient theory it would be expected that those who suffer poorer oral health, would be hospitalised at higher rates, and that hospital admissions for treatment of oral-health related conditions should be associated with the burdens of disease within the population. These assumptions needed to be investigated, and led to this population-based analysis of oral-health related hospitalisations. The focus was on the relationship of socio-economic disadvantage (using area-based measures) and trends in hospitalisations, and specific conditions (principal diagnosis) patients were admitted for.

Did anything surprise you in the results?

The results of this study indicated that the most disadvantaged in the population are being hospitalised for oral health-related conditions at significantly higher rates than other groups. This was an expected finding, but a surprising result was that those least disadvantaged (wealthiest) have the second highest rates of hospitalisation. The likelihood of being admitted for specific procedures, however, differed between these two extremes.

What is next?

One weakness of a population-based hospitalisation study like this is that it cannot determine the need for care, and it is unknown whether the care is distributed according to need. A study investigating if the services/care provided is distributed to need (on a population basis) would be a next step. ■