

OTHER JOURNALS IN BRIEF

A selection of abstracts of clinically relevant papers from other journals.
The abstracts on this page have been chosen and edited by John R. Radford.

CLIMATE CHANGE – HEALTH EFFECTS

Health and climate change: policy responses to protect public health

<http://www.thelancet.com/commissions/climate-change>
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'the biggest global health threat of the 21st century', but paradoxically 'the greatest global opportunity of the 21st century'.

Societal action (upstream) to shape the determinants of oral health were at the heart of the 9th World Congress on Preventive Dentistry, Phuket, Thailand ('Community Participation and Global Alliances for Lifelong Oral Health for All' as reported in *Adv Dent Res* 2010; 22: 2–30). This edition of *The Lancet* examines the effects of climate change on health (particularly heart and lung diseases in the elderly) and proposes solutions.

The substantive paper is some 53 pages long. Solutions are focussed on national policies to enable societal action. Some of the recommendations made by this, The 2015 *Lancet* Commission on Health and Climate Change, are the phasing out of coal-fired plants and a cautious transition from natural gas to renewable energy, particularly in order to reduce particulate matter (especially PM_{2.5} – particle matter of <2.5 µm that is considered especially damaging to health).

In addition, conurbations should facilitate healthy lifestyles by creating green spaces and building cycle ways to encourage exercise. On a governmental level, there should be a robust international carbon pricing mechanism. Agencies should be integrated irrespective of national boundaries, avoiding any 'siloed approach'.

US President Barack Obama, with less than half of his final term remaining in the White House, is making a 'bold political commitment' (World Report. *Obama steps up US campaign on climate change*. www.thelancet.com 2015; 385: April 25). He is recruiting Google and Microsoft, in addition to downstream agencies, to create a coalition of partners. His intervention is pertinent as the Obama's eldest child suffered a severe asthma attack when four years old. Climate change has extended the pollen season increasing the risk of allergy and asthma attacks.

In addition, climate change may be increasing the numbers of insect vectors and possibly rainfall. However, Mitch McConnell, the Republican US Senate majority leader, has urged governors of all 50 states to reject the US Environmental Protection Agency mandating 30% cuts in 2005 levels of carbon pollution by 2030. It is argued that apart from the economic implication of such an action, this would only be symbolic unless other major nations impose similar restrictions. Such are these threats and opportunities this Commission has been charged to report every two years in *The Lancet*, the effects of slowing or indeed reversing climate change.

DOI: 10.1038/sj.bdj.2015.561

DETERMINANTS FOR HEALTH

Addressing oral health inequalities in the Africa and Middle East Region

Williams DM, Sheiham A *et al.* *J Dent Res* 2015; 94: 875–877

'...integration of oral health into general health programs...'

It is unfitting to use in Africa, with an estimated population of 1.033 billion, an oral health strategy based on '...traditional Western-style prevention and treatment approaches that tend to perpetuate existing inequalities'. WHO has even proclaimed 'interventions which only tackle adverse health behaviours will have little success.' In addition, any such 'restorative approach' would require unachievable manpower levels. A solution should be grounded in a programme that integrates oral and general health ('oral health in all policies' – OHiAP). This must embrace an upstream approach addressing the social determinants of health, shaping the environments where people are 'born, grow, live, work, and age.' These determinants for oral health have commonality for other non-communicable chronic diseases. Similar approaches could be adopted to prevent traumatic dental injuries. There are an estimated 15% of children in these regions that have sustained traumatic dental injuries. In the substantive paper (*Adv Dent Res* 2015; 27: 4–9) on which this invited editorial was based, strategies are proposed to minimise such injuries including legislation and regulation.

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SINGLE-TOOTH IMPLANTS

Marginal bone preservation in single-tooth replacement: a 5-year prospective clinical multicenter study

Donati M, La Scala V *et al.* *Clin Implant Dent Relat Res* 2015; 17: 425–434

'...immediate functional loading protocol may be considered as a valid treatment alternative.'

This was a prospective randomised controlled clinical trial over 5 years, when 151 subjects received a single-tooth implant (10 patients received two implants) to replace a missing unit in the aesthetic zone. Implants were placed using combinations of different methods and loading protocols. Assuming all the implants survived in those 11 patients who could not be followed-up (one patient deceased), implant survival was 95.6% after 5 years. When considering success, 6% of implants were associated with pocketing ≥6 mm, but 90% of implants had interdental probing depth measurements of only ≤3 mm. Two crowns decemented and the ceramic from another crown fractured. Surprisingly, those implant sites that showed marginal bone loss at 1-year follow-up, showed bone gain at 5 years ($p = 0.04$). Multilevel regression analysis showed that smoking was not associated with bone loss. One half of the implants showed bone gain (ca. 1.5 mm) and the rest bone loss (ca. 3.5 mm). There were no differences between the treatment modalities.

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