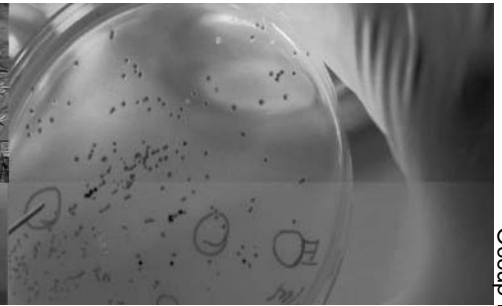


# Work in brief



Keith Palmer, Editor



## DUST HEALTH IN THE LONDON UNDERGROUND

The millions of passengers who use the London Underground each year and the workers who service, maintain, and run it will be interested to read the survey by Seaton *et al*<sup>1</sup> which assesses health risks from tunnel dust. They can be reassured that exposures are “unlikely to represent a significant cumulative risk” to health. Concentrations of dust as mass (PM<sub>2.5</sub>) and particle numbers were measured in various underground stations and train cabs; their size and composition were analysed, and *in vitro* toxicological testing conducted. The dust showed cytotoxic potential at high doses consistent with its composition (two-thirds iron oxide), but exposures were well below the occupational exposure standard for welding fume as iron oxide.



## MERCURY IN TEETH, MERCURY IN URINE

Concerns about the safety of mercury dental amalgam extend back more than 150 years, according to an editorial by Barregard,<sup>2</sup> which describes a series of “amalgam wars” waged between those anxious about mercury’s toxicity and those reassured by low absolute exposures. Current opinion sides with this second view, although anti-amalgam groups remain concerned. In response, Dye *et al*<sup>3</sup> have measured urinary mercury in representative samples taken from 1600 US women of reproductive age during the NHANES survey of 1999–2000. They found that 13% of all posterior dental surfaces were restored with amalgam. The average urinary mercury level was low, however, with an estimated geometric mean of 0.71 µg/g creatinine. Barregard comments that these levels are well below those at which health effects, including subclinical disturbances of the central nervous system and proximal renal tubules, have been found. The impact of dental amalgams on children’s health is the topic of several ongoing long term studies.



## TRAFFIC POLLUTION IN ETHIOPIA

Living close to a busy main road may raise the risk the asthma. Several surveys in developed countries suggest this, although effect estimates tend to be modest and inconsistent. Venn *et al*<sup>4</sup> argue that this may be because air pollution is so widespread in developed countries as to cause exposure misclassification, or that public health concerns are so rampant as to encourage reporting bias. To overcome both limitations the authors investigated wheeze and proximity to roads in 7609 subjects from Jimma, Ethiopia, where few can afford cars and bad publicity about air pollution is less evident. Even in this setting the risk of wheeze significantly increased with proximity to the main arterial roads (odds ratio 1.17 per 30 metres), especially for roads with above median traffic flows. Intriguingly, Brunekreef<sup>5</sup> points out that traffic flows were orders of magnitude less in this study than typical in the West. The discovery of similar effects raises interesting questions, discussed in the accompanying editorial.

P Virot/WHO



## HOW GOOD IS HEALTH SURVEILLANCE, REALLY?

Health surveillance for occupational asthma is routinely practised and required by law, but evidence on its effectiveness is limited. In this issue, Brant *et al*<sup>6</sup> report one large company’s surveillance of bakery workers and compare the findings with those of an independent cross-sectional survey in the same workforce. Altogether, 292 workers from 20 bakeries participated at each stage. Health surveillance comprised a three-stage evaluation: a simple screening question, a more complex questionnaire in those with chest symptoms, and a blood test for IgE for flour and fungal amylase. Surveillance suggested a lower prevalence of baker’s asthma (1%) than did the formal research-standard survey (4%). The authors discuss practical constraints that limit routine health surveillance and call for improvements to its design and effectiveness.

1 Seaton A, Cherrie J, Dennekamp M, *et al*. The London Underground: dust and hazards to health. *Occup Environ Med* 2005;**62**:355–62.

2 Barregard L. Mercury from dental amalgam: looking beyond the average. *Occup Environ Med* 2005;**62**:352–3.

3 Dye BA, Schober SE, Dillon CF, *et al*. Urinary mercury concentrations associated with dental restorations in adult women aged 16–49 years: United States, 1999–2000. *Occup Environ Med* 2005;**62**:368–75.

4 Venn A, Yemaneberhan H, Lewis S, *et al*. Proximity of the home to roads and the risk of wheeze in an Ethiopian population. *Occup Environ Med* 2005;**62**:376–80.

5 Brunekreef B. Out of Africa. *Occup Environ Med* 2005;**62**:351–2.

6 Brant A, Nightingale S, Berriman J, *et al*. Supermarket baker’s asthma: how accurate is routine health surveillance? *Occup Environ Med* 2005;**62**:395–9.