Reviewer’s report

**Title:** Disparities in bone density measurement history and osteoporosis medication utilisation in Switzerland: Results from the Swiss Health Survey 2007

**Version:** 3  **Date:** 27 October 2012

**Reviewer:** Michael Davie

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The authors have made headway in explaining the data source and its limitations. Given the title of the paper and the way in which osteoporosis treatment has been given out without much thought as to its possible efficacy, a comment about this might be germane. It does appear from the results that certain patients are given treatment without a BMD and there is a revised comment which appears in the revised discussion on p15 and is highlighted below:

screening but not for diagnostic BDM [15]. It is unlikely that differences in osteoporosis prevalence explain the observed variations by socioeconomic status [32]. Similar to the findings for mammography screening in Switzerland [27], our results clearly show that history of BDM and taking OM increased by the intensity of healthcare use in women, as quantified by the number of doctor visits or having had a gynaecologist check-up in the last 12 months. Likewise in the US, postmenopausal women with diagnosed osteoporosis were more likely to receive osteoporosis treatment when they had routine medical care or when they had discussed the treatment with a gynaecologist [18]. However, as the higher healthcare use cannot only result from a worse health state, which need closer monitoring, but also from a health-oriented but worrying health behaviour, it might indicate an inadequate utilisation.

The sentence as it stands is difficult to understand: as I understand it the points are:

1. Higher health use does not only result from worse health
2. The fact that there is a discrepancy between health use and poor health needs looking into (I agree!)
3. The worried well put strains on the health care budget.
4. ‘it might indicate an inadequate utilisation’. I suspect that the word ‘inadequate’ has been mistranslated and should be ‘inappropriate’. The worried well might well feel that it is appropriate but whether everyone else who has to pay for it through their insurance agrees is quite another matter..

There has even been an abstract by Dr Tom Price suggesting that if women hassle their doctor for a DXA scan, they are more likely to have a Bone density
above average for their age. (I am afraid that I can’t actually lay my hands on the ref)

Perhaps more importantly inappropriate prescribing of bisphosphonates may lead to patient harm in the form of atypical femoral fractures. Many of these patients seem not to have osteoporosis. The authors might feel able to make a point at this stage that DXA should be better targeted to those who need it, and that osteoporosis treatment might be better targeted if patients did have a DXA. I note that on p14 6 lines up from the bottom, patients can get reimbursed for some bisphosphonates without a BMD or a fracture.

I don’t insist that these points are necessarily made, but the sentence highlighted does need restructuring and in particular needs finishing off ie an inappropriate utilisation of …what?

One or two other minor points of English:

Page 11. second line
Furthermore, Swiss dual citizens more often had ever had a BDM than did Swiss women (OR 1.43).

This needs rewriting either as ‘more often had a BDM’ or as ‘more often had had “ever had a BDM” than did Swiss women.’ Rather a lot of had’s in the second but possibly closer to what is meant.

Page 11.
Seven lines up from bottom
On the other hand, only in the adjusted analyses, underweight women (OR 1.34) and women with a history of falls (OR 1.30) – and thus those with elevated osteoporosis and osteoporotic fracture risk – more often performed a BDM

As it stands the underweight women performed the BMD. What I think is meant is that ‘underweight women ………….. – had more often undergone a BMD’.

Page 16.
Line 7
Osteoporotic fractures are a major factor making persons to live in institution

This would be better stated as ‘Osteoporotic fractures are a major factor leading to people having to enter a care home or similar institution’. The last 5 words can be adapted to the Swiss social care system.