

diagnostic accuracy: the STARD initiative. *Fam Pract* 2004; 21(1): 4–10.

4. Smidt N, Rutjes AW, van der Windt DA, *et al.* The quality of diagnostic accuracy studies since the STARD statement: has it improved? *Neurology* 2006; 67(5): 792–797.

Author's response

We thank Drs Christensen and Fink for their interest in our work. The results of our initial validation deserve replication in a larger unselected GP population, as we highlight in our discussion.¹ However, for the PHQ–9, our results are broadly in line with the other PHQ9 validation studies (based upon 5026 patients) which are in the public domain at the time of writing. We have recently subjected these data to a systematic review and diagnostic meta-analysis.²

Our *BJGP* paper represents the first UK validation of the PHQ–9 and CORE instruments and we felt it important to place these data in the public domain, given the recent emphasis on routine depression assessment under the Quality and Outcomes Framework.

The performance of any instrument will vary between populations and studies, and sensitivity and specificity are especially influenced by baseline prevalence.³ However, the baseline prevalence of depression in our study is of a similar magnitude to that found in 'high risk' populations such as those with coronary heart disease and diabetes (where the use of brief instruments is rewarded under the QOF). We therefore also reported likelihood ratios,⁴ which are relatively insensitive to baseline risk and are much more informative to clinicians in their clinical decision making.⁵ Likelihood ratios are 'portable' and can be readily used to establish post-test probability of a disorder within a plausible range of baseline prevalence estimates. We presented one such estimation using figures commonly encountered in primary care in our paper.

Simon Gilbody

Professor of Psychological Medicine, Department of Health Sciences, University of York. E-mail: sg519@york.ac.uk

David Richards

Professor in Mental Health, University of York

Michael Barkham

Professor of Clinical and Counselling Psychology, Psychological Therapies Research Centre, York

REFERENCES

1. Gilbody S, Richards D, Barkham M. Diagnosing depression in primary care using self-completed instruments: a UK validation of the PHQ9 and CORE-OM. *Br J Gen Pract* 2007; 57(541): 650–652.
2. Gilbody S, Richards D, Brealey S, Hewitt C. Screening for depression in medical settings with the patient health questionnaire (PHQ): A diagnostic meta-analysis. *J Gen Intern Med* 2007; in Press.
3. Sackett DL, Haynes RB, Guyatt GH, Tugwell P. *Clinical epidemiology: a basic science for clinical medicine*. Boston, MA: Little, Brown and Co., 1991.
4. Grimes DA, Schulz KF. Uses and abuses of screening tests. *Lancet* 2002; 359(9309): 881–884.
5. Grimes DA, Schulz KF. Refining clinical diagnosis with likelihood ratios. *Lancet* 2005; 365(9469): 1500–1505.

QOF

I want to drop the humbug. And I want to say 'Bah, Humbug' to whatever unreal world Dr Chris Gunstone¹ lives in.

He may think professions are a 'conspiracy against the laity.' To some extent they are. But the conspiracy is necessary to ensure that the public get a good service. Professions arise in specialist niches where specific knowledge and experience is necessary to work effectively. Most professionals are motivated by their internal drive to perform well in the service of others. Relatively few people can be bothered to put the necessary time and effort to become a competent professional, and our worth arises because of the time and energy we have spent acquiring our skills. Our worth is enhanced because we can be trusted to get on with things, without the need for too much external policing. Our regulators should bear this in mind, for excessive supervision and micromanagement will destroy the motivation of many professionals, and so ultimately reduce quality of service.

The medical profession has a very specific set of knowledge and experience. As a doctor I celebrate owning the 'medical gaze'² and that I know how to use it well. It is a valid and necessary perspective on the world. I do not claim it is all encompassing, but to be ignorant of the medical perspective on things is to be

partially blind, and most politicians are partially blind on many topics, so they need good professional input to help them. Most politicians are sensible enough to gather such intelligence.

The profession must have a major say on issues of health and illness³ and must give evidence to the policy makers as to what is effective or not. There is no evidence that the Department of Health has any clear idea of what health is, nor any coherent strategy for achieving it. Indeed the Department is lost in an endless cycle of fire fighting exercises^{4,5} and desperately needs a route out from them.

As doctors we are a major and valid voice within society, and have a very important role both with, and beyond, the treatment of our individual patients. The patients we see day by day are often the physical signs of much that is wrong with our body politic, for example social inequalities and family breakdown.

This country needs a powerful and assertive medical profession to draw attention to the many problems within its society. Maybe our role as doctors should be more political than it currently is.

Peter Davies

GP, Keighley Road Surgery, Illingworth, HX2 9LL. E-mail: www.krshalifax.co.uk.

REFERENCES

1. Gunstone C. QOF. *Br J Gen Pract* 2007; 57(542): 748.
2. Foucault M. *The birth of the clinic*. London: Routledge, 1973.
3. Davies P. Between health and illness. *Perspect Biol Med* 2007; 50(3): 444–452.
4. Webster C. *The National Health Service: a political history*. 2nd edn. Oxford: Oxford University Press, 2002.
5. Klein R. *The new politics of the NHS: from creation to reinvention*. 5th edn. Oxford: Radcliffe Publishing, 2006.

Vitamin D deficiency

The paper by Mytton, *et al.*,¹ rightly points to the growing recognition of vitamin D deficiency in the UK, particularly among black and ethnic minority groups. Their study looked at patients with abnormal vitamin D levels, finding high rates of

deficiency and musculoskeletal symptoms among Somali populations. They did not include data on clinical follow up, and so causality should not be assumed. There is a very poor correlation between vitamin deficiency and musculoskeletal symptoms, and both conditions are common among adult populations. Our east London practice (population 10 000, 30% from Bangladesh) audited all vitamin D levels taken over an 18-month period (Table 1). The majority of requests were made in response to symptomatic aches and pains, 86% of tests were in women. Results showed deficiency in 50% or more of tests in black and Asian groups, falling to 25% in white groups.

These results draw attention to a number of unresolved problems in testing and treatment. There is continuing debate about the definition of deficiency, insufficiency and replete levels of vitamin D. For example, the *Drug and Therapeutics Bulletin* quotes <25 nmol/l as deficiency (<10 mcg/l), 30–50 nmol/l as insufficiency, and >50 nmol/l (20 mcg/l) as sufficiency.² Our local laboratory sets the value for sufficiency considerably higher at 75 nmol/l, with a consequent increase in caseness. But there is no published data to show that long-term health is improved by giving supplements to keep the serum levels at 50 nmol or higher.

Treatment of dietary deficiency remains problematic. As Lambert reports in response to Myttons' study, compliance with oral medication is low due to the unpalatable nature of vitamin D in combination with calcium.³ However, it seems perverse to resort to injections; with the consequence of blood monitoring requirements, over medicalisation, and

workload implications for practices.

For such a common and preventable condition, with a health burden which falls disproportionately on inner urban deprived populations, the NHS needs to make a coherent policy response. This should include the re-introduction of freely available vitamin drops for children and mothers, and the production of suitable, and palatable, vitamin D preparations without calcium. What about a new 1000 IU ergocalciferol tablet, safe for daily use without blood monitoring? Extrapolation from our audit suggests a large and growing market for such preparations, which should be commissioned from drug companies by the NHS.

Sally Hull

Senior Clinical Lecturer, Institute of Health Sciences, Barts and the London.
E-mail: s.a.hull@qmul.ac.uk

REFERENCES

1. Mytton J, Frater AP, Oakley G, *et al.* Vitamin D deficiency in multicultural primary care: a case series of 299 patients. *Br J Gen Pract* 2007; 57(540): 577–579.
2. Anonymous. Primary vitamin D deficiency in adults. *Drugs and Therapeutics Bulletin* 2006; 44(4): 26–29.
3. Lambert J. Vitamin D deficiency. *Br J Gen Pract* 2007; 57(541): 669

Environmental impact of GP-led melanoma follow up

The letter by Freund, *et al.*,¹ in the August issue of the *BJGP* raises the fascinating issue of assessing the potential environmental impact of developments in

Table 1. Comparative total distance travelled, total and mean CO₂ emissions generated in attending hospital versus GP for melanoma follow-up.

| 12-month follow up | Total (pre-year), km ^a | Total CO ₂ emissions, kg ^b | Mean CO ₂ emissions, kg ^b |
|--------------------|-----------------------------------|--|---|
| Hospital | 14 341 | 3083 | 58 |
| GP | 4599 | 989 | 19 |

^akm = kilometre. ^bkg = kilogram.

health services. Given the amount of concern currently evinced by CO₂ emissions in the global warming debate, it seems plausible that researchers may now need to consider the environmental impact when developing and evaluating complex healthcare interventions²

We have recently completed a randomised controlled trial of GP led integrated follow up for people with cutaneous malignant melanoma.³ As our main analyses proceed, we believe that we can provide some heartening data to boost the green credentials of primary care.

In the 12 months prior to the study (and assuming that the median mode of transport was a Toyota Avensis 4-door saloon with CDX trim)⁴ we estimate that our intervention group generated a mean of 58 kg of CO₂ in attending hospital follow up). During the 12 months of the study, participants generated a mean of 19 kg of CO₂, attending their own GP for melanoma follow up. We further believe that this 39 kg reduction in follow up related CO₂ emissions is conservative, since several participants may have exercised the healthy option, left their Avensis in the garage, and walked to their GP surgery.

Furthermore, we estimate that there are approximately 4000 people in Scotland and 48 000 people in the whole UK currently receiving follow up for melanoma.^{5,6} Extrapolating our data, we believe that if proven to be otherwise effective, UK-wide GP-led follow up for melanoma would result in annual reduction in CO₂ emissions of 1872 tonnes. We stop short of suggesting that primary care can save the planet, but

Table 1. Ethnicity and age in 257 consecutive Vitamin D levels (2006–2007).

| Ethnicity | Number | Deficient (<25 nmol/l), n (%) | Sufficient (>50 nmol/l), n (%) | Sufficient ^a (>75 nmol/l), n (%) |
|----------------|--------|-------------------------------|--------------------------------|---|
| Asian | 210 | 103 (49) | 16 (8) | 4 (2) |
| Somali/African | 17 | 10 (59) | 0 | 0 |
| White | 29 | 7 (24) | 12 (41) | 6 (20) |
| Age, years | | | | |
| <15 | 11 | 5 (45) | 5 (45) | 1 (1) |
| 16–64 | 201 | 99 (49) | 22 (11) | 7 (3) |
| ≥65 | 45 | 14 (31) | 18 (40) | 3 (7) |

^aLaboratory values at Barts and the London NHS Trust.