complications; put in place underpinning programmes to facilitate the NHS to deliver better quality services; and establish outcome measures against which local health communities can measure progress.

In the turbulent modern NHS, COPD provides a real test case for government policy on long-term conditions — a common disease, distressed and neglected patients, and potential for savings through avoiding admissions. COPD is the fourth leading cause of death worldwide and set to rise,²⁵ but we now have the evidence as to how to combat this global problem. Early diagnosis and active management can make real differences to the millions suffering to breathe.

Rupert Jones

Clinical Research Fellow, Peninsula Medical School, Respiratory Research Unit, Plymouth

Conflict of interest

Receipt of educational and travel grants from GlaxoSmithKline, Astra Zeneca, Boehringer-Ingelheim, Pfizer, Ivax and Altana. Research conducted in the research unit is funded by grants from GlaxoSmithKline, Astra Zeneca, Boehringer-Ingelheim, Pfizer, and Rambaxy. Rupert Jones is also a director of Patient Centred Software Ltd.

REFERENCES

- Department of Health. Our health, our lives our say. London: Department of Health 2006.
- Fletcher C, Peto R. The natural history of chronic airflow obstruction. Br Med J 1977; 1: 1645–1648.

- Geijer RMM, Sachs APE, Verheij TJM, et al. Incidence and determinants of moderate COPD (GOLD II) in male smokers aged 40-65 years: 5 year follow-up study. Br J Gen Pract 2006; 56: 656-661.
- Vestbo J, Hogg JC. Convergence of the epidemiology and pathology of COPD. *Thorax* 2006; 61: 86–88.
- Anthonisen NR, Connett JE, Kiley JP, et al. Effects of smoking intervention and the use of an inhaled anticholinergic bronchodilator on the rate of decline of FEV1. The Lung Health Study. JAMA 1994; 272: 1497–1505.
- Celli B. Chronic obstructive pulmonary disease. From unjustified nihilism to evidence-based optimism. *Proc Am Thorac Soc* 2006; 3: 58–65.
- Pitta F, Troosters T, Spruit MA, et al. Characteristics of physical activities in daily life in chronic obstructive pulmonary disease. Am J Respir Crit Care Med 2005; 171: 972–977.
- Bernard S, Whittom F, Leblanc P, et al. Aerobic and strength training in patients with chronic obstructive pulmonary disease. Am J Respir Crit Care Med 1999; 159: 896–901.
- Schols AM, Slangen J, Volovics L, Wouters EF. Weight loss is a reversible factor in the prognosis of chronic obstructive pulmonary disease. Am J Respir Crit Care Med 1998; 157: 1791–1797.
- Pitta F, Troosters T, Probst VS, et al. Physical activity and hospitalization for exacerbation of COPD. Chest 2006; 129: 536–544
- Hyland ME, Jones RCM, Hanney KE. The Lung Information Needs Questionnaire: development, preliminary validation and findings. Respir Med 2006; 100: in press.
- National Collaborating Centre for Chronic Conditions. Chronic Obstructive Pulmonary Disease. National clinical guideline on management of chronic obstructive pulmonary disease in adults in primary and secondary care. Thorax 2004; 59(Suppl 1): i1–i232.
- Department of Health, Chief Medical Officer. It takes your breath away. The impact of chronic obstructive pulmonary disease. Annual Report. London: Department of Health, 2004.
- Burge PS, Calverley PM, Jones PW, et al. Randomised, double blind, placebo controlled study of fluticasone propionate in patients with moderate to severe chronic obstructive pulmonary disease: the ISOLDE trial. BMJ 2000; 320: 1297–1303.
- 15. Sin DD, Wu L, Anderson JA, et al. Inhaled corticosteroids and mortality in chronic obstructive pulmonary disease.

- Thorax 2005; 60: 992-997.
- Vestbo J. The TORCH (towards a revolution in COPD health) survival study protocol. Eur Respir J 2004; 24: 206–210.
- Donaldson GC, Seemungal TA, Bhowmik A, Wedzicha JA. Relationship between exacerbation frequency and lung function decline in chronic obstructive pulmonary disease. Thorax 2002; 57: 847–852.
- Rodríguez-Roisin R. COPD exacerbations 5: management. Thorax 2006: 61: 535–544.
- Halbert RJ, Natoli JL, Gano A, et al. Global burden of COPD: systematic review and meta-analysis. Eur Resp J 2006; 27(4): in press.
- Mannino DM, Gagnon RC, Petty TL, Lydick E. Obstructive lung disease and low lung function in adults in the United States: data from the National Health and Nutrition Examination Survey, 1988–1994. Arch Intern Med 2000; 160: 1683–1689.
- Van Schayck CP, Loozen JM, Wagena E, et al. Detecting patients at a high risk of developing chronic obstructive pulmonary disease in general practice: cross sectional case finding study. BMJ 2002; 324: 1370.
- Healthcare Commission. Clearing the air a national study on chronic obstructive pulmonary disease. London: Healthcare Commission, 2006.
- British Lung Foundation. Lost in translation bridging the communication gap in COPD. London: British Lung Foundation, 2006.
- British Thoracic Society. The burden of lung disease (2nd edn). London: British Thoracic Society, 2006.
- Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management and prevention of COPD. Bethesda, MD: Global Initiative for Chronic Obstructive Lung Disease, 2005.

ADDRESS FOR CORRESPONDENCE

Rupert Jones

Peninsula Medical School, Respiratory Research Unit, N21 ITTC Building, Tamar Science Park, 1 Davy Road, Plymouth PL6 8BX E-mail: rupert.jones@pms.ac.uk

Obesity and the overworked GP

Almost the whole world has a problem and for the UK, it is worse than most. The World Health Organisation has described obesity as one of the most blatantly visible, yet most neglected, public health problems threatening both developed and developing countries.1 The prevalence of obesity in England almost tripled between 1980 and 1998, from 8% of women and 6% of men, to 21% of women and 17% of men.2 Today, 59% of women, and 67% of UK men are overweight or obese, and the UK has one of the fastest growing rates of obesity in the world.3 The close correlation between increasing weight and incidence of diabetes, hypertension, dyslipidaemia and cardiovascular disease (CVD) contributes to the estimated annual cost of obesity to the NHS of over £500 million, and the annual

cost to the wider economy of £2 billion.2

It is imperative that we target high-risk patients for primary CVD prevention if long-term costs — and spiralling morbidity — are to be limited. It is equally essential to manage cardiovascular risk factors in patients with diabetes aggressively from an early stage, if we are to limit the long-term morbidity of the fastest-growing condition in the UK.

In terms of body mass index (BMI), a BMI above 25 is generally considered as overweight, and over 30 as obese. However, in recent years there has been a move towards considering lower thresholds of BMI for overweight and obesity for South Asians, because of their higher prevalence of obesity-related complications at lower BMI. Studies such as the INTERHEART study⁴

have emphasised the closer correlation between cardiometabolic risk and abdominal obesity (the definition of which is also subject to debate, but which is ascribed in the International Diabetes Federation (IDF) definition of metabolic syndrome as abdominal circumference >94 cm in Europoid men and >80 cm in Europoid women) rather than BMI.⁵

Of course, the obesity register can be put to good clinical use. The JBS2 guidance recommends that all patients over 40 years be assessed opportunistically for CVD risk. This is a daunting prospect, and simply unachievable in the short term. But do it we must — 40% of patients who suffer a CVD event have, at present, no indication that they are at high risk until they suffer sudden death from a myocardial infarction; 50% of

patients with diabetes already have evidence of cardiovascular complications by the time they are diagnosed; and 75% of patients with diabetes will suffer their first cardiovascular complication while still of working age.³

Unfortunately, the Quality and Outcome Framework (QOF) targets obesity as measured by BMI, rather than abdominal circumference or waist:hip ratio.7 However, for the purposes of identifying patients with abdominal obesity, BMI is a reasonable proxy. Abdominal obesity is an essential prerequisite for a definition of metabolic syndrome, as outlined by the IDF.5 With the risk of a cardiovascular event increased sixfold among patients with metabolic syndrome compared to those without (12% compared to 2.2% over a 7-year period among 35-70 year olds),8 using the obesity register to identify a cohort for urgent CVD assessment would be an effective way to target the highest risk groups at an early stage.

There is undoubtedly a major impact on the workload in primary care arising from the consequences of obesity. Successful management of obesity within primary care would, in the longer term, significantly reduce hospital admission rates - the costs of which are likely to be much more directly borne by primary care, under arrangements for Practice Based Commissioning, GPs (and practice nurses) are also among the only healthcare professionals who regularly see obese patients before they develop complications. Elsewhere in this Journal, Professor Scott Brown argues in detail for a greater role for primary care in engaging the public and tackling obesity.9

Unfortunately, the evidence for the effectiveness of short interventions in primary care in tackling obesity is sadly scant. While studies such as the Diabetes Prevention Programme have proved that intensive lifestyle interventions can achieve and maintain both weight loss and dramatic (58%) reductions in the incidence of diabetes compared to placebo over a 4-year period, such results required enormous human resource input.10 The human resources of primary care are stretched to their limits as it is, and such a commitment to the two-thirds of patients who are overweight, or even to the 20-25% who are obese, is simply not realistic. They also, of course, require education for health care professionals - a necessity hampered by

lack of evidence as to which interventions work and how they can be implemented.⁹

What of the addition of eight points within the QOF of the GMS contract for setting up an obesity register? It certainly offers a token gesture commitment for identifying the problem, but nothing for tackling it. As it stands, then, in terms of quality of patient care, it is not worth the paper it is written on. In theory, a practice would have fulfilled all its requirements for these points by weighing and measuring all their patients, plugging their figure into a BMI calculator and informing the patient that they were going onto the obesity register. 'What does that mean, doctor?' 'Ask me next year when I'm being paid to give you advice about it.'

Of course, obesity is due not to increased calorie intake alone, but to an imbalance between calorie intake and energy exertion via exercise. Here, primary care is faced with a seemingly impossible task — to persuade the population away from the vast array of electronic toys and vehicles that are also marketed so heavily by major corporations. We live in the most 'obesogenic' of environments, with increasing exposure to cars and labour-saving devices, sedentary leisure activities and limited access to affordable exercise facilities.

While Professor Brown reminds us that the government has promised £1 billion for the implementation of the *Choosing Health* public health initiative, he acknowledges that GPs have not been provided with the resources and information they need to deal with the problem of obesity. In addition, we live in a society in which the public is bombarded with evermore sophisticated advertising methods, the vast majority promoting the very energy dense 'junk foods', which so readily overcome our bodies' natural short-term food regulation mechanisms.¹¹

The patients can certainly be realistically helped in primary care — but not, with present resource investment, by reversing their obesity alone. Primary care is already well set up to offer medical interventions such as identification and drug management of diabetes and hypertension and cholesterol reduction. With inpatient care for CHD/CVD accounting for 78% of the cost to the NHS, compared with the 17% due to the costs of medication, these targetted measures should prove highly cost-effective.

In an ideal world, government and the

NHS would combine to identify an effective, multi-pronged strategy to prevent and treat obesity by a combination of public health initiatives, lifestyle management, patient education and preventive medication. Input would start young and encompass all aspects of life, including regulation of advertising, subsidisation of healthy living measures, education and ringfenced investment in primary care. Only then can primary care be expected realistically to make any inroads into what may yet become our most pressing health problem of all.

Sarah Jarvis

GP, Richford Gate Medical Practice, London

Conflicts of interest

Dr Jarvis has received honoraria for lecturing and serving on advisory boards for Astra Zeneca, Takeda and Sanofi Aventis.

REFERENCES

- WHO. Obesity: preventing and managing the global epidemic. WHO technical report Series No. 894. Geneva: WHO, 2000.
- National Audit Office. Tackling obesity in England. Report by the Comptroller and Auditor General. London: The Stationery Office, 2001.
- British Heart Foundation. Coronary heart diseases statistics 2006. London: BHF, 2006.
- Yusuf S, Hawken S, Ounpuu S, et al. Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study). Lancet 2004; 364: 937–952.
- International Diabetes Federation. A new worldwide definition of the metabolic syndrome. http://www.idf.org/ home/index.cfm?unode=32EF2063-B966-468F-928C-A5682A4E3910 (accessed 18 Jul 2006).
- Joint British Societies. JBS 2: Joint British Societies' guidelines on prevention of cardiovascular disease in clinical practice. Heart 2005; 91 Suppl 5: v1–52.
- British Medical Association. Investing in general practice: The New General Medical Services Contract. BMA, February 2003.
- Isomaa B, Almgren P, Tuomi T, et al. Cardiovascular morbidity and mortality associated with the metabolic syndrome. *Diabetes Care* 2001; 24: 683–689.
- Brown S. The heart of the matter: the case for taking childhood obesity seriously. Mackenzie Lecture. Br J Gen Pract 2006; 56: 706–717.
- Knowler WC, Barrett-Connor E, Fowler SE, et al. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. N Engl J Med 2002; 346: 393–403.
- 11. Haslam D, James P. Obesity. Lancet 2005; **366:** 1197–1210.
- Baigent C, Keech A, Kearney PM, et al. Efficacy and safety of cholesterol-lowering treatment: prospective metaanalysis of data from 90 056 participants in 14 randomised trials of statins. Lancet 2005; 366: 1267–1278.
- Liu JLY, Maniadakis N, Gray A, Rayner M. The economic burden of coronary heart disease in the UK. *Heart* 2002; 88: 597–603.

ADDRESS FOR CORRESPONDENCE

Sarah Jarvis

Richford Gate Medical Practice, Richford Street, London W6 7HY E-mail: sarah.jarvis@gp-E85016.nhs.uk