and direct ophthalmoscopy alone are similar, but they have not fully understood the data presented or their relevance. As any screening programme must recall patients in whom findings are ungradable any attempt to measure sensitivity or specificity that ignores this will give a false picture of effectiveness. When patients with multiple pathology or ungradable findings are included in the analysis sensitivities for the detection of sight threatening eye disease are much higher for photography. Of the 45 patients found to have sight threatening eye disease on slit lamp biomicroscopy, direct ophthalmoscopy detected 30 and photography 40.

We set out to compare two accepted methods of screening. We agree that slit lamp biomicroscopy by opticians may ultimately prove to be effective. Contrary to the suggestion by Hickey-Dwyer and Ellerby, we did not investigate this model. Furthermore, it should not be implemented until a detailed analysis of sensitivity and specificity is available. Optometrists have not been shown to be cost effective,¹ high false positive rates have been reported,² and rates of non-attendance may be high.

Peymane Adab points out correctly that findings were ungradable in 34 (11%) patients in the photography group (12 were unobtainable). This reflects a first pass effect in the identification of patients with appreciable media opacity and should fall with rescanning. Fifty three per cent of the patients in the group had cataract sufficient to interfere with screening. The rate of ungradable findings for the direct ophthalmoscopy group was lower, but this was due to a false impression of ability to grade. Comparison of the two groups showed that photography detected 10 cases missed by ophthalmoscopy (six without appreciable cataract) but that direct ophthalmoscopy detected only one case missed by photography. Ryder *et al* added photography to direct ophthalmoscopy to increase sensitivity.³ Our data suggest that it is the photographic element alone that is important and that combined modalities may not be necessary.

Finally, as R H B Grey and J C Dean Hart point out, both methods are unable to detect macular oedema in the absence of macular exudate. In our group four such cases occurred. Interestingly, recalling patients with vision worse than 6/9 in an attempt to detect macular oedema did not prove helpful. We are presently conducting a similar study incorporating a stereo-macular pair of photographs.

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Screening for diabetic retinopathy

EDITOR,—In his editorial on screening for diabetic retinopathy Bob Ryder asserts that single screening modalities are inadequate and that combined ophthalmoscopy and photography conducted by specialist optometrists or technicians is satis-

factory.¹ The main source of evidence for this is a special medical development project, funded by the government, which compared general practitioners, optometrists, and diabetologists.² We wonder whether the project provides sound and generalisable evidence and what the economic implications are of performing photography in addition to ophthalmoscopy.

The special medical development project is difficult to evaluate: the number of screeners invited or who participated and the number of diabetic patients seen by each screener are unknown. There is no assessment of a learning curve. More generally, it is unclear to what extent the project's findings are influenced by differences in study protocol between screening groups, demography, and chance.³ The optometrists' poor performance in the project is surprising (sensitivity 48%, specificity 94%) when compared with that of general practitioners. Optometrists commonly receive 300 hours' training in ocular examination, while medical schools provide a few hours for general practitioners. It would be unwise to attempt to generalise the study's findings. Ryder overlooks other studies, including the Bristol Frenchay study, which showed a considerably better performance by optometrists (sensitivity 87%, specificity 94%).^{3,4}

The special medical development project addressed the incremental costs of including photographic assessment: as detection rates with ophthalmoscopy were poor, the addition of photography seemed cost effective. A recent study of specialist optometrists found that the detection rate for ophthalmoscopy was (a relatively good) 71%; the addition of photography raised this to 100%.⁵ If detection rates with ophthalmoscopy alone are good then the additional benefits of adding photography may not justify the costs. The use of selected specialists implies an additional visit for screening, with additional costs.

Schemes in Avon and Dorset allow diabetic patients to visit their own optometrists, who process the information gained from screening as part of an NHS sight test (with an additional locally agreed fee in Avon).⁶ These optometrists retain dispensing fees with respect to vision correction. Careful consideration of the financial incentives underlying alternative screening protocols is necessary.

Diabetic patients present to diabetologists, general practitioners, and optometrists: adequate coverage will involve more than one professional group. The large potential benefits of detecting diabetic retinopathy (and other eye diseases) mean that a collaborative approach may provide the best care for the patients.³

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Shopkeepers should be educated about smoking among children

EDITOR,—We agree with Jonathan Foulds and Christine Godfrey about the importance of ensuring shopkeepers' compliance with the law that prohibits the sale of cigarettes to children under 16 years old.¹ The authors also suggest that children's smoking could be reduced by a change in public attitudes, so that people who sell cigarettes to children are subject to public disapproval. One factor that has received little attention is the possibility of reducing the sales of cigarettes to children by changing the knowledge and attitudes of shopkeepers through health education. The potential of this approach to reduce children's access to cigarettes was shown by a study in the United States, which reported a reduction of 35% in the sales of cigarettes to minors after an educational campaign directed at shopkeepers.²

In a survey of shopkeepers from one district in the north west of England we found that almost half perceived children's smoking as a normal part of growing up and that 42% did not believe that it was difficult for children to give up smoking.³ In addition to the measures recommended by Foulds and Godfrey, we believe that there is potential for reducing children's access to cigarettes by improving shopkeepers' knowledge about and attitudes towards children's smoking.

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Stories about "doomsday killer bugs": the aftermath

EDITOR,—A recent television programme (*Panorama*, "Superbugs," BBC1, 15 Jan) reported the increase in British hospitals in bacteria that are resistant to multiple antibiotics, specifically methicillin resistant *Staphylococcus aureus* and vancomycin resistant enterococcus. The programme, although mostly factually correct, created a sinister, doom laden image of superbugs on the rampage. This was achieved by the use of low lighting of interview sets, scenes of ambulance drivers wearing face masks with visors, and an unbalanced content. Experts talked of the war against resistant bacteria being lost, of the end of the antibiotic era, and of some hospitals concealing the presence of resistant bacteria in their wards. One scene was particularly distressing and misleading: an elderly woman who had become colonised with methicillin resistant *S aureus* was effectively quarantined by her own family, with her grandchildren forbidden to touch her.

The Tuesday after the broadcast our department began to receive inquiries related to the broadcast. The following points arose in some of the dozens of calls received over the subsequent four days.

- A nursing home was refusing to accept patients from hospital if they were colonised with methicillin resistant *S aureus* (a recurring problem throughout the week)
- The relative of a patient colonised with methicillin resistant *S aureus* worked in an office, where the manager was worried about danger to his staff. Should this person be allowed to go to work?
- Domestic staff at a community hospital in the