and smooth muscle hypertrophy with intimal fibrosis are seen in vessels upstream from these restrictions.¹⁵⁻¹⁷

Treatment is aimed at reducing the consequences of the low cardiac output. By preventing secondary thromboembolism anticoagulants improve survival in both idiopathic and peripheral thrombotic forms.² By raising cardiac output, and therefore oxygen tissue delivery, vasodilators relieve the symptoms.¹⁸ A trial of vasodilators during catheterisation identifies responders.¹⁹ A titrated dose of intravenous prostacyclin is the most effective acute vasodilator²⁰ and because of its short half life²¹ avoids the dangers of a sustained fall in systemic arterial pressure.²² Successful vasodilatation is shown by a greater than 30% rise in cardiac output²³ without an increase in pulmonary artery pressure and a less than 20% fall in systemic arterial pressure.

Patients with clear ventilation and perfusion scans and a mixed venous oxygen saturation greater than 63% should be given anticoagulants and an oral vasodilator (hydralazine,²⁴ captopril,²⁵ or diltiazem²⁶) if they have responded to prostacyclin at catheterisation. If the mixed venous oxygen saturation is less than 63% and prostacyclin was successful at catheterisation a long term infusion of prostacyclin, though expensive, can improve the quality of life.^{18, 27} As prostacyclin inhibits platelet aggregation²⁸ anticoagulants are theoretically not needed. The optimal long term dose of vasodilators can be calculated from monitoring systemic arterial pressure and by measuring maximum rate of oxygen consumption during exercise testing.²⁹ When the mixed venous oxygen saturation is less than 63% and there is no response to vasodilators at catheterisation heart-lung transplantation may be the treatment.³⁰ The 5-10% of patients with primary pulmonary hypertension and veno-occlusive disease can probably be managed according to the same system.

More effective treatments will come only when we learn more of the homeostatic mechanisms governing the interface between the blood and endothelium. Acute experimental injury of pulmonary endothelium may lead to obliteration of the precapillary arteries.^{31, 32} Clinical conditions associated with thrombosis—for example, with lupus anticoagulant—may cause primary pulmonary hypertension.³³ This protein (an IgM or IgG) may act by interfering with prostacyclin formation.^{34, 35} Other inherited thrombotic disorders—for example, deficiencies of antithrombin III³⁶ or heparin co-factor II³⁷—may account for some familial cases of primary pulmonary hypertension³⁸ and for some people developing the disease after taking aminorex fumarate³⁹ or fenfluramine.⁴⁰

TIM HIGENBOTTAM

Consultant Physician and Director,
Regional Pulmonary Function Laboratory,
Papworth Hospital,
Cambridge CB3 8RE

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Long live health promotion

Health promotion is an intensely political issue. Twenty years ago people naively imagined that a whiff of advertising and a few leaflets would be enough to solve the smoking problem. Now most people—although the minister currently responsible for prevention would seem to be an exception—recognise that exhorting people to eat better, pull themselves together, "get on their bikes," or "just say no" is not enough. Information is certainly needed (and it must be carefully composed), but in addition those who want to improve the health of the people will have to do battle with the immensely powerful organisations that have a vested interest in, for example, keeping people smoking, drinking large quantities of alcohol, and eating unhealthy food. As Peter Taylor clearly described in *Smoke Ring: the Politics of Tobacco*¹ and as the television programme *Yes, Prime Minister*² has so humorously but so chillingly illustrated, those campaigners are also likely

to come into conflict with the government. Despite Disraeli's famous quote, the first interest of recent governments has not been the people's health.

It is against this background that the recent announcement that the Health Education Council is to be replaced by a special health authority must be considered. In many ways it makes sense that the NHS should have a health promotion wing, and Charles Webster, the official historian of the NHS, has argued that it was a mistake for the NHS not to have such an arm in the first place. There is also no doubt that much of the excellent material that the Health Education Council produces does not get to the front line, where it is most needed. Furthermore, if the budget of the body promoting health is to be more than doubled—as it will be with the money the government has set aside for education on the acquired immune deficiency syndrome (AIDS)—political accountability becomes more important, and, anyway, a political enterprise should be politically accountable through ministers to parliament.

Here then is a handsome case supporting the government's plans. What is worrying, however, is the abrupt way in which the change was announced and the strong suspicion that the move is less about accountability and more about its dark sister "control." Politicians, although accountable (at least on one day every five years), tend to have short term interests and are also keen to progress from a lowly position in the department of health to something grander in, perhaps, the Treasury. Those ministers—like Sir George Young—who show that they are truly concerned about health tend to get moved on and then kicked out.

Those interested in health promotion are thus seriously concerned that the new health authority may be a tame creature ruled by a tame manager—a man on a short term contract. Dr David Player, the current director of the Health Education Council, must understand well what this control might mean—because he was previously director of the Scottish Health Education Group, which is part of the NHS. He got into trouble with governments of both complexions: the Conservatives almost forced him to resign over speaking out on the health implications of unemployment, while the Labour government did the same over his highly public campaign against the new smoking mixture. This last case illustrates especially well the importance of the spokesman for health promotion being fully independent: history has proved Dr Player quite right in his objections to the now almost forgotten mixture, but the government was very keen on the stuff because it was a British invention and would have meant exports and jobs. Nobody was to rock the boat.

Perhaps it is ungracious to be worried about the independence of the new general manager, for the Secretary of State for Social Services has said in the House of Commons that "I expect the new body to have the same sort of sturdy

independence as the existing body."³ Now this statement was probably not intended sarcastically, but one of the problems of the present council is that it does not have enough independence. The blocking of the appointment to an important position in the council of Mr Mike Daube, one of Britain's most brilliant health campaigners, is well known. Also, on a recent BBC television programme, *Brass Tacks*, Dr Player described how the government had forbidden him to attend meetings of Action against Alcohol Abuse (Triple A) in "office time" and had also told him to charge rent for any meeting that Triple A might hold in the council offices. Such smallmindedness is not the stuff of independence, and many believe that Dr Player's statements on that programme may have been what inspired the government to scrap the council at what looks like short notice. (I ought to declare an interest here as I am the chairman of the media subgroup of Triple A.) But at least Dr Player could say no to the government's misconceived campaign on heroin abuse,^{4,5} while the Scottish Health Education Group had to swallow its objections and knuckle down.

What matters in the last analysis is not whether the present council continues or the new authority takes over but rather whether the body responsible for health promotion will be genuinely independent. The government could prove that it means what it says by two actions: firstly, by giving the new general manager (and why shouldn't it be Dr Player?) security of tenure; and, secondly, by making the authority accountable not to the minister for health but rather directly to the cabinet subcommittee that has responsibility for AIDS. That subcommittee would obviously have to become a standing committee and have its role extended to cover all aspects of health promotion (although AIDS would have to be its priority for the foreseeable future, but what Britain has long needed is a senior interdepartmental committee that take the people's health seriously. AIDS is likely to kill at least 20 000, but smoking already kills 100 000 a year, and alcohol perhaps 40 000. If the government cannot in some way guarantee the independence of the new authority then we must look to the proposed public health alliance to speak out loud and clear.⁷ Otherwise, Britain's dismal health standing compared with other developed countries is likely to deteriorate still further.⁸

RICHARD SMITH

Assistant editor, BMJ

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